Overview

MRX7-D offers outstanding processing and flexibility for a broad range of audio installations.

Rear Panel

Features

- Inputs; 8 mono (mic/line), 2 stereo (line), 16digital (via YDIF*1)
- Outputs; 8 mono (line), 16 digital (via YDIF*1)
- EXi8/EXo8 expanders available for increasing analog I/O via YDIF
- On-board 64 Channel I/O Dante Interface for larger networked systems
- Mini YGDAI card slot offers further expandability and compatibility with other audio formats
- SD Card slot for playback of MP3/WAV audio files stored on SD Card
- Built-in processing solutions include - Dugan Automixer, Acoustic Echo Canceller*2 and Speech Privacy System
- Remote control of levels and presets from the DCP series of wall mount controllers
- Wireless DCP for iOS and Andriod devices available for free
- 16In/8Out GPI ports for additional external control
- Network port offers connectivity with touch screen control systems such as AMX and Crestron
- Easy setup and parameter control with MTX-MRX Editor
- ProVisionaire Touch for iPad offers custom control panel design and operation, free from the App Store

*1 YDIF: the newly developed digital transmission format; a unique propriety Yamaha technology that delivers 16ch audio and word clock transmission via standard CAT5 Ether cable.

*2 Available in version2.1 and later.

Specifications

General Specifications

Memory Bank	Preset:50
Sampling Frequency Rate	48kHz/44.1kHz
Signal Delay	1.9 msec (AD-DA @48kHz)
Total Harmonic Distortion	0.05% (+4dBu, Gain:-6dB, 48kHz) 0.1% (+4dBu, Gain: +66dB, 48kHz) (Measured with a 18dB/Oct filter @80kHz)
Frequency Response	20Hz to 20kHz: max:+0.5dB, min:-1.5dB
Dynamic Range	107dB (typ. Gain:-6dB)
Crosstalk	-100dB (@1kHz)
Heat Dissipation	55.9kcal/h max
Power Requirements	AC100V-240V 50Hz/60Hz
Power Consumption	65W
Dimensions (W x H x D)	480mm x 88mm x 366mm (18.9" x 3.4" x 14.4")
Net Weight	6.5kg (14.3lbs)
Accessories	Included items = Power cord, Euroblock plugs (3-pin, tabbed) x16, Euroblock plugs (16-pin) x2, Cable Ties, Manual
Others	Phantom Power = +48V

Analog Input Specifications

Input Terminal	GAIN	Actual Load Impedance	For Use with Nominal	Input Level		Connector	Balanced / Unbalanced
				Nominal	Max. before Clip		
INPUT 1-8	+66dB	10kΩ	50-600Ω Mics	-62dBu (0.616mV)	-42dBu (6.16mV)	Euroblock (5.08mm pitch)	Balanced
	-6dB		600ΩLines	+10dBu (2.45V)	+30dBu (24.5V)		
ST IN 1,2	-	10kΩ	600Ω Lines	-10dBV (316mV)	+10dBV (3.16V)	RCA Pin Jack	Unbalanced

* In these specifications, 0dBu = 0.775 Vrms., 0dBV = 1.00 Vrms.
* All input AD converters are 24bit linear, 128times oversampling.
* +48V DC (phantom power) is supplied to INPUT EUROBLOCK connectors via each individual software controlled switch.

Analog Output Specifications

Output Terminal	Actual Source Impedance	For Use with Nominal	Output Level		Connector	Balanced / Unbalanced
			Nominal	Max. before Clip		
OUTPUT 1-8	75Ω	10kΩLines	+4dBu (1.23V)	+24dBu (12.3V)	Euroblock (5.08mm pitch)	Balanced

* In these specifications, 0dBu = 0.775 Vrms.
* All output DA converters are 24bit, 128times oversampling. (Fs=48kHz)

Digital Input and Output Specifications

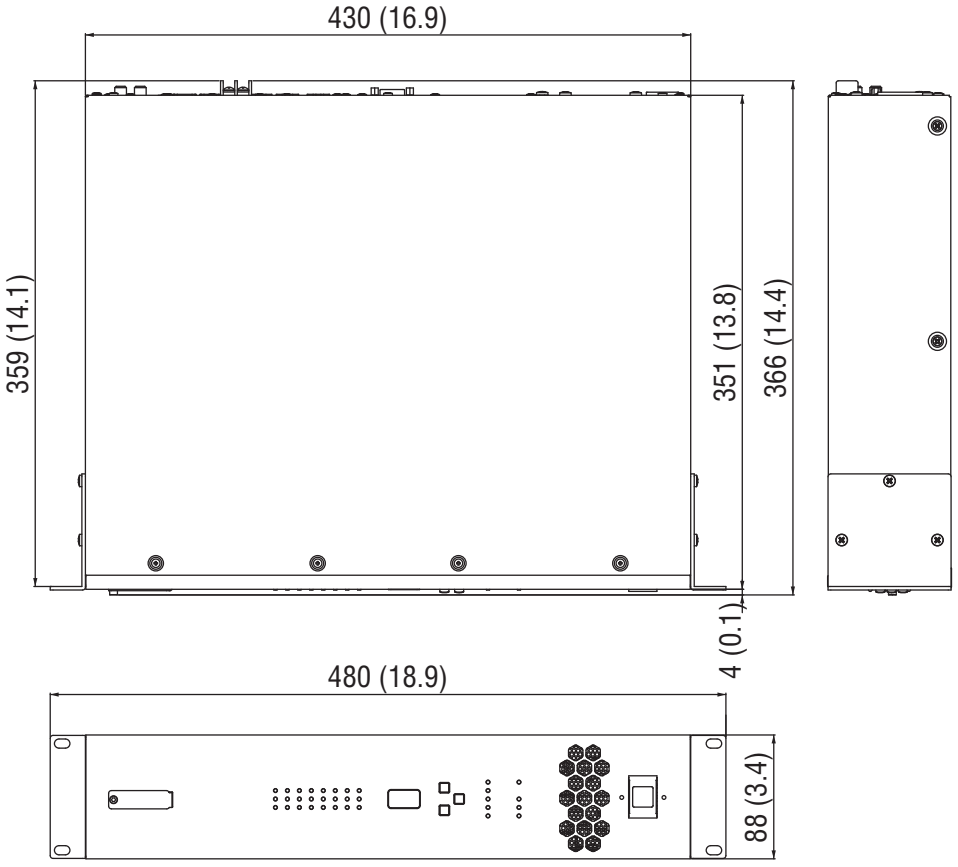
Terminal	Format	Level	IN/OUT	Connector
YDIF In	YDIF	RS-422	16IN	RJ45
YDIF Out	YDIF	RS-422	16OUT	RJ45
Primary / Secondary	Dante	1000BASE-T	64IN/64OUT(MRX7-D)	RJ45

Control I/O Specifications

Terminal		Level	Connector
GPI 16IN / 8OUT	IN	0V-5V (IN 16 L (0V-2.5V)/H (2.5V-24V))	Euroblock
	OUT	Open Collector	
	+V	DC5V	
REMOTE		RS-232C (BAUD RATE : 38.4kbps or 115.2kbps)	D-sub 9pin (Male)
DCP		-	RJ-45

Dimensions

Unit: mm (inch)



Options

- Input Expander EXi8
- Output Expander EXo8
- Digital Control Panel DCP1V4S
- Digital Control Panel DCP4S
- Digital Control Panel DCP4V4S
- Digital Controller Hub DCH8

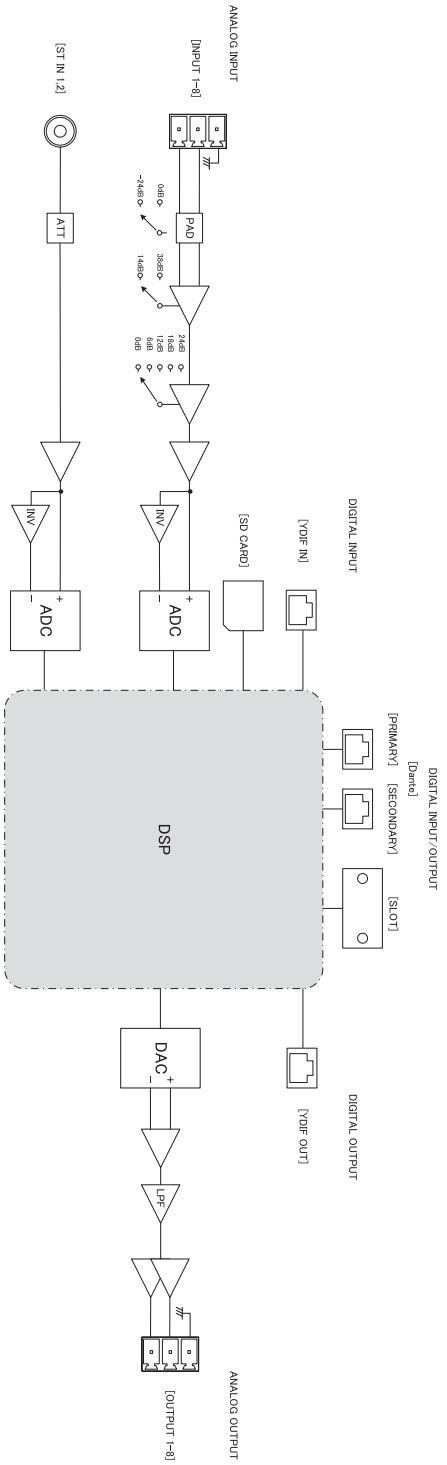
Software

- MTX-MRX Editor
- ProVisionaire Touch
- Wireless DCP

Architectural and Engineering Specifications

The signal processor shall provide eight balanced mic/line inputs on Euroblock connectors and shall provide 2 stereo unbalanced line inputs on RCA connectors and shall provide eight balanced line outputs on Euroblock connectors. The mic inputs shall have 48V phantom power. The processor shall provide digital inputs and digital outputs via YDIF and Dante network audio on RJ45 connectors. The digital I/O shall allow sharing of digital audio with additional processors, amplifiers, I/O expanders and other Dante equipped audio devices. All analogue inputs and outputs shall have 24bit/48kHz/44.1kHz AD/DA converters and all internal processing shall be digital (DSP). The processor shall have digital audio card slot to make it compatible with other audio formats. The processor shall have an SD card slot for playback of MP3/WAV files. The processor shall have GPI I/O ports, RS232C and Ethernet port to allow remote control. Software shall be provided for connecting and configuring DSP system components within each hardware unit and shall be used to create the system with amplifiers, I/O expanders and remote controllers. Available system components shall include Ambient Noise Compensator (Gap type), Auto Gain Control, Compressor, Delay, Ducking, Dugan Automixer, Fader, Feedback Suppressor (Notch type), Gate, GEQ, PEQ, HPF, BPF, LPF, Limiter, Matrix Mixer, Meter, Oscillator, Polarity, Room Combiner, Room Combiner plus Automixer, Router, Speaker Processor, Speech Privacy, Source Selector. Ethernet communications shall be utilized for software control and configuration. Software shall be operated on a PC computer with network card installed, running Windows 7 or above [Windows 8/8.1/10 are supported]. After initial programming, processors may be controlled via dedicated wall mount controller DCP series, PC software, 3rd party control systems and smart devices. The NC rating of the processor shall be 23 and the heat dissipation shall be maximum 55.9 kcal/h. Dimensions (W x H x D) shall be 18.9" x 3.4" (2U) x 14.4" (480 x 88 x 366 mm) and weight shall be 14.3 lbs. (6.5 kg). The product shall conform to the latest EU RoHS hazardous substances and WEEE directives.

Block Diagrams



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