Ashly mXa-1502.

Four zones of mixing and DSP, plus 2 x 150W of power and programmable mic preamps... made simple and compact.

The mXa-1502 gives you multi-zone music distribution, paging, sound-masking and automatic mixing for a wide-range of environments.

Process 12 audio inputs into four different areas of a church, restaurant, school or office/warehouse complex, etc., with a single rack space device that includes two Ashly-reliable 150-watt amplifiers capable of driving 2, 4 and 8-ohm as well as 25, 70 and 100V loads.

ALso get a rich compliment of digital signal processing, including routing, auto-mixing, ducking, amplifier status monitoring, event scheduling/triggering and more with Ashly AquaControl™ Software, that lets you navigate using virtually any browser-enabled device.

The mXa-1502 provides total control over four zones. For example: church sanctuary, balcony fill, crying room and foyer. Restaurant bar, main dining room, patio and waiting area. Reception, offices, conference room and warehouse. A big ballroom that gets partitioned into smaller spaces.

ASHLY®

mXa-1502

4-Zone DSP Mixer-Amplifier

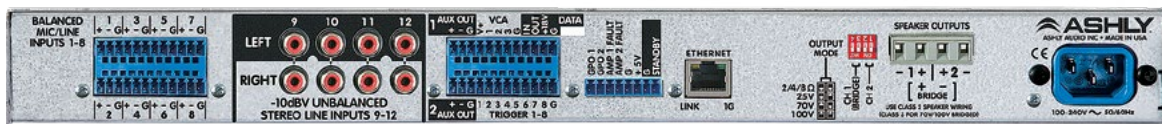# This page intentionally left blank*.

Data Sheet begins on the next page.

*Done so that those fortunate to have printers with 2-sided printing capabilities can print out the Data Sheet on one sheet of paper.

mXa-1502

4-Zone DSP Mixer-Amplifier

The 4-zone mXa-1502 has eight, Class A mic preamps with phantom power and four stereo line inputs for A/V equipment.

AquaControl software's rich compliment of digital signal processing, including routing, auto-mixing, ducking, amplifier status monitoring, event scheduling/triggering and more makes the mXa-1502 a versatile problem solver.

- *8-balanced Mic/Line Inputs*
- *Precision Class A mic preamp design with 48V phantom power*
- *4 RCA-type Stereo Line Inputs*
- *4 Outputs*
- *2 x 150W Class D Amplifiers with selectable Multi-mode operation (2/4/8 Ohm + 25/70/100V)*
- *Bridgable to deliver single-channel power of 300W at 4 or 8 ohms*
- *Switch-mode power supply with active Power Factor Correction (PFC) auto-detects 100 – 240VAC mains and operates from 70 – 270VAC*
- *New, advanced Ashly AquaControl software managed by an internal web-server and database, and controlled by a networked PC or tablet device, eliminating the need for a separate software application to be installed on a PC or other device*

- *Comprehensive DSP on 12 Input and 4 output channels*
- *Four convenient front-panel buttons for Source/Preset select*
- *Works with new WR-1.1 remote as well as WR-1, WR-1.5 , WR-2,*
- *Defeatable sleep mode*
- *I/O includes: Control, Network, Serial, GPIO, VC, Standby & Fault*
- *Compact 1U design reduces rack space requirements*

AquaControl™ ...as implemented in the mXa-1502. AquaControl functions and features vary depending on Ashly model type

Inputs

- Programmable Analog Mic Preamps
- Phantom Power On/Off ▮ Gain with Link Group Assign and Polarity switch ▮ Remote Gain ▮ DVCA Gain ▮ Meter with Peak Hold
- Signal Generator

Equalizers ▮ 31-band Graphic w/ Constant or Proportional Q ▮ 10-band Parametric EQ + HPF / LPF ▮ Anti-Feedback

Mixer1-4 ▮ Matrixing ▮ Automixers ▮ Ducker

Dynamics ▮ Compressor ▮ Auto Leveler ▮ Clip Limiter ▮ Gate

mXa-1502 Specifications

Audio Performance

Damping Factor	>250 (8 Ohm load <1kHz)
Distortion (SMPTE, typical)	<0.5%
Distortion (THD-N, typical)	<0.5% (8 Ohms, 10dB below rated power, 20Hz-20kHz)
Frequency Response	20Hz-20kHz, ±0.05dB
Channel Separation	–75dB (dB from full output, 1kHz)

Outputs

▮ 31-band Graphic — Constant or Proportional Q ▮ 10-Band Parametric ▮ FIR Filters ▮ 2/3/4-way Crossover ▮ Ambient Noise Control ▮ Delay ▮ Dynamics (same as Inputs) ▮ Signal Generator ▮ Meter with Peak Hold

Scheduler and RTC

...for user-defined automatic, timed activation of various operations

Compatibility

▮ Windows® 10 ▮ Mac® OS 10 & later ▮ Linux

Web Browsers

▮ Chrome for Windows®, OS X, iOS, Android®
▮ Safari for OS X ▮ Edge for Windows®

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mXa-1502

4-Zone DSP Mixer-Amplifier

Specifications (continued)

Processors

Input A/D; Output D/A	32-bit
DSP Processors	32-bit floating point
Sample Rate	48kHz

Audio Inputs

−10dBv Stereo Line	Unbalanced RCA, 10k Ohms, +21dBu max
Balanced MIC/Line	Euroblock 3.5mm, 18k Ohms, +21dBu max, switchable +48V phantom power

Audio Outputs

AUX Output Maximum Level	+21dBu

Amplifier Power[1]

Power Supply Type	SMPS with active PFC
Channels	2
2Ω Both Channels Driven	150 watts
4Ω Both Channels Driven	150 watts
2Ω Bridged	150 Watts
4Ω Bridged	300 Watts
8Ω Bridged	150 Watts
25V Constant Voltage	150 Watts per channel
70V Constant Voltage	150 Watts per channel
100V Constant Voltage	150 Watts per channel
Sleep Mode[2] Total Power Draw	<1 watt
Standby Mode Total Power Draw	<15 watts
Idle (no signal) Total Power Draw	<33 watts
Sleep Mode[2] Current Draw	<94ma[3]

Connections & I/O

Balanced Input Connector	Euroblock 3.5mm
Unbalanced Stereo Input Connector	RCA
Speaker Output Connector	Euroblock 7.62mm
Control Network	RJ-45 connector, 1GB Ethernet
AUX Output Connector	Balanced 3.5mm Euroblock
Data Connection	Euroblock 3.5mm – Gnd, +18V, Data Out, Data In

Connections and I/O (continued)

Ashly Audio, Inc. • 847 Holt Road • Webster, NY USA • US toll-free +1.585.872.0010
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Amp Fault Logic Outputs	Euroblock 3.5mm — software assignable
Trigger Inputs	Euroblock 3.5mm — software assignable
GPO Outputs	Euroblock 3.5mm — software assignable
Standby Contact Closure	Euroblock 3.5mm
Remote DC Level Controls	Euroblock 3.5mm – Gnd, CV, V+, software assignable

Front Panel LED Indicators

Power (white center oval)	ON / OFF / Standby (flashing)
Signal (green)	ON at 1/8 full output
Clip / Mute (red)	ON at clipping; ON at muting
Current (green)	Proportional to output
Temp (yellow)	ON dim at 90% max operating temp, full bright + protect at 100%
Com (green)	ON for Ethernet data or device ID
Protect (red)	ON (fault condition or shut-down) OFF
Sleep (blue)	ON when amplifier is asleep from audio inactivity
Disable (yellow)	ON when power switch and front panel attenuators are disabled
Bridge (green)	ON / OFF
Select	A / B / C / D

Power

All Specifications are subject to change.

AC Mains Line Cord Connector	Detachable Nema 5-15 for USA
Nominal Voltage Input	100 - 240VAC
Operating Range	70 – 270VAC
Minimum Power-Up	70 VAC

Physical

Cooling	Continuously variable temperature controlled fan
Unit Dimensions	19"W x 1.75"H x 14.54"D (483mm x 45mm x 369mm)
Carton Dimensions	25.2"W x 2.5"H x 19.5"D 641mm x 64mm x 495mm
Weight	13.0 lbs (5.4 kg)
Shipping Weight	18 lbs (8.2 kg)

1 Max Output Power: Measured in Watts/Ch., Low Impedance Output Divide by 2 for 240 VAC

2 Measurements based on CEA-2006/490A, 20mS 1kHz 1% THD+N, 480mS 1kHz -20dB.

3 <1W sleep mode can be defeated for applications that are subject to third-party performance standards that prohibit a sleep mode, including those used for Mass Notification and Emergency Communication Systems and those subject to ANSI/UL 2572.

Note: When making a true comparison of energy efficiency, one must look at the Thermal Dissipation (BTU/hr) numbers for a product. All other efficiency, i.e. "percentage" numbers are not standards based, and therefore may be marketing hype. Ashly Audio builds highly efficient Class-D amplification with SMPS that will equal or surpass the competition on BTU/hr thermal output (unused energy given off as heat). Please check our published BTU/hr. specifications for more information..

SCAN ME

Or download the complete User Manual at http://ashly.com/wp-content/uploads/2019/09/mXa-1502_Manual.pdf

mXa-1502 Mixer-Amplifier Architect & Engineering Specs

Electronic: The unit shall consist of a two-channel, multi-mode Class D amplifier capable of driving 2 Ohm loads at full power. Each channel shall have selectable output mode of Low Z, 25V, 70V, or 100V with a maximum rated output power of 150W per channel in all modes and will be bridgeable to deliver a single channel power output of 300W @4 or 8 Ohms. There shall be an automatic but defeatable sleep mode consuming <1W. A switch-mode power supply with active Power Factor Correction (PFC) shall auto-detect 100 - 240VAC mains and operate from 70 - 270VAC.

The unit shall have a multi-channel, user-programmable DSP capable of mixing 8-mic/line inputs, plus 4 stereo line inputs into 4 independent outputs. The mic inputs shall each provide 48V phantom power, switchable per channel via software. Each Input DSP channel shall have up to six assignable DSP function blocks, which shall be arrangeable in any order by the user and which may include: Gain, VCA Gain, DCA Gain, Remote Gain, 10-band PEQ, 31-band graphic EQ, HPF, LPF, Compressor, Auto-Leveler, Brick Wall Limiter, Gate, Feedback Suppressor, Delay, Signal Generator & Meter. DSP functions for the stereo channels shall also be stereo. Each Input shall allow routing to up to four mixers, each of which provides: Gain, Meter, Auto-Mix & Ducker assignable to each input channel. The unit's Output DSP consists of four channels, each having six assignable blocks, also arrangeable in an order by the user and which may include: Gain, VCA Gain, DCA Gain, Remote Gain, 10-band PEQ, 31-band graphic EQ, HPF, LPF, Compressor, Auto-Leveler, Brick Wall Limiter, Gate, Ambient Noise Compensation, FIR Filters, Delay, X-Over (2, 3 & 4-way), Signal Generator & Meter. Each Output Channel shall allow receiving a signal from any one of the four mixers as determined by the user. The four Output Channels shall feed the two amplifier channels (AMP OUT 1 & AMP OUT 2) and the two AUX Line Out Channels (AUX OUT 1 & AUX OUT 2) respectively in a fixed configuration. The unit's DSP shall also incorporate an RTC (Real-Time Clock), which can be synchronized to an external clock source (such as a PC or NTP server). The unit shall have a built-in scheduler (driven by the RTC), which can be programmed by the user for various timed operations, such as: power-on/standby, preset recall, sub-preset recall, source select, channel mute/unmute & channel gain adjustment (±). The unit's DSP shall be managed by an internal web-server and database and

controlled by a networked PC or tablet device which is browser-enabled. It shall therefore not be required that a separate software application be installed on a PC or other device, in order for the user to access DSP functions.

Mechanical: The front panel shall have LEDs indicating Input Signal (green), Clip/Mute (Red), Current (Green) and Temperature (Yellow) for each power channel and will also have global LEDs for indicating the amp's Protect (Red), COM (Green), Disable (Yellow) and Sleep (Blue) modes. The front panel shall have four momentary buttons that may be user-programmed to perform preset recall or source-select functions. There shall also be a round momentary Power button with a white LED backlight to indicate the amp's "ON" status. The front grille shall be composed of high-impact resin and shall be perforated to allow proper airflow.

The unit's rear panel shall have 8-Balanced Mic/Line inputs each with removeable 3.5mm Euroblock connectors and will also have 4-stereo unbalanced Line Inputs, each with dual RCA phono connectors. The unit will have two balanced line (AUX) outputs with removeable 3.5mm Euroblock connectors and two powered speaker outputs, which shall have 7.62mm Euroblock connectors. The unit shall have 8-adressable GPI & 2-GPO, 2-Amplifier Fault, 3-VC Remote, 1-Serial Data and 1-Amplfier Standby ports, all with removeable 3.5mm Euroblock connectors. There shall be a DIP-switch pair for each power amp allowing selection of amplifier mode (Low Z/25/70/100V). The unit shall be networkable and shall have an RJ45 100/1000BaseT Ethernet jack. The unit shall have a detachable IEC power receptacle capable of working with region appropriate power cables.

The unit shall be housed in a 1U metal chassis, with front and side perforations to allow proper cooling from the variable-speed fan. The unit shall weigh <11.3 lbs. (5.1kg) and shall measure 19" W x 1.75"H x 14.54" D (483mm x 45mm x 369mm) and mount in a standard 19" rack. There shall be a five-year warranty for units purchased in the US. No other unit shall be acceptable unless all specifications represented herein are met or exceeded and submitted in writing by an independent testing agent.

The unit shall be the Ashly mXa-1502 Mixer-Amplifier.

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