

# COM108 Public Address Amplifier 80W @70/100V

### Highlights:

- · unbalanced stereo line input
- 1 x Microphone input
- · Priority audio inputs with phantom power
- 1 x priority mute contact
- · Lightweight class-D amplifier
- Terminal block output connections (4Ω, 70V, 100V)
- Compact design
- · Low impedance & constant voltage output
- · Table top or half rackspace installation



The COM108 is a compact but versatile public address mixing amplifier which offers solutions for small to medium size audio systems in commercial installations. Typical application are background music systems in retail stores, bars, restaurants and office buildings.

The compact and simple design allows installation in any location and operation through any possible user.

The amplifier is designed using Class-D amplifier technology and delivers an output power of 80 Watt to constant voltage (100V and 70V) or low impedance (4 Ohm) audio systems. A switch mode power supply allows compatibility with a wide variation of mains voltages for global compatibility.

A stereo line input allows connection for a wide variation of audio sources such as media players, radio tuners, internet audio players, ... and many more. A balanced mic / line input allows connection for an announcement microphone with compatibility for condenser microphones using the integrated phantom power supply (15V). A priority switch overrides the background music when enabled, and compatibility with voice file players is guaranteed by the wide gain adjustment possibility (0 dB - +50 dB).

The COM108 is a table-top standing device, while rack mounting in 10.5" or 19" equipment racks is possible using an optionally available mounting set (MBS310).

#### Applications:

- · Bars & Restaurants
- Retail
- Corporate





## System specifications:

Inputs Balanced Microphone Sensitivity -0 dB - +50 dB  Connector 3-pin Euro Terminal Block (Pitch - 3.81 mm)  Type 1 x Balanced Microphone  Unbalanced Stereo Connector RCA / 3.5 mm Jack  Sensitivity -4 dB ~ 20 dB  Frequency Response (± 3 dB) 20 Hz - 20 kHz  Signal / Noise > 90 dB  THD+N (@ 1 kHz) < 0.5% (1/2 Rated Power)  Crosstalk (@ 1 kHz) > 70 dB  Technology  Power Supply Switching mode  Operating 100 ~ 240 V AC / 50 ~ 60 Hz  Inputs Balanced Microphone Phantom Power 15 V DC  Priority mute contact  Outputs Connector 4-pin Euro Terminal Block (Pitch - 5.08 mm)  Voltage / Impedance 100 / 70 V / 4 Q  Protection Amplifier DC Signal limiting  Converting content	RMS/AES power handling	@ 4 Ω		1 x 80 W
Type	Inputs	Balanced Microphone	Sensitivity	-0 dB ~ +50 dB
Unbalanced Stereo         Connector         RCA / 3.5 mm Jack           Frequency         Response (± 3 dB)         20 Hz - 20 kHz           Signal / Noise         > 90 dB           THD+N (@ 1 kHz)         < 0.5% (1/2 Rated Power)			Connector	3-pin Euro Terminal Block (Pitch - 3.81 mm)
Sensitivity       -4 dB - 20 dB         Frequency       Response (± 3 dB)       20 Hz - 20 kHz         Signal / Noise       > 90 dB         THD+N (@ 1 kHz)       < 0.5% (1/2 Rated Power)			Туре	1 x Balanced Microphone
Frequency         Response (± 3 dB)         20 Hz - 20 kHz           Signal / Noise         > 90 dB           THD+N (@ 1 kHz)         < 0.5% (1/2 Rated Power)		Unbalanced Stereo	Connector	RCA / 3.5 mm Jack
Signal / Noise         > 90 dB           THD+N (@ 1 kHz)         < 0.5% (1/2 Rated Power)			Sensitivity	-4 dB ~ 20 dB
THD+N (@ 1 kHz) < 0.5% (1/2 Rated Power)  Crosstalk (@ 1 kHz) > 70 dB  Technology Class-D  Power Supply Switching mode  Operating 100 ~ 240 V AC / 50 ~ 60 Hz  Inputs Balanced Microphone Phantom Power 15 V DC  Priority mute contact  Outputs Connector 4-pin Euro Terminal Block (Pitch - 5.08 mm)  Voltage / Impedance 100/ 70 V / 4 Ω  Protection Amplifier DC Short circuit  Over heating  Signal limiting	Frequency	Response (± 3 dB)		20 Hz - 20 kHz
Crosstalk (@ 1 kHz)       > 70 dB         Technology         Class-D         Switching mode         Deprating       100 ~ 240 V AC / 50 ~ 60 Hz         Inputs       Balanced Microphone       Phantom Power       15 V DC         Priority mute contact         Outputs       Connector       4-pin Euro Terminal Block (Pitch - 5.08 mm)         Voltage / Impedance       100/ 70 V / 4 Ω         Protection       Amplifier       DC Short circuit         Over heating         Signal limiting	Signal / Noise			> 90 dB
Technology         Power       Supply       Switching mode         Operating       100 ~ 240 V AC / 50 ~ 60 Hz         Inputs       Balanced Microphone       Phantom Power       15 V DC         Priority mute contact         Outputs       Connector       4-pin Euro Terminal Block (Pitch - 5.08 mm)         Voltage / Impedance       100/ 70 V / 4 Ω         Protection       Amplifier       DC Short circuit         Over heating       Signal limiting	THD+N (@ 1 kHz)			< 0.5% (1/2 Rated Power)
PowerSupplySwitching modeInputsBalanced MicrophonePhantom Power $15 \text{ V DC}$ UtputsPriority mute contactOutputsConnector4-pin Euro Terminal Block (Pitch - 5.08 mm)Voltage / Impedance $100/70 \text{ V}/4 \Omega$ ProtectionAmplifierDC Short circuitOver heatingSignal limiting	Crosstalk (@ 1 kHz)			> 70 dB
Inputs     Balanced Microphone     Phantom Power     15 V DC       Priority mute contact       Outputs     Connector     4-pin Euro Terminal Block (Pitch - 5.08 mm)       Voltage / Impedance     100/ 70 V / 4 Ω       Protection     Amplifier     DC Short circuit       Over heating       Signal limiting	Technology			Class-D
Inputs  Balanced Microphone Phantom Power  15 V DC  Priority mute contact  Outputs  Connector 4-pin Euro Terminal Block (Pitch - 5.08 mm)  Voltage / Impedance  100/ 70 V / 4 Ω  Protection  Amplifier  DC Short circuit  Over heating  Signal limiting	Power	Supply		Cuitching made
Priority mute contact         Outputs       Connector       4-pin Euro Terminal Block (Pitch - 5.08 mm)         Voltage / Impedance       100/ 70 V / 4 Ω         Protection       Amplifier       DC Short circuit         Over heating       Signal limiting		Supply		Switching mode
Outputs       Connector       4-pin Euro Terminal Block (Pitch - 5.08 mm)         Voltage / Impedance       100/ 70 V / 4 Ω         Protection       DC Short circuit         Over heating         Signal limiting		Зарру	Operating	
Protection Amplifier DC Short circuit Over heating Signal limiting	Inputs			100 ~ 240 V AC / 50 ~ 60 Hz
Protection Amplifier DC Short circuit Over heating Signal limiting	Inputs			100 ~ 240 V AC / 50 ~ 60 Hz 15 V DC
Over heating Signal limiting		Balanced Microphone		100 ~ 240 V AC / 50 ~ 60 Hz  15 V DC  Priority mute contact
Signal limiting		Balanced Microphone  Connector		100 ~ 240 V AC / 50 ~ 60 Hz  15 V DC  Priority mute contact  4-pin Euro Terminal Block (Pitch - 5.08 mm)
	Outputs	Balanced Microphone  Connector  Voltage / Impedance		$100 \sim 240 \text{ V AC / } 50 \sim 60 \text{ Hz}$ $15 \text{ V DC}$ Priority mute contact $4\text{-pin Euro Terminal Block (Pitch - 5.08 mm)}$ $100/70 \text{ V / } 4 \Omega$
Cooling	Outputs	Balanced Microphone  Connector  Voltage / Impedance		$100 \sim 240 \text{ V AC / } 50 \sim 60 \text{ Hz}$ $15 \text{ V DC}$ Priority mute contact
Convection cooled	Outputs	Balanced Microphone  Connector  Voltage / Impedance		$100 \sim 240 \text{ V AC / } 50 \sim 60 \text{ Hz}$ $15 \text{ V DC}$ Priority mute contact   4-pin Euro Terminal Block (Pitch - 5.08 mm) $100/70 \text{ V / } 4 \Omega$ DC Short circuit   Over heating
Operating temperature 0° ~ 40° @ 95% Humidity	Outputs	Balanced Microphone  Connector  Voltage / Impedance		$100 \sim 240 \text{ V AC / } 50 \sim 60 \text{ Hz}$ $15 \text{ V DC}$ Priority mute contact   4-pin Euro Terminal Block (Pitch - 5.08 mm) $100/70 \text{ V / } 4 \Omega$ DC Short circuit   Over heating

## **Product Features:**

Dimensions		217.5 x 43.7 x 300 mm (W x H x D)
Weight		3 kg
Mounting		1/2 19" / 1 HE or tabletop
Construction		Steel
Colours		Black
Accessories	Optional	19" Rackmount adapter

Shipping & Ordering:				
Packaging	Cardboard box			

## Architects' and Engineers' Specifications:

The Amplifier shall be a constant voltage 70/100 Volt type, containing one controllable amplifier channel with an output power of 80 Watt. The amplifier shall use Class-D Amplifier technology while being powered by a switching power supply. It shall have integrated circuitry to protect against short-circuits, mismatched loads and over-heating. Additionally, the load shall be protected against DC faults and a clip limiter shall automatically reduce the input gain at onset of distortion. The unit shall be housed in a convection cooled enclosure, providing maximum reliability while keeping maintenance and noise levels at a minimum.

The front panel shall contain an AC power switch accompanied by a blue power indicator LED and channel operation indicator LED's. Two green signal LED's indicating the presence of an input signal and it's level exceeding the -20 dB level, a clip LED indicating the channel operation at maximum level and a protection LED indicating any fault detected shall be provided on the amplifier's front panel. In addition a 3.5 mm jack connection on the front panel shall be implemented, allowing convenient connection possibilities for portable devices such as laptops, smartphones and tablets. Besides the output master control, a two band tone control shall be provided, the master volume control will allow regulation of the overall output volume while the two band tone controls will allow bass / treble adjustment within a range of  $\pm$  12 dB.

The output connection shall be performed using a 4-pin Terminal block connector with multiple output possibilities including 100V, 70V and low impedance (4 Ohm).

On the back panel, an unbalanced stereo line input connection shall be implemented through RCA connectors, another input shall be possible through a balanced mono type input allowing easy connection of microphones. A 15 V phantom power switch will allow connecting condenser microphones. Both inputs shall have individual input mixing controls. A priority switch shall be provided whereby other audio sources will be eliminated once a signal is present on this input, when enabled it shall also override the priority contact.

A priority mute contact shall be provided, allowing easy muting of the background music. This will be convenient for situations where a separate emergency system is installed and complete background music muting is required at occasion of a fire alarm. The emergency system contacts can be linked to this contact input.

The amplifier shall operate on a  $100 \sim 240 \text{ V}$  AC / 50 Hz mains network and shall be equipped with a removable power cord having a standard shuko (CEE 7/7) AC plug. The connector on the amplifier chassis shall be a fused IEC C14 type.

The amplifier shall be housed in a compact half 19" rackspace enclosure which can be used for desktop installation or mounted in an equipment rack using (optionally available) mounting adapters. The half 19" rackspace enclosure allows single installation in a 10.5" equipment rack, or side-by-side (two devices) in a 19" equipment rack it's weight shall not exceed 2.8 Kg.

