DX1208

DSP Matrix Mixer

DESCRIPTION

The DX1208 is a 12-input, 8-output DSP matrix mixer designed for commercial and install applications. Eight inputs are mic/line capable, with selectable 48-volt phantom power provided when the user selects mic level. Four additional inputs on unbalanced RCA connectors allow the user to "stack" inputs, increasing the number of audio sources that can be connected. An additional four digital inputs are available on S/PDIF with sample rate conversion. All 12 inputs are included in the audio matrix and can be assigned DSP functions prior to distributing signal at line level.

The DX1208 can also receive up to 6 logic inputs and send up to 3 logic outputs, combined on a single 18-pin connector and programmable via the included DX Navigator control software. Control of the DX1208 via third party systems (i.e., AMX and Crestron) is easily attained with a serial connection (DB9) on the rear panel. Two RJ-45 connections are provided as well for linking multiple (up to eight) DX Link enabled products together in a ring network topology.

A remote control port (RJ-25 connector) is included on the rear panel, facilitating the linking (using RS-485) of two different types of remotes, all mounted on wall panels. Up to eight remotes can be attached to the DX1208, and each is individually addressable.

The DX1208 is supplied with DX Navigator control software that allows access to all of the system's settings and configurations. The expected range of user-adjustable processing, such as EQ filters, gates, compressor/limiters, priority assignment, delay, gain, and crossovers are included. In addition, up to 24 programmable presets are available per DX1208, The programming interface is flexible, with connection via the USB port on the front panel or the Ethernet jack or DB9 connector on the rear panel. The DX1208 employs a universal power supply, 100-240VAC, 50/60Hz.

SPECIFICATIONS

ELECTRICAL

Phantom Power:	48VDC, enable via GUI
AC Power:	100-240VAC 50/60Hz

PHYSICAL

Dimensions (HxWxD):	1.25" (1RU) x 19" x 9.25" 44.5mm x 483mm x 235mm
Net Weight:	8 lbs. (3.63 kg)
Shipping Weight:	12 lbs. (5.44 kg)

Features

- *32-bit DSP and 24-bit Analog/Digital Conversion*
- *8 balanced Mic/Line Inputs*
- *4 unbalanced Line inputs*
- *4 digital input channels via S/PDIF*
- *6 Programmable logic inputs, 3 Programmable logic outputs*
- *16 channel DX Link expansion buss*
- *USB, Ethernet, and RS-232 connectivity*

Applications

- *Meeting Rooms*
- *Houses of Worship*
- *Courtrooms*
- *Multizone Paging/Music Systems*
- *Hotels*
- *Boardrooms*
- *Multi-Purpose Facilities*

SPECIFICATIONS CONTINUED

INPUTS / OUTPUTS

Inputs 1-8:	Balanced, Phoenix-type connectors
Inputs 5-8:	RCA Connector (stackable with Inputs 5 - 8 on Phoenix connectors)
Inputs 9-12:	S/PDIF with SRC (SRC range: 32 kHz to 96 kHz)
Outputs A - H:	Eight balanced, Phoenix-type connectors
DX Link Out:	16 channel output bus, RJ-45 connector
DX Link In:	16 channel input bus, RJ-45 connector
Ethernet:	RJ-45, rear panel
USB:	"B" Type receptacle, front panel
Serial Port:	1 RS-232C on DB9, rear panel
Logic Outs:	3, open collector, Euroblock terminals
Logic Ins:	6, contact closure, Euroblock terminals
Remote Buss Connector:	1 RS-485 with 24VDC on Phoenix connector

PANEL CONTROLS

Power Switch:	Rear panel, rocker switch
Address Switch:	Rear panel, rotary dip-switch

PANEL INDICATORS

Input Levels:	2 Segment LEDs per channel 1 Red (Clip), 1 Green (>40dbFS)
Output Levels:	2 Segment LEDs per channel 1 Red (Clip), 1 Green (>40dbFS)
Communication:	1 Green LED, lights to indicate communications activity
DX Link :	1 Red LED, lights when valid signal is received at DX LINK RX port
Power :	1 Green LED

SIGNAL PROCESSING

General:	1 X 32-bit DSP 24 bit A/D and D/A convertors 2M x 16 Flash 1M x 16 SDRAM
Inputs:	
EQ Filters:	6 per input channel
Parametric:	
Type:	Symetrical boost/cut
Frequency:	20 Hz to 20 kHz, 1/24 octave steps
Gain:	+/- 15 dB, 0.1 dB steps
Bandwidth:	0.016 to 4.000 octaves (Q = 65 to 0.25)
Low/High Shelf:	
Slope:	6 dB / 12 dB
Frequency:	20 Hz to 20 kHz, 1/24 octave steps
Low/High Pass:	
Slope:	12 dB per octave
Bypass:	
Bypass Filter:	For each individual filter
Bypass EQ:	For all EQ filters
Comp/Limiter:	
Threshold:	+20 to -60dB
Ratio:	1:1 to 20:1
Attack:	1 to 5000 ms
Release:	50 to 5000 ms
Gain Makeup:	0 to +40 dB. 0.5 dB steps
AGC:	Enable/Disable
Bypass:	For each Compressor/Limiter
AGC (Automatic Gain Control)	
Target:	+20 to -40 dB
Threshold:	+20 to -60 dB, Target > Threshold
Attack:	1 to 5000 ms
Ratio:	1:1 to 20:1
Gate:	
Threshold:	-60 to -1 dBu, 0.5 dB steps
Attack:	0.5 to 200 ms, 0.5 ms steps
Hold:	-60 to -1 dBu, 0.5 dB steps
Release:	0 to 2.0s, 0.1s steps
Depth:	-100 to -1 dB, 0.5 dB steps
Ducker:	
Priority:	Selects 1 of 5 priority levels for input channel
Depth:	0 to -60 dB, 0.5 dB steps
Outputs:	
EQ Filters:	10 per output channel, 8 Parametric, 1 HP, 1 LP
Parametric:	
Type:	Symetrical boost/cut
Frequency:	20 Hz to 20 kHz, 1/24 octave steps
Gain:	+/- 15 dB, 0.1 dB steps
Bandwidth:	0.016 to 4.000 octaves (Q = 65 to 0.25)
Low/High Shelf:	
Slope:	6 dB / 12 dB
Frequency:	20 Hz to 20 kHz, 1/24 octave steps
Low/High Pass:	
Slope:	12 dB per octave
Frequency:	20 Hz to 20 kHz
Crossover HP/LP:	
Slope:	12dB, 18dB, 24dB Butterworth
Slope:	12dB, 18dB, 24dB Bessel
Slope:	12dB, 24dB Linkwitz-Riley
Slope:	12dB, 18dB, 24dB Butterworth
Slope:	12dB, 18dB, 24dB Bessel
Slope:	12dB, 24dB Linkwitz-Riley
Slope:	6 dB per octave, Butterworth/Bessel
Bypass:	
Bypass Filter:	For each individual filter
Bypass EQ:	For all EQ filters (excluding Xover filters)
Delay:	0 to 2000 ms
Limiter:	
Threshold:	+20 to -60 dB
Ratio:	1:1 to 20:1
Attack:	1 to 5000 ms
Release:	50 to 5000 ms
Gain Makeup:	0 to +40 dB
AGC:	Enable/Disable
Bypass:	For each Limiter

PERFORMANCE DATA

Sampling Rate:	48kHz
A/D - D/A converters:	24-Bit
Maximum Input Levels:	mic/line - +24dBu (balanced) RCA - +10dBV
Maximum Gain:	60dB (mic in to line out)
Maximum Output Levels:	+24dBu (balanced)
Output impedance:	200ohms (balanced)
THD+N:	<0.01%, +22dBu input through output, 1kHz
Common Mode Rejection Ratio (CMRR)	(1 kHz @ +60 dB Gain) Mic in to Analog Out: > 80 dB
Crosstalk:	mic >90dB line >90dB
EIN:	128dBu
Frequency Response:	20Hz - 20kHz +/- 1 dB
Analog Input to Analog Output:	>110 dB (A-weighted)

ORDERING DATA

DX1208	0028760-00

ACCESSORIES

UR-1 Remote	0033306-00
UR-2 Remote	0033316-00