

## CPM Series

### Input Specifications

Function	Input Z (ohms) Min.	Input Gain Setting		Input Levels			Bal/Unbal	Connector
		Max. Gain	Min. Gain	Min. **	Nominal	Max.		
Microphone (150 ohms)	2 k	58 dB		-74 dBu	-54 dBu	-38 dBu	Bal.	XLR Pin: Pin 1 (Ground) Pin 2 (+) Pin 3 (-)
			10 dB	-24 dBu	-6 dBu	+12 dBu		
Line Input (10 k ohms)	10 k	38 dB		-54 dBu	-34 dBu	-18 dBu	Bal.	1/4" TRS: Tip (+) Ring (-) Sleeve (Ground)
			-10 dB	-6 dBu	+14 dBu	+32 dBu		
Insert Return	22 k	N/A 0 dB		-16 dBu	+4 dBu	+22 dBu	Unbal.	1/4" TRS: Tip Send Ring Return Sleeve Ground
Stereo Line Input	20 k	20 dB		-29 dBu	-9 dBu	+4 dBu	Unbal.	1/4" Phone  RCA Phono
			0 dB	-16 dBu	+4 dBu	+18 dBu		
Aux Return	22 k	N/A 0 dB		-24 dBu	+4 dBu	+22 dBu	Unbal.	1/4" Phone

0 dBu = 0.775 V (RMS)

\*\* Minimum input level (Sensitivity) is the smallest signal that will produce nominal output (+4 dBu) with sub and master controls set for maximum gain.

\* Nominal settings are defined as all controls set at 0 dB (or 50% rotation for rotary pots) except the gain adjustment pot, which is as specified.

### Output Specifications

Function	Minimum Load Z (ohms)	Output Levels		Bal/Unbal	Connector
		Nominal	Max.		
Main L/R	600	+4 dBu	+22 dBu	Unbal.	1/4" Phone
				Bal.	XLR Pin: Pin 1 (Ground) Pin 2 (+) Pin 3 (-)
Mono	600	+4 dBu	+22 dBu	Unbal.	1/4" Phone
				Bal.	XLR Pin: Pin 1 (Ground) Pin 2 (+) Pin 3 (-)
Sub Master	600	+4 dBu	+22 dBu	Unbal.	1/4" Phone
Aux Send	600	+4 dBu	+22 dBu	Unbal.	1/4" Phone
				Bal.	XLR Pin: Pin 1 (Ground) Pin 2 (+) Pin 3 (-)
Channel Insert Send	600	+4 dBu	+22 dBu	Unbal.	1/4" TRS: Tip Send Ring Return Sleeve Ground
Headphone	8	+4 dBu (no load)	+22 dBu	Unbal.	1/4" TRS: Tip Left Ring Right Sleeve Ground

0 dBu = 0.775 V (RMS)

## CPM™ Series

<b>Gain:</b>	<b>Mic Input Gain Adj Range:</b>	10 dB to 58 dB
	<b>Mic Input to Sub Output</b>	78 dB (Max Gain)
	<b>Mic Input Longest Path</b>	88 dB (Max Gain)
	<b>Line Input Gain Adj Range:</b>	-10 dB to 38 dB
	<b>Line Input to Sub Output</b>	58 dB (Max Gain)
	<b>Line Input Longest Path</b>	68 dB (Max Gain)
	<b>Stereo Line Input Gain Adj Range:</b>	-60 dB to 10 dB
	<b>Stereo Line Input to Sub Output</b>	30 dB (Max Gain)
	<b>Stereo Line Input Longest Path</b>	40 dB (Max Gain)
	<b>Aux Return to Sub Output</b>	28 dB (Max Gain)
<b>Aux Return Longest Path</b>	38 dB (Max Gain)	

<b>Frequency Response:</b>	<b>Mic Input to L-R Output</b>	20 Hz to 50 kHz +0 dB / -1 dB
	<b>Stereo Input to L-R Output</b>	20 Hz to 30 kHz +0 dB / -1 dB

**Total Harmonic Distortion (THD):** < 0.007% 20 Hz to 20 kHz Mic to L-R output at Nominal Level (20 Hz - 80 kHz BW)

### Hum and Noise:

Output	Residual Noise Ref: 0 dBu	S/N Ratio	Test Conditions
Master L/R	-105 dBu	109 dB	All Faders Down
Mono	-90 dBu	94 dB	Master Fader Nominal, Channel Faders Down, All Channels Assigned
Submaster	-98 dBu	102 dB	All Faders Down
	-88 dBu	92 dB	Submaster Fader Nominal, Channel Faders Down, All Channels Assigned

(Hum and Noise Measurements: 22 Hz to 22 KHz BW)

**Equivalent Input Noise (EIN):** -128 dBu (Input terminated with 150 ohms)

**Crosstalk:**  
>90 dB Adjacent Input Channels (20 Hz - 20 kHz)  
>70 dB Left to Right Outputs (20 Hz - 20 kHz)

### Common Mode Rejection Ratio (Mic Input):

50 dB min (20 Hz - 20 kHz)  
70 dB typ @ 1 kHz

**Meters:** L/R Master and all Submasters = 12 segment, peak reading (0 dB= +4 dBu)

**Signal / Overload Indicators:** Red LED lights 2 dB below clipping

**Lamp Power:** 12 VDC @ 350mA per connector, or 12 VDC @ 700mA total maximum load

**Power Requirements:** DOM: 100 VAC -240 VAC 50/60 Hz  
70 watts Nominal, 24 chan  
80 watts Nominal, 32 chan

<b>Dimensions:</b>	<b>CPM 24-4</b>	<b>CPM 32-4</b>	
	<b>Height:</b>	8.9" (226 mm)	8.9" (226 mm)
	<b>Width:</b>	36.6" (930 mm)	44.6" (1132 mm)
	<b>Depth:</b>	19.5" (495 mm)	19.5" (495 mm)

**Weight:** 36 lbs. (16.4 kg) 48 lbs. (21.8 kg)

# block diagram **b**

