Overview

The intuitive TouchFlow Operation™ interface is optimized for touch-panel control and provides an easy-to-use digital mixing console environment for a broad spectrum of users and uses. The TF3 Digital Mixing Console features a 24 + 1 fader configuration that is suitable for a range of mid-size applications.

Rear Panel

Features

- 24 + 1 fader configuration
- Input channels: 40 mono, 2 stereo, 2 return.
- Busses: 20 Aux (8 mono, 6 stereo), Stereo, Sub, 4 matrix.
- Local I/O: 24 mic/line + 2 stereo line in, 16 out.
- Recallable “D-PRE™” Microphone Preamplifiers provide an ideal sonic foundation.
- Intuitive user interface optimized for touch panel operation.
- Traditional Overview and Selected Channel Interfaces
- “1-knob COMP™” & 1-knob EQ™ make it easy to dial in the ideal sound
- “QuickPro Presets™” provide instant access to pro sound setups.
- “GainFinder™” supports precision gain setup
- “DCA Roll-out” enhances group control.
- “SENDS ON FADER” buttons instantly bring the specified AUX or FX bus levels up on the faders for easy verification and adjustment.
- Seamlessly integrated remote control and offline editing via an Apple iPad® or other computing device.
- Direct 2-track recording to USB storage devices, or serious multitrack recording to a DAW via USB.
- Multitrack recordings can be used for “virtual sound checks” when performers aren’t available.
- 1 expansion slot for NY64-D audio interface card
- Other features: 8 Powerful Processing/Effect Units, User Defined Knobs, User Defined Keys, 8 DCA groups, and more.

Specifications 1/2

Functional Specifications

Mixing Capacity	Input Mixing Channels	40 mono + 2 stereo + 2 return
	AUX Buses	20 (8 mono + 6 stereo)
	Matrices	4
	Stereo Buses	1
	Mono Buses	1
	FX Buses	2
	Cue Bus	1
Local Connectors	Analog Input	24 mic/line + 2 stereo line
	Analog Output	16
	NY Slots	1
	Word Clock I/O	No
	MIDI I/O	No
	USB for File Save/ Load	1
	USB for 2 Track Rec/Play	1
	USB for Multitrack Rec/Play to/from PC	1
	Ethernet	Yes
	Foot Switch	Yes
	Phones	1
	AC Inlet	1
Scene Memory	Number of Scenes	200
	Recall Safe	Yes
	Focus Recall	No
	Fade Time	No
	Preview	No
	Selective Load / Save	No
	Global Paste	No
	Tactile Control Keys	No (on-screen)
Input Channel Functions	Gain Compensation	No
	Digital Gain	Yes (-24dB~ +10dB)
	HPF	20Hz ~ 600Hz
	PEQ	4 Band Full PEQ
	Dynamics 1	Gate
	Dynamics 2	Comp
	Input Delay	No
	Pan	Center Nominal
	DCA Group	8 (Input DCA)
	DCA Rollout	Yes (Unscrollable)
	Number of Inserts	0
	Direct Out	Yes
	Quick Pro Preset	Yes
Output Channel Functions	PEQ	4 Band Full PEQ
	GEQ	Yes
	Dynamics 1	Compressor
	Output Channel Delay	No

Output Channel Functions	Number of Inserts	0 (Insert Effect on AUX 9/10-19/20)
	Quick Pro Preset	Yes
FX	Number of FXs	2 for Input Channels + 6 for AUX 9/10-19/20
	Number of FX Programs	20
GEQ	Available Channels	Stereo, AUX1-8
Dante	Number of I/O Channels	40 in / 24 out (with NY64-D)
	Dante Patch from Console	No
Recording	USB Memory Recording	Yes
	DVS Recording	Yes (Nuendo Live bundled)
Monitor	Solo Mode	No
	Oscillator	Sine Wave / Pink Noise / Burst Noise
Other Functions	Port to Port	No
	GPI/MIDI	No
	Wireless Mic Monitoring	No
	RTA	Yes
	Output Port Delay	No
	Cascade	No
	User Level	Yes
	Help File	Yes
User Interface	Display	7 inch Touch Panel
	Faders	24 + 1
	Selected Channel Encoders	No
	Channel Encoder	No
	Channel Name / Color Display	Yes
	Custom Fader Banks	Yes
	User Defined Keys	6
	User Defined Knobs	4
	Touch and Turn Knob	Yes
	Monitor Level Knob	Yes (by User Difined Knob)
	iPad Stay	Yes
	Rack-mounting	No
Software	Editor	TF Editor
	StageMix	TF StageMix
	MonitorMix	Yes
	Nuendo Live: Control integration	No
	Console File Converter	No

Specifications 2/2

General Specifications

Sampling frequency rate	Internal	48 kHz
Signal delay		Less than 2.6 ms, INPUT to OMNI OUT, Fs=48 kHz
Fader		100 mm motorized, Resolution = 10-bit, +10 dB to –138 dB, –∞ dB all faders
Total harmonic distortion		Less than 0.05% 20 Hz–20 kHz @+4 dBu into 600 Ω , INPUT to OMNI OUT, Input Gain=Min. (Measured with a –18 dB/octave filter@80 kHz)
Frequency response		+0.5, –1.5 dB 20 Hz–20 kHz, refer to +4 dBu output @1kHz, INPUT to OMNI OUT
Dynamic range		110 dB typ., DA Converter, 107 dB typ., INPUT to OMNI OUT, Input Gain=Min.
Hum & noise level	Equivalent input noise	–128 dBu typ., Input Gain=Max. (Measured with an A-Weight filter)
	Residual output noise	–85 dBu, ST master off (Measured with an A-Weight filter)
Crosstalk		–100 dB (Measured with a –30 dB/octave filter@22 kHz), adjacent INPUT/OMNI OUT channels, Input Gain=Min.
Power requirements		100–240 V 50/60 Hz
Power consumption		110 W
Dimensions (W x H x D)		716 mm x 255 mm x 599 mm (28.2" x 8.9" x 23.6")
Net weight		17.0 kg (37.5 lbs)
Accessories		Quick Guide, Power Cord, Nuendo Live
Options		Expansion Card, Foot Switch (FC5)
Others		Operating temperature range: 0–40 °C, Storage temperature range: -20–60 °C

Analog Input Characteristics

Input Terminals	GAIN	Load Impedance	For Use With Nominal	Input Level			Connector	Balanced / Unbalanced
				Sensitivity*1	Nominal	Max. before clip		
INPUT 1-32 (TF5)	+66dB	7.5K Ω	50-600 Mics or 600 Lines	-82dBu (61.6µV)	-62dBu (0.616mV)	-42dBu (6.16mV)	Combo Jack (XLR-3-31 type*2 or TRS phone*3)	Balanced
	-6dB			-10dBu (245mV)	+10dBu (2.45V)	+30dBu (24.5V)		
ST IN 1,2	—	10k	600 Lines	-30dBV (31.6µV)	-10dBV (316mV)	+10dBV (3.16V)	RCA Pin Jack	Unbalanced

*1 Sensitivity is the lowest level that will produce an output of +4dBu (1.23V) or the nominal output level when the unit is set to maximum gain. (All faders and level controls are at maximum position.)
*2 1: GND, 2: HOT, 3: COLD
*3 Tip: HOT, Ring: COLD, Sleeve: GND
*4 In these specifications, 0dBu = 0.775Vrms.
*5 +48V DC (phantom power) can be supplied to INPUT XLR type connectors via each individual software controlled switch.

Analog Output Characteristics

Output Terminals	Source Impedance	For Use With Nominal	Output Level		Connector	Balanced / Unbalanced
			Nominal	Max. before clip		
OMNI OUT 1-16	75Ω	600 Lines	+4dBu (1.23 V)	+24dBu (12.3 V)	XLR-3-32 type*1	Balanced
PHONES *5	100Ω	40 Phones	3mW	75mW	Stereo Phone Jack (TRS)*2	Unbalanced

*1 1: GND,2: HOT, 3: COLD
*2 Tip: LEFT, Ring: RIGHT, Sleeve: GND
*3 In these specifications, 0dBu = 0.775Vrms.
*4 All output DA converters are 24bit, 128times oversampling.
*5 The position of the level control is lowered by 16dB from the maximum.

Digital Input/Output Specifications

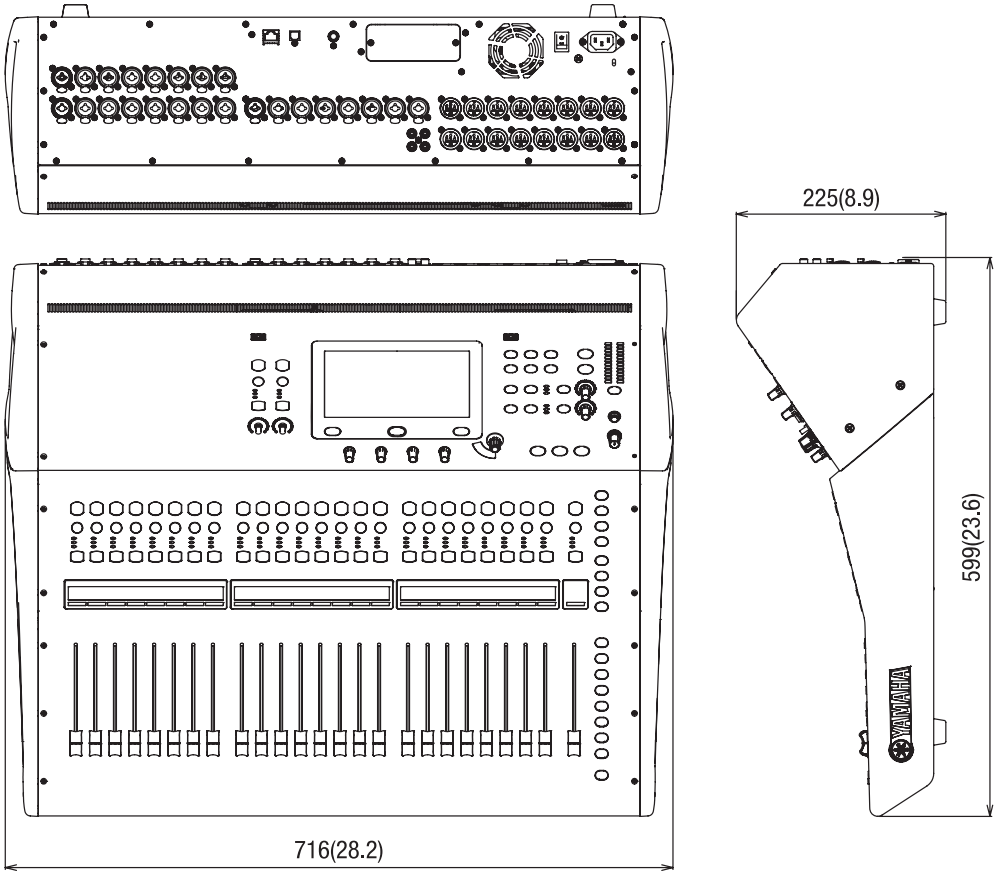
Terminals	Format	Data length	Audio	Connector
USB (TO HOST)	USB	24bit	34ch input / 34ch output, PCM	USB (B type)
iPad	USB	—	Playback: MP3 or WAV file data / Record: WAV file data	USB (A type)

Control I/O Specifications

Terminals	Format	Level	Connector
NETWORK	IEEE802.3	10BASE-T/100Base-TX	RJ-45
FOOT SW	—	—	TS Phone

Dimensions

Unit: mm (inch)



Options

- I/O Rack Tio1608-D
- Dante Interface Card NY64-D
- Foot Switch FC5

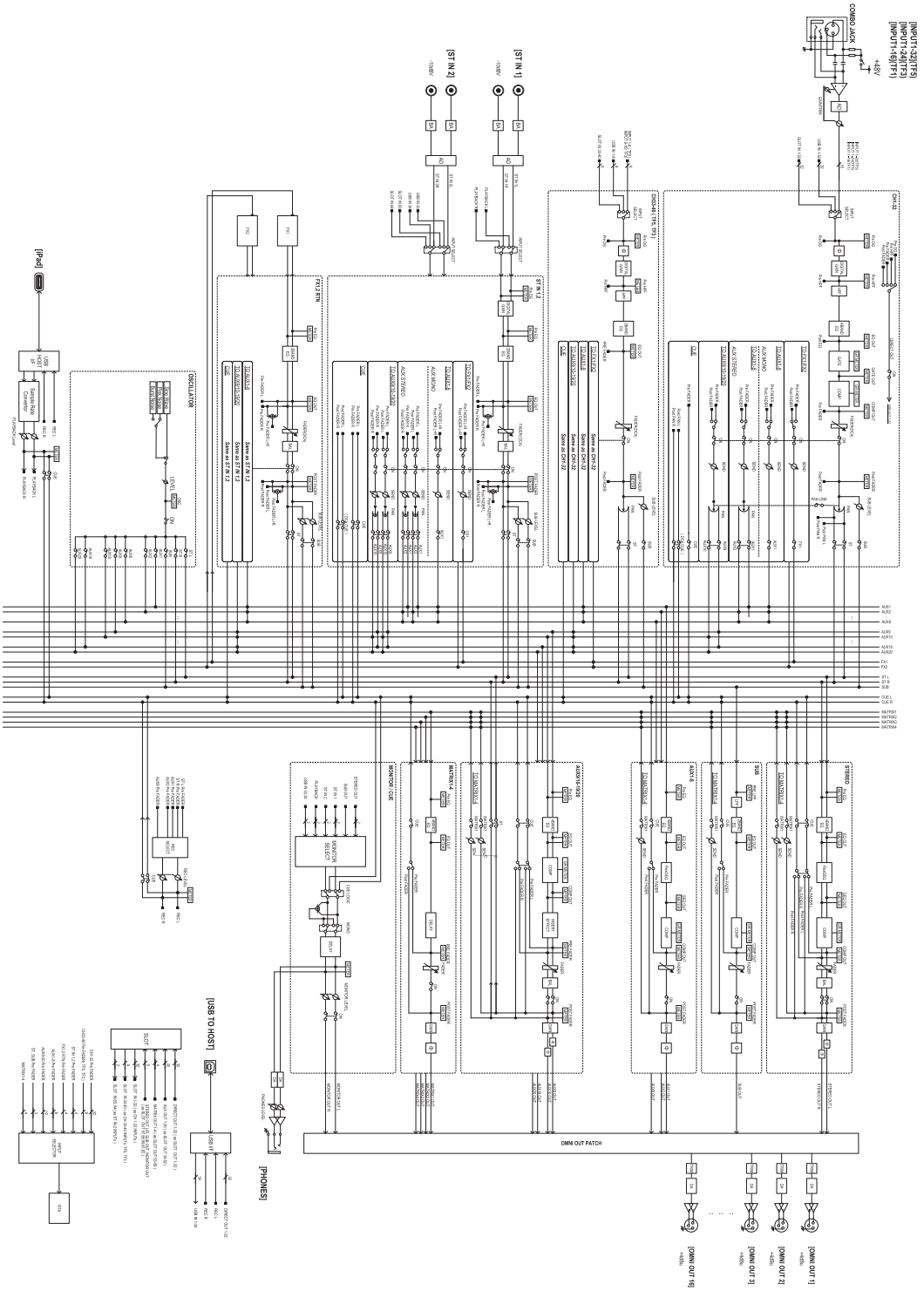
Software

- TF Editor
- TF StageMix
- MonitorMix
- Steinberg Nuendo Live

Architectural and Engineering Specifications

The Yamaha TF3 Digital Mixing Console shall feature an intuitive TouchFlow Operation™ interface that is optimized for touch-panel control. It shall be an easy-to-use digital mixing console for a range of mid-size applications. With 24 + 1 faders it shall provide a mixing capacity of up to 40 mono and 2 stereo inputs, 20 auxiliary buses, and 4 matrix buses. It shall include recallable class-A D-PRE microphone preamplifiers, 1-knob COMP compression, and 1-knob EQ equalization facilities. For optimum live-sound workflow it shall include 8 powerful effect processors, and Flex12 EQ that allows up to 12 of 31 available EQ bands to be applied to the main L/R bus and auxiliary buses 1 through 8. The mixing console shall be compatible with TF Editor, TF StageMix, MonitorMix, and other Yamaha support software running on external computing devices. Physical controllers other than faders shall include Touch and Turn knobs and, 6 User Defined Keys, and 4 User Defined Knobs. Local I/O shall include 24 microphone/line and 2 stereo line inputs, plus 16 line outputs. An optional NY64-D Dante I/O card shall provide Dante connectivity with the Tio1608-D I/O rack unit. Dimensions shall be 716 (W) x 225 (H) x 599 (D) mm. Weight shall be 17 kg.

Block Diagrams



*All information subject to change without notice.
*All trademarks and registered trademarks are property of their respective owners.
Created in March, 2017

YAMAHA CORPORATION
P.O.BOX 1, Hamamatsu Japan
www.yamahaproaudio.com