Overview

A live streaming USB microphone with integrated high-performance mixer.

Features

- Studio-quality USB condenser microphone
- Modern and retro design with two models in black and white
- High resolution (24-bit, 192 kHz) 2-track audio recording and playback
- 4-pole mini input/output (TRRS) to support new streaming applications
- Flexible LOOPBACK function ideal for live streaming or live recording
- Mute button for convenience during Live Streaming
- Easy control and pro sound with COMP/EQ and 1-TOUCH REVERB
- AG Controller (Windows/Mac/iOS) for precise parameter control
- Windows/Mac support by USB-C connection
- iOS: connectivity via Apple Camera Adapter (requires external USB power supply)
- Android: supported by 4-pole mini input/output (TRRS)
- USB-C power input (5 V DC, 900 mA)
- 3/8" screw hole for mic stand (with protective cap)
- Cubase AI, WaveLab Cast, Cubasis LE and Rec'n'Share are available

Specifications 1/2

General Specifications

0 dBu = 0.775 Vrms, Output impedance of signal generator (Rs) = 150 Ω
All level controls are nominal if not specified.

Frequency Response	Microphone Preamp Input to PHONES OUT via USB IN/OUT	+0.5 dB/-1.5 dB (20 Hz to 20 kHz @ Fs = 192 kHz), refer to the nominal output level @ 1 kHz, MIC GAIN : MID, STREAMING OUT: MIC
Total Harmonic Distortion *1 (THD+N)	Microphone Preamp Input to PHONES OUT	0.1% @ -2.0 dBu (50 Hz to 20 kHz), MIC GAIN : MID 0.01% @ +0.0 dBu (1 kHz), MIC GAIN : MID
Hum&Noise *2 (20 Hz to 20 kHz)	Residual Output Noise	-103 dBu (PHONES knob : Min)
Crosstalk (1 kHz) *3		-80 dB
Input Channels		Microphone: 1 AUX: 1, USB IN: 1, Smartphone IN: 1
Output Channels		PHONES: 1 USB OUT: 1, Smartphone OUT: 1
Microphone Function	GAIN	HIGH, MID, LOW
	DSP	COMP/EQ *4, REVERB, MUTE
USB Audio	2 IN / 2 OUT	Sampling Frequency: Max 192 kHz, Bit Depth: 24-bit
Power Requirements		DC 5 V, 900 mA
Power Consumption		Max. 4.5 W
Dimensions (W x H x D)		116 mm × 281 mm × 118 mm (4.6" x 11.1" x 4.6")
Net Weight		1.2 kg (2.6 lbs.)
Included Accessory		USB2.0 Cable (1.5 m), Quick Guide, Safety Guide, WaveLab Cast Download Information, Cubase AI Download Information
Operating Temperature		0 to +40˚C

*1 THD+N is measured with 22 kHz LPF.
*2 Noise is measured with A-weighting filter.
*3 Crosstalk is measured with 1 kHz band pass filter.PHONES OUT L / R.
*4 Setting by AG Controller.

Microphone Specifications

Type	Back electret condenser type
Polar Pattern	Cardioid
Address Type	Side
Frequency Response	30 Hz to 20 kHz
Max. Input SPL	110 dB (THD ≦1.0% at 1 kHz)
Sensitivity	-34 dB ± 3 dB (0 dB=1 V/Pa, at 1 kHz)

Specifications 2/2

Input Output Characteristics

Analog Input Characteristics

0 dBu = 0.775 Vrms

Input / Jacks	Actual Load Impedance	For Use with Nominal	Input level			Connector
			Sensitivity *1	Nominal	Max. before Clip	
AUX	10 kΩ	600 Ω Lines	-14 dBu (154.6 mV)	-8 dBu (308.5 mV)	+2 dBu (975.7 mV)	3.5mm Phone jack *2
SMARTPHONE	10 kΩ	600 Ω Lines	-14 dBu (154.6 mV)	-8 dBu (308.5 mV)	+2 dBu (975.7 mV)	3.5mm Phone jack *3 (CTIA)

*1 Sensitivity is the lowest level that will produce an output of +0dBu (0.775V) or the nominal output level when the unit is set to maximum gain. (All level controls are at their maximum position.)
*2 Tip = Signal L, Ring = Signal R, Sleeve = GND
*3 Tip = Signal L, Ring1 = Signal R, Ring2 = GND, Sleeve = Output for Smartphone

Analog Output Characteristics

0 dBu = 0.775 Vrms

Output Terminals	Actual Source Impedance	For Use with Nominal	Output Level		Connector
			Nominal	Max. before Clip	
SMARTPHONE (OUT)	150 Ω	1.5 kΩ Lines	-30 dBu (24.51 mV)	-20 dBu (77.5 mV)	3.5mm Phone jack *1 (CTIA)
PHONES	120 Ω	40 Ω Phones	1.5 mW + 1.5 mW	6 mW + 6 mW	3.5mm Phone jack

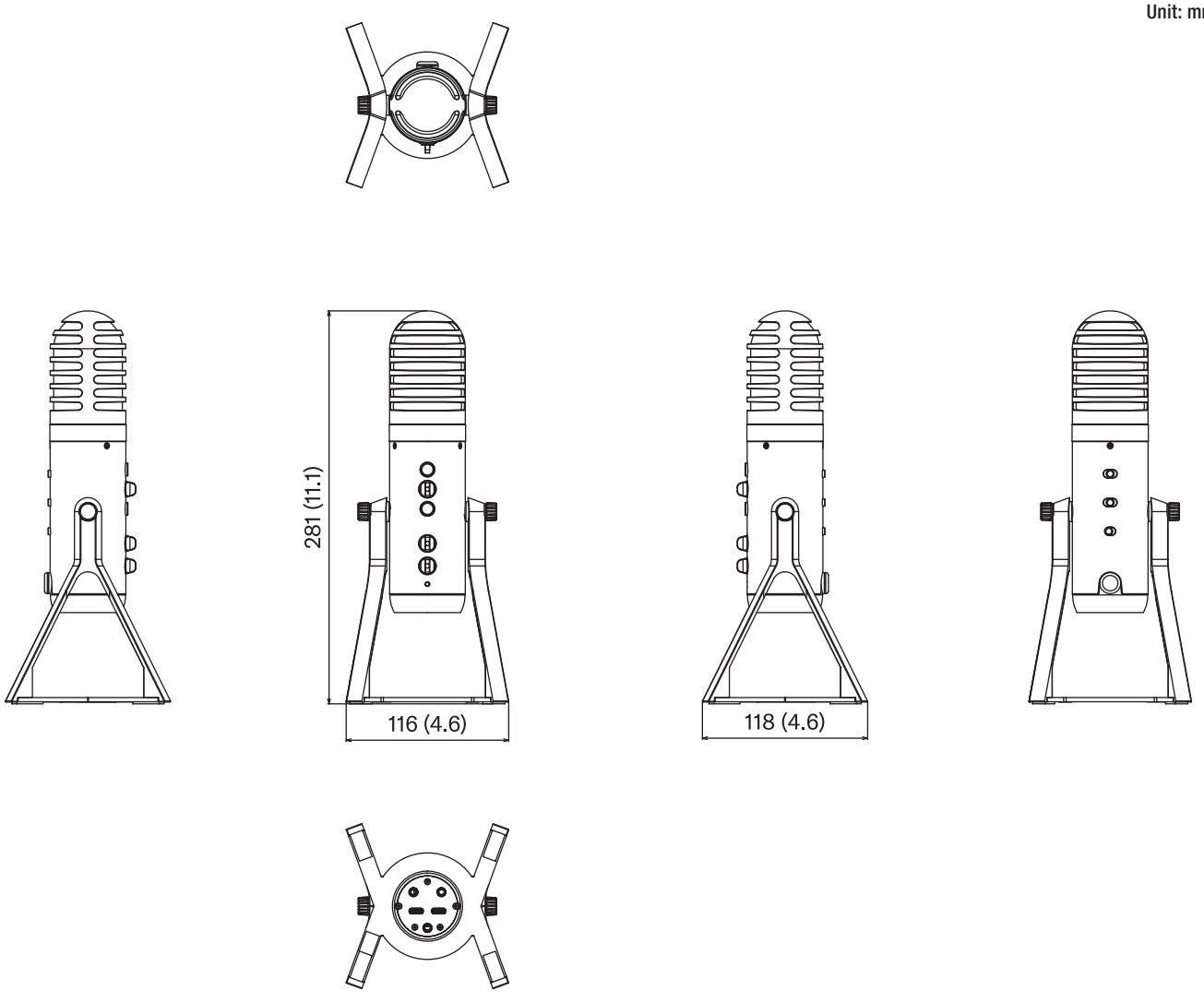
*1 Tip = Signal L, Ring1 = Signal R, Ring2 = GND, Sleeve = Output for Smartphone

Digital Input / Output Characteristics

Terminals	Format	Data Length	Fs	Connector
USB	USB Audio Class 2.0 / Yamaha Steinberg USB Driver	24-bit	44.1 kHz, 48 kHz, 88.2 kHz, 96 kHz, 176.4kHz, 192 kHz	USB Type-C

Dimensions

Unit: mm (inch)



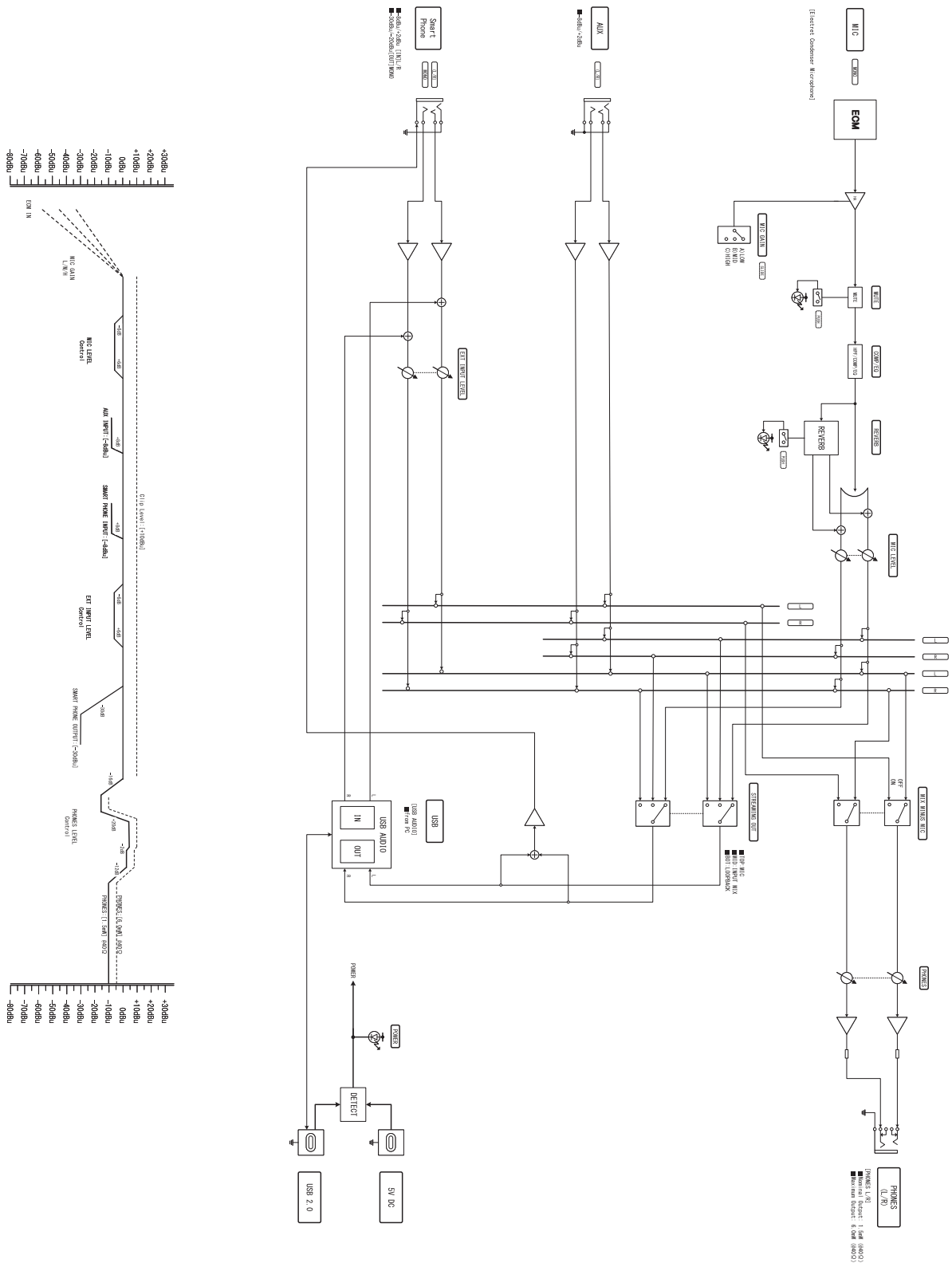
Software

- AG Controller
- Steinberg Cubase AI
- Steinberg WaveLab Cast
- Steinberg Cubasis LE
- Rec'n'Share

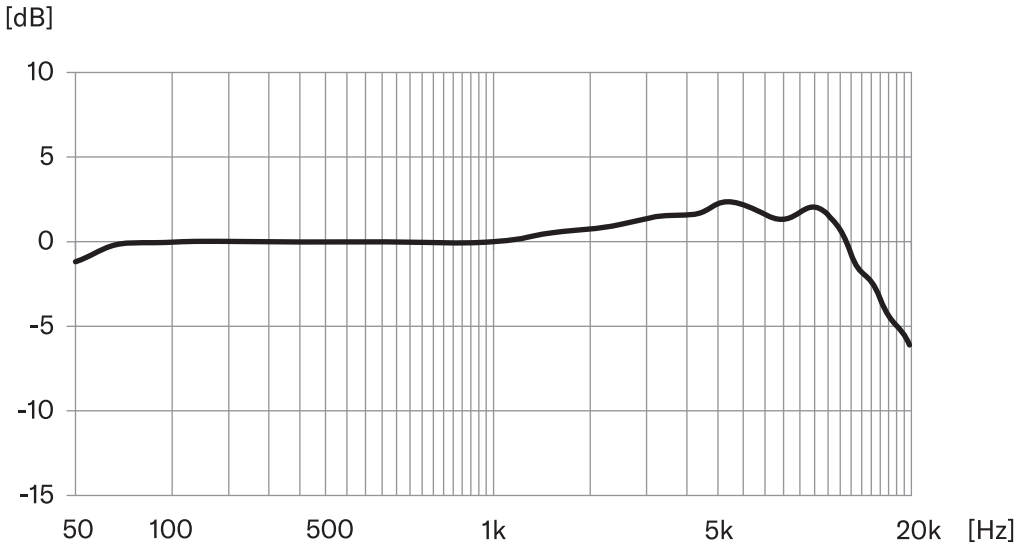
Architectural and Engineering Specifications

The Yamaha AG01 shall be a Live Streaming USB Microphone with integrated mixer and effects functionality designed for live streaming applications. The AG01 shall provide flexible connectivity that allows it to be directly connected to a computer, tablet, or smartphone to create an all-in-one streaming solution. The microphone shall be a high-quality condenser type with a cardioid directivity pattern. The AG01 shall include a 3.5mm mini stereo jack for analog line input, a 4-pole mini jack (TRRS) for analog line input/output, a bus-powered USB-C connector for digital audio input/output, and a second USB-C connector for 5V DC power input when bus power is not available. Stereo digital audio input and output shall be handled at 192 kHz/24 bits. Simple rotary controls shall allow the microphone signal to be mixed with background music or other audio from external sources for streaming. A Loopback function shall allow digital audio input via the USB connector to be mixed with the microphone signal and rerouted back to the USB connector for streaming. Selectors shall be provided for microphone gain, streaming output source selection, and a headphone mix minus mic function. A microphone mute button shall also be provided. Built-in DSP processing shall provide basic compression, equalization, and reverb. An AG Controller app for tablets and smartphones shall be available, providing detailed controlled of internal AG01 DSP functions. The AG01 shall be supplied with a convenient desktop stand that can be removed when it is to be mounted on a standard microphone stand or arm. Dimensions shall be 116 x 281 x 118 mm. Weight shall be 1.2 kg.

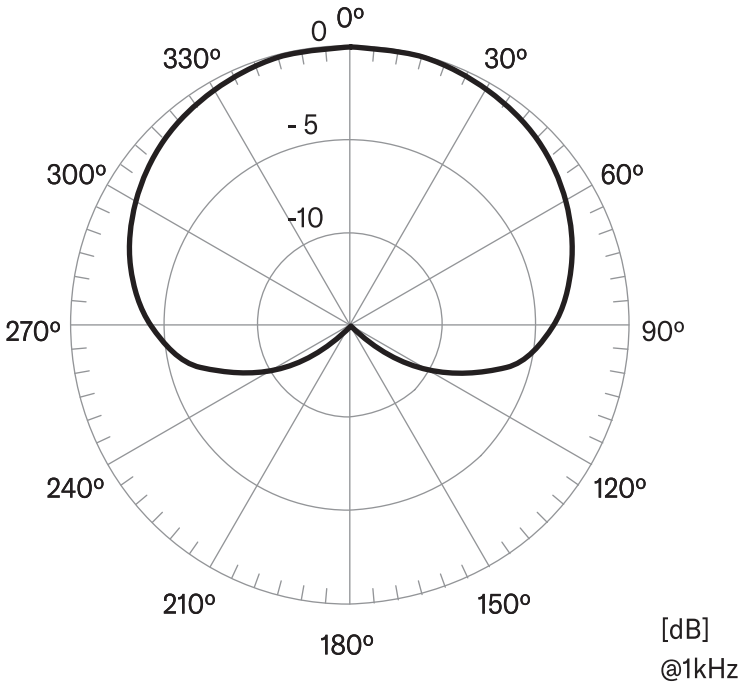
Block Diagrams



Frequency Response



Polar Plots



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