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

	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 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

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