

### MDA-100 Mixing Distribution Amp

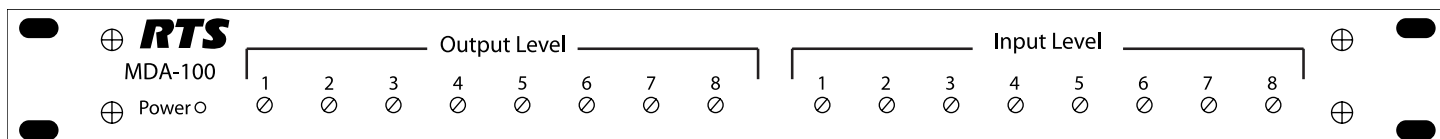


The MDA-100 mixing and distribution amplifier contains an 8x1-summing amplifier (mixer) and a 1 x 8 distribution amplifier in a case that is one (1) RU (Rack Unit) high. The MDA-100 is useful, for example, in CCU (Camera Control Unit), where multiple camera operators have to talk and listen to one (1) master control location. In this application, audio from each camera (up to eight (8)) is fed to one (1) of the summing amplifier inputs of the MDA-100. All eight (8) audio inputs are summed and fed to the master controller input. The return audio path from the master controller back to the individual cameras is accomplished using the distribution amplifier, which takes the single audio output from the master controller and distributes it to each of the eight (8) camera outputs.

A trimmer on the front panel of the MDA-100 may individually adjust the gain of each summing amplifier input. There is also an output adjustment trimmer located inside the MDA-100 to adjust the final output level of the summing amplifier. The summing amplifier output is a 60 $\Omega$  voltage source. The input impedance may be set for 20k $\Omega$ , 150 $\Omega$ , or 600 $\Omega$ , selected by rear panel jumpers.

The MDA-100 fits into a standard 19 inch (483mm) equipment rack. The power entry module is an IEC approved type, which contains a line voltage switch, a line filter, a fuse holder, and a line cord socket connector. The line voltage switch may be set for either 105/125 Vac, 50/60 Hz, or 210/250 Vac, 50/60 Hz supply voltages. The MDA-100 features a toroidal-transformer power supply for low-noise operation.

### Line Drawings



## Specifications

### General

Power Consumption: 18 Watts Maximum; 117VAC or 220VAC nominal, 10%, 50/60Hz

Operating Temperature Range: 0°C to 50°C (32°F to 122°F)

Dimensions: 19in (483mm) W x 1.75in (44mm) H x 8.5in (213mm) D

Weight: 9lb (4.1kg)

### Summing Amplifier

Input Level: -20dBu to +24dBu

Input Impedance: >20kΩ, active, balanced

Output Level: +28dBu, maximum

Output Source Impedance: 600Ω, active, balanced

Gain Adjustment: ±12dB (Front Panel) per input, ±12dB (internal) output trim

Frequency Response: 0 to -0.2dB, 20Hz to 20kHz, referenced to 1kHz

### Distribution Amplifier (1x8)

Input Level: -22 to +14dBu nominal for +8dBu output, Maximum +28dBu

Input Type & Impedance: Active balanced, 20kΩ, 600Ω or 150Ω, selectable

Output Level: +28dBu, maximum, 60Ω

Output Source Impedance: 60Ω, active, balanced.

Output Isolation: >80dB, 20Hz to 20kHz

Output DC Offset: < ±50mVDC

Gain Adjustment: Each output independently adjustable from -6dB to +28dB (34dB)

Frequency Response: 0 to -0.2dB, 20Hz to 20kHz, referenced to 1kHz

Noise: 124dB below maximum output at unity gain (20Hz to 20kHz), nominally 114dB below at +18dBu, unity gain (20Hz to 20kHz).

Total Harmonic Distortion: <0.01% (20Hz to 20kHz) at unity gain. Up to +28dBu output level.

Intermodulation Distortion: 0.008% at unity gain. Up to +28dBu output level (4:1 ratio). Typically <0.001% at +8dBu.

Common-Mode Rejection: >80dB, 20Hz to 20kHz, Typically 96dB at 1kHz (adjustable).

Common Mode Voltage: 100V peak-to-peak, maximum

## Order Information

MDA-100 • MDA-100 • Mixing Distribution Amp

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