

AMP1A-SUM6/RD



VMDA-SUM8



## Description

The SUM Series audio monitors provide self-powered, full-fidelity stereo audio monitoring in the smallest rack space possible. With a reduced depth dimension of only 6", these monitors are ideally suited for use in VTR bays, mobile production vehicles, teleconferencing installations, multimedia systems, satellite links, cable TV facilities and on-air radio studios.

The SUM Series monitors offer separate inputs that are then summed together. Separate volume controls allow the operator complete control of the output. These units contain three high performance transducers driven by three power amplifiers: one amplifier/driver combination handles midrange and high frequency information in stereo, while the second handles summed low frequency information below the 500 Hz crossover point.

The unique design provides optimally focused sound for operators in an ultra near field (1 to 3 ft.) working

environment and offers performance comparable to that of many separate monitor pairs, yet does so without the installation hassles, awkward speaker placements and "added-on" look. This provides for a higher SPL for the operator while reducing overall ambient sound and adjacent bay crosstalk.

Extended HF response reveals potential problems with audio whine or hiss. Electronic rather than acoustic cancellation of bass frequencies provides positive audible detection of out-of-phase (reversed polarity) audio feeds.

A headphone jack is provided on the front panel that automatically mutes the speakers.

Output limiter circuits are incorporated to protect the speakers, and extensive magnetic shielding allows placement immediately adjacent to video monitors with no color impurities.

## Features

Each channel has a digital/analog input select plus volume control in the VMDA-SUM8.

Premium quality drivers and power amplifiers

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## Order Part Number

AMP1A-SUM6/RD: 8100-0150  
VMDA-SUM8: 8111-0070

### Features (Continued)

Analog inputs with individual volume controls (summed)

Full fidelity audio monitoring in only 1RU of rack space

Reduced depth chassis of 6" (from 12")

Powerful 98dB SPL at 2 feet (0.6m)

Headphone jack mutes speakers

### Benefits

Thorough magnetic shielding allows for placement next to video monitors

Focused sound reduces adjacent bay crosstalk

Quick and simple installation

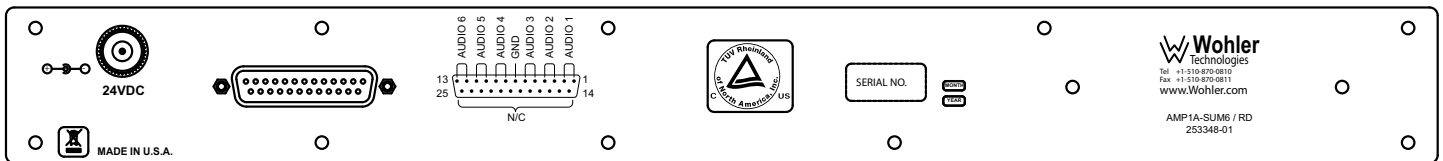
Audible indication of phase/polarity problems

Extended frequency response and low distortion

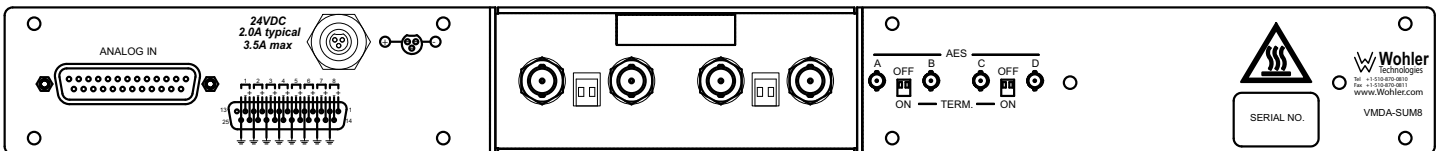
Blowout proof speakers

### Rear Panel

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### Physical Specifications

Specification	AMP1A-SUM6/RD	VMDA-SUM8
Dimensions (H x W x D)	19" x 5.25" x 4.25" (482.6 mm x 133.4 mm x 108 mm)	
Shipping weight	16 lbs. (32 kg)	
Space requirements	1RU in a standard 19" rack	
Supplied accessories	AC external power unit/cord, AC power adapter	
Power connector	Attached external power unit plugs into standard U.S. outlet. Alternate power cables are available.	
Power requirements	Power to the unit is 24 V DC.	
Power consumption	35 W	45 W

## Inputs and Outputs

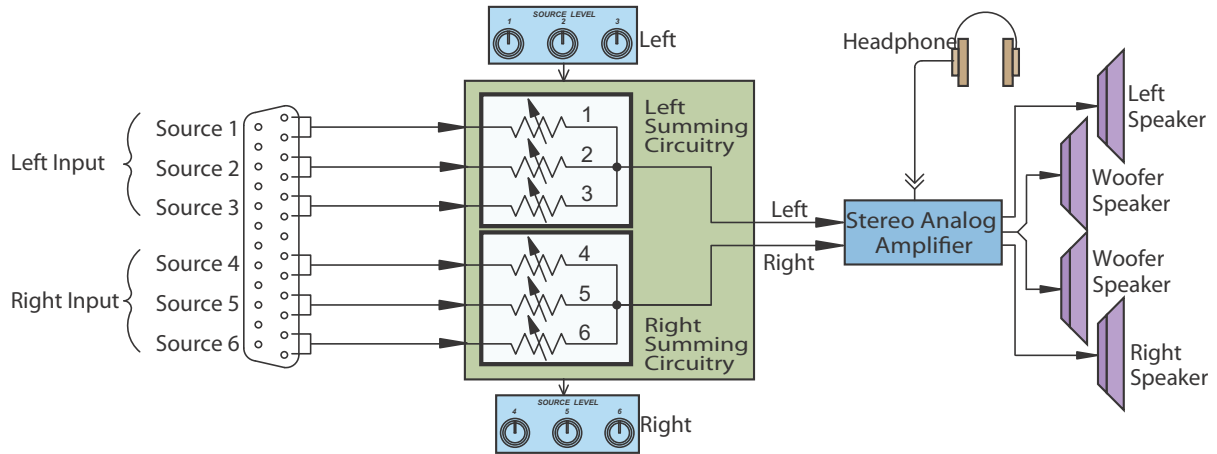
Connectors	AMP1A-SUM6/RD	VMDA-SUM8
Inputs	6 analog balanced (1 DB-25)	8 analog balanced (1 DB-25) 4 AES (4 BNCs)
Outputs	—	
Other rear panel controls	—	4 AES terminations (2 2-position DIPs)

## Technical Specifications

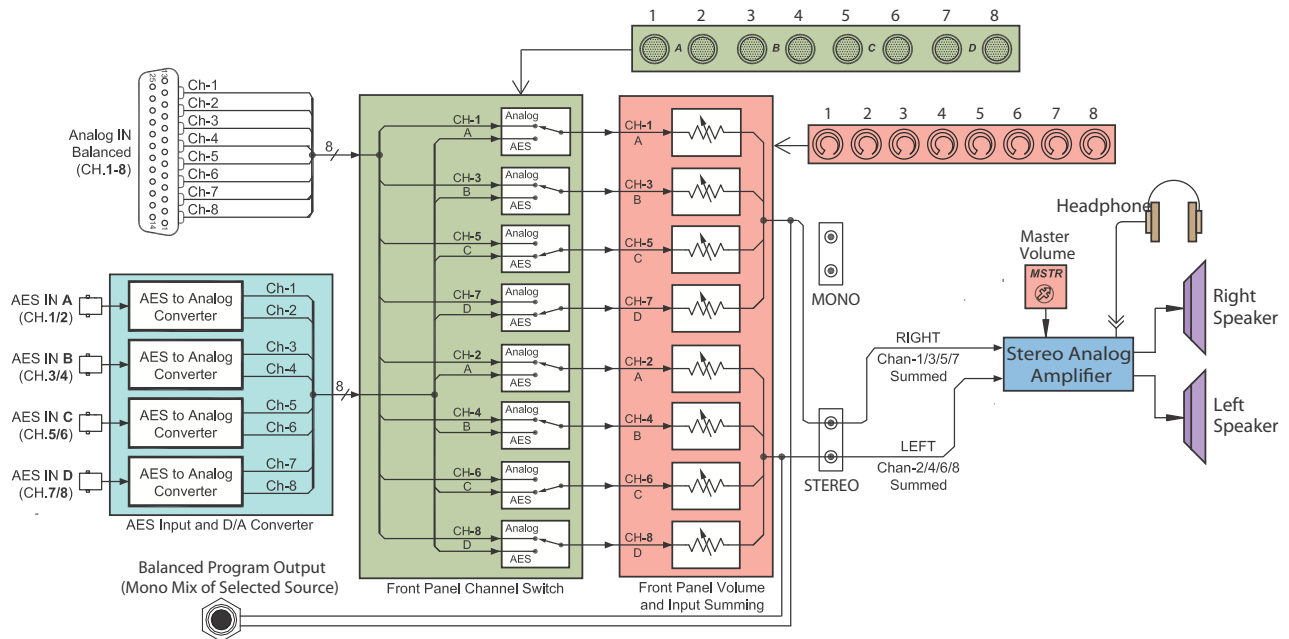
Specification	AMP1A-SUM6/RD	VMDA-SUM8
AES/EBU inputs	—	4 on BNC (Unbalanced)
Digital input termination	—	75 $\Omega$
Digital input sampling rate	—	auto-detection between 32 and 96 kHz
Digital input level for full output	—	-20 dBfs
Analog input impedance	200k $\Omega$ (Balanced)	100k $\Omega$ (Balanced)
Analog input level for full output	0 dBv Balanced	
Balanced program output	1/4" phono jack, mono, retains mix balance, 0 dBv out at 0 dBv in under balanced conditions/max volume settings.	
Hum and noise	better than -68 dB below full output	better than -70 dB below full output
Electrical distortion	< 0.15% at any level below limit threshold	<0.3% below limiting threshold
Acoustical frequency response	80 Hz - 16 kHz $\pm$ 7 dB) (-10 dB @ 50 Hz, 22 kHz)	300 Hz to 10k Hz ( $\pm$ 6 dB)
Acoustical distortion	8% or less worst case; typically < 2% above 180 Hz	typically <2% at operating levels below limiting threshold, 300 Hz to 10k Hz
Peak acoustical output	90 dB SPL at 2 feet	80 dB SPL at 2 feet
Power output		
RMS each side	10 W transient / 5 W continuous	10 W transient / 5 W continuous
RMS bass	10 W transient / 5 W continuous	
Magnetic shielding	<1 gauss any adjacent surface	<2 gauss any adjacent surface

## Block Diagram

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## Contact

Wohler Technologies, Inc.  
 31055 Huntwood Avenue  
 Hayward, CA 94544 USA  
 +1 888 5 WOHLER (Toll Free)  
 +1 510 870-0810  
 +1 510 870-0811 (fax)

Wohler Europe  
 +33 970 440 253  
 +33 1 77 72 59 99 (fax)  
 sales@wohler.com  
 www.wohler.com

Wohler Asia  
 1704 Lucky Commercial Center  
 103 Des Voeux Road West  
 Sheung Wan, Hong Kong  
 +852 2851 8325  
 +852 2850 8182 (fax)