YAMAHA

DIGITAL MIXING CONSOLE

MGX16V MGX16 MGX12V MGX12

Technical Specifications

General Specifications

0 dBu = 0.775 Vrms

		MGX16V, MGX16	MGX12V, MGX12
Mixing capacity	**Input channels**	8 mono + 4 stereo + 1 Sound Pad + 2 FX	4 mono + 4 stereo + 1 Sound Pad + 2 FX
	Buses	8 MIX + 2 FX + 1 CUE + 1 STEREO	
Local Connectors	**Analog IN**	8 Mic/Line (8 XLR/TRS Phone Combo) 8 Line (4 TRS Phone, 4 RCA)	4 Mic/Line (4 XLR/TRS Phone Combo) 8 Line (4 TRS Phone, 4 RCA)
	Analog OUT	2 XLR, 8 TRS Phone	2 XLR, 6 TRS Phone
	USB TO HOST	2 (USB Type-C)	
	Phones	4 (Stereo Phone)	
	DC Power IN	1	
	HDMI IN	1 (MGX16V, MGX12V)	
	HDMI THRU	1 (MGX16V, MGX12V)	
	SD Card Slot	1 microSD Card Slot	
	Bluetooth	1	
User Interface	**Screen**	4.3-inch touch screen	
	Fader	16×60 mm fader	12×60 mm fader
	Knob	5×Rotary Encoder (4×screen knob, 1×touch and turn), 16×SEND knob	5×Rotary Encoder (4×screen knob, 1×touch and turn), 12×SEND knob
Recording & Playback	**USB MAIN**	Recording up to 22 tracks / Playback up to 22 tracks	Recording up to 18 tracks / Playback up to 18 tracks
	USB SUB	Recording 2 tracks / Playback 2 tracks	
	microSD Card	Recording up to 16 tracks / Playback 2 tracks	
Sampling frequency	**Frequency**	44.1 kHz / 48 kHz / 88.2 kHz / 96 kHz	
	Accuracy	±50 ppm	
Signal delay		Less than 0.4 ms (INPUT to STEREO OUT @ Fs=96 kHz)	
Frequency Response		+0.0 / −0.5 dB (20 Hz-20 kHz) Reference to the nominal output level @ 1 kHz, MIC/LINE INPUT to STEREO OUT	
Total harmonic distortion (THD+N) *1		Less than 0.002% @ 4 dBu (20 Hz-20 kHz), MIC/LINE INPUT to STEREO OUT, Input Gain=Min	
Hum & Noise *2		−128 dBu typ., Equivalent Input Noise, MIC/LINE INPUT to STEREO OUT, Input Gain= Max. −108 dBu, Residual output noise, STEREO OUT=OFF	
Dynamic Range *3		125 dB typ., DAC to STEREO OUT, 115 dB typ., MIC/LINE INPUT to STEREO OUT, Input Gain=Min	
Crosstalk @ 1 kHz *4		−120 dB, adjacent INPUT/STEREO OUT channels, Input Gain= Min.	
Analog to Digital Converter(MIC/LINE)		Dynamic Range: 120 dB, THD+N: −112 dB	
Digital to Analog Converter(STEREO OUT)		Dynamic Range: 130 dB, THD+N: −120 dB	
Power requirements		DC 16 V/2.4 A, PA-300 AC power adapter (100 V-240 V, 50 Hz/60 Hz)	
Power consumption		38.4 W	
Dimensions	**W×H×D**	419 mm×96 mm×319 mm	335 mm×96 mm×319 mm
Weight		MGX16V: 4.9 kg MGX16: 4.7 kg	MGX12V: 4.1 kg MGX12: 3.9 kg
Operating temperature range		0–40 °C	
Storage temperature range		−20–60 °C	
Included accessories		Start Guide, Safety Guide, Cubase AI License Card, Steinberg Plus License Card, Basic FX Suite License Card, AC Power Adapter (PA-300 including power cord)	
Options		Rack Mount Kit RK-MGX16	Rack Mount Kit RK-MGX12

*1 Total Harmonic Distortion is measured with 20 Hz HPF & 20 kHz LPF *2 Hum & Noise are measured with 20 Hz HPF & 20 kHz LPF & A-Weighting Filter
*3 Dynamic Range is measured with 20 kHz LPF & A-Weighting Filter *4 Crosstalk is measured with 1 kHz BPF

Input/Output Specifications

0 dBu = 0.775 Vrms

Analog Input Characteristics

Terminal [MGX16V, MGX16]	Terminal [MGX12V, MGX12]	GAIN	Actual load impedance	For use with nominal	Input level			Connector
					Sensitivity *1	Nominal	Max. before clip	
MIC/LINE 1-8	MIC/LINE 1-4	+70 dB	4 kΩ	150 Ω Mics	−94 dBu (15.5 µV)	−74 dBu (155 µV)	−62 dBu (616 µV)	Combo jack *2 (Balanced)
		−16 dB			−8 dBu (309 mV)	+12 dBu (3.09 V)	+24 dBu (12.3 V)	
LINE 9/10, 11/12	LINE 5/6, 7/8	High	10 kΩ	600 Ω Lines	−26 dBu (38.8 mV)	−6 dBu (389 mV)	+6 dBu (1.55 V)	Phone jack *2 (Balanced)
		Low			−8 dBu (309 mV)	+12 dBu (3.09 V)	+24 dBu (12.3 V)	
LINE 13/14, 15/16	LINE 9/10, 11/12	-	10 kΩ	600 Ω Lines	−20 dBu (77.5 mV)	0 dBu (0.775 V)	+12 dBu (3.09 V)	RCA Pin (Unbalanced)

*1 Sensitivity refers to the lowest input level that produces an output of +4 dBu (1.23V) or the nominal output level when the unit is set to maximum gain, with all faders and level controls at their maximum positions.
*2 Combo and phone pin assignments: 1&Sleeve = GND, 2&Tip = HOT, 3&Ring = COLD

Analog Output Characteristics

Terminal [MGX16V, MGX16]	Terminal [MGX12V, MGX12]	Actual Source impedance	For use with nominal	Output level		Connector
				Nominal	Max. before clip	
STEREO OUT		300 Ω	10 kΩ Lines	+4 dBu (1.23 V)	+16 dBu (12.3 V)	XLR-3-32 *1 (Balanced)
OMNI OUT 1-8	OMNI OUT 1-6	150 Ω	10 kΩ Lines	−2 dBu (616 mV)	+10 dBu (2.45 V)	Phone jack *2 (Impedance Balanced)
PHONES 1-4		10 Ω	40 Ω Phones	6 mW + 6 mW	100 mW+100 mW	Stereo Phone Jack *3

*1 XLR-3-32 pin assignments: 1 = GND, 2 = HOT, 3 = COLD *2 Phone pin assignments: Tip = HOT, Ring = COLD, Sleeve = GND
*3 Stereo Phone pin assignments: Tip = LEFT, Ring = RIGHT, Sleeve = GND

Digital Input/Output Characteristics

Terminal	Format	Data length	Standard	Audio	Connector
USB TO HOST [MAIN]	PCM	32-bit / Up to 96 kHz	Yamaha Steinberg USB Driver	MGX16V, MGX16: Up to 22 in / 22 out	USB (Type-C, USB 2.0 High Speed)
				MGX12V, MGX12: Up to 18 in / 18 out	
		32-bit / Up to 96 kHz	USB Audio Class (UAC 2.0)	MGX16V, MGX16: 18 in / 16 out	
				MGX12V, MGX12: 14 in / 12 out	
USB TO HOST [SUB]	PCM	16-bit / 48 kHz	USB Audio Class (UAC 1.0)	2 in / 2 out	USB (Type-C, USB 2.0 Full Speed)
microSD Card Slot	WAV	24-bit / Up to 96 kHz	microSDHC/microSDXC (UHS-I or higher, Class 10 or higher), exFAT supported	Recording: 16 tracks @ 44.1/48 kHz 8 tracks @ 88.2/96 kHz Playback: 2 tracks	microSD Card Slot
Bluetooth Audio Input	AAC, SBC	16-bit / Up to 48 kHz	Bluetooth 5.0 A2DP	2 in	-
HDMI IN *MGX16V, MGX12V	PCM	Up to 24-bit / 192 kHz	HDMI, HDCP	8 in	HDMI (Type A)
HDMI THRU (Pass Through) *MGX16V, MGX12V	PCM	Up to 24-bit / 48 kHz	HDMI, HDCP	2 out	HDMI (Type A)

Audio inputs from HDMI, Bluetooth, and USB SUB are converted to match with the Mixer audio format automatically.

Video Input/Output Characteristics (MGX16V, MGX12V)

Terminal	Resolution	Standard	Feature	Connector
HDMI IN	Up to 4K60, 1440p120, 1080p240	HDMI, HDCP	HDR10, HLG, VRR	HDMI (Type A)
HDMI THRU (Pass Through)	Up to 4K60, 1440p120, 1080p240	HDMI, HDCP	HDR10, HLG, VRR	HDMI (Type A)
USB TO HOST [MAIN]	Up to 4K60, 1440p120, 1080p240	USB Video Class (UVC 1.1) *1	HDR10, HLG	USB (Type-C, USB3.2 Gen1, 5 Gbps)

*1 Driver-Free on Windows/macOS

Bluetooth Specifications

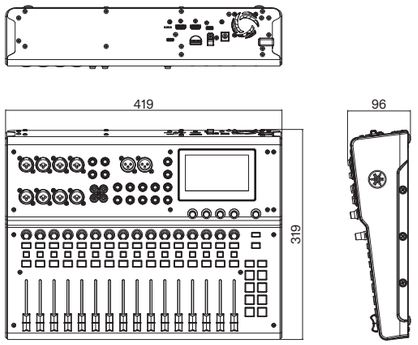
Function	Profile	CODEC	Bluetooth Version	Frequency Range	Bluetooth Power Class	TX Power
Classic Audio	A2DP	SBC, AAC	5.0	2402 MHz-2480 MHz	Class 1	+10.4 dBm (11 mW)

* The contents of this manual apply to the latest specifications as of the publishing date. To obtain the latest manual, access the Yamaha website then download the manual file.

Dimensions

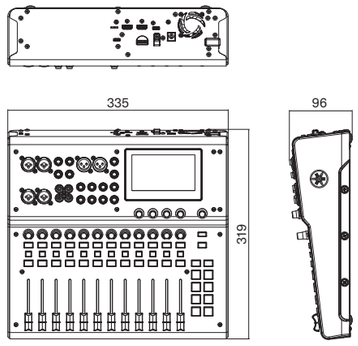
MGX16V, MGX16

Unit: mm
The illustration shows the MGX16V.

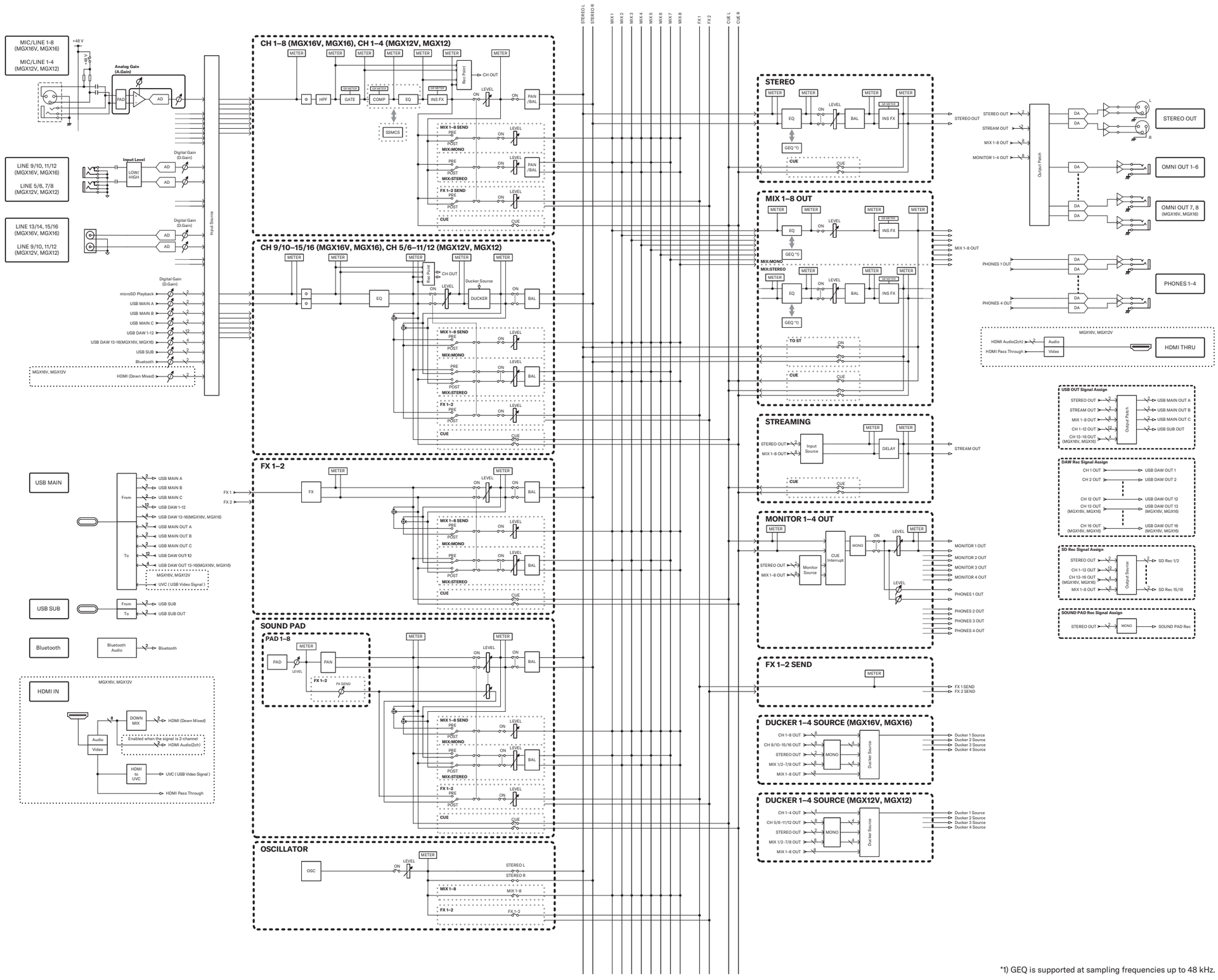


MGX12V, MGX12

Unit: mm
The illustration shows the MGX12V.

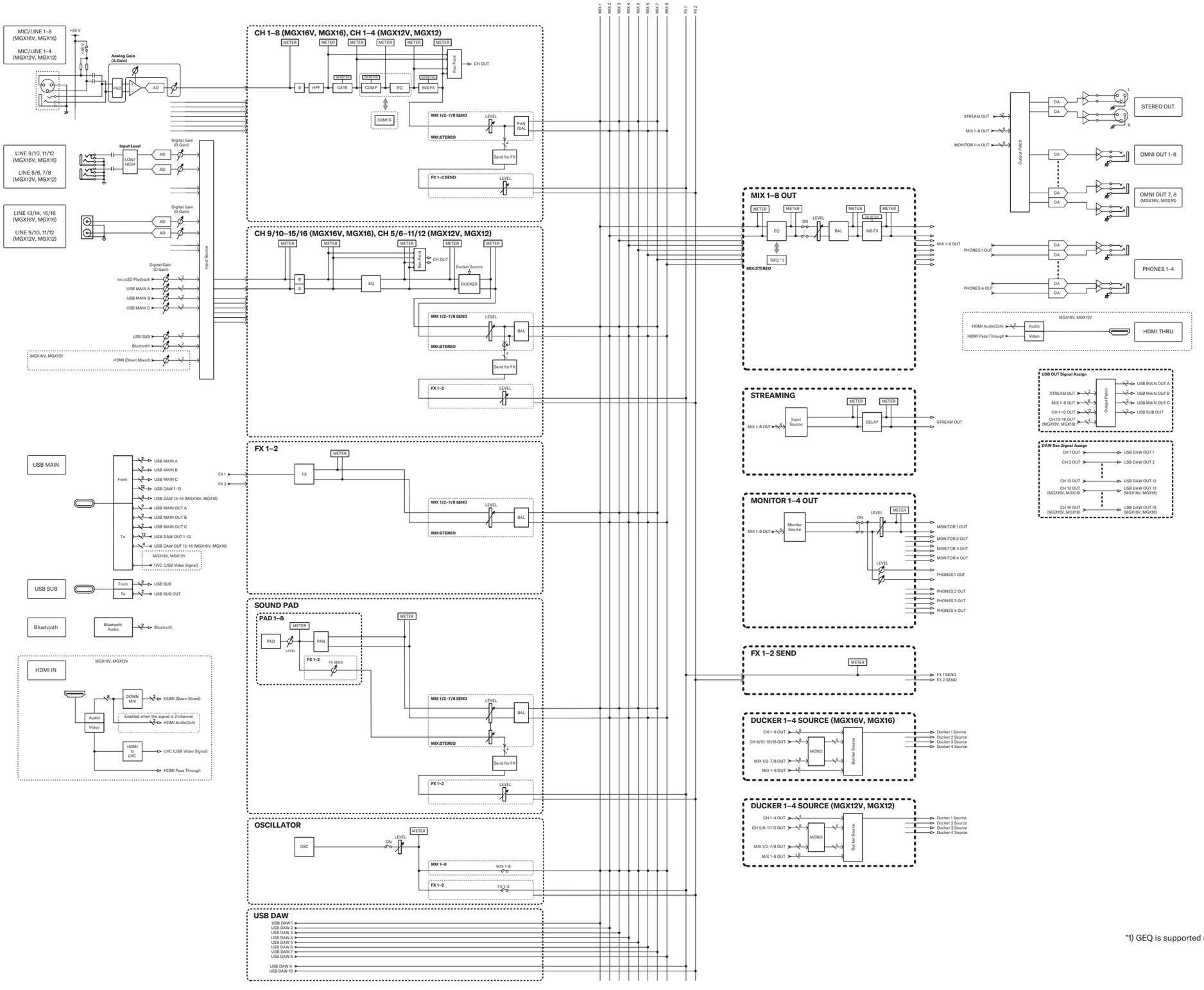


Block Diagram



*1) GEQ is supported at sampling frequencies up to 48 kHz.

DAW Integration Block Diagram



*1) GEQ is supported at sampling frequencies up to 48 kHz.

©2025 Yamaha Corporation
Published 11/2026
MWEM-D0