

Datasheet RadioMon

13 Band AM/FM Broadcast Monitor Receiver digital processed

Description: Miniaturised AM/FM Broadcast Monitorreceiver solid state with internal stereo speakers for use inside studio and transmitter racks. Casing 19" 1HU only 6cm deep.



Technical data

Power supply: 100-240V AC 50/60 Hz plug adapter changing system Standby power: < 90mW
Antenna input FM+AM: F- female Output: Stereo headphone jack 6,3mm
Antenna impedance FM: 50 -75 Ohms AM: capacitive max. 70pF (At higher capacities an additional padding capacitor is needed!)
Stereoseparation FM: 40dB
Tuning: by precision spindle trimmer (1 fixed frequency, optional more) A/D converted
Undistorted sound pressure @ 1m: >83dB Speaker frequency response -6dB: 150 Hz – 20 kHz
Temperature response of adjusted receiving frequency: 5°C to 45°C better than -20ppm
MTBF including medical power supply: 200.000h

Receiving ranges (internal selectable by plug link)

FM Europa	87,3 -108,25 MHz 50µs Deemphasis
FM Amerika	87,3-108,25 MHz 75µs Deemphasis
FM Japan	76,0 -90,0 MHz 50µs Deemphasis
FM OIRT	64,0-87,0 MHz 50µs Deemphasis
MW	520kHz-1710 kHz
49m	5,6-6,4 MHz
41m	6,8-7,6 MHz
31m	9,2-10,0 MHz
25m	11,45-12,25 MHz
19m	15,0-15,9 MHz
16m	17,1-18,0 MHz
13m	21,2-22,0 MHz

RF input voltage range for undistorted audio: 1µV bis 0,3V

Sensitivity FM Stereo for unweighted audio SNR

according 400Hz audio and 40 kHz nominal deviation (typical):

1,5µV: -38dB SNR 1,8µV: -41,5dB SNR 2µV: -42dB SNR

3µV: -46,5dB SNR 10µV: -53dB SNR 100µV: -65dB SNR

Distortion factor FM @ 40kHz deviation @ 400Hz Audio: < 0,3%

Narrow selection FM +- 200 kHz @ 75 kHz disturber deviation: 45dB (Es/En)

Narrow selection FM +- 400kHz @ 75 kHz disturber deviation: 60dB (Es/En)

Sensitivity AM @ 30%AM @ 400Hz Audio unweighted S+N/N typical:

10µV: 15,5dB S+N/N 20µV: 22dB S+N/N 32µV: 26dB S+N/N

50µV: 29,5dB S+N/N 200µV: 42dB S+N/N 10mV: 61dB S+N/N

Distortion factor AM @ 30% AM @ 400Hz Audio: <0,3%

Narrow selection AM +- 6kHz @ 4 kHz RF bandwidth: 50dB

Particularities: At FM ranges deviation depended RF bandwidth regulation in real time is used.
FM narrow selection more better than IRT specification TR5/3.5 for relay receiver!
At AM ranges RF bandwidth is selectable until 10 kHz (full 5 kHz audio bandwidth!).

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