

# DM-4800 Technical Documentation

### PRODUCT OVERVIEW



The TASCAM DM-4800 is the latest addition to TASCAM's digital mixer line which provides a flexible approach to mixing and/or recording. Full-sized motorized faders, 24 rotary encoders with ring LED indicators, a dedicated "fat" channel set of controls providing instant access to common channel settings, a large clear LCD display and ergonomically-placed dedicated system controls help to make the DM-4800 intuitive and powerful to use.

The DM-4800 provides a comprehensive range of I/O facilities. For analog input the mixer features 24 balanced inputs; mic pre-amps, balanced line connections, and insert points. Both mic and line connections may be made to the same channel with one-or-the-other able to be selected by a top panel switch. There are eight assignable send outputs and inputs for external loop effects.

The digital side is comprised of three TDIF I/O ports, as well as ADAT "lightpipe" I/O and two pairs of stereo S/PDIF or AES/EBU inputs and outputs. Four TASCAM-standard card slots provide I/O expansion capabilities, with a variety of digital, analog, and computer options being available.

There are 24 groups, 12 aux sends, and 16 software assignable inserts independent of the analog inserts on the inputs. The DM4800 incorporates digital effects, including a digital reverb programmed by TC Works. External effects can be looped through the assignable analog sends and returns (the returns can then be assigned to channels), or kept in the digital domain by using the stereo digital I/O facilities.

#### DM-4800 continued...

A dedicated cascade port supports cascade of two DM-4800s. Whether working at base sample rates of 44.1kHz/48kHz or higher sample rates of 88.2 kHz/ 96kHz the DM4800 retains the same number of channels (64 channels) and facilities. Sony P2 9-pin protocols are provided to allow control of other equipment from one central location.

The DM-4800 provides automation facilities which are independent of any external computer. The data for projects is stored in industry-standard Compact Flash Cards or easy offline storage and archiving.

MSRP \$5,999.00

48 Channels and 16 returns (total 64 inputs)

24 groups / busses

12 Aux Sends

24 mic/line inputs with analog inserts plus phantom power

4 expansion card slots support optional FireWire, ADAT, AES/EBU, Analog, TDIF, and surround monitoring cards.

Channel Strip selection for EQ, Dynamics, and Aux control of selected channel.

Per channel LED ring encoders for pan, aux sends, and EQ

Touch sensitive, motorized faders

4-band EQ, compression and gating on each channel

Compression for each aux, buss, and main output

Two built-in EFX processors, each able to run TC Reverb programs

Flexible routing allows any input to be routed to any channel output

Offload data to Compact Flash Media

Optional MU-1000 meter bridge (as shown)

## **OPTIONAL ACCESSORIES**

IF-AN/DM 8-channel Analog expansion module IF-AE/DM 8-channel AES/EBU expansion module

IF-AD/DM 8 channel ADAT lightpipe expansion module

IF-TD/DM 8-channel TDIF expansion module

IF-SM/DM Surround Monitoring expansion module

IF-FW/DM MkII 32x32 FireWire interfact module

PW-1000CD Cascade Cable

MU-1000 24-channel Meter Bridge

### CONSULTANT'S AND SYSTEM DESIGN SPECIFICATIONS

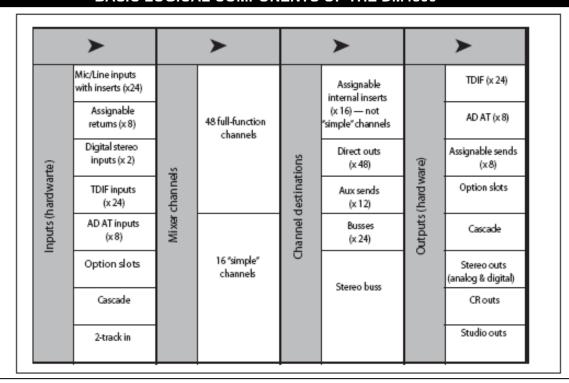
The TASCAM DM-4800 Digital Mixer consists of 25 fully motorized, touch sensitive faders, 24 rotary encoders with ring LED indicators, a dedicated "fat" channel set of controls for instant access to common channel settings, a large clear LCD display, and well-placed system controls. The mixer features 24 balanced inputs; mic preamps w/ +48 volt phantom power (switchable in groups of 4) and line inputs. Hard wired insert points are provided for the 24 channel inputs.

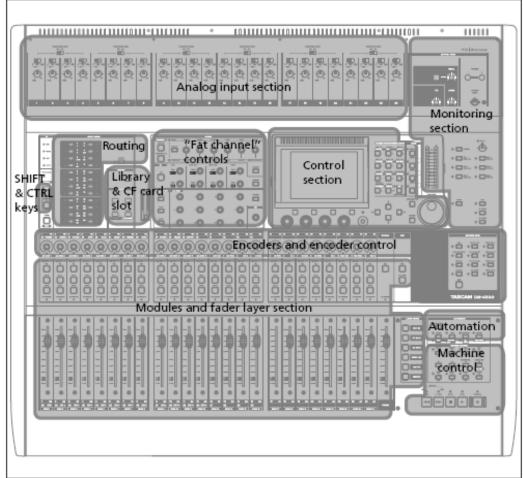
The DM-4800 provides 64 channel modules which can be assigned to any of the 24 output modules. Of these 64 channel modules, 48 are "full-function" modules with 4-band EQ, digital trim and phase, and full dynamics ;processing with compressor/expanders and gates. The additional 16 (simple channels) are more basic in the facilities provided, but still provide full group/buss assignment and aux sends.

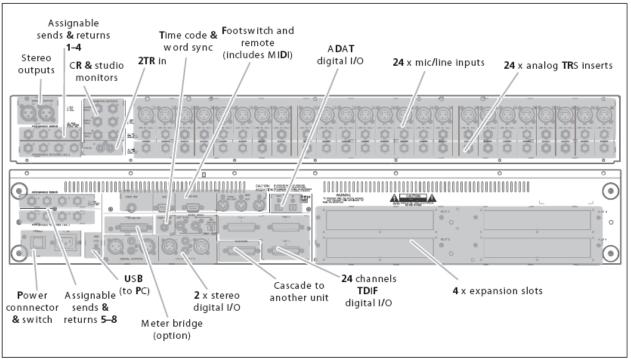
Rear panel I/O include eight assignable send outputs and inputs, Balanced (XLR) Main Outs (R/L), Unbalanced (RCA) 2-track input, 3-sets of L/R Balanced (TRS) outputs, Stereo AES/EBU Digital I/O, Stereo S/PDIF Coax Digital I/O, ADAT Digital I/O, and 24-channels of TDIF I/O. Rear panel external control consists of word clock (in, out, and thru), time code out (RCA), foot-switch out, midi (in, out, and thru), RS-422, and GPI output for parallel control. Additional rear panel connectors include connection for optional meter-bridge, cascade ports (supports two DM4800s), 4-expansion card slots, and USB 1.1 connector.

The DM-4800 provides 24 groups/busses, 12 aux-sends, and 16 assignable inserts (in addition to the channel inserts on rear panel). The mixer incorporates digital effects, including a digital reverb by TC Works. External effects can be looped through the assignable analog sends and returns (then assigned to channels). The automation facilities, independent of external computer, can be stored in standard compact flash.

# **BASIC LOGICAL COMPONENTS OF THE DM4800**







| System performance  |   |  |
|---|---|--|
| THD (maximum level,<br>1kHz, TRIM: minimum)                   | 20Hz – 22 kHz LINE IN to INSERT SEND<br>LINE IN to STEREO OUTPUT  | < 0.005%<br>< 0.008%   |
| Frequency response<br>(nominal level, 1 kHz, TRIM<br>minimum) | 0.5dB/-1.0dB MIC/LINE to INSERT SEND<br>0.5dB/-1.5dB MIC/LINE to INSERT SEND<br>0.5dB/-1.0dB MIC/LINE to STEREO OUTPUT <sup>a</sup><br>0.5dB/-1.5dB MIC/LINE to STEREO OUTPUT <sup>a</sup>          | 20 Hz – 20kHz (44.1/48kHz)<br>20 Hz – 40kHz (88.2/96kHz)<br>20 Hz – 20kHz (44.1/48kHz)<br>20 Hz – 40kHz (88.2/96kHz) |
| Noise level (20Hz – 22 kHz,<br>TRIM: max, 150 Ω)              | , MIC in (PAD off) to INSERT SEND (A weight)<br>STEREO OUT (Input no assign)<br>ASSIGNABLE RETURN to ASSIGNABLE SEND<br>2TR IN to CR OUTPUT (CR: max, OdB)<br>2TR IN to STUDIO OUT (STUDIO OUT OdB) | < -128dBu (EIN)<br>< -83dBu<br>< -85dBu<br>< -78dBu<br>< -84dBu  |
| Crosstalk @ 1 kHz   | STEREO/BUSS/AUX OUTPUTS MONITOR OUTPUTS   | > 90dB<br>> 90dB   |

a. MIC/LINE to channel module to STEREO OUTPUT, channel and stereo faders at 0dB, pan hard left or hard right

# **Physical characteristics**

| Displays  | Backlit 320 x 240 LCD with contrast control<br>2 x 12-segment LED meters   |
|---|--|
| Faders  | 25 x 100mm stroke, motor-driven touch-sensitive faders                     |
| Maximum overall dimensions (w x d x h) including rest | 933 x 824 x 230 (mm) 36.75 x 32.4 x 9.1 (in)                               |
| Weight  | 35kg (71lbs)   |
| Voltage requirements                                  | 120 VAC, 60Hz  |
|   | 230 VAC, 50Hz  |
|   | 240 VAC, 50 Hz   |
| Power consumption                                     | 90W  |
| Supplied accessories                                  | Power cord, Quick Start guide, CF memory card, USB cable, TM Companion CD- |
|   | ROM, warranty card   |

