



## DESCRIPTION

The Belar FMHD-1 is a state of the art HD Radio monitor designed to support the needs of today's broadcaster well into the future. The monitor decodes the HD Radio signal and analog FM signal simultaneously displaying HD Radio status, data, time alignment, and configuration information, as well as total, pilot, L, R, L+R and L-R metering and RF spectrums. The FMHD-1 is a two rack unit with a 640 x 240 wide viewing angle color LCD display and rotary encoder providing a detailed, clean and simple user interface.

Based on the latest decoder from Ibiqity, the FMHD-1 currently supports monitoring multiple audio streams and simultaneous monitoring of two streams with an optional second plug-in HD Radio decoder. The units 8 user assignable analog audio outputs, and 3 assignable AES-3ID outputs provide support for a wide variety of broadcast scenarios including multi-casting and Surround Sound.

In addition to an antenna input for monitoring off the air, the FMHD-1 has two high level RF inputs for transmitter site operation. The dual RF inputs allow for monitoring at installations using two transmitters to generate the combined Analog/HD signal.

Older wideband Analog FM monitors out in the field may require pre-filtering in order to remove HD radio sidebands. The FMHD-1 provides two variable bandwidth, high quality filtered analog composite outputs for driving these monitors eliminating interference.

The FMHD-1 has both RJ-45 10/100 Base-T Ethernet and RS-232 computer interfaces. When used in conjunction with the Wizard for Windows software the FMHD-1 can be accessed remotely with various PC graphing and logging functions available. The unit also provides 4 user assignable relay closures used to indicate alarm conditions.

Specifications are subject to change without prior notice.



**BELAR ELECTRONICS LABORATORY, INC.**

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**FEATURES**

- Frequency Agile Antenna and High Level RF Inputs
- RF Spectrum Analysis with Mask and Sideband Power Measurements
- Metering of Analog Total, Pilot, L, R, L+R, and L-R
- Metering of HD Radio L, R, L+R, L-R Audio
- Time Alignment Graphic Display Analysis ±16384 samples, ±375 ms to ±256 samples, ±5.8 ms Audio Polarity
- Level Alignment Graphic Display Analysis ±20.0dB
- HD Radio Control and Status Information
- HD Radio SIS and PAD Data
- BER (Bit Error Rate) Measurements

**Composite Outputs**

Analog (2 buffered) . . . . +1.5 Vms @ 100%, 75Ω unbalanced, BNC Connector  
 Digital (2 buffered) . . . . . LVDS, 100Ω, RJ-45 Connector

**Audio Outputs**

Analog (8 channels assignable) . . . . +10 dBm, 600Ω balanced, XLR Connector  
 AES-3ID (6 channels assignable) . . . . . 1.0 Vp-p 75Ω, BNC Connector  
 Headphone (L/R assignable) . . . . . ¼" phone jack

**Computer Interface**

RS-232 . . . . . 9-pin, Male D-Sub Connector  
 Ethernet 10/100 Base-T . . . . . RJ-45 Connector

**Alarms**

Relays (4 Assignable) . . . . . Form C, 15-pin D Connector

**SPECIFICATIONS**

**RF Input**

Antenna Input 87.5 to 108 MHz frequency agile, 75Ω, F-Type Connector  
 RF Inputs . . 87.5 to 108 MHz frequency agile, 1 to 10 Vrms, 50Ω, BNC Connector

Dimensions . . . . . 2 EIA Rack Unit  
 Power Requirements . . . . . 40 Watts, 90-264V 50/60 Hz  
 Shipping Weight . . . . . 15 lbs

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