

## IR-800KIT2

Infrared wireless microphone classroom k



TOA's educational classroom system brings classrooms to life by providing clear, interference-free voice transmission through wireless technology. Kit 2 Contains:

### Key features

- 1x IR-820SP Y 4Q (Infrared Wireless Speaker)
- 1x IR-802T CU AQ (Infrared Wireless Tuner)
- 1x IR-300M (Infrared Wireless Microphone)
- 1x IR-200M Y 4Q (Infrared Wireless Microphone)
- 1x IR-200BC (Battery Charger for IR-200M and IR-300M)
- 2x IR-210BT-2 (Ni-MH Battery (1 pair)
- 1x HY-TB1 (Support rails for ceiling speaker (1 pair)
- 1x WB-802 (Wall-mount bracket for tuner)
- 1x CAT-5E (50ft. FT6 Category 5 Ethernet Cable)
- 1x CSTEREO-03 (3ft. 3.5mm Stereo Cable)
- 1x ACG36 (3ft. RCA Stereo Cable)

## Specifications

\*0 dB = 1 V

Power Source	120 V AC, 50/60 Hz (supplied AC adapter must be used)
Power Consumption	8 W (based on UL standards) Max. 40.8 W (rated output at IR-820SP)
Receiving Frequency	Teacher (Channel A): 3.100 MHz Student (Channel B): 3.350 MHz
Receiver Sensitivity	50 dB or more, Signal to Noise ratio (40 dB $\mu$ V input, 1 kHz modulation, $\pm$ 4.8 kHz deviation)
Signal to Noise Ratio	Tuner: 60 dB or more (60 dB $\mu$ V input, 1 kHz modulation, $\pm$ 4.8 kHz deviation, A-weighted, Equalization: Centered) AUX: 75 dB or more (A-weighted, Equalization: Centered)
Tone Squelch Frequency	32.768 kHz
Input	AUX PC: line, -10 dB*, 10 k $\Omega$ , unbalanced, stereo mini jack (internal mixing) AUX DVD/TV: line, -10 dB*, 10 k $\Omega$ , unbalanced, 2P RCA jack (internal mixing) AUX MP3: line, -10 dB*, 10 k $\Omega$ , unbalanced, stereo mini jack (internal mixing) Mute: 25 V line signals of telephone paging from a school intercom system
Output	ALD (Assistive Listening Device): line, -10 dB*, 10 k $\Omega$ , unbalanced, monaural mini jack Speaker: RJ45 (dedicated terminal for IR-820SP connection)
Audio Frequency Response	Tuner: 100 Hz - 12 kHz, AUX: 100 Hz - 20 kHz
Equalization	High: $\pm$ 10 dB at 10 kHz Mid: $\pm$ 10 dB at 1.3 kHz Low: $\pm$ 10 dB at 100 Hz
Mute Function	Muted by 25 V line signals
LED Indicator	Power (green) x 1, Infrared Reception (yellow) x 2, Mute (red) x 1
Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)
Operating Humidity	90 %RH or less (no condensation)
Finish	Panel: Aluminum, black Case: Steel plate, black
Dimensions	210 (W) x 46 (H) x 312 (D) mm (8.27 x 1.81" x 12.28")
Weight	1.8 kg (3.97 lb)
Included Accessories	AC adapter (DC cord length: 1.8 m (5.91 ft) ...1, AC power cord (2m (6.56 ft) ...1, Volume control cover ...6, Removable terminal plug (2 pins) ...1
Optional Accessories	Half width blank panel: MB-15B-BK

### INFRARED WIRELESS MICROPHONE

Battery	Rechargeable battery for the infrared wireless microphone (option) or AA alkaline dry cell battery (2 pieces).
Current Consumption	Typ. 250 mA (2.4 V, Power selector switch: N) Typ. 340 mA (2.4 V, Power selector switch: H)
Infrared Emitter	
Wavelength	850 nm (AM: Brightness modulation)

Modulation Method	Frequency modulation
Carrier Frequency	Channel A: 3.100 MHz Channel B: 3.350 MHz
Transmission Distance	Approx. 20 m (65 ft) (Power selector switch: H, in an unobstructed space) Approx. 15 m (50 ft) (Power selector switch: N, in an unobstructed space)
Tone Signal	32.768 kHz
Modulation Sensitivity	±4.8 kHz (1 kHz, when SPL of 84 dB is input)
Maximum Input Sound Pressure Level	120 dB SPL
Input Sensitivity Adjustment	Adjustment range: -9 dB to 0 dB (factory preset: 0 dB)
Microphone Element	Unidirectional electret condenser microphone
Frequency Response	100 Hz - 12 kHz
Pre-emphasis	300 μs
Input	External microphone input (#3.5 monaural mini jack)
Battery Life	Approx. 8 h (when the IR-200BT rechargeable battery for the infrared wireless microphone is used, Power selector switch: N) Approx. 6 h (when the alkaline battery is used, Power selector switch: N)
Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)
Operating Humidity	30 % to 85 %RH (no condensation)
Finish	Control section: ABS resin, metallic gray, paint, 50% gloss Filter section: Polycarbonate, optical cut filter
Dimensions	64 (W) x 91.3 (H) x 27.3 (D) mm (2.52" x 3.59" x 1.07")
Weight	130 g (0.29 lb) (with battery and strap)
Included Accessories	Screw driver (for setting) x 1, Color label (6 colors) x 1
Optional Accessories	Battery charger: IR-200BC Ni-MH battery: IR-210BT-2 (containing 2 pieces)

Do not use battery together with rechargeable or dry batteries of different product numbers.  
Failure to follow this instruction may result in battery leakage or excessive heat generation.

## INFRARED WIRELESS SPEAKER

Power Source	24 V DC (supplied from IR-802T)
Power Consumption	4.4 W (based on UL standards)
Rated Output	20 W
Frequency Response	100 Hz - 20 kHz (-10 dB) at installation in 1/2 free sound field (Measured by installing the unit in the center of a ceiling.)
Amplification System	Class D
Distortion	5 % or less (rated output)
Speaker Component	12 cm (4.72") cone-type
Infrared Wireless Receiver	
Carrier Frequency	Channel A: 3.100 MHz Channel B: 3.350 MHz
Compliance/Certifications	UL60065, UL2043
Mounting Hole	Ø300 mm (Ø11.81")

Cable Requirements	CAT-5 UTP
Connection Terminal	RJ-45
LED Indicator	Power (green) x 1
Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)
Operating Humidity	90 %RH or less (no condensation)
Finish	Enclosure: Steel plate, plating Baffle: Fire-resistant ABS resin (resin material grade: UL94V-0), white Punched net: Steel plate, white Filter section: Polycarbonate, optical cut filter
Dimensions	Ø320 x 205 (D) mm (Ø12.6" x 8.07")
Weight	3.4 kg (7.5 lb)
Included Accessories	Safety wire x 1, Ceiling reinforcement ring x 1, Trim ring x 1, Paper pattern x 1
Optional Accessories	Tile bar bridge: HY-TB1

Power Source	AC mains, 50/60 Hz (supplied from the included AC adapter)
Current Consumption	Max. 2 A
Charging Time	Max. 3 h
Number of Units to be Charged Simultaneously	2 pieces*
Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)
Operating Humidity	30 % to 85 %RH (no condensation)
Finish	Case: ABS resin, metallic gray, paint, 50 % gloss Microphone receptacle section: PPE resin, black
Dimensions	238 (W) x 109.5 (H) x 98 (D) mm (9.37" x 4.31" x 3.86")
Weight	635 g (1.4 lb) (unit only, including mounting adapter (accessory))
Included Accessories	Mounting adapter (preinstalled on the unit) ...2, AC adapter (DC cord length: 1.8 m (5.91 ft)(*1) ... 1, Power cord (2 m (6.56 ft)(*1) ... 1
Optional Accessories	Ni-MH battery: IR-200BT-2 (containing 2 pieces)

\*Using the mounting adapter allows one each of the IR-200M and IR-300M to be charged in combination.  
Note that nickel metal hydride (Ni-MH) batteries other than the dedicated battery IR-200BT cannot be charged.

Nominal Voltage	1.2 V DC
Capacity	Min. 2400 mAh
Operating Temperature	0 °C to +40 °C (32 °F to 104 °F)
Operating Humidity	30 % to 85 % RH (no condensation)
Dimensions	Ø14.5 x 50.5 mm (Ø0.57 x 1.99")
Weight	30 g (1.06 oz) (per piece)
Compatible Model	Infrared wireless microphone: IR-200M, IR-300M, IR-310M

Finish	Steel plate, plating
Weight	500 g (for set of 2 bars)

Finish	18 Gauge (0.048") cold rolled steel with black powder coat finish
Dimensions	212 (W) x 329 (H) x 158 (D) mm (8.35" x 12.95" x 6.22")
Weight	1.5kg (3.2 lb)
Battery	Rechargeable battery for the infrared wireless microphone (option) or AA alkaline dry cell battery (2 pieces).
Current Consumption	Typ. 250 mA (2.4 V, Power selector switch: N) Typ. 340 mA (2.4 V, Power selector switch: H)
Infrared Emitter	
Modulation Method	Frequency modulation
Carrier Frequency	Channel A: 3.100 MHz Channel B: 3.350 MHz Channel 1: 4.100 MHz Channel 2: 4.725 MHz
Transmission Distance	Approx. 20 m (65 ft) (Power selector switch: H, in an unobstructed space), Approx. 15 m (50 ft) (Power selector switch: N, in an unobstructed space)
Tone Signal	32.768 kHz
Modulation Sensitivity	±4.8 kHz (1 kHz, when SPL of 84 dB is input)
Maximum Input Sound Pressure Level	120 dB SPL
Microphone Element	Unidirectional electret condenser microphone
Frequency Response	100 Hz - 12 kHz
Pre-emphasis	300 μs
Battery Life	Approx. 8 h (when the IR-200BT rechargeable battery for the infrared wireless microphone is used, Power selector switch: N), Approx. 6 h (when the alkaline battery is used, Power selector switch: N)
Operating Temperature	0 # to +40 # (32 #F to 104 #F)
Operating Humidity	30 % to 85 %RH
Finish	Control section: ABS resin, metallic gray, paint, 50% gloss. Filter section: Polycarbonate, optical cut filter
Dimensions	Ø37 × 241.8 (H) mm (Ø1.46" × 9.52")
Weight	170 g (0.37 lb) (with battery)
Included Accessories	Screw driver (for setting) ... 1, Color label (6 colors) ... 1
Optional Accessories	Battery charger: IR-200BC. Ni-MH battery: IR-210BT-2 (containing 2 pieces)