# bw broadcast

# DSPXtra-FM | Audio Processor with Ariane Leveler

| DSPXmini-FM | DSPX-FM | DSPXtra-FM |
| DSPXmini-AM | DSPX-AM | DSPXtra-AM |
| DSPXmini-HD | DSPX-HD | DSPXtra-HD |

## OVERVIEW

When you don't want to pay the high price of many "high-end" FM processors, yet can't afford anything less than the best for your digital broadcast services, the DSPXtra-FM is your best choice. No other FM processor, at any price, has both a BW Broadcast six-band look-ahead limiter and an **integrated Ariane RMS leveller**. The DSPXtra-FM harnesses 22 DSPs to keep your station's sound consistently loud and artefact free. In addition to multi-band limiting and the Ariane leveller, the processing core includes parametric and shelf bass enhancement, along with composite clipping with pilot protection. Dual processing paths make the DSPXtra-FM effectively two processors in one, feeding both your analogue transmitter and a digital service. Proven presets, as well as intuitive local and remote interfaces help you get your DSPXtra-FM on air fast.

## FEATURES

- Dual processing path enabled for simultaneous FM & Digital processing
- 22 24-bit DSP's provide over 1 GIGA-MIPS of processing
- Comprehensive BLUE LED audio metering and screen
- Digital and Analogue IO
- Ariane intelligent RMS leveller
- Multi-Band program dependent Limiting
- Multi-Band look ahead limiting and distortion cancelled clipping
- DSP stereo encoder with composite clipping control
- USB front panel interface , RS232 back panel interface
- TCP/IP Net interface
- Real time clock for preset scheduling
- Remote trigger port
- Full Range of User Presets with A/B Switching
- Security (password) Control
- Software 'FLASH' Upgradable
- ITU BS.412 power limiter
- Pilot protection filter

## SPECIFICATION

### ANALOG INPUT MODULE

| | |
|---|---|
| Operative nominal level | -15 to +24dBu |
| AD Clipping Point | >20dBu |
| Connectors | XLR |
| A/D conversion | 24 bit 48 Khz 128x oversampled |
| Distortion | <0.01% THD |

### ANALOG OUTPUT MODULE

| | |
|---|---|
| Output Level | -12 to 24dBu |
| Connectors | XLR |
| D/A conversion | 24 bit 48 Khz 128x oversampled |
| Distortion | <0.01% THD |
| Impedance Source | 10 Ohm / 20 Ohm / 200 Ohm |

### DIGITAL INPUT MODULE

| | |
|---|---|
| Sampling rate | 32-96 KHz |
| Connector | XLR |
| Operative Nominal Level | -24.0 to 0.0 dBFs |
| Distortion | <0.01% THD |
| Format | AES/EBU |

### DIGITAL OUTPUT MODULE

| | |
|---|---|
| Sampling rate | 32, 44.1, 48 KHz |
| Connector | XLR |
| Operative Nominal Level | -24.0 to 0.0 dBFs |
| Distortion | <0.01% THD |
| Format | AES/EBU |

### DIGITAL SYNC INPUT (AES/EBU)

| | |
|---|---|
| Sampling rate 32-96 KHz | 32-96 KHz |
| Connector XLR floating,EMI suppressed | XLR floating, EMI suppressed |

### STEREO ENCODER

| | |
|---|---|
| Output level | 0 to +12dBu |
| Connector | BNC, floating |
| D/A | 24 bit 768 KHz |
| Stereo seperation | >70dB (typ. > 75dB) |
| Sca input | BNC floating |
| Pilot output | BNC, 5V |
| USB | USB B connector (front panel) |

### REMOTE INTERFACE

| | |
|---|---|
| RS232 | DB9 (rear panel) |
| Remote | DB9 opto isolated and floating |
| NET/LAN | RJ45 EMI shielded |

### Other

| | |
|---|---|
| AC Rate | 105-110VAC / 210-255 VAC, 50/60Hz |
| Size | 44mm x 482mm x 200mm |
| Weight | 1.6 Kg |
| Operating temperature | -5° to 50°C |

**DSPXtra-FM** | Audio Processor