



# IRW SERIES

## INFRARED WIRELESS MICS & WIRELESS PA'S

Featuring revolutionary new state-of-the-art invisible infrared (IR) light transmission technology, the IRW Series wireless microphone systems are perfect for conference/meeting rooms, classrooms, churches, health clubs, small auditoriums, and other medium-sized venues, as well as for consumer use such as home karaoke.

The IRW Series offers 3 receiver options: the IRW-215 single channel, the IRW-220 dual channel for use with two transmitters simultaneously and the IRW-1PA single channel portable wireless PA with built-in IR receiver, 12 Watt amplifier and speaker. An ideal alternative to radio (RF) wireless mics for situations in which RF congestion or privacy issues are a concern, the IRW Series systems offer high-quality audio and solid reception suitable for all speaking and most recreational singing applications.

### IRW-215



### IRW-220



### IRW-1PA



### IRW-LT6



### IRW-HT6



- IRW-215 and IRW-220 receiver outputs easily connect to any mixer or amplifier system
- Completely self-contained IRW-1PA portable P.A. with built-in amplifier, speaker, and wireless microphone system is designed for high performance and ease of use, with simple set-up and operation
- All 3 systems available with a choice of the IRW-LT6 bodypack transmitter (for use with lapel or headset microphones) or the IRW-HT6 handheld microphone transmitter.

- Designed for indoor use only, even in well lighted areas
- IR won't transmit through walls, so any number of IRW Series systems can be used in the same building (such as schools) without the interference often encountered in multiple RF (VHF and/or UHF) wireless mic set-ups. The IRW Series is also perfect for secure, in-room-only transmissions for privacy, which is not possible with RF wireless systems which penetrate outside rooms.

- For short-range (~40 ft/12m) line-of-sight transmissions in one room only with built-in IR wide-angle sensor arrays in the receivers. The range can be extended in any direction for 40 feet (12 m) more with optional wall or ceiling mount remote IRW-1S sensor which connects to the receiver.



### IRW-1S

# SYSTEM COMPONENTS



## IRW-215

### IR Wireless Microphone Receiver

- Single channel infrared operation
- High sensitivity, with built-in multiple wide-angle IR LED sensor arrays
- Power ON and Received Signal LED indicators
- 1/4" Audio Output jack with Mic/Line Output Level switch
- Remote IR sensor input
- 12VDC AC/DC adapter supplied



## IRW-220

### Dual IR Wireless Microphone Receiver

- Dual Receiver infrared operation (Ch A, Ch B)
- High sensitivity, with built-in multiple wide-angle IR LED sensor arrays
- Power ON and Channel A & B Received Signal LED indicators
- Ch A & B 1/4" jack outputs with Mic/Line Output Level switch
- 2 remote sensor inputs
- 12VDC AC/DC adapter supplied



## IRW-1PA

### Portable P.A. and IR Wireless Microphone Receiver

- Built-in 12 W (peak) audio amplifier and speaker
- Single channel receiver infrared operation
- High IR reception sensitivity, with built-in multiple wide-angle IR LED sensor arrays
- Remote IR sensor input
- Power ON and Received Signal LED indicators
- Power ON switch and Volume control
- AC powered

## IRW-LT6

### Bodypack Transmitter for Lavalier or Headset Microphone



- Multiple emitter array of high efficiency infrared emission LEDs for optimum IR transmission
- Two-color Power ON/Low Battery LED changes color to indicate low batteries
- Locking 3.5mm mini-jack for secure connection of lavalier or headset microphone
- Input audio level control
- Operates up to 6 hours on 2 alkaline AA batteries or up to 10 hours on 2 NiMH AA rechargeable batteries

## IRW-HT6

### Handheld Microphone Transmitter



- Multiple emitter array of high efficiency infrared emission LEDs for optimum IR transmission
- Two-color Power ON/Low Battery LED changes color to indicate low batteries
- Powerful neodymium unidirectional dynamic cartridge for optimum audio, minimal handling noise and maximum feedback rejection. Rugged steel mesh ballscreen with anti-roll ring
- Operates up to 6 hours on 2 alkaline AA batteries or up to 10 hours on 2 NiMH AA rechargeable batteries

## SPECIFICATIONS

**Infrared Emission** .....Wave length 850 nm  
**Modulation** .....FM  
**Transmission Frequency**.....2.08MHz  
**Frequency Response** .....40 Hz - 15KHz, +/- 3dB  
**T.H.D.** .....< 1%  
**Dynamic Range** .....> 90 dB  
**Line-of-Sight**  
**Operating Range** .....~40 ft (12 m), can be extended with an IRW-1S remote sensor

### IRW SERIES RECEIVERS

**Receiver System** .....Superheterodyne  
**Receiver Type** .....Single channel, 2.08 MHz (IRW-215, IRW-1PA); dual receiver, Ch A: 2.08MHz, Ch B: 2.54MHz (IRW-220) Output Level (IRW-215/220) MIC: 60mV/ 600 Ohms LINE: 300 mV/ 10 K Ohms  
**Audio Output Level** .....(IRW-1PA) 12W (peak), with 4 Ohm speaker

**Controls** .....Power ON/OFF switch, Mic/Line Output Level switch (IRW-215/220), Volume control (IRW-1PA)  
**Connectors** .....Unbalanced 1/4" Audio Output jack (IRW-215) Ch A & Ch B 1/4" Audio Output jacks (IRW-220), remote IRW-1S sensor jack (IRW-215/1PA: one jack, IRW-220: two jacks)  
**LED Indicators** .....Power ON and received signal, Ch A & Ch B received signals (IRW-220)  
**Power Requirement** .....IRW-215/220: 12V DC @ 10W, AC/DC adapter supplied IRW-1PA: 120VAC, 20W  
**Dimensions/Weight**.....IRW-215: 7.5" X 5.5" X 2.8" (190 X 140 X 70mm) 14.6 oz (409 g) IRW-220: 8.3" X 8.3" X 1.8" (210 X 210 X 45mm) 2.2 lbs (1 Kg) IRW-1PA: 13.8" X 7.1" X 7.9" (350 X 180 X 200mm) 4.2 lbs (1.9 Kg)

### IRW SERIES TRANSMITTERS

**Available Transmission**  
**Frequency** .....Ch A: 2.08 MHz, Ch B: 2.54 MHz  
**Audio Input**.....IRW-LT6: external lavalier or headset microphone IRW-HT6: integral unidirectional dynamic cartridge  
**Power Requirement** .....2.4-3VDC  
**Current Drain** .....200 mA  
**Battery Life** .....up to 6 hrs, 2 X AA alkaline Up to 10 hours, 2 X AA NiMH  
**Dimensions** .....IRW-LT6: 3.9" X 1.2" X 2.6" (100 X 30 X 66mm) IRW-HT6: 2.2"D X 9.25"L (55 X 235mm)  
**Weight**.....IRW-LT6: 3.6 oz (100 g) IRW-HT6: 8.9 oz (250 g), including batteries

### SYSTEM OPTIONS

**K2** .....NiMH battery charger  
**IRW-1S** .....Remote sensor with cable

