

# Falcon VS

## BROADCAST AUDIO PROCESSOR



### 5-BAND DIGITAL AUDIO PROCESSOR

#### HIGHLIGHTS

1. 5-Band Digital Audio Processor
2. AES/EBU and analog I/O Over XLR
3. Automatic audio input changeover
4. 2 composite outputs and 2 AUX inputs
5. Stereo Generator with composite Clipper
6. Mpx power control - ITU-R BS.412
7. Digital RDS Encoder, 2 Dataset
8. Multiband AGC, speech detector, 3-Band EQ, stereo Enhancer
9. Brilliance control, expander and Superbass enhancer
10. Usb, Serial, 4 GPIIn-4 GPOut
11. Front headphone output
12. Hardware bypass

## TECHNICAL SPECS

<i>GENERAL</i>	<i>VALUE</i>
<b>Dimension</b>	434x351x44mm (1 rack unit)
<b>AC Rate</b>	230Vac / 110Vac 50 Hz / 60 Hz 30VA
<b>Type of power supply</b>	Switching power supply
<b>Processing architecture</b>	Fully digital, based on DSP 24bit/100Mhz. Signal processing is performed by phase linear filter
<b>Weight</b>	≈ 3 Kg
<b>Operating Temperature</b>	-5°C / +50°C
<b><i>ANALOG INPUT MODULE</i></b>	
<b>A/D Conversion</b>	24bit Sigma-Delta Conversion (Crystal CS4272)
<b>Connectors:</b>	XLR, female - Electronically balanced
<b>AD Clipping Point</b>	+20.0dBu
<b>Operative Nominal Level:</b>	From -12.0dBu to +12.0dBu (0.1dBu Step)
<b>Line Impedance</b>	10 kΩ (Electronically balanced selectable) EMI-suppressed
<b>Distortion:</b>	less than 0.01% TDH+NOISE (0.0dBu 1Khz)
<b>AD Dynamic Range:</b>	108 dB RMS (110 dB A weighted)
<b>Input Modes:</b>	Stereo, Mono (Left), Mono (Right), Mono (Left+Right)
<b><i>DIGITAL INPUT MODULE</i></b>	
<b>Connectors:</b>	XLR, female – Electronically balanced
<b>Format</b>	AES3/EBU
<b>Sample rates</b>	32 kHz / 44.1 kHz / 48 kHz / 64 kHz / 88.2 kHz / 96 kHz with src and jitter correction
<b>Operative Nominal level:</b>	From 0.0 dBFs to -24dBFs (0.1 dBu step)
<b>Dynamic Range:</b>	125 dB (Typ), 122 dB (Min)
<b>Distortion</b>	less than 0.01% TDH+NOISE (0.0dBu 1Khz)
<b>Input Modes:</b>	Stereo, Mono (Left), Mono (Right), Mono (Left+Right)
<b><i>ANALOG OUTPUT MODULE</i></b>	
<b>D/A Conversion</b>	24bit Sigma-Delta Conversion (Crystal CS4272)
<b>Connectors</b>	XLR, male - Electronically balanced
<b>Output Level</b>	-12.0dBu to +14.0dBu (0.1dBu Step) – Max (+19dBu)
<b>Impedance Source</b>	10 Ω
<b>Load Impedance</b>	600 Ω or greater
<b>Distorsion</b>	Less than 0.01% TDH+NOISE (0.0dBu @ 1Khz)
<b><i>DIGITAL OUTPUT MODULE</i></b>	
<b>Connectors:</b>	XLR, Male – Electronically balanced
<b>Format</b>	AES3/EBU
<b>Sample rates</b>	32 kHz / 44.1 kHz / 48 kHz / 64 kHz / 88.2 kHz / 96 kHz with src and jitter correction
<b>Resolution</b>	16 bit – 20 bit – 24 bit
<b>Operative Nominal level:</b>	From 0.0 dBFs to -24dBFs (0.1 dBu step)
<b>Dynamic Range:</b>	125 dB (Typ), 122 dB (Min)
<b>Distortion</b>	less than 0.01% TDH+NOISE (0.0dBu 1Khz)
<b>Input Modes:</b>	Stereo, Mono (Left), Mono (Right), Mono (Left+Right)
<b><i>REMOTE INTERFACE</i></b>	
<b>Digital Inputs GPIIn</b>	4x GP In optocoupled
<b>Digital Outputs GPOut</b>	4x GP Out Open Collector optoisolated
<b>Serial Interface</b>	1x RS-232 Serial protocol ports EMI filtered
<b>USB</b>	1x Universal Serial Bus port – B type EMI filtered
<b>Ethernet Port and Parser ASCII protocol</b>	Ethernet port by option, over RJ45 connector with web server interface.