



FM Radio

FM Radio Processing System

Model FMR-2000



The FMR-2000 Radio Processing System offers a quality solution for the addition of FM radio services to CATV, private cable and closed circuit TV systems. Utilizing true heterodyne signal processing techniques, the FMR-2000 faithfully reproduces off-air FM radio signals, delivering them to the cable system input at a level which assures optimum receiver quieting and excellent stereo separation. The FMR-2000 can deliver FM signals to the cable on the same channel as they are received, or they can be offset in an off-channel configuration, allowing the user to plan for maximum spectrum utilization and minimum external RF interference.

The FMR-2000 modular design simplifies system configuration and allows convenient expansion or rearrangement at any time. The FMR-2000 system includes the FMRB cabinet, FMRP power supply and the FMRM FM processor module.

The power supply and modules mount in the FMRB cabinet, a 3.5 inch (89mm) EIA rack mount chassis, which incorporates a flexible input coupler/combiner network allowing the use of a common receiving antenna or separate receiving antennas for each FM channel. An output coupler/combiner delivers a single system signal, requiring no additional combining or amplification. A single FMRB cabinet accepts a FMRP power supply and six FMRM modules, or eight FMRM modules in configurations where several frames are powered from one power supply. Up to 22 FMRM modules may be powered from one FMRP power supply. A 22 channel system occupies only 10½ inches of rack space.

The FMRM processor module provides superior stability through the use of crystal controlled input and output circuits. Signal limiting and automatic gain control assure delivery of uniform signals at the module output.

Each module contains an RF level control allowing all channel output signals to be equally balanced at the output of the system. A front panel signal indicator shows the presence of the FM signal. The FMRM normally operates within the 88-108 MHz band. Other frequency combinations are available by special order.

APPLICATIONS

- CATV
- Broadband networks
- LAN
- Campus networks
- Leaky coax
- Tunnels

FEATURES

- Up to 22 FM channels in 10½" of rack space
- Full AGC and limiting circuitry
- Individual channel level controls
- Compact, modular design
- Stable, crystal controlled frequencies
- On channel or off channel operation
- +36 dBmV system output level

BENEFITS

- Single receiving input
- Built-in coupler/combiner
- Convenient expansion or rearrangement

Specifications

System Performance

Frequency range:	88 MHz to 108 MHz
Channel bandwidth	200 kHz
Channel spacing	400 kHz
Output level	+36 dBmV
Spurious	> 60 dB below signal level
Hum and noise	> 60 dB below + 36 dBmV out

FMRM Processor Module

Input level	40 μ V monaural, 60 μ V stereo
Image rejection	90 dB
Selectivity	< \pm 150 kHz at 30 dB attenuation, < \pm 250 kHz at 50 dB attenuation
Limiting	(- 3 dB point) 20 μ V
Output level	+52 dBmV, adjustable
Stability	.005%

Electrical/Mechanical

Power	115 VAC, 60 Hz, 25 W 220 VAC, 50 Hz, 25 W
Size:	19"W x 3.5"H x 13"D 483mm x 89mm x 330mm
Ambient temperature	10 to 40°C, full performance 0 to 50°C, operational
Humidity	95% non-condensing
Weight	25 lbs.; 11.5 kg.

Specifications are subject to change without notice.