YAMAHA

ZW11930

POWERED MIXER

EMX7

Technical Specifications

General Specifications

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

Output Power	**1 kHz THD+N < 10% (CEA2006)**	710 W + 710 W (4 Ω) 500 W + 500 W (8 Ω)	
	1 kHz THD+N < 1% (CEA2006)	600 W + 600 W (4 Ω) 400 W + 400 W (8 Ω)	
		Input to SPEAKERS	**Input to STEREO OUT, AUX1 SEND, AUX2 SEND**
Frequency Response	**Refer to the nominal output level @ 1 kHz**	+1 dB/-3 dB (40 Hz to 20 kHz)	+0.5 dB/-1 dB (20 Hz to 20 kHz)
Total Harmonic Distortion *1 (THD+N)	**MIC/LINE = LINE (CH1–4)**	0.1% @ 10 W (40 Hz to 20 kHz) 0.04% @ 65 W (1 kHz)	0.02% @ +14 dBu (20 Hz to 20 kHz) 0.007% @ +20 dBu (1 kHz)
Hum & Noise *2 (20 Hz to 20 kHz)	**Equivalent Input Noise**	-117 dBu	
	Residual Output Noise	-70 dBu (40 Hz to 20 kHz, STEREO MASTER LEVEL: min)	-82 dBu (20 Hz to 20 kHz, STEREO MASTER LEVEL: min)
Crosstalk (1 kHz) *3		-85 dB	
Input channels	**TOTAL: 12 channels**	Mono (MIC/LINE): 8, Stereo (LINE): 4	
Output channels		SPEAKERS [A, B], AUX1 SEND, AUX2 SEND, STEREO OUT [L, R], REC OUT [L, R]	
Bus		Stereo: 1, AUX: 2 (Including FX)	
Input Channel Function	**MIC/LINE (CH1–4)**	30 dB PAD	
	Hi-Z (CH4)	Supported	
	HPF (CH1–3)	80 Hz, -12 dB/oct.	
	Equalizer (EQ)	HIGH: 10 kHz +15 dB / -15 dB (Shelving) MID: 2.5 kHz +15 dB / -15 dB (Peaking) LOW: 100 Hz +15 dB / -15 dB (Shelving)	
	COMP (CH1–4)	1-knob COMP	
Level Meter		2 × 12 points LED meter (-30, -25, -20, -15, -10, -6, -3, 0, +3, +6, +10, PEAK)	
Built-in Effect	**SPX Algorithm**	24 programs	
Output Channel Function		Feedback suppressor, Graphic equalizer, Speaker processor	
Phantom Power Voltage		+48 V	
FOOT SW		Effect mute on/off	
Protection		Load Protection: DC-fault Amplifier Protection: Over heat protection, Over current protection, Integral power protection Power Supply Protection: Over heat protection, Over current protection	
Power Requirements		AC 100-240 V, 50 Hz/60 Hz	
Power Consumption		45 W (Idle) / 250 W (1/8 Power)	
Dimensions (W × H × D)		465 mm × 308 mm × 325 mm (18.3" × 12.1" × 12.8")	
Net Weight		9.5 kg (20.9 lb)	
Included Accessory		AC Power Cord (2.5 m), Owner's Manual, Technical Specifications	
Optional Accessory		Rack-mount brackets: RK-EMX7, Foot switch: FC5	
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.

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.

Analog Input Characteristics

0 dBu = 0.775 Vrms

Input Jack		MIC/LINE	Hi-Z	Actual Load Impedance	For Use with Nominal	Input Level			Connector
						Sensitivity *1	Nominal Level (▼ Position) *2	Max. Before Clip	
CH 1–4	XLR	MIC	—	3 kΩ	50–600 Ω Mics	-60 dBu (0.775 mV)	-43 dBu (5.48 mV)	-15 dBu (138 mV)	Combo jack *3 (Balanced)
		LINE	—			-30 dBu (24.5 mV)	-13 dBu (173 mV)	+15 dBu (4.36 V)	
	Phone	MIC	—	8 kΩ	600 Ω Lines	-50 dBu (2.45 mV)	-33 dBu (17.3 mV)	-5 dBu (436 mV)	
		LINE	—			-20 dBu (77.5 mV)	-3 dBu (548 mV)	+25 dBu (13.8 V)	
CH 4 (Hi-Z)	Phone	MIC	ON	1 MΩ	10 kΩ Lines	-50 dBu (2.45 mV)	-33 dBu (17.3 mV)	-5 dBu (436 mV)	Phone jack *4 (Unbalanced)
		LINE				-20 dBu (77.5 mV)	-3 dBu (548 mV)	+20 dBu (7.75 V)	
CH 5/6, 7/8	XLR	—	—	3 kΩ	50–600 Ω Mics	-60 dBu (0.775 mV)	-43 dBu (5.48 mV)	-15 dBu (138 mV)	XLR-3-31 *5 (Balanced)
	Phone			10 kΩ	600 Ω Lines	-20 dBu (77.5 mV)	-3 dBu (548 mV)	+25 dBu (13.8 V)	Phone jack *4 (Unbalanced)
CH 9/10, 11/12	XLR	—	—	3 kΩ	50–600 Ω Mics	-60 dBu (0.775 mV)	-43 dBu (5.48 mV)	-15 dBu (138 mV)	XLR-3-31 *5 (Balanced)
	Pin			10 kΩ	600 Ω Lines	-8 dBu (316 mV)	+10 dBu (2.45 V)	+25 dBu (13.8 V)	RCA pin (Unbalanced)
CH 11/12	Mini jack	—	—	10 kΩ	600 Ω Lines	-8 dBu (316 mV)	+10 dBu (2.45 V)	+25 dBu (13.8 V)	Stereo mini jack *6 (Unbalanced)

*1 Sensitivity is the lowest level that will produce an output of +4 dBu (1.228 V) or the nominal output level when the unit is set to maximum gain. (All level controls are at their maximum position.)
*2 Level controls setting : Channel level controls are at their ▼ position. Master level controls are at their maximum position.
*3 1&Sleeve = GND, 2&Tip = HOT, 3&Ring = COLD
*4 Tip = Signal, Sleeve = GND
*5 1 = GND, 2 = HOT, 3 = COLD
*6 Tip = LEFT, Ring = RIGHT, Sleeve = GND

Analog Output Characteristics

0 dBu = 0.775 Vrms
0 dBV = 1.00 Vrms

Output Jack	Actual Source Impedance	For Use with Nominal	Output level		Connector
			Nominal	Max. Before Clip	
STEREO OUT L, R	600 Ω	10 kΩ Lines	+4 dBu (1.228 V)	+20 dBu (7.75 V)	Phone jack *1 (Impedance balanced)
AUX SEND 1, 2	600 Ω	10 kΩ Lines	+4 dBu (1.228 V)	+20 dBu (7.75 V)	Phone jack *1 (Impedance balanced)
REC OUT L, R	600 Ω	10 kΩ Lines	-10 dBV (0.308 V)	+18 dBV (7.75 V)	RCA pin (Unbalanced)

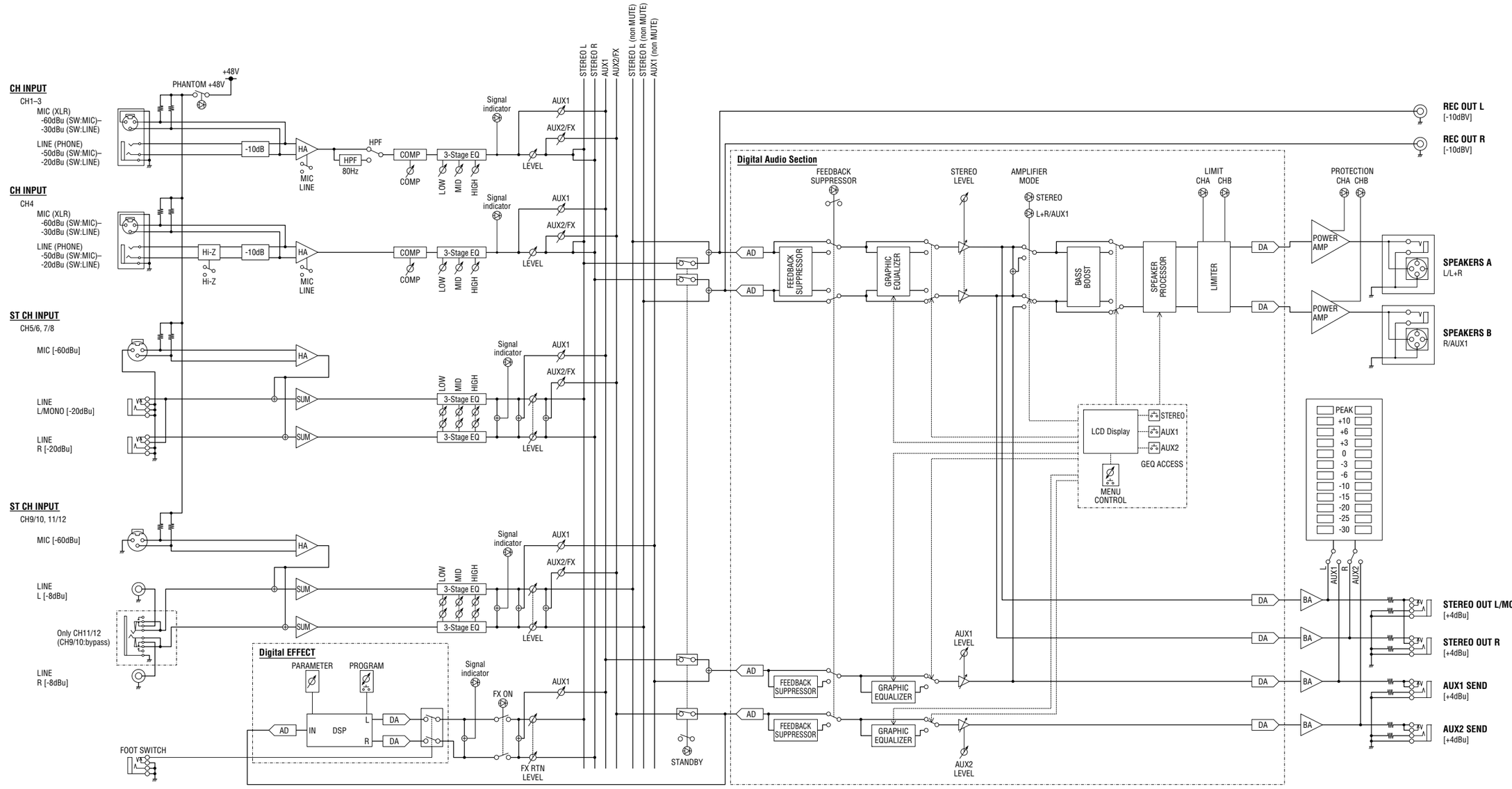
*1 Tip = HOT, Ring = COLD, Sleeve = GND

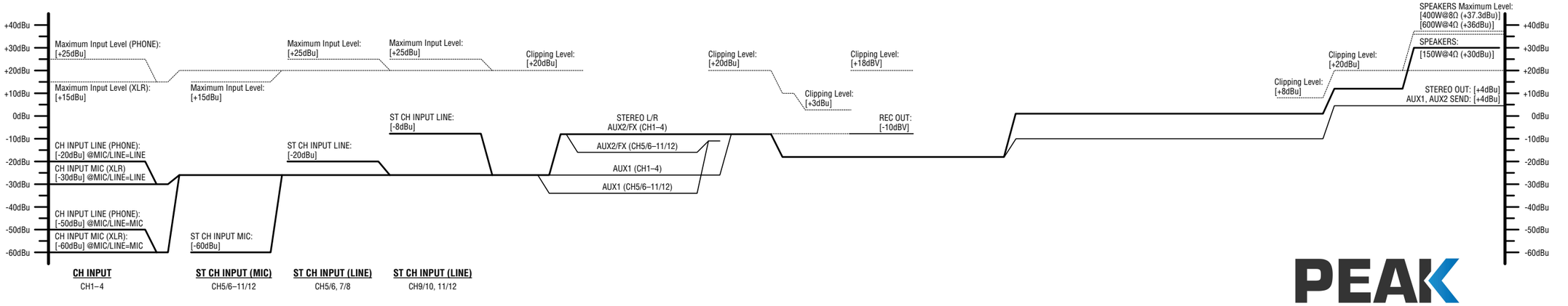
Speaker Output Characteristics

Output Jack	Actual Source Impedance	For Use with Nominal	Output level		Connector
			1 kHz THD+N < 1% (CEA2006)	1 kHz THD+N < 10% (CEA2006)	
SPEAKERS A, B	< 0.1 Ω	4 Ω Speakers	600 W	710 W	Neutrik speakON® NL4 *1 Phone jack *2
		8 Ω Speakers	400 W	500 W	

*1 1+ = Positive, 1- = Negative
*2 Tip = Positive, Sleeve = Negative

Block and Level Diagrams





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