BROADCAST TOOL

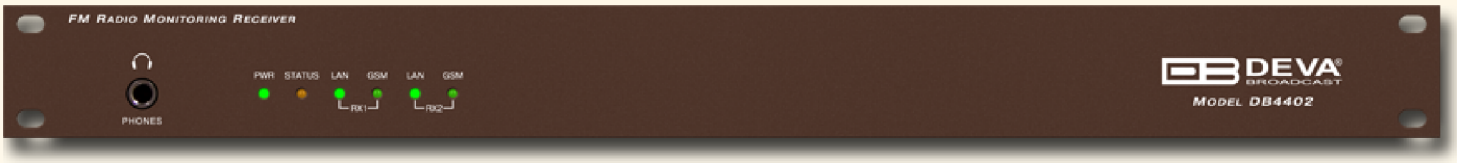
Model DB4402

High-Performance Dual FM Monitoring Receiver & Radio Streamer

The DB4402 – 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 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

- Remote Listening via optional GSM modem
- MPX Power measurement with data history
- Selectable De-emphasis – 50µs and 75µs
- RDS and RBDS decoder with BER meter
- Alarm dispatch via E-mail, SMS, SNMP
- Up to 90dBµV direct RF Antenna Input
- Real Time Audio Program Streaming
- MPX, PILOT & RDS deviation meters
- Parameters Factory Restore Option
- Channel status reporting via SMS
- Intuitive Application Interface
- RF and RDS Measurements
- Easy Installation and Setup
- 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
- LAN port for full TCP/IP remote control and monitoring
- Attractive price and very good price-performance ratio
- 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	
Frequency Range	87.0 to 108 MHz, Frequency Agile
Step Increment	50 kHz
Antenna Input	50Ω, BNC Connector, 10 dBµV sensitivity
Internal Attenuator	0, 10, 20 and 30dB, auto
Dynamic Range	0 dBµV to 100 dBµV
S/N	57dB, RF > 60dBµV, 30dB, RF > 10dBµV

METERING RESOLUTION & ACCURACY	
RF Level	0÷95 dBµV; res. 0.1 dBµV; acc. ±1 dB (10÷85 dBµV)
Multipath	0 to 100%; accuracy ±1%
MPX Dev.	±120 kHz; res. 0.1kHz; acc. ±10%, ±5% typically
MPX Power	±12 dBr; res. 0.1dBr, 10 sec. integration; acc. ±0.2 dBr
Audio Level	-50 to +5dB; res. 0.1dB; acc. - ±5%
Pilot Level	0÷12 kHz; res. 0.1 kHz; acc. - ±0.5 kHz, 1÷12 kHz
RDS Level	0÷9 kHz; res. 0.1 kHz; acc. ±10% typical and not guaranteed

Audio, MPX, Pilot, RDS levels	
Validity	RF level preferably > 50dBµV
Multiplex Level	Peak level, 256 ksamples over 1 sec.
Audio Level	Peak level, 64 ksamples over 1 sec.
Pilot Level	Mean peak level, 256 ksamples over 1 sec.
RDS Level	Mean peak level, 256 ksamples over 1 sec.

STEREO DECODER	
Stereo Separation	>25dB, typical >30dB
De-emphasis	50 or 75µs, Selectable
THD	0.5%

TCP/IP COMMUNICATION	
Type	Ethernet 10/100M Base-T Port
Connector	RJ45 (on rear panel)

POWER SUPPLY	
Voltage	100-240V / 50-60 Hz / 25W
Connector	IEC320

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 DATA DECODING	
Standards	European RDS CENELEC; US RBDS NRSC
Error Correction & Counting	Yes
AF Decoding	Yes
CT (Time/Date)	Yes
PI, PTY, DI, MS, TA/TP	Yes
RT (Radio Text)	Yes
PS (Program Service name)	Yes

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

USER INTERFACE	
Web interface	Full monitoring and control; Interactive and easy to use
Indicators	6 LEDs (on front panel)
Headphone Output	1/8" (3.5mm) phone jack (on front panel)

OPERATING CONDITIONS	
Temperature	10° to 60°C
EMC Immunity	6V/m

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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