

Rio3224-D / Rio1608-D

I/O Rack



Rear Panel

Rio3224-D 32 in/16 out,
4 AES/EBU out



Rear Panel

Rio1608-D 16 in/8 out



High-performance remote I/O for CL series digital mixing consoles.

- Easy and flexible system setup with Dante for low-jitter and low-latency digital audio transmission.
- Up to eight I/O rack units can be connected to any single CL series console for star configuration.
- Simple DIP switch settings allow easy switching between star and daisy-chain configurations.
- Multiple CL series consoles can share control of the same I/O rack unit, for unprecedented system flexibility and efficient use of system resources.

GENERAL SPECIFICATIONS

Sampling frequency rate	Internal: 44.1kHz, 48kHz, 88.2kHz, 96kHz External: 44.1kHz (+4.1667%, +0.1%, -0.1%, -4.0%) ±200ppm 48kHz (+4.1667%, +0.1%, -0.1%, -4.0%) ±200ppm 88.2kHz (+4.1667%, +0.1%, -0.1%, -4.0%) ±200ppm 96kHz (+4.1667%, +0.1%, -0.1%, -4.0%) ±200ppm
Signal Delay	Less than 3ms INPUT to OUTPUT, connect with CL5 using Dante, Dante Receive Latency set to 0.25ms (one way), Fs=48kHz
Total harmonic distortion*1 OMNI IN to OMNI OUT Input Gain=Min.	Less than 0.05% 20Hz-20kHz@+4dBu into 600Ω, Fs=44.1kHz, 48kHz Less than 0.05% 20Hz-40kHz@+4dBu into 600Ω, Fs=88.2kHz, 96kHz
Frequency response	+0.5, -1.5dB 20Hz-20kHz, refer to +4dBu output @1kHz, INPUT to OUTPUT, Fs=44.1kHz, 48kHz +0.5, -1.5dB 20Hz-40kHz, refer to +4dBu output @1kHz, INPUT to OUTPUT, Fs=88.2kHz, 96kHz
Dynamic range	108dB typ., INPUT to OUTPUT, Input Gain = Min.
Hum & noise level*2 (20Hz to 20kHz), Rs=150Ω	-128dBu Equivalent input noise, Input Gain=Max., -88dBu Residual output noise, ST master off
Crosstalk (@1kHz) Input Gain=Min.	-100dB*3, Adjacent INPUT/OUTPUT channels
Phantom Power	+48V
Power requirements	AC110V-240V, 50/60Hz
Power consumption	Rio3224-D: 120W Rio1608-D: 70W
Temperature Range	Operating temperature range: 0 - 40° Storage temperature range: -20 - 60°
Dimensions (W x H x D)	Rio3224-D: 480mm x 232mm** x 361.5mm(18 7/8in x 9 1/4in x 14 1/4in) Rio1608-D: 480mm x 144mm** x 361.5mm(18 7/8in x 5 3/4in x 14 1/4in)
Weight	Rio3224-D: 12.4kg (27.3lb) Rio1608-D: 8.8kg (19.4lb)

*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.
*3 Crosstalk is measured with a 30 dB/octave filter @22kHz.
** Including rubber feet.

ANALOG INPUT SPECIFICATIONS

Input terminal	GAIN	Actual load impedance	For use with nominal	Input level		Connector
				Nominal	Max. before clip	
INPUT 1-16 17-32*1	+66dB	10kΩ	50-600Ω Mics & 600Ω Lines	-62dBu	-42dBu	XLR3-31 type*
	+18dB			-14dBu	+6dBu	
	+17dB	-13dBu		+7dBu		
	-6dB	+10dBu		+30dBu		

*1 Rio3224-D only

ANALOG OUTPUT SPECIFICATIONS

Output terminal	Actual source impedance	For use with nominal	Max. Output Level Select SW*1	Output terminals		Connector
				Nominal	Max. before clip	
OMNI OUT 1-8 9-16*2	75Ω	600Ω Lines	+24dB (default)	+4dBu	+24dBu	XLR3-32 type*
			+18dB	-2dBu	+18dBu	

*1 There are switches inside the body to preset the maximum output level. *2 Rio3224-D only

DIGITAL I/O SPECIFICATIONS

Terminal	Format	Data length	Level	Audio	Connector
Primary/Secondary	Dante	24bit or 32bit	1000Base-T	24ch Input/32ch Output (Rio3224-D) 8ch Input/16ch Output (Rio1608-D)	etherCON Cat5e

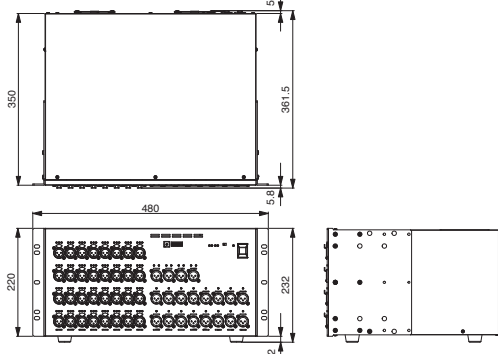
DIGITAL OUTPUT SPECIFICATIONS

Terminal	Format	Data length	Level	Connector
AES/EBU OUT 1-4*1	AES/EBU	AES/EBU Professional Use	24bit	RS422

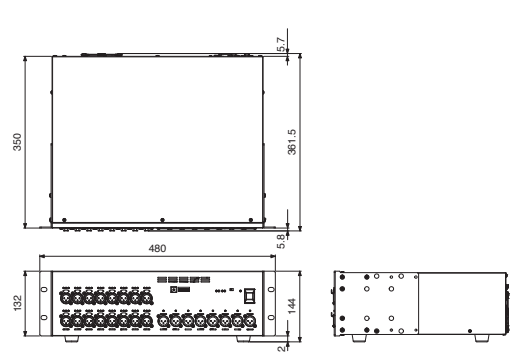
*1 Rio3224-D only

DIMENSIONS

Rio3224-D



Rio1608-D



unit : mm