

FM RADIO 4-BAND BROADCAST AUDIO PROCESSOR WITH RDS/RBDS ENCODER

The DB64-FM is the ultimate audio processing solution offered by DEVA bringing to you unheard-of balance between quality and price. It guarantees perfect clarity of sound and a multitude of features that are unrivalled in its class. In keeping with the other members of DEVA's audio processors family, this device is an outstanding blend between dependability and functionality. The all-digital DSP-based design, the 4-band processor and the advanced wide band AGC are just a few of the parameters that ensure its top performance.

As part of its long and well-established tradition of occupying just the right market niches and supplying the broadcasting world with products that stand out as the best answer to customer needs, DEVA is yet again delivering a tool of undisputed quality and surpassing even its own high standards. A device appropriate for all LPFMs and featuring a 4-band processor with Fidelity and Sound Impact System, the DB64-FM makes no compromises with sound quality. Among its wide variety of features are the FM controlled distortion limiter, the analog and digital audio outputs, two independent composite MPX outputs, as well as its ability to detect signal loss and switch over to a backup source. Automatic notifications are sent upon input or preset change via email or SNMP.

As any other DEVA product, with this one our engineers have also opted for the user-friendly design and operation. Parameters can be easily viewed on the OLED display with the help of the full-time LED meters. Access to setting up, programming and control of the device is provided through the front panel, but also through the built-in web server for remote control via TCP/IP connection.

The DB64-FM is a one-of-a-kind device that has never before been introduced to the broadcasting market - a tool with an impressive all-round performance that provides the ultimate combination of features at a sensational price. Quality has never before been so affordable.



FEATURES

- Software Control (over local network or the Internet using any Windows® PC)
- L/R Analog inputs and outputs and two independent Composite MPX outputs.
- 4-Band Dynamic Processor with Fidelity and Sound Impact System
- Built-in web server for remote control access via TCP/IP connection
- Integrated digital stereo generator with advanced peak control
- Level Adjustable, Balanced Analog and Digital Audio Outputs
- Remotely upgradable firmware to ensure improved operation
- Embedded SNMP agent permitting full device management
- Notifications on input/preset change via E-mail and SNMP
- Bright, wide view angle OLED and full-time LED meters
- Headphone output with front panel level control
- Ultra low latency, all-digital DSP based design
- Professional AES/EBU Digital audio inputs
- Easy setup and control via the front panel
- Easy to use WEB interface
- Advanced Wide Band AGC
- Intelligent Silence Detector
- Easy Installation and Setup
- Bypass and Test tone Mode
- FM Controlled distortion Limiter
- EMI-suppressed XLR connectors
- Built in DSP-based RDS/RBDS encoder
- Fallback function in case of Audio Loss
- 19" Professional Case for high RF immunity
- Stereo encoder integrated with audio processing
- USB communication interface for local connectivity
- LAN port for full TCP/IP remote control and monitoring
- SNTP for automatic synchronization of the built-in clock

SPECIFICATIONS

Analog Audio Input	
Connectors	Main - 2 XLR [1] [2]; Auxiliary - DB9 [1] [2]
Configuration	Stereo
Input level (0 dBFS) [4]	-8 dBu to +24 dBu peak
Impedance	Jumper selectable 600Ω / >10kΩ
A/D Conversion	24 bit; 48 kHz sample rate; Differential inputs

Analog Audio Output	
Connectors	2 XLR [1] [2]
Configuration	Stereo. [4] flat, pre- or de-emphasized
Out Level (0 dBFS)	[4] -12 to +24 dBu peak into ≥ 600Ω load
Source Impedance	20Ω
Load Impedance	≥ 600Ω, balanced/unbalanced
Signal-to-Noise	≥ 110 dB unweighted [5]
Distortion	≤ 0.01 THDN [5]
D/A Conversion	24 bit; 192 kHz rate; Differential outputs

Remote Access Interface	
Configuration	TCP/IP via USB or Ethernet interface
USB Connector	USB type B connector
Ethernet Connector	Female RJ45, 10/100 Mbps CAT5

Remote Control Interface (GPI)	
Connector	DB-9 male
Configuration	8 LED optocoupler, current limited cathode inputs. Anodes are connected to VCC int.
Control	Selects corresponding user preset if connected to GND

Operating conditions	
Temperature	-15°C to 55°C
Humidity	< 95%, non-condensing
Altitude	0 to 5000m above sea level

Power	
Voltage	100-240 VAC, 50-60 Hz, 30VA
Connector	IEC, Fused and EMI-suppressed.

Digital Audio Input	
Connectors	Main - XLR [1] [3]; Auxiliary - DB9 [1] [3]
Configuration	Stereo AES3 standard, up to 24 bit resolution
Sampling Rate	22 kHz to 192 kHz
Input Gain	-20 dB to 20 dB, referenced to 0 dBFS, [4]

Digital Audio Output	
Connector	XLR [1] [3]
Configuration	Stereo AES3 standard, 24 bit resolution. Software selectable flat, pre- or de-emphasized
Sample Rate	Internal - 32,44.1,48,88.2,96,176.4,192kHz. Externally synced to Main AES3 digital input at 32 to 192 kHz. Software selectable.
Word Length	24 bit
Output Ref. Level	-20 to 0 dBFS software selectable

Composite Baseband Output	
Connectors	BNC unbalanced, chassis floating, [1]
Configuration	2 outputs. Independent level control. MPX+MPX, MPX+PILOT or BYPASS
Source impedance	75Ω
Load impedance	50Ω or greater
Output level	-18dBu to +18dBu
Pilot level	0% to 15%
D/A conversion	24 bit, differential
SNR / THD	>80 dB [6] / <0.01% [6]
Stereo Separation	>60dB
Crosstalk	>70dB
Pilot protection	>90dB rel. to 9% pilot injection, ±250 Hz
38 kHz suppression	>80dB (referenced to 100% modulation)

Size and Weight	
Dimensions (W;H;D)	483 x 44 x 180 mm / 19 x 1.875 x 7"
Shipping Weight	540 x 115 x 300 mm / 2.6kg

- [1] - EMI suppressed
- [2] - Electronically balanced
- [3] - Transformer balanced and floating; 110Ω impedance
- [4] - Software selectable

- [5] - Bypass mode, digital input, flat, 20Hz-15kHz bandwidth, referenced to +12dBu output level
- [6] - Bypass mode, flat, 20Hz - 15kHz bandwidth, digital input referenced to -10dBFS, unweighted



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