

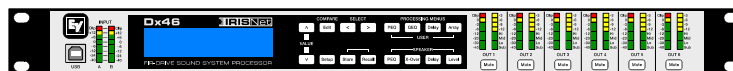
# Dx46

Dx46  
FIR-DRIVE  
Sound System Processor



## Key Features:

- 116 dB dynamic range
- 2 analog inputs, 6 analog outputs
- 2 digital AES/EBU inputs
- FIR-DRIVE
- TEMP limiter
- Configuration via IRIS-Net



## General Description:

The Electro-Voice Dx46 is a digital sound system processor with 2 analog inputs, 2 digital AES/EBU inputs and 6 analog outputs. With high resolution FIR filters, sophisticated speaker protection and a multi level delay concept the Dx46 sets new standards for digital loudspeaker processors. FIR-DRIVE provides highly detailed optimization of loudspeaker performance through the use of complex-phase FIR filters and advanced DSP settings. The configuration and operation of the device can be done via the front panel or the IRIS-Net software. For remote configuration and control the Dx46 can be connected via Ethernet or USB. The integrated 2 port ethernet switch allows daisy chain connection of devices. Direct-access buttons for editing DSP parameters are available on the front panel. Up to 90 presets (60 factory presets and 30 programmable user presets) can be used. The integrated FLASH memory allows software or preset update via Ethernet or USB. Five control inputs on the rear panel can be used for recall of presets using external switches or contacts. On the front panel level meters for input and output signals, output gain reduction, limit and clip LEDs, dedicated Mute buttons, output channel function indicators (SUB, LO, MID, HI) and a LCD display (192x32 pixels) with blue backlight are available. There are 6 preconfigured configurations plus one free configurable full edit (2 in 6 out) configuration available. Three dedicated processing groups (user, array, speakers) are available. For each output 512-tap FIR filters can be used, the PEQ and GEQ use 48 Bit filter algorithms. A look-ahead Peak limiter and TEMP limiter (Thermal Energy Management and Protection) are available. The integrated Signal Generator allows internal generation of pink noise, white noise or sine signal. Every DSP parameter can be locked and / or hidden. The configuration of the ethernet port can be done via IRIS-Net device scan. Using 24 Bit AD/DA converters a dynamic range of 116 dB is reached. A switchable input PAD (-6 dB) can be activated. Configuration is done via IRIS-Net software, the visualization of the system transfer function is possible using Electro-Voice Speaker Settings. Please refer to the Dx46 owner's manual and IRIS-Net documentation for more details.

## Technical Specifications:

Mains Voltage	100 to 240 V AC, 50 to 60 Hz
Power Consumption	25 W
Analog Audio Inputs	2 XLR IN, electronically balanced 2 x XLR THRU OUT, electronically balanced
Digital Audio Inputs	1 x XLR AES/EBU IN 1 x XLR AES/EBU THRU OUT
Digital Audio Format	AES3, 32 kHz to 192 kHz sample rate
Nominal Input Voltage	1.55 V / +6 dBu
Maximum Input Voltage (with -6dB PAD engaged)	17.3 V / +27 dBu
Input Impedance	10 kOhm
Common Mode Rejection	-85 dB @ 1 kHz (typical)
A/D Conversion	24-Bit Sigma-Delta
Analog Audio Outputs	6 x XLR OUT, electronically balanced
Nominal Output Voltage	1.55 V / +6 dBu
Maximum Output Voltage	8.7 V / +21 dBu
Output Impedance	50 Ohm
D/A Conversion	24-Bit Sigma-Delta
Frequency Response	20 Hz to 22 kHz (+/-0.5 dB)
THD+N	< 0.002% (band limited 22 Hz to 22 kHz)
Dynamic Range	116 dB (A-weighted)
USB	USB Type B on front panel (PC Interface)
Ethernet	2 x RJ-45 ports, 100 MB, Integrated Switch
Control Port	1 x 6-pole Euro block Software Configurable for Preset Recall
Sample Rate	48 kHz
Data Format	24-Bit
Internal Processing	48-Bit Double Precision
Signal Processing	Parametric EQs, 31 band Graphic EQs, Delays, Routing, X-Over, 512 Taps FIR filters, PA limiter, TEMP limiter, Level, Polarity, Signal generator
Operating Temperature Range	0 °C to 40 °C
Dimensions (WxHxD)	19 x 13.9 x 1.72 inch (483 x 356.1 x 43.6 mm)
Weight (Net)	4.8 kg

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www.electrovoice.com

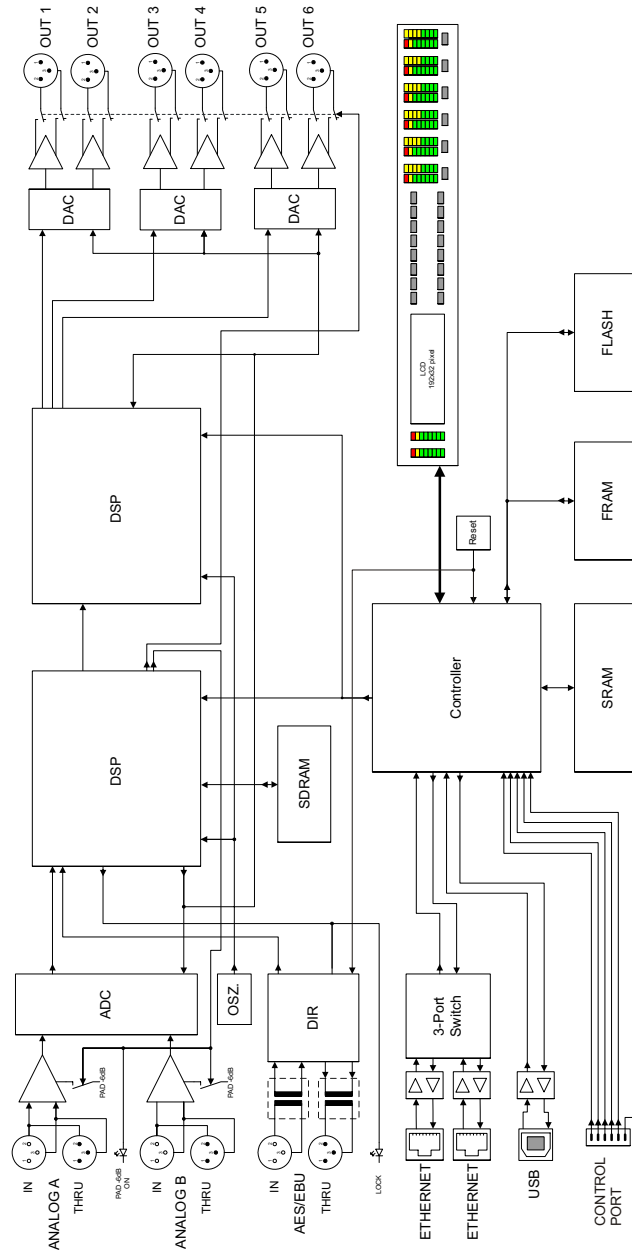


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## Block Diagram:



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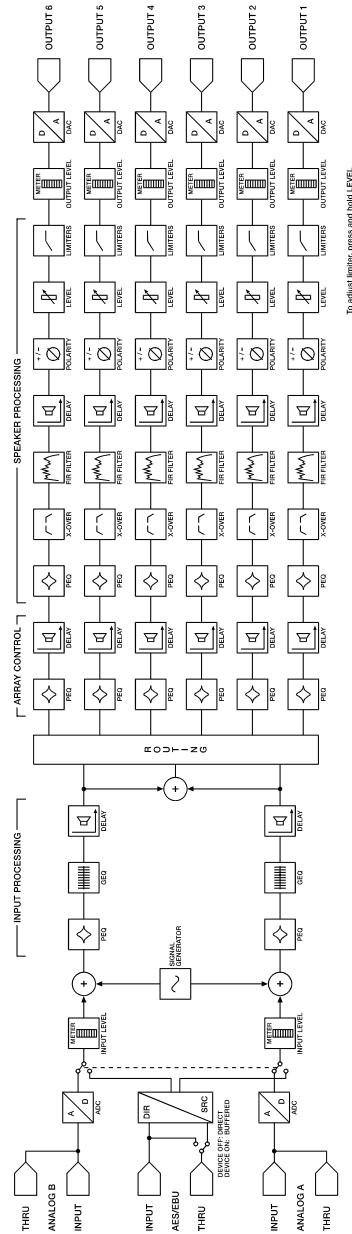


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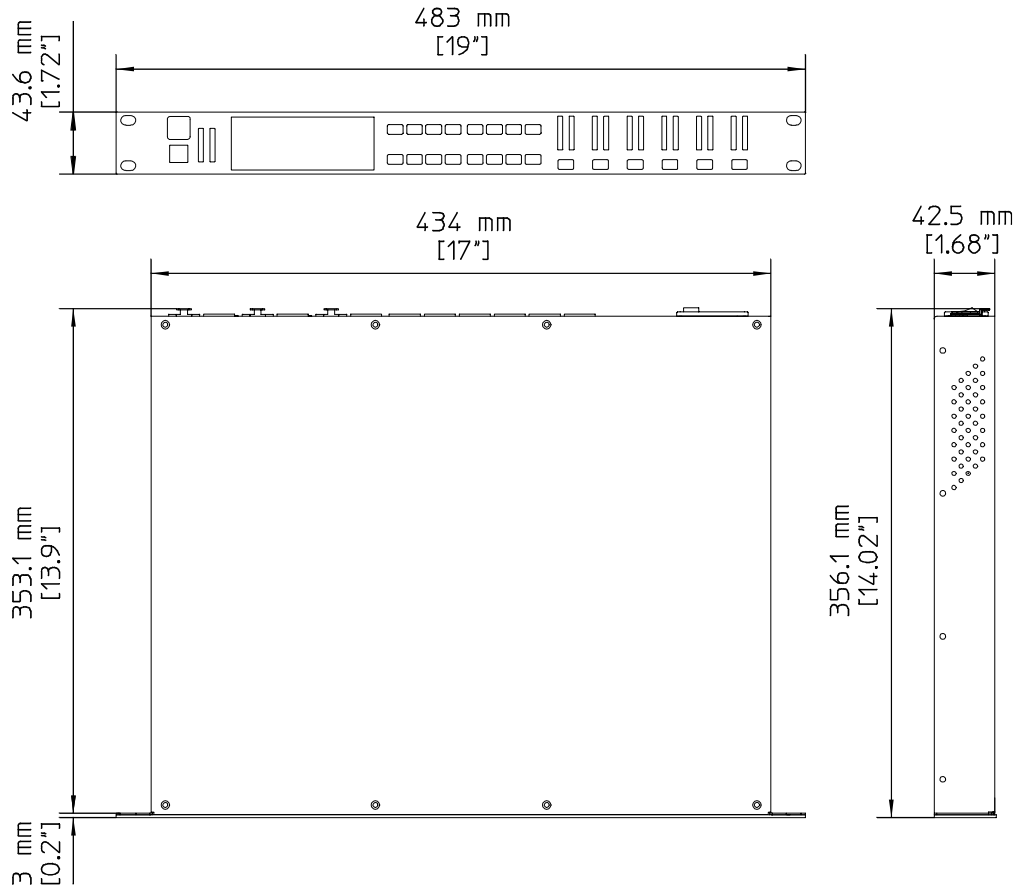
## DSP Signal Flow Chart:



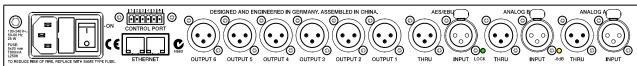
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## Dimensions Drawings:



## Rear View:



**Dx46 Part Number:**  
 Dx46, 120 V -- F01U126855  
 Dx46, 230 V -- F01U126854

**Agency Approvals**  
 CE  
 FCC, IC  
 CB

## Electro-Voice

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 www.electrovoice.com  
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 Part Number F01U126854 Vs 01

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Specifications subject to change without notice.