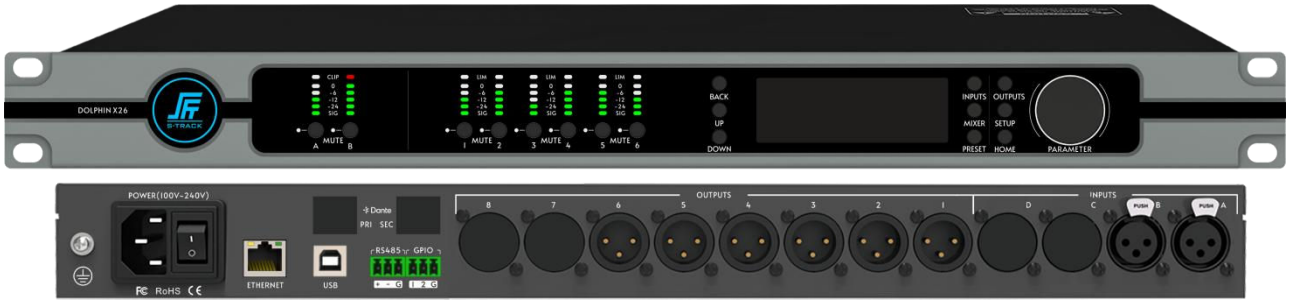
# DOLPHIN X Series

## Digital Speaker Manager




2 In 6 Out DOLPHIN X26


3 In 6 Out DOLPHIN X36


4 In 8 Out DOLPHIN X48


2 In 6 Out Dante Edition DOLPHIN XD26


3 In 6 Out Dante Edition DOLPHIN XD36


4 In 8 Out Dante Edition DOLPHIN XD48

## Product Introduction

The Dolphin X Series Speaker Manager represents S-TRACK's next-generation upgrade. Featuring an innovative structural design, it incorporates premium AD/DA conversion chips with support for 96kHz sampling rates and over 123dB dynamic range, achieving ultra-low noise down to -92dBu. Audio inputs and outputs support both analog and Dante protocols. Its DSP utilizes a 40-bit floating-point ultra-high-performance processor, effortlessly handling complex audio algorithms.

The software provides a complete end-to-end speaker crossover solution. Each output channel features a stable, linear-phase 896-order custom FIR filter with 1500ms input/output channel delay. Common algorithms include Compressor, Expander, Graphic Equalizer, Parametric Equalizer,

Dynamic Equalizer, Matrix Mixer, Crossover, RMS Limiter and Peak Limiter. Additional functions encompass input/output channel duplication, channel cross-binding, multi-device grouping for simultaneous tuning, and 50 scene presets. The device supports 100MHz Ethernet and high-speed USB interface, enabling automatic device discovery and rapid data communication for instant connectivity. Featuring an 800×268 high-resolution RGB LCD screen with flexible operation and quick-access function zones, it delivers full control capabilities independent of PC software.

This product is primarily designed for speaker control and processing, serving applications such as live sound reinforcement, theaters, nightclubs, concert halls, and other environments requiring speaker management.

## Functions

- ✧ Input 2/3/4 analog signals and output 6/8 analog signals; inputs 2/3/4 digital signals via Dante and outputs 8 digital signals, enabling signal distribution management for multi-speaker scenarios;
- ✧ Built-in high-performance 40-bit floating-point DSP processing chip with 32-bit/96kHz processing capability, featuring high-performance A/D and D/A converters;
- ✧ 800 × 268 resolution high-definition RGB LCD screen with a user-friendly, innovative GUI interface;
- ✧ Stable, linear-phase 896-tap custom FIR filters; supports importing third-party software-generated FIR parameters with graphical interface display;
- ✧ Input channel components: Mute, Expander, Gain, Delay (0-1500ms), 31-band Graphic Equalizer, 12-band Parametric Equalizer, 3-band Dynamic Equalizer, Compressor;
- ✧ Output Channel Components: Delay (0-1500ms), Crossover (Butterworth, Bessel, Linkwitz-Riley filter types, 896 taps FIR filter), 12-band Parametric Equalizer, Gain, RMS Limiter, Peak Limiter;
- ✧ Software supports adding and routing management of multiple online devices;
- ✧ Input and output channel duplication functionality supported;
- ✧ Input and output channel cross-binding functionality supported;
- ✧ Supports multi-device grouping with 50 scene presets for saving, recalling, importing, and exporting;
- ✧ Features RS485 interface and standard Ethernet control interface with open protocol documentation.

**Note: Only the Dante edition device supports Dante network transmission.**

## Specification

| Category | Parameter Item | Parameter Description |
|---|---|---|
| Peripherals | Input Interfaces | 2/3/4 Analog + 0/2/3/4 Dante |
| | Output Interfaces | 6/8 Analog + 0/6/8 Dante |
| | Display | Embedded GUI interface, quick adjustment of parameters |
| | Control Interfaces | 1 RJ45 interface, 1 USB-B interface, 1 RS485 interface, 2 GPIO control interface |
| Audio processing | Processor | ADI SHARC ADSP-21489 450 MHz high performance 40-bit floating-point DSP processor; 32-bit A/D and D/A converter, 96kHz sampling rate |
| | Input Channel | Functional components: Mute, Expander, Gain, Delay (0-1500ms), 31-band Graphic Equalizer, 12-band Parametric Equalizer, 3-band Dynamic Equalizer, Compressor.Physical interface: Balanced XLR female connectors. |
| | Output Channel | Functional components: Delay (0-1500ms), Crossover (Butterworth, Bessel, Linkwitz-Riley filter types, 896 taps FIR filter), 12-band Parametric Equalizer, Gain, RMS Limiter, Peak Limiter.Physical interface: Balanced XLR male connectors. |
| | Input Impedance | Balanced: 20KΩ |
| | Output Impedance | Balanced: 100Ω |
| | Common Mode Rejection Ratio | >60dB@50Hz |
| | Input to Output Dynamic Range | ≥110dB |

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|---|---|---|
| | Frequency Response | 20Hz～20KHz, ±0.2dB |
| | Noise Floor | -92dBu |
| | Signal to Noise Ratio | 110dB |
| | THD+N | ≤0.0015% @1kHz, +4dBu |
| | Channel Isolation | 105dB@1kHz |
| | Input Level Range | ≤+22dBu (A-Weighting) |
| | Crossover | Three types of high and low pass filters: Butterworth, Bessel and Linkwitz-Riley |
| | Equalizer | Parametric Equalizer: Frequency: 20～20kHz, Gain: -20～+15dB, Bandwidth: 0.4～128<br>Graphic Equalizer: Frequency: 20～20kHz, Gain: -15～+15dB |
| | Maximum Output Level | 22dBu |
| | Maximum Input Level | 22dBu |
| | Analog/Digital Dynamic Range | 123dB |
| | Digital/Analog Dynamic Range | 123dB |
| General specification | Operating Voltage | AC 100V～240V, 50Hz/60Hz |
| | Maximum Power | 30W |
| | Operating Temperature and Humidity | 0℃～40℃, 10%～90%RH, No condensation |
| | Chassis | 1U |
| | Product Dimensions (L×W×H) | 482.4mm×210.5mm×44mm |
| | Net weight | 2.8kg |

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|---|---|---|
| | Package Dimensions (L×W×H) | 590mm×340mm×110mm |
| | Package Weight | 3.3kg |