

SP2060

Digital Speaker Processor



SP2060



Rear Panel

Advanced speaker processing performance in a compact 1U unit that is ideal for live sound or installations.

- All of the functionality required for most speaker processing applications in a compact 1U unit.
- An impressive array of built-in functions: gain, delay, PEQ, comp, crossover, and limiter.
- All-Pass Filter precisely controls phase without affecting gain.
- Two analog inputs, six analog outputs, and two AES/EBU digital inputs.
- Original audio processing LSI provides full 24-bit, 96-kHz processing capability for outstanding sound quality with a dynamic range in excess of 110 dB.
- Detailed programming can be accomplished using the DME Designer application software running on a personal computer.
- Ethernet port and comprehensive panel interface.
- Optimized for Yamaha Installation Series Speakers.

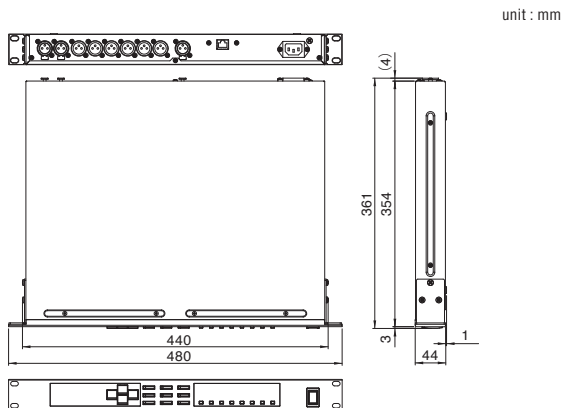
GENERAL SPECIFICATIONS

Scene	99 (PRESET: 12, USER: 87)
Sampling frequency rate	Internal : 96kHz External: Normal rate: 44.1kHz, 48kHz ($\pm 0.1\%$) Double rate: 88.2kHz, 96kHz ($\pm 0.1\%$)
Signal delay	Less than 761 μ s INPUT to OUTPUT (@fs=96kHz)
Total harmonic distortion*1	Less than 0.05%, 20Hz to 40kHz @+4dBu into 600 Ω (@fs=96kHz) Less than 0.007%, 1kHz @+22dBu into 600 Ω (@fs=96kHz)
Frequency response	20Hz - 20kHz, +0.5, -1.0dB, @+4dBu into 600 Ω (@fs=96kHz)
Dynamic range	106dB typ. AD+DA
Hum & noise level (20Hz to 20kHz), Rs=150 Ω	-82dBu residual noise
Crosstalk (@1kHz)	-80dB input to output
Power consumption	30W
Dimensions (W x H x D)	480 x 44 x 360.2mm (18.7" x 1.75" x 14.1"), 1U
Weight	4.2kg (9.7lbs)

*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.

DIMENSIONS



ANALOG INPUT AND OUTPUT SPECIFICATIONS

Terminal	Actual load impedance	For use with nominal	Level		Connector
			Nominal	Max. before clip	
INPUT A,B	10k Ω	600 Ω Lines	+4dBu	+24dBu	XLR3-31 type*
OUTPUT 1-6	75 Ω	600 Ω Lines	+4dBu	+24dBu	XLR3-32 type*

DIGITAL INPUT SPECIFICATIONS

Terminal	Format	Data Length	Level	Connector
DIGITAL INPUT AES/EBU	AES/EBU	24bit	RS422	XLR3-31 type

CONFIGURATION

1	3x2way
2	3x2way Link
3	2x (2way + Sub)
4	2x (2way + Sub) Link
5	2x2way + 2xAux
6	2x2way + 2xAux Link
7	2x3way
8	2x3way Link
9	4way + 2xAux
10	5way + Aux
11	6way
12	MultiZone

PROCESSING FUNCTIONS

INPUT	SELECT	DIGITAL/ANALOG
	LEVEL	$-\infty$ -138--+10dB
	DELAY	0-1300msec
	EQ	8 band TYPE=PEQ, L.SHELF (6dB/Oct,12dB/Oct), H.SHELF (6dB/Oct,12dB/Oct), HPF, LPF GAIN= ± 18 dB, Q=16.0-0.1
CROSSOVER		LEVEL= $-\infty$ -138--+10dB • AdjustGc: 12,18,24,36 or 48dB/oct • Buttrwrt: 12,18,24,36 or 48dB/oct • Bessel: 12,18,24,36 or 48dB/oct • Linkwitz: 12,24 or 48dB/oct
OUTPUT	POLARITY	NORMAL/INVERTED
	LEVEL	$-\infty$ -138--+10dB
	DELAY	0-500msec
	EQ	6 band TYPE=PEQ, L.SHELF (6dB/Oct,12dB/Oct), H.SHELF (6dB/Oct,12dB/Oct), HPF, LPF, APF 1st, APF 2nd, Horn EQ GAIN= ± 18 dB, Q=16.0-0.1
	LIMITER	THRESHOLD -54-0dB