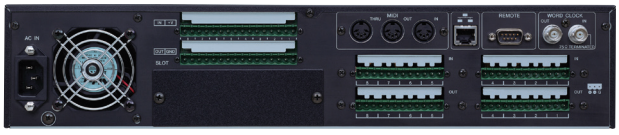
Overview

The DME24N is a configurable 24-in/24-out DSP box with eight built-in analog inputs and outputs in a compact 2U rack-mount unit.



Rear Panel

Features

- Configurable as multiple audio processors for a wide range of applications – mixers, equalizers, compressors,crossovers, speaker processors, effects, feedback suppressors, wav file players, and much more.
- Easily configured and controlled via the DME Designer software application.
- 8 channels of built-in analog I/O with precision 24-bit 96-kHz A/D and D/A converters.
- High-performance analog preamplifiers that equal the sound and quality of those found in top-line Yamaha mixing consoles.
- Optimally-tuned 24-bit, 96-kHz digital processing.
- In addition to the eight built-in I/O channels, a rear-panel slot accommodates an optional MY card for an extra 16 I/O channels in a variety of analog and digital formats - for a total of 24 I/O channels.
- Network connectivity with optional MY16CII CobraNet™ card, MY16-ES64 EtherSound Card, DANTE-MY16-AUD/DANTE-MY16-AUD2 Dante Network card.
- Including Acoustic Echo Canceller Component (*MY4-AEC card is required to use this component).
- Seamless control Integration with compatible Yamaha digital mixing consoles.
- Up to 16 DME24N, DME64N and ICP1 Intelligent Control Panel units can be networked via their RJ45 connectors using CAT5 Ethernet cables.
- GPI, RS232C/RS422, USB, and MIDI Interfaces.
- Large LCD Display with Comprehensive Panel Controls.
- The DME24N and ICP1 Intelligent Control Panel, can display scene and function names in 5 languages: English, Japanese, French, German, and Spanish.

Specifications

General Specifications

Memory Bank	Configuration: 16 (depends on size of data) Scene:999 (depends on size of data)
Sampling Frequency Rate	Internal : 44.1kHz, 48kHz, 88.2kHz, 96kHz External : Normal Rate: 39.69 – 50.88kHz, Double Rate: 79.39 – 101.76kHz
Signal Delay	0.5 msec (AD-DA @96kHz)
Total Harmonic Distortion	Less than 0.05, +14dBu into 600Ω (Measured with a 18dB/Oct filter @80kHz)
Frequency Response	20Hz to 40kHz: max:+0.5dB, min:-1.5dB
Dynamic Range	106dB (typ. Gain:-6dB)
Crosstalk	-80dB
Power Requirements	AC100V-240V 50Hz/60Hz
Power Consumption	75W
Dimensions (W x H x D)	480mm x 101mm x 411.5mm (18.9" x 3.9" x 16.2")
Net Weight	8kg (17.6lbs)
Accessories	Owner's manual, DME Designer Installation Guide, AC power cord, AC plug clamp, 16x 3-pin Euroblock plug
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	-60dB	3kΩ	50-600Ω Mics	-60dBu	-40dBu	Euroblock	Balanced
	+10dB		600ΩLines	+10dBu	+30dBu		

Analog Output Specifications

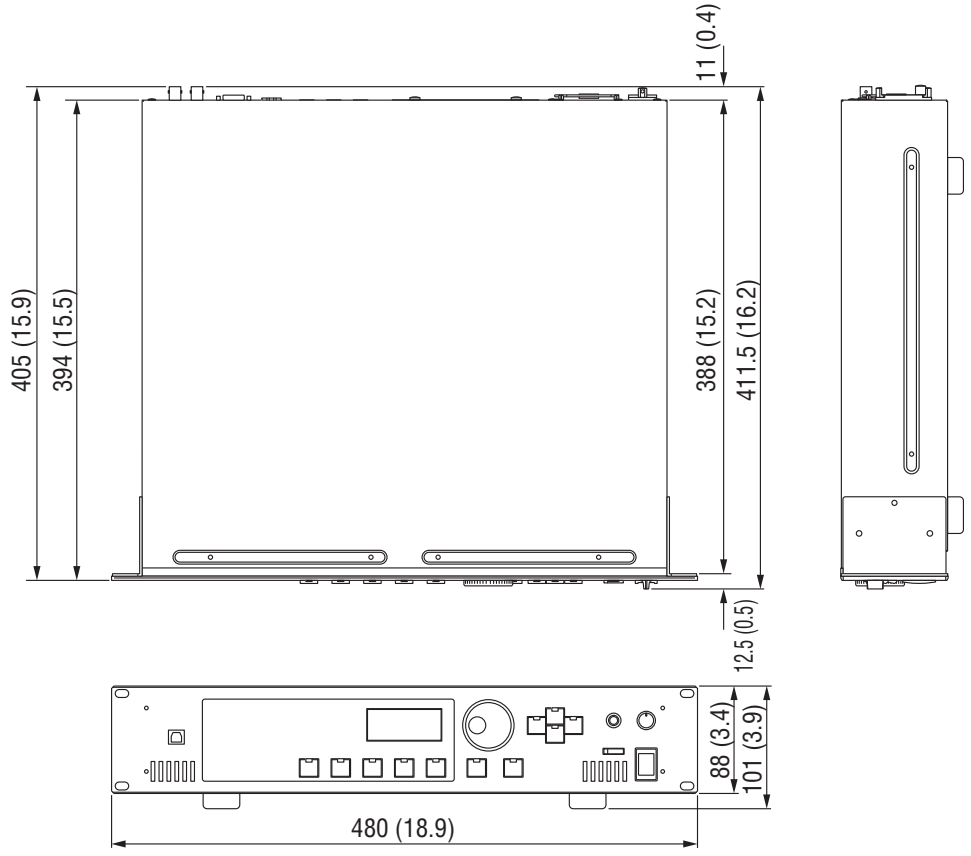
Output Terminal	Actual Source Impedance	For Use with Nominal	Output Level		Connector	Balanced / Unbalanced
			Nominal	Max. before Clip		
OUTPUT 1-8	75Ω	600ΩLines	+4dBu	+24dBu	Euroblock	Balanced
PHONES	15Ω	8Ω	75mW	150mW	ST Phne Jack	unbalanced
		40Ω	65mW	150mW		

Control I/O Specifications

Terminal		Format	Level	Connector
USB		USB1.1	0V-3.3V	B type USB Connector
MIDI	IN	MIDI	-	DIN-5pin
	OUT	MIDI	-	DIN-5pin
	THRU	MIDI	-	DIN-5pin
WORD CLOCK	IN	-	TTL/75ohms (terminated)	BNC
	OUT	-	TTL/75ohms	BNC
GPI	IN	-	0V-5V	Euroblock
	OUT	-	TTL	Euroblock
	+V	-	5V	Euroblock
REMOTE		-	RS232C	D-sub 9pin (male)
		-	RS422	
ETHERNET		Ethernet	-	RJ45

Dimensions

Unit: mm (inch)



Options

- Intelligent Control Panel ICP1
- Wall-mountable Remote Control Panel CP4SF
- Wall-mountable Remote Control Panel CP1SF
- Wall-mountable Remote Control Panel ICP4SW

Software

- DME Designer

Architectural and Engineering Specifications

The Yamaha DME24 Digital Mixing Engine shall provide eight balanced mic/line inputs and eight balanced line outputs on Euroblock connectors. The microphone inputs shall include 48V phantom power. All analogue inputs and outputs shall have 24-bit/48-kHz/44.1-kHz/96-kHz AD/DA converters and all internal processing shall be digital. A digital audio card slot shall be included to provide compatibility with a variety of audio formats. The DME24N shall have USB, MIDI I/O/Thru, Word clock I/O, GPI I/O, RS232C and Ethernet ports to allow remote control. Software shall be provided for connecting and configuring DSP system components within each hardware unit and configuring remote control systems. Available system components shall include Ambient Noise Compensator, Audio Detector, Auto Gain Control, Crossover, Crossover Processor, Delay, Dynamics, EQ, Fader, Feedback Suppressor, Filter, Meter, Mixer, Pan, Room Combiner, Router, Source Selector. Speaker Processor, SPX (Effectors). Ethernet and USB communications shall be utilized for software control and configuration. Software shall run on a computer with a network card installed or USB connector, running Windows XP or above [Windows Vista/7/8/8.1/10 are supported]. After initial programming, processors may be controlled via dedicated wall mount CP series or ICP1 controllers, PC software, and 3rd party control systems. The NC rating of the processor shall be 20 and the heat dissipation shall be 64.5 kcal/h maximum. Dimensions shall be 480 (W) x 101 (H) x 411.5mm (D). Weight shall be 8 kg. The product shall conform to the latest EU RoHS hazardous substances and WEEE directives.

Created in March, 2017

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