

# MTX Series

## Matrix Processor



# MTX3



Rear Panel

YDIF AMX CRESTRON

1U

Matrix processor equipped with a variety of programmable features designed to maximize the performance of sound systems in commercial installations.

- Inputs; 8 mono (mic/line), 2 stereo (line), 16digital (via YDIF\*).
- Outputs; 8 mono (line), 16 digital (via YDIF\*).
- Can expand YDIF\* equipped inputs and outputs with Exi8/Exo8 expanders.
- SD Card Slot for playback of MP3/WAV files stored on an SD Memory Card.
- Functions for worry-free operation; Feedback Suppressor, Auto Gain Control, Priority Ducker.
- Two useful digital processors “Reverb” and “Echo” for entertainment applications.
- Remotely control the volume and presets of multiple zones with DCP series wall mount digital controllers.
- Wireless DCP for iPhone and iPod touch is free available on the App Store.
- Equipped with Network port and GPI ports that offer compatibility with touch panel controllers such as AMX/Crestron.
- Easy setup and parameter control with MTX Editor.

\*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.

### OPTIONS

#### INPUT EXPANDER/OUTPUT EXPANDER

##### EXi8 Input Expander

YDIF 1U

EXi8 input expanders convert analog microphone/line audio to digital and transmits the signal using Yamaha's YDIF format. The EXi8's preamps can be controlled remotely from an MTX processor via Ethernet cable.



##### EXo8 Output Expander

YDIF 1U

EXo8 output expanders feature 8 channels of DA converters that produce high quality analog audio by converting digital output from MTX Series processors via YDIF.



#### DIGITAL CONTROL PANELS

DCP Series Digital Control Panel provide flexible external control of several functions such as preset recall, levels, and SD card playback. All three models are available in either US or EU standardized sizes, built to meet the specifications of most regions around the globe.

##### DCP1V4S

1 Volume & 4 Switch equipped Wall Mount Control panel for MTX Series  
Easy connection by CAT5 carrying RS485 + power  
Maximum 8 DCPs can be connected to 1 MTX Series



##### DCP4S

4 Switch equipped Wall Mounut Control panel for MTX Series  
Easy connection by CAT5 carrying RS485 + power  
Maximum 8 DCPs can be connected to 1 MTX Series



##### DCP4V4S

4 Volume & 4 Switch equipped Wall Mounut Control panel for MTX Series  
Easy connection by CAT5 carrying RS485 + power  
Maximum 8 DCPs can be connected to 1 MTX Series



# MTX Series

## GENERAL SPECIFICATIONS

<b>Memory bank</b>	PRESET: 50
<b>Mixing Capacity</b>	Mixing Channel : 8 Mono + 3 Stereo + 2 Effect Return + 8 Insert Output Busses : 8 Mono
<b>Input Channel Functions</b>	Mono CH : 3-band PEQ, Comp, Gate, Auto Gain Control, Feedback suppressor (only available in ch 1-4) Stereo CH: 3-band PEQ, Comp, Auto Gain Control
<b>Output Channel Functions</b>	Room Delay, Room EQ, Speaker Processor, X-Over (1way,2way), Delay, 6-band PEQ, Limiter
<b>Internal Processing</b>	Priority Ducking, Ambient Noise Compensator
<b>Sampling frequency rate</b>	48kHz
<b>Signal delay</b>	Less than 2.5ms (AD-DA @48kHz)
<b>Total harmonic distortion*1</b>	Less than 0.05% (+4dBu, Gain:-6dB), Less than 0.1% (+4dBu, Gain:+66dB)
<b>Frequency response</b>	20Hz to 20kHz, +0.5dB, -1.5dB
<b>Dynamic range</b>	107dB (Gain:-6dB)
<b>Hum &amp; noise level</b> (20Hz to 20kHz, Rs=150Ω)	-62dBu (Gain: +66dB), -81dBu (Gain: -6dB)
<b>Phantom Power</b>	+48V
<b>Crosstalk (@1kHz)</b>	-100dB
<b>Heat diffusion</b>	43kcal/h max
<b>Power requirements</b>	AC100V-240V 50Hz/60Hz
<b>Power consumption</b>	50W
<b>Dimensions (W x H x D)</b>	480 x 44 x 362mm (18.9" x 1.7" x 14.3"), 1U
<b>Weight</b>	4.8kg (10.6lbs)

\*1 Total harmonic distortion is measured with a 18dB/Oct filter @80kHz.  
\*2 Hum & noise level is measured with a 6dB/oct filter @12.7kHz; equivalent to 20kHz filter with infinite dB/Oct attenuation.

## ANALOG INPUT SPECIFICATIONS

Input terminal	GAIN	Actual load impedance	Input level		Connector
			Nominal	Max. before clip	
INPUT 1-8	+66dB -6dB	10kΩ	50-600Ω Mics & 600Ω Lines -62dBu +10dBu	-42dBu +30dBu	Euroblock*
ST IN 1,2			600Ω Lines -10dBV	+10dBV	RCA Pin Jack**

## ANALOG OUTPUT SPECIFICATIONS

Output terminal	Actual Source Impedance	For use with nominal	Output level		Connector
			Nominal	Max. before clip	
OUTPUT 1-8	75Ω	10kΩ Lines	+4dBu	+24dBu	Euroblock*

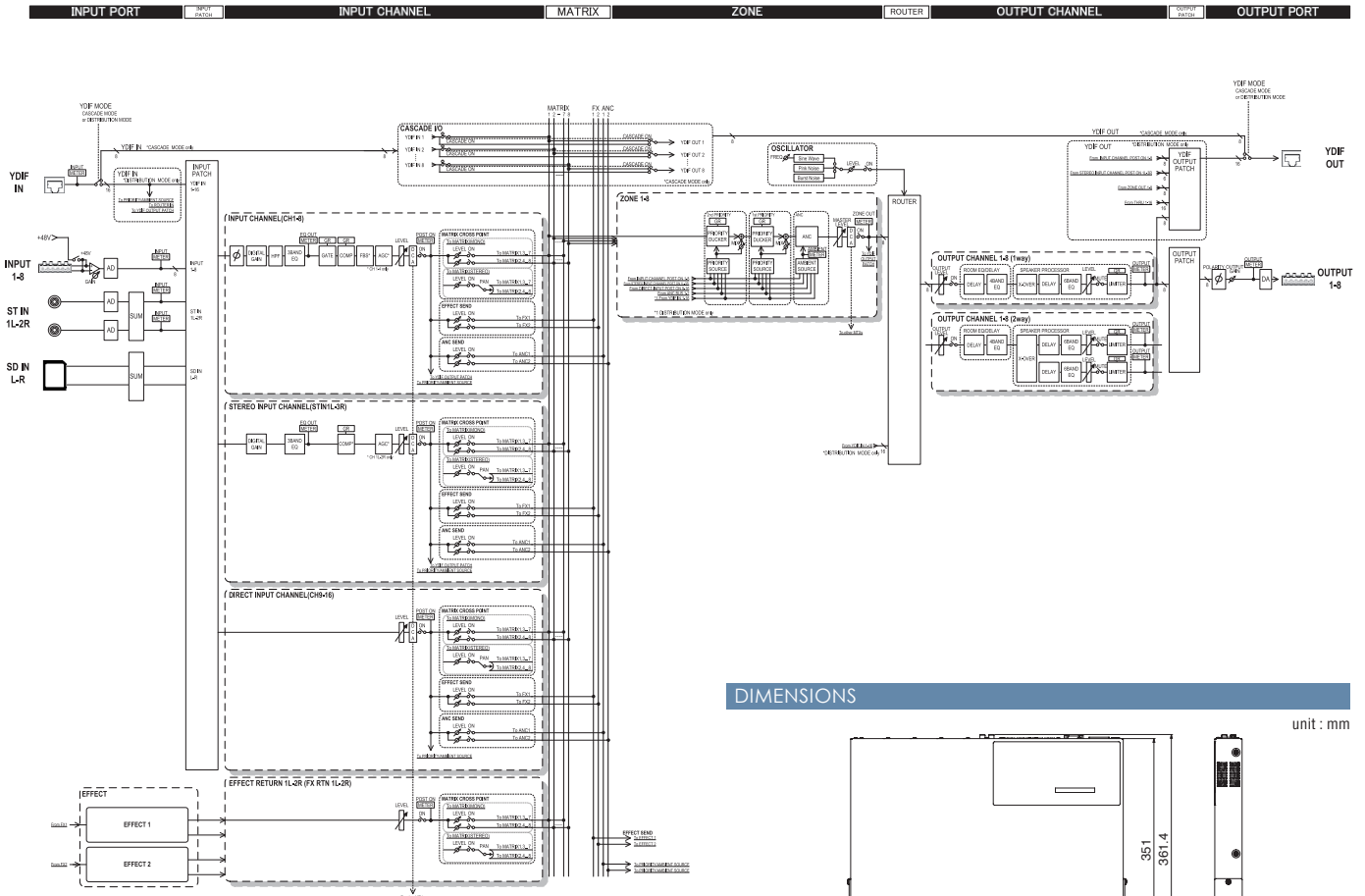
## DIGITAL INPUT AND OUTPUT SPECIFICATIONS

Terminal	Format	Level	IN/OUT	Connector
YDIF In	YDIF	RS-422	16 IN	RJ45
YDIF Out	YDIF	RS-422	16 OUT	RJ45

## CONTROL I/O SPECIFICATIONS

Terminal	Format	Level	Connector
GPI 8IN / 4OUT	IN	0V-5V (IN8 Withstand voltage +24V)	Euroblock
	OUT	Open Collector	Euroblock
	+V	DC5V	Euroblock
Network	Ethernet 100Base-TX	—	RJ-45
REMOTE	—	RS-232C (BAUD RATE : 38.4kbps or 115.2kbps)	D-sub 9pin (Male)
DCP	—	—	RJ-45

## BLOCK DIAGRAM



## DIMENSIONS

