Radio Explorer III HD Radio



ADVANCED MOBILE HD RADIO ANALYZER

Radio Explorer III HD Radio is an impressive addition to DEVA Broadcast's line of products dedicated to HD Radio[®] monitoring. Fully compliant with the Digital HD Radio[®] Broadcasting standard, this is a powerful tool, which comes with an FM tuner and an FM/HD Radio[®] tuner for an even higher quality of operation.

It is the go-to product for reliable coverage survey and measures the selected HD Radio® frequency with precision and effectiveness, while in FM mode it can measure up to 10 channels. The built-in FM RDS/RBDS Decoder and the HD Radio® PAD Decoder further contribute to the top performance of the Radio Explorer III HD Radio. As is the case with all of our products, this one combines superb features with user-friendly operation. Its high-resolution graphical OLED display with front panel navigational buttons and soft buttons ensures effortless usage of the unit, with easy navigation through the menus and quick access to the device's various functions.



The Radio Explorer III HD Radio measures all important signal parameters, including the RF level, MPX deviation, Left & Right Audio levels values, as well as HD Radio® parameters such as DAAI and CDNR. Additionally, it boasts a Loudness meter, which can be shown as defined by ITU BS.1770-4 and EBU R128 recommendations, as the product supports both.

This tool can also be controlled through the built-in Web server - a standard web browser can be used to monitor its status or to make some adjustments. iOS and Android devices are also supported. The Main Screen of the WEB Interface shows all mandatory parameters represented as LED bar graph readings.

The DEVA Device Manager Software, supplied free of charge, also allows for quick and easy connection to the device.

With its array of smart features, Radio Explorer III HD Radio is sure to be the product of choice for dependable HD Radio[®] monitoring.

FEATURES

- FM/HD Radio DSP-based Tuner 87.1 107.9MHz
- Up to 100 dBμV direct RF Antenna Input
- Selectable wide range IF filter bandwidth
- Built-in 50-channels GPS Receiver
- Front panel OLED Graphical Display
- Easy to use WEB Interface
- Apple and Android devices support
- Very Intuitive Application Interface
- SNMP for adjustments and control
- Provision for PAD data analysis and Logging
- Selectable De-emphasis 50µs and 75µs
- RDS and RBDS decoder with BER meter
- Very Intuitive Navigational Menu
- Protected access to the device settings

- SNTP for automatic synchronization of the built-in clock
- LAN port for full TCP/IP remote control and monitoring
- Adjustable MIN/MAX alarms for RF, Left & Right Audio Levels
- Alarm dispatch via E-mail, SNMP ver.2C and GPO
- Firmware updates will ensure improved operation
- Antenna port supporting up to 110 dBµV direct RF Antenna Input
- Maintenance via DEVA Device Manager Software
- Measurement results visualization in Google Earth
- Accurate front-panel metering for local use
- Headphone output with front panel level control
- 3 General purpose outputs
- HD Radio PAD (Program-Associated Data) Information
- Built-in FTP Server for easy download of the Log files
- Robust, custom made Metal Case for high RF immunity



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SPECIFICATIONS

RF Input		
Tuning Range	User selectable, 87.1-107.9 MHz	
Tuning Step	10, 20, 50, 100 kHz	
Tuner Sensitivity	≤ 10µV for 50dB monaural FM S/N	
Antenna Ports	BNC Connector, 50Ω	
Internal Attenuator	0, 10, 20 and 30 dB	
Dynamic range	100 dB	
FM Demod		
IF Filter Bandwindth	Selectable 15 Incr. (27 - 157kHz) or Auto	
Frequency Response	±0.1 dB, 10 Hz to 86 kHz	
Dynamic range	90 dB	
Stereo Decoder		
Frequency Response (L&R)	±0.1 dB, 10 Hz to 15 kHz	
SNR (Stereo)	60 dB, 50 μs de-emphasis	
THD	0.1%, 10Hz to 15kHz, 50 µs de-emphasis	
Stereo Separation	50dB, 50Hz to 10kHz, 50µs de-emphasis	
HD Radio		
Audio Programs	MPS, SPS1 to SPS7	
Quality Indicators	DAAI, CDNR, HD Radio lock	
SIS Data	Station Slogan, Station Message, Station Long Name, Station Universal Short Name, FCCID	
PAD Data	Artist, Title, Album, Genre	
Metering Accuracy		
RF Level	±1 dB, 0 to 100 dBµV	
MPX Power	±0.2 dBr, -12 to 12 dBr, 0.1 dBr resolution	
Total, Pos, Neg	±2 kHz, 10 to 100 kHz, 1 kHz resolution	
Pilot, RDS	±0.5 kHz, 1 to 12 kHz, 0.2 kHz resolution	
Audio	±1 dB, +10.0 to -55.0 dB, 0.1 dB res.	
Outputs		
Audio (L, R)	+6 dBu, 600Ω, balanced XLR Connector	

Terminals on rear panel, optoisolated

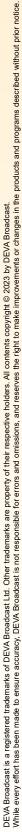
6,3mm (1/4") Phone Jack

Communication Interfaces		
USB	B-type Connector	
Ethernet 10/100 Base-T	RJ45 Connector	
RDS Decoder		
Standards	European RDS CENELEC; United States RBDS NRSC	
Error Correction & Counting	Yes	
AF Decoding	Yes	
CT (Time/Date)	Yes	
PI, PTY, DI, MS	Yes	
TA/TP	Yes	
RT (Radio Text), RT+	Yes	
PS (Program Service name)	Yes	
TMC, ODA	Yes	
Group Analyzer	Yes	
BER Analyzer	Yes	
Group Sequence Display	Yes	
RDS RAW Data Display	Yes	
GPS Receiver		
Number of channels	50	
Antenna	Pre-amplified, 5m of cable, magnetic	
Connector	SMA, rear panel	
Measurement Storage		
Storage	16GB Build-in Memory Card	
Data format	Text, CSV	
Power Requirement		
Voltage	12 DC (11-15V) / 2A max at 12V	
Connector	XLR (on rear panel)	
Size and Weight		
Dimensions (W;H;D)	210 x 76 x 215 mm	
Shipping Weight	470 x 180 x 310 mm / 4.031 kg	
110.0	0507040000	

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HS Code





GPO

Headphone