

## Spec description

	US-16x08	US-20x20
Sampling frequency	44.1k/48k/88.2k/96k Hz	44.1k/48k/88.2k/96k/176.4k/192k Hz
Quantization bit rate	16/24bit	
Analog audio inputs (Front)		
MIC IN (BALANCED)	IN 1-8	
Connector	XLR-3-31 (1: GND, 2: HOT, 3: COLD)	
Input impedance	2.4k $\Omega$	
Nominal input level		
GAIN: MAX	-68dBu (0.0003Vrms)	
GAIN: MIN	-12dBu (0.195Vrms)	
Maximum input level	+8dBu (1.947Vrms)	
Gain	56dB	
INST IN (UNBALANCED)	IN 1-2	IN 9-10
Connector	1/4" (6.3mm) TS-jack (T: HOT, S: GND) (when set to "INST" at LINE/INST switch)	
Input impedance	1M $\Omega$ or more	
Nominal input level		
GAIN: MAX	-68dBV (0.0004Vrms)	-57dBV (0.0014Vrms)
GAIN: MIN	-12dBV (0.251Vrms)	
Maximum input level	+8dBV (0.2512Vrms)	
Gain	56dB	45dB
LINE IN (BALANCED)	IN 3-8	IN 9-10 (when set to "LINE" at LINE/INST switch)
Connector	1/4" (6.3mm) TRS-jack (T: HOT, R: COLD, S: GND)	
Input impedance	10k $\Omega$	
Nominal input level		
GAIN: MAX		-41dBu (0.0069Vrms)
GAIN: MIN	+4dBu (1.228Vrms)	
Maximum input level	+24dBu (12.282Vrms)	

Gain	56dB	45dB
Analog audio inputs (Rear)		
LINE IN (UNBALANCED)	IN 9-10	IN 11-16
Connector	1/4" (6.3mm) TS-jack (T: HOT, S: GND) (when set to "-10dBV" at LEVEL switch)	
Input impedance	10k $\Omega$ or more	
Nominal input level	-10dBV (0.3162Vrms)	
Maximum input level	+10dBV (3.162Vrms)	
LINE IN (BALANCED)	IN 9-10	IN 11-16
Connector	1/4" (6.3mm) TRS-jack (T: HOT, R: COLD, S: GND) (when set to "+4dBu" at LEVEL switch)	
Input impedance	10k $\Omega$	
Nominal input level	+4dBu (1.228Vrms)	
Maximum input level	+24dBu (12.1282Vrms)	
Digital audio inputs		
COAXIAL		
Connector	RCA pin jack	-
Format	IEC60958-3 (S/PDIF)	-
Input impedance	75 $\Omega$	-
Input level	0.5Vp-p / 75 $\Omega$	-
OPTICAL (S/MUX)		
Connector	OPTICAL (JEITA RC-5720C)	-
Format	Multi-channel optical format (S/MUX4 is available in 88.2k/96k/176.4k/192k Hz)	-
Analog audio outputs		
LINE OUT (BALANCED)	OUT 1-10	OUT 1-8
Connector	1/4" (6.3mm) TRS-jack (T: HOT, R: COLD, S: GND)	
Output impedance	100 $\Omega$	
Nominal output level	+4dBu (1.228Vrms)	
Maximum output level	+24dBu (12.277Vrms)	
Digital audio outputs		
COAXIAL		
Connector	RCA pin jack	-

Format	IEC60958-3 (S/PDIF) / IEC60958-4 (AES/EBU)	-
Input impedance	75 $\Omega$	-
Input level	0.5V <sub>p-p</sub> / 75 $\Omega$	-
OPTICAL (S/MUX)		
Connector	OPTICAL (JEITA RC-5720C)	-
Format	Multi-channel optical format (S/MUX4 is available in 88.2k/96k/176.4k/192k Hz)	-
MIDI IN / OUT		
Connector	DIN 5-pin	
Format	Standard MIDI format	
WORD IN		
Connector	BNC Permissible frequency deviation at the time of external synchronization	-
Input voltage	2.0V <sub>pp</sub> to 5.0V <sub>pp</sub>	-
Input impedance	75 $\Omega$ $\pm$ 10%	-
Input level	$\pm$ 100ppm	-
WORD OUT		
Connector	BNC with OUT/THRU select switch	-
Output voltage	2.0V <sub>pp</sub> (75 $\Omega$ loaded)	-
Output impedance	75 $\Omega$ $\pm$ 10%	-
Sampling frequency	44.1k/48k/88.2k/96k/176.4k/192k Hz	-
USB		
Connector	USB3.0/2.0 B type	USB B type 4-pin
Format	USB3.0 SuperSpeed (5Gbps) USB2.0 HIGH SPEED (480Mbps)	USB2.0 HIGH SPEED mass storage class
PHONES		
Connector	1/4" (6.3mm) stereo phone jack	
Maximum output level	70mW + 70mW or more (THD+N 0.1% or less, 32 $\Omega$ loaded)	
Power	Dedicated AC adapter (GPE248-120200-Z, included)	
Power consumption	20W	12W
Dimensions (W x H x D)	17.5" x 2.32" x 8.7" 445 x 59 x 222 mm	" 17.5 x 2.32" x 8.7" 445 x 59 x 219 mm
Weight	5.95 lbs. / 2.7 kg	6.11 lbs. / 2.8 kg

Operating temperature	41°F to 95°F / 5°C to 35°C	
Accessories	Rack mount adapter, USB2.0 cable, USB3.0 cable, User's manual, warranty card, dedicated AC adapter	Rack mount adapter, USB cable, User's manual, warranty card, dedicated AC adapter (GPE248-120200-Z)

<b>Audio performance</b>		
Frequency response		
LINE OUT(BALANCED)		
44.1k/48k Hz	20Hz to 20kHz, ±0.3dB (JEITA)	
88.2k/96k Hz	20Hz to 40kHz, ±0.3dB (JEITA)	
176.4k/192k Hz	20H to 80kHz, ±0.5dB (JEITA)	-
THD	0.005% or less	0.008% or less
S/N ratio	104dB or more	100dB or more
Crosstalk	100dB or more	

<b>Computer system requirements</b>		
Windows		
OS	Windows 7(32-bit SP1, 64-bit SP1), Windows 8.0(32-bit, 64-bit), Windows 8.1(32-bit, 64-bit), Windows 10(32-bit, 64-bit)	Windows 7(32-bit SP1, 64-bit SP1), Windows 8.0(32-bit, 64-bit), Windows 8.1(32-bit, 64-bit)
Compatible computers	Windows-compatible computer with a USB 2.0 or USB3.0 port	Windows-compatible computer with a USB 2.0 port
CPU type/speed	Dual core / 2GHz or faster	
Memory	2GB or more	
DRIVER	USB Audio Class 2.0, ASIO2.0  , WDM(MME), MIDI  Note: When using WDM driver, number of output channels from an application has limitation less than 8 channels.	ASIO2.0  , WDM(MME), MIDI
Screen resolution	1280 x 800 Dot or more	
Macintosh		
OS	OS X Mountain Lion(10.8), OS X Mavericks(10.9), OS X Yosemite(10.10)	
Compatible computers	Apple Mac computer with a USB 2.0 or USB3.0 port	Apple Mac computer with a USB 2.0 port
CPU type/speed	Dual core / 2GHz or faster	
Memory	2GB or more	

DRIVER	Core Audio, Core MIDI
Screen resolution	1280 x 800 Dot or more
iOS	
OS	iOS 7