DME24N

Digital Mixing Engine

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

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.

REMOTE CONTROL PANELS

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.
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)

ANALOG INPUT SPECIFICATIONS

<table>
<thead>
<tr>
<th>Input terminal</th>
<th>Gain</th>
<th>Actual load impedance</th>
<th>For use with nominal</th>
<th>Input level before clip</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH INPUT 1-8</td>
<td>-9dB</td>
<td>3kΩ</td>
<td>50-600Ω Mics &amp; 600Ω Lines</td>
<td>-6dBu</td>
<td>+9dBu</td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th>Output terminal</th>
<th>Actual source impedance</th>
<th>For use with nominal</th>
<th>Output terminals</th>
<th>Max. before Clip</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUTPUT 1-8</td>
<td>15Ω</td>
<td>8Ω</td>
<td>60Ω</td>
<td>+4dBu</td>
<td>+24dBu</td>
</tr>
<tr>
<td>PHONES</td>
<td>15Ω</td>
<td>Stereo Phone</td>
<td>3kΩ</td>
<td>+10dBu</td>
<td>+30dBu</td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Format</th>
<th>Level</th>
<th>Connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>USB</td>
<td>U2/1.1</td>
<td>0V-3.3V</td>
<td>B type USB Connector</td>
</tr>
<tr>
<td>MIDI</td>
<td>IN</td>
<td>MID1</td>
<td>DIN-5pin</td>
</tr>
<tr>
<td>WORD CLOCK</td>
<td>IN</td>
<td>TTY2</td>
<td>TTL (termin.): 8NC</td>
</tr>
<tr>
<td>GPI</td>
<td>IN</td>
<td>VT5V</td>
<td>Euroblock</td>
</tr>
<tr>
<td>REMOTE</td>
<td></td>
<td>RS232C</td>
<td>D-sub 9pin (male)</td>
</tr>
<tr>
<td>ETHERNET</td>
<td></td>
<td>Ethernet</td>
<td>RJ45</td>
</tr>
</tbody>
</table>

**8-GPI inputs and 8-GPI outputs
*Outputs: Imax/pin = 16mA
*Outputs: VH = 2.5V(min.), VL = 0.6V(max.)

COMPONENT LIST

<table>
<thead>
<tr>
<th>Category</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mixers</td>
<td>Simple Mixer, Auto Mixer (II)</td>
</tr>
<tr>
<td>Mixers</td>
<td>Matrix Mixer, Delay Matrix</td>
</tr>
<tr>
<td>I/O functions</td>
<td>Analog I/O, CobraNet I/O (16IN/16OUT), EtherSound I/O (16IN/16OUT)</td>
</tr>
<tr>
<td>Source</td>
<td>Oscillator, Wav File Player</td>
</tr>
<tr>
<td>Routing functions</td>
<td>Source Selector, Router</td>
</tr>
<tr>
<td>Speaker Processor</td>
<td>Speaker processor</td>
</tr>
<tr>
<td>Other functions</td>
<td>Room Combiner, Feedback suppressor, Ambient Noise Compensator, Audio Detector, Auto Gain Control, Event Scheduler, SPX</td>
</tr>
</tbody>
</table>