



# MFA216

## All-in-one audio solution - 2 x 80W @ 4 Ohm - 160W @ 70/100V

### Highlights:

- 1 x SourceCon™ interface card slots
- Compatible with AUDAC Touch™
- Compact design
- Advanced DSP and loudspeaker management
- WaveDynamics™ speaker & set configurations
- Auto-update (OTA) feature
- RS485 & TCP/IP controllable
- Dante™/AES67 expansion port
- Amplifier link in-& outputs
- Near-zero latency (100ms) when playing priority messages through Dante™/AES67



### Product information:

"All-in-one audio solution."

This revolutionary award-winning amplifier is designed as a two-channel amplifier using class D amplifier technology. It can be used for powering low impedance stereo systems with a maximum power of 2 x 80 Watt, while bridging to a constant voltage (100V and 70V) is possible with a maximum output power of 160 Watt. A switch-mode power supply allows a wide variation of main voltages for global compatibility.

The integrated SourceCon™ module\* slot allows the implementation of any available compatible module, offering a true all-in-one solution. Typical applications are the implementation of an audio streaming module or internet radio module. Additionally, a stereo line input allows connection for any kind of external audio sources.

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 line-level sources (e.g. voice file players) is guaranteed by wide gain adjustment (0 dB ~ +50 dB). This gain adjustment controls both the sensitivity of the line inputs on the rear as on the front. Thanks to the 2.8" TFT display and the push rotary dial on its front, an unmatched user experience is achieved.

Please pay attention the RCA input is combined with the line input at the back of the device, meaning the rear input is disabled when the front input is in use.

A line out connection at the back of the device is making the device even more versatile. This line out can be used as a preamp output, where the input and volume are the same as the internal amplifier or as a separate secondary stereo zone output, where both zones (inputs, volume control, and many more..) can be operated completely independently of each other.

A priority mute contact on the back of the device mutes the music at the presence of a contact closure between both terminals. Priority enabled on mic-in overrides the muting,



### Certification:



### Additional Inputs:



### Voltage:



allowing emergency announcements or voice messages.

The MFA series are both RS232, RS485 and TCP/IP controllable allowing implementation with home & industrial automation systems and peripheral devices. Using the freely available AUDAC Touch™ 2 application, control and configuration can be done from any portable or non-portable device on any location and at any time.

Desktop installation or mounting in an equipment rack using the MBS1xx series mounting adapters is possible. 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.

When installed the (optional) ANI44XT Dante™ audio network interface, music from the installed SourceCon™ module or connected line input signal can be shared throughout your Dante™ audio network to other compatible devices or amplifiers. Using Dante™, you can even play priority messages with near-zero latency (100ms) to the audience.

\*SourceCon™ modules are optionally available. MFA series does not come pre-installed with one of these modules.

\*Automation tool: the MFA series does not have built-in relays, it will only be possible to send commands via AUDAC Touch™ to other TCP-IP products. 2-way communication between devices is not possible.

\*NOTE: The powers shown for low impedance stereo mode may look strange to be equal for 4Ω, 8Ω and 16Ω loads, however, these figures are true and correct. The output voltage is increased at higher load impedances to guarantee the maximum output power is achieved. These figures are depending on a correct output setting configuration in the 'Settings' & 'Amplifier' & 'Output' and 'Output type' menu.

## Applications:

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- Bars & Restaurants
- Retail
- Corporate

## System specifications:

RMS/AES power handling	@ 4 $\Omega$ Stereo		2 x 80 W
	@ 8 $\Omega$ Stereo		2 x 80 W
	@ 16 $\Omega$ Stereo		2 x 80 W
	@ 70/100 V Bridge		1 x 160 W
Frequency	Response ( $\pm$ 3 dB)		20 Hz - 20 kHz
Signal / Noise			> 90 dB
THD+N (@ 1 kHz)			< 0.05%
Technology			Class-D
Inputs	Balanced Mic./Line	Type	1 x Balanced Microphone and Line Input
		Connector	Euro Terminal Block
	Unbalanced Stereo	Type	1 x Stereo Unbalanced Line
		Connector	RCA / 3.5 mm Jack
	Type		1 x SourceCon™ interface card slots
			4 x Dante™/AES67 (Optional module)
	Other	Type	Priority mute contact
Outputs	Type		1 x Line output
			1 x 70/100V (Bridged)
			4 x Dante™/AES67 (Optional module)
Power	Supply	Operating	100 ~ 240 V AC / 50 ~ 60 Hz

## Product Features:

Dimensions			217.5 x 43.7 x 300 mm (W x H x D)
Weight			2.20 kg
Mounting			1/2 19" / 1 HE or tabletop
Construction			Steel
Accessories	Optional		19" Rackmount adapter
			Wall Controller (MWX45)
			ANI44XT - Dante™/AES67 audio network interface

## Architects' and Engineers' Specifications:

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The amplifier shall be a multi-functional type featuring a SourceCon™ interface card slot for the installation of an optional audio source module, offering an all-in-one solution. The amplifier section shall allow powering low impedance audio systems with a maximum power of 2 x 80 Watt while bridging to constant voltage (70/100V) audio systems shall also be possible with an output power of 160 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 system shall be fully controllable through implementation in a total system control platform which is compatible with a wide variation of operating systems including Android, iOS, Windows, Mac and Linux. This application shall allow creation and customization of application-specific dashboards, allowing combining its controls together with other audio & video equipment from one single dashboard.

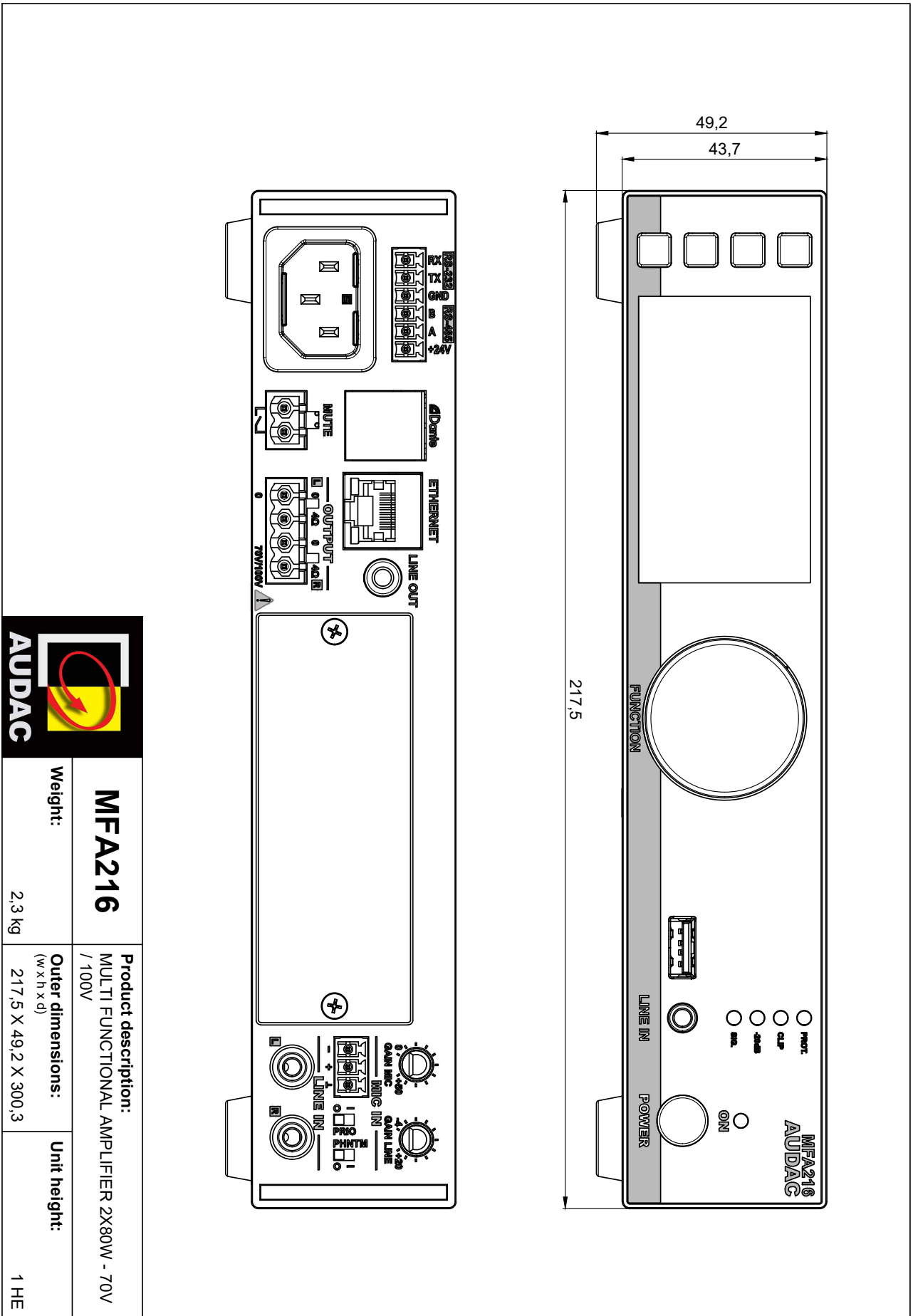
The front panel shall contain a power button accompanied with a blue power indicator LED. A Graphical 2.8" TFT display combined with a push rotary function dial and 4 tactile pushbuttons shall be implemented, guaranteeing an intuitive and user-friendly experience with a clear overview of the systems functions and current operation modes. The functions of the system shall include advanced DSP functionalities, including input equalizing, output equalizing, output filters, configurable priority & talk over functions, delay, limiters, ...

The connections shall be made on the rear side of the amplifier, including an unbalanced stereo line input connection implemented through RCA connectors and a balanced mono input connection implemented through a terminal block connector. The balanced mono input shall allow both line and microphone level sources being connected and include priority and phantom power possibilities. 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. Additionally, 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. A front USB slot allows playback or storage from/to the inserted media (in case a supporting module is installed).

A 3.5 mm jack line output connection shall make it possible for expanding the power with an external power amplifier. This line output shall be configurable as a secondary zone output, allowing to create a two-zone audio system. An Ethernet (TCP/IP) and RS-232 command port shall be implemented on the rear side of the unit, making control possible from any home or industrial automation system. The output connection shall be performed using a 4-pin Terminal block connector with connection possibilities for 70V/100V and low impedance use.

The amplifier shall operate on a 100 ~ 240 V AC / 50 Hz mains network and shall be equipped with a removable power cord having a standard schuko (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" rack space 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 its weight shall not exceed 2.20 Kg.



<p><b>MFA216</b></p>	<p><b>Product description:</b> MULTI FUNCTIONAL AMPLIFIER 2X80W - 70V / 100V</p>	<p><b>Unit height:</b> 1 HE</p>
<p><b>Weight:</b> 2,3 kg</p>	<p><b>Outer dimensions:</b> (w x h x d) 217,5 X 49,2 X 300,3</p>	