



DESCRIPTION

The Belar Model FMS-2 Stereo Modulation Monitor is an all solid state precision stereo monitor designed to operate in conjunction with the Belar model FMM-2 baseband modulation monitor. The FMS-2 is also used for test functions in conjunction with the model FMM-2 to ensure the proper performance of FM stereo transmitters. The test and measurement capability of the FMS-2 is further enhanced by the integration of two independent auto-ranging voltmeters allowing automatic measurement of channel separation and crosstalk, along with sub-carrier suppression and noise. For example, depressing the left and right channel buttons automatically registers the wanted and unwanted channel for instant separation measurements. A front panel hold button can be used to lock the autorange to the displayed range.

FEATURES

- Two independent semi-peak modulation meters for simultaneous monitoring of left and right channels
- Front panel switchable de-emphasis for noise measurements
- Pilot alarm with front panel indicator
- Outputs for audio proof-of-performance measurements
- Two auto-ranging voltmeters with LED displays for 0 to -80 dB range measurements
- Stereo separation measurement capability of over 70 dB at 15 kHz
- High visibility rear-illuminated meters

SPECIFICATIONS

Input Level 4.2 V P-P (3.5 V P-P Opt) composite
Input Impedance 220k ohms, unbalanced,
BNC connector

Metering:

Left Meter Selectable: total modulation, L + R,
pilot or left channel modulation

Right Meter Selectable: pilot phase, L-R, 38
kHz suppression or right channel modulation
Auto Range Attenuator 0-60 dB in 10 dB steps,
calibrated full range readings:
+3 to -80 dB
Modulation Meter Range 0 to 133%
Modulation Meter Accuracy Better than 2%
over entire range
Pilot Meter Accuracy 0.5%
(6% to 13% pilot modulation)

Separation:

Left to Right 70 dB, 10 Hz to 15 kHz
Right to Left 70 dB, 10 Hz to 15 kHz

Crosstalk:

L+R to L-R 85 dB min
L-R to L+R 85 dB min
SCA to L+R Greater than 90 dB
SCA to L-R Greater than 90 dB
SCA Interference Greater than 90 dB

Outputs:

Left and Right Channel Program Audio +4
dBm, 600 ohms, balanced
Left and Right Channel Program Test 5 Vrms,
10k ohms, unbalanced
Pilot 3 V P-P, 27k ohm source
Composite (less Pilot) 4 V P-P, 2k ohm source

Audio Output Specifications:

Frequency Response, Left and Right . . . ±0.25 dB,
50-15,000 Hz
Signal to Noise Ratio, Left and Right . . . 90 dB min
Harmonic Distortion 0.01% max, 50-15,000 Hz
Intermodulation Distortion . . . 0.01% max (SMPTE)

Remote Outputs:

Left Meter, Right Meter, Pilot Indicator.... For inter-
face to Model MP-8 remote meter panel (opt)

Dimensions 5 1/4" H x 10 1/2" D x 19" W
(EIA Rack Mount)

Power Requirements 20 watts, 115/230 VAC
50/60 Hz

Shipping Weight 17 lbs



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