

DSP-BASED FM RADIO RE-BROADCAST RECEIVER WITH TCP/IP CONNECTIVITY

DB7000 is frequency-agile, digitally tuned FM Re-Broadcast Receiver equipped with a sophisticated and high selective DSP based FM-tuner. The RF (IF) signal is digitalized as soon as it enters the device and all signal processing is then made through DSP algorithms. Digitizing the signal in this way, at the input, gives the equipment measurement reproducibility over time. The high accuracy DSP based IF bandwidth filters help to solve difficult adjacent-signal. The DB7000 measures conveniently all important parameters of FM transmissions. The built-in monitoring system generates automatic warning messages in case of faulty or missing data. The incredible processing power in the device enables all measurements to be refreshed simultaneously and synchronously, thereby allowing for detailed readings of all the Multiplex FM signal components.

The DB7000 has easy to read, high-resolution OLED graphical display and ultra-bright alarm indicators that allow reading the signal at a glance. The DB7000 is designed to support USB and LAN communication interfaces, allowing flexibility in remote connection and control of the unit. Easy channel status monitoring or audio listening from anywhere uses your mobile phone. With the Audio Stream Server you can listen the audio of the received radio program.

The Band Analyzer function in the DB7000 presents an overview of all FM signals available, plus the RF signal strength of these stations. Scans are possible within any section of the band in the FM band in 3 different modes. The generated spectrum diagram shows the RF Level vs. the Frequency. Scheduled Band Scans can also be enabled for RF intruder or pirate transmissions detection. A high performance level and sustained reliability allow the DB7000 to satisfy the requirements of the most demanding broadcasters, satellite and cable operators. This product has been designed using the latest state-of-the-art audio technology, with very low harmonic distortion!



FEATURES

- Accurate front-panel metering for local use
- Sophisticated DSP based Digital FM Tuner
- Built-in high performance Stereo Decoder
- Selectable wide range IF filter bandwidths
- RDS and RBDS decoder with BER meter
- Up to 100 dBµV direct RF Antenna Input
- Easy and intuitive Windows Application
- Protected access to the device settings
- Wide angle, easy to read OLED display
- Real Time Audio Program Streaming
- Apple and Android devices support
- Fully DSP-based management core
- Restore Factory Parameters option
- Advanced SNMP Ver.2C support
- Very Intuitive Navigational Menu
- Easy Installation and Setup
- Easy to use WEB interface
- Wide operating voltage range: 100-240V AC
- Remote Listening via optional GSM modem
- Adjustable MIN/MAX alarms for MPX & RDS
- 19" Professional Case for high RF immunity
- Selectable De-emphasis - Off, 50µs and 75µs
- SNTP for automatic sync of the built-in clock
- Dual antenna ports with built-in RF attenuator
- FM Band 87.1 - 108.1 MHz Basic Spectrum Analyzer
- Headphone output with front panel level control
- Alarm dispatch via E-mail, SMS, SNMP and GPO
- Firmware updates will ensure improved operation
- USB communication interface for local connectivity
- Balanced Analog Audio Outputs on XLR Connectors
- LAN port for full TCP/IP remote control and monitoring
- Adjustable MIN/MAX alarms for RF, Pilot, L & R Audio Levels
- Complete status reporting with SMS via optional GSM modem
- Professional AES/EBU, SPDIF and Optical Digital audio outputs

SPECIFICATIONS

RF Input	
Tuning Range	87.1 to 108.1 MHz, Frequency Agile
Tuning Step	10, 20, 50, 100 kHz
Tuner Sensitivity	30 dB μ V
Antenna Ports	Dual, 2 x BNC Connectors, 50?
Antenna Ports Isolation	> 40 dB
Internal Attenuator	0, 10, 20 and 30 dB
Dynamic range	100 dB

FM Demod	
IF Filter Bandwidth	15 Increments (25kHz - 157kHz, Auto)
Frequency Response	\pm 0.1 dB, 10 Hz to 86 kHz
MPX Power	\pm 12 dBr, 20 sec. integration
Dynamic range	90 dB

Stereo Decoder	
Frequency Response (L&R)	\pm 0.1 dB, 10 Hz to 15 kHz
SNR (Stereo)	70 dB, 50 μ s de-emphasis
THD	0.1%, 10 Hz to 15 kHz, 50 μ s de-emphasis
Separation	50 dB, 50 Hz to 10 kHz, 50 μ s de-emphasis
Crosstalk	52 dB

Metering Accuracy	
RF Level	\pm 1 dB, 0 to 100 dB μ V
MPX Power	\pm 0.2 dBr, -12 to 12 dBr, 0.1 dBr resolution
Total, Pos, Neg	\pm 2 kHz, 10 to 100 kHz, 1 kHz resolution
Pilot, RDS	\pm 0.5 kHz, 1 to 12 kHz, 0.2 kHz resolution
Audio	\pm 1 dB, +10.0 to -55.0 dB, 0.1 dB resolution

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

RDS Decoder	
Standards	European RDS CENELEC United States RBDS NRSC
Error Correction & Counting	Yes
AF, CT	Yes
TA/TP	Yes
PI, PTY, DI, MS	Yes
PS, RT, RT+	Yes
TMC, ODA	Yes
Group Analyzer	Yes
BER Analyzer	Yes
Group Sequence Display	Yes
RDS RAW Data Display	Yes

Outputs	
Composite	3.5 Vp-p @ 75kHz, 75? , unbalanced BNC Connector
Audio (L, R)	+12 dBm, 600? balanced XLR Connector
AES3 (L, R)	5.0 Vp-p, 110? , balanced XLR Connector
SPDIF (L, R)	3.0 Vp-p, 110? , unbalanced BNC Connector
Optical (L, R)	Transmitter, TOSLINK
Alarms	Programmable terminals on rear panel, optoisolated. RF Carrier Loss alarm output.
Headphone	6,3mm (1/4") Phone Jack

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

Size and Weight	
Dimensions (W;H;D)	485 x 44 x 180 mm
Shipping Weight	3 kg



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