

# EMX512SC, EMX312SC, EMX212S

## Powered Mixers



### EMX512SC



### EMX312SC



### EMX212S



Rear Panel

High-performance mixer, power amplifier, graphic EQ, and digital effects integrated into compact, portable units.

- 12 versatile inputs: 1 through 4 for mono microphone or line, 5/6 and 7/8 for mono microphone/line or stereo line input, and 9/10 and 11/12 for stereo line input.
- Advanced Yamaha one-knob compressor on mono EMX512SC and EMX312SC input channels.
- Yamaha FCL system makes locating and eliminating feedback easier than ever.
- 16 digital SPX effect programs with adjustable parameters.
- Footswitch connector for effect on/off control.
- Standby switch can be used to mute performer's inputs while the stereo inputs remain active for background music playback.
- High-quality, high power output with remarkably efficiency and low heat generation.
- Connectors for external power amplifiers and effect processors.
- Independent 7-band graphic equalizers for the stereo and monitor outputs.
- Yamaha Speaker Processing.
- Forced air keeps the system cool.
- Optional rack mount hardware.

#### OPTION

RK512  
Rack Mount Kit

FC5  
Foot Switch



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## GENERAL SPECIFICATIONS

		EMX512SC	EMX312SC	EMX212S
<b>Maximum output power</b> 1kHz, THD+N≤0.5%	4Ω	500W+500W	300W+300W	220W+220W
	8Ω / AC120V model	350W+350W	190W+190W	130W+130W
	8Ω / AC220-240V model	320W+320W	180W+180W	130W+130W
<b>Total harmonic distortion</b> *1		Less than 0.5%, +14dBu@ 20Hz-20kHz		
<b>Frequency response</b>		0, -3, +1dB, 20Hz-20kHz, 0dB@1kHz		
<b>Hum &amp; noise level</b> *2 (20Hz to 20kHz), Rs=150Ω, Input Gain=Max, Input Pad=0dB, Input Sensitivity=-60dB		-115dBu Equivalent Input Noise -90dBu Residual Output Noise		
<b>Crosstalk</b> (@1kHz)		Less than -65dB		
<b>Phantom Power</b>		+15V		
<b>CH&amp;T CH equalization</b>		HIGH:±15dB (10kHz shelving) MID:±15dB (2.5kHz peaking) LOW:±15dB (100Hz shelving)		
<b>Effect</b>		16 program, Parameter control FOOT SW (ON/OFF)		
<b>Level meter</b>		2x5 point LED level meter [MAIN(L,R)] 5 point LED level meter [MONITOR]		
<b>FCL Sensitivity</b>		Input signal level ≥ -75dBu: LED on CH1-4 MIC/LINE: MIC B Input, CH5/6-11/12 MIC Input		
<b>Protection</b>	Power Amplifier	POWER switch on/off mute DC-fault Thermal / heatsink temp ≥ 90degrees celsius VI limiter / RL ≤ 2Ω Clip limiter / THD ≥ 1%, Indicator x 2		
	Power supply	Thermal / heatsink temp ≥ 100degrees celsius		
<b>Power consumption</b>		550W	450W	350W
<b>Dimensions</b> (W x H x D)		442.5 x 284 x 264mm (17.4" x 11.2" x 10.4")		
<b>Weight</b>		8.0kg (17.6lbs)		

\*1 Total harmonic distortion is measured with a 18dB/Oct filter @80kHz.

\*2 Hum & noise level is measured with a 6dB/oct filter @12.7kHz; equivalent to 20kHz filter with infinite dB/Oct attenuation.

## INPUT SPECIFICATIONS

Input Terminal	MIC/LINE	Actual Load Impedance	For Use With Nominal	Input Level			Connector	
				Sensitivity	Nominal	Max. Before Clip		
CH INPUT 1-4	XLR	MIC	2kΩ	50-600Ω Mics	-60dBu	-35dBu	-15dBu	XLR3-31 type*
					-30dBu	-5dBu	+15dBu	
	Phone	MIC	6kΩ	600Ω Lines	-50dBu	-25dBu	-5dBu	TRS phone jack**
					-20dBu	+5dBu	+25dBu	
CH INPUT 5/6,7/8	XLR	-	2kΩ	50-600Ω Mics	-60dBu	-35dBu	-15dBu	XLR3-31 type**
	Phone	-	10kΩ	600Ω Lines	-20dBu	+5dBu	+25dBu	Phone jack*
CH INPUT 9/10,11/12	XLR	-	2kΩ	50-600Ω Mics	-60dBu	-35dBu	-15dBu	XLR3-31 type*
	Pin	-	10kΩ	600Ω Lines	-20dBu	+5dBu	+25dBu	RCA pin jack**

## OUTPUT SPECIFICATIONS

Output Terminal	Actual Source Impedance	For Use With Nominal	Output Level			Connector
			Model	Nominal	Max. before Clip	
SPEAKERS [A1,A2,B1,B2]	0.1Ω	4Ω Speakers	EMX512SC	125W	500W	[A1,B1]SPEAKON* [A2,B2]Phone jack**
			EMX312SC	75W	300W	
			EMX212S	50W	200W	
MAIN OUT[L,R]	600Ω	10kΩ Lines	-	+4dBu	+20dBu	Phone jack**
EFFECT OUT	600Ω	10kΩ Lines	-	+4dBu	+20dBu	Phone jack**
MONITOR OUT	600Ω	10kΩ Lines	-	+4dBu	+20dBu	Phone jack**
REC OUT[L,R]	600Ω	10kΩ Lines	-	-10dBu	+10dBu	RCA pin jack**

## DIMENSIONS

