

# M2Ra

## Digital IEM/IFB Receiver

M2Ra-A1B1, M2Ra-B1C1

## TECHNICAL DATA



The successor to the M2R with improved:

- **IP3 performance of +15 dBu for tough RF environments**
- **P48 protection on headphone jack**
- **Encrypted (256-bit encryption - AES 256-CTR) and non-encrypted operation under one firmware version**
- **IFB compatibility mode**

The M2Ra Digital IEM Receiver is an improved compact, rugged body-worn unit providing high quality sound for performers or any professionals needing to monitor detailed audio wirelessly. The M2Ra employs advanced antenna diversity switching during digital packet headers for seamless audio. The receiver uses digital modulation and covers UHF frequencies as seen in the table below.

**NOTE:** Some regions have certain frequency restrictions. Depending on **LOCALE** selection, the SmartTune and Scan frequency ranges are:

**A1B1:** NA: 470.100 - 607.950 MHz  
EU: 470.100 - 614.375 MHz  
AU: 520.000 - 614.375 MHz  
JA: 470.150 - 614.375 MHz

**B1C1:** EU: 537.600 - 691.175 MHz  
AU: 537.600 - 691.175 MHz  
JA: 537.600 - 691.175 MHz

The headphone jack is fed from a high-quality stereo amplifier with 250 mW available to drive even inefficient headphones or earphones (min. 10 ohms) to sufficient levels for stage performance or other noisy environments. The receiver can select from stereo, mono from left or right channels only, or mono from both channels, giving the unit flexibility in terms of application as an IEM, IFB or camera-hop receiver. An intuitive interface and high resolution, color LCD on the unit provide performing artists and audio professionals alike with a comfortable and confident user experience.

The M2Ra employs 2-way IR sync, so data from the receiver can be sent to an M2T transmitter and thus onto Wireless Designer™ Software. This way, frequency planning and coordination can be done quickly and confidently with on-site RF information.

Housings and panels are made of machined aluminum with hard-anodized finishes with laser etched marking for durability, yet they are lightweight and sleek in order to be light weight. The M2Ra features a user-friendly interface with a high-resolution, backlit, color LCD and membrane switches. The M2Ra runs for 7 hours on two lithium AA batteries.



**WARNING:**  
Moisture, including talent's sweat, will damage the receiver. Cover the M2Ra in our silicone sleeve (order part # M2RCVR) or other protection to avoid damage.



## Specifications

### Operating Spectrum (dependent on Locale):

A1B1:	NA: 470.100 - 607.950 MHz
	EU: 470.100 - 614.375 MHz
	AU: 520.000 - 614.375 MHz
	JA: 470.100 - 614.375 MHz
B1C1:	EU: 537.600 - 691.175 MHz
	AU: 537.600 - 691.175 MHz
	JA: 537.600 - 691.175 MHz

Modulation Type:	8PSK with Forward Error Correction
Encryption Type:	AES-256 in CTR mode
Latency: (overall system)	
Digital Source:	1.0 ms plus Dante network
Analog Source:	<1.6 ms
Audio Performance:	
Frequency Response:	10 Hz - 12 KHz, +0, -3dB
THD+N:	0.15% (1kHz @ -10 dBFS)
Dynamic Range:	>95 dB weighted
Adjacent Channel Isolation	>85dB
Third Order Intercept:	+15 dBu
Diversity Type:	Switched antenna phase, during packet headers
Audio Output:	3.5 mm stereo jack
Power requirements:	2 x AA batteries (3.0V)
Battery life:	7 hours; (2) Lithium AA
Power consumption:	1 W
Dimensions:	Height: 3.5 in. / 90 mm. (with knob) Width: 2.375 in. / 60.325 mm. Depth: .625 in. / 15.875 mm.
Weight:	5.6 ounces / 159 grams (with batteries)

*Specifications subject to change without notice.*



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