

VHF WIRELESS MICROPHONE SYSTEM



DESCRIPTION

TOA VHF WIRELESS MICROPHONE SYSTEMS deliver cutting edge wireless technology and user benefits such as fast setup, simple operation and reliable operation at a surprisingly affordable level, providing the ideal entry level wireless microphone system.

Employing the same TOA Space Diversity technology used in the high-end TOA UHF systems, the VHF systems have six selectable channels in the 169 – 216MHz* frequency band.

The WT-3800 Rack mountable wireless tuner is equipped with an onboard scanner function and a squelch system comprised of carrier, noise and tone squelch to achieve quiet operation without interference. A mix-in jack for accepting audio input from other sources or another WT-3800 is available. The portable tuner WT-3810 is not equipped with a frequency scanner but has a squelch function comprised of carrier and noise and features an audio mixing input as well. Tuner options include the MB-WT1 and MB-WT2 Rack Mount Bracket Kits for single or dual WT-3800 mounting in a single 19" rack space. The WD-4800 Antenna Distributor and the YW-3500 Wireless Antenna are other options.

Transmitter options include the WM-3210 Handheld (Vocal) Wireless Microphone and the WM-3220 Handheld (Speech) Wireless Microphone. These have a side-positioned on/off switch to prevent microphone rolling when set down. There are also two bodypack transmitters -- the WM-3310 Lavalier Wireless Microphone and the WM-3310H Headset Wireless Microphone, both with useful input sensitivity adjustment and easy mounting rotatable belt clips. Each of these four microphones offers over 10 hours of operation from a single 9V alkaline battery and has a useful LED low battery indicator.

FEATURES

- Professional wireless microphone systems.
- Frequency-agile: 6 channels.
- VHF band (169 – 216 MHz*).
- Up to 6 simultaneous systems.
- TOA Space Diversity** reception.
- Handheld, lavalier and headset microphone systems.
- 10 hours continuous transmitter operation from one 9 volt battery.

* Frequency range may vary by area. (between 169 to 216 MHz)

** Patents pending for TOA Space Diversity Technology.

APPLICATIONS

- A/V rentals
- Bingo halls
- Boardrooms
- Community centers
- Hotels
- Houses of worship
- Presenters
- Restaurants
- Schools
- Theatres



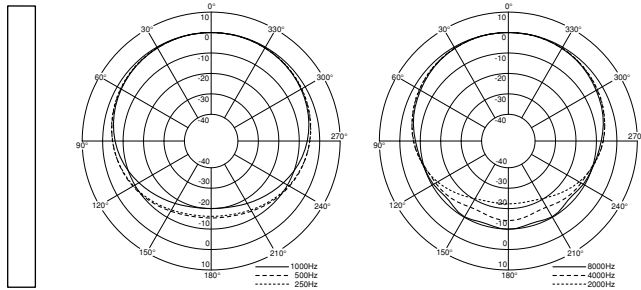
WM-3210

Hand-held (Vocal) Microphone



- 6 channel frequency-agile.
- Optimized for vocals/singing.
- Dynamic cardioid microphone element.
- Maximum input level: 125 dB SPL.
- ON/OFF switch also keeps mic from rolling when put down.
- Flashing low battery indicator.
- Mic clip included.

Polar Response



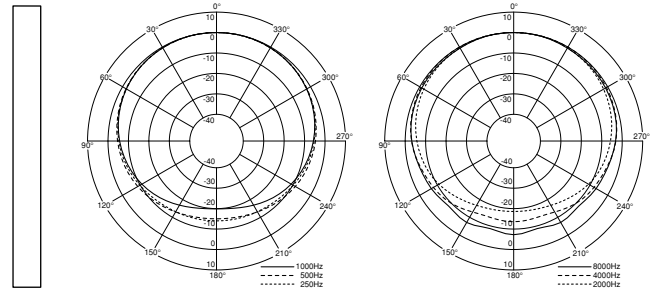
WM-3220

Hand-held (Speech) Microphone



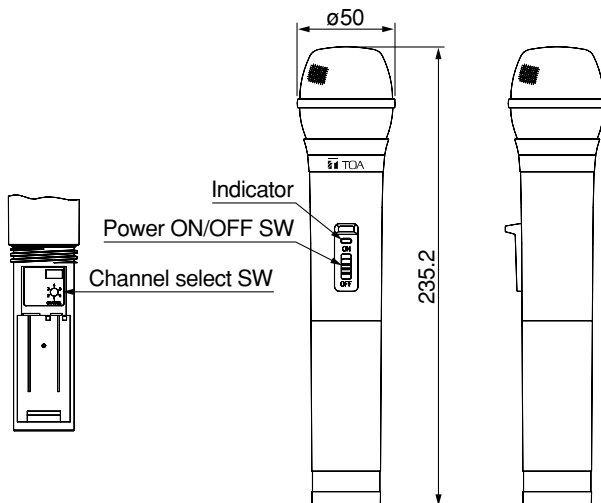
- 6 channel frequency-agile.
- Optimized for speech.
- Electret condenser cardioid microphone element.
- Maximum input level: 120 dB SPL.
- ON/OFF switch also keeps mic from rolling when put down.
- Flashing low battery indicator.
- Mic clip included.

Polar Response

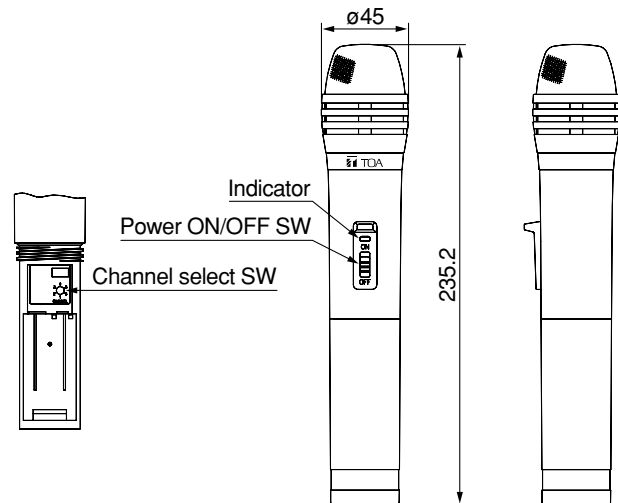


APPEARANCE AND DIMENSIONAL DIAGRAMS

WM-3210



WM-3220



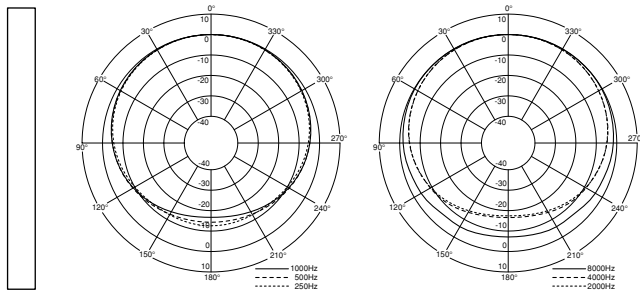
WM-3310 series

WM-3310 Lavalier Microphone



- 6 channel frequency-agile.
- Hand-free operation.
- Electret condenser cardioid microphone element.
- Maximum input level: 120 dB SPL.
- Input sensitivity control included.
- Belt clip rotatable 360 degrees.
- Lock-equipped mini-plug microphone jack.
- Flashing low battery indicator.

Polar Response

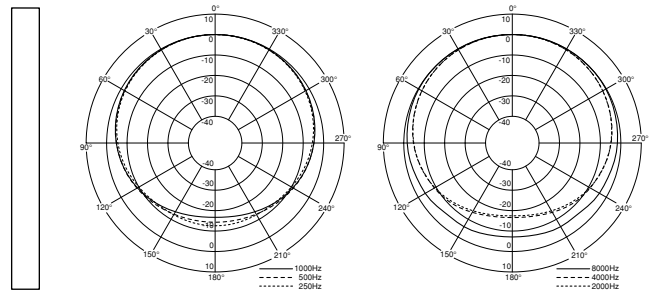


WM-3310H Headset Microphone

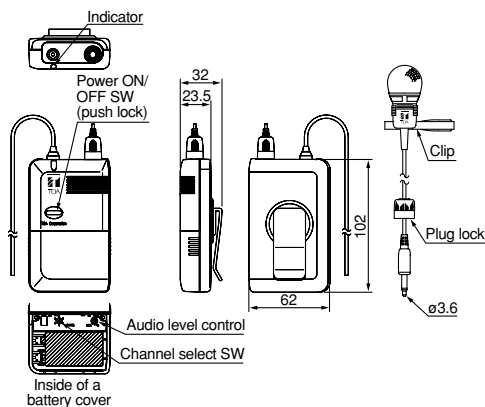


- 6 channel frequency-agile.
- Comfortable and lightweight hands-free operation.
- Electret condenser cardioid microphone element.
- Maximum input level: 120 dB SPL.
- Input sensitivity control included.
- Belt clip rotatable 360 degrees.
- Headset securely and comfortably fits on head.
- Lock-equipped mini-plug microphone jack.
- Flashing low battery indicator.

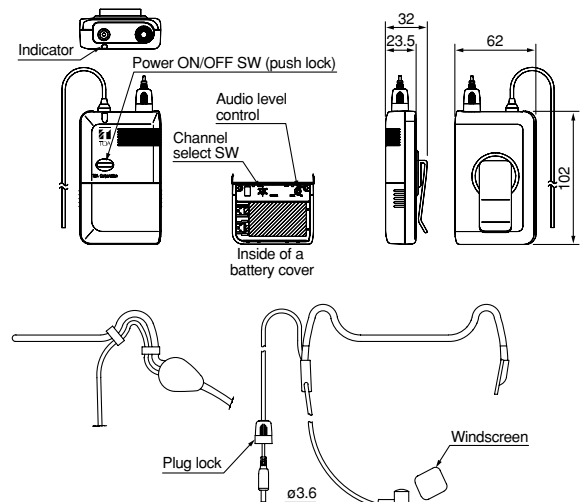
Polar Response



WM-3310



WM-3310H



WT-3800

Wireless Tuner



- 6 channel frequency-agile.
- Tone squelch function (Carrier, noise and tone-key).
- TOA Space Diversity technology**.
- Audio mixing input function.
- Compact 19" rack-mount design.
- Usable frequencies scanning channel check.
- Rod antenna x 2.
- Optional rack mount bracket kits: MB-WT1 and MB-WT2.

** Patents pending for TOA Space Diversity Technology.

WT-3810

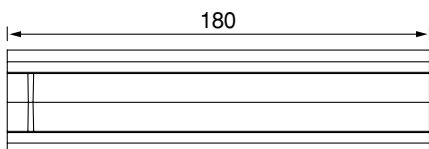
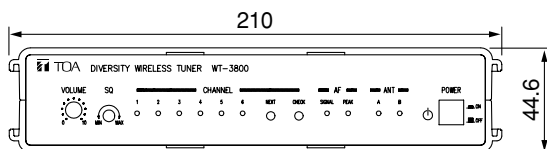
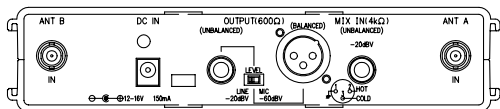
Wireless Tuner



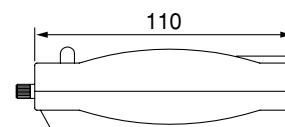
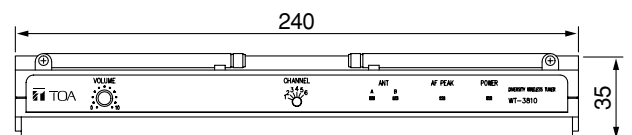
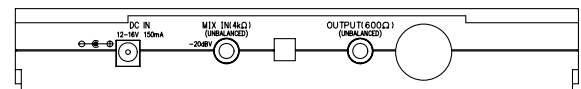
- 6 channel frequency-agile.
- Squelch function (Carrier, Noise).
- TOA Space Diversity technology**.
- Audio mixing input function.
- Portable tuner.

** Patents pending for TOA Space Diversity Technology.

WT-3800



WT-3810

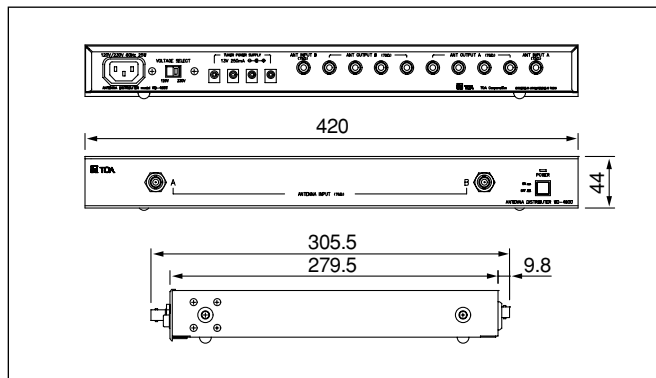


WD-4800

Power/Antenna Distributor



- Dual two-antenna inputs/four-antenna outputs.
- Four DC power supply outputs for WT-3800 tuner.
- Compact 19" rack-mount design.

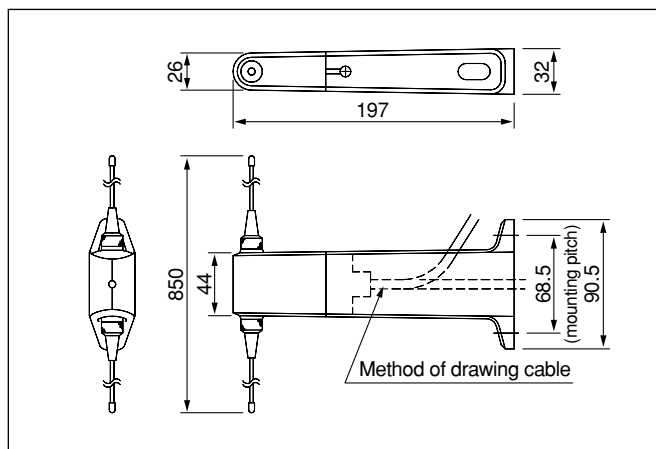


YW-3500

VHF Wireless Antenna



- Dipole ratio relative gain: more than 6dB.
- Wall mountable.



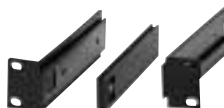
OPTIONS

Rack Mounting Brackets



MB-WT1 Rack Mount Bracket Kit

- Bracket (x2) with connector and blank box.
- For rack-mounting one WT-3800 unit.



MB-WT2 Rack Mount Bracket Kit

- Bracket (x2) with connector.
- For rack-mounting two WT-3800 units.



MB-15B Rack Mounting Bracket

- For rack-mounting one WD-4800 unit.

Spare Equipments

WH-4000H Headset Microphone for WM-3310H



WH-4000S Windscreen for WM-3310H (10 pieces)



YW-3510 VHF Antenna for WT-3800 (2 pieces)



SPECIFICATIONS

Model No.	WM-3210 VHF Hand-held (Vocal) Wireless Microphone	WM-3220 VHF Hand-held (Speech) Wireless Microphone
Microphone Element	Dynamic microphone, Cardioid	Electret condenser microphone, Cardioid
Emission	F3E	
Frequency Range	169–216 MHz, VHF*1	
Channel Selectable	6 CH	
RF Carrier Power	Less than 50 mW	
Tone Frequency	32.768 kHz	
Modulation System	PLL synthesizer	
Maximum Input Level	125 dB SPL	120 dB SPL
Maximum Deviation	±40 kHz, ±15 kHz (only US Part. 90)	
Battery	6LR61 (9 V × 1)	
Battery Life	More than 10 hours (alkaline)	
Indication	Power/Battery indicator	
Antenna	Internal antenna	
Ambient Temperature	–10°C to +50°C	
Finish	Resin, coating	
Dimensions	ø50×235.2 mm	ø45×235.2 mm
Weight	250 g (with battery)	
Accessory	Stand adapter, Screwdriver	

Model No.	WT-3800 VHF Wireless Tuner	WT-3810 VHF Wireless Tuner
Power Requirement	AC mains (using AC-DC adapter)	
Power Consumption	150 mA (13.8 V DC)	
Receiving Frequency	169–216 MHz, VHF*1	
Channel Selectable	6 CH	
Receiving System	Double super-heterodyne	
Diversity System	TOA space diversity*3	
Output	MIC: –60 dB*2/LINE: –20 dB*2, 600 Ω	–20 dB*2, 600 Ω
Audio Output	1/4" Phone jack (unbalanced), XLR-3-31 type connector (balanced)	1/4" Phone jack (unbalanced)
Mixing Input	–20 dB*2, 4 kΩ, 1/4" phone jack (unbalanced)	
Antenna Input	75 Ω, BNC [phantom powering for antenna, 9 V DC, 30 mA (max.)]	Rod antenna
Receiving Sensitivity	Better than 80 dB, S/N ratio (20 dBμV input, 40 kHz deviation)	
Squelch Sensitivity	18–40 dBμV variable	18 dBμV
Squelch System	Using together of noise SQ, carrier SQ and tone SQ	Using together of noise SQ and carrier SQ
Tone Frequency	32.768 kHz	—
Indication	Audio (signal/peak), ANT A/B, Channel	Power, ANT A/B, Audio (peak)
Channel Check	Usable frequencies scanning	—
S/N Ratio	Better than 100 dB (A-weighted, balanced output)	
Harmonic Distortion	Less than 1%	
Frequency Response	100–12,000 Hz, ±3 dB	
Ambient Temperature	–10°C to +50°C	
Finish	Resin, black	
Dimensions	210(W) × 44.6(H) × 180(D) mm	240(W) × 35(H) × 110(D) mm
Weight	600 g	380 g
Accessory	AC-DC adapter	AC-DC adapter, Screwdriver
Option	Mounting bracket kit: MB-WT1 (for rack mounting one WT-3800 unit) MB-WT2 (for rack mounting two WT-3800 units)	—

Model No.	YW-3510 VHF Wireless Antenna
Receiving Frequency	169 – 216 MHz*1
Antenna Gain	Approx. –3dBd
Output Impedance	75Ω
Output Connector	BNC plug
Finish	Antenna element: Chrome plated brass Other: Nickel-plated brass
Dimensions	Antenna element length: 378mm Maximum connector diameter: ø15mm
Weight	27 g

Model No.	WM-3310 VHF Lavalier Wireless Microphone	WM-3310H VHF Headset Wireless Microphone
Transmitter unit		
Emission	F3E	
Frequency Range	169–216 MHz, VHF*1	
Channel Selectable	6 CH	
RF Carrier Power	Less than 50 mW	
Tone Frequency	32.768 kHz	
Modulation System	PLL synthesizer	
Maximum Input Level	120 dB SPL	
Maximum Deviation	±40 kHz, ±15 kHz (only US Part. 90)	
Battery	6LR61 (9 V × 1)	
Battery Life	More than 10 hours (alkaline)	
Indication	Power/Battery indicator	
Antenna	1/4 λ wire antenna	
Ambient Temperature	–10°C to +50°C	
Finish	Resin, coating	
Dimensions	62(W) × 142(H) × 32(D) mm	
Weight	135 g (with battery)	
Accessory	Screwdriver	
Microphone unit		
Microphone Element	Electret condenser microphone, cardioid	
Cable Length	0.85 m	1.3 m
Power Requirement	DC (supplied from transmitter unit)	
Connector	ø3.5 plug	

Model No.	WD-4800 Power/Antenna Distributor
Power Requirement	AC mains
Frequency Range	VHF/UHF
Antenna Input	Dual 2 inputs (front × 1, rear × 1), 75 Ω, BNC (phantom powering for antenna)
Antenna Output	Dual 4 outputs, 75 Ω, BNC
DC Power Supply	4 outputs, (each output:13V DC/250mA)
Indication	Power
Ambient Temperature	–10°C to +50°C
Finish	Steel, coating
Dimensions	420(W) × 44(H) × 305.5(D) mm
Weight	3.50 kg
Accessory	DC cable...4
Option	Rack mounting bracket: MB-15B

Model No.	YW-3500 VHF Wireless Antenna
Power Requirement	8–10 V DC (supplied from Antenna Distributor or Tuner)
Current Consumption	Under 24 mA
Receiving Frequency	169–216 MHz, VHF*1
Dipole Ratio Relative	More than 6 dB (including booster amplifier)
V.S.W.R	Less than 2.6
Output Impedance	75 Ω
Mounting Hole Pitch	68.5 mm (dimensions for wiring box)
Ambient Temperature	–10°C to +50°C
Finish	Antenna/bracket: AES resin, off-white
Dimensions	197(W) × 850(H) × 32(D)mm
Weight	200 g

*1 Frequency range may vary by area (between 169 to 216 MHz).

*2 0dB = 1 V

*3 Patents pending for TOA Space Diversity Technology.

*Specifications are subject to change without notice.



TOA Corporation

URL : www.toa.co.jp/global/

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