



# UHF Wireless Microphone Systems



Enhanced ease of use and performance, for a wider range of applications

safe&sound



# A greater choice of microphones, plus



## Wireless Microphone Units

TOA has increased the range and audibility of its wireless microphones, by including a built-in antenna on both lavaliers and WM-5220 hand-held models, increasing support for low-noise condenser microphones, and making all lavaliers omnidirectional. Microphone running costs have been reduced as well, thanks to TOA's exclusive single-battery power supply feature, which also makes possible a slimmer, easier-to-hold microphone body design. Further lavalier innovations include single-battery operation, a connector that supports ø3.5 mini-plugs (EIAJ RC701) for TOA microphones, and a lighter body transmitter for the headset models. For greater operational precision, the microphone LED now comes in two colors. The latest TOA line-up of wireless microphones is comprised of the handheld WM-4200/4210/422/5220 models, and the lavalier WM-5320, WM-5320H (headset), and WM-5320A (active applications headset) models.

- Up to 16 microphones can be used in the same operating area without interference.
- Exclusive TOA single-battery (with 10-hour average operation) reduces microphone size and operating costs.
- Extensive operating area allows microphones to operate up to 120 meters away from their tuner units.

### WM-5220

UHF Handheld Wireless Microphone

- Operating range: 3m – 120m
- Electret condenser cardioid microphone element
- 16 selectable channel frequencies
- Maximum input level: 126 dB SPL
- ON/OFF switch prevents the microphone from rolling.
- Single AA battery operation for more compact and lightweight body
- Low-battery indicator
- Built-in antenna



### WM-4200

UHF Handheld (Vocal) Wireless Microphone

- Operating range: 3m – 150m
- Dynamic cardioid microphone element designed for vocal use
- Four 16-channel banks of circuit frequencies
- Input sensitivity control included
- Maximum input level : 145 dB SPL
- Dynamic range: over 110 dB
- Rubber coating minimizes handling noise.
- ON/OFF switch designed to prevent accidental activation
- LED low battery indicator



### WM-4210

UHF Handheld (Vocal) Wireless Microphone

- Operating range: 3m – 120m
- Dynamic cardioid microphone element designed for vocal use
- 16 selectable channel frequencies
- Maximum input level: 130dB SPL
- Dynamic range: over 110dB
- On/Off switch also keeps mic from rollingt when putdown
- Flashing LED low battery indicator



### WM-4220

UHF Handheld (Speech) Wireless Microphone

- Operating range: 3m – 120m
- Electret condenser cardioid microphone element for speech use
- 16 selectable channel frequencies
- Maximum input level: 125dB SPL
- Dynamic range: over 100dB
- On/Off switch also keeps mic from rollingt when putdown
- Flashing LED low battery indicator



### WM-5320

UHF Lavalier Wireless Microphone

- Operating range: 3m – 120m
- Omnidirectional electret condenser microphone element
- Four 16-channel banks of circuit frequencies
- Maximum input level: 110dB SPL
- Built-in circuitry minimizes ambient noise effects.
- Single AA battery operation for more compact and lightweight body
- Low-battery indicator
- Connector for 3.5 mini-plugs
- Built-in antenna
- Neck strap is provided



### WM-5320H

UHF Headset Wireless Microphone

- Operating range: 3m – 120m
- Electret condenser cardioid microphone element
- Four 16-channel banks of circuit frequencies
- Maximum input level: 120dB SPL
- Built-in circuitry minimizes ambient noise effects.
- Single AA battery operation for more compact and lightweight body
- Low-battery indicator
- Connector for 3.5 mini-plugs
- Secure and comfortably fitting headset
- Built-in antenna



### WM-5320A

UHF Headset (Aerobics) Wireless Microphone

- Operating range: 3m – 120m
- Electret condenser cardioid microphone element
- Four 16-channel banks of circuit frequencies
- Maximum input level: 120dB SPL
- Built-in circuitry minimizes ambient noise effects.
- Single AA battery operation for more compact and lightweight body
- Low-battery indicator
- Connector for 3.5 mini-plugs
- Built-in antenna
- Extra-secure and comfortably-fitting headset
- Sweat-resistant headset microphone
- Securely-fitting belt with pouch

# s more flexible and robust operation.

## Tuner Units

TOA wireless microphone tuners rely on Phased Lock Loop (PLL) synthesis for excellent performance levels, stability and reliability. Oscillation frequency changes caused by changes in ambient temperature are kept to a minimum. For a dramatic reduction in noise during changeover between antennas, true diversity and space diversity are now employed. The two true-diversity tuner models are equipped with a twin antenna and support condenser microphones. A channel search function is incorporated in all tuners, and a two-line LCD display enables faster meter reading. Remaining battery power indication is also provided.

The WT-5000 Series tuner units are the 250mA true diversity WT-5800 and space diversity WT-5805, and the 130mA space diversity WT-5810. The WT-5800 and WT-5805 each provide 4 x 16 selectable frequencies, while the WT-5810 provides a 16-frequency selection.

- TOA true diversity and space diversity circuitry are incorporated in the WT-5000 Series tuners to ensure constant area coverage. Compared to conventional diversity tuners, TOA models come with simpler and more effective circuitry, thus enhancing overall performance and reliability.



### WT-5800

UHF Wireless Tuner

- Phased Lock Loop (PLL) synthesis operation
- Four 16-channel banks of circuit frequencies
- True diversity technology
- Double super-heterodyne receiving system
- Two-line LCD display
- Auto mixing input function
- Squelch function (carrier, noise, tone)
- Usable frequencies scanning channel search function
- Compact half-rack size body
- Microphone sensitivity adjustment function
- Compander circuitry for minimizing ambient noise
- Antenna distribution output
- Low-battery indicator



### WT-5805

UHF Wireless Tuner

- Phased Lock Loop (PLL) synthesis operation
- Four 16-channel banks of circuit frequencies
- TOA space diversity technology
- Double super-heterodyne receiving system
- Two-line LCD display
- Auto mixing input function
- Squelch function (carrier, noise, tone)
- Usable frequencies scanning channel search function
- Compact half-rack size body
- Microphone sensitivity adjustment function
- Compander circuitry for minimizing ambient noise
- Low-battery indicator



### WT-5810

UHF Wireless Portable Tuner

- Phased Lock Loop (PLL) synthesis operation
- 16 selectable channel frequencies
- TOA space diversity technology
- Double super-heterodyne receiving system
- Auto mixing input function
- Squelch function (carrier, noise, tone)
- Usable frequencies scanning channel search function
- Compact portable design
- Microphone sensitivity adjustment function
- Compander circuitry for minimizing ambient noise
- Rod antenna x 2
- Balanced output (XLR connector) and phone jack output
- Low-battery indicator



### WD-4800

Power/Antenna Distributor

- 2 antenna inputs and 4 distributed outputs (when 2 antennas are set up in a large room)
- Supplies power to the antenna

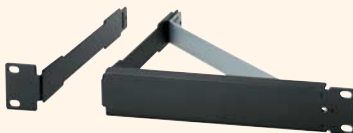


### YW-4500

UHF Wireless Antenna

- UHF wireless dipole indoor antenna
- Wall mounted
- Power supplied by tuner unit (WT-5800, WT-5805) through coaxial cable
- Built-in RF signal booster
- Attenuation switch helps minimize noise and any interference

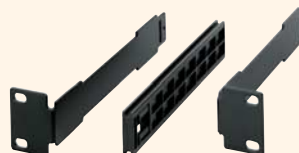
## Optional Rack Mount Brackets



### MB-WT3

Rack Mount Bracket Kit

- Two type brackets
- For rack-mounting one WT-5800/WT-5805 unit



### MB-WT4

Rack Mount Bracket Kit

- Bracket (x2) with connector
- For rack-mounting two WT-5800/WT-5805 units



### MB-15B

Rack Mount Bracket Kit

- For rack-mounting one WD-4800 unit

## SPECIFICATIONS

Model No.	WM-5220 UHF Hand-held (Vocal) Wireless Microphone	WM-4200 UHF Hand-held (Vocal) Wireless Microphone	WM-4210 UHF Hand-held (Vocal) Wireless Microphone	WM-4220 UHF Hand-held (Vocal) Wireless Microphone
Microphone Element	Electret condenser unit: Cardioid		Dynamic microphone unit: Cardioid	
Emission	F3E			
Frequency Range	692 – 722 MHz, UHF*1		690 – 750 MHz, UHF*1	
Channel Selectable	16 CH	64 Selectable frequencies (international may vary)		16 CH
RF Carrier Power	Under 50 mW			
Tone Frequency	32.768 kHz			
Modulation System	PLL synthesizer			
Maximum Input Level	126 dB SPL	145 dB SPL	130 dB SPL	125 dB SPL
Maximum Deviation	±40 kHz			
Battery	LR6 (AA)	6LR61 (9V × 1)		
Battery Life	Over 10 hours (alkaline)	10 hours (alkaline)		
Indicator	Power/Battery lamps	Power/Battery indicator (common use)		
Antenna	Built-in type	1/4λ herical antenna	Built-in type	
Operating Temperature	–10°C to +50°C			
Finish	Resin, rubber coating	Resin, coating (vchange other's)		
Dimensions	ø43.6 × 231.5 mm	ø52.2 × 279.4 mm	ø50 × 235.2 mm	ø45 × 235.2 mm
Weight	180 g (with battery)	300 g (with battery)	250 g (with battery)	250 g (with battery)
Accessory	Microphone holder (with stand adapter) × 1, Screw driver × 1, Storage case × 1	Stand adapter × 1, Screw driver × 1, Storage case × 1		

Model No.	WM-5320 UHF Lavalier Wireless Microphone	WM-5320H UHF Headset Wireless Microphone	WM-5320A UHF Headset (Aerobics) Wireless Microphone
<b>Transmitter unit</b>			
Emission	F3E		
Frequency Range	692 – 722 MHz, UHF*1		
Channel Selectable	64 frequencies (international may vary)		
RF Carrier Power	Under 50 mW		
Tone Frequency	32.768 kHz		
Modulation System	PLL synthesizer		
Maximum Input Level	110 dB SPL	120 dB SPL	
Battery	LR6 (AA)		
Battery Life	10 hours (alkaline)		
Indicator	Power/Battery lamps		
Antenna	Built-in type		
Operating Temperature	–10°C to +50°C		
Finish	Resin, coating		
Dimensions	62 (W) × 102.5 (H) × 23 (D) mm		
Weight	110 g (with battery)	130 g (with battery)	
Accessory	Screw driver × 1, Storage case × 1	Screw driver × 1	Waist pouch × 1, Screw driver × 1
<b>Microphone unit</b>			
Microphone	Electret condenser microphone, omni-directional pattern		Electret condenser microphone, cardioid
Power Requirement	DC (supplied from lavalier pack )		
Cable Length	1.3 m	1.4 m	
Connector	ø3.5 plug (EIAJ RC701)		

Model No.	WT-5800 UHF Wireless Tuner	WT-5805 UHF Wireless Tuner	WT-5810 UHF Wireless Potable Tuner
Power Requirement	AC mains (supplied AC-DC adapter must be used)		
Power Consumption	250 mA (12 V DC)	200 mA (12 V DC)	130 mA (12 V DC)
Receiving Frequency	692–722 MHz, UHF*1		
Channel Selectable	64 Selectable frequencies		16CH
Receiving System	Double Super-heterodyne		
Diversity System	Space diversity		
Mixing Output	MIC: –60 dB*2, 600Ω, balanced, XLR-3-31 type connector LINE: –20 dB*2, 600Ω, unbalanced, phone jack		
Mixing Input	–20 dB*2, 10 kΩ, unbalanced, phone jack		
Antenna	—		Rod antenna
Antenna Input	75 Ω, BNC (phantom powering for antenna) 9 V DC, 30 mA (max.)		—
Antenna Output	75Ω, BNC (Gain 0dB)		—
Receiving Sensitivity	Over 90 dB, S/N ratio (20 dBμV input, 40 kHz deviation)		
Squelch Sensitivity	18–40 dBμV variable		
Squelch System	Using together of noise SQ, carrier SQ and tone SQ		
Tone Frequency	32.768 kHz		
Indicator	Audio (6 step), RF (6 step), ANT A/B, Audio (peak), battery alarm	ANT A/B, Audio (peak), battery alarm	
Channel Check	Usable frequencies scanning		
S/N Ratio	Over 110dB (A-weight, unbalanced output)		Over 104dB (A-weight, unbalanced output)
Harmonic Distortion	Under 1% (typical)		
Frequency Response	100 – 15,000 Hz, ±3 dB		
Operating Temperature	–10°C to +50°C		
Finish	Resin, black		
Dimensions	210(W) × 44(H) × 205.1(D) mm		206(W) × 40.6(H) × 152.7(D) mm
Weight	700 g		590 g
Accessory	AC-DC adapter × 1		AC-DC adapter × 1,
Option	Mounting bracket kit: MB-WT3 (for rack mounting one WT-5800 or WT-5805 unit) MB-WT4 (for rack mounting two WT-5800 or WT-5805 units)		—

\*1 Frequency range may vary by area.

\*2 0dB = 1 V

Model No.	WD-4800 Power/Antenna Distributor
Power Requirement	AC mains
Power Consumption	25W
Frequency Range	VHF/UHF
Antenna Input	2 input (front × 1, rear × 1), 75 Ω, BNC (phantom powering for antenna)
Antenna Output	4 output, 75 Ω, BNC
DC Power Supply	4 output, (each output: 13V DC/250mA)
Indicator	Power
Operating Temperature	–10°C to +50°C
Finish	Steel, coating
Dimensions	420(W) × 44(H) × 305.5(D) mm
Weight	3.5 kg
Accessory	DC cable × 4
Option	Rack mounting bracket: MB-15B

Model No.	YW-4500 UHF Wireless Antenna
Power Requirement	7–12 V DC (supplied from amplifier or tuner)
Current Consumption	Under 24 mA
Receiving Frequency	680–880 MHz, UHF
Dipole Ratio Relative Gain	More than 8 dB (780 MHz)
V.S.W.R	Less than 3.0
Output Impedance	75 Ω
Mounting Hole Pitch	83.5 mm (dimensions for wiring box)
Operating Temperature	–10°C to +50°C
Finish	AES resin, off-white
Dimensions	105(W) × 140(H) × 126(D)mm
Weight	270 g
Accessory	M3.5 screw for wiring box × 2, Tapping screw (M4) for wooden wall × 2, RG-6/U or RG-11/U sleeve × 1



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Specifications are subject to change without notice.  
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