

## SECOND GENERATION ADVANCED IP AUDIO DECODER

DB9009-RX is our second generation Advanced IP Audio Decoder. This new addition to DEVA Broadcasting Tools is affordable, easy to use and furnishes more features than ever before.

The powerful DSP processor allows accomplishing of the decoding process in real time. Supporting all the mandatory for this high class equipment HE-AAC versions 1 and 2, MPEG-1 Layer 3 compressed audio streams and lossless uncompressed PCM stream, the DB9009-RX can be used for a wide range of professional audio applications: Broadcast, Internet Radio, Studio to Transmitter Link and VoIP.

For an additional charge, this sophisticated device is also available in a version with a fully digital, DSP-based Stereo & RDS Encoder Module. The Encoder Module utilizes 2(or 3) outputs. The first one is for the MPX and the second for the RDS or Pilot. Through the RS-232 port, this device could be easily transformed from an Ethernet to a serial Redirector, enabling quick integration of the existing audio systems to the Internet.

This cost effective, yet highly professional device impresses with its new custom made laser cut aluminum sheet case, OLED Graphical Display and Intuitive Navigation Menu. The easy-to-read display and navigation menu allow easy status monitoring of the audio levels (visualized in bar graphs), connection information and configuration. The Soft Buttons indicators placed on the bottom side of the OLED display are used for navigation through the menus, quick access to the parameters, modes, functions and for altering of their values.

Utilizing several types of Backup sources, DB9009-RX will immediately switch between the sources (IP Audio Client, RTP, MP3 Player) and return to the main one, with no user intervention when the audio is restored. The current audio source can also be selected using one of the General Purpose Inputs. Depending on your needs, the sequence of the backup audio sources can be easily changed. The audio content for the MP3 player is recorded on the internal SD card. The backup files can be managed remotely through the built-in FTP Server, using any FTP client.

Yet another impressive addition to DB9009-RX features is the low latency Real Time Protocol (RTP) connection support. Fully compatible with any online radio system, including the Icecast and Shoutcast, this affordable device is the perfect sound solution for long distance audio transfer, for both wired and wireless networks.

Providing top-quality signal over public IP networks and even connections behind NATs and Firewalls, DB9009-RX delivers undeviating audio unaffected by the non-persistent network conditions and without the need of user interference.



### FEATURES

- 32 kHz, 44.1 and 48 kHz sample rates support
- UPnP for easy discovery in Local Networks
- Easy to read OLED Graphical Display
- Excellent Audio Performances
- Ethernet to RS-232 redirector
- 3 General Purpose Outputs
- Intuitive Navigation Menu
- RTP Audio compatible
- Built-in Backup Audio Player with SD Card
- Configuration and Monitoring via SNMP Ver.2C
- Support of all standard bitrates and VBR as well
- 5 LEDs and Phones output for quick diagnostics
- Full Control and easy setup with any web browser
- Shoutcast / Icecast compatible TCP/IP stream client
- IP address pronunciation at startup (through the headphones)
- High Quality HE-AAC (v.1 and v.2) and MPEG-1 Layer 3 Codecs
- Auto switching to another source when connection or audio loss

### FEATURES with Stereo & RDS/RBDS Encoder Module added

- Selectable pre-emphasis 0, 50µs, 75µs
- Adjustable Pilot, L-R, RDS phases
- 1x MPX and 1x RDS/PILOT Output
- Fully Dynamic RDS encoder
- Built-in MPX Limiter
- Fully Digital 32 bits DSP Stereo Encoder
- Fully Digital Synthesis of the RDS Signal
- Built-in Stereo MPX Generator and RDS Encoder
- Digitally adjustable Pilot & RDS injection levels
- Digital stereo encoder with pre-emphasis, AGC & equalizer

## SPECIFICATIONS

IP Audio Client	
Type	Icecast/SHOUTcast compatible client
Count	3 independent clients
Codec Support	HE-AAC (v.1&2), MPEG-1 Layer 3, raw PCM
Sample rates	32 kHz, 44.1 kHz and 48 kHz
Bit Rates	All standard bitrates, including VBR
Features	HTTP redirection support

Analog audio output	
Connector	2 x XLR, stereo, Balanced
Level	max. +18dBu @ 0dBFs, user configurable
Distortion	<0.01% THD+N
Sample rate	48 kHz
Resampling	Thru build-in sample rate converter
Dynamic range	101 dB

MP3 Player	
Type	Standalone MP3 Player
Storage	microSD card
Codec Support	HE-AAC (v.1 and v.2) or MPEG-1 Layer 3
Sample rates	32 kHz, 44.1 kHz and 48 kHz
Bit Rates	All standard bitrates, including VBR
Features	Jingles auto-insertion support
Supported files	*.Mp3, *.AAC, *.M4A, *.M3U
Playback modes	Alphabetical ascending and descending, Shuffle, Playlist and Shuffled playlist
Remote files	Build-in FTP server

Audio backup	
Type	Silence detector with auto backup switcher
Source	Any of the available sources; Up to 3 configurable backups
Trigger	Audio silence detector
Threshold	Adjustable, -90dBFs to 0dBFs
Trigger time	Adjustable, 1s to 240s

Size and Weight	
Dimensions (W;H;D)	485 x 44 x 180 mm
Shipping Weight	540 x 115 x 300 mm / 2.6kg

RTP Audio Receiver	
Type	Single RTP/UDP compatible receiver
Codec Support	HE-AAC (v.1&2), MPEG-1 Layer 3, raw PCM
Sample rates	32 kHz, 44.1 kHz and 48 kHz
Bit Rates	All standard bitrates, including VBR
Features	Multicast RTP support

Digital audio output	
Connector	XLR; AES/EBU
Sample rate	48 kHz
Resampling	Thru build-in sample rate converter

Dayparting	
Count	8 independent presets
Source	Any of the available sources
Trigger	Time and Day of the week
Duration	Adjustable, up to 24 hours

Stereo & RDS Generator (Option)	
Mode	Mono, Stereo
Pre-emphasis	Flat, 50us, 75us
Pilot	0 to 15% injection level
RDS	Built-in RDS encoder
Dynamic RDS	Yes, TCP remote control

MPX output (Option) / RDS output (Option)	
Connector	MPX - 2 x BNC; RDS - 1 x BNC; Unbalanced
Level	max. +12dBu @ 100% modulation

Front panel	
Display	High-resolution OLED
Status Indicators	5 LEDs
Headphones	1/4" (6.3mm) phones jack

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

Operating conditions	
Temperature	10°C - 45°C
Humidity	< 75%, non-condensing



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