

DME24N

Digital Mixing Engine



DME24N

Rear Panel



Substantial processing power plus head amp and analog I/O for fast, easy system implementation.

- 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 or MY16-ES64 EtherSound Card.
- 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.

OPTIONS

REMOTE CONTROL PANELS

ICP1 Intelligent Control Panel

The most sophisticated of the DME series remotes, the ICP1 connects via Ethernet. Functions include scene recall and six user-defined keys at the top and bottom of the LCD screen, which can be assigned to DME parameters such as microphone and music source levels. Up to 4 sets of "pages" are available - giving up to 24 parameters. LCD display shows names and scenes and function keys in five languages - English, German, French, Spanish and Japanese.



CP4SF

Four switches and four faders control panel

Wall-mountable remote control panel for GPI control. Uses a standard (US-type) 3 gang wall box.



CP4SW

Four switches control panel

Wall-mountable remote control panel for GPI control. Uses a standard (US-type) 1 gang wall box.



CP1SF

One switch and one fader control panel

Wall-mountable remote control panel for GPI control. Uses a standard (US-type) 1 gang wall box.



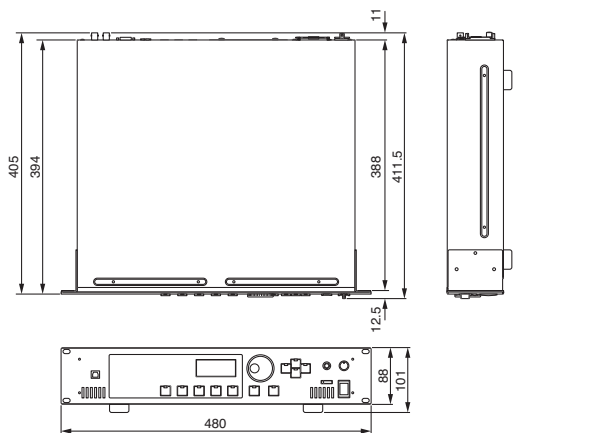
DME24N

GENERAL SPECIFICATIONS

Sampling frequency rate	Internal :44.1kHz,48kHz,88.2kHz,96kHz External :44.1kHz (-10%) to 48kHz (+6%), 88.2kHz (-10%) to 96kHz (+6%)
Signal delay	0.5msec (Ch input to Ch output@96kHz)
Total harmonic distortion	Less than 0.05, +14dBu into 600Ω
Frequency response	0, +0.5, -1.5dB
Dynamic range	106dB
Hum & noise level	-128dBu (EIN), -82dBu (Residual noise)
Crosstalk (@1kHz)	-80dB (Adjacent channel)
Phantom voltage	+48V
Configurations	Max. 16
Scene	Max. 999
Maximum input channel count	24ch
Maximum output power channel count	24ch
Power requirements	100V-240V 50Hz/60Hz
Power consumption	75W
Dimensions (W x H x D)	480 x 101 x 411.5mm (18.9" x 3.9" x 16.2"), 2U
Weight	8kg (17.6lbs)

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

DIMENSIONS



ANALOG INPUT SPECIFICATIONS

Input terminal	GAIN	Actual load impedance	For use with nominal	Input level		Connector
				Nominal	Max. before clip	
CH INPUT 1-8	-60dB	3kΩ	50-600Ω Mics & 600Ω Lines	-60dBu	-40dBu	Euroblock
	+10dB			+10dBu	+30dBu	

*0dBu = 0.775 Vrms
*All AD converters (CH1-8) are 24-bit linear, 128 times oversampling.
*+48V DC (phantom power) is supplied to CH INPUT (1-8) connectors via each individual controlled switch.

ANALOG OUTPUT SPECIFICATIONS

Output terminal	Actual source impedance	For use with nominal	Output terminals		Connectors
			Nominal	Max. before clip	
OUTPUT 1-8	150Ω	600Ω Lines	+4dBu	+24dBu	Euroblock
PHONES	15Ω	8Ω	75mW	150mW	Stereo Phone
		40Ω	65mW	150mW	

*0dBu = 0.775 Vrms
*All AD converters (CH1-8) are 24-bit linear, 128 times oversampling.
*Stereo Phone Jack = unbalanced (Tip = LEFT, Ring = RIGHT, Sleeve = GND)

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/75Ω (terminated)
	OUT	—	TTL/75Ω
GPI	IN	—	0V-5V
	OUT	—	TTL
	+V	—	5V
REMOTE	—	RS232C	D-sub 9pin(male)
	—	RS422	—
ETHERNET	Ethernet	—	RJ45

*8-GPI inputs and 8-GPI outputs
*Outputs: I_{max}/pin = 16mA
*Outputs: V_H = 2.5V(min.), V_L = 0.6V(max.)

COMPONENT LIST

Category	Component
	Remote Controlled Internal HA
	Delay Long, Short
	Dynamics Gate, Ducking, Expander, Componder, Compressor, De-Esser, Limiter
	Filter BPF, HPF, LPF, Notch
	EQ PEQ, GEQ
	Fader
	Pan LR, LCR, 3-1, 5.1, 6.1
	Meter
Mixers	Simple Mixer
	Auto Mixer (II)
	Matrix Mixer
	Delay Matrix
I/O functions	Analog I/O
	MY card I/O
	CobraNet I/O (16IN/16OUT)
	EtherSound I/O (16IN/16OUT)
Source	Oscillator
	Wav File Player
Routing functions	Source Selector
	Router
Crossover	Crossover
	Crossover processor (II)
Speaker Processor	Speaker processor
Other functions	Room Combiner
	Feedback suppressor
	Ambient Noise Compensator
	Audio Detector
	Auto Gain Control
	Event Scheduler
	SPX