BROADCAST TOOL

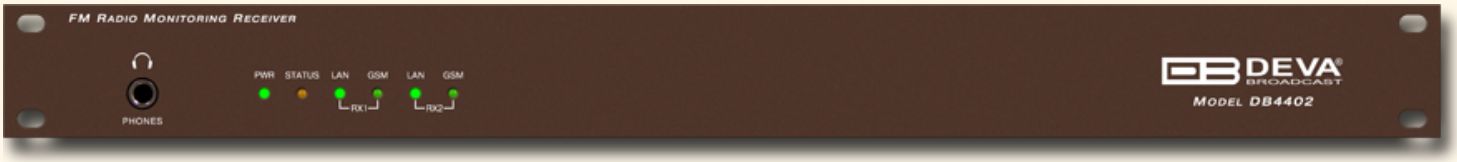
Model DB4402-V2

High-Performance Dual FM Monitoring Receiver & Radio Streamer

The DB4402-V2 – Dual FM Monitoring Receiver is a superb and highly practical combination between a logger and a streamer which allows you to easily and accurately monitor and store all important parameters of the FM signal while simultaneously giving you the opportunity to listen to a constant, uninterrupted audio stream. The synchronized performance of both major functions is at the core of the idea for this model, as well as the unit's major asset. You can listen to the selected audio feed at the same time as the logger campaign is running. The design of this device relies on simplicity coupled with functionality to offer customers the opportunity of a single solution to both tasks.

Providing the stable, dependable operation characterizing all DEVA products, the DB4402-V2 is fully DSP-based, with a built-in oscilloscope and an RDS/RBDS decoder with a BER meter. It also permits users to set alarms for RF, MPX, Pilot and RDS signal via email, SMS or SNMP. What is more, the TCP/IP and GSM connectivity provides easy remote control, monitoring and listening to the radio signal from any location.

The device offers a "Restore Factory Defaults" option and easy update of the firmware. It is an advanced solution giving customers a number of advantages and top all-round, multi-faceted performance as both a monitoring tool and a streaming device.



FEATURES

- MPX Power measurement with data history
- Remote Listening via optional GSM modem
- Selectable De-emphasis – 50µs and 75µs
- Up to 90dBµV direct RF Antenna Input
- Alarm dispatch via E-mail, SMS, SNMP
- RDS and RBDS decoder with BER meter
- Real Time Audio Program Streaming
- Parameters Factory Restore Option
- MPX, PILOT & RDS deviation meters
- Channel status reporting via SMS
- Intuitive Application Interface
- Easy Installation and Setup
- RF and RDS Measurements
- Headphones audio output
- Fully DSP based core
- Date & Time Settings with various formats
- Firmware update for future-proof operation
- FM Band 87 - 108 MHz Basic Spectrum Analyzer
- LEFT and RIGHT demodulated audio level meters
- Built-in Stereo Decoder; Stereo Presence Detection
- Proved and reliable hardware for 24/7/365 operating
- Attractive price and very good price-performance ratio
- LAN port for full TCP/IP remote control and monitoring
- SNTP for automatic synchronization of the built-in clock
- Adjustable alarms for RF, Deviation, Pilot and RDS signal
- Built-in Oscilloscope allowing Left, Right and MPX display
- Compact and Robust Aluminum Case for high RF immunity
- MPX Spectrum analyzer for Left, Right and MPX measurements
- Very Intuitive Embedded WEB server for interactive supervision
- RF Spectrum analyzer allowing to check the RF Carrier parameters

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SPECIFICATIONS

RF Input	
Tuning Range	User selectable, 87.1-107.9 MHZ (CCIR), 65-74 MHz (OIRT), 76-95 MHz (Japan)
Tuning Step	10, 20, 50, 100 kHz
Tuner Sensitivity	30 dBµV
Antenna Port	BNC Connector, 50Ω
Internal Attenuator	0, 10, 20 and 30 dB
Dynamic range	100 dB

FM Demod	
IF Filter Bandwidth	50kHz to 314kHz overall; ±25kHz to ±157kHz; 15 Increments
Frequency Response	±0.1 dB, 10 Hz to 86 kHz
Dynamic range	90 dB

Stereo Decoder	
Freq. Response	(L&R) ±0.1 dB, 10 Hz to 15 kHz
SNR (Stereo)	60 dB, 50 µs de-emphasis
THD	0.1%, 10 Hz to 15 kHz, 50 µs de-emph.
Separation	50 dB, 50 Hz to 10 kHz, 50 µs de-emph.
Crosstalk	52 dB

FFT Spectrum Analysis	
Input	Composite MPX, Audio
Dynamic Range	80 dB
FFT Length	1024
Sampling Rate	256 kHz - Composite, 64 kHz - Audio

Scope Analysis	
Input	Composite MPX, Audio
Trigger Mode	Auto, Fall
Dynamic Range	±120 kHz
Sampling Rate	256 kHz - Composite, 64 kHz - Audio

Outputs	
Audio stream	Icecast/Shoutcast compatible audio stream
Alarms	E-mail, SMS, SNMP
Headphone	1/8" (3.5mm) Phone Jack
GSM Modem	15-pin Male D-Sub Connector

RDS Decoder	
Standards	European RDS CENELEC; United States RBDS NRSC
AF, CT, PI, PTY, DI, MS, TA/TP	Yes
RT (Radio Text), RT+	Yes
PS (Program Service name)	Yes
ODA	Yes
Error Correction, Group & BER Analyzer	Yes

Metering Accuracy	
RF Level	±1 dB, 0 to 100 dBµV
Multipath	0 to 100%; accuracy - ±1%
MPX Deviation	±2 kHz, 10 to 100 kHz, 1 kHz resolution
MPX Power	±12 dBr; resolution - 0.1dBr, 10 sec. integration; accuracy - ±0.2 dBr
Pilot Level	±0.5 kHz, 1 to 12 kHz, 0.2 kHz resolution
RDS Level	±0.5 kHz, 1 to 12 kHz, 0.2 kHz resolution
Audio Level	±1 dB, +10.0 to -55.0 dB, 0.1 dB resolution

User Interface	
Web interface	Full monitoring & control; Easy to use
Indicators	6 LEDs (on front panel)
Headphone Output	1/8" (3.5mm) phone jack (on front panel)

Communication Interfaces	
Ethernet 10/100 Base-T	RJ45 Connector
GSM Modem	15 pin Male D-Sub Connector

Operating Conditions	
Temperature	-15°C to 55°C
Humidity	< 95%, non-condensing
Altitude	0 to 5000m above sea level
EMC Immunity	6V/m

Power Supply	
Voltage	100-240V / 50-60 Hz / 25W
Connector	IEC320

Size and Weight	
Dimensions (W;H;D)	485 x 44 x 300 mm
Shipping Weight	540 x 115 x 300 mm / 4.5kg

WE NEVER SPARE EFFORTS AND RESOURCES TO TURN OUR IDEAS INTO SUCCESSFUL PRODUCTS

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