RFE

MAKING
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SMARTER

# RM500

FM RADIO MONITOR

# RM500 - FM Radio Monitor



## PRODUCT DESCRIPTION

The RM 500 provides analog, AES3-digital and AoIP-streaming audio outputs. The Web Interface enables remote tuning, streamed audio, station switching, alarms, and more.

Multiple stations can be sequentially monitored using the programmable StationRotation™ feature. The RM 500 includes a built-in BandScanner™, a real-time clock and full SNMP functionality.

The RM 500 also delivers important RF and audio signal measurements and dispatches email or text-message alarms for out-of-limits conditions and other reception errors.

## MAIN FEATURES

- Fulltime off-air program audio and analog FM via the Web from anywhere in the world.
- Up to 10 listeners at once stream support.
- Front-panel alarms and/or rear-panel GPO indicate Audio Loss, Low Signal, RDS Errors, and FM Reception Loss .
- Easy front-panel setup by menu navigation.
- Local and remote readout of all pertinent FM/RDS data.
- Enhanced alarm logging
- Built-in BandScanner displays a spectrum plot of the entire FM band.
- OLED hi-res graphic display, wide-range LED level meters in 1HE rack-unit.
- SNMP utility is fully supported.
- Real-Time Clock.
- Dante®-based, AES67-compatible [selectable] AoIP utility has independent IP, Audio Format and Transmit Flow settings [optionally].

| RF | Tuning Range | 87.5MHz to 107.9MHz in 100kHz steps. |
|---|---|---|
| | Antenna Input | 75Ω (BNC). |
| | Sensitivity/SNR | 10dBµV required for 50dB mono-FM S/N. |
| | Audio Response | FM: ±1dB, 30Hz – 15kHz; de-emphasis is programmable at 75µs or 50µs or OFF. |
| | Reception Modes | FM: Stereo / Stereo Auto-Blend / Forced-Mono. |
| | RDS Fields Displayed | PS, PI (and call), RT, RT+1, RT+2, PTY, PTYN, C/T, M/S, DI, TP, TA; RDS Block Error Rate, Groups Transmitted (with use statistics), AF, ODA. |
| AUDIO | Graphs and Metering | L, R, L+R and L–R Program Audio; Audio Histogram; RSSI, RF SNR, HD Level and Cd/No levels and histograms. |
| | Program Audio Outputs | Balanced Analog (XLR) Left and Right outputs are adjustable from –15dBu to +15dBu in 0.1dB steps. |
| | | AES Digital (XLR) output at 44.1kHz or 48kHz is adjustable from –30dBFS to 0dBFS in 0.1dB steps. |
| | | Headphone Jack (3.5mm TRS) has adjustable listening level. |
| | | Built-in 2x10W Stereo Speaker with Volume control |
| | Streaming Audio | MP3 or OGG (selectable) streams have bitrates from 32kbps to 256kbps and sampling rates from 16kHz to 48kHz. |
| ALARMS | Audio Loss | Alarm responds to the monitored service (FM or HD Radio). Alarm On/Off thresholds and Time On/Off intervals are programmable. |
| | Low Signal | Alarm and reset trigger levels are independently adjustable relative to the FM carrier level display and have programmable Time On/Off timings. |
| | RDS Alarm | Programmable Time On/Off for RDS Loss or PI Error. |
| | Pilot Loss | Programmable Time On/Off for loss of Stereo Pilot. |
| | Alarm 'Tallies' | Individual open-collector NPN transistor outputs to ground are programmable for logic polarity and GPO assignment. |
| | AoIP Port | Dante®-based, AES67-compatible (selectable) AoIP utility has independent IP, Audio Format and Transmit Flow settings. |
| NETWORK INTERFACES | LAN Port | LAN connection to local network or Internet provides remote monitoring; user-programmable network setup and streaming parameters. |
| MISCELLANEOUS | Real-Time Clock | Auto-sets to Internet time; auto/manual DST setting, battery backup. |
| MECHANICAL | Size (LxDxH) | 48x15x4.1(H) cm |
| | Weight | 3 Kg |
| | Mounting Options | An optional rack adapter mounts one or two half-rack modules in a 1U, 19-inch rack space. |
| ELECTRICAL | Voltage | 90~240Vac ± 20% |
| | Current | 100 mA max. |
| | Connector type | IEC-C13/C14 |
| | Fuse | 500mA delayed |
| ENViRONMENTAL | Operation Range Temperature | 0°C~50°C |
| | Relative Humidity | 0-95% |
| | Altitude | to 10,000ft/3,048m |