

# RAD-360 UHF WIRELESS SYSTEM

## overview

The Audix RAD-360 is a frequency agile UHF wireless microphone system with 193 selectable frequencies and dual tuner, true diversity receivers. Operating in the UHF band between 638–806 MHz, The RAD-360 is designed for a wide range of professional applications including live performances, regional sound companies, fixed installations, corporate meetings and events, and houses of worship.

The RAD-360 features easy-to-use and easy-to-read menu driven displays in every component of the system. Both the receiver and the transmitter are synthesizer controlled via Phase Locked Loop (PLL) for stable Radio Frequency (RF) signals.

The RAD-360 handheld transmitters are constructed with durable metal housings and feature legendary performance of the OM-series dynamic microphones from Audix—microphones that have set standards in the pro audio industry for clarity, feedback rejection, and dependability. The hand-held transmitters have a convenient gain setting control that will enable a -10, -20, or -30 dB pad to help prevent overload or distortion. The modular design of the

threaded capsule housing assembly means that the user can easily change the transmitter mic capsule from one model to another in a matter of seconds.

The body pack transmitter, constructed of durable ABS composite, is housed in a protective metal cradle. It may be used with lavalier, headset, and specialty instrument microphones. A guitar system is also available. Mic/line input adjustments are provided as well as sensitivity/gain control.

The receiver is rack-mountable for either 1 or 2 systems into a standard 19 inch rack with optional rack mount kits. An optional Amplified Antenna Distribution System (ADS-4) is available, allowing up to 4 systems to be run off a

single pair of antennas, and one DC power supply. An optional antenna booster (AB-1), which can be wall-mounted or mic stand mounted, is available to strengthen incoming signals, improve signal to noise ratio, and increase the RF range.



## system features

- ▶ **Frequency Agile:** All Audix RAD-360 UHF transmitters and receivers can be programmed for 193 frequencies (in increments of .125 Hz) with the 24 MHz band width of the system being utilized. A total of 12-16 systems can be configured to operate simultaneously, depending on the location and environmental conditions.
- ▶ **Soft-key Controls:** Gain setting and frequency selection are very quick and easy-to-use.
- ▶ **Menu Driven Displays:** All transmitters and receivers feature menu driven LCD displays, which are back-lit and easy-to-read. Information displayed includes frequency selected, audio signal strength, A/B antenna indicator, mute status, RF indicator, battery indicator, audio levels, and lock/unlock status.
- ▶ **Noise Squelch Circuitry:** Analyzes signal quality instead of signal strength. Controls the possibility of annoying sudden "bursts" coming through the receiver.
- ▶ **Surface Acoustic Wave (S.A.W.) Filters:** Help to insure that the system is free from RF interference.
- ▶ **Tone Key Squelch:** Eliminates unwanted noise from entering the system.
- ▶ **Tuned Antennas:** 3/4 Wave antennas are tuned to specific frequencies for RF stability.
- ▶ **Audio Output:** The rear receiver panel includes both balanced (XLR) and unbalanced (1/4" ) output jacks
- ▶ **RF Level Meters:** Monitors signal strength and optimizes transmitter gain settings
- ▶ **Audio Meters:** Monitors audio levels and helps to optimize transmitter gain settings.
- ▶ **Battery Power Indicators:** Battery power levels can be read from both the receiver and the transmitter.
- ▶ **Set and Lock Function:** Easy to use switches allow frequencies to be easily changed, set, and locked.
- ▶ **Sensitivity Adjustment:** Handheld transmitters feature additional PAD settings of -10, dB -20 dB and -30 dB.
- ▶ **Interchangeable Head Assemblies:** The RAD-360 handheld transmitters feature simple-to-change threaded capsule assemblies. Change or replace capsules in a matter of seconds.
- ▶ **Durable Metal Housings:** All three components of the RAD360—receiver, handheld transmitter, and body pack feature metal housings for additional RF shielding and shock resistance.



Interchangeable Head Assemblies



Bodypack with ADX-10 lavalier



Bodypack with ADX20-i condenser



Bodypack with HT-2 headset

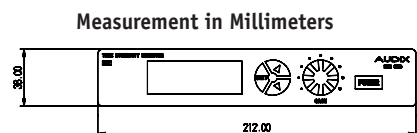
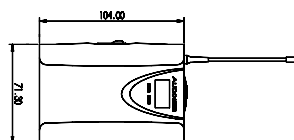
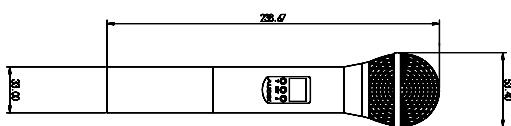


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## specifications

Frequency Range	638 MHz–804 MHz
Switchable Frequencies	193 (per system group of 24 MHz spaced .125 Hz apart)
Freq Response	40 Hz–18 kHz (depending on capsule)
Signal To Noise Ratio	>110dB
Comander System	HDX
Pilot Tone	32.768 kHz
RAD360-R	
Receiving System	Dual tuners, true diversity receiver
Image Rejection	50 dB nominal, 45 dB minimum
Signal-to-noise Ratio	110 dB at 30 kHz deviation (IEC-weighted), maximum modulation 75 kHz
Total Harmonic Distortion	≤ 1% (10 kHz deviation at 1 kHz)
Sensitivity	26 dBµV (S/N 60 dB at 5 kHz deviation, IEC-weighted) <2.5µV
Intermediate Frequency	55.875 MHz, 10.7 MHz
Audio Output	Unbalanced: 40 mV (at 1 kHz, 10kHz deviation, 10k ohm load) (AF Level set at "0") Balanced: 8mV (at 1 kHz, 10kHz deviation, 600 ohm load)
Output Connectors	Unbalanced: 1/4" phone jack Balanced: XLR
Nominal Peak Deviation	Balanced: -24 to +18dBu Unbalanced: -30 to +12dBu (adjustable in 6 dB-steps)
Adjacent Channel Rejection	>68dB
Intermodulation Spacing	>68dB
Image Rejection	>72dB
Power Supply	120V AC 60 Hz; 12-18V DC, 350 mA, with external supply
Dimensions	8.35" (W) x 1.1" (H) x 6.5" (D) 212mm (W) x 38mm (H) x 165 mm (D)
Net Weight	2.32 lbs/1050 g
RAD360-T Handheld Microphone Transmitter	
RF Power Output	50 mW Max
Spurious Emissions	Under federal regulations
Battery (not included)	2- AA 1.5 V
Current Consumption	100 mA typical
Battery Life	Approximately 12 hours (depending on battery type and usage)
Max Sound Pressure Level	>140 dB (depending on capsule)
Dimensions	1.3" diameter body, 2.1" diameter grill x 9.4" (L) 33 mm diameter body, 53.4 mm diameter grill x 238.67 mm (L)
Net Weight (without battery)	12.35 oz/350 g

## Measurements



## Supplied Accessories

- ▶ **ANT-1** 3/4 Wave UHF whip antenna (2)
- ▶ **PS-110R** DC power supply (110 VAC, 12V–350 milliamp.)
- ▶ **CC360** Zippered carrying case
- ▶ **MC-360T** Microphone clip for handheld transmitter

## Optional Accessories

- ▶ **RM1** Rack mount kit for 1 -RAD360R
- ▶ **RM2** Rack mount kit for 2 -RAD360R
- ▶ **CBL-RM1** 3' antenna extension cable with BNC connectors
- ▶ **ADS-4** Antenna distribution system (for up to 4 systems)
- ▶ **AB1** UHF Antenna booster
- ▶ **CBL-G360** 3' Guitar cable for bodypack

## System Components

- ▶ **R360** UHF true diversity receiver
- ▶ **B360** UHF bodypack
- ▶ **T360** UHF hand held transmitter (without capsule assembly)
- ▶ **T363** UHF Handheld transmitter with OM3 capsule
- ▶ **T365** UHF Handheld transmitter with OM5 capsule
- ▶ **T366** UHF Handheld transmitter with OM6 capsule
- ▶ **T367** UHF Handheld transmitter with OM7 capsule
- ▶ **T363-CA** OM3 Capsule assembly for handheld transmitter
- ▶ **T365-CA** OM5 Capsule assembly for handheld transmitter
- ▶ **T366-CA** OM6 Capsule assembly for handheld transmitter
- ▶ **T367-CA** OM7 Capsule assembly for handheld transmitter

## Lavalier and specialty microphones for RAD360 Bodypack

- ▶ **ADX5** Black omni lavalier with 3' cable
- ▶ **ADX10** ADX10 cardioid lavalier with 3' cable
- ▶ **HT2** Headset mic with 3' cable
- ▶ **HT5** Slim line omni headset microphone–black
- ▶ **HT5-BG** Slim line omni headset microphone–beige
- ▶ **ADX20i** ADX20i Instrument mic with 3' cable

## RAD360-BP Bodypack Transmitter

RF Power Output	50 mW Max
Spurious Emissions	Under federal regulations
Input Connector	3 pin mini-XLR
Input Controls	Mic/line switch, and 20 dB potentiometer
Battery (not included)	2- AA 1.5 V
Current Consumption	100 mA typical
Battery Life	Approximately 12 hours (depending on battery type and usage)
Input Impedance	Mic: 10kOhm Line: 1M0hm
Max Sound Pressure Level	approx. 128–140dB (depending on mic)
Dimensions	2.8" (W) x 4" (L) x 1"(D) 71.3 mm (W) x 104 mm (L) x 27 mm(D)
Net Weight (without battery)	7.5 oz/212 g

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