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

DB7001 is a second generation digitally-tuned FM Re-Broadcast Receiver. Considering the needs of the most demanding broadcasters and continuously supplementing new features to our devices, DEVA has enhanced DB7001 to be smarter and fully functional unit, equipped with high-selective DSP-based FM tuner.

Another impressive addition to DB7001's features is the backup station. In case of an alarm event, the unit will not only notify the maintenance staff but will also switch automatically to the backup station once the event is registered. Thus, audio loss for extended period if problem with the main station is evident will be prevented.

The DB7001 has an easy to read, high-resolution OLED graphical display and ultra-bright alarm indicators that allow reading the signal at a glance. An additional feature to the list of DB7001 characteristics is that the RDS information contained in the processed MPX signal is easily visualized and represented as RDS/RBDS Data and detailed RDS/RBDS Statistics. The DB7001 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 everywhere is possible through your mobile phone. With the Audio Stream Server you can listen to the audio of the received radio program.

The Band Analyzer function of the DB7001 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. The generated spectrum diagram shows the RF Level vs. the Frequency. In case of a transmission failure, maintenance staff will be immediately alerted via E-mail, SNMP, or SMS which signals the technicians to restore a normal service as soon as possible. A high performance level and sustained reliability make the DB7001 to satisfy the requirements of the most demanding broadcasters, as well as the satellite and cable operators. This product has been designed with the latest state-of-the-art audio technology in use, and 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

- Selectable De-emphasis - 50µs and 75µs
- Wide operating voltage range: 100-240V AC
- Remote Listening via optional GSM modem
- Adjustable MIN/MAX alarms for MPX & RDS
- Remote Listening via optional GSM modem
- 19" Professional Case for high RF immunity
- Selectable De-emphasis - Off, 50µs and 75µs
- SNTP for automatic sync of the built-in clock
- FM Band 65 - 108 MHz Basic Spectrum Analyzer
- Headphone output with front panel level control
- Alarm dispatch via E-mail, SMS, SNMP and GPO
- 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

ALL IN ONE TOOL

Model DB7001

SPECIFICATIONS

RF Input

Tuning Range	User selectable, 87.1-108 MHz (CCIR), 65-74 MHz (OIRT), 76-95 MHz (Japan)
Tuning Step	10, 20, 50, 100 kHz
Tuner Sensitivity	30 dBµV
Antenna Port	1 x BNC Connectors, 50Ω
Internal Attenuator	0, 10, 20 and 30 dB
Dynamic range	100 dB

FM Demod

IF Filter Bandwindth	15 Increments (25kHz - 157kHz, 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%, 10 Hz to 15 kHz, 50 µs de-emphasis
Separation	50 dB, 50 Hz to 10 kHz, 50 µs de-emphasis
Crosstalk	52 dB

Metering Accuracy

RF Level	±1 dB, 0 to 100 dBµV
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 resolution

Measurement Storage

Storage	2GB Build-in Memory Card
Data format	Text, CSV

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	+12 dBu @ 75kHz, 75Ω, unbalanced BNC Connector
Audio (L, R)	+6 dBu, 600Ω balanced XLR Connector
AES3 (L, R)	5.0 Vp-p, 110Ω , balanced XLR Connector
SPDIF (L, R)	3.0 Vp-p, 110Ω, unbalanced BNC Connector
Optical (L, R)	Transmitter, TOSLINK
Alarms	Programmable terminals on rear panel, optoisolated
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	540 x 115 x 300 mm / 2.660 kg

MADE IN BULGARIA
www.devabroadcast.com
CAUTION: TO PREVENT ELECTRICAL SHOCK, DISCONNECT POWER BEFORE SERVICING
PATENT PENDING DESIGN
MAX RF INPUT LEVEL = 110 dBµV
CONTROL — ALARM OUT — LAN — USB — GSM MODEM
FM TUNER — ANT 2 — ANT 1 — MPX OUT
AUDIO OUTPUT — S/PDIF — AES/EBU — LEFT — RIGHT
GND
100-240VAC 50-60Hz, 25VA

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

DB DEVA BROADCAST®