

Overview

This versatile mixing console packs the functionality of the DM2000 into a space-saving rack-mount unit that is ideal for production, broadcast, live sound, and other applications.



Rear Panel

Features

- Precise 24-bit/96-kHz audio and high-performance head amps.
- Generous mixing capacity with up to 48 inputs and 18 mix buses (8 group buses, 8 auxiliary buses, and the main stereo bus) in a compact rack-mount size console.
- Four advanced multi-effect processors include surround effects.
- Scene memory and auto-mix functions for efficient workflow.
- Versatile pairing and grouping functions enhance mixing efficiency.
- Comprehensive interface with 17 touch-sensitive 100-mm motor faders.
- A generous selection of control interfaces: MIDI, USB, REMOTE, SMPTE, and word clock.
- Two Mini-YGDAI expansion slots for easy I/O expansion in a variety of formats.
- Compatible with Windows or Macintosh versions of Studio Manager version2 Software, allowing your PC and Console to work together seamlessly.
- Easy integration with computer-based DAWs (Digital Audio Workstations) or digital recorders to create an advanced digital production environment.
- A comprehensive range of features for surround production, including an enhanced surround monitoring environment with bass management.
- A variety of Yamaha VCM effects and high-resolution REV-X reverbs.
- Included in the THX pm3™ Studio Certification Program Approved Equipment List.

Specifications

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Functional Specifications

Mixing Capacity	Input Mixing Channels		48 mono
	AUX Buses		8
	Group Buses		8
	Matrices		0
	Stereo Buses		1
	Mono Buses		0
	Cue Bus		1 (Solo)
Local Connectors	Analog Input	XLR	16 (Input 1-16), 4 (Omni In)
		TRS	
		RCA pin	
	Analog Output	XLR	12 (Omni Out)
		TRS Phone	
		RCA pin	
	MY Slots		2
	ADAT I/O		0
	Digital In	AES/EBU	1
		Coaxial (IEC 60958)	1
	Digital Out	AES/EBU	1
		Coaxial (IEC 60958)	1
	GPI		4 in / 8 out
	Word Clock I/O		In / Out
	MIDI I/O		In / Out
	USB TO HOST		1
	Meter Bridge		Optional MB1000
	Ethernet		No (Control via USB TO HOST)
	Lamp		0
	Talkback In		0 (Built-in Mic)
	Video Out		No
	TC In		Yes
	Fault Output		No
	Phones		1
	AC Inlet		1
Scene Memory	Number of Scenes		99
	Recall Safe		Yes
	Focus Recall		No
	Fade Time		Yes
	Preview		No
	Selective Load / Save		No
	Global Paste		Yes
	Event List		No
	Overlay		No
	Isolate		No
	Tactile Control Keys		Yes
Input Channel Functions	Gain Compensation		No
	Silk		No
	Digital Gain		No
	ATT		Yes
	HPF		21.2Hz ~ 20kHz
	PEQ		4 Band Full PEQ
	Dynamics 1		Gate
	Dynamics 2		Comp
Input Channel Functions	Input Delay		Yes (frame delay support)
	Pan		CENTER NOMINAL or LR NOMINAL
	DCA Group		0 (8 Fader Group Master)
	DCA Rollout		No
	MUTE Group		8 (Mute Group Master)
	Number of Inserts		1
	Direct Out		Yes
Output Channel Functions	PEQ		4 Band Full PEQ
	GEQ		No
	Dynamics 1		Compressor
	Output Channel Delay		Yes
	MUTE Group		0 (4 Mute Group Master)
	Number of Inserts		1
	Quick Pro Preset		No
FX	Number of FXs		4 (1 for multi channel effect)
	Number of FX Programs		67
GEQ	Available Channels		No
Recording	USB Memory Recording		No
	DVS Recording		No
	USB Audio Stream		No
Broadcast Functions	5.1 Surround Panning		Yes
	Surround Monitor		Yes (Bass Management support)
	Mix Minus		Yes
	L-Mono / R-Mono / LR-Mono		No
Monitor	Solo Mode		Yes (Mixdown Solo)
	Oscillator		Sine 100Hz / Sine 1kHz / Sine 10kHz / 1kHz/400Hz / Pink Noise / Burst Noise
Other Functions	Port to Port		No
	Dual Console		No
	Timecode Reader/Display		Yes
	Timecode Chase (Event List)		No (Automix support)
	Automix		Yes
	GPI/MIDI		Yes
	Wireless Mic Monitoring		No
	RTA		No
	Output Port Delay		No
	Cascade		Yes
	User Level		No
	Help File		No
	Channel Link		No
User Interface	Display		Non-touch display
	Centralogic Section		No
	Faders		16+1
	Selected Channel Encoders		PEQ (controls for a selected band), Pan, Routing
	Channel Encoder		Yes (for Pan, Send Level, or an assigned parameter)
	Channel Name / Color Display		No
	Custom Fader Banks		Yes (2 x User Assignable Layer)
	User Defined Keys		12

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User Interface	User Defined Knobs	No
	Touch and Turn Knob	No
	Monitor Level Knob	Yes (Control Room Level)
	Rack-mounting	Yes
Software	Editor	DM1000 V2 Editor running on Studio Manager V2
	StageMix	No
	MonitorMix	No
	Nuendo Live: Control integration	No
	Console File Converter	No

General Specifications

Internal processing	32bit (Accumulator=58bit)
Number of scene memories	99
Sampling frequency rate	Internal : 44.1kHz, 48kHz, 88.2kHz, 96kHz External: Normal rate 44.1kHz (-10%) to 48kHz (+6%) Double rate 88.2kHz (-10%) to 96kHz (+6%)
Signal Delay	Less than 1.6 ms CH INPUT to STEREO OUT (@fs=48 kHz) Less than 0.8 ms CH INPUT to STEREO OUT (@fs=96 kHz)
Total harmonic distortion*1 CH INPUT to STEREO OUT Input Gain=Min.	Less than 0.05%, 20Hz to 20kHz @+14dBu into 600Ω Less than 0.01%, 1kHz @+24dBu into 600Ω (@fs=48kHz) Less than 0.05%, 20Hz to 40kHz @+14dBu into 600Ω Less than 0.01%, 1kHz @+24dBu into 600Ω (@fs=96kHz)
Frequency response CH INPUT to STEREO OUT	20Hz - 20kHz, 0.5, -1.5dB, @+4dBu into 600Ω (@fs=48kHz) 20Hz - 40kHz, 0.5, -1.5dB, @+4dBu into 600Ω (@fs=96kHz)
Dynamic range (maximum level to noise level)	110dB typ, DA Converter (OMNI OUT) 106dB typ, AD+DA (to OMNI OUT)
Hum & noise level*2 (20Hz to 20kHz), Rs=150Ω	-128dBu Equivalent Input Noise -86dBu residual output noise. OMNI OUT(STEREO OUT off) -86dBu(96dB S/N) OMNI OUT(STEREO fader at nominal level and all CH INPUT faders at minimum level) -64dBu(68dB S/N) OMNI OUT(STEREO fader at nominal level and one CH INPUT fader at nominal level)
Crosstalk (@1kHz) Input Gain=Min.	-80dB adjacent input channels (CH1-16) -80dB input to output
Phantom Power	+48V
Power requirements	Japan: AC100V 50/60Hz North America: AC120V, 60Hz Other Areas: AC220-240V, 50/60Hz
Power consumption	135W
Dimensions (W x H x D)	436mm x 200mm x 585mm (17.1" x 7.8" x 23.0") With MB and SP: 486mm x 295mm x 635mm (19.1" x 11.6" x 25.0")
Weight	20.0kg (44lbs) With MB & SP: 23.6kg (52.0lbs)

*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	Actual source impedance		For use with nominal	Input level			Connector
	PAD	GAIN		Sensitivity	Nominal	Max. before clip	
CH INPUT 1-16	0	-60dB	3kΩ	-70dBu	-60dBu	-46dBu	XLR3-31 type*
	20	-16dB		-26dBu	-16dBu	+4dBu	
OMNI IN 1-4			10kΩ	-6dBu	+4dBu	+24dBu	

Analog Output Specifications

Output terminal	Actual source impedance	For use with nominal	GAIN SW	Output terminals		Connector
				Nominal	Max. before clip	
OMNI OUT 1-8	75Ω	600Ω Lines	—	+4dBu	+24dBu	XLR3-32 type*
PHONES	100Ω	8Ω Phones	—	4mW	25mW	ST Phone Jack**
		40Ω Phones	—	12mW	75mW	

Digital Input Specifications

Terminal		Format	Data length	Level	Connector
2TR IN DIGITAL	1	AES/EBU	24bit	RS422	XLR3-31 type
	2	IEC-60958	24bit	0.5Vpp/75Ω	RCA Pin Jack

Digital Output Specifications

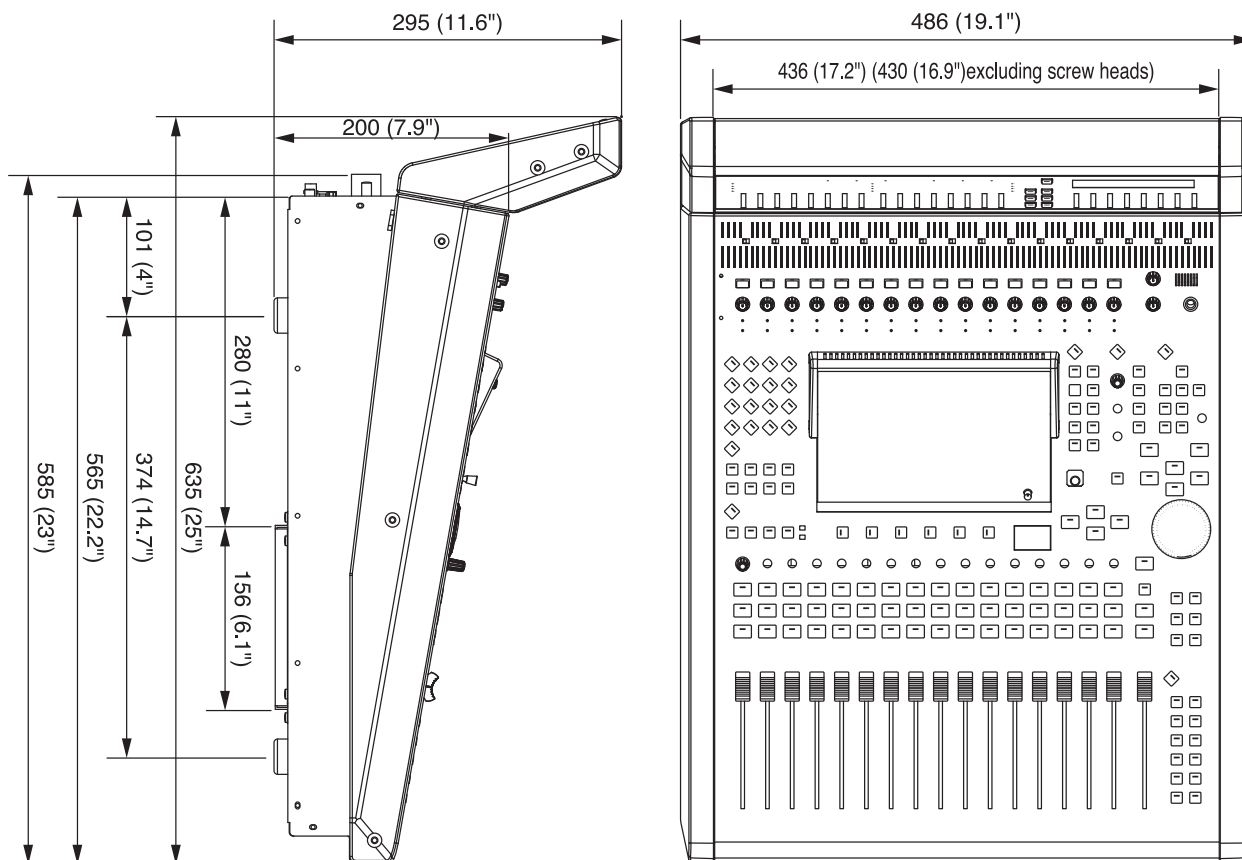
Terminal		Format	Data length	Level	Connector
2TR OUT DIGITAL	1	AES/EBU (Professional use)	24bit	RS422	XLR3-32 type
	2	IEC-60958 (Consumer Use)	24bit	0.5Vpp/75Ω	RCA Pin Jack

Control I/O Specifications

Terminal		Format	Level	Connector
TO HOST USB		USB	0 V~3.3 V	B Type USB Connector
MIDI	IN	MIDI	—	DIN Connector 5P
	OUT			
TIME CODE INPUT		SMPTE	Nominal -10dB/10kΩ	XLR3-31 Type*
WORD CLOCK	IN	—	TTL/75Ω (ON/OFF)	BNC Connector
	OUT			
CONTROL			Open collector	D-Sub Connector 25P (Female)
REMOTE			RS422	D-Sub Connector 9P (Male)
METER				D-SUB Connector 15P (Female)

Dimensions

Unit: mm (inch)



Options

- Meter Bridge MB1000
- Wooden Side Panels SP1000
- Rack Mount Kit RK1

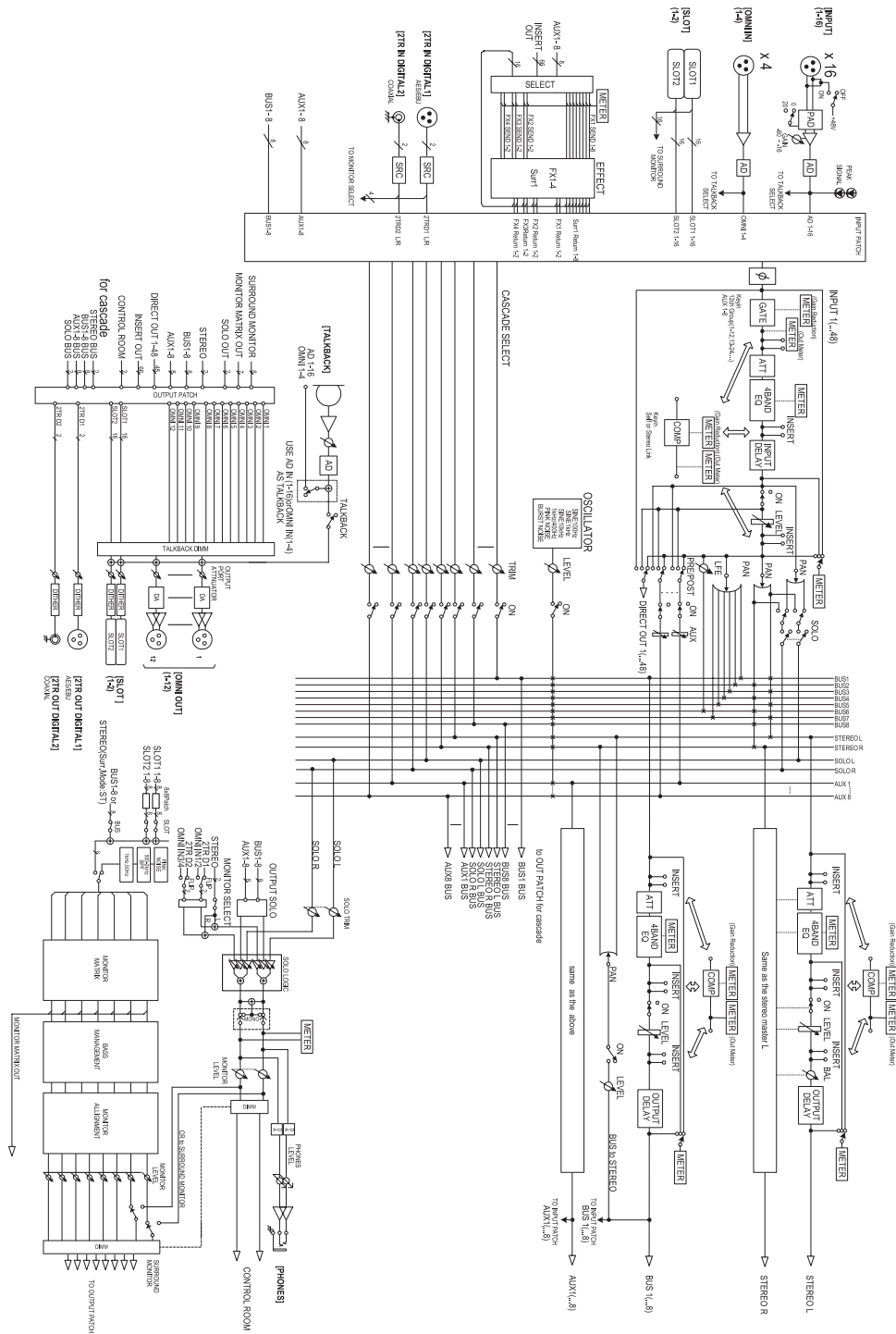
Software

- Studio Manager V2
- DM1000 Editor

Architectural and Engineering Specifications

The Yamaha DM1000VCM Digital Mixing Console shall operate at up to a 96kHz sampling frequency and provide the same mixing capability as the DM2000VCM Digital Mixing Console in a compact rack-mount unit. With 16 + 1 (Master) faders it shall provide a mixing capacity of up to 48 mono inputs, 8 groups, and 8 auxiliary buses. It shall provide 4 powerful effect processors that allow selection of VCM effects, REV-X reverb effects, iSSP surround processing, and more. All input channels shall include gate, compressor, 4-band PEQ, delay, and other facilities. Local I/O shall include 16 microphone/line inputs, 4 line inputs, 12 outputs (XLR), AES/EBU I/O, IEC-60957 I/O, 2 Mini-YGDAI slots, word clock I/O, MIDI I/O, USB host, and Control connectors. Dimensions shall be 436 (W) x 200 (H) x 585 (D) mm. Weight shall be 20 kg.

Block Diagrams



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