

Relentless Innovation



MIPRO Endorser

Maya

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Contents

I. Wireless Microphone Systems



2

II. Antenna Systems



48

III. Wired Microphones



60

IV. Musical Instrument Microphones



66

V. Portable Wireless Transmission Systems



82

VI. Wireless IEM Systems



87

VII. Wireless Tour Guide Systems



91

VIII. Conference Microphones



99

IX. Wireless Portable PA Systems



105

New Products

1. ACT-848 Wideband Quad-Channel Digital Receiver

MIPRO's new ACT-848 quad-channel receiver is now added to their ACT-8 Series family. Equipped with a newly designed VFD screen and headphone monitor connector, AES/EBU digital output and optional Dante interface, the ACT-848 is compatible with ACT-80H / ACT-80T transmitters powered by 2 AA alkaline batteries and ACT-80HC / ACT-80TC rechargeable transmitters powered by one 18500 rechargeable lithium battery for greater convenience.



2. ACT-5 Series Narrowband True Diversity Receivers

MIPRO's new ACT-545B quad-channel receiver is now added into their ACT-5 Series family. In addition, their ACT-525B dual-channel and ACT-515B single-channel receivers have been upgraded to true diversity receiving, the same as in their professional ACT-7 Series. Equipped with a red/green backlit LCD, the ACT-5 Series offers a valuable, user-friendly and affordable alternative. For convenience, the compatible transmitters can be powered by two AA batteries or MIPRO's 18500 rechargeable lithium battery.



3. MR-24 Digital Instrument Pedal Receiver

The MR-24 features the same circuit design as the ACT-2400 Series receivers. Moreover, it has the most advanced digital control functions to allow musicians to easily select the preset sound qualities according to their musical instrument for easy and quick set-ups.

The MR-24 receives the audio signal which is picked up by instrument microphones from any acoustic or electric instrument or directly from an instrument's pickup which is transmitted through the transmitter, and modifies it with various preset functions to suit the players' preference. By stepping on the footswitch, the signal can be transmitted to one or more amplifiers. It's ideal for studio and live stages.



4. MM-590 Condenser / Dynamic Microphone

The MM-590 is a patented one of a kind condenser / dynamic microphone. Users can select from MIPRO's MU-90, MU-80 condenser or MU-59 dynamic microphone capsule modules to suit their personal preference and these can be directly mounted on the housing as desired. Featuring high dynamic range, ultra-low handling noise and rugged structure, it is an ideal vocal microphone for live stages and karaoke. With a built-in AA battery supplying 48V phantom power for condenser mic capsules, the MM-590 exhibits exactly the same features as the most professional condenser microphone.



5. MP-8 Charger

The MP-8 is an intelligent single-slot charger providing efficient and safe charging. It is designed exclusively for MIPRO's rechargeable handheld / bodypack transmitters. In addition to providing both quick and trickle charging, it has a reverse polarity protection circuit to prevent charging errors and shows the precise charging status with easily read indicators.



6. MPC-100 Power Supply Garnering Case

MPC-100 is a unique AC power supply garnering case for rack case to equip the power supply of 4 receivers and 1 antenna divider. Use the power supply cover and screws provided to screw up each power supply in the case and connect the distributed AC power cord inside the garnering case to each power supply. Then connect the AC input socket on the rear panel with an AC power cord to the AC outlet. Thereby, it simplifies the power supply installation of multiple wireless receiver system.



7. ACT-24R Miniature 2.4 GHz Tour Guide Receiver

The ACT-24R is a digital true diversity receiver operating in license-free ISM 2.4 GHz band and shares the same features of the ACT-2400 Series receivers. It can be combined with the compatible ACT-24TC bodypack transmitter and MT-24A interlinking transmitter for a tour guide system.



8. MRM-70W Wideband Receiver Module and MRM-80 Digital Receiver Module

The new wideband MRM-70W and digitally encrypted MRM-80 receiver modules share the same design features of the ACT-7 Series and ACT-8 Series receivers respectively, as well as their compatible transmitters. They fit the larger-sized MIPRO portable wireless PA models.



I. Wireless Microphone Systems

1. ACT-8 Series UHF Digital Wireless Systems	3
2. ACT-2400 Series 2.4 GHz Digital Wireless Systems	10
3. ACT-7 Series UHF Wideband Wireless Systems	16
4. ACT-5 Series UHF Narrowband Wireless Systems	22
5. ACT-3 Series UHF Narrowband Wireless Systems	29
6. MR Series Fixed Frequency Wireless Systems	36
7. MU Series Microphone Capsule Modules	39
8. MU Series Bodypack Transmitter Microphones	40
9. ACT-BUS PC Management Software	41
10. Accessories	44



I. Wireless Microphone Systems

1. ACT-8 Series UHF Digital Wireless Systems

A. Profile

1. Why digital wireless systems?

A digital wireless system is a revolution in sound quality. It can eliminate the inevitable high-low frequencies phase distortion and compander noise that exist in analog systems and improves the S/N ratio, which will not deteriorate as the signal weakens or in long distance transmission. Thus it makes the sound quality equal to that of any wired cable system. In addition, digital encryption provides secure audio transmission, preventing unauthorized listening.

2. MIPRO digital wireless systems nominated by TEC Awards and awarded Taiwan Excellence

In 2006, MIPRO launched the industry-leading ACT-82 digital wireless system which was nominated in the 23rd TEC awards' Wireless Technology category in 2007. In 2011, MIPRO launched the wideband ACT-82a digital wireless system, extending the bandwidth from 24 MHz to 120 MHz.

In 2012, MIPRO launched the 64 MHz ACT-828 dual-channel & ACT-818 single-channel digital wireless systems which was awarded the 2015 Taiwan Excellence.

In 2016, MIPRO launched their ACT-848 quad-channel system, equipped with a newly designed VFD screen, headphone monitor connector, AES/EBU digital output and optional DANTE interface. These features are also available in the ACT-828 as an optional upgraded version. The system offers transmitters powered by 2 AA alkaline batteries or rechargeable transmitters powered by a rechargeable lithium-ion battery.

With the Dante audio networking interface, the signal strength doesn't attenuate with distance and is resistant to outside interference. Use of one single ethernet cable replaces the bulky and complicated cable transmission and transmits multiple audio channels.

The ACT-8 series features an excellent quality that earns praises from professional audio experts. The handheld microphone transmitter is equipped with MIPRO's latest microphone capsules that deliver an exceptionally clear, accurate sonic image to the listener. They are ideal for broadcast, live sound production, conference and similar large venue applications.

B. System Configurations

Handheld Transmitter	Rechargeable Handheld Transmitter	Bodypack Transmitter	Rechargeable Bodypack Transmitter	Transmitter Charger	Receivers
ACT-80H	ACT-80HC	ACT-80T	ACT-80TC	MP-80 MP-8	ACT-848
					ACT-828
					ACT-818

I. Wireless Microphone Systems

C. Transmitters

ACT-80H Wideband Digital Handheld Transmitter

Patents:

Taiwan	Utility M426236
	Utility M426237
China	Utility ZL201220005942.5
	Utility ZL201220005924.7
	Utility ZL201220574217.X

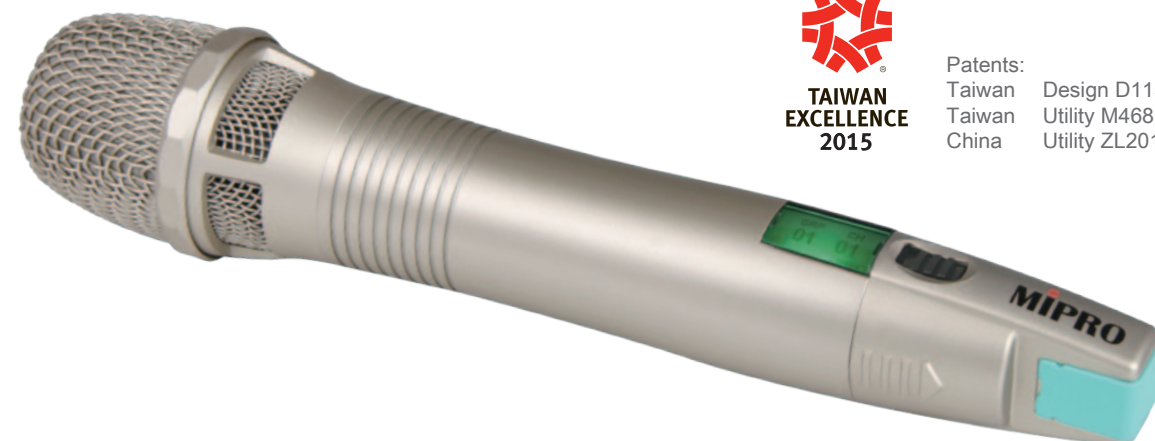


ACT-80HC Rechargeable Wideband Digital Handheld Transmitter



Patents:

Taiwan	Design D115708
Taiwan	Utility M468112
China	Utility ZL201320422132.4



I. Wireless Microphone Systems

ACT-80T Wideband Digital Bodypack Transmitter



Patents:
Taiwan Utility M424706
Design D150218
China Utility ZL201120536034.4
Design ZL201130429380.8

ACT-80TC Rechargeable Wideband Digital Bodypack Transmitter



I. Wireless Microphone Systems

Features

Handheld Transmitter	Bodypack Transmitter
<ol style="list-style-type: none">1. Innovatively designed metal housing in MIPRO's distinctive aesthetic and ergonomic style.2. Standard champagne-color housing. Optional custom-made colors are available.3. Interchangeable capsule module with premium condenser or dynamic options for easy and fast changeovers.4. The unique multi-layered metal grille protects the capsule against impact, rolling and pop noise, ensuring clarity of sound.5. Patented capsule suspension design virtually eliminates vibration and handling noises.6. Backlit LCD displays all operational parameter information.7. Three selectable gain settings: 0 dB (same as microphone sensitivity), +3 dB, +6 dB.8. Three selectable mute settings: Auto, Manual & Disabled. "Auto" mute activates automatically when handheld transmitter points down towards the ground.9. The bottom housing with built-in high-efficiency antenna features power switch, mute and setup buttons for programmable gain, limiter, low-cut and RF output power.10. Patented end-cap cover with color-coded channel identification clips onto the mic and can be reversed to allow shielding of power on/off or mute switches during performance. Detach the end-cap cover for parameters set-up.	<ol style="list-style-type: none">1. Ultra slim bodypack transmitter with sturdy magnesium alloy housing.2. On-the-top features include mute switch, mini-XLR connector and antenna.3. Innovatively designed battery cover allows easy access to operate buttons and prevents accidental operation.4. Adjustable belt clip allows wearing transmitter in up or down position.5. Backlit LCD displays all operational parameter information.6. Automatically synchronized with the receiver's frequency by MIPRO's patented ACT™ function.7. Six selectable gain settings. Selection of polarization for audio input to match capsules of different polarizations.8. Mini-XLR input with secure screw lock connector.

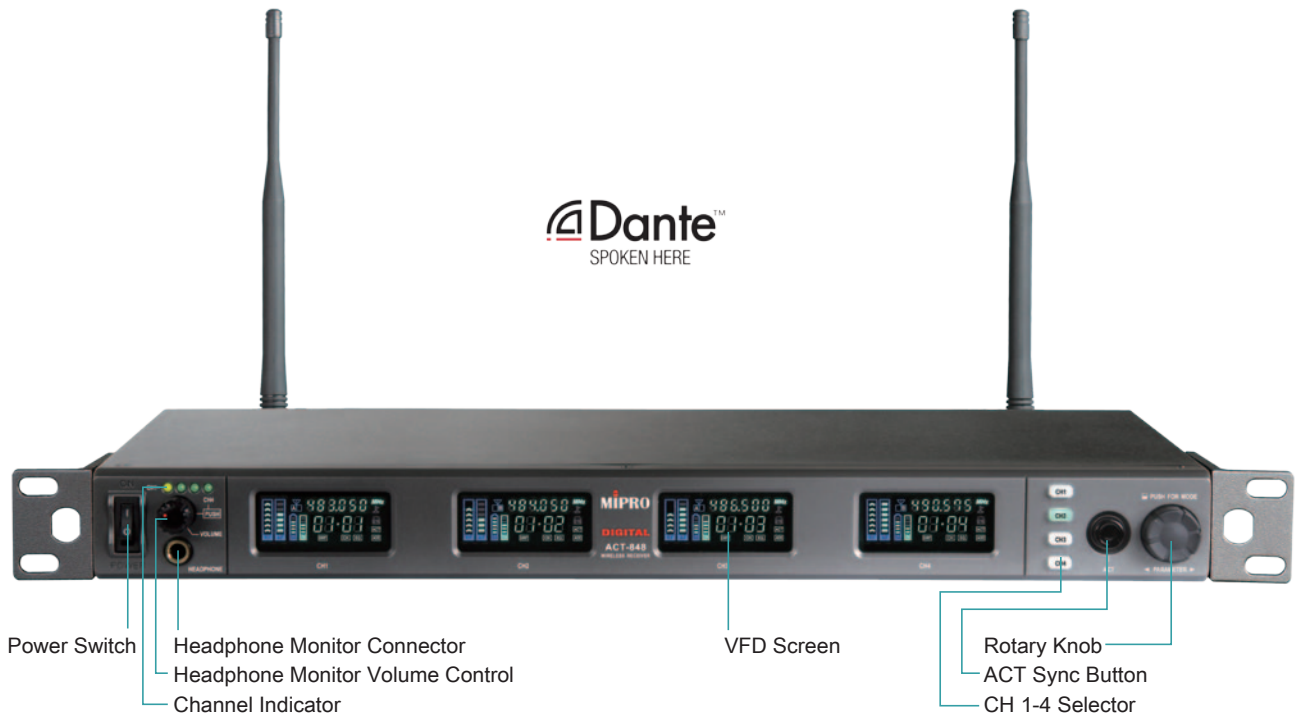
Specifications

Model	ACT-80H	ACT-80HC	ACT-80T	ACT-80TC
Housing	Aluminum	Magnesium	Magnesium	
Mic Capsule Module	Interchangeable Condenser or Dynamic		Lavalier, Headworn mic	
Display	Green backlit LCD displays various parameters			
Frequency Range	UHF 480 ~ 934 MHz (country dependent)			
Bandwidth	64 MHz			
Encryption	256 bits			
Modulation Mode	New digital modulation			
Audio Compression	DSP Inertial coding			
RF Power Output	10 mW / 50 mW switchable (country dependent), 50 Ω loaded			
Spurious Emission	< 4 nW			
Gain Setting	6 dB, 3 dB, 0 dB (3 settings). 0 dB = microphone capsule sensitivity		Six settings. Auto Limiter prevents distortion.	
Input Connector	N/A		Mute switch, Mini-XLR connector and Antenna.	
Dimensions (Ø × L)	51 × 258 mm	51 × 250 mm	63 × 70 × 25 mm (W × H × D)	
Net Weight	Approx. 323 g	Approx. 282 g	Approx. 81 g	Approx. 85 g
Battery	2 × AA alkaline	1 × ICR 18500 lithium battery	2 × AA alkaline	1 × ICR 18500 lithium battery
Operating Time	Min. 12 hours	Min. 13 hours	Min. 12 hours	Min. 13 hours
Charger	N/A	MP-80 / MP-8	N/A	MP-80 / MP-8
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.			

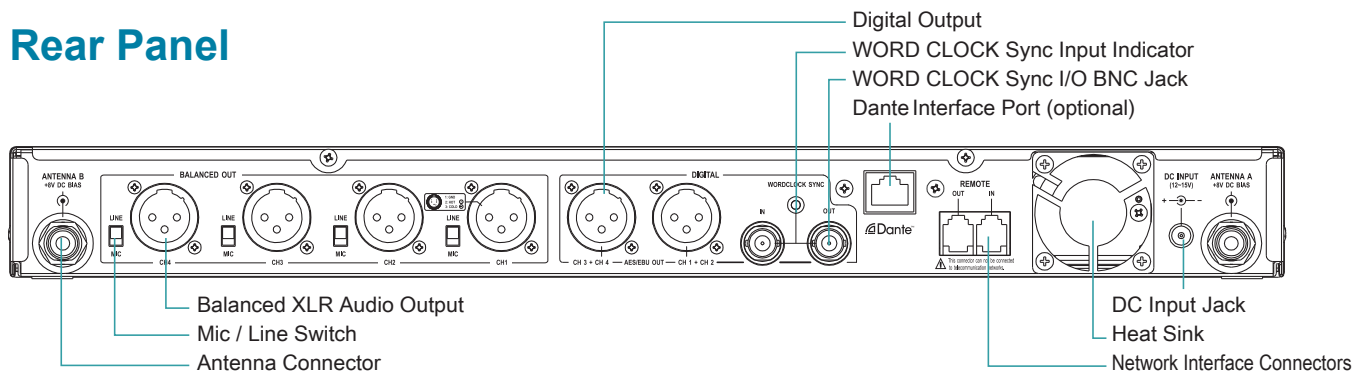
I. Wireless Microphone Systems

D. Receivers

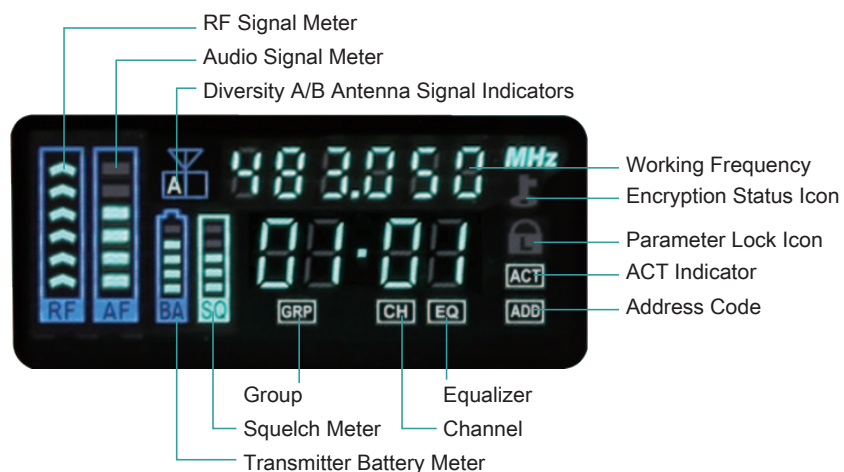
ACT-848 Wideband Quad-Channel Digital Receiver



Rear Panel



VFD Screen

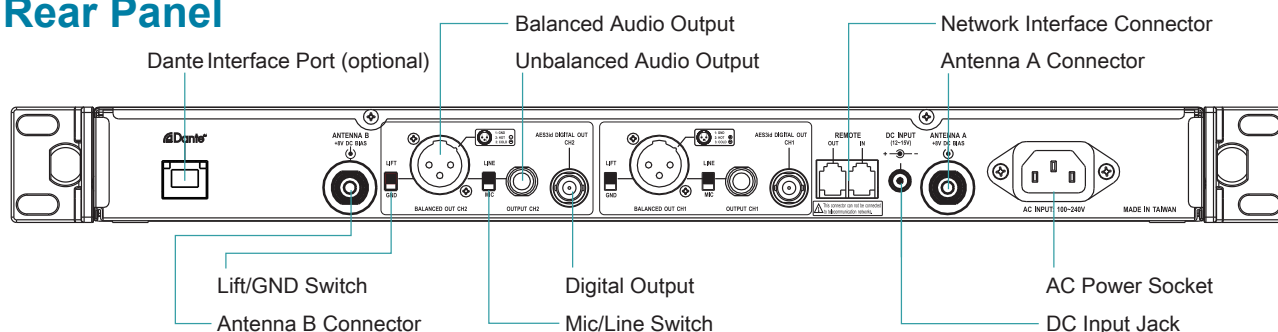


I. Wireless Microphone Systems

ACT-828 Wideband Dual-Channel Digital Receiver



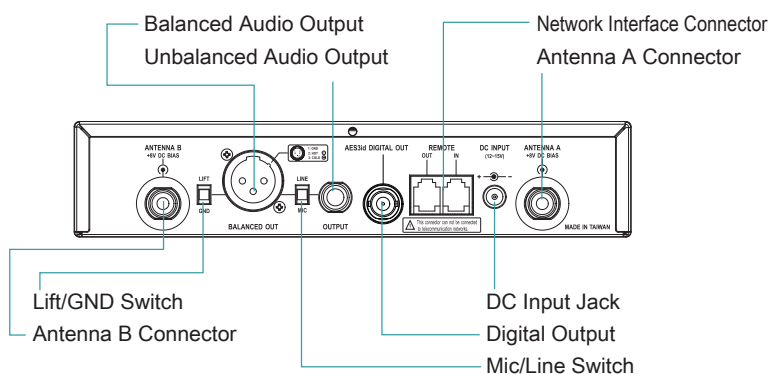
Rear Panel



ACT-818 Wideband Single-Channel Digital Receiver



Rear Panel



I. Wireless Microphone Systems

Features

1. EIA standard rack-mountable receiver with metal chassis for excellent heat dissipation and RF shielding.
2. A full-color VFD. Quick and easy system setup via a single rotary control knob.
3. Enhanced RF circuitry improves anti-interference characteristics and system compatibility.
4. New digital diversity receiving technology. Full-range sound quality is not affected by the strength of RF signals or operating distance.
5. Proprietary DSP audio processor and A/D converter.
6. Proprietary 256-bit encryption prevents unauthorized listening.
7. 10 built-in SmartEQ™ microphone capsule equalization presets suit artists' preferences.
8. 10 built-in digital anti-feedback SmartEQ™ presets for minimizing feedback.
9. Optional MIPRO RCS2.Net software allows real-time network remote-controlling and monitoring of 64 systems.
10. Optional Dante interface.

Specifications

Model	ACT-848	ACT-828	ACT-818
Channel	Quad	Dual	Single
Frequency Range	UHF 480 ~ 960 MHz (country dependent)		
Bandwidth	64 MHz		
Sensitivity	12 dB μ V at S/N \approx 118 dBA (digital output)		
Spurious Rejection	> 85 dB		
Audio Sampling	24-bit / 44.1 kHz Rate		
Frequency Response	20 Hz ~ 20 kHz		
Dynamic Range	> 115 dB(A)		
Latency	2.7 ms		
Audio Interface	AES digital output, analog transmission		
Monitor Output	Headphone monitor connector		N/A
Dante Interface	Optional		N/A
Power Supply	External adaptor		
Dimensions	420 × 44 × 245 mm (W × H × D)		210 × 44 × 230 mm (W × H × D)
Net Weight	Approx. 2.6 kg	Approx. 2.2 kg	Approx. 1.1 kg
Antenna	Detachable. 50 Ω TNC female connector provides bias for the MIPRO antenna systems.		
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.		

I. Wireless Microphone Systems

2. ACT-2400 Series 2.4 GHz Digital Wireless Systems

A. Profile

1. MIPRO has developed ISM 2.4 GHz wireless systems for several years and launched the MIPRO ACT-2400 Series in 2015 that complies with international telecom regulations. In 2016, MIPRO developed two new 2.4 GHz models – the ACT-2412A dual-channel & ACT-2414A quad-channel receivers – based on professional specifications, and added antenna connectors with bias on the rear panel for installing detachable antennas or external antenna systems to increase reception range and enhance signal quality.
2. MIPRO's ACT-2400 Series digital receivers employ a Frequency Hopping Spread Spectrum technology and true diversity receiving to skip the Wi-Fi frequency in use and effectively avoid interference from other 2.4 GHz communication products, ensuring long distance transmission with no signal drop-out. The full-range sound quality of these receivers won't be affected by the RF signal strength or operating distance.

B. System Configurations

Rechargeable Handheld Transmitter	Rechargeable Bodypack Transmitter	Transmitter Charger	Receivers
ACT-24HC	ACT-24TC	MP-80 / MP-8 MP-24 (exclusive for MT-24)	ACT-2414A
			ACT-2412A
			ACT-2402
			ACT-2401

I. Wireless Microphone Systems

C. Transmitters

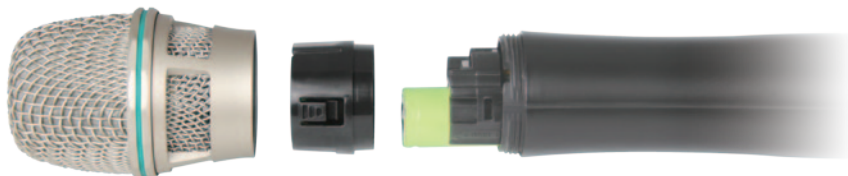
ACT-24HC Digital Handheld Transmitter



Patents:
Taiwan Utility M468112
China Utility ZL201320422132.4



The rechargeable battery can be replaced easily



ACT-24TC Digital Bodypack Transmitter



I. Wireless Microphone Systems

Features

Handheld Transmitter	Bodypack Transmitter
<ol style="list-style-type: none">1. Two selectable settings of RF output power.2. The unique multi-layered metal grille protects the capsule against impact, rolling and pop noise and ensures sound clarity.3. Proprietary capsule suspension design eliminates vibrations and touch noises for a true natural sound reproduction.4. Interchangeable capsule module with premium condenser or dynamic options for easy and fast changeovers.	<ol style="list-style-type: none">1. Miniature, sturdy plastic compact design.2. Mute button with Push & Talk function along with a LED status indicator. A connector for remote mute switch cable.3. Unique battery cover design provides easy access to operational controls and protects against accidental change of settings.4. Mini-XLR input with secure screw lock connector for lavalier / headworn mics and guitar.
5. World's first ACT™ function provides precise and rapid frequency sync to the receiver.	
6. The transmitter can be either charged by directly placing it in the MP-80 charger or removing the 18500 lithium battery for charging. Bright LEDs indicate battery status.	

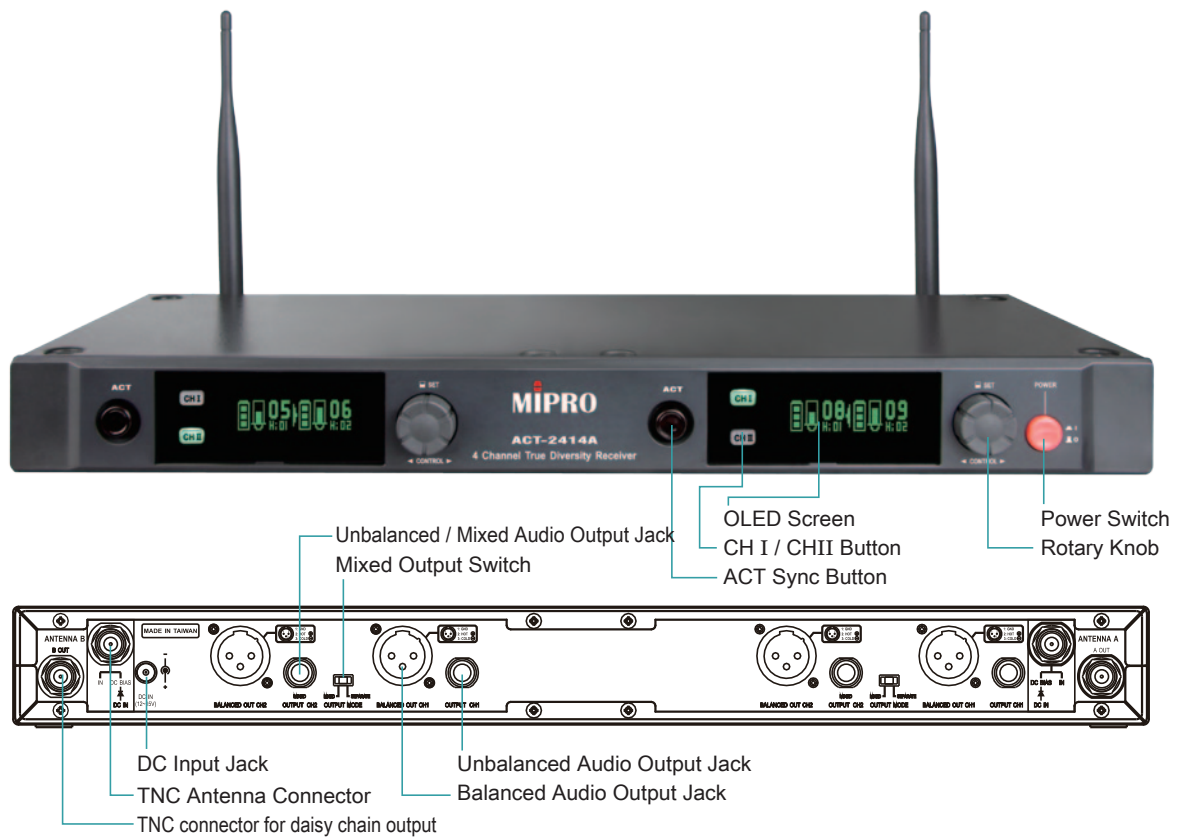
Specifications

Model	ACT-24HC	ACT-24TC
Frequency Range	2.4 GHz – ISM band	
RF Output Power	2 mW / 10 mW switchable (country dependent)	
Battery Meter	3 LEDs light in green to indicate battery status and turn to red to indicate low battery; after 2 hours power will automatically be shut down.	
Operating Time	A 25-minute fast charge provides up to 1 hour operation. 4-hour full charge gives 12 hours of operation (depending on the battery quality).	
Capsules	Interchangeable ECM or Dynamic capsules	Headworn: MU-13 / MU-23 / MU-210 / MU-53HN / MU-55HN Lavalier: MU-53L / MU-55L
Max. Audio Input	0dB = microphone capsule sensitivity	6.5 dBV
Dimensions	51 × 248 mm (Ø × L)	63 × 70 × 25 mm (W × H × D)
Net Weight	Approx. 255 g	Approx. 66 g
Charger	MP-80 / MP-8	
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.	

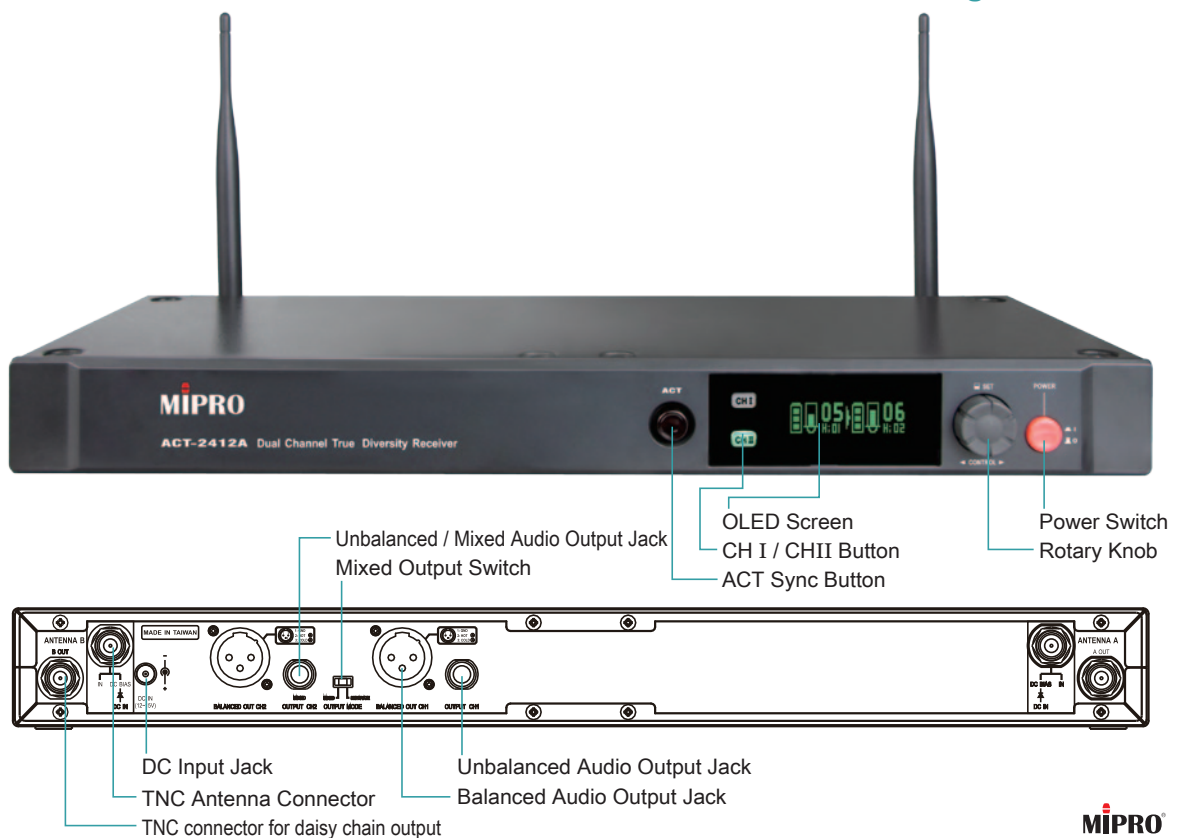
I. Wireless Microphone Systems

D. Receivers

ACT-2414A Detachable Antenna Quad-Channel Digital Receiver



ACT-2412A Detachable Antenna Dual-Channel Digital Receiver

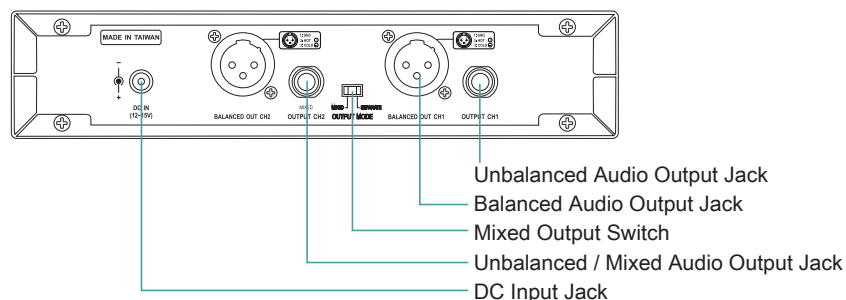


I. Wireless Microphone Systems

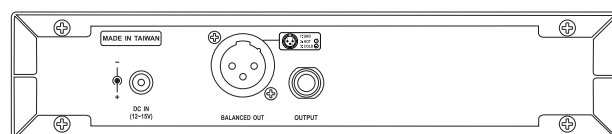
ACT-2402 Fixed Antenna Dual-Channel Digital Receiver



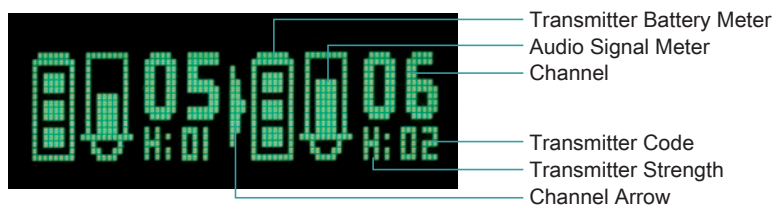
Rear Panel



ACT-2401 Fixed Antenna Single-Channel Digital Receiver



OLED Screen



I. Wireless Microphone Systems

Features

1. Diverse receivers with single, dual and quad channel in 1/2U or 1U metal chassis.
2. All models are designed with the same MIPRO style front panel.
3. Stable digital FSK modulation circuitry. All frequencies are located in single frequency band.
4. Employs Frequency Hopping Spread Spectrum technology to skip the Wi-Fi frequency in use and effectively avoid interference from other 2.4 GHz communication products.
5. With dual tuner true diversity receiving, the receiving distance is up to 100 meters with no signal drop-out.
6. The precisely designed PCB is enclosed in a sturdy case.
7. Graphic OLED screen provides larger field of view.
8. The included battery of the rechargeable handheld and bodypack transmitters can be easily removed or interchanged for charging.

Specifications

Model	ACT-2414A	ACT-2412A	ACT-2402	ACT-2401
Channel	Quad	Dual	Dual	Single
Chassis	EIA Standard 19 " 1U metal black chassis		EIA Standard 19 " 1/2U metal Black chassis	
Antenna	Rear panel, detachable		Front panel, fixed	
Frequency Band	2.4 GHz – ISM band			
Bandwidth	83 MHz			
Preset Frequency	12			
Display	Graphic OLED			
Transmission Method	FHSS frequency-hopping technique. Each channel has 4 preset hopping frequencies.			
Receiving Mode	Dual-tuner true diversity receiving			
Audio Sampling	24-bit / 44.1 kHz Rate			
Output Connectors	Balanced XLR & Unbalanced Ø 6.3 mm , 0 dB (standard), -10 ~ +20 dB adjustable range			
Latency	< 4.0 ms			
Channel Set-up	ACT Sync			
Dimensions	420 × 44 × 180 mm (W × H × D)		210 × 44 × 180 mm (W × H × D)	
Weight	Approx. 1.5 kg	Approx. 1.3 kg	Approx. 0.8 kg	Approx. 0.75 kg
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.			

I. Wireless Microphone Systems

3. ACT-7 Series UHF Wideband Wireless Systems

A. Profile

1. In 2000, MIPRO launched the ACT-7 Series professional analog wireless system with the industry's first ACT (Automatic Channel Targeting) function which was nominated in the 18th TEC Awards' Wireless Technology category in 2002. In 2005, MIPRO launched an upgraded version with a full-color VFD screen. In 2012, the 3rd generation of the ACT-7 system extended the bandwidth from 24 MHz to 72 MHz so as to allow more interference-free compatible channels to select from. The bandwidth and the deviation completely comply with EU and US telecom regulations.
2. In 2016, the ACT-7 receivers added the optional Dante networking interface. Dante carries high-resolution digital audio over a standard Ethernet network so as to avoid the issues caused by bulky and complicated cable transmissions. The ACT-7 Series feature cutting-edge technology and design and its RF stability is highly appreciated by audio experts. The transmitter is equipped with MIPRO's latest ECM capsule module that delivers an exceptionally clear, accurate sonic image to the listener. They are ideal for live stage, broadcast, concert and similar large venue applications. The ACT-7 system offers transmitters powered by 2 AA alkaline batteries or rechargeable transmitters powered by a rechargeable lithium-ion battery.

B. System Configurations

Handheld Transmitter	Rechargeable Handheld Transmitter	Bodypack Transmitter	Rechargeable Bodypack Transmitter	Transmitter Charger	Receivers
ACT-70H	ACT-70HC	ACT-70T	ACT-70TC	MP-80 MP-8	ACT-74 ACT-72

I. Wireless Microphone Systems

C. Transmitters

ACT-70H Handheld Transmitter



Patents:
Taiwan Utility M426236
Utility M426237
China Utility ZL201220005942.5
Utility ZL201220005924.7
Utility ZL201220574217.X

The capsule module is detachable from the upper housing



ACT-70HC Rechargeable Handheld Transmitter



Patents:
Taiwan Design D115708
Utility M468112
China Utility ZL201320422132.4

The rechargeable battery can be replaced easily



I. Wireless Microphone Systems

ACT-70T Bodypack Transmitter



ACT-70TC Rechargeable Bodypack Transmitter



I. Wireless Microphone Systems

Features

Handheld Transmitter	Bodypack Transmitter
<ol style="list-style-type: none"> 1. Innovatively designed metal housing in MIPRO's distinctive aesthetic and ergonomic style. 2. Interchangeable capsule module with premium condenser or dynamic options for easy and fast changeovers. The unique multi-layered metal grille protects the capsule against impact, rolling and pop noise, ensuring clarity of sound. The upper grille is easy to detach for cleaning and hygiene practice. 3. Patented capsule suspension design virtually eliminates vibration and handling noises. 4. Backlit LCD displays all operational parameter information. 5. Five selectable gain settings with microphone input sensitivity of 0 dB level. Proprietary high-definition modulation circuit sustains high SPL without distortion. 6. Switchable Manual / Disable audio mute options. 7. World's first ACT™ function provides precise and rapid frequency sync to the receiver. Switchable high / Low power options. 8. The bottom housing with built-in high-efficiency antenna features power switch, mute and setup buttons for programmable gain, limiter, mute and RF output power. 9. Patented end-cap cover with color-coded channel identification clips onto the mic and can be reversed to allow shielding of power on/off or mute switches during performance. Detach the end-cap cover for parameters set-up. 	<ol style="list-style-type: none"> 1. Ultra slim bodypack transmitter with sturdy magnesium alloy housing. 2. Innovatively designed battery cover allows easy access to operate buttons and prevents accidental operation. 3. Backlit LCD displays all operational parameter information. 4. On-the-top features include mute button, mini-XLR connector and antenna. 5. Mute button with remote-control jack for easy activation of mute function. 6. World's first ACT™ function provides precise and rapid frequency sync to the receiver. 7. Selectable impedance for microphone or guitar / line inputs. Five selectable gain settings. 8. Mini-XLR input with secure screw lock connector. 9. Adjustable belt clip allows wearing transmitter in up or down position.

Specifications

Model	ACT-70H	ACT-70HC	ACT-70T	ACT-70TC
Housing	Aluminum	Magnesium	Magnesium	
Color	Sterling Gray		Black	
Mic Capsule Module	Interchangeable capsule module with premium condenser or dynamic options		Lavalier, Headworn mic	
Display	Green backlit LCD displays group, frequency, battery meters, etc.			
Frequency Range	UHF 480 ~ 934 MHz (country dependent)			
Bandwidth	72 MHz			
Deviation	< ± 40 kHz			
Spurious Emission	≤ -55 dBc			
Gain Setting	6 dB, 3 dB, 0 dB, -3 dB, -6 dB (five settings). 0 dB = microphone capsule sensitivity		12 dB, 6 dB, 0 dB, -6 dB, -12 dB (five settings). 0 dB = microphone capsule sensitivity	
Input Connector	N/A		Mute switch, Mini-XLR connector and Antenna.	
Dimensions	51 × 258 mm (Ø × L)	51 × 250 mm (Ø × L)	63 × 70 × 25 mm (W × H × D)	
Net Weight	Approx. 292 g	Approx. 276 g	Approx. 81 g	Approx. 82 g
Battery	2 × AA alkaline	1 × ICR 18500 lithium battery	2 × AA alkaline	1 × ICR 18500 lithium battery
Operating Time	Min. 12 hours	Min. 13 hours	Min. 12 hours	Min. 13 hours
Charger	N/A	MP-80 / MP-8	N/A	MP-80 / MP-8
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.			

I. Wireless Microphone Systems

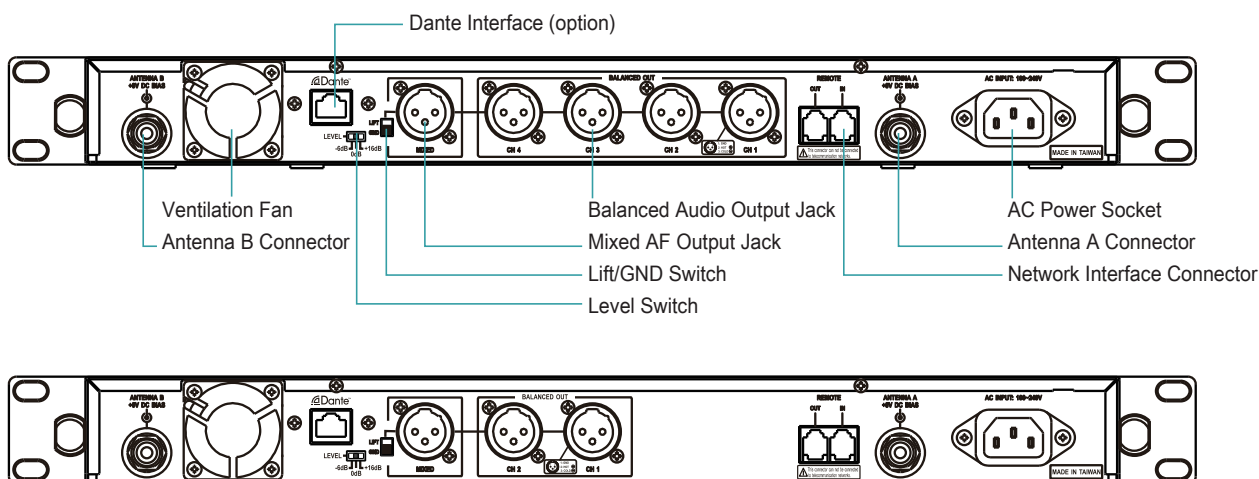
D. Receivers

ACT-74 Quad-Channel True Diversity Receiver

ACT-72 Dual-Channel True Diversity Receiver



Rear Panel



I. Wireless Microphone Systems

Features

1. EIA standard rack-mountable receiver with metal chassis for excellent heat dissipation and RF shielding.
2. Advanced RF and IF circuitry to improve anti-interference characteristics and increase the number of compatible channels.
3. True diversity receiving for best reception quality. Dual "PiloTone & NoiseLock" circuits minimize interference.
4. 400 preset channels in compatible groups plus a user-defined group that saves up to 16 frequencies.
5. Auto Scan function allows quick search for an interference-free working channel. World's first ACT™ function provides precise and rapid frequency sync to the transmitters.
6. Industry's only RF interference warning indicator for proper adjustments of the SQ level to avoid interference.
7. Receiver provides bias voltage for MIPRO antenna systems to enhance reception range and signal stability.
8. Industry's only full-color VFD screen delivers a bright, clear viewing in day or night environments with automatic bright (working) and dim (standby) displays during performance.
9. All controls are intuitive and easily set up via a single rotary knob.
10. Single channel or mixed output, switchable between three output levels for the best sound quality options.
11. MIPRO RCS.Net software allows real-time computer setup, control and monitoring. Optional Dante interface.
12. Built-in 100~240V AC switching power supply ensures system safety and stability.
13. Designed and made in Taiwan ensures high quality and value.

Specifications

Frequency Range	UHF (country dependent)
Bandwidth	72 MHz
Sensitivity	6 dB μ V at S/N > 80 dB
S/N Ratio	> 108 dB (A)
T.H.D.	< 0.5% @ 1 kHz
Frequency Response	50 Hz ~ 18 kHz, with high pass filter
Audio Output	Single channel output or mixed output. 3-level switchable.
Output Connector	Balanced XLR
Operation	All controls are intuitive and easily set up via a single rotary knob.
Indicator	RF interference warning indicator for proper adjustments of the SQ level to avoid interference.
Squelch	"Pilotone & Noiselock" dual-squelch circuit
PC Interface	USB or RS-232 Interface. Proprietary MIPRO ACT-BUS for real-time network remote-controlling and monitoring of 64 systems.
Antenna	Detachable. 50 Ω TNC female connector provides bias for the MIPRO antenna systems.
Monitoring Connector	Yes, with volume control
Dante Interface	Optional
Power Supply	External DC Input. Optional built-in AC switching power.
Dimensions	482 × 44 × 265 mm (W × H × D)
Net Weight	ACT-74: Approx. 3.4 kg ACT-72: Approx. 3.0 kg
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.

I. Wireless Microphone Systems

4. ACT-5 Series Narrowband Wireless Systems

A. Profile

In 2011, MIPRO launched the ACT-525B dual-channel receiver in 1U and the ACT-515B single-channel receiver in 1/2U. In 2016, the ACT-545B quad-channel receiver in 1U was introduced. All of MIPRO's ACT-5 models have been upgraded to true diversity receiving, the same as in their professional ACT-7 Series. Equipped with a red/green backlit LCD on the control panel, the ACT-5 Series offers easy operation and is a valuable and user-friendly alternative. For convenience, the compatible transmitters can be powered by two AA batteries or MIPRO's 18500 rechargeable lithium battery. These transmitters are equipped with MIPRO's latest ECM capsule module that delivers an exceptionally clear, accurate sonic image to the listener.

The ACT-5 Series offers reliable performance and an affordable alternative for stage, karaoke and PA applications.

B. System Configurations

Handheld Transmitter	Rechargeable Handheld Transmitter	Bodypack Transmitter	Rechargeable Bodypack Transmitter	Transmitter Charger	Receivers
ACT-52H	ACT-52HC	ACT-52T	ACT-52TC	MP-80 MP-8	ACT-545B
					ACT-525B
					ACT-515B

I. Wireless Microphone Systems

C. Transmitters

ACT-52H Handheld Transmitter



ACT-52HC Rechargeable Handheld Transmitter



I. Wireless Microphone Systems

ACT-52T Bodypack Transmitter



ACT-52TC Rechargeable Bodypack Transmitter



I. Wireless Microphone Systems

Features

Handheld Transmitter	Bodypack Transmitter
<ol style="list-style-type: none"> 1. Innovatively designed metal housing in MIPRO's distinctive aesthetic and ergonomic style. 2. Interchangeable capsule module with premium condenser or dynamic options for easy and fast changeovers. The unique multi-layered metal grille protects the capsule against impact, rolling and pop noise, ensuring clarity of sound. The upper grille is easy to detach for cleaning and hygiene practice. 3. Patented capsule suspension design virtually eliminates vibration and handling noises. 4. The bottom housing with built-in high-efficiency antenna features power switch, mute and setup buttons. Patented end-cap can be reversed to allow shielding of power on/off during performance. 5. Backlit LCD displays all operational parameter information. 6. Gain setting of 0 dB is the same as microphone input sensitivity. Proprietary high-definition modulation circuit sustains high SPL without distortion. 7. World's first ACT™ function provides precise and rapid frequency sync to the receiver. 	<ol style="list-style-type: none"> 1. Ultra slim bodypack transmitter. 2. On-the-top features include mute button, mini-XLR connector and antenna. 3. Backlit LCD displays all operational parameter information. 4. World's first ACT™ function provides precise and rapid frequency sync to the receiver. 5. Innovatively designed battery cover allows easy access to operate buttons and prevents accidental operation. 6. Mute button with remote-control jack for easy activation of mute function. 7. Selectable impedance for microphone or guitar / line inputs. Five selectable gain settings with Auto Limiter to prevent distortion. 8. Mini-XLR input with secure screw lock connector. 9. Adjustable belt clip allows wearing transmitter in up or down position.

Specifications

Model	ACT-52H	ACT-52HC	ACT-52T	ACT-52TC
Frequency Range	UHF 480 ~ 934 MHz (country dependent)			
Bandwidth	24 MHz			
RF Output Power	10 ~ 30 mW (country dependent)		10 mW / 50 mW switchable (country dependent)	
Deviation	< ± 40 kHz			
Spurious Emission	< -55 dBc			
Max. Audio Input	0 dB = microphone capsule sensitivity		0 dBV	
Housing	Black-color metal	Rugged plastic	Composite of various metals	Rugged plastic
Dimensions	51 × 263 mm (Ø × L)	51 × 250 mm (Ø × L)	63 × 82 × 22 mm (W × H × D)	63 × 70 × 25 mm (W × H × D)
Net Weight	Approx. 294 g	Approx. 268 g	Approx. 99 g	Approx. 76 g
Battery	2 × AA alkaline	1 × ICR 18500 lithium battery	2 × AA alkaline	1 × ICR 18500 lithium battery
Operating Time	Min. 12 hours	Min. 13 hours	Min. 12 hours	Min. 13 hours
Charger	N/A	MP-80 / MP-8	N/A	MP-80 / MP-8
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.			

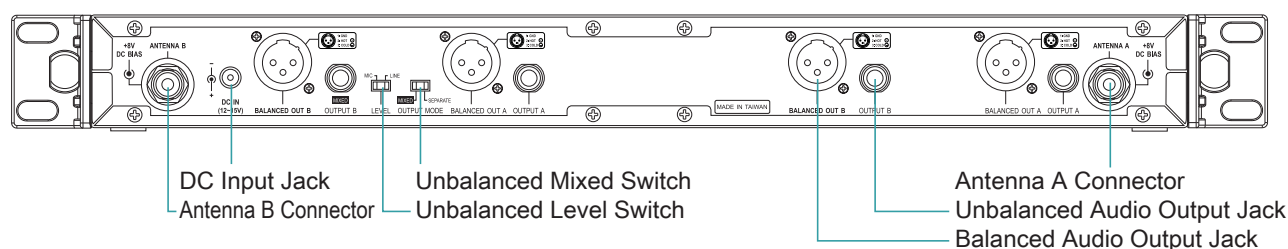
I. Wireless Microphone Systems

D. Receivers

ACT-545B Quad-Channel True Diversity Receiver



Rear Panel

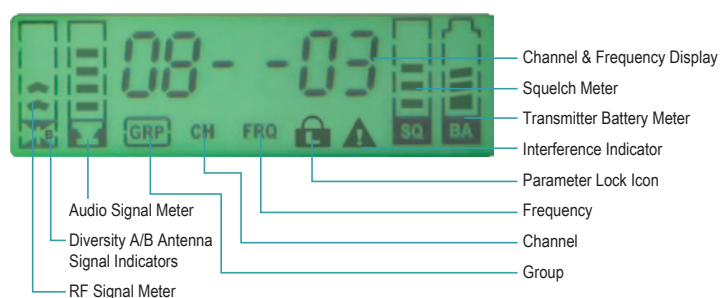


LCD Screen

Standby Mode (red)



Working Mode (green)

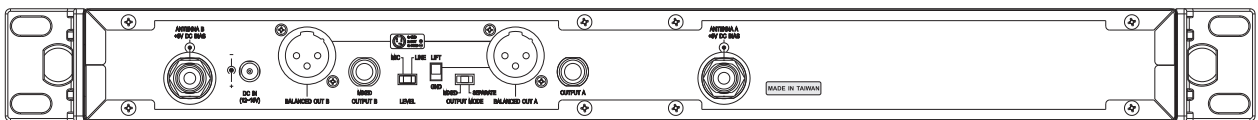


I. Wireless Microphone Systems

ACT-525B Dual-Channel True Diversity Receiver



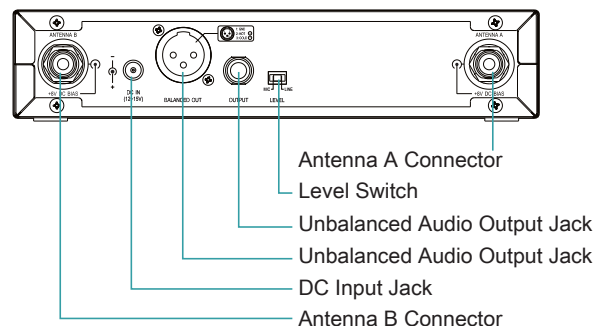
Rear Panel



ACT-515B Single-Channel True Diversity Receiver



Rear Panel



I. Wireless Microphone Systems

Features

1. Red/green backlit LCD. Easy to identify working mode (green) and standby mode (red) during performance.
2. Advanced RF and IF circuitry to improve anti-interference characteristics and increase the number of compatible channels.
3. True diversity receiving for best reception quality. "PiloTone & NoiseLock" dual-squelch circuit minimizes interference.
4. Auto Scan function allows quick search for an interference-free working channel. World's first ACT™ function provides precise and rapid frequency sync to the transmitters.
5. Industry's only RF interference warning indicator for proper adjustments of the SQ level. Increase sensitivity to extend receiving range; decrease the sensitivity to reduce interference.
6. All controls are intuitive and easily operated via electronic buttons to prevent accidental operation.
7. Output level is pre-adjusted to equal the microphone capsule's sensitivity. Switchable output levels for the best sound quality options.
8. Receiver provides bias voltage for MIPRO antenna systems to enhance reception range and signal stability.

Specifications

Model	ACT-545B	ACT-525B	ACT-515B
Channel	Quad	Dual	Single
Chassis	EIA Standard 19 " 1U		EIA Standard 19 " 1/2U
Display	Red/green backlit LCD		
Frequency Range	UHF 480 ~ 934 MHz (country dependent)		
Bandwidth	24 MHz		
Deviation	< ± 40 kHz		
Receiving Mode	True diversity receiving		
Sensitivity	6 dB μ V at S/N > 80 dB		
S/N Ratio	> 105 dB (A)		
T.H.D.	< 0.5% @ 1 kHz		
Frequency Response	50 Hz ~ 18 kHz, with high pass filter		
Squelch	"PiloTone & NoiseLock" dual-squelch circuit		
Audio Output	Balanced XLR & Unbalanced Ø 6.3 mm		
Max. Output Level	Balanced: +16 dBV / 0 dBV ; Unbalanced: +10 dBV / 0 dBV		
Power Supply	12 ~ 15V DC, 1A		
Dimensions	420 × 44 × 180 mm (W × H × D)		210 × 44 × 180 mm (W × H × D)
Net Weight	Approx. 2.2 kg	Approx. 1.65 kg	Approx. 0.85 kg
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.		

I. Wireless Microphone Systems

5. ACT-3 Series Narrowband Wireless Systems

A. Profile

In 2011, MIPRO launched their ACT-3 Series, a culmination of years of technology. Four models are available: the ACT-314 is a 1U quad-channel receiver, the ACT-300B is a 1U dual-channel receiver, the ACT-312B is a 1/2U dual-channel receiver and the ACT-311B is a 1/2U single-channel receiver. The green backlit LCD screen with control panel offers easy operation while the CPU-controlled diversity receiving circuit offers stable performance. The ACT-3 Series offer the most economical alternative for stage, karaoke and PA applications. The ACT-3 Series offers transmitters powered by 2 AA alkaline batteries or rechargeable transmitters powered by a rechargeable lithium-ion battery.

B. System Configurations

Handheld Transmitter	Rechargeable Handheld Transmitter	Bodypack Transmitter	Rechargeable Bodypack Transmitter	Transmitter Charger	Receivers
ACT-33H ACT-32H	ACT-32HC	ACT-32T	ACT-32TC	MP-80 MP-8	ACT-300B
					ACT-314
					ACT-312B
					ACT-311B

I. Wireless Microphone Systems

C. Transmitters

ACT-33H Handheld Transmitter

Patent:
Taiwan Invention I589164



ACT-32H Handheld Transmitter

Patents:
Taiwan Utility M478971
China Utility ZL201420051347.4



ACT-32HC Rechargeable Handheld Transmitter

Patents:
Taiwan Utility M468112
China Utility ZL201320422132.4



I. Wireless Microphone Systems

ACT-32T Bodypack Transmitter



ACT-32TC Rechargeable Bodypack Transmitter



I. Wireless Microphone Systems

Features

Handheld Transmitter	Bodypack Transmitter
<ol style="list-style-type: none"> 1. Innovatively designed metal housing in MIPRO's distinctive aesthetic and ergonomic style. 2. Interchangeable capsule module with premium condenser or dynamic options for easy and fast changeovers. The unique multi-layered metal grille protects the capsule against impact, rolling and pop noise, ensuring clarity of sound. The upper grille is easy to detach for cleaning and hygiene practice. 3. Patented capsule suspension design virtually eliminates vibration and handling noises. 4. Built-in high-efficiency antenna. 5. Backlit LCD displays all operational parameter information. 6. World's first ACT™ function provides precise and rapid frequency sync to the receiver. 	<ol style="list-style-type: none"> 1. Ultra slim bodypack transmitter. 2. On-the-top features include mute button, mini-XLR connector and antenna. 3. Backlit LCD displays all operational parameter information. 4. World's first ACT™ function provides precise and rapid frequency sync to the receiver. 5. Innovatively designed battery cover allows easy access to operate buttons and prevents accidental operation. 6. Mute button with remote-control jack for easy activation of mute function. 7. Selectable impedance for microphone or guitar / line inputs. Five selectable gain settings with Auto Limiter to prevent distortion. 8. Mini-XLR input with secure screw lock connector. 9. Adjustable belt clip allows wearing transmitter in up or down position.

Specifications

Model	ACT-33H	ACT-32H	ACT-32HC	ACT-32T	ACT-32TC
Housing	Sterling-gray metal housing	Black-color rugged plastic housing		Black rugged plastic	
Display	LCD displays all operational parameter information.		LED indicator for battery status.	Backlit LCD displays all operational parameter information.	
Frequency Range	UHF 480 ~ 934 MHz (country dependent)				
Bandwidth	24 MHz				
RF Output Power	10 ~ 30 mW (country dependent)			10 mW / 50 mW switchable (country dependent)	
Deviation	< ± 40 kHz				
Spurious Emissions	< -55 dBc				
Gain	0 dB = input microphone sensitivity. High-fidelity modulation circuit sustains high SPL without distortion.			0 dBV	
Dimensions	51 × 254 mm (Ø × L)	51 × 234 mm (Ø × L)	51 × 250 mm (Ø × L)	63 × 82 × 22 mm (W × H × D)	63 × 70 × 25 mm (W × H × D)
Net Weight	Approx. 408 g	Approx. 251 g		Approx. 83 g	Approx. 76 g
Battery	2 × AA alkaline		1 × ICR 18500 lithium battery	2 × AA alkaline	1 × ICR 18500 lithium battery
Operating Time	Min. 12 hours		Min. 13 hours	Min. 12 hours	Min. 13 hours
Charger	N/A		MP-80 / MP-8	N/A	MP-80 / MP-8
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.				

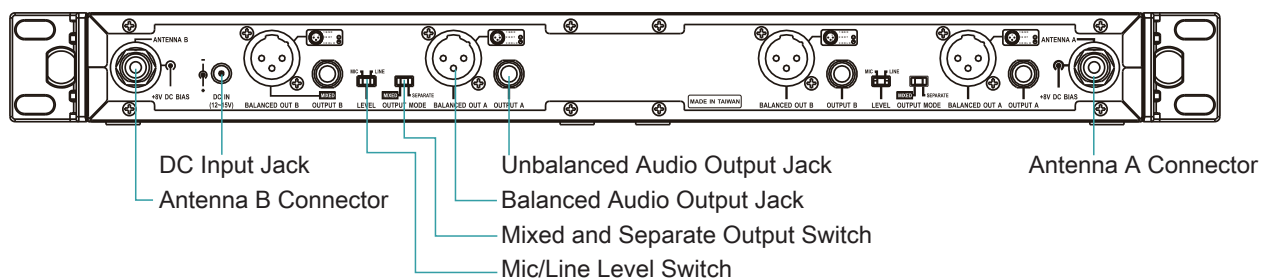
I. Wireless Microphone Systems

D. Receivers

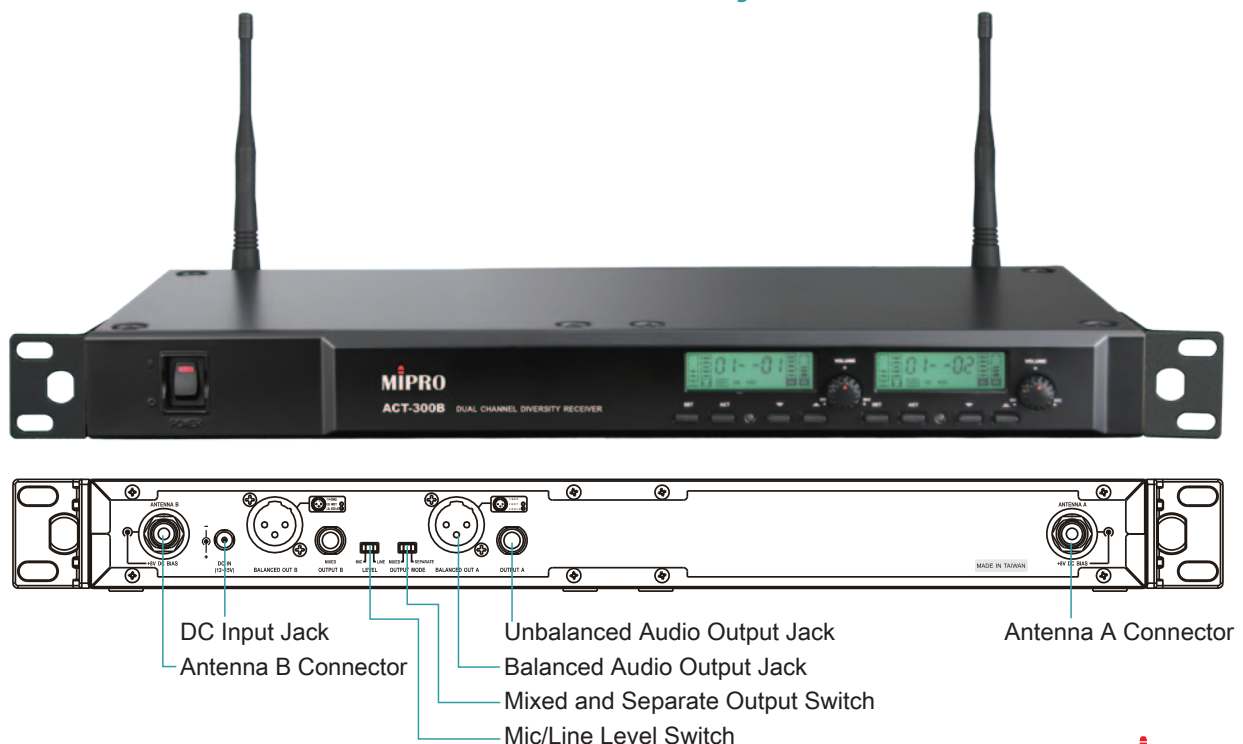
ACT-314 Quad-Channel Diversity Receiver



Rear Panel



ACT-300B Dual-Channel Diversity Receiver



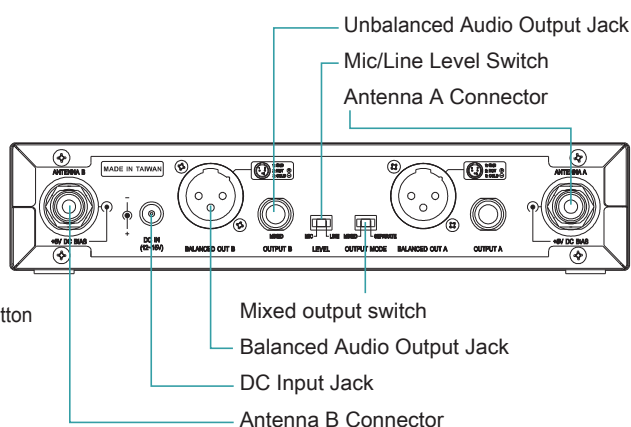
I. Wireless Microphone Systems

ACT-312B Dual-Channel Diversity Receiver



- LCD Screen
- SET Button
- ACT Button
- ACT IR Port
- Power On/Off Button
- 'Up' Button
- 'Down' Button

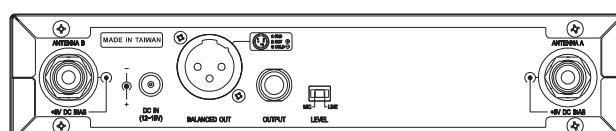
Rear Panel



ACT-311B Single-Channel Diversity Receiver



Rear Panel



I. Wireless Microphone Systems

Features

1. CPU-controlled diversity receiving. "PiloTone & NoiseLock" dual-squelch circuit eliminates signal drop-out and minimizes interference.
2. All controls are intuitive and easily operated via electronic buttons to prevent accidental operation.
3. Industry's only RF interference warning indicator for proper adjustments of the SQ level. Increase sensitivity to extend receiving range; decrease the sensitivity to reduce interference.
4. Auto Scan function allows quick search for an interference-free working channel. World's first ACT™ function provides precise and rapid frequency sync to the transmitters.
5. Output level is pre-adjusted to equal the microphone capsule's sensitivity. Switchable output levels for the best sound quality options.
6. Receiver provides bias voltage for MIPRO antenna systems to enhance reception range and signal stability.

Specifications

Model	ACT-314	ACT-300B	ACT-312B	ACT-311B
Channel	Quad	Dual	Dual	Single
Chassis	EIA Standard 19 " 1U metal chassis		EIA Standard 19 " 1/2U metal chassis	
Display	Green backlit LCD with automatic bright (working) and dim (standby) displays during performance.			
Frequency Range	UHF 480 ~ 934 MHz (country dependent)			
Bandwidth	24 MHz			
Deviation	< ± 40 kHz			
Receiving Mode	CPU-controlled diversity receiving			
Sensitivity	10 dB μ V at S/N > 80 dB			
S/N Ratio	> 106 dB(A)			
T.H.D.	< 0.5% @ 1 kHz			
Frequency Response	50 Hz ~ 18 kHz			
Squelch	“PiloTone & NoiseLock” dual-squelch circuit			
Audio Output	Balanced XLR & Unbalanced Ø 6.3 mm			
Max. Output Level	Balanced: +16 dBV / 0 dBV ; Unbalanced: +10 dBV / 0 dBV			
Power Supply	12 ~ 15 V DC, 1A			
Dimensions	420 × 44 × 180 mm (W × H × D)		210 × 44 × 180 mm (W × H × D)	
Net Weight	Approx. 1.75 kg	Approx. 1.4 kg	Approx. 0.95 kg	Approx. 0.8 kg
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.			

I. Wireless Microphone Systems

6. MR Series Fixed Frequency Wireless Systems

A. Profile

1. Since 1996 when MIPRO launched their first-generation MR Series fixed-frequency wireless systems, they have been the most popular and market-leading products. After more than two decades of customer experience and wireless technology improvement, MIPRO still offers one upgraded third generation model of this popular system.
2. The MR-823 has a UHF PLL fixed frequency circuit and LED indicators for RF and AF signal meters. The transmitters are fitted with the latest microphone capsule modules to deliver a premium sound quality. It's quick to install and easy to operate with high reliability and affordability.

B. System Configurations

Handheld Transmitter	Bodypack Transmitter	Receiver
MH-80	MT-801	MR-823

C. Transmitters

MH-80 Handheld Transmitter MT-801 Bodypack Transmitter



I. Wireless Microphone Systems

Features

Handheld Transmitter	Bodypack Transmitter
<ol style="list-style-type: none">1. Impact-resistant battery compartment is integrated with the housing. Interchangeable colored rings for microphone channel identification.2. Premium condenser or dynamic options for optimal sound quality.3. Proprietary high-definition modulation circuit sustains high SPL without distortion.	<ol style="list-style-type: none">1. Lightweight, compact size with sturdy plastic housing.2. Headworn and lavalier microphone options.

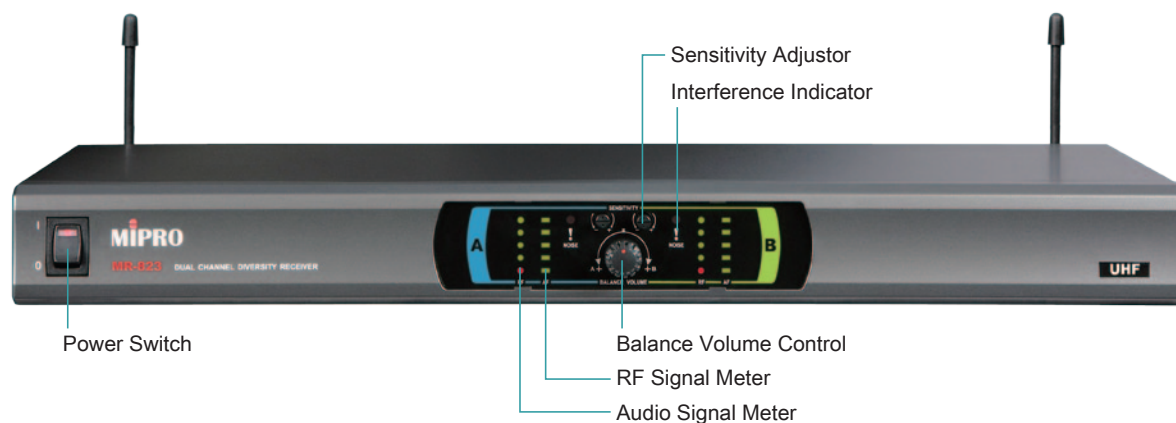
Specifications

Model	MH-80	MT-801
Type	Handheld transmitter	Bodypack transmitter
Housing	Rugged plastic housing	Rugged plastic housing
Frequency Range	UHF (country dependent)	
RF Output Power	10 ~ 30 mW (country dependent)	
Spurious Emissions	< -55 dBc	
Deviation	< ± 40 kHz	
Display	LED indicator for power on/off and low battery status.	
Battery	2 \times AA alkaline	
Max. Input Level	140 SPL	0 dBV
Mute	N/A	Manual
Mic Capsule Module	Condenser or Dynamic options	Lavalier, Headworn mic
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.	

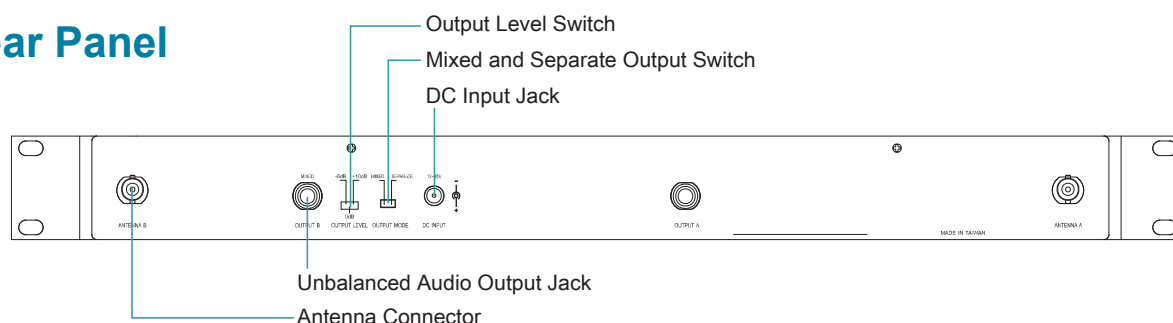
I. Wireless Microphone Systems

D. Receiver

MR-823 Dual-Channel Diversity Receiver



Rear Panel



Features

1. CPU diversity technology ensures stable signal quality and avoids signal drop-out.
2. PLL synthesized fixed frequency circuit for stability and effortless frequency setup.
3. RF and audio level LED indicators.
4. Adjustable 'SQ' for increased or decreased sensitivity level for increased reception range or interference management.
5. Output level is accurately pre-adjusted to equal the microphone capsule sensitivity and ensures optimal performance.

Specifications

Chassis	EIA Standard 19" 1U metal chassis
Frequency Range	UHF 480 ~ 934 MHz
Oscillation Mode	PLL Synthesized fixed-frequency.
Receiving Mode	Diversity receiving
Deviation	< ± 40 kHz
S/N Ratio	> 106 dB(A)
T.H.D.	< 0.5% @ 1 kHz
Frequency Response	50 Hz ~ 18 kHz
Max. Output Level	3-Level Switch: +10 dBV / 0 dBV / -6 dBV
Sensitivity	10 dB μ V at S/N > 80 dB
Squelch	"PiloTone & NoiseLock" dual-squelch circuit
Power Supply	12 ~ 15V DC, 1A
Dimensions	420 × 44 × 204 mm (W × H × D)
Net Weight	Approx. 1.7 kg
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.

I. Wireless Microphone Systems

7. MU Series Microphone Capsule Modules

A. Profile

After an extended time in development, MIPRO now offers interchangeable condenser and dynamic capsules for their handheld microphone transmitters, allowing users to choose their capsule to suit their preference. These industry-leading innovative capsules feature low handling noise and rugged structure and can be replaced quickly and easily.

B. Handheld Transmitter Capsule Modules

Condenser Capsules



MU-90



MU-80



MU-70

Dynamic Capsules

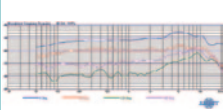
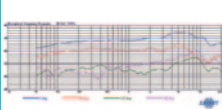
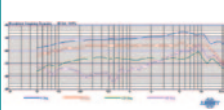
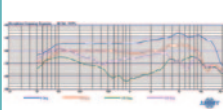
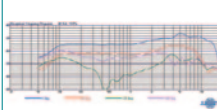


MU-59



MU-39

Features & Specifications

Type	Condenser Capsules			Dynamic Capsules	
Model	MU-90	MU-80	MU-70	MU-59	MU-39
Grille Structure	Upper grille and lower grille can be separated		Upper grille and lower grille cannot be separated	Upper grille and lower grille can be separated	Upper grille and lower grille cannot be separated
Polar Pattern	Supercardioid		Cardioid	Supercardioid	
Frequency Response					
Features	1. The PCB is encapsulated inside the bracket and isolated from the air to ensure the reliability. 2. High dynamic range, high S/N ratio and low noise. 3. Patented shock absorber for low handling noise. 4. Features a unique anti-pop multi-layered metal grille. Presents a high dynamic range, wide frequency response, high fidelity, rapid transient response and low feedback for a bright and detailed sound quality.			1. Patented shock absorber and suspension design for ultralow handling noise. 2. Features a unique anti-pop multi-layered metal grille. Presents a high dynamic range, wide frequency response and low feedback for softer, mellower and misty sound quality.	
Capsule Unit	ECM-20 copper grille	ECM-20a aluminum grille	ECM-16a aluminum grille	Dynamic	
Middle Ring	Patented anti-rolling design	Patented anti-rolling design with a color ring		Patented anti-rolling design	
Upper Grille	Multi-layered anti-pop metal grille with flat top			Multi-layered anti-pop metal grille with round top	
Lower Grille	Metal grille of semi-sphere structure with four air chambers		Dual-layer metal mesh	Metal grille of semi-sphere structure with four air chambers	Dual-layer metal mesh
Installation	Interchangeable				
Color	Champagne				
Inner Grille	Dual-layer metal mesh			Single-layer metal mesh	N/A
Sensitivity	-52 dB			-54 dB	
Gain Setting	0 dB / -6 dB (2 settings)			N/A	
Max. SPL	150 dB	149 dB		N/A	
Note	Refer to actual product in the event of product discrepancy.				

I. Wireless Microphone Systems

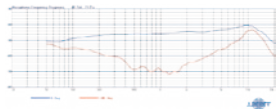

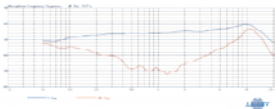
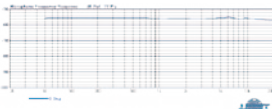
8. MU Series Lavalier & Headworn Microphones

A. Profile

1. With a compact ear-hook design, headworn mics are available in three ear-hook sizes for a secure, comfortable and ideal fit.
2. Detachable or fixed microphone boom options. Microphone boom can be worn on left or right and detachable boom can be detached for replacement or servicing.
3. Resistant to moisture, perspiration and salts.
4. Detachable boom can connect to the cables with various connector types.
5. Soft yet flexible thin boom bends 120° and holder can be rotated for adjusting the microphone position.

B. Lavalier and Headworn Microphones



Type	Lavalier				Headworn			
Model	MU-53L	MU-53LS	MU-55L	MU-55LS	MU-210	MU-210d	MU-23	MU-23d
Color	Black	Beige	Black	Beige	Beige			
Connector	Fixed				Fixed	Detachable	Fixed	Detachable
Capsule	Ø 10 mm uni-directional		Ø 4.5 mm omni-directional		Ø 10 mm uni-directional		Ø 3 mm omni-directional	
Sensitivity	-46 dBV / Pa		-49 dBV / Pa		-46 dBV / Pa		-56 dBV / Pa	
Frequency Response								
Max. SPL	142 dB		135 dB		142 dB		138 dB	
Sound Features	Clear and brilliant. High fidelity, wide frequency response, high dynamic range, rapid transient response for a true natural sound reproduction.							
Note	Refer to actual product in the event of product discrepancy.							

C. Condenser Microphone Adaptor

MJ-53 Condenser Microphone Adaptor



Features	<ol style="list-style-type: none">1. The MJ-53 enables a condenser microphone with a mini XLR plug to connect directly to the XLR jack input of a mixer which provides 12 ~ 48 V DC phantom power.2. Balanced output transforms the high output impedance of a condenser microphone to wide frequency response, high dynamic range, high S/N ratio and low output impedance at about 200 Ω . It prevents noise interference in long distance transmission. Its rugged metal housing ensures a long operating life and its belt clip provides for easy wearing.
Frequency Response	80 Hz (-3dB) ~ 20 kHz (0dB) @ 94 dB SPL
Output Impedance (Balanced)	200 Ω @ 1 V / 1 kHz
Max. Output Voltage	2.52 V @ 1.0% T.H.D. 1 kHz
Dynamic Range	120 dB (A-weighting)
Power Supply	Phantom Power: 12 ~ 48 V DC Current Drain: 2.0 mA
Note	Refer to actual product in the event of product discrepancy.

I. Wireless Microphone Systems

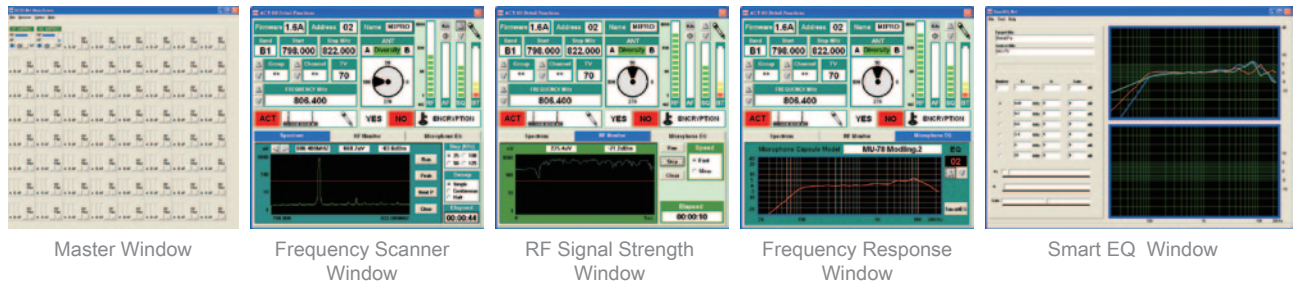
9. ACT-BUS PC Management Software

A. Profile

1. In 2003, MIPRO launched the MIPRO ACT-BUS, an advanced PC interface management program for ACT Series receivers. The interface provides real time monitoring and remote control of up to 64 receiver modules simultaneously from distances of up to 300 meters away from the PC. It has a built-in high performance spectrum analyzer and the software is multi-functional and easy to use.
2. In 2013, the latest MES-100 bridge server allows the MIPRO ACT-BUS interface to be remotely controlled via a WWW browser.

B. ACT-BUS PC Management Software

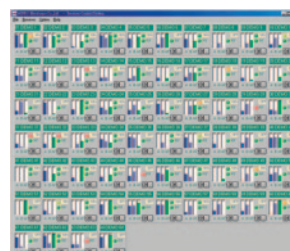
ACT-8D PC Management Software



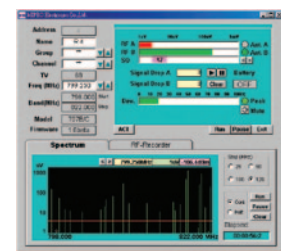
ACT-707SD PC Management Software



Control & monitor up to 64 receiver channels.



Master Window



Detailed Channel Window

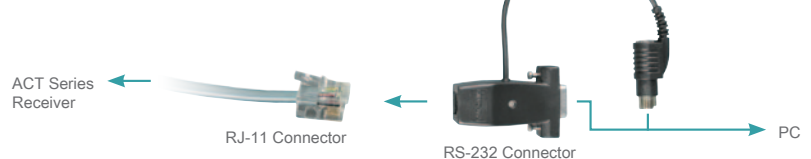
Features

This software is an advanced and user-friendly PC interface management program. The interface uses a MIPRO DVU USB connector or DVJ RS-232 connector to link a PC to the receiver. The interface provides real time monitoring and remote control of up to 64 receiver modules simultaneously from distances of up to 300 meters away from the PC. The management software has a built-in high performance spectrum analyzer which allows direct setup of non-interference channels and monitors the wireless environment for all operating channels and interference signals. The software is also capable of monitoring transmitter battery status, AF/RF & Antenna A/B strength. Additional features include a signal dropout recording system where the history of the signal path can be reviewed for analysis, real-time program editing, multi-function and status display for your convenience.

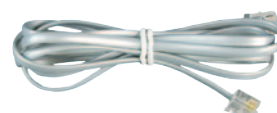
MIPRO DVU Network Connection



MIPRO DVJ Network Connection



Network Cable

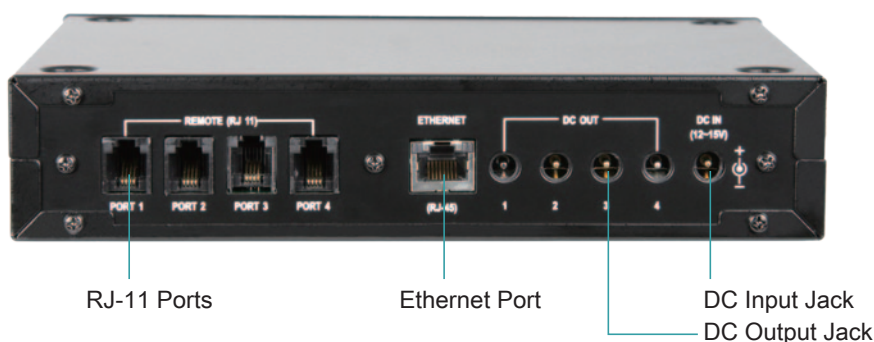


I. Wireless Microphone Systems

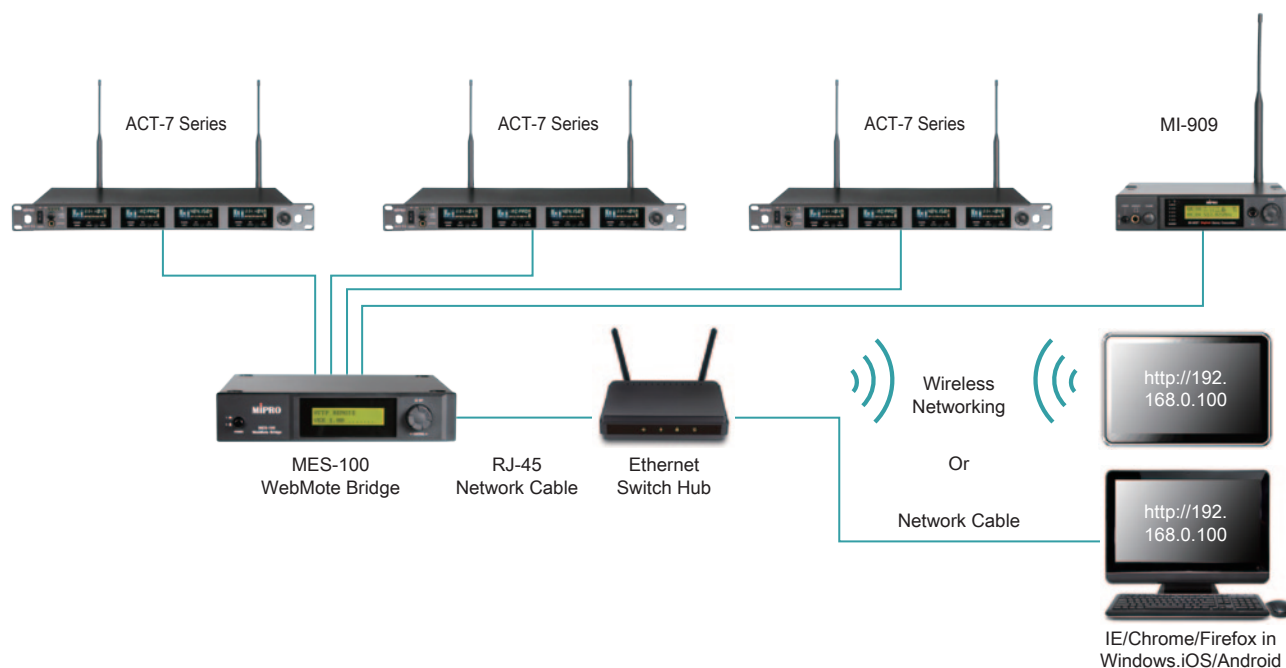
C. MES-100 WebMote Bridge



Rear Panel



MIPRO WebMote System Configurations



I. Wireless Microphone Systems

Features

The MIPRO ACT-BUS interface allows for remote monitoring of ACT series receivers and can now be connected to the newly developed MIPRO MES-100 bridge server, providing remote monitoring and control using any internet browser.

The MIPRO MES-100 supports web-based monitoring and remote control for smartphones, tablets, PCs and laptops over a variety of operating systems, such as Windows, iOS, Android or Linux, etc. without the need for special software to remotely monitor and control all parameters. The MES-100 provides a solution for the incompatibility issues between the operating systems and monitoring software.

Comparison Chart

Model	ACT-8D	ACT-707SD	MES-100
Name	MIPRO Digital Receiver PC Management Software	MIPRO Analog Receiver PC Management Software	WebMote Bridge
Functions	Monitoring and remote control of ACT-8 Series receivers.	Monitoring and remote control of ACT-7 Series receivers.	1. Improve the transmission efficiency of ACT-BUS. 2. Supports web-based monitoring and remote control for smartphones, tablets, PCs and laptops to remotely monitor and control all parameters. The MES-100 provides a solution for the incompatibility issues between the operating systems and monitoring software.
Accessories	1. USB connector or RS-232 connector for network connection. 2. RJ-11 connector for the receiver end.		
Note	Refer to actual product in the event of product discrepancy.		

I. Wireless Microphone Systems

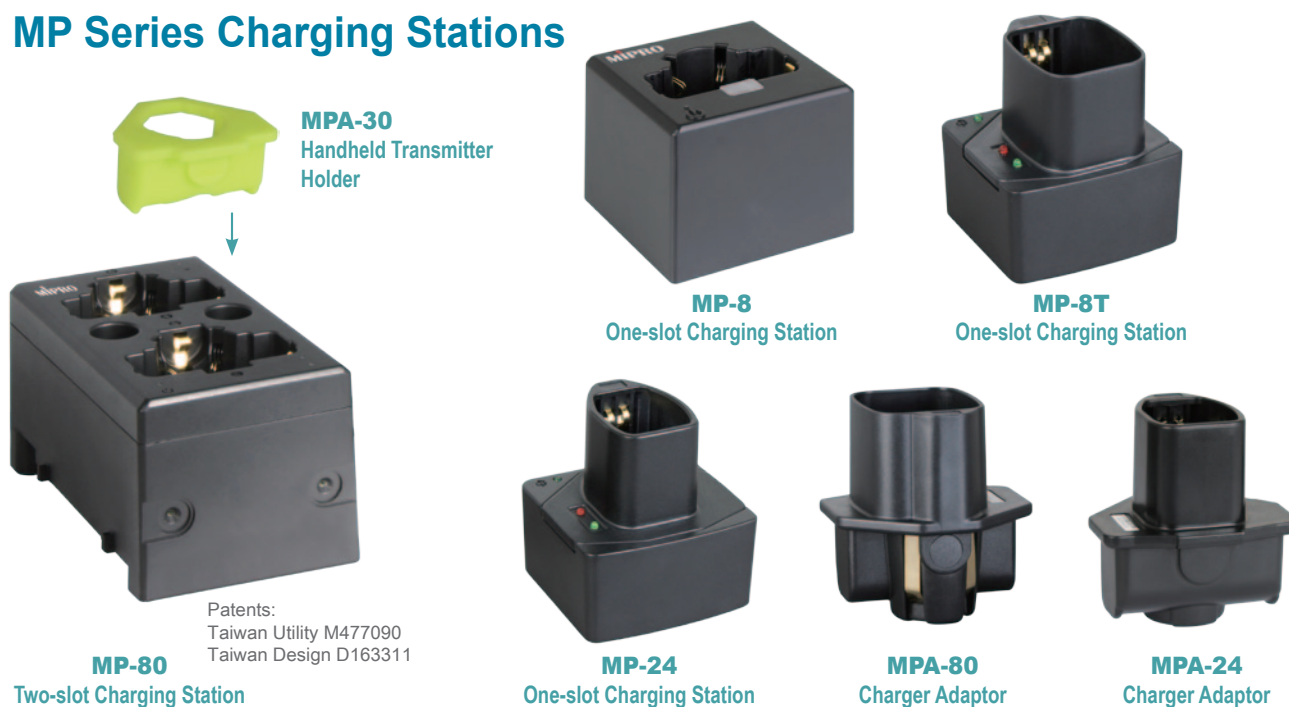
10. Accessories

A. MP Series Charging Stations

The MP-80 is an intelligent 3-in-1 charging station which provides efficient and safe charging. It is designed exclusively for MIPRO rechargeable handheld / bodypack transmitters and batteries. Each station has two charging slots and two storage slots for 2 spare ICR18500 lithium batteries. The MP-80 provides both quick and trickle charging and has a reverse polarity protection circuit to prevent charging errors. Precise charging status is easily read by the user with red (charging) & green (charged) indicators. Multiple charging stations can be easily connected for more charging options.

The MP-8 is an intelligent single-slot charger providing efficient and safe charging, designed exclusively for MIPRO's rechargeable handheld / bodypack transmitters. In addition to providing both quick and trickle charging, it has a reverse polarity protection circuit to prevent charging errors and shows the precise charging status with easily read indicators.

MP Series Charging Stations



Specifications

Model	MP-80	MP-8	MP-8T	MP-24	MPA-80	MPA-24	MPA-30
Compatible Transmitter	Rechargeable handheld & bodypack		TA-80	MT-24	TA-80	MT-24	Rechargeable handheld
Input Voltage Range	DC 10 ~ 15 V / 1A		DC 5 V / 1A		N/A		
Battery	ICR 18500 3.7 V Li-ion battery				N/A		
Charge Current	Approx. 500 mA by regulation current				N/A		
Current Consumption	Approx. 600 mA / 12 V, for two batteries charging at the same time		550 mA / 5 V		N/A		
Charge Method	Termination by 20% regulation current				N/A		
Compatible	For charging transmitters and lithium batteries	For charging one handheld or bodypack transmitter	For TA-80 transmitter	For MT-24 transmitter	For TA-80 transmitter to place on MP-80 charging station	For MT-24 transmitter to place on MP-80 charging station	For handhelds to steadily place on MP-80 charging station
Dimensions (W × H × D)	92 × 78 × 158 mm	92 × 74.5 × 87 mm	72 × 76.5 × 68 mm	72 × 76.5 × 68 mm	72 × 59 × 77 mm	72 × 58 × 77 mm	72.5 × 35.5 × 58 mm
Weight	Approx. 313 g	Approx. 240 g	Approx. 162 g	Approx. 162 g	Approx. 55 g		Approx. 40 g
Note	Refer to actual product in the event of product discrepancy.						

I. Wireless Microphone Systems

B. Dante Interface Module

MIPRO's digital 8 series and analog 7 series are now available with Dante interface. Dante is the most popular Ethernet-based digital audio transmission interface in the audio industry. Digital transmission ensures less environmental interference and less signal attenuation due to distance where maximum transmitting distance of 100 meters under normal speed of 100 Mb/s. Through packet and TDM technology, a Dante signal network cable can now transmit multiple channels of audio signal. In addition, with a Dante Controller, audio stream routing and monitoring is now an easy task.

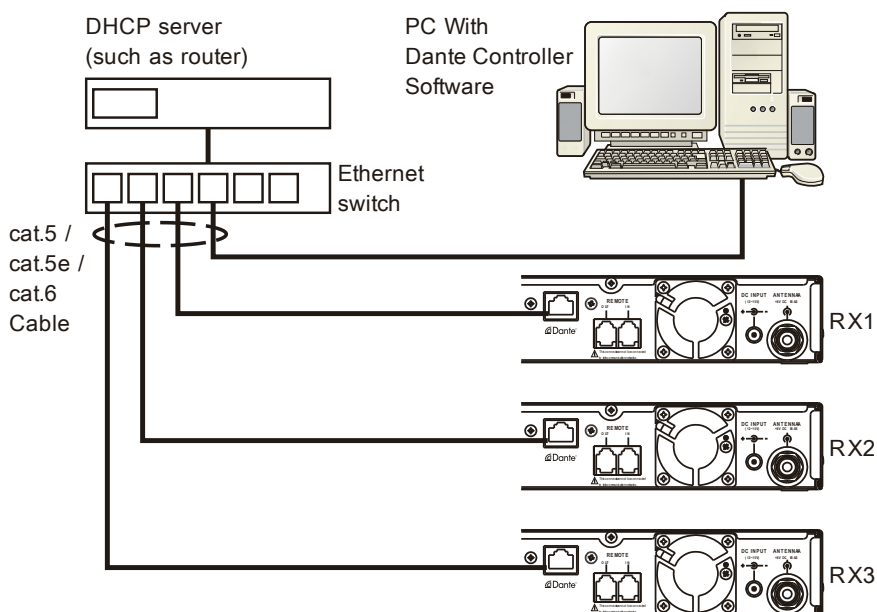
XLR vs. Dante

Item	XLR	Dante
Signal Type	Analog	Digital
Cost	High	Low
Maximum Transmitting Distance	20 m	100 m
Signal Attenuation	Affected by distance	Not affected by distance
Probability of Environmental Interference	High	Low
Number of Audio Channel	Single-Channel	Multi-Channel

Dante Network

Connecting Cat. 5, 5e, or 6 network cable to a Ethernet switch as illustrated below.

P.S. Ethernet switch must have DHCP function or should connect to an external DHCP server, such as a broadband router.



Audio Stream Routing and Monitoring

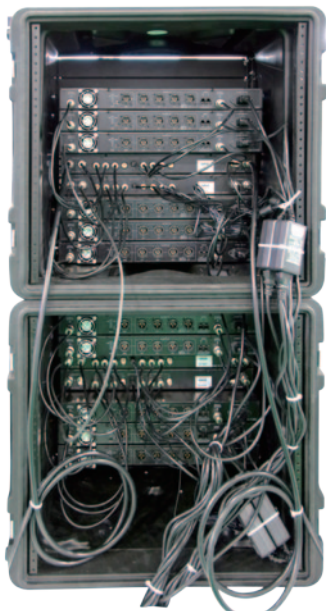
Audio stream routing and monitoring can be achieved by using a Dante Controller. For downloading instruction on the Dante Controller, please refer to the Audinate website: <https://www.audinate.com/products/software/dante-controller>

I. Wireless Microphone Systems

C. MPC-100 Power Supply Garnering Case

1. Designing Concept

Patents:
Taiwan Utility M530423
China Utility ZL201620803170.8



Complicated and messy cable arrangement behind the rack case.

When a sound engineer is performing the installation of multiple wireless systems in a fixed or portable rack case, the most troublesome job is to organize and fix both power supply unit (PSU) and power cords in the back of a rack case. These problems get worse when the wireless system uses an external PSU, as the engineer has to make sure both PSU and power cords do not fall off during transportation. To address these issues, MIPRO introduces the MPC-100.

The MPC-100 allows engineers to pre-install the original PSU of the wireless system into the cabinet. By doing so, you have the benefit of using one power cord for the whole rack as all PSU and their power cords will be safely and neatly stored within the garnering case which is connected to an extension power cord and only the DC output cables connect to the receivers.



MPC-100 allows PSU to be neatly stored within the cabinet.

2. Installation

One MPC-100 can house up to 5 MIPRO standard PSU to provide power to 4 receivers and one antenna di-vider. This is a perfect solution for a 6U road case where you can install up to 16 channels of wireless sys-tems. To install, use the power supply cover and screws provided to screw up each power supply in the case and connect the distributed AC power cord inside the garnering case to each power supply. Then connect the AC input socket on the rear panel with an AC power cord to the AC outlet. Then you will see all power indicators on the system light up, indicating all power connections are normal.

3. Features and Specifications

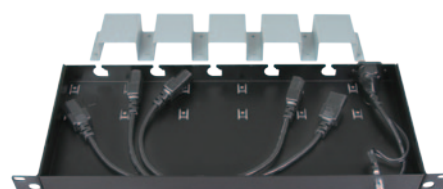


MPC-100 installed with PSU of the receivers.

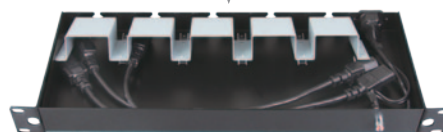
The MPC-100 is an ideal garnering case for PSU. Its main function is fixing the PSU of the receivers and an-tenna divider tightly and neatly into the garnering case, thereby saving engineers from a complicated pow-er installation. When in use, simply plug the single AC cord into a wall outlet. The MPC-100 uses an EIA standard 1U metal case where the front panel has a power indicator and the rear panel has one AC input socket and 5 DC output jacks. In addition, there is a bracket that holds 5 PSU and screws are provided to at-tach the bracket to the bottom of the garnering case.

Dimension: 482 × 44 × 190 mm

Weight: 1650 g (PSU excluded)



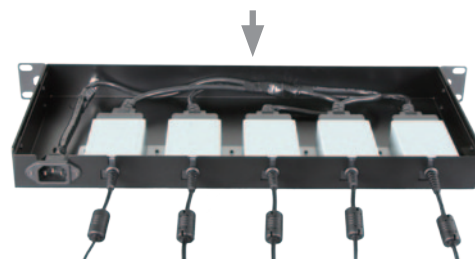
MPC-100 includes bottom case, PSU bracket and power cords.



Put the PSU bracket inside the bottom case.



Put all PSU into the garnering case first and use the bracket and screws provided to secure them.







Connect all PSU's DC output to receivers and divider after connecting all PSU's AC cord to an extension cable.

I. Wireless Microphone Systems

D. Microphone Stands

Model	MS-80	MS-50	MS-20	MD-20
Photo				
Type	Tripod Stand		Desktop Microphone Stand	
Features	Robust design with stable base. Heights and angles adjustable. Durable, dependable performance.		MD-20 is required for operation.	
			MS-20 or any microphone stand is required for operation.	

E. 19-inch Rack Mount Kits

Model	FB-10	FB-70	FB-71	FB-72
Photo				
Name	Rack Mount Kit	Front-to-Rear Antenna Kit	Rack Mount Kit	Rack Mount Kit
Compatible	One 1U MR Series receiver alone. (1-pair)	All	One 1/2 U ACT Series receiver alone. (1-pair)	Two 1/2 U ACT Series receivers side-by-side. One 1 U ACT Series receiver alone. (1-pair)

F. Instrument & Antenna Cables

Model	FBC-71	MU-40G	MJ-24E	MJ-24A	MJ-70
Photo					
Name	Rear-to-Front Cables	Guitar Cable	Electric Guitar Cable	Acoustic Guitar Cable	Remote Mute Switch
Compatible	ACT Series receivers	All bodypack transmitters	MT-24 guitar digital transmitter	GM-100 acoustic guitar microphone kit	ACT Series bodypack transmitters

G. Others

Model	ASP-10	ASP-30	MB-5	RH-77a	RH-87	SW-20
Photo						
Compatible	Sports Pouch for MT-801 bodypack transmitter.	Sports Pouch for bodypack transmitters.	ICR 18500 Lithium Battery	Multi-Colored Rings fit ACT-3 Series & MH-80 handheld transmitters. (set of 10 colors)	Multi-Colored Rear Clips for ACT-8 Series, ACT-7 Series & ACT-52HC handheld transmitters. (set of 10 colors)	Foam Windscreens for all handheld transmitters. (5 color options)

II . Antenna Systems

1. AT Series Antennas	49
2. AD Series Antenna Dividers	53
3. MPB Series Antenna Boosters	55
4. AD Series Antenna Combiners	56
5. AD-90S UHF Wideband Power Splitter	57
6. AD-90A Wideband High Power Amplifier	58
7. Applications	59



II . Antenna Systems

1. AT Series Antennas

A. Profile

The design & implementation of antennas are important to improve signal quality, enhance reception, and reduce dropouts during installations of transmitters and receivers.

MIPRO'S AT-20 VHF antenna & AT-70 UHF antenna were introduced in 1997. Then the second generation AT-90 UHF transmitting and receiving log antenna was introduced in 2008.

In 2011, the third generation AT-90W and AT-70W were developed to accommodate wideband receivers for both transmitting and receiving applications with varied directionality. In 2012, the reliable AT-100 wideband circularly polarized antenna was introduced.

In 2014, the built-in booster of the AT-70W, AT-90W and AT-100 antennas was further improved as a "gain-adjustable" booster.

The AT-24 2.4 GHz semi-circularly-polarized antenna with built-in booster was introduced in 2016. It works with MIPRO's 2.4 GHz wireless system for long distance reception.

MIPRO has a complete range of professional antennas, antenna dividers, antenna combiners, antenna boosters and other antenna systems to ensure maximum wireless transmission performance of MIPRO's wireless microphone systems as well as systems from other leading brands.

B. AT Series

AT-10 Whip Antenna

The AT-10 is a 1/4 wave single rod antenna featuring wider band, omni-directional reception and a 50 Ω impedance. It directly mounts on the antenna connectors of a receiver to become a monopole antenna for providing adequate sensitivity and operating range.



AT-20 Coaxial Antenna

The AT-20 is a 1/2 wave coaxial antenna that functions like a dipole antenna, featuring 2.15 dBi gain, 50 Ω impedance, and omni-directional reception. It directly mounts on the antenna connectors of a receiver for providing greater sensitivity and extended operating range.



II . Antenna Systems

AT-70W Wideband Transmitting and Receiving Omni-directional Antenna

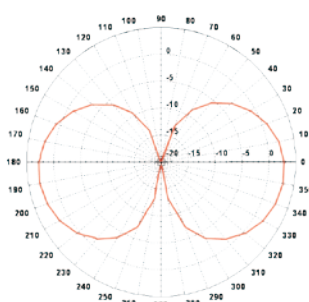


The AT-70W is a bi-functional omni-directional antenna for professional receiving and transmitting applications. It is optimized for 470 ~ 1000 MHz, which is fully compatible with US and EU new telecom regulations. It has a 2 ~ 4 dBi gain which is ideal for any specific installation requiring full directionality. It can be easily distinguished by its new “W-Shape” appearance.

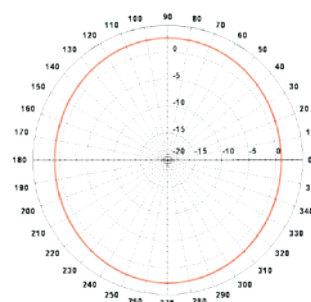
The AT-70W has two input connectors: “TX/RX” connector can be connected to a transmitter or receiver, however, connection to a short coaxial cable is recommended when connected to a receiver. The “RX” connector can be connected to a receiver only and has a built-in 0 ~ 12 dB \pm 1 dB gain adjustable booster, thus providing extended reception range and compensating for the signal loss of coaxial cable to improve reception range and signal quality.

The AT-70W offers users the options of transmitting or receiving based on their actual application. The power of the gain-controllable booster can be provided by a MIPRO AD-708 antenna divider or any MIPRO ACT Series receiver which provides bias by adding an AD-702 auto gain controller on their antenna connectors. It is water resistant and ideal for both outdoor and indoor applications.

Antenna Pattern



Vertical



Horizontal

AT-90W Wideband Transmitting and Receiving Log Antenna

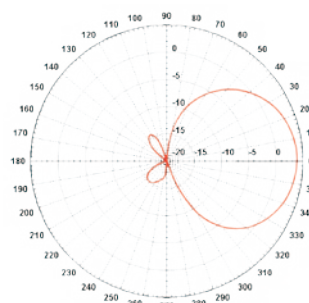


The AT-90W is a bi-functional log antenna for professional receiving and transmitting applications. Optimized for 470 ~ 1000 MHz, it is compatible with US and EU new telecom regulations. It has a 4 ~ 6 dBi gain which is ideal for any installation requiring specific directionality. The wideband AT-90W can be easily distinguished from its predecessor, the AT-90, by its new “W-Shaped” design.

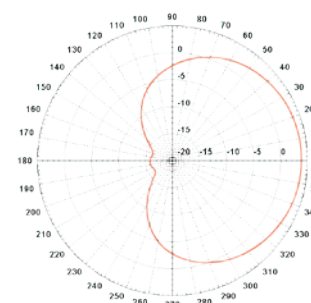
The AT-90W has two input connectors: “TX/RX” connector can be connected to a transmitter or receiver, however, connection to a short coaxial cable is recommended when connected to a receiver. “RX” connector can be connected to a receiver only and has a built-in 0 ~ 12 dB \pm 1 dB gain-adjustable booster, thus providing extended reception range and compensating for the signal loss of coaxial cable to improve reception range and signal quality.

The power of a gain-controllable booster can be provided by a MIPRO AD-708 antenna divider or any MIPRO ACT Series receiver which provides bias by adding an AD-702 auto gain controller on their antenna connectors. It is water resistant and ideal for both outdoor and indoor applications.

Antenna Pattern



Vertical



Horizontal

II . Antenna Systems

AT-100 Wideband Circularly Polarized Antenna



Providing an optimized solution for both transmitting and receiving RF signals throughout the UHF bandwidth, the AT-100 has a distinctive appearance and is patented in multiple countries.

Antenna features affect transmission range, stability and anti-interference performance. Therefore, the antenna is a vital component in any system installation, especially in complicated and demanding RF environments for wireless microphones and wireless monitoring systems. It greatly improves signal stability and reduces interference and signal drop-outs caused by polarization problems.

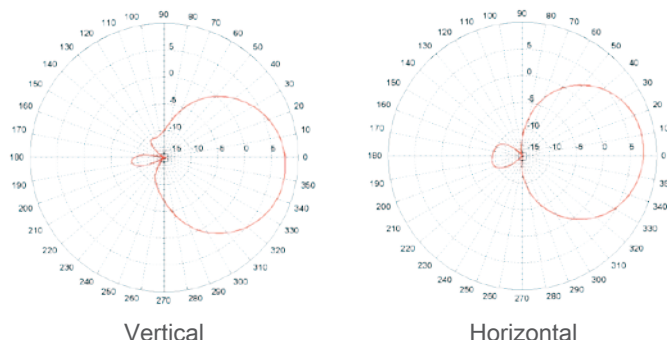
The AT-100 is an ideal antenna system for providing the utmost signal stability. The front area is the main focus of antenna direction for either vertical or horizontal polarization. The AT-100 circularly polarized antenna can effectively reduce the polarization loss of the antenna to improve signal strength. It is the optimal solution for the 470 ~ 1000 MHz bandwidth with a 6 ~ 8 dBi antenna gain and is certified to meet the latest CE/FCC new telecom regulations.

The AT-100 has two built-in signal connectors: The "TX/RX" connector can be connected to a transmitter or receiver, however, connection to a short coaxial cable is recommended when connected to a receiver. The "RX" connector can be connected to a receiver only and has a built-in 0 ~ 12 dB \pm 1 dB gain adjustable booster, thus providing extended reception range and compensating for the signal loss of a coaxial cable to improve reception range and signal quality.

The power of the gain-controllable booster can be provided by a MIPRO AD-708 antenna divider or any MIPRO ACT Series receiver which provides bias by adding an AD-702 auto gain controller on their antenna connectors. Waterproof and weather resistant, the AT-100 is ideal for both outdoor and indoor applications.

Antenna Pattern

Patents:
Taiwan Design D150421
China Design ZL201230113513.5

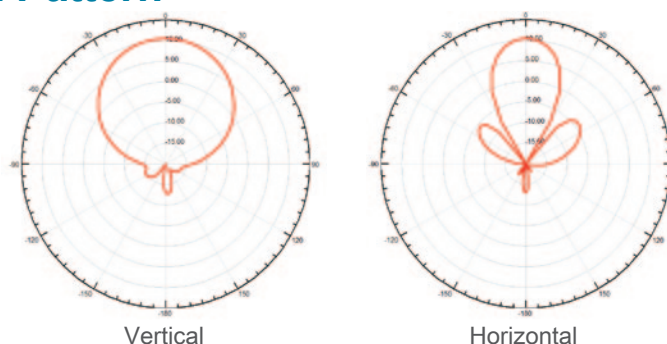


AT-24 2.4 GHz Quasi-Circularly-Polarized Receiving Antenna



The AT-24 quasi-circularly-polarized antenna has a distinctive appearance and is patented in multiple countries, providing an optimized solution for receiving RF signals throughout the 2.4 GHz bandwidth. The front area is the main focus of antenna direction for either vertical or horizontal polarization. The AT-24 can effectively reduce the polarization loss of the antenna to improve signal strength. It has a built-in 12dB booster and thus compensates for the signal loss of a coaxial cable to improve reception range and signal quality. It is waterproof and weather resistant and ideal for both outdoor and indoor applications.

Antenna Pattern



II . Antenna Systems

MS-90 Wall Mount Kit

Wall mount for AT-70W, AT-90W, AT-100, AT-24.



Specifications

Model	AT-10	AT-20	AT-70W	AT-90W	AT-100	AT-24
Name	Whip Antenna	Coaxial Antenna	Wideband Transmitting and Receiving Omni-directional Antenna	Wideband Transmitting and Receiving Log Antenna	Wideband Circularly Polarized Antenna	Quasi-Circularly-Polarized Antenna
Type	Receiver antenna		Additional antenna			
Frequency Range	UHF 620 ~ 960 MHz		UHF 470 ~ 1000 MHz			2.4 GHz - ISM
Antenna Gain	2.15 dBi		2 ~ 4 dBi	4 ~ 6 dBi	6 ~ 8 dBi	10 dBi
Built-in Booster	N/A		Built-in 0 ~ 12 dB gain controllable booster			Built-in 12 dB booster
Impedance	50 Ω					
Connector	TNC male		2 × TNC female			TNC female
Power Supply	N/A		8 ~ 15 V DC bias is required for RX connector			10 ~ 24 V DC
Dimensions (W × H × D)	Refer to actual product		120 × 261 × 32 mm	319 × 270 × 25 mm	350 × 350 × 225 mm	160 × 275 × 85 mm
Weight	Refer to actual product		Approx. 200 g	Approx. 430 g	Approx. 1.5 kg	Approx. 810 g

II . Antenna Systems

2. AD Series Antenna Dividers

A. Profile

An antenna divider allows up to four MIPRO UHF diversity receivers to operate from a single pair of antennas or multiple antennas from a single transmitter, greatly reducing antenna clutter in multi-system installations and maintains clean signals with minimal distortion. The input connector of the AD Series antenna dividers provides bias for the boosters, thus allowing more booster connection to compensate for the signal loss of antenna cables and helping the antennas get ideal input and output gain.

MIPRO's AD-20 & AD-80 dividers were introduced in 1997 & 1998. The AD-707 was introduced in 2002 and the AD-707a in 2011 to accommodate wideband receivers. In 2014, the AD-708 4-channel divider and the AD-702 wideband antenna auto gain controller were introduced.

B. Antenna Dividers

AD-708 Wideband 4-channel Auto Gain-Control Antenna Divider

The AD-708 is designed to work with an MPB-30 gain-controllable antenna booster to detect the signal loss of antenna cables. It controls and compensates for the loss precisely and automatically in order to avoid the intermodulation caused by the higher gain supply from the booster.

The users don't have to worry about the calculations of signal loss of antennas and cables or booster specifications. It has a bright LED indicator to identify antenna cable signal loss as well as the booster compensation status. It is an ideal device for any multi-channel receiver installation in EIA standard cabinets.

The AD-708 shares the same features with the AD-707a wideband antenna divider and is compatible with the MPB-20 to compensate for the signal loss of cables, but cannot change the gain of the boosters themselves.



II . Antenna Systems

AD-702 Antenna Auto Gain Controller

The AD-702 automatically detects the signal loss between the built-in booster of the antenna and the AD-702 itself. It can control and compensate for the signal loss of antenna cables precisely and automatically in order to avoid the intermodulation caused by the higher gain supply from the booster. The aluminum casing provides superb heat dissipation characteristics and a bright LED indicator helps identify antenna cable signal loss as well as the booster compensation status. It makes it fast and easy to install antenna systems without worrying about the calculations of the signal loss of antennas and cables or booster specifications.



Specifications

Model	AD-708	AD-702
Name	Wideband 4-channel Auto Gain-Control Antenna Divider	Antenna Auto Gain Controller
Frequency Range	UHF 470 ~ 850 MHz	
Input / Output Gain	1 dB \pm 1 dB	-1 dB \pm 0.5 dB
Input / Output Connector	2 sets of 1-to-4 active divider outputs; 2 sets of 1-to-1 active outputs. TNC female. 50 Ω Impedance.	1-to-1 input/output TNC female. 50 Ω Impedance.
Antenna Input Power Supply	Antenna A/B input port supplies bias 8.3 V DC, 230 mA max. to booster	Bias of the power supply (8 ~ 15 V DC)
Signal Loss Detection	Detects the signal loss of the cables automatically.	
Power Supply	12 ~ 15 V DC	8 ~ 15 V DC
Dimensions	420 \times 44 \times 180 mm (W \times H \times D)	114 \times 24 \times 41 mm (W \times H \times D)
Net Weight	Approx. 1.5 kg	Approx. 226 g
Note	Refer to actual product in the event of product description discrepancy.	

II . Antenna Systems

3. MPB Series Antenna Boosters

A. Profile

MIPRO antenna boosters amplify the antenna signals for increasing the RF signal strength. It increases transmission distance and maintains signal stability. The antenna booster can be powered by the bias from the antenna connector of the receiver or powered by external power. This allows complicated external antenna dividing systems to work efficiently and independently so that longer antenna cables can be connected with more boosters.

The AB-20 VHF booster & the AB-80 UHF boosters were introduced in 1997 and have 13 dB gain. The AD-80B UHF booster was introduced in 1999 and the AD-707B in 2002. The AT-70B wideband booster was introduced in 2005.

Introduced in 2012, the MPB-20 booster had a built-in power supply. Then the MPB-30 gain-controllable booster was introduced in 2014. In 2016, the industry's first MPB-24 2.4 GHz booster was introduced.

B. Antenna Boosters

MPB-30 UHF Gain-Controllable Antenna Booster

Introduced in 2014, the industry's first MPB-30 UHF antenna booster is optimized in the 470 ~ 960 MHz frequency range to amplify the antenna signals. It works with the AD-708 antenna divider to detect and automatically compensate for the signal loss of cables by controlling the built-in variable 0 ~ 14 dB \pm 1 dB gain to avoid the intermodulation caused by the higher gain and achieve optimal signal output. With an aluminum casing, it features superb heat dissipation characteristics and constant stability.



MPB-24 2.4 GHz Antenna Booster

Introduced in 2016, the industry's first MPB-24 2.4 GHz antenna booster is optimized in the 2.4 GHz frequency range to amplify the antenna signals, offering 20 dB gain to compensate for signal loss due to long antenna cables to enhance the reception range and signal stability. With an aluminum casing, it features superb heat dissipation characteristics and constant stability.



Specifications

Model	MPB-30	MPB-24
Name	UHF Gain-Controllable Antenna Booster	2.4 GHz Antenna Booster
Frequency Range	UHF 470 ~ 960 MHz	2.4 GHz
Gain	Variable 0 ~ 14 dB \pm 1 dB	Fixed 20 dB \pm 1 dB
Input / Output Connector	1-to-1 TNC. 50 Ω Impedance	
Input Power	12 ~ 24 V DC / 350 mA	10 ~ 24 V DC
Regulated Power Output	8 V DC / 250 mA	Equals to the bias
Dimensions	90 \times 25 \times 55 mm (W \times H \times D)	114 \times 24 \times 41 mm (W \times H \times D)
Net Weight	Approx. 100 g	Approx. 226 g
Note	Refer to actual product in the event of product description discrepancy.	

II . Antenna Systems

4. AD Series Antenna Combiners

AD-808 UHF 4-channel Active Antenna Combiner

Features

Introduced in 2005, the AD-808 UHF 4-channel active antenna combiner, optimized in the 470 ~ 960 MHz frequency range, is designed for combining the signals of 4 MIPRO MI-909T transmitters into 1 signal, and then transmits that signal from one antenna, reducing stage clutter and improving intermodulation distortion performance. The maximum RF input power is +20 dBm (100 mW) with an input signal indicator (threshold above +6 dBm) for monitoring. Its ideal intermodulation characteristics (3rd order IM < -57 dBc under full band performance +15 dBm two-tone test) help to make it ideal for professional stages.



AD-12 Passive Antenna Divider / Combiner

Features

The AD-12 was introduced in 2005 and can either divide a RF signal into 2 signal outputs or combine 2 signals into 1 signal output. Simultaneously, it transmits bias voltage to external boosters. It is a required device for antenna system installation. The AD-12 adapts an isolated grounding design to avoid power noise from multi-receiver operation.



Specifications

Model	AD-808	AD-12
Name	UHF 4-channel Active Antenna Combiner	Passive Antenna Divider / Combiner
Features	The AD-808 combines up to 4 signal outputs into one signal output via a pair of antennas and greatly eliminates the mutual modulation of the signals.	The AD-12 can either divide a RF signal into 2 signal outputs or combine 2 signals into 1 signal output. Simultaneously, it transmits bias voltage to the afterward boosters.
Frequency Range	UHF 470 ~ 960 MHz	UHF 470 ~ 1000 MHz
Gain	0 dB \pm 2 dB	Attenuation 3.5 dB (typ.)
Max. RF Input Power	20 dBm (100 mW)	30 dBm (1 W)
Inter-modulation Distortion	< -57 dBc	N/A
Input Connector	TNC female \times 4	TNC female \times 1
Output Connector	TNC female \times 1	TNC female \times 2
System Impedance	50 Ω	
Dimensions	210 \times 44 \times 206 mm (W \times H \times D)	90.3 \times 25 \times 55.4 mm (W \times H \times D)
Net Weight	Approx. 1.1 kg	Approx. 105 g
Note	Refer to actual product in the event of product description discrepancy.	

II . Antenna Systems

5. Wideband Power Splitter

AD-90S Wideband Power Splitter



Features

Introduced in 2006, the AD-90S is a UHF 4-channel power antenna splitter with a maximum output level of +26 dBm (0.4 W), allowing one transmitter to connect to 4 transmitting antennas.

The AD-90S primarily operates with 1 MI-909T in-ear monitoring transmitter or 1 MT-92A wireless interlinking transmitter to send signals through 4 channels with reliable signal transmission and larger signal coverage in multiple directions.

Specifications

Frequency Range	UHF 470 ~ 960 MHz
System Gain	0 ~ 2 dB
Connector	TNC female (1 input, 4 output)
Max. RF Output Power	26 dBm
Power Supply	12 ~ 15 V DC
Transmitter	MI-909T IEM stereo transmitters, MT-92A interlinking transmitter, MTS-100
Dimensions	210 × 44 × 206 mm (W × H × D)
Net Weight	Approx. 1.1 kg
Note	Refer to actual product in the event of product description discrepancy.

II . Antenna Systems

6. Wideband High Power Amplifier

AD-90A Wideband High Power Amplifier



Features

Introduced in 2006, the AD-90A is a UHF 470 ~ 960 MHz wideband amplifier designed to boost signal strength for MI-909T, MT-92A transmitters and the AD-90S splitter with a maximum output power of +30 dBm (1 W). Its output can be directly connected to AT-70W, AT-90W and AT-100 external antennas, providing longer signal transmission distance and optimal, reliable RF reception quality. It is ideally suited for complicated RF environments, buildings and large outdoor installation sites requiring wireless transmission to remote powered active speakers.

Specifications

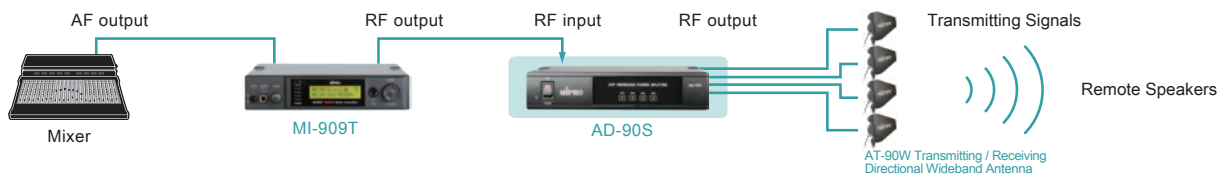
Frequency Range	UHF 470 ~ 960 MHz
System Gain	8 ± 1 dB
Connector	TNC female (1 input, 1 output)
Max. RF Output Power	1 W
Power Supply	12 ~ 15 V DC
Transmitter	MI-909T IEM stereo transmitters, AD-90S wideband power splitter, MT-92A interlinking transmitter, MTS-100
Dimensions	210 × 44 × 206 mm (W × H × D)
Net Weight	Approx. 1.1 kg
Note	Refer to actual product in the event of product description discrepancy.

II . Antenna Systems

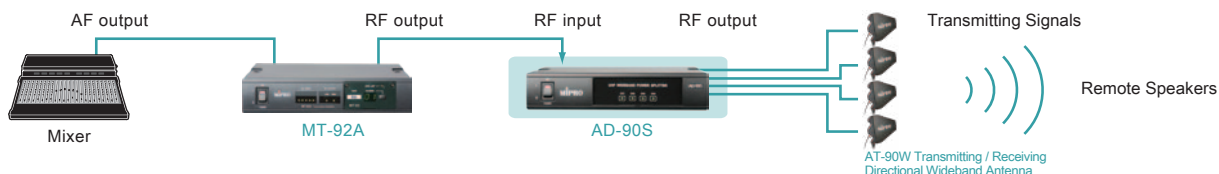
7. Applications

AD-90S Application

Application of AD-90S with MI-909T Stereo Transmitter & AT-90W Passive Directional Antenna

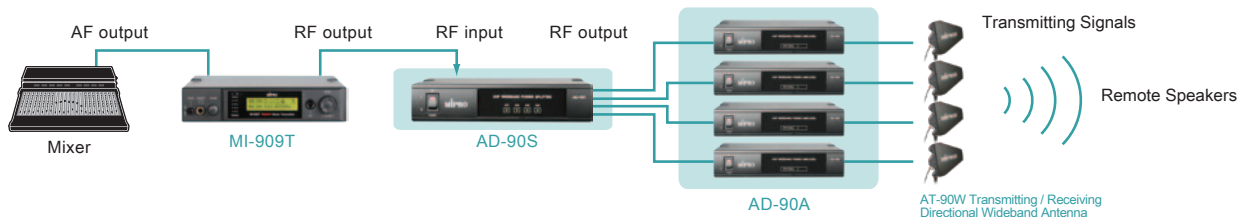


Application of AD-90S with MT-92A Wireless Interlinking Transmitter & AT-90W Passive Directional Antenna

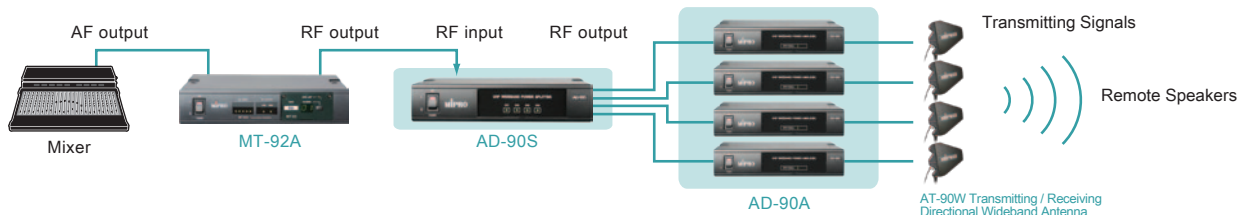


Transmission Enhancement Application

Application of AD-90S with MI-909T Stereo Transmitter & AD-90A Wideband High Power Amplifier

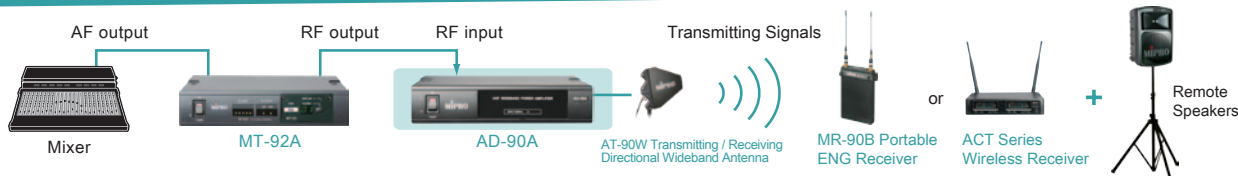


Application of AD-90S with MT-92A Wireless Interlinking Transmitter & AD-90A Wideband High Power Amplifier

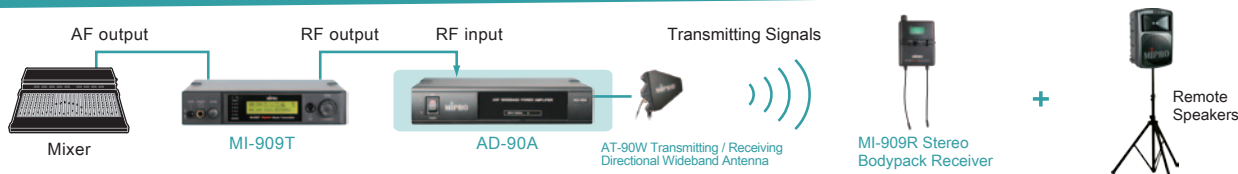


AD-90A Application

Application of AD-90A with MT-92A Wireless Interlinking Transmitter & AT-90W Transmitting / Receiving Directional Wideband Antenna



Application of AD-90S with MI-909T Stereo Transmitter & AT-90W Transmitting / Receiving Directional Wideband Antenna



III . Wired Microphones

- | | |
|-----------------------------------|----|
| 1. Condenser Microphones | 61 |
| 2. Dynamic Microphones | 63 |
| 3. Condenser / Dynamic Microphone | 65 |



III . Wired Microphones

1. Condenser Microphones

A. Profile

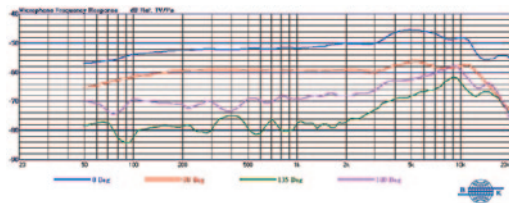
The MM Series condenser microphones feature excellent sound quality as they have wide dynamic range, rich, bright and detailed sound quality, rapid transient response and are close to natural sound without a “box tone” effect. They are ideal for capturing the sound of percussion instruments or higher frequency string/wind instruments, as well as in concert halls, theaters, studios with low background noise and other similar sites requiring optimal sound quality. The condenser mic capsule modules are interchangeable for each condenser microphone. 12 ~ 48 V phantom power is required in use.

B. Condenser Microphones

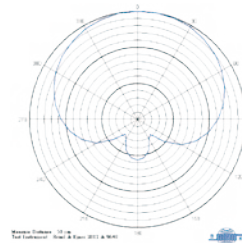
MM-90 Supercardioid Vocal Microphone

The MM-90 is fitted with a MU-90 premium interchangeable supercardioid condenser capsule module. Ideal for large stages and those sites requiring optimal sound quality.

Frequency Response



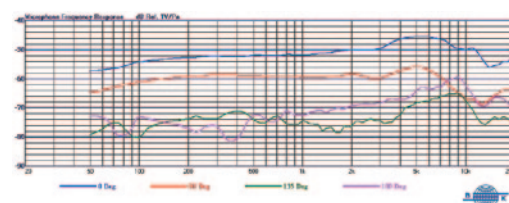
Polar Pattern



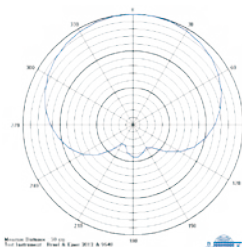
MM-80 Supercardioid Vocal Microphone

The MM-80 is fitted with a MU-80 premium interchangeable supercardioid condenser capsule module. Ideal for the stages or KTV.

Frequency Response



Polar Pattern

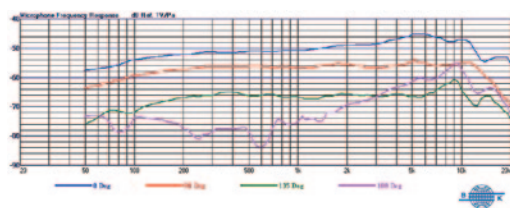


III . Wired Microphones

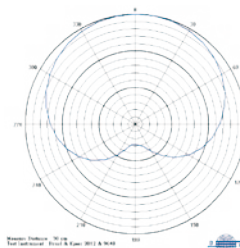
MM-70 Cardioid Vocal Microphone

The MM-70 is fitted with a MU-70 premium interchangeable cardioid condenser capsule module. Ideal for singing and public addressing.

Frequency Response



Polar Pattern



Specifications

Model	MM-90	MM-80	MM-70
Capsule	MU-90	MU-80	MU-70
Polar Pattern	Supercardioid		Cardioid
Key Features	Superb directionality and feedback suppression. Sustains high SPL without distortion. The rugged grille protects the capsule against impact. Ultra-low handling and impact noise.		Wider angle and feedback suppression. Sustains high SPL without distortion. The rugged grille protects the capsule against impact. Ultra-low handling and impact noise.
Capsule Installation	Interchangeable		
Housing	Die-cast zinc alloy		
Sensitivity	-46 dBV \pm 1 dB V / Pa (0 dB=1 V Open-circuit voltage), switchable gain setting of -6 dB on the capsule.		
Frequency Response	50 Hz ~ 20 kHz (94 dB SPL)		
Self-Noise	< 17 dB SPL (A-weighted)		
S/N Ratio	> 78 dB @ 94 dB SPL (1Pa)		
Max. Input SPL	149 dB (Typical)		
Dynamic Range	132 dB		
Power Supply	External phantom power 12 ~ 52 V DC		
Current Consumption	2.0 mA		
Output Impedance	200 Ω		
Dimensions	51 \times 200 mm ($\varnothing \times L$)		
Weight	Approx. 233 g	Approx. 228 g	Approx. 225 g
Note	Refer to actual product in the event of product description discrepancy.		

III . Wired Microphones

2. Dynamic Microphones

A. Profile

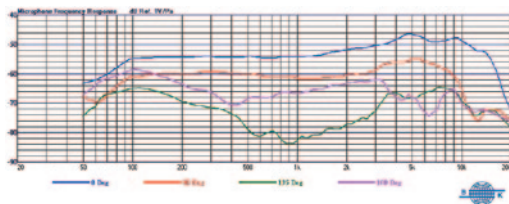
The MM Series dynamic microphones have distinctive molding and multi-layer anti-pop metal grilles. Features rich high and low frequency, high directionality and low feedback. There are three models:

B. Dynamic Microphones

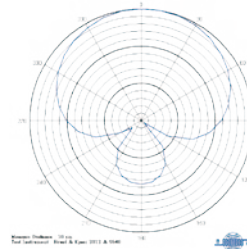
MM-59 Supercardioid Vocal Microphone

The MM-59 is fitted with a MU-59 premium interchangeable supercardioid dynamic capsule module. Featuring high dynamic range and sustaining high SPL without distortion, the MM-59 delivers a soft and mellow sound quality and has ultra-low handling noise. Ideal for singers to use in all indoor/outdoor stage venues.

Frequency Response



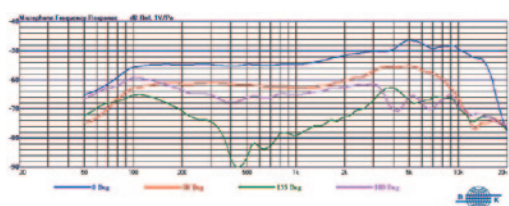
Polar Pattern



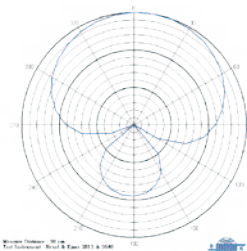
MM-39 Supercardioid Vocal Microphone

The MM-39 is fitted with a MU-39 interchangeable supercardioid dynamic capsule module. Featuring high dynamic range and sustaining high SPL without distortion, its soft and mellow sound quality and low handling noise make it ideal for everyone to use on the stage or KTV.

Frequency Response



Polar Pattern

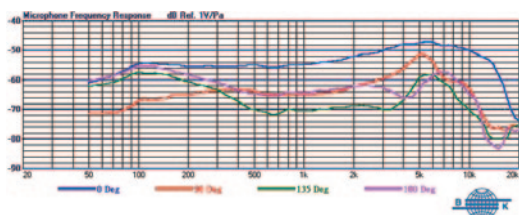


III . Wired Microphones

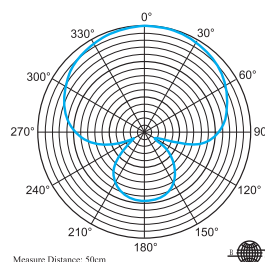
MM-107 Supercardioid Vocal Microphone

The MM-107 is fitted with a MU-37 fixed supercardioid dynamic capsule module. Featuring smooth sound quality, wide frequency response and low feedback, it sustains high SPL without distortion and has a high Capability/Price ratio. Ideal for singing and public addressing.

Frequency Response



Polar Pattern



Specifications

Model	MM-59	MM-39	MM-107
Capsule	MU-59	MU-39	MU-37
Capsule Installation	Interchangeable		Fixed
Key Features	The air chamber is integrated with the shock absorber for ultra-low handling or touch noise.	Unique shock absorber design for low handling or touch noise.	The grille and the capsule are fixed on the housing. High Capability/Price ratio.
Housing	Die-cast zinc alloy, with an output switch		Black zinc alloy, with an output switch
Polar Pattern	Supercardioid		
Sensitivity	-54 dBV / Pa (0 dB=1 V Open-circuit voltage)		
Frequency Response	50 Hz ~ 18 kHz		
Output Impedance	400 Ω \pm 30%		
Dimensions (\varnothing × L)	51 × 204 mm	51 × 204 mm	51 × 178 mm
Weight	Approx. 379 g	Approx. 363 g	Approx. 235 g
Note	Refer to actual product in the event of product description discrepancy.		



MM-59 was used at the press conference of 2016 Asia Beatbox Championship

III . Wired Microphones

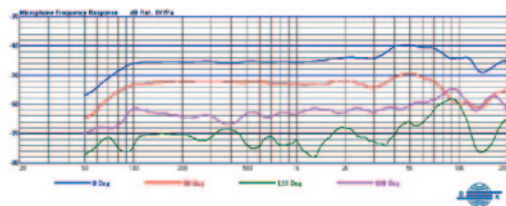
3. Condenser / Dynamic Microphone

A. MM-590 Condenser / Dynamic Microphone

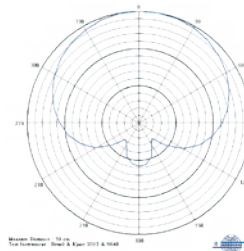
The MM-590 is a patented one-of-a-kind condenser / dynamic microphone. Users can select from MIPRO's MU-90, MU-80 condenser or MU-59 dynamic microphone capsule modules to suit their personal preference and these can be directly mounted on the housing as desired.

When switching the power switch to the first stage, a built-in AA battery will supply 48 V phantom power for condenser mic capsules, and the MM-590 will exhibit exactly the same features as the most professional condenser microphone.

Frequency Response



Polar Pattern



Patents:
Taiwan Utility M547222
China Utility 201720315776.1

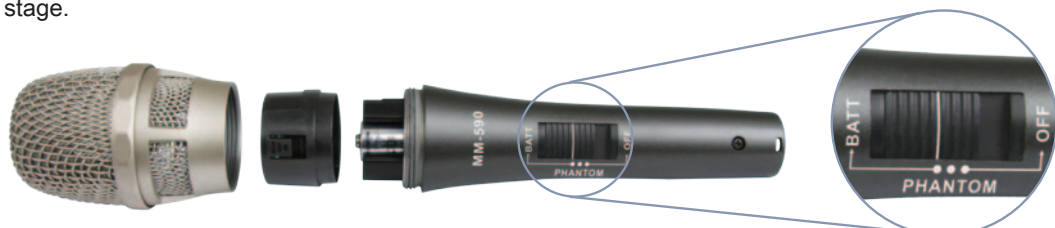


B. MM-590 Condenser / Dynamic Microphone Setup

1. MM-590 accepts both condenser and dynamic microphone capsule modules.
2. When it is fitted with the MU-90 / MU-80 condenser mic capsule modules and connected to the microphone input of the mixer: set the mixer phantom voltage at "ON", and switch the power switch of the MM-590 to the first stage.



3. When it is fitted with the MU-90 / MU-80 condenser mic capsule modules and the microphone is connected to the input without phantom power: insert a single AA battery into the MM-590 and switch the power switch to the second stage.



4. When it is fitted with the MU-59 dynamic mic capsule module and connected to the microphone input of the mixer: no matter whether the mixer supplies phantom voltage or not, switch the power switch of the MM-590 to the first stage. Notice: it is still working when the power switch is switched to the second stage, but it consumes the battery.

IV. Musical Instrument Microphones

1. MT-24 Digital Instrument Transmitter	67
2. MR-24 Digital Wireless Pedal Receiver	68
3. VM Series String Instrument Microphone Sets	70
4. VT Series String Instrument Transmitters	72
5. SM Series Saxophone Microphone Sets	74
6. ST Series Saxophone Transmitters	76
7. GM-100 Guitar Microphone	77
8. ET Series Erhu Transmitters	78
9. DM-100 Digital Wireless Cajon Set	80
10. Instrument Microphone Capsule Modules	81



IV . Musical Instrument Microphones

1. MT-24 Digital Instrument Transmitter



Features

The MT-24 is a digital transmitter with Ø 6.3 mm phone jack. The plug can be rotated 0 ~ 90° and plugged into an electric/ acoustic guitar, bass, keyboard, MIDI, keytar, accordion with pick-up, PC or projector with phone jack. It can be paired with an ACT-2400 Series receiver or a MR-24 digital pedal receiver to get rid of the problem of tangled cables for carefree performance with truly wireless transmission.



Specifications

Transmitter	MT-24 Digital Transmitter
Frequency Band	2.4 GHz - ISM
RF Output Power	2 mW / 10 mW switchable (country dependent)
Max. Audio Input	6.5 dBV
Battery Meter	4-level green/red LED display
Impedance	1.0 M Ω
Installation	Directly plug the MT-24 into the output of an instrument or use MJ-24E cable to connect with the output of an instrument.
Receiver	MR-24 digital wireless pedal receiver, ACT-2400 Series receivers
Dimensions	84 × 35 × 29 mm (W × H × D)
Weight	Approx. 61 g, excluding battery
Battery	ICR 18500 lithium battery
Charger	MP-24 / Optional MP-80 (with an adaptor plug MPA-24)
Note	Refer to actual product in the event of product discrepancy.

IV. Musical Instrument Microphones

2. MR-24 Digital Wireless Pedal Receiver

A. Introduction

1. Generally, musical instrument players use multiple cables to connect to their effects and instruments. A switch selector is used to select the output signal from the effects to the separate amplifiers. A traditional wireless system, owing to its complex operating procedures, cannot completely replace a wired system in this case, which causes a performance to not go smoothly.
2. In order to solve the problem of musicians using a traditional wireless system, MIPRO has developed the MR-24 digital wireless pedal receiver taking into consideration players' habits and need for control flexibility. The MR-24 provides many practical functions to give performers more freedom as well as convenience in playing and adjusting their sound effects. Compared with cabled systems, the MR-24 is a great improvement for most instrument playing applications.
3. When using the MR-24 wireless system, the performer only needs to plug the MT-24 digital transmitter to the output jack of the instrument to replace the cable. By using the MT-24, the performer can get rid of the problem of tangled cables and completely avoid the issues of inferior sound quality and induced noise caused by cables, thus allowing the natural sound of their instrument to be reproduced.



Patents:
China Design ZL201730528823.6

B. Innovative Design (Patent Pending)

1. The MR-24 is a 2.4 GHz wireless pedal receiver designed for musical instruments. The panel is equipped with a graphic LCD screen displaying various parameters. Paired with MIPRO's 2.4 GHz transmitters, the MR-24 receives the audio signal picked up from the instrument microphones on any acoustic or electric instrument or directly from an instrument's pickup which is transmitted through the transmitter, and modifies the tone effects with various preset functions to satisfy the players' preference. By stepping on the footswitch, the signal can be transmitted to one or more amplifiers.
2. The MR-24 integrates digital wireless transmission technology with the musicians' requirements. With its rugged metal case, built-in antenna and ergonomic footswitch for easy and quick set-up by the musicians, it's ideal for personal studio and live stage applications.
3. The MR-24 has 32 user-programmable parameters for setting up Channel and ID, Cable Tone, Acoustic Response, Anti-Feedback, Gain, Output, Phase and Color. Each setting can be switched by stepping on the footswitch.
4. The MR-24 has dynamic range > 118 dB, T.H.D. < 0.1%, wide frequency response 20 Hz ~ 20 kHz and ultra-low noise floor. It applies advanced DSP and an exclusive algorithm for digital processing for natural sound reproduction.
5. Two Ø 6.3 mm Phone Jacks and one output XLR connector can be connected to multiple effects. Each output can be switched to muting or output. One Tuner-Out can be connected to the tuner for pitch adjustment.

C. Features

1. Worldwide operation in license-free 2.4 GHz ISM band avoids the interference and telecom regulations in the UHF band.
2. Proprietary 3D diversity technology and 64 ID setting effectively avoid interference from Wi-Fi and 2.4 GHz communication products which rivals the similar products of other brands.
3. True digital wireless system prevents distortion caused by an analog system, providing an accurate reproduction of a musical instrument's sound.
4. Sturdy metal construction, large graphic LCD screen and easy to use footswitch.
5. High-sensitivity built-in antenna with specific structure designed to prevent accidental breakage.
6. Uses 9~12V DC power supply with input auto tip + or -, convenient to string with other effects.
7. Balanced output jack with ground lift switch for PA system connection eliminates electrical noise.
8. Micro SD Card Slot for user programming and firmware updates.
9. The circuit design and features are compatible with the MIPRO ACT-2400 Series.

IV. Musical Instrument Microphones

D. Most Advanced Built-in Digital Control Interface

User-friendly Digital Control Interface

1. 32 user programs: (1) Anti-Feedback. (2) Acoustic Response. (3) Cable Tone. (4) Gain. (5) Phase. (6) Channel and ID. (7) Output. (8) Color. (9) Rename.
2. One switch conversion between electric and traditional instrument.
3. Two unbalanced Ø 6.3 mm outputs, one balanced XLR output and one Tuner output.
4. Programmable presets ensure easy and quick selection among multi-effects and different amplifiers.
5. MIPRO's DSP adaptive tracking algorithm for optimal reception, enhanced receiving range and signal stability. Auto-Scan function helps avoid interference from Wi-Fi and 2.4 GHz communication products and overcomes the defects of other 2.4 GHz products.

Electric Instrument Digital Control Interface

1. 0 ~ 30 meters Cable Tone adjustment ensures superior tonal quality.
2. 20 Hz ~ 20 kHz wide frequency response. Eliminates the defects of analog system or cable.
3. Programmable gain setting ensures the same volume output between multiple electric instruments.

Acoustic Instrument Digital Control Interface (Patent Pending)

1. Proprietary Anti-Feedback and Acoustic Response characteristics modify the signal to ensure a premium sound.
2. Anti-Feedback and Acoustic Response presets allow easy selection of multiple instruments.
3. Programmable presets solve the complex operations caused by different resonance, loops and volume conditions.
4. Compatible with MIPRO's guitar, saxophone, wind instruments, violin, viola and cello microphones for quick and easy change of multiple instruments when playing on stage.

E. Compatible MIPRO Transmitters F. Specifications

1. MT-24 Guitar Transmitter
2. ACT-24TC Bodypack Transmitter can be combined with VM-22 and other instrument microphone sets.
3. ST-24 Wireless Saxophone Set
4. VT-24 Wireless Cello Set
5. ET-24 Wireless Erhu Set
6. GM-100 Acoustic Guitar Microphone
7. UM-100 Ukulele Microphone
8. DM-100 Wireless Cajon Set

Frequency Band	2.4 GHz - ISM
Channel Set-up	ACT sync
Audio Sampling	24-bit / 44.1 kHz Rate
Frequency Response	20 Hz ~ 20 kHz
Modulation	GFSK
Latency	< 3.9 ms
S/N Ratio	> 118 dB (A)
T.H.D	0.1 % @ 1 kHz
Sensitivity	-95 dBm
Receiving Mode	True Diversity Receiving
Display	32 × 55 mm (VA) Graphic LCD, Color LED Lamp × 2
Audio Outputs	Ø 6.3 mm Phone Jack × 3, XLR Connector × 1
Switches	Footswitch × 1, Ground Lift Switch × 1 Edit/Home Switch × 1, ACT Sync Switch × 1 Rotate Switch × 1, DC Power Switch × 1
Interface	Micro SD Card Slot × 1
Power Supply	DC 9 ~ 12V / 0.3A
Dimensions	110 × 50 × 130 mm (W × H × D)
Net Weight	850 g
Environmental Temperature	-10~ +60 °C

IV. Musical Instrument Microphones

3. VM Series String Instrument Microphone Sets

VM Series

VM-24 Cello Microphone Set



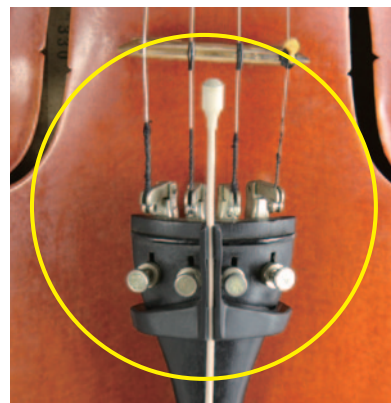
for connecting to MT-24



Installation on Cello

VM-22 Viola / Violin Microphone Set

Patents:
Taiwan Utility M431407
China Utility ZL201220047110.X



Installation on Violin

VC-22 Viola / Violin Microphone Cable



IV. Musical Instrument Microphones

Transmission Methods

1. Wireless: Connect the VM-22 microphone with the VC-22 cable to an ACT Series bodypack transmitter for wireless transmission.



2. Wired: Connect the VM-22 microphone with the VC-22 cable to a MJ-53 and plug into a PA system.



Features

1. The MIPRO proprietary VM-22 viola / violin microphone set and VM-24 cello microphone set have been designed after years of collaborating with professional musicians. Each one consists of a miniature condenser microphone with wide frequency response and a proprietary holder. It fits snugly, is easy to install and remove and protects these expensive instruments from surface scratches. It can be strategically placed in positions that pick up the accurate sound of the instrument while minimizing handling noise during performance.
2. For audio output, connect the VM-22 microphone with a VC-22 cable. There are two connecting methods:
 - A. Wired: Connect the VM-22 with a VC-22 cable to a MJ-53 condenser microphone adaptor and plug into a PA system.
 - B. Wireless: Connect the VM-22 with a VC-22 cable to any MIPRO ACT-Series bodypack transmitter for wireless transmission to a compatible receiver.

Specifications

Model	VM-24	VM-22	VC-22	MJ-53
Name	Cello Microphone Set	Viola/Violin Microphone Set	Viola/Violin Microphone Cable	Condenser Microphone Adaptor
Installation	Use a proprietary holder to place microphone in a position that picks up the accurate sound of the instrument.		Connect VM-22 to MJ-53 or bodypack transmitter	VC-22 to MJ-53 to a PA system
Capsule	MU-55 condenser capsule			
Transmission Method	1. Connect the VM-22 with VC-22 to a MJ-53 and plug into a PA system. 2. Connect the VM-22 with VC-22 to ACT-series bodypack transmitter for wireless transmission.			
Note	Refer to actual product in the event of product discrepancy.			

IV. Musical Instrument Microphones

4. VT Series String Instrument Transmitters

VT Series

VT-22 Wireless Viola / Violin Transmitter Set

Patents:

Taiwan Utility M431407

China Utility ZL201220047110.X

Compatible



Installation on Violin



ACT Series receivers



VC-22



VM-22



Receiver

or



PA System

VT-24 Digital Wireless Cello Transmitter Set



Installation on Cello

Compatible



ACT-2400 Series receivers

IV . Musical Instrument Microphones

Features

1. The VT-22 wireless viola/violin set is designed for a cable-free, truly wireless violin audio performance. Simply integrate the miniature, lightweight VT-22 transmitter to its proprietary violin mount and connect to the VM-22. This attaches snugly to violins and is easy to install and remove while protecting these expensive instruments from surface scratches. Strategically placed in flexible positions, it will not interfere during performances.
2. The VT-24 digital wireless saxophone transmitter is a VM-24 integrated with a MT-24 digital transmitter for wireless transmission to the ACT-2400 Series receivers or a MRM-24 receiver module in a portable PA.

Specifications

Model	VT-22	VT-24
Name	Wireless Viola/Violin Transmitter	Digital Wireless Cello Transmitter
Wireless Transmission Type	UHF analog modulation	2.4 GHz digital modulation
Frequency Range	UHF 480 ~ 934 MHz	2.4 GHz - ISM
Capsule Module	VM-22	VM-24
Transmitter	Rechargeable analog transmitter	MT-24 digital transmitter
Receiver	ACT Series	ACT-2400 Series
Installation	Mount the VT-22 with its proprietary holder in a position that picks up the accurate sound of the viola or violin.	Mount the VT-24 with its proprietary holder in a position that picks up the accurate sound of the cello.
Channel Set-up	ACT Sync	
RF Output Power	10 ~ 30 mW switchable (country dependent)	2 mW / 10 mW switchable (country dependent)
Dimensions (W × H × D)	57 × 84 × 47 mm	86 × 359 × 29 mm
Weight	Approx. 55 g, battery included	Approx. 98 g, excluding battery
Battery	Rechargeable lithium battery	ICR 18500 lithium battery
Operating Time	Min 4 hours. A 10-minute quick charge provides up to 40 minutes operation.	A 25-minute fast charge provides up to 1 hour operation. Minimum 10 hours of operation per 4-hour full charge (depending on the battery quality).
Charger	An adaptor (2DB005)	MP-24 / Optional MP-80 (with an adaptor plug MPA-24)
Note	Refer to actual product in the event of product discrepancy.	

IV. Musical Instrument Microphones

5. SM Series Saxophone Microphone Sets

SM Series

SM-24 Saxophone Microphone Set

SM-32 Wind Instrument Microphone Set



for connecting to MT-24

SM-24



SM-32

SC-32

SM-32 Cable



SH-32

Saxophone Microphone Clip



IV. Musical Instrument Microphones

Transmission Methods

1. Wireless: Connect the SM-32 with a SC-32 cable to an ACT Series bodypack transmitter for wireless transmission.



2. Wired: Connect the SM-32 with a SC-32 to a MJ-53 and plug into a PA system.



Features

1. The MIPRO SM-32 / SM-24 saxophone microphone sets have been designed after years of collaborating with professional musicians. Three detachable wide dynamic range condenser microphone capsules, MU-10, MU-16 and MU-20, together with a gooseneck clip, offer optimal flexibility for performers and instruments. A shock-proof microphone module is connected to a gooseneck for minimizing handling and hitting noises. Simply integrate the SM-32 to the SH-32 and strategically place it in a position that picks up the accurate sound of the instrument. The SM-32 / SM-24 are easy to use, install or remove, protecting the instruments from surface scratches.
2. For audio output, connect the SM-32 with a SC-32 cable. Two connecting methods:
 - A. Wired: Mount the SM-32 with SH-32 clip to the instrument and connect with a SC-32 cable to a MJ-53 condenser microphone adaptor and plug into a PA system.
 - B. Wireless: Mount the SM-32 with SH-32 clip to the instrument and connect with a SC-32 cable to any MIPRO ACT-Series bodypack transmitter for wireless transmission to a compatible receiver.
 - C. SM-32 / SM-24 can fit other wind instruments as well.

Specifications

Model	SM-24	SM-32	SC-32	SH-32	MJ-53
Name	Saxophone Microphone	Wind Instrument Microphone	Cable for SM-32	Saxophone Microphone Clip	Condenser Microphone Adaptor
Output Jack	Phone Jack female	Mini XLR male	Mini XLR female	N/A	Mini XLR (input) XLR (output)
Capsule Module	MU-10 / MU-16 / MU-20 interchangeable condenser microphone capsule modules				N/A
Installation	Use SH-32 to place the microphone in a position that picks up the accurate sound of the saxophone.		Connect SM-32 to MJ-53 / bodypack transmitter	Integrate SM-24 / SM-32 with SH-32 and mount on the instrument	SC-32 to MJ-53 to a PA system
Transmission Method	1. Connect SM-32 to MJ-53 for wired transmission. 2. Connect SM-32 to a bodypack transmitter for wireless transmission.				
Note	Refer to actual product in the event of product discrepancy.				

IV. Musical Instrument Microphones

6. ST Series Saxophone Transmitters

ST Series

ST-32 Wireless Saxophone Set



ST-24 Digital Wireless Saxophone Set



Patents:
Taiwan Utility M430691
Utility M465648
Utility M470359
China Utility ZL201220047175.4
Utility ZL201320480325.5
Utility ZL201320480698.2



reddot design award
winner 2017



Installation on Saxophone

Features

1. The ST-32 wireless saxophone transmitter is a SM-32 integrated with a transmitter for wireless transmission to the ACT-Series receivers or MA-Series wireless PA system.
2. The ST-24 digital wireless saxophone transmitter is a SM-24 integrated with a MT-24 digital transmitter for wireless transmission to the ACT-2400 Series receivers or a MRM-24 receiver module in a portable PA.
3. Simply clamp the ST-32 / ST-24 transmitter module snugly with the SH-32 clip to a saxophone or other wind instrument. The compact, lightweight ST-32 / ST-24 are easy to install and remove. Strategically placed in flexible positions, they will not interfere during performances.

Specifications

Model	ST-32	ST-24
Name	Wireless Wind Instrument Transmitter	Digital Wireless Saxophone Transmitter
Wireless Transmission Type	UHF analog modulation	2.4 GHz digital modulation
Frequency Range	UHF 480 ~ 934 MHz	2.4 GHz - ISM
RF Output Power	10 ~ 30 mW switchable (country dependent)	2 mW / 10 mW switchable (country dependent)
Capsule Module	MU-10 / MU-16 / MU-20 interchangeable condenser microphone capsule modules	
Microphone	N/A	SM-24
Transmitter	Rechargeable analog transmitter	MT-24 digital transmitter
Receiver	ACT Series	ACT-2400 Series, MR-24
Installation	Mount the ST-32 / ST-24 with SH-32 clip in a position that picks up the accurate sound of the saxophone.	
Battery	Rechargeable lithium battery	ICR 18500 lithium battery
Charger	An adaptor (2DB005)	MP-24 / Optional MP-80 (with an adaptor plug MPA-24)
Dimensions (W × H × D)	64 × 228 × 44 mm	68 × 287 × 47 mm
Weight	Approx. 81 g, battery included, excluding microphone modules	Approx. 104 g, excluding battery and microphone modules
Note	Refer to actual product in the event of product discrepancy.	

IV . Musical Instrument Microphones

7. GM-100 Guitar Microphone

Features

1. The GM-100 guitar microphone is a unique patented design which has been developed in cooperation with instrument manufacturers and players.
2. It utilizes MIPRO's condenser microphone capsule which is ideal for picking up the natural sound of the guitar, to be installed inside the guitar with the output jack placed at the bottom of the guitar. It can be connected by cable or fitted with a MT-24 digital transmitter module to be used with ACT-2400 wireless systems for wireless transmission to achieve natural sound reproduction.



Patents:
Taiwan Utility M535386
Taiwan Utility M542840
China Utility ZL201621150807.4
China Utility ZL201720303693.0



Installation inside the guitar

IV. Musical Instrument Microphones

8. ET Series Erhu Transmitters

ET Series

ET-32 Wireless Erhu Set

ET-24 Digital Wireless Erhu Set

Patents:
Taiwan Utility M485482
Design D167994
China Utility ZL201420258550.9
Design ZL201430140678.0



ET-32



Installation on Erhu



EH-32 Erhu Microphone Clip



IV . Musical Instrument Microphones

Features

1. The patented ET-32 erhu transmitter has been designed after collaborating with erhu musicians. The detachable wide dynamic range condenser microphone capsules, MU-10, MU-16 and MU-20, offer optimal flexibility for performers. The capsules can be installed on a shock-proof capsule mount which is connected to a gooseneck and integrated with a miniature transmitter. Simply attach the ET-32 to the EH-32 and strategically place it in a position that picks up the accurate sound of the erhu and avoids touching and hitting noises.
2. The ET-32 requires an ACT-Series receiver or MA-Series wireless PA system for wireless transmission. The lightweight ET-32 is easy to install and remove, not obstructive to performers and ideal for erhu performers.
3. The ET-24 digital wireless erhu set is comprised of an EM-24 erhu microphone connecting with a SC-32 cable to an ACT-24TC bodypack transmitter and mounted on an erhu with an EH-32 clip for wireless transmission to a compatible receiver.

Specifications

Model	ET-32	ET-24
Name	Wireless Erhu Transmitter	Digital Wireless Erhu Transmitter
Wireless Transmission Type	UHF analog modulation	2.4 GHz digital modulation
Frequency Range	UHF 480 ~ 934 MHz	2.4 GHz - ISM
RF Output Power	10 ~ 30 mW switchable (country dependent)	2 mW / 10 mW switchable (country dependent)
Capsule Module	MU-10 / MU-16 / MU-20 interchangeable condenser microphone capsule modules	
Transmitter	Rechargeable analog transmitter	ACT-24TC digital transmitter
Receiver	ACT Series	ACT-2400 Series
Installation	Mount the ET-32 / ET-24 with EH-32 in a position that picks up the accurate sound of the Erhu.	
Dimensions (W × H × D)	44 × 228 × 46 mm	63 × 70 × 25 mm (Transmitter only)
Weight	Approx. 82 g, battery included, excluding microphone modules	Approx. 66 g (Transmitter only)
Battery	Rechargeable lithium battery	ICR 18500 lithium battery
Charger	An adaptor (2DB005)	Optional MP-80 (with an adaptor plug MPA-24) / MP-8
Note	Refer to actual product in the event of product discrepancy.	

IV . Musical Instrument Microphones

9. DM-100 Digital Wireless Cajon Set

Features

1. The DM-100 digital wireless cajon set has a unique patented design which was developed in cooperation with instrument manufacturers and players. It utilizes MIPRO's full frequency range condenser microphone capsule which is ideal for picking up the natural sound of the cajon and cleverly installed, positioned with a patented anti-shock clip. This cajon miking system is compatible with any MIPRO ACT-2400 Series receiver or a MRM-24 plug-and-play receiver module installed in a MIPRO wireless portable PA system.
2. Based on a scientific analysis of box structure and wooden box resonance characteristics, the design of the DM-100 does not interfere with the resonance of the box. It picks up all parts of the drum sound from a single-point and features a solid bass and crisp snare drum sound. It has a natural yet vastly different pick-up sound from that of electronic drums.



Patents:
Taiwan Utility M534884
China Utility ZL201621150780.9



IV . Musical Instrument Microphones

10. Instrument Microphone Capsule Modules

MU Series

MU-20 / MU-16 / MU-10 ECM Capsule Modules



MU-20

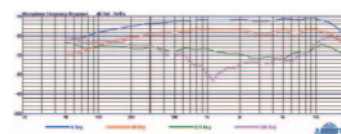
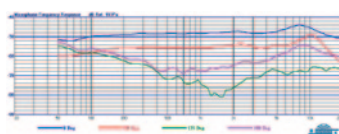
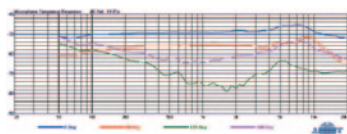


MU-16

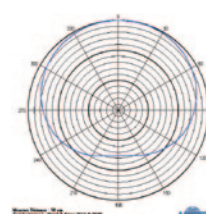
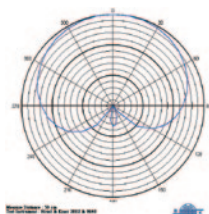
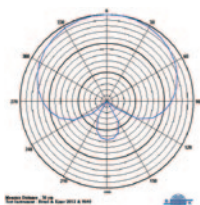


MU-10

Frequency Response



Polar Pattern



Features

The MU-20 / MU-16 / MU-10 condenser capsules modules are three different diameter capsules encapsulated in copper grille housings which all have the same mount for easy assembling on the microphone. They offer optimal flexibility for performers and instruments.

Specifications

Model	MU-20	MU-16	MU-10
Unit	ECM-20	ECM-16	ECM-10
Color	Black		
Capsule	20 mm	16 mm	10 mm
Polar Pattern	Supercardioid	Semi-supercardioid	Cardioid
Frequency Response	50 Hz ~ 20 kHz	55 Hz ~ 20 kHz	65 Hz ~ 20 kHz
Sensitivity	-49 dB		-52 dB
Max. SPL	145 dB SPL	142 dB SPL	
Features	Bright and detailed sound, superb directionality, high fidelity and dynamic range, wide frequency response, rapid transient response, low feedback and low touching noises.		
Note	Refer to actual product in the event of product discrepancy.		

V. Portable Wireless Transmission Systems

- | | |
|---------------------------|----|
| 1. Portable ENG Receivers | 83 |
| 2. Wireless Transmitters | 85 |



V. Portable Wireless Transmission Systems

1. Portable ENG Receivers

A. Profile

1. In 2003, MIPRO introduced the MR-90E analog portable ENG receiver for camcorders. In 2005, a new model MR-90 was developed to work with the MT-90A transmitter amplifier. In 2014, an improved model MR-90B was introduced to work with the MT-92A UHF analog transmitter amplifier for professional camcorder applications or long-distance transmission.
2. In 2015, MIPRO introduced the industry's first digital ENG receivers, the ACT-80 and ACT-80R, to work with ACT-8 Series transmitters and the TA-80 digital plug-on transmitter for the camcorder applications. These receivers eliminate the need for microphone cables during recording, ensuring safe and agile operation of camcorders. They are the ideal portable receivers, convenient for use in any wireless audio transmission system.

B. Portable ENG Receivers

ACT-80 Digital Wireless ENG Receiver

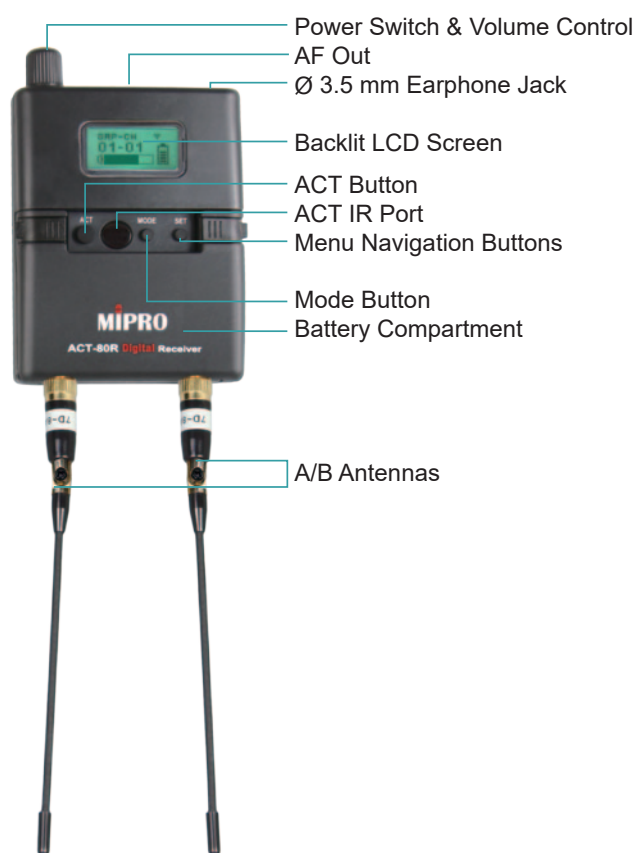


Compatible Transmitters



V. Portable Wireless Transmission Systems

ACT-80R Digital Wireless ENG Receiver



Compatible Transmitters



Features & Specifications

Model	ACT-80	ACT-80R
Name	Digital Wireless ENG Receiver	Miniature Digital Wireless ENG Receiver
Housing	Rugged, waterproof and compact aluminum alloy housing	Compact mixed metal housing
Installation	Directly plug on the camcorder	Install on the camcorder with accessories
Frequency Band & Modulation	UHF. Digital modulation	
Transmitter	ACT-80H / ACT-80HC Handheld ACT-80T / ACT-80TC Bodypack TA-80 Plug-on Transmitter	
Application	Use various interface socket modules to work with different camcorders.	Use specific cables to work with different camcorders.
Key Features	Dual-antenna digital receiving. 256 bits encryption prevents unauthorized listening. Backlit graphic LCD screen. < 3 ms latency, dynamic range of 115 dBA, T.H.D. < 0.03% at 1 kHz.	Dual-antenna digital receiving. 256 bits encryption prevents unauthorized listening. Backlit graphic LCD screen. < 3 ms latency, dynamic range of 108 dBA, T.H.D. < 0.03% at 1 kHz.
Frequency Range	UHF 470 ~ 937 MHz (country dependent)	
Bandwidth	64 MHz	
Preset Frequencies	12 non-interference compatible frequencies in group 1-10. 16 non-interference compatible frequencies in group 11-16. 216 preset frequencies in total.	
Receiving Mode	Digital diversity	
Encryption	256 bits encryption prevents unauthorized listening.	
Dimensions	73.5 × 120 × 28 mm (W × H × D)	63 × 82 × 23 mm (W × H × D)
Weight	Approx. 220 g	Approx. 92 g
Power Supply	Supplied by camcorder or additional batteries	2 × AA alkaline
Accessories	MR-90S Standard Package MR-90S15 / MR-90S25 Exclusive Socket Interface MR-90SB Built-in Battery Pack MR-90SC Mounting Fasteners	Mounting rack and cable
Note	Refer to actual product in the event of product discrepancy.	

V. Portable Wireless Transmission Systems

2. Wireless Transmitters

TA-80 UHF Digital Wireless Plug-on Transmitter Profile

The TA-80 is a digital miniature wireless plug-on transmitter with balanced XLR mic input jack, designed for use with measurement microphones, condenser / dynamic wired microphones, recording microphones and musical instrument microphones, allowing them to become wireless and getting rid of the problems associated with microphone cables. It is compatible with digital portable ENG receivers and ACT-8 Series receivers for premium sound quality.



The TA-80 can be recharged by the MP-80 charger



MPA-80
Charger Adaptor



MP-8T
One-slot Charging Station



Compatible with ACT-8
Series receivers



Shotgun microphone
installed with TA-80

Features

1. The TA-80 has a flat and wide frequency response, ultra-low T.H.D. and noise floor, fast transient response, strong anti-interference and high S/N ratio characteristics. These superior characteristics resolve the problems of tangling microphone cables and the deterioration of analog transmission characteristics, making the TA-80 the best system to reproduce the natural sound of any premium wired microphone.
2. With the balanced XLR mic input jack for installing on any condenser microphone, the TA-80 also provides 8 gain levels and a built-in switchable 12 / 48V, up to 10 mA current load phantom power for condenser microphones. The phantom power can be switched off for use with dynamic microphones.
3. A built-in high-capacity lithium battery enables a continuous 5 to 8 hours of use per charge. The TA-80 can be recharged by dropping it into an intelligent MP-80 charger or by removing the single battery cell from the TA-80 and placing it into the charger. The TA-80 has reverse polarity protection and battery replacement is fast and easy.
4. The TA-80 is compact, lightweight and ruggedly built. The streamlined aluminum housing is splash-proof with strict isolation of spurious and external noise interference. It has a built-in high efficiency transmitting antenna and a green backlit LCD clearly displays operation parameters. The TA-80 is compatible with MIPRO's ACT-80/80R miniature digital receivers for a variety of professional audio applications.

Specifications

Frequency Range	480 ~ 960 MHz (country dependent)
Switching Bandwidth	64 MHz
RF Output Power	10 mW / 50 mW switchable (country dependent)
Spurious Emission	≤ -60 dBc
Modulation Mode	New digital modulation
Modulation Type	Digital modulation fixed envelope
AF Input Level	2V max. at AF gain = 0 dB 7V max. at AF gain = -12 dB 20V P-P by protective circuit
Phantom Power	Selectable 12 V and 48 V at 10 mA max.
AF Frequency Response	20Hz ~ 20 kHz, selectable 100 Hz low cut filter
Battery Type	1 × ICR 18500 lithium battery
Battery Life	> 8-hour for RF power at 10 mW and phantom power off. > 4.5-hour for RF power at 50 mW and 48 V at 2 mA phantom power on.
Charger	MP-8T / MP-80 (with an adaptor plug MPA-80)
Dimensions	44 × 114 × 37 mm (W × H × D)
Net Weight	Approx. 165 g, excluding battery
Note	Refer to actual product in the event of product discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.

V. Portable Wireless Transmission Systems

MT-24A 2.4 GHz Digital Interlinking Transmitter



Profile

The MT-24A is the latest 2.4 GHz digital interlinking transmitter, designed for transmitting the output signals of microphones, instruments and other audio equipment. It features 12 preset channels and 16 ID codes selected by a push of a button as well as switchable high (< 100 mW) and low power (< 10 mW).

Features

The MT-24A can be connected with the output signals of the microphones, instruments and other audio equipment with switchable input Mic/Line level. It supplies +48 V phantom power for use with condenser microphones and is compatible with any ACT-2400 Series receiver for long distance wireless transmission.

Specifications

Housing	EIA standard 1/2 U chassis
Application	Transmitting the output signals from microphones, instruments and other audio equipment to 2.4 GHz digital receiver.
Frequency Range & Modulation	2.4 GHz digital modulation
Receivers	ACT-2400 Series receivers
Adaptor	XLR & Ø 6.3 mm Combo Jack
Power Supply	12 ~ 15 V DC
Note	Refer to actual product in the event of product discrepancy.

MT-92A Wireless Interlinking Transmitter



Profile

The MT-92A is a wireless interlinking transmitter designed for transmitting the output signals of microphones, instruments and other audio equipment to MR-90B ENG receivers, ACT Series analog receivers or portable PAs for long-distance wireless transmission.

Features

The MT-92A has 16 selectable channels by a push of a button as well as switchable high (< 500 mW) and low power (< 100 mW). Supplies +48 V phantom power for condenser microphones.

Specifications

Housing	EIA standard 1/2 U chassis
Application	Transmitting the output signals from microphones, instruments and other audio equipment to MR-90B ENG receiver.
Frequency Range & Modulation	UHF 620 ~ 934 MHz FM modulation (country dependent)
RF Output Power	Low: < 100 mW, High: < 500 mW (country dependent)
Receivers	MR-90B, ACT Series analog receivers and MA Series
Adaptor	XLR & Ø 6.3 mm Combo Jack
Dimensions	210 × 44 × 206 mm (W × H × D)
Net Weight	Approx. 1.1 kg
Power Supply	12 ~ 15 V DC
Note	Refer to actual product in the event of product discrepancy.

VI. Wireless In-Ear Monitoring Systems

- | | |
|------------------------------|----|
| 1. Digital Stereo IEM System | 88 |
| 2. Accessories | 90 |

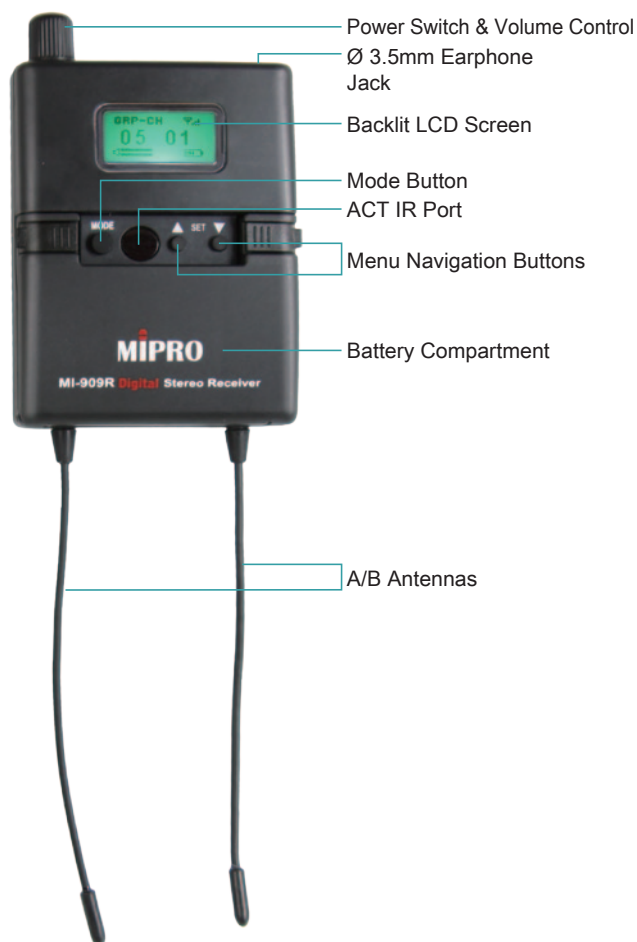


VI. Wireless In-Ear Monitoring Systems

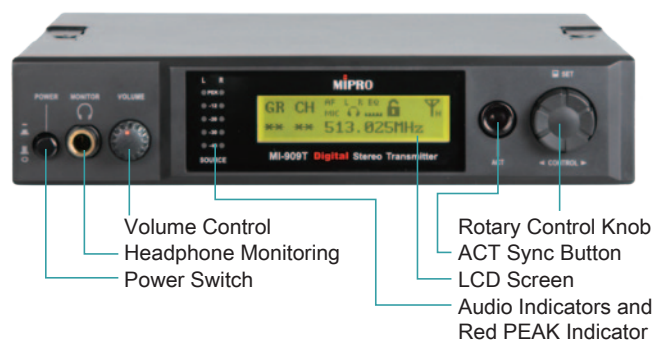
1. Digital Stereo IEM System

System Configurations

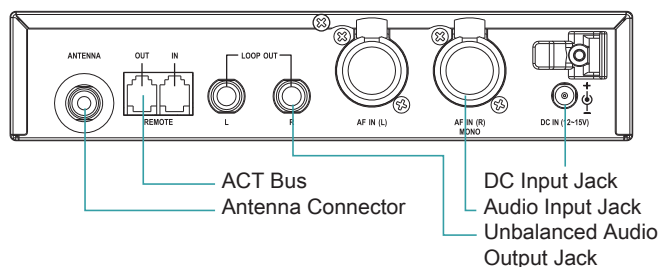
MI-909R Digital Stereo Bodypack Receiver



MI-909T Digital Stereo Transmitter



Rear Panel



Illustrations



VI. Wireless In-Ear Monitoring Systems

Features

1. MIPRO's MI-909 digital IEM system is used by musicians and audio engineers to hear a personal mix of vocals and stage instrumentation for live performance or recording studio mixing. It replaces the traditional floor monitors. Thanks to its DSP & digital diversity technology, the system has superior S/N ratio and wider dynamic range and features digital crystal-clear sound quality, unparalleled RF reliability and digital encryption protection.
2. The key components of the MI-909 include the MI-909R ultra-compact bodypack receiver and the MI-909T rack transmitter and earphones, with fast and easy controls and indicators. Featuring long-distance transmission, it's ideal for large stages monitoring and conference language interpretation.
3. The MI-909R is a digitally encrypted stereo receiver featuring dual-antenna design and digital diversity for reliable RF without signal drop-out. Selectable stereo, mono & mixed output modes and EQ settings can suit the users' preference and a Ø 3.5 mm TRS jack provides left/right 120 mW @16 Ω output for earphones. Optional standard or professional Ø 3.5 mm TRS earphones are available.
4. The MI-909T digital transmitter delivers up to 100 mW output power with selectable HI/LOW/OFF stages. Scan for an open, interference-free frequency and ACT syncs the transmitter to the receiver. With a high dynamic range XLR and Ø 6.3 mm stereo combo jack, it can sustain the maximum output from any mixer. Select the settings by a rotary knob. 3 band ± 9 dB EQ settings for audio modifications and an ACT-BUS networking interface make the MI-909T a versatile IEM system.

Specifications

Model	MI-909R	MI-909T
Name	Digital Stereo Bodypack Receiver	Digital Stereo Transmitter
Housing	Industry's smallest, lightweight magnesium & glass-fiber reinforced plastic case	Standard 1/2U rack-mountable metal case with rotary control knob
Display	Backlit LCD with superior features and advanced function settings	LCD with advanced function settings and dual LED stereo signals
Frequency Range	470 ~ 639 MHz, 705 ~ 960 MHz (country dependent)	
Bandwidth	64 MHz	
Preset Frequencies	12 non-interference compatible frequencies in group 1-10. 16 non-interference compatible frequencies in group 11-16. 216 preset frequencies in total.	
Frequency Response	20 Hz ~ 15 kHz (stereo)	
Stereo Separation	> 95 dB	
Max. S/N Ratio	95 dBA (stereo)	
T.H.D	< 0.1% @ 1 kHz	
Modulation Type	Digital modulation	
Spurious Emissions	< 4 nW	
Sensitivity	10 µV input level, S/N > 90 dB (stereo)	N/A
Earphone Output Jack	Ø 3.5 mm stereo phone jack, Left / Right × 120 mW @ 16 Ω	Ø 6.3 mm stereo phone jack with volume control
RF Output Power	N/A	Low < 10 mW, High < 100 mW switchable (country dependent)
Audio Input / Output Jack	N/A	2 × Combination XLR and 6.3 mm TRS (Input) 2 × 6.3 mm TRS (Output)
Dimensions	63 × 82 × 23 mm (W × H × D)	210 × 44 × 206 mm (W × H × D)
Net Weight	Approx. 93 g	Approx. 1.1 kg
Accessories	E-8S or E-8P Earphones (Optional)	N/A
Power Supply	2 × AA alkaline	External 12 ~ 15 V DC
Note	Refer to actual product in the event of product discrepancy.	

VI. Wireless In-Ear Monitoring Systems

2. Accessories

E-8S Standard Earphones



E-8P Professional Earphones



Features

1. The E-8S earphones provide outstanding sound quality and excellent isolation to suppress high ambient noise levels. Featuring an 8 mm dynamic driver with a 20 Hz ~ 20 kHz frequency response, the E-8S can be fitted with any of the three provided earbud covers for a custom fit and comfort.
2. The E-8P professional earphones are designed for stage monitoring. Ergonomically built with an adjustable ear hook design for a comfortable, personalized fit and invisibility.

Specifications

Model	E-8S	E-8P
Name	Standard Isolation Earphones	Professional Isolation Earphones
Application	Regular Stages	Professional Stages
Key Features	<ol style="list-style-type: none">1. In-ear, closed-back design with S/M/L earbud covers.2. 106 dB SPL/mW.3. 20 Hz ~ 20 kHz frequency response.4. 16 Ω @ 1 kHz nominal impedance.5. Noise isolation > 25 dB.6. 1.5 meter rugged cable.7. \varnothing 3.5 mm gold-plated TRS.8. Approx. 16 grams, cable included.	<ol style="list-style-type: none">1. Ear canal design for easy earplug placement / replacement.2. Sensitivity > 116 dB SPL.3. Saturation Sound Pressure Level >125 dB SPL (1 kHz).4. 35 Hz ~ 20 kHz frequency response.5. 30 Ω @ 1 kHz nominal impedance.6. Noise isolation > 23 dB.7. 1.5 meter durable cable.8. \varnothing 3.5 mm gold-plated TRS.9. Approx. 18 grams, cable included.
Note	Refer to actual product in the event of product discrepancy.	

VII . Wireless Tour Guide Systems

1. MTG-100 Series Digital Portable Receivers	92
2. MTG-100 Series Digital Portable Transmitters	94
3. MTG-100 Series Other Digital Transmitters	95
4. MTG-100 Series Receiver Earphones	96
5. MTG-100 Series Transmitter Microphones	97
6. MTG-100 Series Storage and Charger Carry Cases	98



VII . Wireless Tour Guide Systems

Profile

1. MIPRO MTG-100 digital wireless tour guide systems are comprised of two powered models: built-in lithium rechargeable battery & disposable AA battery systems. The built-in lithium rechargeable battery system is comprised of MTG-100R receiver, MTG-100T transmitter and MTG-100C-4 chargers, MTG-100C-12 or MTG-100C-28 storage and charger carry case. The disposable AA battery system is comprised of MTG-100Ra receiver and MTG-100Ta transmitter. The two systems are nearly identical in design, characteristics and performance. The major difference is the battery power supply.
2. The MTG-100 systems are innovative and have the smallest, lightest design in the industry. They are easy-to-use with reliable transmission and are insensitive to many interference sources. Digital crystal-clear sound quality and secure and reliable transmission are possible due to its digital design technology which provides unparalleled superiority over analog-based systems.
3. The built-in lithium rechargeable battery of the MTG-100 saves the inconvenience of constant battery changes, is kinder to the environment and saves a significant amount of money over the years. The optional 4-slot charger and convenient 12 or 28-slot charger carry cases can accommodate any small to large, indoor or outdoor tour guide applications.
4. The disposable AA battery system can be substituted and is compatible with any 2 AA rechargeable batteries. Extended operational hours are possible due to its ultra-low current consumption. This disposable battery type is ideal for international tour groups who may prefer the conveniences of personal battery changes and not needing to transport charger carry cases.
5. The MTG-100Ha digital handheld microphone and MTS-100 stationary digital transmitter are available for convenience and suitable applications.

1. MTG-100 Series Digital Portable Receivers

ACT-24R Miniature 2.4GHz Tour Guide Receiver



Compatible Transmitters



Features

1. Industry's most compact and smallest housing. Featuring a lightweight and rugged plastic case to meet professional requirements.
2. Stable digital FSK modulation circuitry. All frequencies are located in this band.
3. Employs Frequency Hopping Spread Spectrum technology; each channel presets 4 hopping frequencies that skip Wi-Fi frequencies in use.
4. The adaptive tracking algorithm helps effectively avoid interference from 2.4GHz communication products.
5. Dual tuner true diversity receiving technology eliminates signal dropout.
6. Backlit graphic LCD screen displays various function settings.
7. The included battery of the rechargeable handheld and bodypack transmitters can be easily removed or interchanged for charging.
8. An affordable price for consumers. Ideal for guided tours, camcorders and wireless applications of sound systems.

Specifications

Housing	Rugged and compact plastic housing
Application	1. Tour guide system 2. Installed on camcorders, DSLRs or EVILs with accessories
Frequency Band & Modulation	ISM 2.4 GHz. Digital modulation.
Transmitter	ACT-24HC Handheld & ACT-24TC Bodypack Transmitters. MT-24A Wireless Interlinking Transmitter.
Main Features	Dual-antenna digital true diversity receiving. Backlit graphic LCD screen. < 4.0 ms latency. > 106 dBA dynamic range. < 0.1%. T.H.D.
Frequency Range	2,400 ~ 2,483.5 MHz
Bandwidth	83 MHz
Preset Channels	12 selectable channels
Receiving Mode	Digital true diversity receiving
Dimensions	63 × 70 × 25 mm (W × H × D)
Weight	Approx. 85 g
Accessories	A clip and a cable
Power Supply	1 × ICR 18500 lithium battery
Note	Refer to actual product in the event of product discrepancy.

VII . Wireless Tour Guide Systems

MTG-100R Digital Receiver (Built-in Rechargeable Battery)



MTG-100Ra Digital Receiver (AA Battery)



Specifications

Model	MTG-100R	MTG-100Ra
Housing	Ultra-compact; Pocket-sized	
Display	LCD with advanced function settings and battery status	
Frequency Range	CEPT/EU: 863 ~ 865 MHz & USA: 926 ~ 928 MHz License-free for users in ISM bands	
Modulation	Digital modulation	
Preset Channels	16 preset channels. At least 3 or 4 compatible channels can be used simultaneously at the same venue.	
Channel Setup	Manual ACT Sync or via MTG-100C-12 or MTG-100C-12-28 Charger Carry Case.	Manual ACT Sync
Receiving Mode	True diversity receiving	
Key Features	Up to 60-meter line-of-sight reception range. Channel lock setting prevents accidental operation. Ethernet interface allows for system setting and management.	
Earphones	E-5S, E-10S, E-20S (Optional)	
Compatible Transmitters	MTG-100T, MTG-100Ha	MTG-100Ta, MTG-100Ha
Accessories (Optional)	MTG-100C-28, MTG-100C-12 MTG-100C-4, MTG-100C-CR	N/A
Power Supply	Built-in lithium battery	2 AA alkaline or 2 AA rechargeable batteries
Note	Refer to actual product in the event of product description discrepancy.	

VII . Wireless Tour Guide Systems

3. MTG-100 Series Other Digital Transmitters

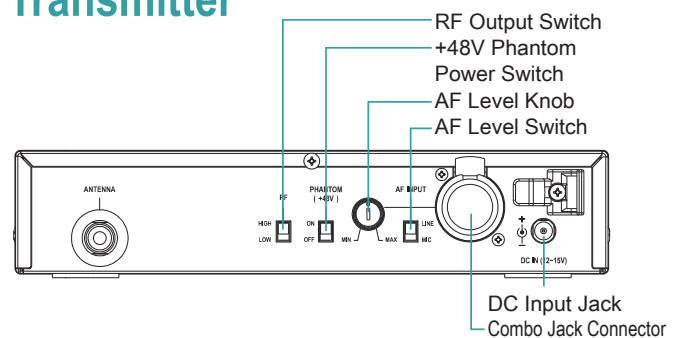
MTG-100Ha Handheld Transmitter



MTS-100 Digital Stationary Transmitter



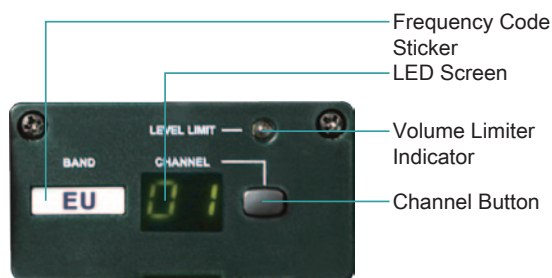
Transmitter Module
RF Signal Indicators
Audio Signal Meter
Power Switch



RF Output Switch
+48V Phantom
Power Switch
AF Level Knob
AF Level Switch

DC Input Jack
Combo Jack Connector

Wireless Transmitter Module Controls and Indicators



Frequency Code
Sticker
LED Screen
Volume Limiter
Indicator
Channel Button

Optional Accessories



Specifications

Model	MTG-100Ha	MTS-100
Housing	ABS	EIA-standard 1/2U metal case
Display	LCD with settings and battery status	Channel in LED
Frequency Range	CEPT/EU: 863 ~ 865 MHz & USA: 926 ~ 928 MHz License-free for users in ISM bands	
Modulation	Digital modulation	
Channel Setup	Manually	
Preset Channels	16 preset channels. At least 3 compatible channels can be used simultaneously at the same venue.	
Compatible Receivers	MTG-100R & MTG-100Ra	
Key Features	Handheld microphone ensures vocal clarity.	Stationary transmission; switchable low (10 mW) or high (50 mW) output power; Accepts either dynamic or condenser wired microphone.
Power Supply	2 AA alkaline or 2 AA rechargeable batteries	12 ~ 15 V DC
Note	Refer to actual product in the event of product description discrepancy.	

VII . Wireless Tour Guide Systems

4. MTG-100 Series Receiver Accessories

E-20S

Stereo Headphones



E-10S

Stereo Earphones



E-5S Single-side Earphone



MTG-100R

Specifications

Model	E-20S	E-10S	E-5S
Name	Stereo Headphones	Stereo Earphones	Single-side Earphone
Driver Unit	Ø 30 mm	Ø 10 mm	Ø 24 mm
Frequency Response	20 Hz ~ 20 kHz	20 Hz ~ 15 kHz	100 Hz ~ 20 kHz
Sensitivity	105 dB ± 3 dB at 1 mW	103 dB ± 3 dB at 1mW	108 dB ± 3 dB at 1 mW
Max. Input Power	100 mW	20 mW	100 mW
Impedance	24 Ω at 1 kHz 1 mW	16 Ω at 1 kHz 1mW	32 ± 15% Ω at 1 kHz 1 mW
Cable Length	120 cm	40+55 (R), 10+55 (L) cm	120 cm
Connector	Ø 3.5 mm TRS		
Note	Refer to actual product in the event of product description discrepancy.		

VII . Wireless Tour Guide Systems

5. MTG-100 Series Transmitter Accessories

MM-10 Mini-gooseneck Microphone



MM-202P Mini-gooseneck Microphone



MU-101P Headworn Microphone



MU-53HNP Headworn Microphone



MU-23P Headworn Microphone



Specifications

Model	MM-10	MM-202P	MU-101P	MU-53HNP	MU-23P
Name	Mini-gooseneck Microphone		Headworn Microphone		
Capsule	Ø 4.5 mm Omni-directional ECM	Ø 10 mm Uni-directional ECM			Ø 3 mm Omni-directional ECM
Frequency Response	40 Hz ~ 20 kHz	50 Hz ~ 18 kHz			40 Hz ~ 20 kHz
Max. SPL	135 dB	136 dB	135 dB	136 dB	138 dB
Sensitivity	-49 dBV ± 3 dB	-46 dBV ± 3 dB	-49 dBV ± 3 dB	-46 dBV ± 3 dB	-56 dBV ± 3 dB
Length	110 mm	136 mm	150 cm		
Connector	Ø 3.5 mm TS				
Note	Refer to actual product in the event of product description discrepancy.				

VII . Wireless Tour Guide Systems

6. MTG-100 Series Storage & Charger Carry Cases

MTG-100C-28 28-Slot Storage and Charger Carry Case

MTG-100C-12 12-Slot Storage and Charger Carry Case

MTG-100C-4 4-Slot Charger



MTG-100C-28



MTG-100C-12



MTG-100C-4

MTG-100C-CR Charger Rack



2 pieces of MTG-100C-4 fitted with MTG-100C-CR



4 pieces of MTG-100C-4 fitted with MTG-100C-CR

Specifications

Model	MTG-100C-28	MTG-100C-12	MTG-100C-4	MTG-100C-CR
Name	28-Slot Storage and Charger Carry Case	12-Slot Storage and Charger Carry Case	4-Slot Charger	Charger Rack
Charging Slot	24 Receivers & 4 Transmitters	10 Receivers & 2 Transmitters	4 Receivers / Transmitters Combination	Up to 16 Receivers/ Transmitters Combination
Key Features	1. Charge, Carry and Storage 2. Separate "red" charging and "green" ready indicator 3. Innovative "Sync" button for automatic frequency synchronization from master to slaves 4. Optional Ethernet Network Interface management software		1. Quick-charge in less than 4 hours 2. Separate "red" charging and "green" ready indicator 3. DC 12 V / 0.75 A power supply	1. Designed for rack cabinet 2. Accepts up to 4 units of MTG-100C-4
Charge Time	< 4 hours			
Max. Power Consumption	80 W	26 W	< 9 W	< 36 W
Note	Refer to actual product in the event of product description discrepancy.			

VIII . Conference Microphones

1. MM-2 Series Gooseneck Microphones	100
2. BC Series Conference Microphone Base	102
3. BC-2 Series Conference Microphones	103
4. BC-T Series Conference Microphone Bases	104



VIII . Conference Microphones

1. MM-2 Series Gooseneck Microphones

Gooseneck Microphones

MM-204 Gooseneck Microphone

MM-205 Gooseneck Microphone

MM-206 Gooseneck Microphone

MM-202J Gooseneck Microphone



Features

1. Gooseneck design can be bent in wide angles and is ideal for podiums, pulpit and lectern applications.
2. Proprietary microphone mount design allows 110° up/down and 300° left/right angle adjustments (except for MM-202S, MM-202P).
3. Shock isolation mount design minimizes handling and vibration noise.
4. Multi-layered microphone grill minimizes pop noise.
5. The MM-202J can be connected to any mixer supplying phantom power.
6. The MM-206 / 205 / 204 with 4 pin XLR plug can fit BC-2 Series desktop conference microphones.
7. The MM-202A / MM-202S with TA4F jack can fit any MIPRO bodypack transmitter; the MM-202P with Ø 3.5 mm phone jack can fit MIPRO's MTG-100T/100Ta tour guide transmitter.

VIII . Conference Microphones

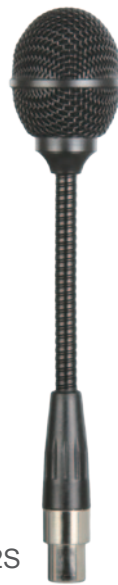
MM-202A Gooseneck Microphone

MM-202S Gooseneck Microphone

MM-202P Gooseneck Microphone



MM-202A



MM-202S



MM-202P

Specifications

Model	MM-204	MM-205	MM-206	MM-202J	MM-202A	MM-202S	MM-202P
Name	Gooseneck microphone						
Connector	4 pin XLR male			3 pin XLR male	TA4F		Ø 3.5 mm TS
Shock Absorber	Yes					N/A	
Capsule	Ø 10 mm uni-directional condenser microphone						
Frequency Response	50 Hz ~ 18 kHz						
Sensitivity	-46 ± 3 dBV / Pa (0 dB=1 V / Pa)						
Max. SPL	142 dB (Typical, 1% T.H.D.)						136 dB (Typical, 1% T.H.D.)
Phantom Power	5 ~ 9 V DC			12 ~ 48 V DC	5 ~ 9 V DC		
Color	Black						
Length	385 mm	485 mm	585 mm	585 mm / 485 mm	130 mm	130 mm	136 mm
Weight	Approx. 150 g	Approx. 159 g	Approx. 168 g	Approx. 162 g / 153 g	Approx. 27 g	Approx. 27 g	Approx. 22 g
Note	Refer to actual product in the event of product discrepancy.						

VIII . Conference Microphones

2. BC-100 Conference Microphone Base



Features

1. The BC-100 can be used as a boundary microphone or connected with a gooseneck microphone to be a desktop conference microphone. Insert a MIPRO ACT-Series bodypack transmitter into the BC-100 base as a wireless conference microphone.
2. The back panel has a balanced XLR connector with a switch to select the audio source from either the inner boundary microphone or the optional gooseneck microphone.
3. The housing is made of metal with a thicker bottom and anti-slip pad to give added stability.
4. TALK / MUTE button provides easy speaking or mute option; a LED indicates status.

Specifications

Built-in Boundary Microphone	Ø 10 mm cardioid condenser microphone
Input Connector	4 pin XLR female
Output Connector	Balanced XLR male
TALK / MUTE Button	Mechanical PUSH-HOLD switch, with LED status indicator
Power Supply	12 ~ 48 V DC phantom power is required (external cable)
Color	Black
Dimensions	100 × 58 × 150 mm (W × H × D)
Weight	Approx. 618 g
Note	Refer to actual product in the event of product discrepancy.

VIII . Conference Microphones

3. BC-2 Series Conference Microphones

A. Profile

1. The BC-100 can be fitted with MIPRO's MM-2 Series gooseneck microphones to become BC-2 Series desktop conference microphones.
2. The output jack of the BC-204 / 205 / 206 can be connected to the mixer supplying phantom power.
3. TALK / MUTE button provides easy speaking or mute option; a LED indicates status.

B. Desktop Conference Microphones

BC-204 Conference Microphone

BC-205 Conference Microphone

BC-206 Conference Microphone



Specifications

Model	BC-206	BC-205	BC-204
Gooseneck Microphone	MM-206	MM-205	MM-204
Capsule	Ø 10 mm cardioid condenser microphone, with a shock absorber		
Input Connector	4 pin XLR female		
Output Connector	Balanced XLR male		
TALK/MUTE Button	Mechanical PUSH-HOLD switch, with LED status indicator		
Frequency Response	50 Hz ~ 18 kHz		
Sensitivity	-46 ± 3 dBV / Pa (0 dB=1 V / Pa)		
Max. SPL	142 dB SPL (Typical, 1% T.H.D @ 1 kHz)		
Power Supply	12 ~ 48 V DC phantom power is required (external cable)		
Color	Black		
Note	Refer to actual product in the event of product discrepancy.		

VIII . Conference Microphones

4. BC-T Series Wireless Conference Microphone Bases

Profile

1. The BC-T Series encloses the transmitter PCB for wireless transmission, and also retains the wired transmission circuit.
2. Can be directly fitted with MIPRO MM-204 / 205 / 206 gooseneck microphones.
3. For wired transmission, the output jack requires phantom power from the mixer.
4. The operational controls are the same as the ACT-T Series bodypack transmitters.
5. TALK / MUTE button provides easy speaking or mute option; a LED indicates status.
6. Powered by an ICR 18500 rechargeable lithium battery, the BC-T Series has a built-in charging circuit for recharging the battery.

BC-100T Wireless Conference Microphone Base



BC-100DT Wireless Conference Microphone Base



BC-24T Wireless Conference Microphone Base



BC-T Series back



Fitted with optional MM-2 Series mics

Specifications

Model	BC-100T	BC-100DT	BC-24T
Built-in Transmitter	ACT-32TC (UHF analog)	ACT-80TC (Digital)	ACT-24TC (2.4 GHz digital)
Receiver	ACT-3/5 series	ACT-800 series	ACT-2400 series
Encryption	N/A	Yes	N/A
Input Connector for Cable	4 pin XLR female		
Output Connector	Balanced XLR male		
Microphones	MM-204 / MM-205 / MM-206 gooseneck microphone		
Built-in Phantom Power	5 ~ 9 V DC		
TALK / MUTE Button	Mechanical PUSH-HOLD switch, with LED status indicator		
Power Supply	One ICR 18500 lithium battery and the charging circuit		
Phantom Power	12 ~ 48 V DC phantom power is required (external cable)		
Color	Black		
Dimensions (W × H × D)	100 × 55 × 150 mm	100 × 55 × 150 mm	100 × 55 × 150 mm
Net Weight	Approx. 673 g	Approx. 673 g	Approx. 662 g
Note	Refer to actual product in the event of product discrepancy.		

IX. Wireless Portable PA Systems

1. Personal Wireless Public Address Systems	106
2. Portable Wireless Public Address Systems	118
3. Wireless Mixer	132
4. Accessories	133



IX. Wireless Portable PA Systems

1. Personal Wireless PA Systems









A. Overview

1. For 20 years, MA-101 has been mass-produced, sold worldwide and it remains a market-leading system as MIPRO ensures product design, craftsmanship and reliability are second to none. Since 2012, upgraded rechargeable lithium battery replaces sealed lead-acid rechargeable battery for reducing weight significantly for portability as it also extends battery operating hours & increases battery lifespan.
2. Since 2002, MIPRO introduced the industry's only MA-101ACT Wireless Classroom PA System, which ensures each teacher can carry their own personal remote-control wireless microphone going from classroom to classroom.
3. In 2009, MIPRO introduced the flagship MA-202B wireless PA system, which boasts versatile features such as the built-in storage compartment and battery charger for ACT-222T handheld transmitter.
4. In 2012, MIPRO introduced the ultra-compact and ultra-lightweight MA-100 personal wireless PA system. It is powerful, feature-rich and power efficient.
5. In 2016, MIPRO introduced the industry only license-free 2.4 GHz technology MA-101G personal wireless PA system.
6. Lightweight, robust and battery operated, these personal wireless PAs can be hand carried, shoulder strapped, put on a flat surface or mounted on a microphone stand. They are suitable for addressing small crowds. Ideal applications include school classrooms, places of worship, presentations, seminars and meetings, day-care activities; playground duty, tour guides & paging, fire fighters, law enforcement, search & rescue and factory or company tours.



IX. Wireless Portable PA Systems

B. Personal Wireless PA Comparison Chart

Model	MA-202B	MA-101B	MA-101G	MA-101ACT	MA-100DB	MA-100SB	MA-100DG	MA-100SG
Photo								
Max. Power Output	Class D 56 Watts	Class AB 45 Watts	Class D 45 Watts		Class D 50 Watts			
Speaker	1 " Tweeter 5 " Woofer	5 " Full-Range						
Receiver	1				2	1	2	1
Frequency Range	UHF 480 ~ 934 MHz (country dependent)				UHF	UHF	2.4 GHZ - ISM	2.4 GHZ - ISM
Mic Input	6.3 mm × 1			N/A	6.3 mm × 1			
Line Input	6.3 mm × 1	3.5 mm × 1		3.5 mm Line × 1 (on MT-101ACT)	3.5 mm × 1			
Line Output	N/A	3.5 mm × 1		N/A	3.5 mm × 1			
Audio Player	USB & SD card	N/A			USB Player & Recorder			
Bluetooth	N/A				Yes		N/A	
Alarm Siren	N/A				Yes			
Installation	Shoulder Strap, Hand Carry , Flat Surface or Microphone Stand			Wall-Mounting	Shoulder Strap, Hand Carry , Flat Surface or Microphone Stand			
Storage Compartment	ACT-222T Handheld	N/A						
Transmitter	ACT-222T ACT-32H / HC ACT-32T / TC	ACT-32H ACT-32HC ACT-32T ACT-32TC	ACT-24HC ACT-24TC	MT-101ACT	ACT-32H ACT-32HC ACT-32T ACT-32TC		ACT-24HC ACT-24TC	
Power Supply	AC 14.8V/ 2.6A Rechargeable Battery (MB-25)			AC only	AC 14.8V/ 2.6A Rechargeable Battery (MB-10)			
Standby Time	Up to 8 hours	Up to 10 hours		AC only	Up to 12 hours	Up to 10 hours	Up to 12 hours	Up to 10 hours
Dimensions (W×H×D)	163 × 206 × 306 mm	160 × 178 × 285 mm		190 × 275 × 155 mm	135 × 140 × 240 mm			
Approx. Weight (battery included)	2.9 kg	2.2 kg		2.3 kg	1.9 kg	1.8 kg	1.9 kg	1.8 kg

IX. Wireless Portable PA Systems

C. Personal Wireless PA Systems

MA-202B Personal Wireless PA System

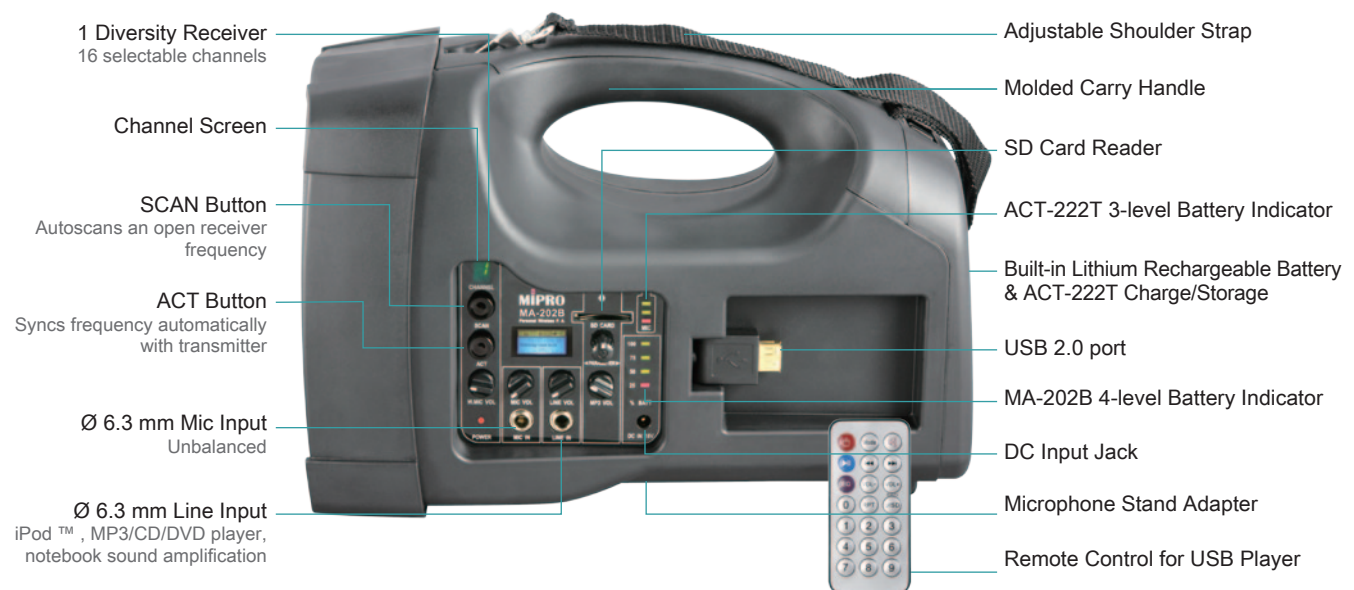


Patents:
Taiwan Utility M339173, M339174
Design D126294

Transmitters

UHF				
ACT-222T	ACT-32H	ACT-32T	ACT-32HC	ACT-32TC
				

Controls and Indicators



IX. Wireless Portable PA Systems

Features

1. Powerful 56-watt high efficiency class-D amplifier drives 2-way loudspeakers for crystal-clear sound projection.
2. Built-in wireless receiver with 16 auto-scannable frequencies.
3. One-touch Scan & ACT sync buttons for fast and easy channel set-up.
4. AC and lithium rechargeable battery operation.
5. Up to 8-hour of stand-by time per 4-hour full charge.
6. 4-segment battery meter for accurate MA-202B battery readings and charging status.
7. USB & SD music player with LCD screen and individual volume controls.
8. Convenient storage compartment and battery charger for lightweight ACT-222T handheld transmitter microphone.
9. 3-segment battery meter for accurate ACT-222T battery readings and charging status.
10. Receiver volume can be adjusted by MA-202B itself or remotely via ACT-222T.
11. Optional ACT-32H handheld transmitter microphone for improved sound quality.

Ideal Applications

- School classrooms
- Places of worship
- Presentations, seminars and meetings
- Day-care activities; playground duty
- Indoor/outdoor gatherings
- Tour guides & paging
- Fire fighters, law enforcement, search & rescue
- Street performers
- Factory or company tours

ACT-222T Rechargeable Handheld Transmitter



1. Compact, lightweight and easy to use.
2. Quality condenser microphone ensures loud and clear vocal quality.
3. Level control allows wireless volume adjustment.
4. Can be hand-held or worn as a neck lanyard for hands-free operation.
5. Can be re-charged and stored inside the MA-202B.
6. Amazing 24 operating hours per charge.

Specifications

Portable PA			
Max. Power Output		56 Watts	
Amplifier		Class D	
Sensitivity		Typical: 96 dB Maximum: 105 dB	
T.H.D.		< 1 %	
Frequency Response		50 Hz ~ 18 kHz	
Loudspeaker		1 " Tweeter and 5 " Woofer	
Audio Input		Wired	6.3 mm (1/4 ")
		Wireless	Single-Channel
		Digital Player	USB 2.0 and SD Card Reader
		Line-In	6.3 mm (1/4 ")
Volume Control		Wired, Wireless, Line-in & Digital Player	
Installation		Microphone stand, table mounted, shoulder belt	
Power Supply	AC	External 100 ~ 240 V AC switching power supply (Max. Power Consumption: 60 W)	
	DC & Battery	Built-in 14.8 V / 2.6 AH rechargeable lithium battery (MB-25 × 1)	
Charge Time		Up to 4 hours	
Standby Time		Up to 8 hours	
Battery Indicator		4-level indicator (25/50/75/100%)	
Color		Black	
Dimensions		163 × 206 × 306 mm (W × H × D)	
Weight		Approx. 2.9 kg, battery included	
Wireless System			
Receiver Channel		Single	
Frequency Range		480 ~ 934 MHz (country dependent)	
Bandwidth		24 MHz	
Preset Channels		16	
Channel Set-up		Scan & ACT sync	
Transmitters		ACT-222T / ACT-32H / ACT-32HC Handheld ACT-32T / ACT-32TC Bodypack	
Microphone		MM-107 Wired Dynamic Microphone	
Antenna		Built-in	
Digital Audio Player			
Player		Built-in USB 2.0 port and SD Card reader	
Patents & Approvals		Patented. Telecom and safety regulations approved.	
Notes		Refer to actual product in the event of product description discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.	

Specifications

Frequency Range	480 ~ 934 MHz (country dependent)
Oscillation Mode	PLL Synthesized
Channel Set-Up	ACT Sync
RF Output Power	10 ~ 30 mW (country dependent)
Deviation	< ± 40 kHz
Spurious Emissions	< -55 dBc
Key Feature	Built-in volume level control
Battery	Rechargeable lithium battery (8MPBA222T)
Charge Time	Up to 6 hours
Operating Time	Up to 24 hours
Dimensions	182 × 42 × 32 mm (W × H × D)
Weight	Approx. 128 g, battery included

IX. Wireless Portable PA Systems

MA-101B Personal Wireless PA System



Transmitters

UHF			
ACT-32H	ACT-32T	ACT-32HC	ACT-32TC

MA-101G 2.4 GHz Personal Wireless PA System



Transmitters

2.4 GHz	
ACT-24HC	ACT-24TC

MA-101B Controls and Indicators



IX. Wireless Portable PA Systems

Features

1. Lightweight, contoured and ultra-portable design.
2. MA-101B has built-in 1 UHF PLL diversity receiver module with 16 auto-scannable frequencies.
3. MA-101G has built-in 1 2.4GHz true diversity receiver module with 10 auto-scannable frequencies.
4. Powerful and crystal-clear sound projection thanks to high efficiency amplifier driving a full-range speaker.
5. Replaced sealed lead-acid battery to rechargeable lithium battery for improved reliability, longer life and reduced weight.
6. AC and lithium rechargeable battery operation.
7. Up to 10 hours of standby time per 4-hour charge.
8. 3.5 mm line input accepts external MP3, iPod and CD player.
9. Simple to use and can be easily carried via the built-in handle, shoulder strap, or mounted on a microphone stand.

Ideal Applications

- School classrooms
- Places of worship
- Presentations, seminars and meetings
- Day-care activities; playground duty
- Indoor/outdoor gatherings
- Tour guides & paging
- Fire fighters, law enforcement, search & rescue
- Street performers
- Factory or company tours

Specifications

Model		MA-101B	MA-101G
Portable PA			
Max. Power Output		45 Watts	
Amplifier		Class AB	Class D
Sensitivity		Typical: 95 dB Maximum: 107 dB	
T.H.D.		< 1%	< 0.1% @ 1 kHz
Frequency Response		60 Hz ~ 15 kHz	20 Hz ~ 20 kHz
Loudspeaker		5 " full-range, high efficiency	
Audio Inputs	Wired	6.3 mm (1/4 ")	
	Line-In	3.5 mm (1/8 ")	
Audio Output		3.5 mm (1/8 ")	
Installation		Microphone stand, table mounted, shoulder belt	
Power Supply	AC	External 100 ~ 240 V AC switching power supply (Max. Power Consumption: 60 W)	
	DC & Battery	Built-in 14.8 V / 2.6 AH rechargeable lithium battery (MB-25 × 1)	
Charge Time		Up to 4 hours (automatic charging management)	
Standby Time		Up to 10 hours	
Battery Indicator		Single LED indicator	
Color		Grayish Black	Black
Dimensions		160 × 178 × 285 mm (W × H × D)	
Weight (battery included)		Approx. 2.2 kg	
Wireless System			
Receiver Channel		UHF, Single	2.4 GHz, Single
Frequency Range		UHF 480 ~ 934 MHz (country dependent)	2,400 ~ 2,483.5 MHz
Bandwidth		24 MHz	83.5 MHz
Preset Channels		16	10
Channel Set-up		Scan & ACT sync	
Transmitters		ACT-32H / ACT-32HC Handheld ACT-32T / ACT-32TC Bodypack	ACT-24HC Handheld ACT-24TC Bodypack
Microphone		MM-107 Wired Dynamic Microphone	
Antenna		Built-in	
Notes		Refer to actual product in the event of product description discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.	

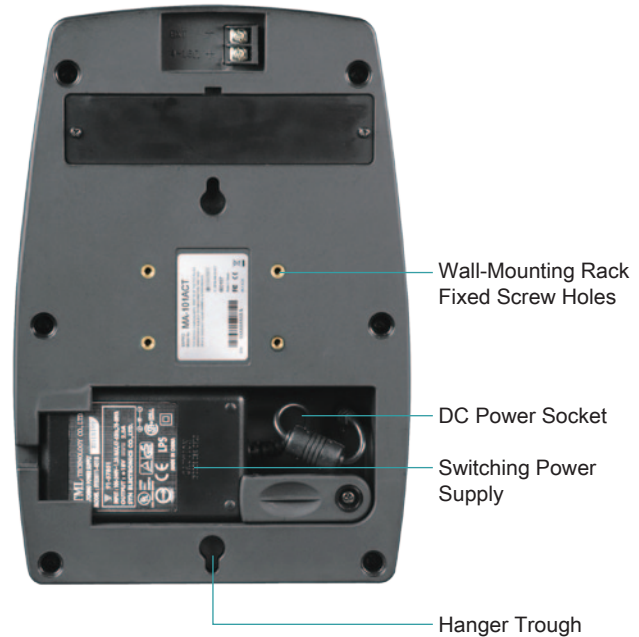
IX. Wireless Portable PA Systems

MA-101ACT Wireless Classroom PA System

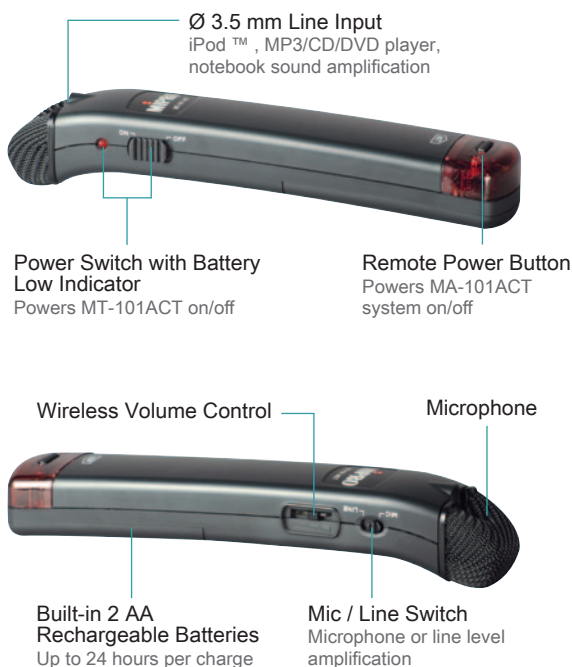
 **Bluetooth®** (Optional)



MT-101ACT Back Panel



MT-101ACT Handheld Transmitter



Optional Accessories



IX. Wireless Portable PA Systems

MA-101ACT Wireless PA Speaker Features

1. Powerful 45-watt 5" full-range speaker delivers loud and clear sound.
2. Suitable for wall or ceiling mounting (wall mount bracket included).
3. Power on/off and volume adjustment can be remotely controlled via the wireless transmitter microphone.
4. Detachable 100 to 240 V AC auto-switching power supply.

MT-101ACT Handheld Transmitter Features

1. Personal, compact, lightweight, multi-functional and versatile.
2. Powered via built-in rechargeable or disposable alkaline batteries.
3. Same wireless microphone can be used in up to 97 different rooms — all with different frequencies to avoid crosstalk or loss of privacy.
4. Includes a slide control for wireless volume adjustment and level switch of the speaker.
5. Built-in 3.5 mm mini-jack line-input (mono) accepts an external portable music player such as an iPod/MP3 or CD player for sound amplification.
6. Can be handheld or worn as a neck lanyard for hands-free operation with an optional lapel or headworn microphone.
7. Included MP-101ACT drop-in charger ensures the microphone is always charged and ready to use.
8. Operates up to 24 hours with a 3-hour fast charge.

Ideal Applications

- Multiple classrooms
- Multiple meeting rooms
- Tours for factories, companies, theme parks, zoos

Specifications

Max. Power Output	45 Watts
Sensitivity	Typical: 94 dB Maximum 103 dB
T.H.D.	< 1%
Frequency Response	60 Hz ~ 15 kHz
Loudspeaker	5 " full-range high efficiency
Bluetooth Connectivity	Optional
Power Supply	Built-in 100 ~ 240 V AC detachable switching power supply
Installation	Wall mounted
Color	Black
Dimensions	190 × 275 × 155 mm (W × H × D)
Weight	Approx. 2.3 kg
Wireless System	
Receiver Channel	Single
Frequency Range	480 ~ 934 MHz (country dependent)
Preset Channels	Each swappable module has 97 UHF selectable frequencies
Channel Set-up	Scan & ACT sync
Transmitter	MT-101ACT
Antenna	Built-in
Notes	Refer to actual product in the event of product description discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.



MT-101ACT Specifications

Frequency Range	480 ~ 934 MHz (country dependent)
Oscillation Mode	PLL Synthesized
Channel Set-Up	ACT Sync
Audio Input	MT-101ACT accepts 3.5 mm Mic or Line audio input
Battery	Detachable rechargeable battery (2XA019 × 2) & charger attached
Charge Time	Up to 3 hours
Operating Time	Up to 24 hours
Dimensions	40 × 182 × 32 mm (W × H × D)
Net Weight	157 g, excluding batteries
Notes	Refer to actual product in the event of product description discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.

IX. Wireless Portable PA Systems

MA-100SB Single-Channel Personal Wireless PA System



Transmitters

UHF			
ACT-32H	ACT-32T	ACT-32HC	ACT-32TC

Patents:
Taiwan Utility M409663 / M409662
Design D143790 / D143791

China Utility ZL201120076295.2 / ZL201120076293.3
Design ZL201130046607.0 / ZL201130046594.7

U.S. Design D653238
Design D651596

MA-100DB Dual-Channel Personal Wireless PA System



Controls and Indicators



IX. Wireless Portable PA Systems

Features

1. Rugged yet lightweight one-piece molded cabinet.
2. Built-in 1 or 2 wireless diversity receivers with 16 auto-scannable frequencies.
3. One-touch Scan & Sync (ACT) button for fast and easy channel set-up.
4. Built-in Bluetooth receiver for wireless audio streaming.
5. Built-in USB music player & recorder with LCD screen.
6. Built-in one-button alarm/siren for warning of threats.
7. User-friendly control panel provides intuitive easy operation.
8. 50 W class-D amplifier to power a 5" full range driver.
9. AC and lithium rechargeable battery operation.
10. Up to 12 hours of stand-by time per 4-hour full charge.
11. Weighs only 1.8 kgs | 3.9 pounds.

Ideal Applications

- School classrooms
- Places of worship
- Presentations, seminars and meetings
- Day-care activities; playground duty
- Indoor/outdoor gatherings
- Tour guides & paging
- Fire fighters, law enforcement, search & rescue squads
- Street performers
- Factory and company tours

Specifications

Model		MA-100SB		MA-100DB	
Portable PA					
Max. Power Output		50 Watts			
Amplifier		Class D			
Sensitivity		Typical: 90 dB Maximum: 102 dB			
T.H.D.		< 1%			
Frequency Response		50 Hz ~ 18 kHz			
Speaker		5 " full-range, high efficiency			
Audio Inputs	Wired	6.3 mm (1/4 ")			
	Line-In	3.5 mm (1/8 ")			
Bluetooth Connectivity		Yes			
Audio Output		3.5 mm (1/8 ")			
Alarm Siren		Siren sound with fade-in mode			
Installation		Microphone stand, table mounted, shoulder belt			
Power Supply	AC	External 100 ~ 240 V AC switching power supply (Max. Power Consumption: 60 W)			
	DC & Battery	Built-in 14.8 V / 2.6 AH rechargeable lithium battery (MB-10 × 1)			
Charge Time		Up to 4 hours (automatic charging management)			
Standby Time		Up to 12 hours		Up to 10 hours	
Battery Indicator		4-level indicator (25/50/75/100%)			
Color		Black or white option			
Dimensions (W × H ×D)		135 × 144 × 240 mm			
Weight (battery included)		Approx. 1.8 kg		Approx. 1.9 kg	
Wireless System					
Receiver Channel		Single		Dual	
Frequency Range		480 ~ 934 MHz (country dependent)			
Bandwidth		24 MHz			
Preset Channels		16			
Channel Set-up		Scan & ACT sync			
Transmitter		ACT-32H / ACT-32HC Handheld ACT-32T / ACT-32TC Bodypack			
Microphone		MM-107 Wired Dynamic Microphone			
Antenna		Built-in			
Audio Player					
Built-in USB Port		USB 2.0			
USB Play & Record		LCD displays track name, number, time, recording status.			
Operation		On-board. USB remote control included.			
Patents & Approvals		Patented. Telecom and safety regulations approved.			
Notes		Refer to actual product in the event of product description discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.			

IX. Wireless Portable PA Systems

MA-100SG 2.4 GHz Single-Channel Personal Wireless PA System



Transmitters

2.4 GHz	
ACT-24HC	ACT-24TC
	

Patents:
Taiwan Utility M409663 / M409662
Design D143790 / D143791

China Utility ZL201120076295.2 / ZL201120076293.3
Design ZL201130046607.0 / ZL201130046594.7

U.S. Design D653238
Design D651596

MA-100DG 2.4 GHz Dual-Channel Personal Wireless PA System

Controls and Indicators



IX. Wireless Portable PA Systems

Features

1. Powerful sound in a rugged yet lightweight one-piece molded cabinet.
2. AC and built-in lithium rechargeable battery and rechargeable transmitter operation.
3. Up to 10 hours of stand-by time per 4-hour charge.
4. License-free 2.4 GHz wireless diversity receiver for reliable transmission performance.
5. Four Frequency Hopping Spread Spectrum technology skips common Wi-Fi used frequencies to avoid interference.
6. Adaptive tracking algorithm helps in avoiding interference from 2.4 GHz communication products.
7. One-touch Scan & Sync (ACT) button for fast and easy channel set-up.
8. Built-in USB music player & recorder with LCD screen.
9. Built-in one-button alarm/siren for warning of threats.
10. User-friendly control panel provides intuitive easy operation.

Ideal Applications

- School classrooms
- Places of worship
- Presentations, seminars and meetings
- Day-care activities; playground duty
- Indoor/outdoor gatherings
- Tour guides & paging
- Fire fighters, law enforcement, search & rescue squads
- Street performers
- Factory and company tours

Specifications

Model		MA-100SG	MA-100DG
Portable PA			
Max. Power Output		50 Watts	
Amplifier		Class D	
Sensitivity		Typical: 90 dB Maximum: 102 dB	
T.H.D.		< 1%	
Frequency Response		50 Hz ~ 18 kHz	
Speaker		5 " full-range, high efficiency	
Audio Inputs	Wired	6.3 mm (1/4 ")	
	Line-In	3.5 mm (1/8 ")	
Audio Output		3.5 mm (1/8 ")	
Alarm Siren		Siren sound with fade-in mode	
Installation		Microphone stand, table mounted, shoulder belt	
Power Supply	AC	External 100 ~ 240 V AC switching power supply (Max. Power Consumption: 60 W)	
	DC & Battery	Built-in 14.8 V / 2.6 AH rechargeable lithium battery (MB-10 × 1)	
Charge Time		Up to 4 hours (automatic charging management)	
Standby Time		Up to 12 hours	Up to 10 hours
Battery Indicator		4-level indicator (25/50/75/100%)	
Color		Black or white option	
Dimensions (W × H × D)		135 × 144 × 240 mm	
Weight (battery included)		Approx. 1.8 kg	Approx. 1.9 kg
Wireless System			
Receiver Channel		Single	Dual
Frequency Range		2.4 GHz – ISM	
Preset Channels		10	
Channel Set-up		Scan & ACT sync	
Receiving Mode		Dual-tuner Digital True Diversity	
Frequency-hopping		Each channel has 4 preset hopping frequencies	
Audio Sampling		24-bit / 44.1 kHz Rate	
Latency		< 4.0 ms	
Transmitter		ACT-24H Handheld ACT-24TC Bodypack	
Microphone		MM-107 Wired Dynamic Microphone	
Antenna		Built-in	
Audio Player			
Built-in USB Port		USB 2.0	
USB Play & Record		LCD displays track name, number, time, recording status.	
Operation		On-board. USB remote control included.	
Patents & Approvals		Patented. Telecom and safety regulations approved.	
Notes		Refer to actual product in the event of product description discrepancy. Frequency range and maximum deviation comply with the regulations of different countries.	

IX. Wireless Portable PA Systems

2. Portable Wireless PA Systems

A. Overview

1. Since 1995, the one-piece molded enclosure and trolley MA-707 portable wireless PA has remained a market-leading system. Mass-produced and sold worldwide for 20 years as MIPRO ensures product design, craftsmanship and reliability are second to none.
2. Introduced in 2005, the innovative MA-808 flagship leading-edge portable wireless PA features exclusive appearance, Hi-fi audio, and a host of impressive functionalities.
3. In 2006, MIPRO introduced MA-708 portable wireless PA. More innovative features were added in 2016 and it won the prestige “Red Dot” award.
4. In 2012, MIPRO introduced the ultra-compact, fully-featured MA-303 portable wireless PA system.
5. In 2013, MIPRO introduced MA-505, a culmination of years of wireless PA design and was awarded the 2016 “Taiwan Excellence” award.
6. All of MA Series have built UHF ACT wireless diversity receivers and built-in antennas for optimal reception and breakage prevention.
7. MIPRO is the only authorized MP3 and Bluetooth licensee wireless PA manufacturer in Taiwan.
8. MIPRO has been the leading brand of the portable wireless PA systems as each system delivers unparalleled audio performance and craftsmanship. The overall system design guarantees powerful and clear sound and offers an ideal public address solution for medium to large crowds. Ideal applications include: School sports events and marching bands, places of worship, presentations, seminars and meetings, shopping center presentations and promotions, aerobic & fitness centers, parades & fetes and weddings & funeral services.



reddot award 2017
winner

MA-808











reddot award 2016
winner

MA-708



IX. Wireless Portable PA Systems

B. Portable Wireless PA Comparison Chart

Model	MA-808	MA-708	MA-707	MA-505	MA-303DB	MA-303SB	MA-303DG	MA-303SG
Photo								
Max. Power Output	Class AB+D 267 W	Class D 190 W	Class AB 100 W	Class D 145 W	Class D 60 W			
Speaker	1.5 " Compression Driver & 10 " Woofer	1 " Compression Driver & 8 " Woofer	8 " Full-Range	1 " Tweeter &	1.5 " Compression Driver & 10 " Woofer			
Maximum Receiver	Up to 4		Up to 2	Up to 4	2	1	2	1
Receiver Installation	Plug-in Module			Built-in & Plug-in	Built-in Fixed			
Frequency Range	MRM-70B MRM-70W MRM-80: UHF 480 ~ 934 MHz (country dependent) MRM-24: 2.4 GHz - ISM				UHF 480 ~ 934 MHz (country dependent)		2.4 GHz - ISM	
Transmitter	ACT-32H/HC ACT-32T/TC ACT-24HC/TC ACT-70H/HC/ T/TC ACT-80H/HC/ T/TC	ACT-32H/HC ACT-32T/TC ACT-24HC/TC ACT-70H/HC/ T/TC ACT-80H/HC/ T/TC	ACT-32H/HC ACT-32T/TC ACT-24HC/TC ACT-70H/HC/ T/TC ACT-80H/HC/ T/TC	ACT-32H/HC ACT-32T/TC	ACT-32H/HC ACT-32T/TC	ACT-32H/HC ACT-32T/TC	ACT-24HC ACT-24TC	ACT-24HC ACT-24TC
Line Input	RCA × 1		Ø 6.3 mm × 1	Ø 3.5 mm × 1				
Line Output	RCA × 1		Ø 6.3 mm × 1	Ø 3.5 mm × 1				
Alarm Siren	N/A			Yes				
Mic Input	Mic: XLR & Ø 6.3 mm × 1				Mic: Ø 6.3 mm × 1			
Power Supply	Built-in 100 ~ 240V AC switching power supply				External 100 ~ 240 V AC switching power supply			
Built-in Battery	Sealed Lead-Acid MB-70 × 2 (optional LFP MB-80 × 2)			Lithium MB-35 × 1	Lithium MB-10 × 1			
Standby Time	Up to 6 hours	Up to 7 hours	Up to 8 hours	Up to 8 hours	Up to 9 hours	Up to 11 hours	Up to 9 hours	Up to 11 hours
Audio Player	CDM-2 DPM-3 (optional)		CDM-2 (optional)		USB Player & Recorder (built-in)			
Bluetooth Connectivity	Yes		N/A	Yes			N/A	
Retractable Handle & Wheels	Yes			N/A				
Tripod Stand	MS-70				MS-30			
Dimensions (W×H×D)	360 × 560 × 350 mm	336 × 545 × 325 mm	310 × 445 × 240 mm	275 × 400 × 225 mm	210 × 276 × 165 mm			
Approx. Weight (battery included)	20.5 kg	16.3 kg	14.8 kg	8.5 kg	2.8 kg	2.7 kg	2.8 kg	2.7 kg

IX. Wireless Portable PA Systems

C. Portable Wireless PA Systems

MA-808 Portable Wireless PA System



reddot award 2017
winner

Transmitters

UHF (MRM-70B MRM-72B)						
ACT-32HR	ACT-52T	ACT-32HC	ACT-32TC	ST-32	VT-22	ET-32

UHF (MRM-80)				UHF (MRM-70W)			
ACT-80H	ACT-80T	ACT-80HC	ACT-80TC	ACT-70H	ACT-70T	ACT-70HC	ACT-70TC

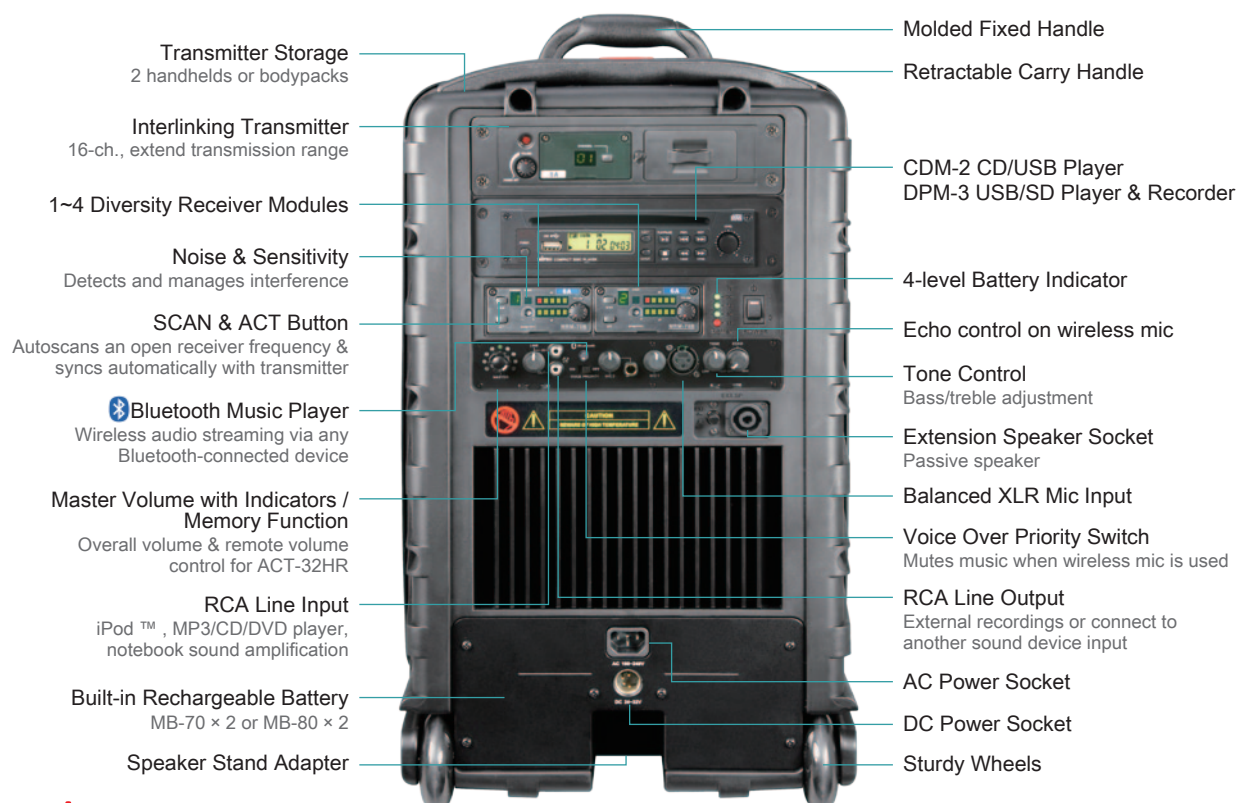
2.4 GHz (MRM-24)						
ACT-24HC	ACT-24TC	VT-24	ST-24	ET-24	MT-24	DM-100

Patents:

Taiwan Design D112612


China Design ZL200530143378.9

Model shown with accessories



IX. Wireless Portable PA Systems

Receiver Module and Audio Player

UHF		
MRM-80	MRM-70W	MRM-70B
		

UHF		2.4 GHz
MRM-72B	MTM-92	MRM-24
		

Audio Players	
DPM-3	CDM-2
	

Features

1. Robust, rugged enclosure, built-in class D & AB amplifiers system with 10" woofer and 1.5" tweeter.
2. Up to 4 UHF or 2.4 GHz diversity receiver modules with 16 auto-scannable frequencies and built-in active antenna prevents accidental antenna breakage.
3. Plug-&-play CD/MP3 player, plus certified Bluetooth receiver for music streaming.
4. Voice Priority mutes music when a wireless mic is used.
5. Echo effect for richer-sounding vocals.
6. Industry's only Master volume with "Memory" and "Standard" mode options. "Memory" mode saves and recalls last volume level during next power on. "Standard" mode resets to zero level.
7. Industry's only master volume that can be remotely controlled by an optional ACT-32HR transmitter microphone directly instead of a separate remote.
8. Retractable handle and rugged wheels make it amazingly easy to transport.
9. Built-in storage compartment for 2 handhelds or bodypack transmitters.
10. Wirelessly link 2 or more MA-808 systems for more sonic coverage (industry's only MTM-92 transmitter module is required).
11. Active limiter prevents speaker damage from loud signal spikes.
12. Can be powered via AC power, battery or direct DC.
13. Suitable for tripod, floor or desk mount.

Ideal Applications

- School sports events and marching bands
- Large meetings and public gatherings
- Presentations, seminars and meetings
- Shopping center presentations and promotions
- Places of worship
- Aerobic & fitness centers
- Parades & fetes
- Street performers
- Park and recreational facilities
- Emergency and rescue situations
- Weddings & funeral services
- Public auctions

Specifications

Portable PA		
Max. Power Output		267 W: 190 W (woofer) 77 W (tweeter)
Amplifier		Class D & Class AB
Sensitivity		Typical: 96 dB Maximum: 111 dB
T.H.D.		< 1%
Frequency Response		50 Hz ~ 18 kHz
Speaker	Tweeter	1.5 " Compression Driver
	Woofer	10 " Neodymium
Coverage		H 60° × V 50°
Audio Inputs	Wired	XLR × 1, Ø 6.3 mm (1/4 ") × 1
	Wireless	Up to 4 wireless microphones
	Audio Player	CDM-2 DPM-3
	Line-In	Unbalanced RCA jack
Bluetooth Connectivity		Yes
Audio Output		Unbalanced Line RCA jack
Extension Speaker		Speakon output
Master Volume Control		Manually or Wirelessly via ACT-32HR
Controls		Tone, Voice priority & Echo on wireless mics
Storage		2 handheld or bodypack transmitters
Installation		Speaker stand, flat surface or retractable handle & wheels
Power Supply	AC	Built-in 100 ~ 240 V AC switching power supply (Max. Power Consumption: 352 W)
	DC & Battery	24 ~ 32 V DC, 12V / 4.5AH rechargeable gel cell battery (MB-70 × 2) or optional MB-80 × 2
Charge Time		Up to 8 hours (automatic charging management)
Standby Time		Up to 6 hours
Battery Indicator		4-level indicator (25/50/75/100%)
Color		Black
Dimensions		360 × 560 × 350 mm (W × H × D)
Weight		Approx. 20.5 kg, batteries included
Wireless System		
Receiver		1 or 2 MRM-70B MRM-70W MRM-80 MRM-24 Scan & ACT sync
Max. Receiver		Up to 4
Frequency Range		MRM-70B MRM-70W MRM-80: UHF 480 ~ 934 MHz (country dependent) MRM-24: 2.4 GHz
Preset Channels & Bandwidth		See Accessories - Receiver Modules (P.133)
Transmitters		See Accessories - Receiver Modules (P.133)
Microphones		MM-107 MM-39 MM-59 Wired Dynamic Microphone
Interlinking Transmitter		MTM-92
Installation		Plug-in Module
Antenna		Built-in
Audio Player		
Model		CDM-2 DPM-3
Installation		Plug-in Module
Note		Refer to actual product in the event of product description discrepancy.

IX. Wireless Portable PA Systems

MA-708 Portable Wireless PA System



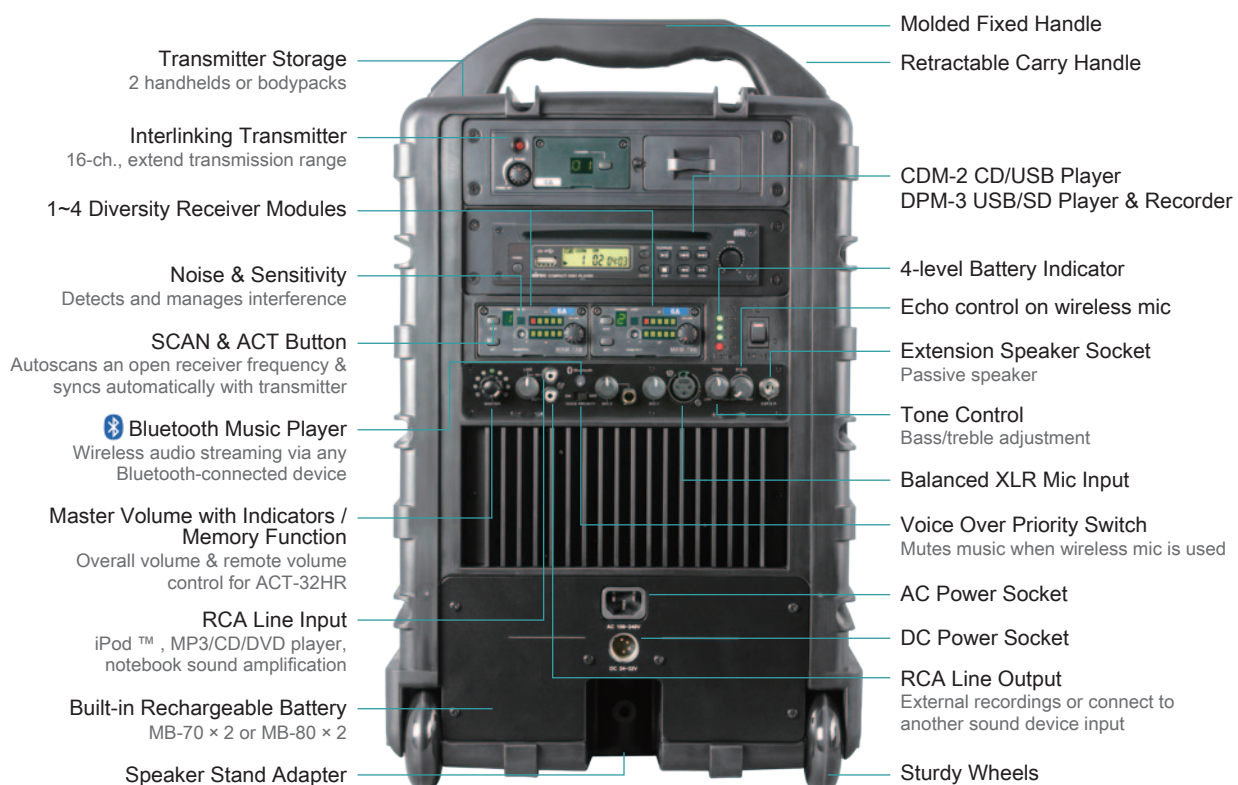
Transmitters

UHF (MRM-70B MRM-72B)						
ACT-32HR	ACT-52T	ACT-32HC	ACT-32TC	ST-32	VT-22	ET-32

UHF (MRM-80)				UHF (MRM-70W)			
ACT-80H	ACT-80T	ACT-80HC	ACT-80TC	ACT-70H	ACT-70T	ACT-70HC	ACT-70TC


2.4 GHz (MRM-24)						
ACT-24HC	ACT-24TC	VT-24	ST-24	ET-24	MT-24	DM-100

Model shown with accessories



IX. Wireless Portable PA Systems

Receiver Module and Audio Player

UHF		
MRM-80	MRM-70W	MRM-70B
		

UHF		2.4 GHz
MRM-72B	MTM-92	MRM-24
		

Audio Players	
DPM-3	CDM-2
	

Features

1. Robust, rugged enclosure, built-in class D amplifiers system with 8" woofer and 1" tweeter.
2. Up to 4 UHF or 2.4 GHz diversity receiver modules with 16 auto-scannable frequencies and built-in active antenna prevents accidental antenna breakage.
3. Plug-&-play CD/MP3 player, plus certified Bluetooth receiver for music streaming.
4. Voice Priority mutes music when a wireless mic is used.
5. Echo effect for richer-sounding vocals.
6. Industry's only Master volume with "Memory" and "Standard" mode options. "Memory" mode saves and recalls last volume level during next power on. "Standard" mode resets to zero level.
7. Industry's only master volume that can be remotely controlled by an optional ACT-32HR transmitter microphone directly instead of a separate remote.
8. Retractable handle and rugged wheels make it amazingly easy to transport.
9. Built-in storage compartment for 2 handhelds or bodypack transmitters.
10. Wirelessly link 2 or more MA-708 systems for more sonic coverage (industry's only MTM-92 transmitter module is required).
11. Active limiter prevents speaker damage from loud signal spikes.
12. Can be powered via AC power, battery or direct DC.
13. Weighs only 16 kgs | 35 lbs. fully loaded.

Ideal Applications

- School sports events and marching bands
- Large meetings and public gatherings
- Presentations, seminars and meetings
- Shopping center presentations and promotions
- Places of worship
- Aerobic & fitness centers
- Parades & fetes
- Street performers
- Park and recreational facilities
- Emergency and rescue situations
- Weddings & funeral services
- Public auctions

Specifications

Portable PA		
Max. Power Output		190 Watts
Amplifier		Class D
Sensitivity		Typical: 89 dB Maximum: 108 dB
T.H.D.		< 1%
Frequency Response		50 Hz ~ 18 kHz
Speaker	Tweeter	1 " Compression Driver
	Bass	8 " Woofer
Coverage		H 80° × V 60°
Audio Inputs	Wired	XLR × 1, Ø 6.3 mm (1/4 ") × 1
	Wireless	Up to 4 wireless microphones
	Audio Player	CDM-2 DPM-3
	Line-In	Unbalanced RCA jack
Bluetooth Connectivity		Yes
Audio Output		Unbalanced Line RCA jack
Extension Speaker		Ø 6.3 mm (1/4 ") Phone jack
Master Volume Control		Manually or Wirelessly via ACT-32HR
Controls		Tone, Voice priority & Echo on wireless mics
Storage		2 handheld or bodypack transmitters
Installation		Speaker stand, flat surface or retractable handle & wheels
Power Supply	AC	Built-in 100 ~ 240 V AC switching power supply (Max. Power Consumption: 220 W)
	DC & Battery	24 ~ 32 V DC, 12V / 4.5AH rechargeable gel cell battery (MB-70 × 2) or optional MB-80 × 2
Charge Time		Up to 8 hours (automatic charging management)
Standby Time		Up to 7 hours
Battery Indicator		4-level indicator (25/50/75/100%)
Color		Black or white option
Dimensions		336 × 545 × 325 mm (W × H × D)
Weight		Approx. 16.3 kg, batteries included
Wireless System		
Receiver		1 or 2 MRM-70B MRM-70W MRM-80 MRM-24 Scan & ACT sync
Max. Receiver		Up to 4
Frequency Range		MRM-70B MRM-70W MRM-80: UHF 480 ~ 934 MHz (country dependent) MRM-24: 2.4 GHz
Preset Channels & Bandwidth		See Accessories - Receiver Modules (P.133)
Transmitters		See Accessories - Receiver Modules (P.133)
Microphones		MM-107 MM-39 MM-59 Wired Dynamic Microphone
Interlinking Transmitter		MTM-92
Installation		Plug-in Module
Antenna		Built-in
Audio Player		
Model		CDM-2 DPM-3
Installation		Plug-in Module
Note		Refer to actual product in the event of product description discrepancy.

IX. Wireless Portable PA Systems

MA-707 Portable Wireless PA System



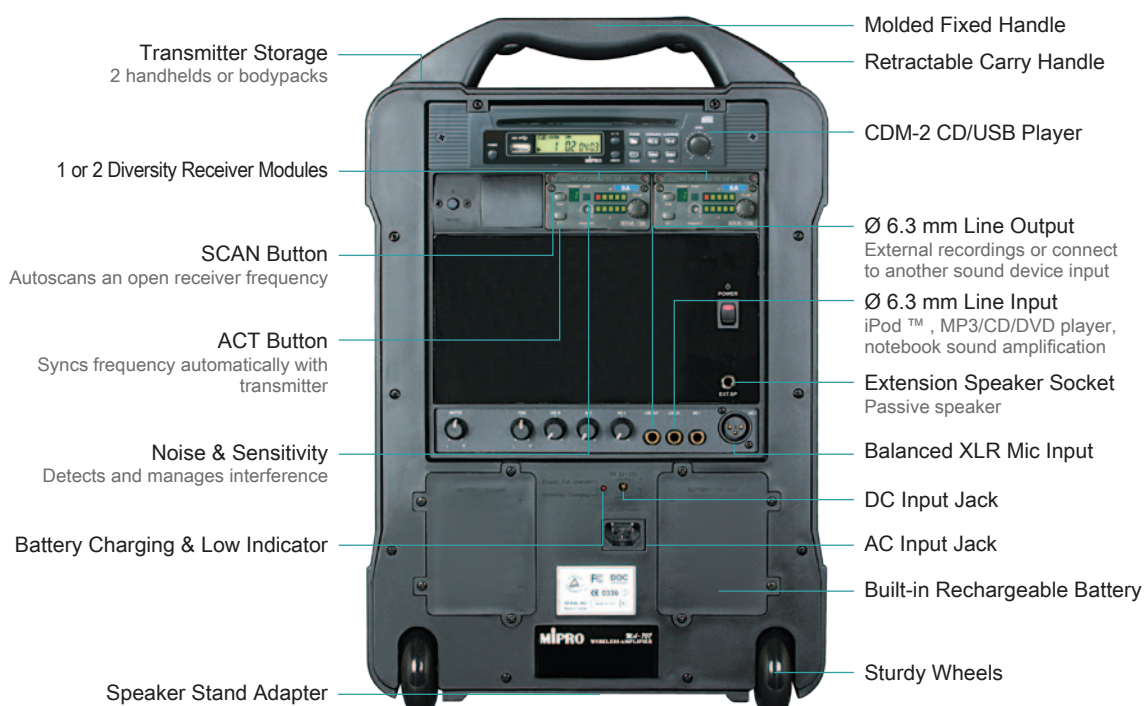
Transmitters

UHF (MRM-70B MRM-72B)						
ACT-32H	ACT-32T	ACT-32HC	ACT-32TC	ST-32	VT-22	ET-32

UHF (MRM-80)				UHF (MRM-70W)			
ACT-80H	ACT-80T	ACT-80HC	ACT-80TC	ACT-70H	ACT-70T	ACT-70HC	ACT-70TC



2.4 GHz (MRM-24)						
ACT-24HC	ACT-24TC	VT-24	ST-24	ET-24	MT-24	DM-100



Model shown with accessories



IX. Wireless Portable PA Systems

Receiver Module and Audio Player

UHF	
MRM-80	MRM-70W
	

UHF	2.4 GHz
MRM-70B	MRM-24
	

Audio Players
CDM-2


Features

1. Robust enclosure, 100-watt portable PA system with 8" full-range speaker.
2. Up to 2 UHF diversity receiver modules with 16 auto-scannable frequencies and built-in active antenna prevents accidental antenna breakage.
3. Plug-&-play CD/MP3 player.
4. Retractable handle and rugged wheels make it amazingly easy to transport.
5. Built-in storage compartment for 2 handhelds or bodypack transmitters.
6. Built-in AC switching power supply for universal usage.
7. Can be powered via AC power, battery, or direct DC.
8. Weighs only 14 kgs | 30 lbs. fully loaded.

Ideal Applications

- Schools
- Places of worship
- Presentations, seminars and meetings
- Shopping center & trade show presentations and promotions
- Aerobic & fitness centers
- Parades & fetes
- Street performers
- Park and recreational facilities
- Emergency interventions
- Weddings & funeral services
- Public auctions

Specifications

Portable PA		
Max. Power Output		100 Watts
Amplifier		Class AB
Sensitivity		Typical: 98 dB Maximum: 111 dB
T.H.D.		< 1%
Frequency Response		50 Hz ~ 18 kHz
Speaker		8 " full-range
Audio Inputs	Wired	XLR × 1, Ø 6.3 mm (1/4 ") × 1
	Wireless	Up to 2 wireless microphones
	Audio Player	CDM-2
	Line-In	Unbalanced Ø 6.3 mm (1/4 ") jack
Audio Output		Unbalanced Line Ø 6.3 mm (1/4 ") jack
Extension Speaker		Ø 6.3 mm (1/4 ") Phone jack
Volume		Master and other individual controls
Controls		Tone control
Storage		2 handheld or bodypack transmitters
Installation		Speaker stand, flat surface or retractable handle & wheels
Power Supply	AC	Built-in 100 ~ 240 V AC switching power supply (Max. Power Consumption: 120 W)
	DC & Battery	24 ~ 32 V DC, 12 V / 4.5 AH rechargeable gel cell battery (MB-70 × 2) or optional MB-80 × 2
Charge Time		Up to 8 hours (automatic charging management)
Standby Time		Up to 8 hours
Battery Indicator		Single LED Indicator
Color		Black
Dimensions		310 × 445 × 240 mm (W × H × D)
Weight		Approx. 14.8 kg, batteries included
Wireless System		
Receiver		MRM-70B MRM-70W MRM-80 MRM-24 Scan & ACT sync
Max. Receiver		Up to 2
Frequency Range		MRM-70B MRM-70W MRM-80: UHF 480 ~ 934 MHz (country dependent) MRM-24: 2.4 GHz
Preset Channels & Bandwidth		See Accessories - Receiver Modules (P.133)
Transmitters		See Accessories - Receiver Modules (P.133)
Microphones		MM-107 MM-39 MM-59 Wired Dynamic Microphone
Installation		Plug-in Module
Antenna		Built-in
Audio Player		
Model		CDM-2
Installation		Plug-in Module
Note		Refer to actual product in the event of product description discrepancy.

IX. Wireless Portable PA Systems

MA-505 Portable Wireless PA System



Transmitters

UHF (MRM-70B MRM-72B)						
ACT-32H	ACT-32T	ACT-32HC	ACT-32TC	ST-32	VT-22	ET-32

UHF (MRM-80)				UHF (MRM-70W)			
ACT-80H	ACT-80T	ACT-80HC	ACT-80TC	ACT-70H	ACT-70T	ACT-70HC	ACT-70TC

2.4 GHz (MRM-24)						
ACT-24HC	ACT-24TC	VT-24	ST-24	ET-24	MT-24	DM-100

Model shown with accessories



IX. Wireless Portable PA Systems

Receiver Module and Audio Player

UHF		
MRM-80	MRM-70W	MRM-70B
		

UHF	2.4 GHz
MT-91	MRM-24
	

Audio Players	
DPM-3	CDM-2
	

Features

1. Robust, rugged enclosure, 145-watt portable PA system with 8" woofer and 1" tweeter.
2. Up to 2 UHF diversity receiver modules with 16 auto-scannable frequencies.
3. Built-in active antenna prevents accidental antenna breakage.
4. CD/MP3 player or MP3 player & recorder, plus certified Bluetooth receiver for music streaming.
5. Voice Priority mutes music when a wireless mic is used.
6. Built-in one-button fade-in alarm/siren for warning.
7. Wirelessly link 2 or more MA-505 systems for more sonic coverage (industry's only MTM-91 transmitter module is required).
8. Built-in AC-switching power supply for universal usage and fast battery charge.
9. Built-in storage compartment for AC power cable.
10. Can be powered via AC power or lithium rechargeable battery.
11. Weighs only 8.5 kgs | 18 lbs. fully loaded.
12. Ideal for medium sized crowds and applications.

Ideal Applications

- School classrooms & halls
- Places of worship
- Presentations, seminars and meetings
- Day-care activities; playground duty
- Indoor/outdoor gatherings
- Weddings & funeral services
- Shopping center & trade show presentations and promotions.
- Street performers
- Aerobic and fitness centers
- Recreational and social activities

Specifications

Portable PA		
Power Output		100 Watts (rms) / 4Ω , 145 Watts (max) / 4Ω
Amplifier		Class D
Sensitivity		Typical: 91 dB Maximum: 109 dB
T.H.D.		< 1%
Frequency Response		50 Hz ~ 18 kHz
Speaker	Tweeter	1 " Tweeter
	Bass	8 " Woofer
Coverage		H 130° × V 90°
Audio Inputs	Wired	XLR × 1, Ø 6.3 mm (1/4 ") × 1
	Wireless	Up to 4. 2 Built-in & 2 External Detachable
	Audio Player	CDM-2 DPM-3
	Line-In	Ø 3.5 mm (1/8 ") mini-jack
Bluetooth Connectivity		Yes
Audio Output		Ø 3.5 mm (1/8 ") mini-jack
Extension Speaker		Unbalanced Ø 6.3 mm (1/4 ") jack
Volume		Individual volume control
Controls		Voice priority, Tone or optional Echo control
Alarm Siren		Siren sound with fade-in mode
Storage		For AC power cable
Installation		Hand carry, Flat surface or on a speaker stand.
Power Supply	AC	Built-in 100 ~ 240 V AC switching power supply (Max. Power Consumption: 165 W)
	DC & Battery	External DC connector. Built-in 22.2V/4.5AH rechargeable lithium (MB-35 × 1)
Charge Time		Up to 4 hours (automatic charging management)
Standby Time		Up to 8 hours
Battery Indicator		4-level LED indicator (25/50/75/100%)
Color		Black
Dimensions		275 × 400 × 225 mm (W × H × D)
Weight		Approx. 8.5 kg, battery included
Wireless System		
Built-in Fixed Receiver		1 or 2 Scan & ACT sync
Detachable Module Receiver		1 or 2 MRM-70B MRM-70W MRM-80 MRM-24 Scan & ACT sync
Frequency Range		MRM-70B MRM-70W MRM-80: UHF 480 ~ 934 MHz (country dependent) MRM-24: 2.4 GHz
Preset Channels & Bandwidth		See Accessories - Receiver Modules (P.133)
Transmitters		See Accessories - Receiver Modules (P.133)
Microphones		MM-107 MM-39 MM-59 Wired Dynamic Microphone
Interlinking Transmitter		MT-91 module
Installation		Plug-n-play for optional modules
Antenna		Built-in proprietary active high efficiency antenna
Audio Player		
Model		CDM-2 DPM-3
Note		Refer to actual product in the event of product description discrepancy.

IX. Wireless Portable PA Systems

MA-303SB Single-Channel Portable Wireless PA System

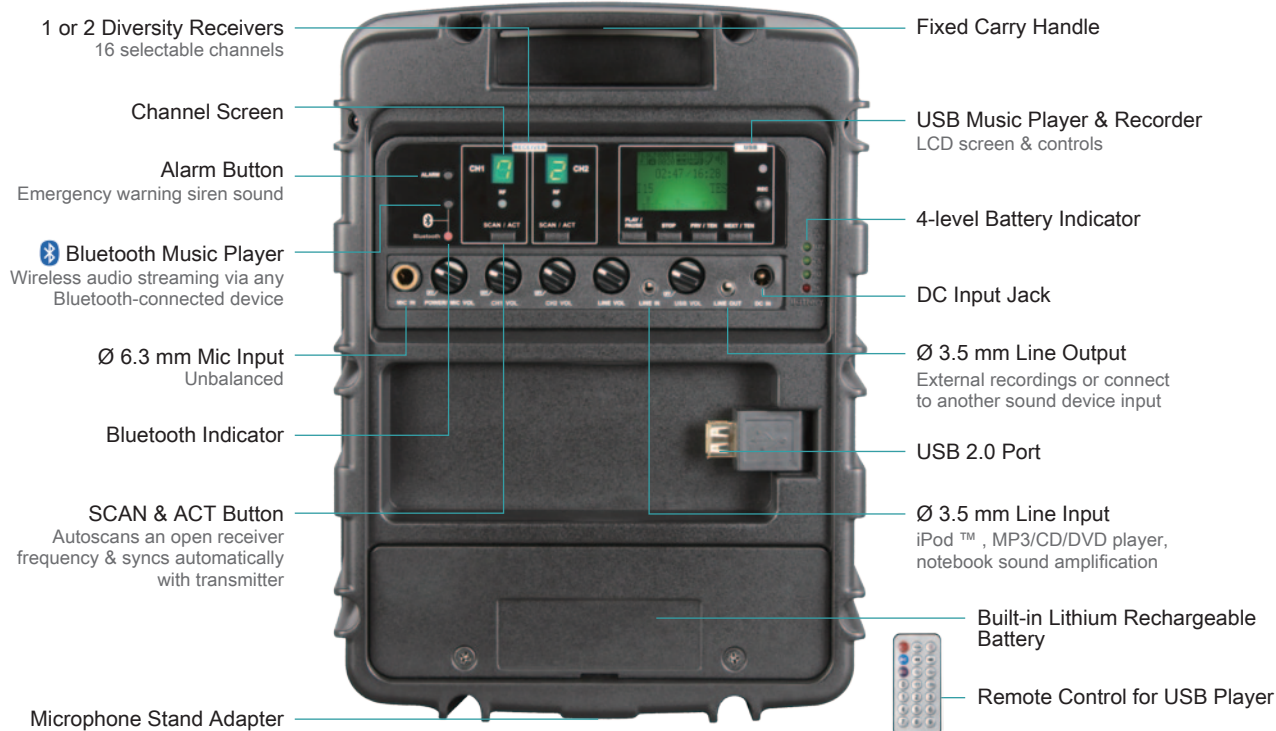


MA-303DB Dual-Channel Portable Wireless PA System



Controls and Indicators

Patents:
Taiwan Utility M339174



IX. Wireless Portable PA Systems

Transmitters



Features

1. Robust, rugged enclosure, 60-watt class-D amplifier with 5" woofer and 1" tweeter.
2. Up to 2 UHF diversity receiver modules with 16 auto-scannable frequencies.
3. Built-in active antenna prevents accidental antenna breakage.
4. Built-in MP3 player & recorder, plus certified Bluetooth receiver for music streaming.
5. Built-in one-button fade-in alarm/siren for warning.
6. 11 hours of stand-by time by its built-in lithium rechargeable battery, and 4-hour charge time.
7. A 4-level battery indicator displays the status of the battery.
8. Can be powered via AC power or lithium rechargeable battery.
9. Weighs only 2.7 kgs | 6 lbs. fully loaded.
10. Ideal for small- to medium-sized crowds.

Ideal Applications

- School classrooms & halls
- Places of worship
- Presentations, seminars and meetings
- Day-care activities; playground duty
- Indoor/outdoor gatherings
- Paging
- Shopping center & trade show presentations and promotions
- Street performers
- Aerobic and fitness centers
- Recreational and social activities

Specifications

Model		MA-303SB	MA-303DB
Portable PA			
Max. Power Output		60 Watts	
Amplifier		Class D	
Sensitivity		Typical: 92 dB Maximum: 102 dB	
T.H.D.		< 1%	
Frequency Response		50 Hz ~ 18 kHz	
Speaker		1 " Tweeter & 5 " Woofer	
Coverage		H 120° × V 70°	
Audio Inputs	Wired	Ø 6.3 mm (1/4 ")	
	Line-In	Ø 3.5 mm (1/8 ")	
Bluetooth Connectivity		Yes	
Audio Output		Ø 3.5 mm (1/8 ")	
Alarm Siren		Siren sound with fade-in mode	
Installation		Microphone stand, table mounted	
Power Supply	AC	External 100 ~ 240 V AC switching power supply (Max. Power Consumption: 60 W)	
	DC & Battery	Built-in 14.8 V / 2.6 AH rechargeable lithium battery (MB-10 × 1)	
Charge Time		Up to 4 hours (automatic charging management)	
Standby Time		Up to 11 hours	Up to 9 hours
Battery Indicator		4-level LED indicator (25/50/75/100%)	
Color		Black or white option	
Dimensions		210 × 276 × 165 mm (W × H × D)	
Weight (battery included)		Approx. 2.7 kg	Approx. 2.8 kg
Wireless System			
Receiver Channel		Single	Dual
Frequency Range		UHF 480 ~ 934 MHz (country dependent)	
Bandwidth		24 MHz	
Preset Channels		16	
Channel Set-up		Scan & ACT sync	
Transmitters		ACT-32H ACT-32HC Handheld ACT-32T ACT-32TC Bodypack	
Microphone		MM-107 Wired Dynamic Microphone	
Antenna		Built-in	
Audio Player			
Built-in USB Port		USB 2.0	
USB Play & Record		LCD displays track name, number, time, recording status.	
Operation		On-board. USB remote control included.	
Patents & Approvals		Patented. Telecom & safety regulations approved.	
Note		Refer to actual product in the event of product description discrepancy.	

IX. Wireless Portable PA Systems

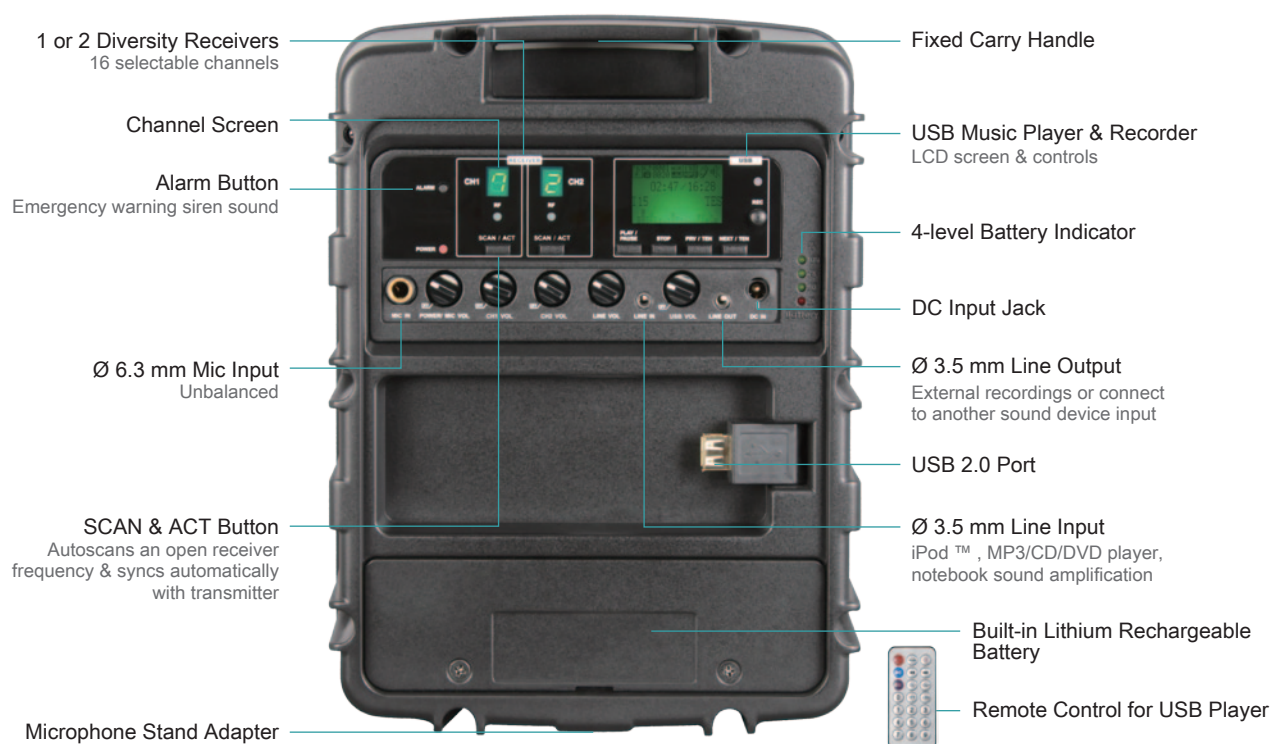
MA-303SG 2.4 GHz Single-Channel Portable Wireless PA System



MA-303DG 2.4 GHz Dual-Channel Portable Wireless PA System

Controls and Indicators

Patents:
Taiwan Utility M339174



IX. Wireless Portable PA Systems

Transmitters



Features

1. Robust, rugged enclosure, 60-watt class-D amplifier with 5" woofer and 1" tweeter.
2. Up to 2 2.4 GHz true diversity receiver modules with 10 auto-scannable frequencies. One-touch Scan & Sync (ACT) button for fast and easy channel set-up.
3. Built-in active antenna prevents accidental antenna breakage.
4. Stable digital FSK modulation circuitry and dual tuner true diversity receiving ensures long distance transmission with no signal drop-out.
5. Employs Frequency Hopping Spread Spectrum technology and adaptive tracking algorithm effectively avoid interference from other 2.4 GHz communication products.
6. Built-in USB music player & recorder with LCD screen.
7. Built-in one-button alarm/siren for warning of threats.
8. User-friendly control panel provides intuitive easy operation.
9. Can be powered via AC power or lithium rechargeable battery. 9 hours of stand-by time by its built-in lithium rechargeable battery, and 4-hour charge time.
10. A 4-level battery indicator displays the status of the battery.
11. Ideal for small- to medium-sized crowds.

Ideal Applications

- School classrooms & halls
- Places of worship
- Presentations, seminars and meetings
- Day-care activities; playground duty
- Indoor/outdoor gatherings
- Paging
- Shopping center & trade show presentations and promotions
- Street performers
- Aerobic and fitness centers
- Recreational and social activities

Specifications

Model		MA-303SG	MA-303DG
Portable PA			
Max. Power Output		60 Watts	
Amplifier		Class D	
Sensitivity		Typical: 92 dB Maximum: 102 dB	
T.H.D.		< 1%	
Frequency Response		20 Hz ~ 20 kHz	
Speaker		1 " Tweeter & 5 " Woofer	
Coverage		H 120° × V 70°	
Audio Inputs	Wired	Ø 6.3 mm (1/4 ")	
	Line-In	Ø 3.5 mm (1/8 ")	
Bluetooth Connectivity		N/A	
Audio Output		Ø 3.5 mm (1/8 ")	
Alarm Siren		Siren sound with fade-in mode	
Installation		Microphone stand, table mounted	
Power Supply	AC	External 100 ~ 240 V AC switching power supply (Max. Power Consumption: 60 W)	
	DC & Battery	Built-in 14.8 V / 2.6 AH rechargeable lithium battery (MB-10 × 1)	
Charge Time		Up to 4 hours (automatic charging management)	
Standby Time		Up to 11 hours	Up to 9 hours
Battery Indicator		4-level LED indicator (25/50/75/100%)	
Color		Black or white option	
Dimensions		210 × 276 × 165 mm (W × H × D)	
Weight (battery included)		Approx. 2.7 kg	Approx. 2.8 kg
Wireless System			
Receiver Channel		Single	Dual
Frequency Range		2.4 GHz – ISM	
Preset Channels		10	
Channel Set-up		Scan & ACT sync	
Receiving Mode		Dual-tuner Digital True Diversity	
Frequency-hopping		Each channel has 4 preset hopping frequencies	
Audio Sampling		24-bit / 44.1 kHz Rate	
Latency		< 4.0 ms	
Transmitters		ACT-24HC Handheld ACT-24TC Bodypack	
Microphones		MM-107 Wired Dynamic Microphone	
Antenna		Built-in	
Audio Player			
Built-in USB Port		USB 2.0	
USB Play & Record		LCD displays track name, number, time, recording status.	
Operation		On-board. USB remote control included.	
Patents & Approvals		Patented. Telecom & safety regulations approved.	
Note		Refer to actual product in the event of product description discrepancy.	

IX. Wireless Portable PA Systems

3. MA-909 Wireless Mixer



Features

1. The MA-909 is a breakthrough in the traditional designing concept of wireless PA systems. Introduced in 2002, this new integrated high-fidelity wireless interlinking amplifier system separates the control mixer from any amplified speaker system. The mixed audio signals from the MA-909 can be transmitted wirelessly to interlinking receiver modules installed in one or more remote active speaker systems, thus allowing the mixer to be set up in any desired location without the need for bulky and inconvenient connecting cables. It was nominated by TEC Award in 2005.
2. EIA Standard 2U metal case equipped with plug-in dual UHF wireless receivers, CD player, wired microphone jack, LINE-IN jack of other audio sources and LINE-IN/OUT jack of recorder.
3. A wired microphone, two wireless microphones, CD/DVD players, and other audio sources can be mixed simultaneously to the input.
4. 16 preset channels.
5. Modular design for interlinking wireless receiver allows being built-in or mounted on active speaker systems.
6. The active speaker systems with an interlinking receiver module installed allow unlimited expansion or change of setup position within transmitting range.

Specifications

Chassis	EIA-standard 2RU
Receiver	Plug-in 2 UHF or 2.4 GHz receiver modules
Transmitters	See Accessories – Receiver Modules
Microphone	MM-107 MM-39 MM-59 Wired Dynamic Microphone
Audio Input	Mic-in & Line-in
Audio Output	Line-out
Power Supply	Built-in 100 ~ 240 V AC switching power
Dimensions	420 × 88 × 200 mm (W × H × D)
Weight	Approx. 5.2 kg
Note	Refer to actual product in the event of product description discrepancy.

Optional Accessories

Model	MRM-80	MRM-70W	MRM-70B	MRM-24	MT-92	MR-90B	CDM-2	DPM-3
Photo								
Name	Wideband Digital Receiver Module	Wideband Receiver Module	Receiver Module	2.4 GHz Digital Receiver Module	Interlinking Transmitter Module	Interlinking Receiver Module	CD/USB Player Module	USB/SD Player & Recorder Module
Note	Additional specifications are available in Accessories (P.133).							

IX. Wireless Portable PA Systems

4. Accessories

1. Receiver Modules

The easy to install and use plug-and-play MRM-series receiver modules are designed mainly to fit MIPRO wireless portable PA systems for wireless microphone applications. Other unique installations can be considered for PA amplifiers, mixers, signal processors, and active speakers.

A. Compatible Transmitters

Band	Receiver Module		Handheld Transmitter		Bodypack Transmitter		Instrument Transmitter
UHF	Narrowband	MRM-70B MRM-72B	Narrowband	ACT-32H ACT-32HR ACT-32HC	Narrowband	ACT-52T ACT-32T ACT-32TC	VT-22. ST-32. ET-32
	Wideband	MRM-70W	Wideband	ACT-70H ACT-70HC	Wideband	ACT-70T ACT-70TC	
	Digital	MRM-80	Digital	ACT-80H ACT-80HC	Digital	ACT-80T ACT-80TC	
2.4 GHz	MRM-24		ACT-24HC		ACT-24TC		ST-24. ET-24. MT-24. VT-24. DM-100

B. Receiver Modules

MRM-70B Single-Channel Diversity Receiver Module

MRM-72B Dual-Channel Diversity Receiver Module



MRM-70B



MRM-72B

MRM-70W Wideband Single-Channel Diversity Receiver Module

MRM-80 Digitally Encrypted Single-Channel Diversity Receiver



MRM-70W



MRM-80

IX. Wireless Portable PA Systems

Features

1. Advanced diversity technology for optimum reception quality.
2. The MRM-70B/MRM-72B preset with 16 auto-scannable frequencies. The MRM-70W presets with 104 frequencies & the MRM-80 presets with 64 frequencies.
3. One-touch Scan for a clear, interference-free frequency.
4. One-touch ACT™ syncs the transmitter and receiver frequency automatically.
5. Easy-to-read LED channel display.
6. Interference warning indicator.
7. "Sensitivity" adjustor can be adjusted to minimize interference.
8. Dual "PiloTone & NoiseLock" circuits minimize interference.
9. 5-segment RF and Audio meters.
10. Modular design allows easy installation and replacement.
11. When MRM-70B / MRM-72B is installed, master level control enables volume be wirelessly controlled by an ACT-32HR transmitter microphone instead of a separate remote. (MA-708 & MA-808 portables)

Specifications

Model	MRM-70B	MRM-72B	MRM-70W	MRM-80
Type	Analog, Narrowband		Analog, Wideband	Digital, Wideband
Channel	Single	Dual	Single	
Frequency Range	UHF 480 ~ 934 MHz (country dependent)			
Bandwidth	24 MHz		72 MHz	64 MHz
Preset Channels	16		104	64
Channel Set-up	Scan and ACT sync			
Display Status	Channel, RF & audio meters and interference warning indicator			
Receiving Mode	CPU-controlled diversity receiving			Digital diversity
Oscillation Mode	PLL Synthesized. Frequency stability $\leq \pm 0.005\%$ (-10°C – +60°C)			
Deviation	< ± 40 kHz			N/A
Sensitivity	10 dB μ V at S/N > 80 dB			N/A
S/N Ratio	> 100 dBA			N/A
T.H.D.	< 0.5% @ 1 kHz (Dev. = 32 kHz)			< 0.03%
Frequency Response	60 Hz ~ 15 kHz (Overall system)			20 Hz ~ 20 kHz (-2 dB)
Squelch Control	“PiloTone & NoiseLock” dual-squelch circuits			N/A
Spurious Emissions	< 82 dB			N/A
Audio Output	610 mV rms			N/A
Encryption	N/A			256 bits
Latency	N/A			< 3 ms
Power Supply	12 ~ 15 V DC			
Dimensions (W×H×D)	75 × 35 × 141 mm	220 × 57 × 190 mm	75 × 35 × 141 mm	
Weight	Approx. 126 g	Approx. 622 g	Approx. 126 g	
Transmitters	See Compatible Transmitters (P.136)			
Operating Temperature	-10°C ~ +60°C			
Note	Refer to actual product in the event of product description discrepancy.			

IX. Wireless Portable PA Systems

MRM-24 2.4 GHz Digital True Diversity Receiver Module



Features









1. Operates in the 2.4 GHz user license-free ISM band. Up to 12 preset compatible channels.
2. True diversity technology and stable digital FSK modulation circuit eliminate signal dropouts and ensure best reception quality.
3. Combining FHSS frequency-hopping technique with adaptive tracking algorithm to prevent interferences from other 2.4 GHz wireless devices.
4. Featuring an easy-to-read channel LED display, audio and transmitter battery status indicators.
5. The modular design allows for fast and easy installation or replacement.
6. No analog's companding noise. Ideal sound amplification for musical instruments.

Specifications

Frequency Range	2.4000 ~ 2.4835 GHz
Preset Frequency	12 preset frequencies in total
Channel Set-up	Scan and ACT sync
Display Status	Channel, audio meters and the battery status of the transmitter
Receiving Mode	Dual-tuner Digital True Diversity
Sensitivity	+12 dB μ V
Frequency-hopping	Each channel has 4 preset hopping frequencies.
Audio Sampling	24-bit / 44.1 kHz Rate
Latency	< 4 ms
Audio Frequency Response	20 Hz ~ 20 kHz
S/N Ratio (Analog Output)	> 115 dB(A)
T.H.D.	< 0.1% @ 1 kHz
Audio Output	2 Vrms
Antenna	50 Ω fixed antenna \times 2
Power Supply	10 ~ 15 V DC
Power Consumption	< 1.5 W
Dimensions	74.5 \times 34.5 \times 149 mm (W \times H \times D)
Weight	78 g
Transmitters	ACT-24HC Handheld & ACT-24TC Bodypack VT-24 / ST-24 / ET-24 / MT-24 / DM-100 Musical Instrument Transmitter
Operating Temperature	-10°C ~ +60°C
Note	Refer to actual product in the event of product discrepancy.

IX. Wireless Portable PA Systems

2. Handheld Transmitters

1. ACT-32H Handheld Transmitter	2. ACT-32HR Remote Volume Control Handheld Transmitter	3. ACT-32HC Rechargeable Handheld Transmitter
		
4. ACT-24HC 2.4 GHz Rechargeable Digital Handheld Transmitter	5. ACT-70H Wideband Handheld Transmitter	6. ACT-70HC Wideband Rechargeable Handheld Transmitter
		
7. ACT-80H Digital Handheld Transmitter	8. ACT-80HC Rechargeable Digital Handheld Transmitter	
		

Features & Specifications:

See I. Wireless Microphone Systems

IX. Wireless Portable PA Systems

3. Bodypack Transmitters

1. ACT-24TC 2.4 GHz Rechargeable Digital Bodypack Transmitter	2. ACT-32T Narrowband Bodypack Transmitter	3. ACT-32TC Rechargeable Narrowband Bodypack Transmitter
		
4. ACT-52T Narrowband Bodypack Transmitter	5. ACT-70T Wideband Bodypack Transmitter	6. ACT-70TC Rechargeable Wideband Bodypack Transmitter
		
7. ACT-80T Digital Wideband Bodypack Transmitter	8. ACT-80TC Rechargeable Digital Wideband Bodypack Transmitter	
		

Features & Specifications:

See I . Wireless Microphone Systems

IX. Wireless Portable PA Systems

4. Instrument Microphone Transmitters

1. VT-22 Wireless Violin/Viola Transmitter Set	2. VT-24 Digital Cello Transmitter	3. ST-32 Wireless Wind Instrument Transmitter Set
		
4. ST-24 Wireless Saxophone Transmitter Set	5. ET-32 Wireless Erhu Transmitter Set	6. ET-24 Digital Wireless Erhu Transmitter Set
		
7. MT-24 Digital Guitar Transmitter	8. DM-100 Digital Wireless Cajon Set	9. ACT-22T Miniature Headworn Transmitter
		

Features & Specifications:

See IV . Musical Instrument Microphones

IX. Wireless Portable PA Systems

5. Wireless Interlinking Transmitters

MT-91 Interlinking Transmitter Module



MT-91
(for MA-505)

MT-92 Interlinking Transmitter Module

MTM-92 Interlinking Transmitter Module



MT-92



MTM-92

Features

1. 16 selectable channels.
2. Numeric LED display.
3. Modular design allows easy installation and replacement.
4. MT-91 fits MA-505 portables. MTM-92 fits MA-708 or MA-808 portables.

Specifications

Model	MT-91	MT-92	MTM-92
Frequency Range	UHF 480 ~ 934 MHz (country dependent)		
Bandwidth	24 MHz		
Oscillation Mode	PLL Synthesized		
RF Output Power	10 / 100 mW switchable (country dependent)		
Spurious Emissions	< -45 dBm		
Dimensions (W × H × D)	75 × 35 × 165 mm	65 × 34.5 × 165 mm	220 × 57 × 190 mm
Weight	Approx. 85 g	Approx. 80 g	Approx. 410 g
Note	Refer to actual product in the event of product description discrepancy.		

IX. Wireless Portable PA Systems

6. Bodypack Transmitter Microphones

MU Series Lavalier Microphones



MU-53L



MU-53LS



MU-55L



MU-55LS

MU Series Headworn Microphones



MU-210



MU-210d



MU-23



MU-23d

Features & Specifications:

See I . Wireless Microphone Systems 8. MU Series Bodypack Transmitter Microphones (P.40)

7. Audio Player Modules

DPM-3

USB/SD Player & Recorder Module



Features

1. Records from Line-input into SD card or USB.
2. Single track can be deleted during playback.
3. Recording standard. Sample rate 44.1 kHz / Bit rate 192 kbps.
4. Support MP3 / WMA / FLAC / APE / WAV / M4A / AAC / OGG format.
5. Speed control for fast and slow play.
6. Song management by music folders.
7. Repeat, Fast forward/reverse search.
8. Numeric selection and random playback.
9. Random playback.
10. Wireless remote control included.
11. Can repeat specified period for language learning function.
12. Ideal for live recording.
13. Fits MA-505, MA-708 or MA-808.

CDM-2

CD/USB Player Module



CDM-2



CDM-2 (for MA-707)

Features

1. Plays standard CD and USB flash disk.
2. Selection and Search.
3. Random & repeat playback.
4. USB 2.0 port.
5. Wireless remote control included.
6. CDM-2 fits MA-505, MA-707, MA-708, MA-808.

IX. Wireless Portable PA Systems

8. Rechargeable Batteries

MB-80 12V Lithium Iron Phosphate Battery Case



The MB-80 holds four MB-15 LFP batteries (batteries are not included)

Patents:
Taiwan Utility M478918
China Utility ZL201420055548.1



MB-15 LFP battery (optional)

Features

1. MB-80 battery case is designed to hold four 65~70mm (length) lithium iron phosphate (LFP) batteries. Four series-connected battery voltage coincides and are compatible with the voltage of 12V lead-acid batteries. Therefore, it can be a direct replacement battery for the existing MB-70 lead-acid battery inside the MIPRO MA-707, MA-708 & MA-808 portable wireless PA systems.
2. Currently, the lithium iron phosphate battery (LFP battery) is recognized as the leader for number of charge and discharge cycles of rechargeable battery. Generally, the average life of a rechargeable lead-acid or lithium battery is 500 discharge-recharge cycles. Higher quality LFP has up to 2,000 discharge-recharge cycles. It is considered as an environmentally friendly battery, superior cycle life, reduced failures and half the weight of an equivalent capacity lead-acid, thus, an ideal replacement and upgrade battery option. It is readily available by MIPRO and other rechargeable battery shops.
3. MB-80 has BMS smart battery management circuits and provides safe charging protection technology and extremely long life cycles.

Specifications

1. It holds four MB-15/26650/32700 LFP rechargeable batteries.
2. Same polarity direction insertion with screws and hooks for secured and easy installation.
3. Standard output voltage 12.8V; maximum continuous output current up to 8A.
4. Safe shorts circuit technology prevents overcharging and safe operation.
5. Each battery has overcharge and over discharge protection circuits; overcharge protection voltage 3.9V; over-discharge protection voltage 2.0V.
6. Smart management circuit ensures balanced charging and discharge states.
7. Four 32650 high-capacity rechargeable LFP batteries installed in a MB-80 can be interchangeable with one MB-70 rechargeable sealed lead-acid battery. Refer to MA-707 / 708 / 808 specifications for charge and standby times.
8. Net Weight: 245 grams / 8.6 ounces (case only, excluding 4 batteries).
9. Dimensions: 89.5 (W) × 101 (H) × 69.5 (D) mm (same dimensions as MB-70, 12V/4.5Ah).
10. Flame retardant class V0.

General LFP Battery Specifications & Capacity Characteristics

Type	32650 (MB-15) high capacity	32650 standard capacity	32700 high capacity	26650 standard capacity	26650 high capacity
Capacity	5.0Ah	4.0Ah	5.0Ah	2.3Ah	3.0Ah
Dimensions (D × L)	32 × 65 mm	32 × 65 mm	32 × 70 mm	26 × 65 mm	26 × 65 mm
Weight (1 cell)	Approx. 130 g	Approx. 125 g	Approx. 140 g	Approx. 82 g	Approx. 84 g
MB-80 Weight(battery included)	Approx. 765 g	Approx. 745 g	Approx. 805 g	Approx. 573 g	Approx. 581 g

Replacement Rechargeable Batteries

Model	MB-5	MB-10	MB-15	MB-25	MB-35	MB-70	MB-80
Photo							
Name	Lithium ICR 18500	Lithium	Lithium LFP 32650	Lithium	Lithium	Sealed Lead-acid	Battery Case for MB-15
Voltage	3.7V / 1.5AH	14.8V / 2.6AH	3.2V / 5.0AH	14.8V / 2.6AH	22.2V / 4.5AH	12V / 4.5AH	N/A
Compatible	ACT-24HC/TC, ACT-32HC/TC	MA-100, MA-303	MB-80	MA-101B, MA-101G, MA-202B	MA-505	MA-707, MA-708, MA-808	

IX. Wireless Portable PA Systems

9. Charging Stations

MP-80

Two-slot Charging Station



MP-8

One-slot Charging Station



Features & Specifications:

See I . Wireless Microphone Systems 10. Accessories (P.44)

10. Others

1. Stands

Model	MS-11	MS-30	MS-70	MS-90
Photo				
Name	Bracket	Tripod Stand	Tripod Stand	Bracket
Compatible	MA-101ACT	MA-100, MA-101B, MA-101G, MA-202B, MA-303	MA-505, MA-707, MA-708, MA-808	MA-303, MA-303AXP

2. Storage | Carry Bags























Model	SC-10	SC-20	SC-30	SC-50	SC-70	SC-75	SC-80
Photo							
Name	Carry Bag			Storage Bag			
Compatible	MA-100 MA-101B MA-101G	MA-202B	MA-303	MA-505	MA-707	MA-708	MA-808









3. Extension Speakers

Model	MA-101EXP	MA-303AXP	MA-505EXP	MA-707EXP	MA-708EXP	MA-808EXP
Photo						
Name	Extension	Extension	Extension	Extension	Extension	Extension
Power	Passive	Active	Passive	Passive	Passive	Passive
Compatible	MA-101ACT	MA-303	MA-505	MA-707	MA-708	MA-808

IX. Wireless Portable PA Systems

Receiver Modules & Compatible Transmitters

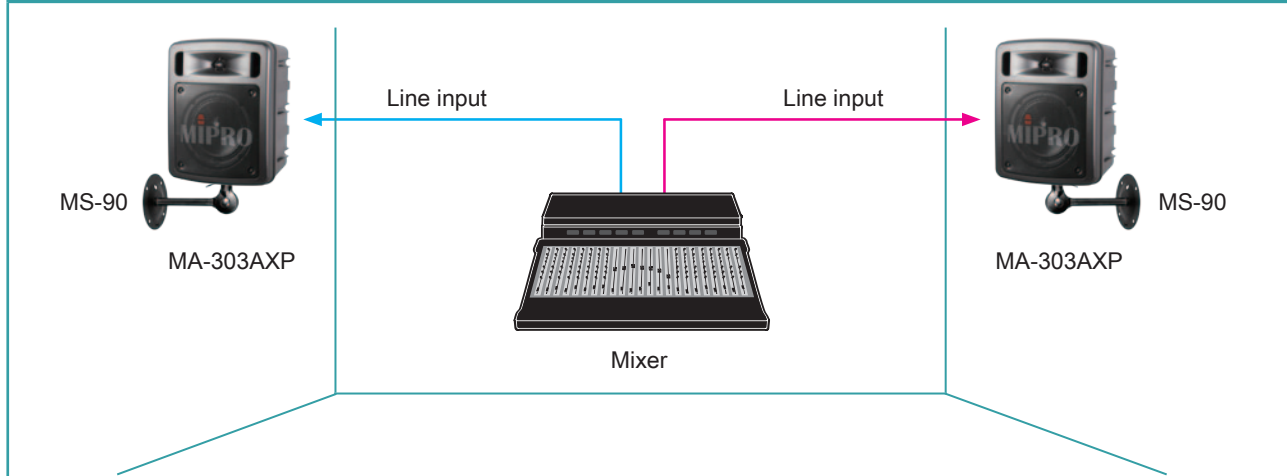
UHF	
Receiver Module	Transmitter
 MRM-80	 ACT-80H  ACT-80HC  ACT-80T  ACT-80TC
 MRM-70W	 ACT-70H  ACT-70HC  ACT-70T  ACT-70TC
 MRM-70B  MRM-72B	 ACT-32H  ACT-32HR  ACT-32HC  ACT-52T  ACT-32T  ACT-32TC  VT-22  ST-32  ET-32  ACT-22T

2.4 GHz	
Receiver Module	Transmitter
 MRM-24	 ACT-24HC  ACT-24TC  ST-24  ET-24  MT-24  VT-24  DM-100

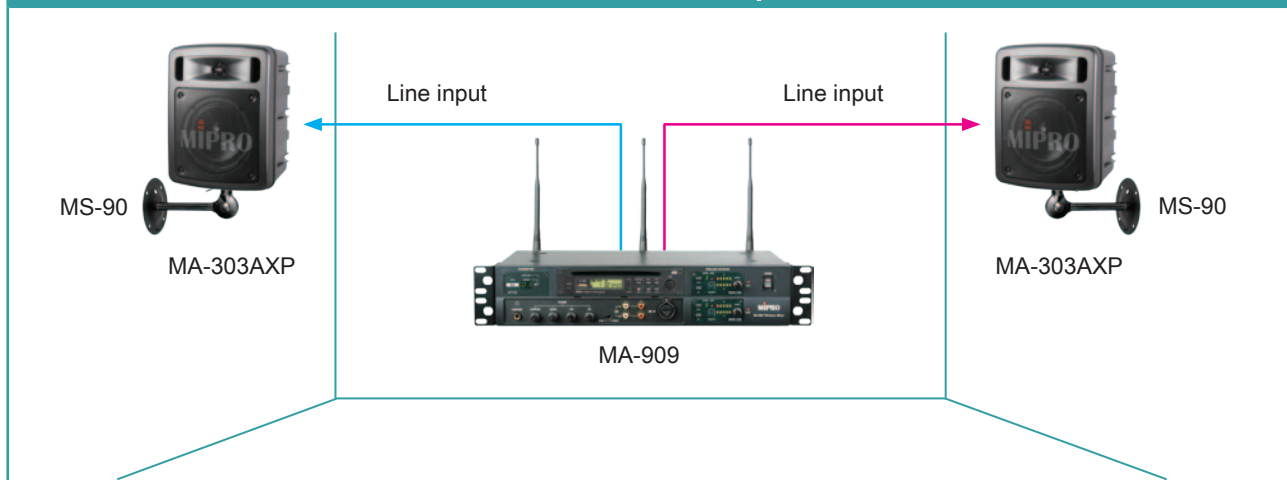
IX. Wireless Portable PA Systems

MA-303AXP Applications

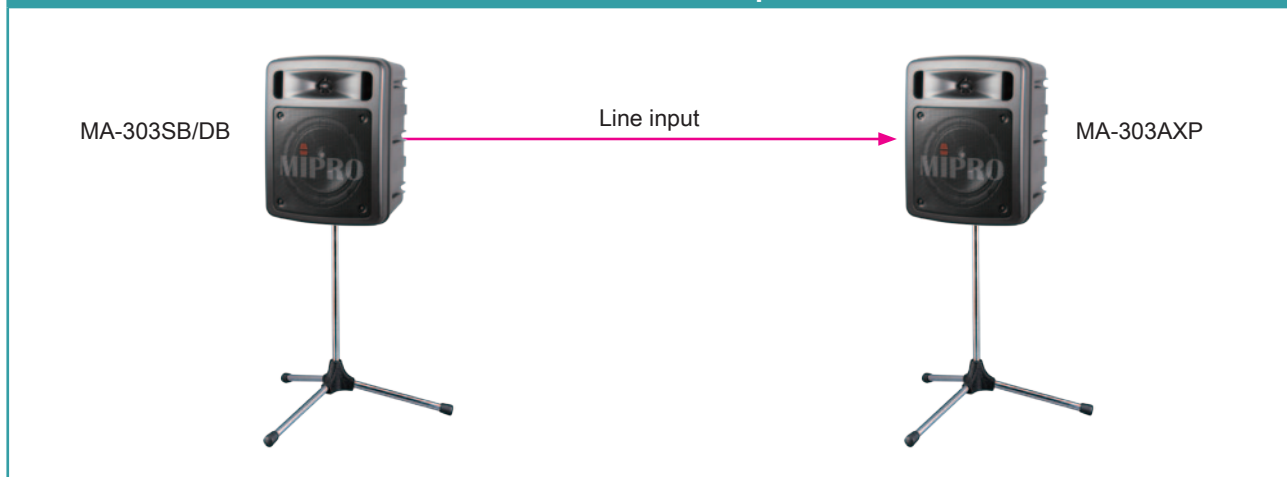
MA-303AXP Active Speaker (Line input) Application # 1- Mixer output to MA-303AXP line input



MA-303AXP Active Speaker (Line input) Application # 2 - MA-909 line output to MA-303AXP line input



MA-303AXP Active Speaker (Line input) Application # 3 - MA-303 line output to MA-303AXP line input



Products Index

A	
ACT-2401	14
ACT-2402	14
ACT-2412A	13
ACT-2414A	13
ACT-24HC	11
ACT-24R	92
ACT-24TC	11
ACT-300B	33
ACT-311B	34
ACT-312B	34
ACT-314	33
ACT-32H	30
ACT-32HC	30
ACT-32T	31
ACT-32TC	31
ACT-33H	30
ACT-515B	27
ACT-525B	27
ACT-52H	23
ACT-52HC	23
ACT-52T	24
ACT-52TC	24
ACT-545B	26
ACT-707SD	41
ACT-70H	17
ACT-70HC	17
ACT-70T	18
ACT-70TC	18
ACT-72	20
ACT-74	20
ACT-80	83
ACT-80H	4
ACT-80HC	4
ACT-80R	84
ACT-80T	5
ACT-80TC	5
ACT-818	8
ACT-828	8
ACT-848	7
ACT-8D	41
AD-12	56
AD-702	54
AD-708	53
AD-808	56
AD-90A	58
AD-90S	57
ASP-10	47
ASP-30	47
AT-10	49
AT-100	51
AT-20	49
AT-24	51
AT-70W	50
AT-90W	50
B	
BC-100	102

BC-100DT	104
BC-100T	104
BC-204	103
BC-205	103
BC-206	103
BC-24T	104
C	
CDM-2	140
D	
DM-100	80
DPM-3	140
E	
E-10S	96
E-20S	96
E-5S	96
E-8P	90
E-8S	90
EH-32	78
ET-24	78
ET-32	78
F	
FB-10	47
FB-70	47
FB-71	47
FB-72	47
FBC-71	47
G	
GM-100	77
M	
MA-100DB	114
MA-100SB	114
MA-100SG	116
MA-100DG	116
MA-101AXP	142
MA-101B	110
MA-101G	110
MA-101ACT	112
MA-202B	108
MA-303AXP	142
MA-303DB	128
MA-303SB	128
MA-303SG	130
MA-303DG	131
MA-505	126
MA-505EXP	142
MA-707	124
MA-707EXP	142
MA-707UM	135
MA-708	122
MA-708EXP	142
MA-808	120
MA-808EXP	142
MA-909	132
MB-5	47
MB-80	141
MD-20	46

MES-100	42
MH-80	36
MI-909R	88
MI-909T	88
MJ-24A	47
MJ-24E	47
MJ-53	40
MJ-70	47
MM-10	97
MM-107	64
MM-202A	101
MM-202J	100
MM-202P	97/101
MM-202S	101
MM-204	100
MM-205	100
MM-206	100
MM-39	63
MM-59	63
MM-590	65
MM-70	62
MM-80	61
MM-90	61
MP-8	44
MP-80	44
MP-8T	44
MP-24	44
MPA-24	44
MPA-30	44
MPA-80	44
MPB-24	55
MPB-30	55
MPC-100	46
MR-24	68
MR-823	38
MRM-24	135
MRM-70B	133
MRM-70W	133
MRM-72B	133
MRM-80	133
MS-11	142
MS-20	46
MS-30	142
MS-50	46
MS-70	142
MS-80	46
MS-90	52/142
MT-24	67
MT-24A	86
MT-801	36
MT-91	139
MT-92	139
MT-92A	86
MTM-92	139
MTG-100C-12	98
MTG-100C-28	98
MTG-100C-4	98

MTG-100C-CR	98
MTG-100Ha	95
MTG-100R	93
MTG-100Ra	93
MTG-100T	94
MTG-100Ta	94
MTS-100	95
MU-10	81
MU-101P	97
MU-16	81
MU-20	81
MU-210	40
MU-210d	40
MU-23	40
MU-23d	40
MU-23P	97
MU-39	39
MU-40G	47
MU-53HNP	97
MU-53L	40
MU-53LS	40
MU-55L	40
MU-55LS	40
MU-59	39
MU-70	39
MU-80	39
MU-90	39
R	
RH-77a	47
RH-87	47
S	
SC-10	142
SC-20	142
SC-30	142
SC-50	142
SC-70	142
SC-75	142
SC-80	142
SC-32	74
SH-32	74
SM-24	74
SM-32	74
ST-24	76
ST-32	76
SW-20	47
T	
TA-80	85
V	
VC-22	70
VM-22	70
VM-24	70
VT-22	72
VT-24	72

MIPRO MA-808 & ST-24 win “2017 Red Dot”



MIPRO's president, Solomon Chang (right) & VP, Eugene Chen (left)

“2017 Red Dot Award: Product Design” received more than 5,500 products from participants from 54 countries. MIPRO's MA-808 portable wireless PA system and ST-24 digital wireless saxophone set received the coveted distinction of the “Red Dot”. The best designers and manufacturers of 2017 were given their awards at the Red Dot Gala on 3 July. MIPRO's president, Solomon Chang & VP, Eugene Chen participated in the Red Dot Gala as well as the special exhibition “Design on Stage” in Essen, Germany to receive the certificates.

The Red Dot Design Award competition has existed since 1955 and is one of the most respected design competitions in the world. With the help of the jury of experts, the internationally organized competition “Red Dot Award: Product Design” appraises the best products of the year. The “Red Dot” is the revered international seal of outstanding design quality.



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