



AZM4 / AZM8

ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8

ATMOSPHERE SIGNAL PROCESSOR AND AMPLIFIER

AZM4-D / AZM8-D

AZMP4-D / AZMP8-D

AZMP8-DW

ATMOSPHERE SIGNAL PROCESSOR AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

PRODUCT SUMMARY

The AtlasIED Atmosphere platform was developed to meet the highest standards of design, quality, and value that our customers have come to expect from AtlasIED. We believe you will find this platform highly flexible to address a variety of applications while being refreshingly simple to deploy.

Four 4-Zone models (AZM4, AZMP4, AZM4-D, AZMP4-D) each include 6 analog audio inputs (2 RCA mono-summed + 4 mic/line) and 2 accessory port inputs. Non-powered models feature 4 line outputs, powered models 4 amplified outputs (600W) + 2 line out, and Dante models offer up to 10x16 I/O.

Five 8-Zone models (AZM8, AZMP8, AZM8-D, AZMP8-D, AZMP8-DW) each include 10 analog audio inputs (4 RCA mono-summed + 6 mic/line) and 4 accessory port inputs. Non-powered models feature 8 line outputs, powered models 8 amplified outputs (1200W) + 2 line out, and Dante models offer up to 14x16 I/O.

Seven plug and play smart accessories expand the system capabilities and allow for future scalability. Accessories include three audio input accessories: balanced mic/line XLR (A-XLR), RCA with 3.5mm (A-RCA), and Bluetooth® (A-BT). Also available are two controllers: single zone volume control (C-V) and advanced multi-zone controller with volume control, source select, scene recall, message recall (C-ZSV), as well as an ambient noise sensor for automatic Ambient Noise Compensation and Loud Noise Detection (X-ANS). Any control accessory can be daisy chained onto a single cable run and assigned to any zone, reducing installation time and complexity.

The 4.3" touchscreen X-ZPS Paging Station, connected by one of the accessory ports (1 X-ZPS per accessory port), provides zone paging, all call, and custom group paging features combined with a high-quality, gooseneck microphone. The X-ZPS also serves as a system controller for volume, source selection, message recall, and more.

Amplified AZMP models further reduce integration and commissioning time by integrating first-class amplification with system DSP. With the ability to power-share between channels (channels 1-4 and channels 5-8) the AZMP series can scale to the size of the zone which results in efficient system design. All amp channels utilize a self test strategy that provides assurance that both the AZMP and connected loudspeakers are working as designed.

APPLICATIONS

- Restaurant / Bars
- Houses of Worship
- Offices
- Industrial
- Education
- Corporate Centers

KEY FEATURES

- 9 available processors; 4 & 8 zones, amplified and non-amplified, Dante and non-Dante
- Web GUI programming interface
- Plug and Play Intelligent Accessories; controllers, audio inputs, paging
- Accessory bus length up to 1000'
- Daisy Chain up to 8 Accessories per Port, up to 16 per AZM
- Accessory Self-Heal
- Input Source Types: Mono, Stereo
- Output Zone Types: Mono, Mono+Sub, Stereo, Stereo+Sub
- Actions: Messages, Scenes, Routines, GPO Presets, Bells
- Zone Grouping / Room combine
- Bell scheduler - Up to 10 unique ring lists with 50 bells each
- Event Scheduler: Intuitive Calendar Format Event Scheduler
- Message Player: 100 messages, 1GB onboard storage, compatible with .wav
- GPIO: Assign inputs to recall Actions, outputs controlled as Actions
- Ambient Noise Compensation (using X-ANS)
- Loud Noise Detection (using X-ANS)
- Input Auto-Gain Audio Control
- QR-activated Virtual Wall Controllers, instant no-app mobile control
- Tilter Filter™ Room EQ Adjustment Tool
- AtlasIED Speaker Presets
- Sound Masking: Full suite of tools for complete speech privacy control
- Printable Dynamic System Diagram
- Third Party Control with integrated API tools
- Simple, Streamlined Workflow for All Skill Levels





TECHNICAL DATA SHEET

AUDIO SPECIFICATIONS / PERFORMANCE

Models Covered: AZM4, AZM8, AZMP4, AZMP8				
System	AZM4	AZM8	AZMP4	AZMP8
Type	4-Zone Audio Processor Dante	8-Zone Audio Processor Dante	4-Zone Signal Processor with 600-Watt Amplifier and Dante	8-Zone Signal Processor with 1200-Watt Amplifier and Dante
Power Requirements/Consumption				
Mains Requirements	All Non-Dante Models 100 - 240 VAC, 50 - 60 Hz (C14 Mains Inlet Connector)			
Audio Inputs	AZM4	AZM8	AZMP4	AZMP8
Total number of processed system Sources	8	14	8	14
Mic / Line Inputs	4 (Euroblock)	6 (Euroblock)	4 (Euroblock)	6 (Euroblock)
RCA	2 (mono-summed)	4 (mono-summed)	2 (mono-summed)	4 (mono-summed)
Line Outputs	4 (Euroblock)	2 (Euroblock)	2 (mono-summed)	2 (mono-summed)
General Purpose Inputs	6 (Euroblock)	6 (Euroblock)	6 (Euroblock)	6 (Euroblock)
Amplified RJ45 Output Ports	0	0	2	4
Amplified Outputs	0	0	4	8
High Priority Inputs	1 (Euroblock)	1 (Euroblock)	1 (Euroblock)	1 (Euroblock)
General Purpose Outputs	2 (Euroblock)	2 (Euroblock)	2 (Euroblock)	2 (Euroblock)
Atmosphere Accessory Ports	2 (RJ45)	4 (RJ45)	2 (RJ45)	4 (RJ45)
Balanced Mic / Line Inputs	Connector Type: 3.5mm Pitch Euroblock Color: Green Sensitivity: +4dBu with Gain Set to 0dB Input Gain: 0 - 60dB in 6dB Steps Phantom Power Voltage: +48VDC 10mA Accepts Unbalanced Inputs: Yes Maximum Input Level: +20dBu (7.72 Vrms) with Gain Set to 0dB Input Impedance: 3.9kΩ EIN: -125dBu with 150Ω Source Impedance and 20kHz BW CMRR: Typically 65dB at 1kHz Maximum Cable Size: 18AWG Minimum Cable Size: 24AWG			
RCA	Right Channel Color: Red Left Channel Color: White Type: Mono-summed Pairs Sensitivity: -10dBV Maximum Input: 2.4 Vrms (7.6dBV / 9.8dBu) for Both Inputs Driven and 4.78 Vrms (13.6dBV / 15.8dBu) for a Single Input			
Audio Outputs	AZM4	AZM8	AZMP4	AZMP8
Total number of processed system Zones (new)	4	8	4	8
Balanced Line Outputs	Connector Type: 3.5mm Pitch Euroblock Color: Orange Maximum Output Level: +20dBu (7.75 Vrms) Maximum Cable Size: 18AWG Minimum Cable Size: 24AWG			

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TECHNICAL DATA SHEET

AUDIO SPECIFICATIONS / PERFORMANCE

Audio Performance - Line Inputs	All Non-Dante Models
THD+N	<0.01% at 0dBu Input / Output with 0dB Gain at 1kHz
Frequency Response	±0.5dB 20Hz - 20kHz
Dynamic Range (S/N)	>108dB Unweighted 20Hz - 20kHz, > 110dB "A" Weighted
Crosstalk	>-78dB at 1kHz
Latency	Euroblock Input or RCA Input to Euroblock Output: 4.9 ms Accessory Input A/C to Euroblock Output: 5.9 ms Accessory Input B/D to Euroblock Output: 6.7 ms
Maximum Hardware Gain	60dB

Audio Performance - Powered Outputs (Amplifier)	AZM4	AZM8	AZMP4	AZMP8
Signal to Noise Ratio	n/a	n/a	105dB	105dB
THD Maximum (1W to 100W, 1kHz)	n/a	n/a	0.02%	0.02%
THD Maximum (1W to 600W, 1kHz)	n/a	n/a	0.20%	0.20%
Maximum Output Current	n/a	n/a	10A	10A
Maximum Output Voltage	n/a	n/a	100Vrms	100Vrms
Protection	n/a	n/a	Short, Thermal, HF, and DC	Short, Thermal, HF, and DC
Amplifier Module Channel Count	n/a	n/a	4	4
Number of Amp Modules in System	n/a	n/a	1	2
Amplifier Module Total Power	n/a	n/a	615W	615W
Total System Power	n/a	n/a	615W	1230W
Single Channel Max Power	n/a	n/a	600W	600W
Single Channel Min Power	n/a	n/a	5W	5W
Single Channel Max Power over CAT5	n/a	n/a	100W	100W
Output Modes	n/a	n/a	4/8/25/48/70/100	4/8/25/48/70/100
Power Save Modes	n/a	n/a	Channel Standby, Module Deep Sleep	Channel Standby, Module Deep Sleep
Independent channel output modes	n/a	n/a	Yes, individual per channel	Yes, individual per channel
2 ohm stable	n/a	n/a	Yes, at reduced power	Yes, at reduced power
Power Sharing	n/a	n/a	Yes	Yes
Power Sharing Minimum Increment	n/a	n/a	5W steps between 5-600W	5W steps between 5-600W

Input Processing	All Non-Dante Models
EQ	-12dB/oct 8Hz Filter, PEQ, Low / High Shelf, Notch, LP / HP (BW 6, 12, 24, dB/oct)
Dynamics	Gate, De-Esser, Compressor, Auto Gain
Other	Gain, Mixes (one per output)

Output Processing	All Non-Dante Models
EQ	PEQ, Tilter Filter, Low / High Shelf, Notch, Crossover LP / HP (BW 6, 12, 18, 24, and LR12, LR24), Speaker Tuning EQ Presets, Tone Control
Dynamics	Ambient Noise Compensation, Noise Detection, Priority Router
Frequency Response (8Ω)*	+/-0.5dB

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TECHNICAL DATA SHEET

AUDIO SPECIFICATIONS / PERFORMANCE

Crosstalk (1kHz)	-70dB
Other	Delay (500 ms), Gain
Masking	White or Pink Noise Source, Preset EQ Curves, 20 Band Perfect Fit GEQ (100Hz - 8kHz, Tilter Filter™, HPF (BW6, BW12), LPF (BW6, BW12), Enhanced Privacy Gain, (-12dB to +12dB), 7 Day Scheduler, Commissioning Ramp Scheduler (maximum of 30 days

Other Connections	All Non-Dante Models
General Purpose Inputs	Contact Closure: Normally Open Capable of Internal Pull-up to 5VDC via User Interface Voltage Input: 0 - 12VDC (1.3VDC Trigger Voltage)
High Priority Input	Contact Closure: Normally Open Capable of Internal Pull-up to 5VDC via User Interface Voltage Input: 0 - 12VDC (1.3VDC Trigger Voltage)
General Purpose Outputs	Source Current: 10mA at 5VDC Maximum Sink Current: 180mA Maximum Sink Voltage: 24VDC
Accessory Ports	Maximum Accessories per Port: 8 Maximum Accessories per AZM: 16 Maximum Bus Length: 1000ft Maximum Audio Wall Plates per Port: 1

Network - Control	All Non-Dante Models
Network Control Port	1 (RJ45), dedicated Control port
Speed	10/100mbps

Wi-Fi - Control	All Non-Dante Models			
Type	802.11 b/g/n 2.4GHz			
Free Air Range	60ft			
Antenna Type	External (as of October 2022)			
Antenna Connector	RP-SMA			

Mechanical	AZM4	AZM8	AZMP4	AZMP8
Airflow	Front to Back	Front to Back	Front to Back	Front to Back
Operating Ambient Temperature Range	0° - 40°C	0° - 40°C	0° - 40°C	0° - 40°C
Cooling System	Forced Air with Side and Back Panel Venting	Forced Air with Side and Back Panel Venting	Forced Air with Side and Back Panel Venting	Forced Air with Side and Back Panel Venting

Energy Consumption	AZM4	AZM8	AZMP4	AZMP8
Max Power Consumption	40W	75W	875W	1750W

Front Panel	AZM4	AZM8	AZMP4	AZMP8
Screen	128 x 128 Color TFT Normally White, 1.45"	128 x 128 Color TFT Normally White, 1.45"	128 x 128 Color TFT Normally White, 1.45"	128 x 128 Color TFT Normally White, 1.45"
Encoder / Buttons	24 Detent, Push Button Encoder	24 Detent, Push Button Encoder	24 Detent, Push Button Encoder	24 Detent, Push Button Encoder
Light Bar	RGB (Blue/Green= On, Red = Fault)	RGB (Blue/Green= On, Red = Fault)	RGB (Blue/Green= On, Red = Fault)	RGB (Blue/Green= On, Red = Fault)
Type				
Free Air Range				

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AZM4 / AZM8
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AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

AUDIO SPECIFICATIONS / PERFORMANCE

Dimensions and Weight	AZM4	AZM8	AZMP4	AZMP8
Rack Mount Requirements	1 RU, 19"	1 RU, 19"	1 RU, 19"	2 RU, 19"
Dimensions (with Rack Ears) - Unit	W 19" x H 1.75" x D 11.7" (483mm x 45mm x 297mm)	W 19" x H 1.75" x D 11.7" (483mm x 45mm x 297mm)	W 19" x H 1.75" x D 15.03" (483mm x 45mm x 432mm)	W 19" x H 3.45" x D 15.03" (483mm x 88mm x 432mm)
Dimensions (without Rack Ears) - Unit	W 8.5" x H 1.75" x D 11.7" (216mm x 45mm x 297mm)	W 17" x H 1.75" x D 11.7" (432mm x 45mm x 297mm)	W 17" x H 1.75" x D 15.03" (432mm x 45mm x 432mm)	W 17" x H 3.45" x D 15.03" (432mm x 88mm x 432mm)
Dimensions - Shipping	W 22" x H 4.75" x D 14" (559mm x 121mm x 356mm)	W 22" x H 4.75" x D 14" (559mm x 121mm x 356mm)	W 23.25" x H 4.75" x D 19.75" (591mm x 121mm x 502mm)	W 23.25" x H 7" x D 19.75" (591mm x 178mm x 502mm)
Weight - Unit	4.735 lbs (2.148kg)	8.330 lbs (3.778kg)	13 lbs (5.9kg)	19.7 lbs (8.9kg)
Weight - Shipping	7.3 lbs (3.3kg)	10.67 lbs (48kg)	18.45 lbs (8.45kg)	26.75 lbs (12.1kg)
Agency Approvals	All Non-Dante Models			
Safety	Conforms to: ANSI / UL 62368-1 Certified to: CAN / CSA C22.2 #6236			
FCC / ISED	Part 15 (Class B) (US), ICES-003 (Canada)			

AZM4 / AZM8

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ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

AZM4-D / AZM8-D / AZMP4-D AZMP8-D / AZMP8-DW

ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

AUDIO SPECIFICATIONS / PERFORMANCE



Models Covered: AZM4-D, AZM8-D, AZMP4-D, AZMP8-D, AZMP8-DW

System	AZM4-D	AZM8-D	AZMP4-D	AZMP8-D	AZMP8-DW
Type	4-Zone Audio Processor Dante	8-Zone Audio Processor Dante	4-Zone Signal Processor with 600-Watt Amplifier and Dante	8-Zone Signal Processor with 1200-Watt Amplifier and Dante	8-Zone Signal Processor with 1200-Watt Amplifier and Dante in an all-in-one wall mount cabinet

Power Requirements/Consumption	All Dante Models
Mains Requirements	100 - 240 VAC, 50 - 60 Hz (C14 Mains Inlet Connector)

Audio Inputs	AZM4-D	AZM8-D	AZMP4-D	AZMP8-D	AZMP8-DW
Total number of processed system Sources	8	14	8	14	14
Mic / Line Inputs	4 (Euroblock)	6 (Euroblock)	4 (Euroblock)	6 (Euroblock)	6 (Euroblock)
RCA	2 (mono-summed)	4 (mono-summed)	2 (mono-summed)	4 (mono-summed)	4 (mono-summed)
Line Outputs	4 (Euroblock)	2 (Euroblock)	2 (mono-summed)	2 (mono-summed)	2 (mono-summed)
General Purpose Inputs	6 (Euroblock)	6 (Euroblock)	6 (Euroblock)	6 (Euroblock)	6 (Euroblock)
Amplified RJ45 Output Ports	0	0	2	4	4
Amplified Outputs	0	0	4	8	8
High Priority Inputs	1 (Euroblock)	1 (Euroblock)	1 (Euroblock)	1 (Euroblock)	1 (Euroblock)
General Purpose Outputs	2 (Euroblock)	2 (Euroblock)	2 (Euroblock)	2 (Euroblock)	2 (Euroblock)
Atmosphere Accessory Ports	2 (RJ45)	4 (RJ45)	2 (RJ45)	4 (RJ45)	4 (RJ45)
Balanced Mic / Line Inputs	Connector Type: 3.5mm Pitch Euroblock Color: Green Sensitivity: +4dBu with Gain Set to 0dB Input Gain: 0 - 60dB in 6dB Steps Phantom Power Voltage: +48VDC 10mA Accepts Unbalanced Inputs: Yes Maximum Input Level: +20dBu (7.72 Vrms) with Gain Set to 0dB Input Impedance: 3.9kΩ EIN: -125dBu with 150Ω Source Impedance and 20kHz BW CMRR: Typically 65dB at 1kHz Maximum Cable Size: 18AWG Minimum Cable Size: 24AWG				
RCA	Right Channel Color: Red Left Channel Color: White Type: Mono-summed Pairs Sensitivity: -10dBV Maximum Input: 2.4 Vrms (7.6dBV / 9.8dBu) for Both Inputs Driven and 4.78 Vrms (13.6dBV / 15.8dBu) for a Single Input				

Audio Outputs	AZM4-D	AZM8-D	AZMP4-D	AZMP8-D	AZMP8-DW
Total number of processed system Zones	4	8	4	8	8
Balanced Line Outputs	Connector Type: 3.5mm Pitch Euroblock Color: Orange Maximum Output Level: +20dBu (7.75 Vrms) Maximum Cable Size: 18AWG Minimum Cable Size: 24AWG				

AZM4 / AZM8
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AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

AUDIO SPECIFICATIONS / PERFORMANCE



Audio Performance - Line Inputs	All Dante Models				
THD+N	<0.01% at 0dBu Input / Output with 0dB Gain at 1kHz				
Frequency Response	±0.5dB 20Hz - 20kHz				
Dynamic Range (S/N)	>108dB Unweighted 20Hz - 20kHz, > 110dB "A" Weighted				
Crosstalk	>-78dB at 1kHz				
Latency	Euroblock Input or RCA Input to Euroblock Output: 4.9 ms Accessory Input A/C to Euroblock Output: 5.9 ms Accessory Input B/D to Euroblock Output: 6.7 ms				
Maximum Hardware Gain	60dB				

Audio Performance - Powered Outputs (Amplifier)	AZM4-D	AZM8-D	AZMP4-D	AZMP8-D	AZMP8-DW
Signal to Noise Ratio	n/a	n/a	105dB	105dB	105dB
THD Maximum (1W to 100W, 1kHz)	n/a	n/a	0.02%	0.02%	0.02%
THD Maximum (1W to 600W, 1kHz)	n/a	n/a	0.20%	0.20%	0.20%
Maximum Output Current	n/a	n/a	10A	10A	10A
Maximum Output Voltage	n/a	n/a	100Vrms	100Vrms	100Vrms
Protection	n/a	n/a	Short, Thermal, HF, and DC	Short, Thermal, HF, and DC	Short, Thermal, HF, and DC
Amplifier Module Channel Count	n/a	n/a	4	4	4
Number of Amp Modules in System	n/a	n/a	1	2	2
Amplifier Module Total Power	n/a	n/a	615W	615W	615W
Total System Power	n/a	n/a	615W	1230W	1230W
Single Channel Max Power	n/a	n/a	600W	600W	600W
Single Channel Min Power	n/a	n/a	5W	5W	5W
Single Channel Max Power over CAT5	n/a	n/a	100W	100W	100W
Output Modes	n/a	n/a	4/8/25/48/70/100	4/8/25/48/70/100	4/8/25/48/70/100
Power Save Modes	n/a	n/a	Channel Standby, Mod- ule Deep Sleep	Channel Standby, Mod- ule Deep Sleep	Channel Standby, Mod- ule Deep Sleep
Independent channel output modes	n/a	n/a	Yes, individual per channel	Yes, individual per channel	Yes, individual per channel
2 ohm stable	n/a	n/a	Yes, at reduced power	Yes, at reduced power	Yes, at reduced power
Power Sharing	n/a	n/a	Yes	Yes	Yes
Power Sharing Minimum Increment	n/a	n/a	5W steps between 5-600W	5W steps between 5-600W	5W steps between 5-600W

Input Processing	All Dante Models
EQ	-12dB/oct 8Hz Filter, PEQ, Low / High Shelf, Notch, LP / HP (BW 6, 12, 24, dB/oct)
Dynamics	Gate, De-Esser, Compressor, Auto Gain
Other	Gain, Mixes (one per output)

Output Processing	All Dante Models
EQ	PEQ, Tilter Filter, Low / High Shelf, Notch, Crossover LP / HP (BW 6, 12, 18, 24, and LR12, LR24), Speaker Tuning EQ Presets, Tone Control
Dynamics	Ambient Noise Compensation, Noise Detection, Priority Router
Frequency Response (8Ω)*	+/-0.5dB



TECHNICAL DATA SHEET

AUDIO SPECIFICATIONS / PERFORMANCE



Crosstalk (1kHz)	-70dB				
Other	Delay (500 ms), Gain				
Masking	White or Pink Noise Source, Preset EQ Curves, 20 Band Perfect Fit GEQ (100Hz - 8kHz, Tilter Filter™, HPF (BW6, BW12), LPF (BW6, BW12), Enhanced Privacy Gain, (-12dB to +12dB), 7 Day Scheduler, Commissioning Ramp Scheduler (maximum of 30 days				
Other Connections	All Dante Models				
General Purpose Inputs	Contact Closure: Normally Open Capable of Internal Pull-up to 5VDC via User Interface Voltage Input: 0 - 12VDC (1.3VDC Trigger Voltage)				
High Priority Input	Contact Closure: Normally Open Capable of Internal Pull-up to 5VDC via User Interface Voltage Input: 0 - 12VDC (1.3VDC Trigger Voltage)				
General Purpose Outputs	Source Current: 10mA at 5VDC Maximum Sink Current: 180mA Maximum Sink Voltage: 24VDC				
Accessory Ports	Maximum Accessories per Port: 8 Maximum Accessories per AZM: 16 Maximum Bus Length: 1000ft Maximum Audio Wall Plates per Port: 1				
Network - Control	All Dante Models				
Network Control Port	1 (RJ45), dedicated Control port				
Speed	10/100mbps				
Wi-Fi - Control	All Dante Models				
Type	802.11 b/g/n 2.4GHz				
Free Air Range	60ft				
Antenna Type	External				
Antenna Connector	RP-SMA				
Antenna Extender (AZMP8-DW only)	RP-SMA, 8" cable				
Network - Dante	AZM4-D	AZM8-D	AZMP4-D	AZMP8-D	AZMP8-DW
Max Atmosphere Dante I/O	8x16	14x16	8x16	14x16	14x16
Dante I/O Hardware	Brooklyn 3, 16x16	Brooklyn 3, 16x16	Brooklyn 3, 16x16	Brooklyn 3, 16x16	Brooklyn 3, 16x16
Port Type	1 (RJ45), dedicated Dante port	1 (RJ45), dedicated Dante port	1 (RJ45), dedicated Dante port	1 (RJ45), dedicated Dante port	1 (RJ45), dedicated Dante port
Sample Rate	48kHz	48kHz	48kHz	48kHz	48kHz

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AZM4 / AZM8

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AND AMPLIFIER

AZM4-D / AZM8-D / AZMP4-D AZMP8-D / AZMP8-DW

ATMOSPHERE SIGNAL PROCESSOR AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

AUDIO SPECIFICATIONS / PERFORMANCE



AES67 Compatible	Yes	Yes	Yes	Yes	Yes
Mechanical	AZM4-D	AZM8-D	AZMP4-D	AZMP8-D	AZMP8-DW
Airflow	Front to Back	Front to Back	Front to Back	Front to Back	Right to Left
Operating Ambient Temperature Range	0° - 40°C	0° - 40°C	0° - 40°C	0° - 40°C	0° - 40°C
Cooling System	Forced Air with Side and Back Panel Venting	Forced Air with Side and Back Panel Venting	Forced Air with Side and Back Panel Venting	Forced Air with Side and Back Panel Venting	Forced Air with Side Venting
Energy Consumption	AZM4-D	AZM8-D	AZMP4-D	AZMP8-D	AZMP8-DW
Max Power Consumption	40W	75W	875W	1750W	1750W
Front Panel	AZM4-D	AZM8-D	AZMP4-D	AZMP8-D	AZMP8-DW
Screen	128 x 128 Color TFT Normally White, 1.45"	128 x 128 Color TFT Normally White, 1.45"	128 x 128 Color TFT Normally White, 1.45"	128 x 128 Color TFT Normally White, 1.45"	128 x 128 Color TFT Normally White, 1.45"
Encoder / Buttons	24 Detent, Push Button Encoder	24 Detent, Push Button Encoder	24 Detent, Push Button Encoder	24 Detent, Push Button Encoder	Up, Down, and Enter buttons
Light Bar	RGB (Blue/Green= On, Red = Fault)	RGB (Blue/Green= On, Red = Fault)	RGB (Blue/Green= On, Red = Fault)	RGB (Blue/Green= On, Red = Fault)	RGB (Blue/Green= On, Red = Fault)
Type					
Free Air Range					
Dimensions and Weight	AZM4-D	AZM8-D	AZMP4-D	AZMP8-D	AZMP8-DW
Rack Mount Requirements	1 RU, 19"	1 RU, 19"	1 RU, 19"	2 RU, 19"	n/a, on-wall form factor
Dimensions (with Rack Ears) - Unit	W 19" x H 1.75" x D 11.7" (483mm x 45mm x 297mm)	W 19" x H 1.75" x D 11.7" (483mm x 45mm x 297mm)	W 19" x H 1.75" x D 15.03" (483mm x 45mm x 432mm)	W 19" x H 3.45" x D 15.03" (483mm x 88mm x 432mm)	W 18.7" x H 28.5" x D 4" (475mm x 723mm x 100mm)
Dimensions (without Rack Ears) - Unit	W 17" x H 1.75" x D 11.7" (432mm x 45mm x 297mm)	W 17" x H 1.75" x D 11.7" (432mm x 45mm x 297mm)	W 17" x H 1.75" x D 15.03" (432mm x 45mm x 432mm)	W 17" x H 3.45" x D 15.03" (432mm x 88mm x 432mm)	n/a, on-wall form factor
Dimensions - Shipping	W 22" x H 4.75" x D 14" (559mm x 121mm x 356mm)	W 22" x H 4.75" x D 14" (559mm x 121mm x 356mm)	W 23.25" x H 4.75" x D 19.75" (591mm x 121mm x 502mm)	W 23.25" x H 7" x D 19.75" (591mm x 178mm x 502mm)	W 26" x H 35" x D 12" (650mm x 890mm x 308mm)
Weight - Unit	8.5lbs	8.5lbs	13lbs	20lbs	30.5lbs
Weight - Shipping	12.5lbs	12.5lbs	18.5lbs	27lbs	46lbs
Agency Approvals	All Dante Models				
Safety	Conforms to: ANSI / UL 62368-1 Certified to: CAN / CSA C22.2 #6236				
FCC / ISED	Part 15 (Class B) (US), ICES-003 (Canada)				

AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW

ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

AUDIO SPECIFICATIONS / PERFORMANCE

Optional Accessories	
C-V / C-V-EU	<p>Control Type: 24 Detents 360° Continuous Push Button Encoder Light Ring: RGB (Mute, Signal, Locate) Dimensions: 1.78" x 4.2" x 1.9" C-V Minimum Box Depth: 2.25"; C-V-EU Minimum Box Depth: 45mm EU Accessory includes optional box spacer plate. Minimum back box depth using included spacer = 30mm.</p>
C-ZSV / C-ZSV-EU	<p>Control Type: 24 Detents 360° Continuous Push Button Encoder Light Ring: RGB (Mute, Signal, Locate) Screen: 128 x 128 Color TFT C-ZSV Dimensions: 1.78" x 4.2" x 1.9"; C-ZSV-EU Dimensions: 3.46" x 4.49" x 1.86" C-ZSV Minimum Box Depth: 2.25"; C-ZSV-EU Minimum Box Depth: 45mm EU Accessory includes optional box spacer plate. Minimum back box depth using included spacer = 30mm.</p>
A-RCA / A-RCA-EU	<p>Right Channel Color: Red Left Channel Color: White Sensitivity: -10dBV (Same as AZM) Maximum Input Voltage: +8dBu Output Type: Mono Indicator: Green = Signal Presence, Red = Clip, Blue = Locate Dimensions: 1.78" x 4.2" x 1.5" A-RCA Minimum Box Depth: 2.25"; A-RCA-EU Minimum Box Depth: 45mm EU Accessory includes optional box spacer plate. Minimum back box depth using included spacer = 30mm.</p>
A-XLR / A-XLR-EU	<p>Sensitivity: +4dBu (Same as AZM Balanced Inputs) Connector Type: XLR (Female) Retaining Clip: Yes Phantom Power Voltage: +48VDC 10mA Accepts Unbalanced Inputs: Yes Input Gain: 0 - 60dB Maximum Voltage Input: +20dBu Input Impedance: 3.4kΩ EIN: 117dBu at 150Ω, 20kHz BW CMRR: Typically 50dB at 1kHz Indicator: Green = Signal Presence, Red = Clip, Blue = Locate A-XLR Dimensions: 1.79" x 4.20" x 2.1"; A-XLR-EU Dimensions: 3.46" x 4.49" x 2.1" A-XLR Minimum Box Depth: 3"; A-XLR-EU Minimum Box Depth: 55mm EU Accessory includes optional box spacer plate. Minimum back box depth using included spacer = 40mm.</p>
A-BT / A-BT-EU	<p>BT Standard: V4.2 Audio Profile: A2DP Open Air Range: 60ft Output Type: Mono NFC: Tap-to-Pair Indicator: Green = Paired, Red = Error, Blue = Pairing Mode Button: Pairs and Unpairs Devices Dimensions: 1.78" x 4.2" x 1.4" A-BT Minimum Box Depth: 2.25"; A-BT-EU Minimum Box Depth: 45mm EU Accessory includes optional box spacer plate. Minimum back box depth using included spacer = 30mm.</p>

(CONTINUES ON NEXT PAGE)

AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

AUDIO SPECIFICATIONS / PERFORMANCE

X-ANS / X-ANS-EU	<p>Data Returned to AZM: Non-audio</p> <p>Calibration: RMS, A-weighted, SPL</p> <p>Range: 30 - 110dB SPL</p> <p>Indicator: Blue = Locate</p> <p>Dimensions: 1.78" x 4.2" x 1.4"</p> <p>X-ANS Minimum Box Depth: 2.25"; X-ANS-EU Minimum Box Depth: 45mm</p> <p>EU Accessory includes optional box spacer plate. Minimum back box depth using included spacer = 30mm.</p>
X-ZPS	<p>Screen Type: 4.3" TFT capacitive touch</p> <p>Mic Connector: Neutrik brand female XLR</p> <p>Mic Input Sensitivity: +4dBu</p> <p>XLR Retaining Clip: Yes</p> <p>Phantom Power: +48VDC 10mA</p> <p>Input Gain Range: 0 - 60dB</p> <p>Maximum Voltage Input: +20dBu</p> <p>Input Impedance: 3.4kΩ</p> <p>EIN: 117dBu at 150Ω, 20kHz BW</p> <p>CMRR: Typically 50dB at 1kHz</p> <p>Included Mic Polar Pattern: Cardioid</p> <p>SPL Maximum: 120dB</p> <p>Frequency Response: 70Hz - 16kHz</p> <p>Dynamic Range: >90 dB</p> <p>Light Ring: RGB</p> <p>Dimensions: 3.33" x 3.78" x 8.53"</p> <p>Housing Type: Cast aluminum</p> <p>Mounting: Table top or snap in plate</p>



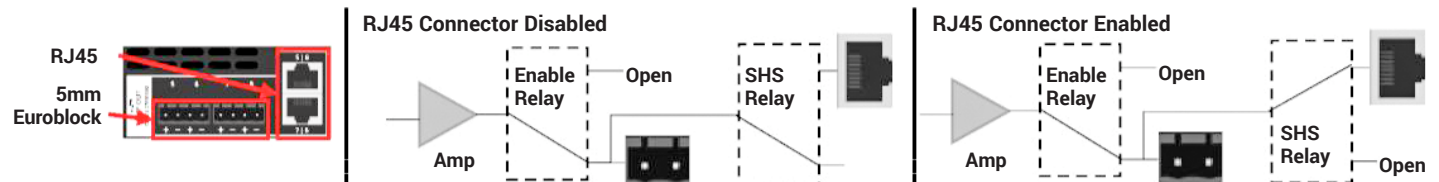
TECHNICAL DATA SHEET

AMPLIFIER OUTPUT SUMMARY (AZMP4, AZMP4-D, AZMP8, AZMP8-D, AND AZMP8-DW)

All amplified Atmosphere models utilize ground up, internally developed amplifier power sharing technology that allows for efficient use of available power and avoiding system oversize due to traditional amplifier power ratings. The technology works in banks of 4 channels and has the ability to shift all available power supply power to a single channel or programmatically divide the available power supply power in any proportion to all channels. The technology does not simply rely on correct complex load calculations to divide power up but actively shapes the power to mimic the desired amplifier size per channel. Additionally, each output has the ability to independently operate in either HI-Z mode (25V, 48V, 70V, and 100V) or LOW-Z mode (4Ω or 8Ω). This methodology allows the amplifier to match the system design rather than the system design matching a convenient amp selection.

OUTPUT OPTIONS

Each amp channel can be assigned to traditional Euroblock connectors (5mm pitch) and/or an RJ45 connector that can be used with the SHS mini product line. When the RJ45 connector is utilized, the current is automatically limited to 1 Amp to protect the attached cable.

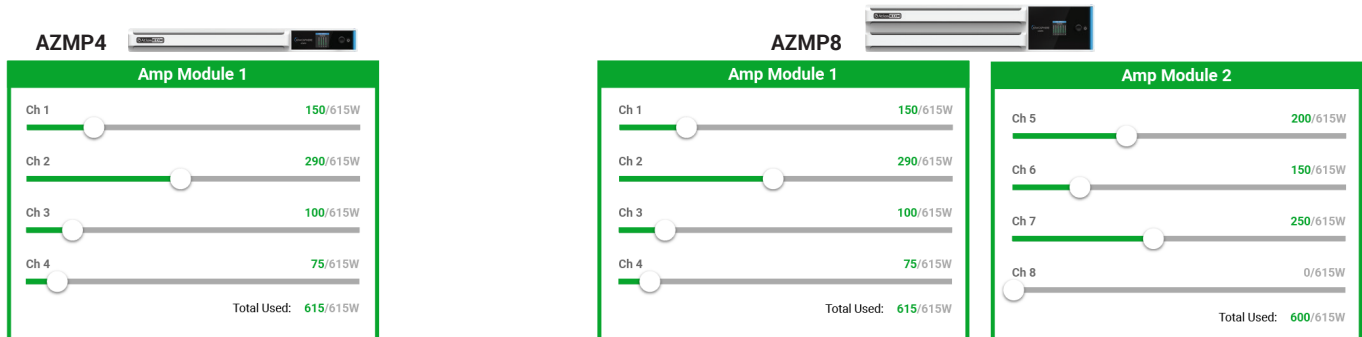


SELF TEST

Every AZMP has the ability to run an automated self diagnostic test that can highlight potential internal system issues (fan operation, relays, live faults, thermal issues, and power supply) and external system failures (loudspeaker failures based on changes in impedance and line voltage issues). A convenient scheduler feature allows the self diagnostic test to be defined and run on a regular basis. If any of the tests return a failed result the AZMP (internet connection required) can send an email notification to the party responsible for system maintenance.

POWER SHARING

The total power available for each bank of four channels is 615W. This can be split in 5W increments between all four channels (maximum power allowed to send to a single channel is 600W). Examples of compatible power sharing configurations shown the the images below.



AMPLIFIER POWER SPECS

Due to the extreme flexibility of the amplifier the below specification chart is limited to the maximum single channel driven and a balanced (150W/CH) all channels drive scenarios.

Single Channel Driven

Test Method	4Ω	8Ω	25V	48V	70V	100V
CAF Max Power*	400W	600W	250W	480W	600W	600W

All Channels Evenly Driven (150W)

Test Method	4Ω	8Ω	25V	48V	70V	100V
CAF Max Power*	150W	150W	150W	150W	150W	150W

SHS Output **

Test Method	4Ω	8Ω	25V	48V	70V	100V
CAF Max Power*	5W	10W	25W	50W	70W	100W

* = 15s continuous at 1kHz and rated THD%.

** = Output power is limited by 1A limitation on CAT5 cable.

ATMOSPHERE SIGNAL PROCESSOR

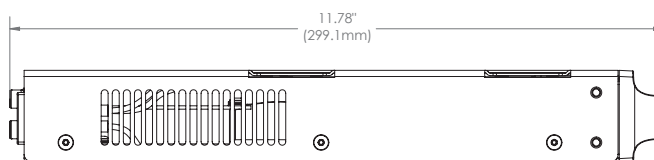
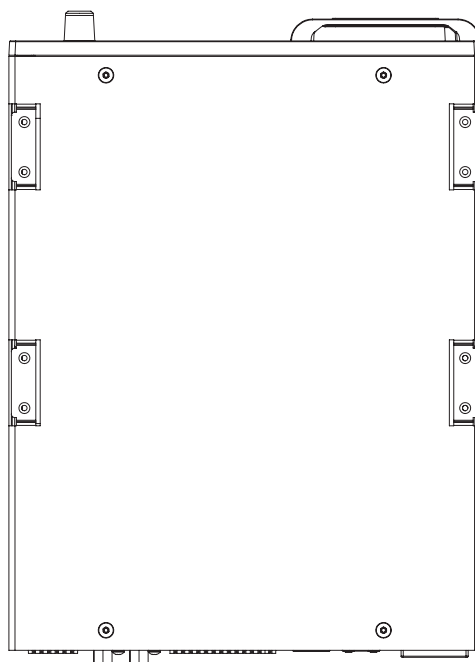
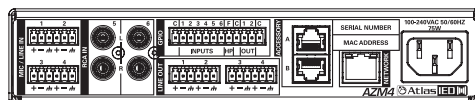
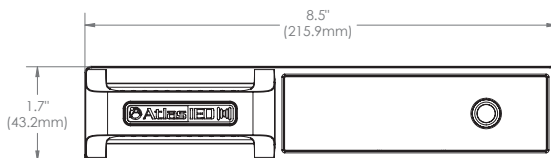
ATMOSPHERE SIGNAL PROCESSOR AND AMPLIFIER

ATMOSPHERE SIGNAL PROCESSOR AND AMPLIFIER WITH DANTE



DIMENSIONAL DRAWINGS

AZM4



AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

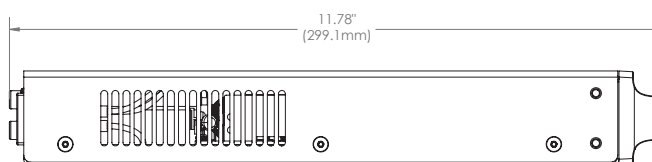
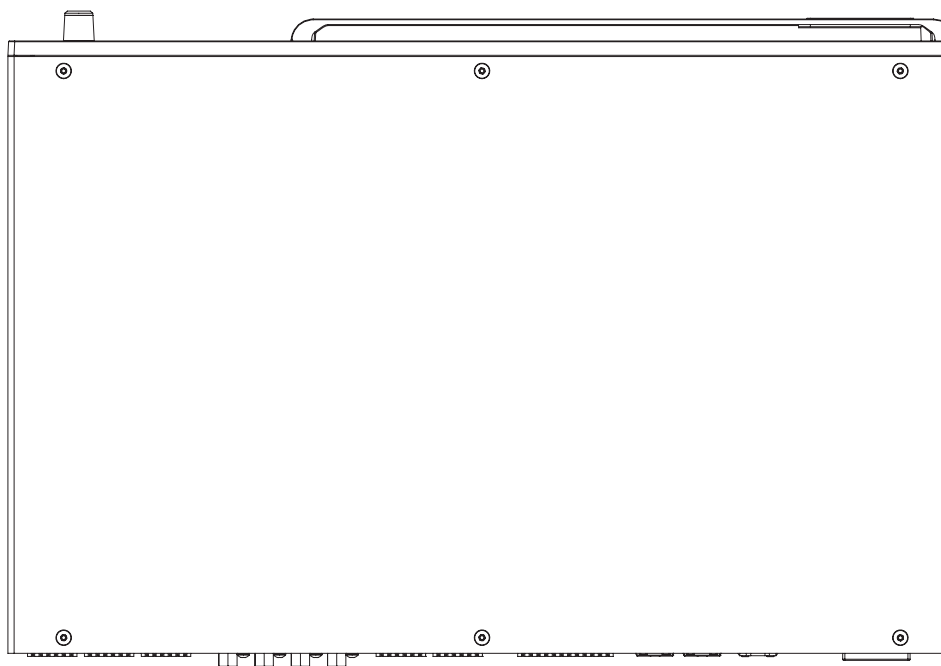
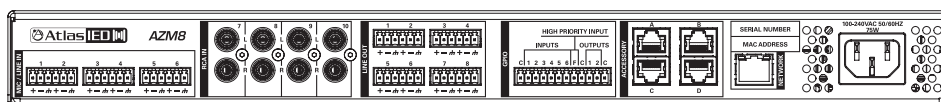
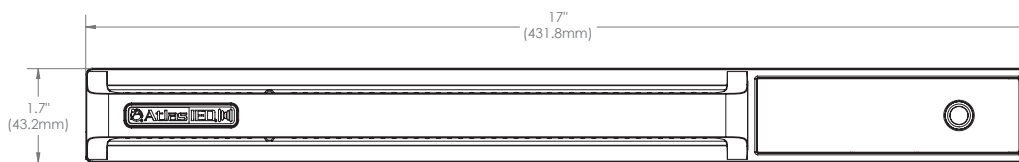
**AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW**
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

DIMENSIONAL DRAWINGS

AZM8



AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW

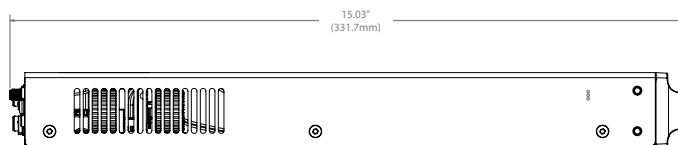
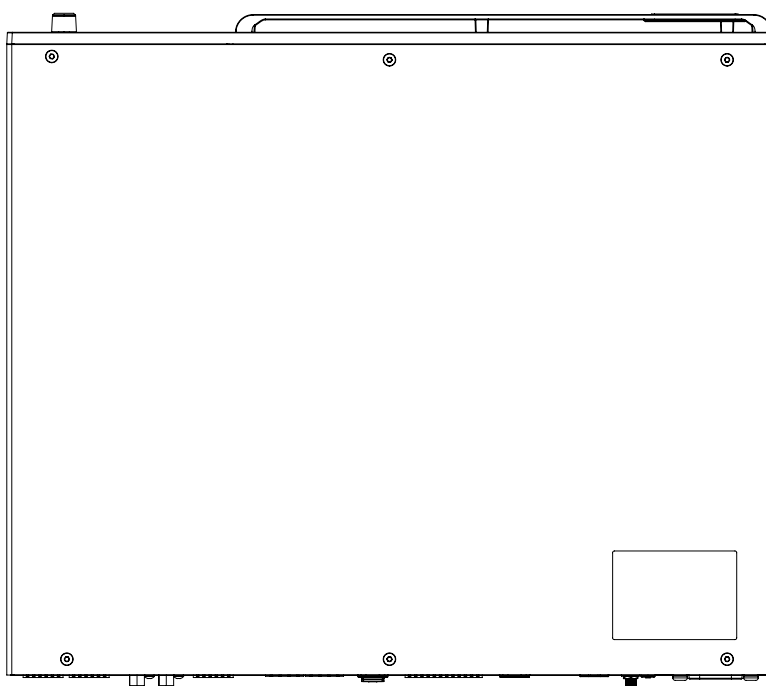
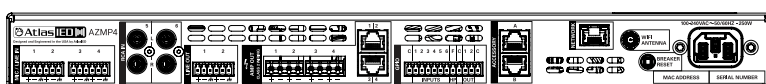
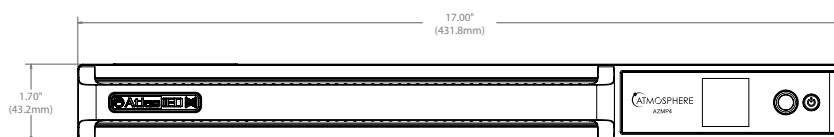
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

DIMENSIONAL DRAWINGS

AZMP4



AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

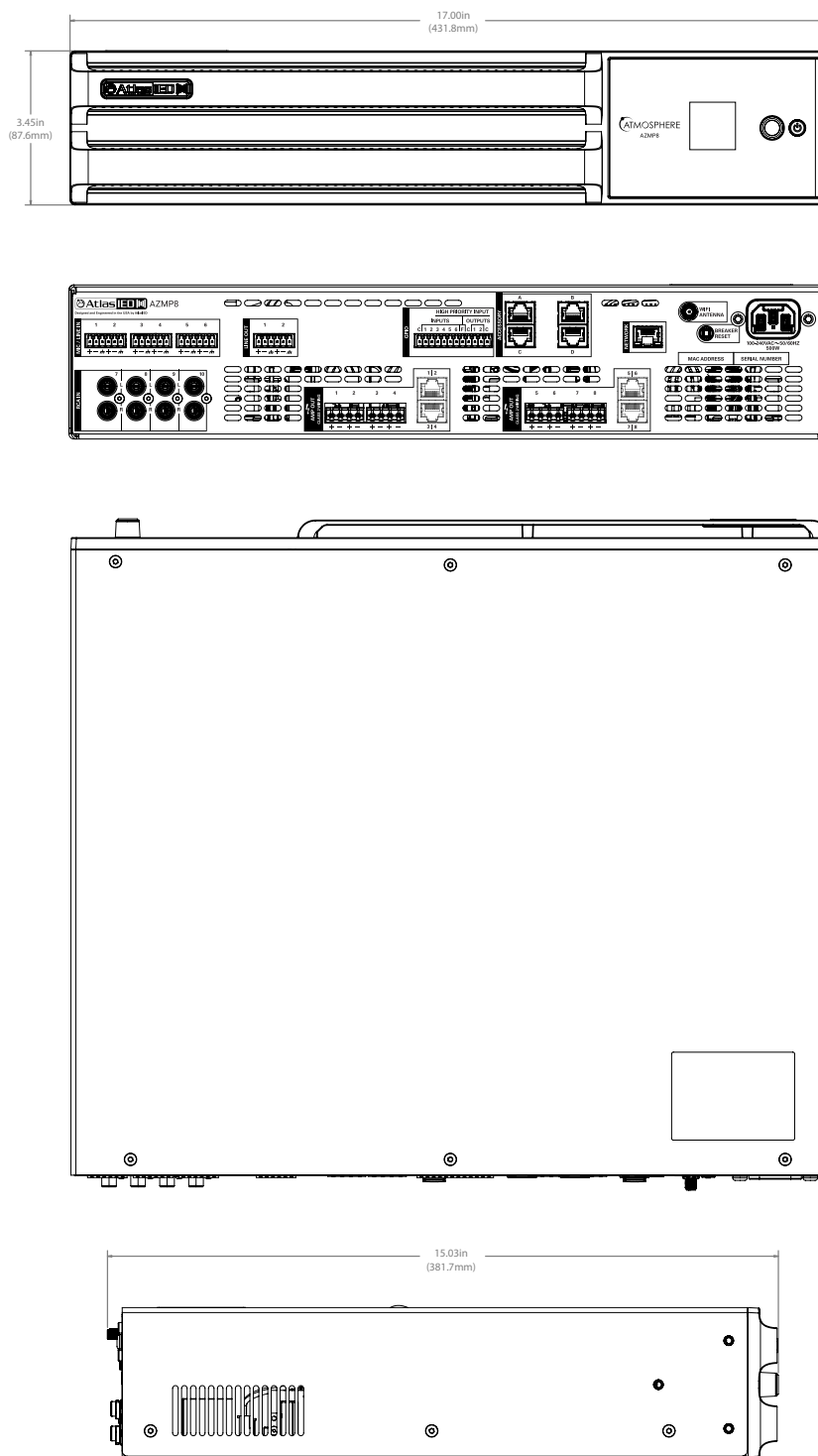
AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

DIMENSIONAL DRAWINGS

AZMP8



AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

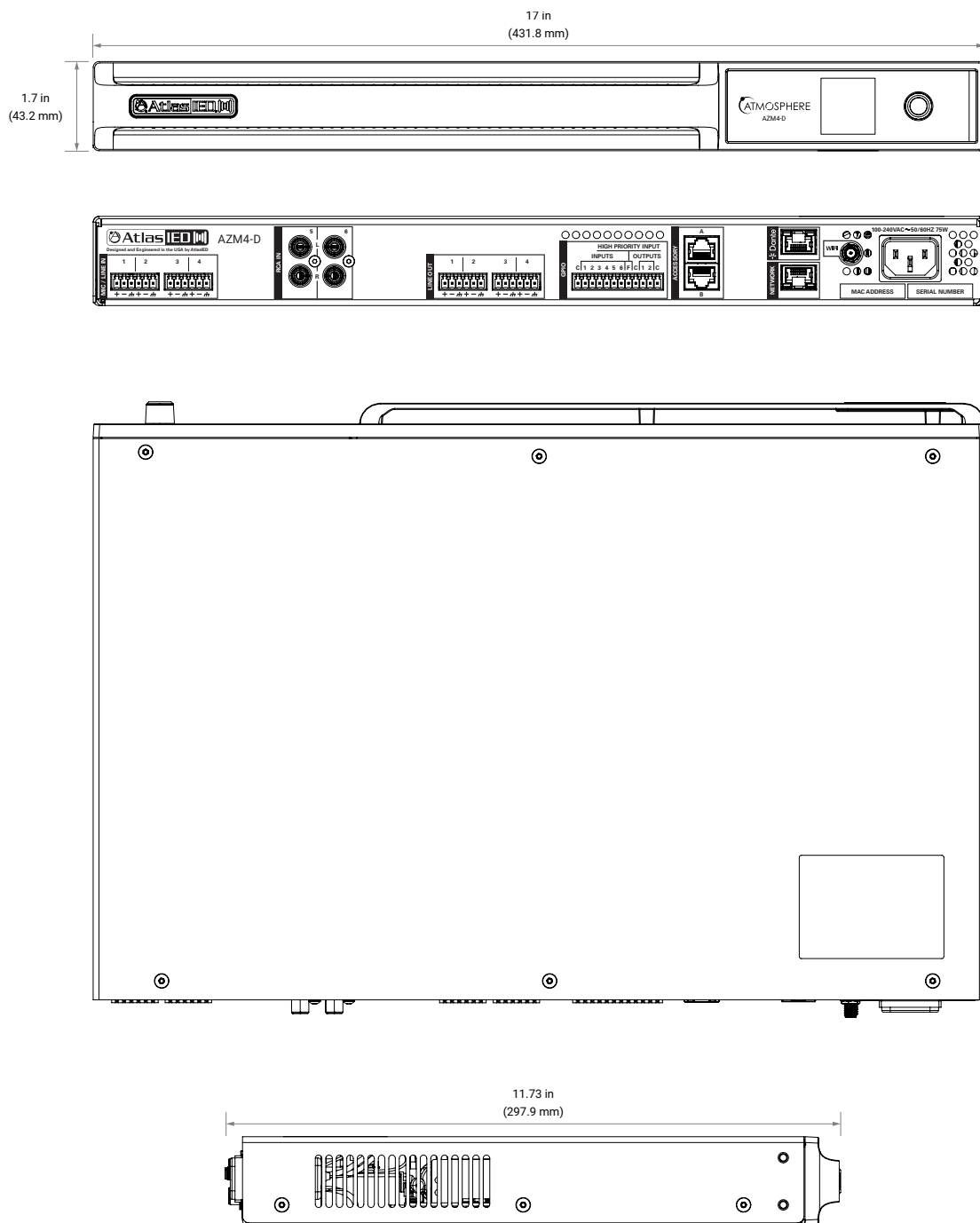
AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

DIMENSIONAL DRAWINGS

AZM4-D



AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

**AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW**

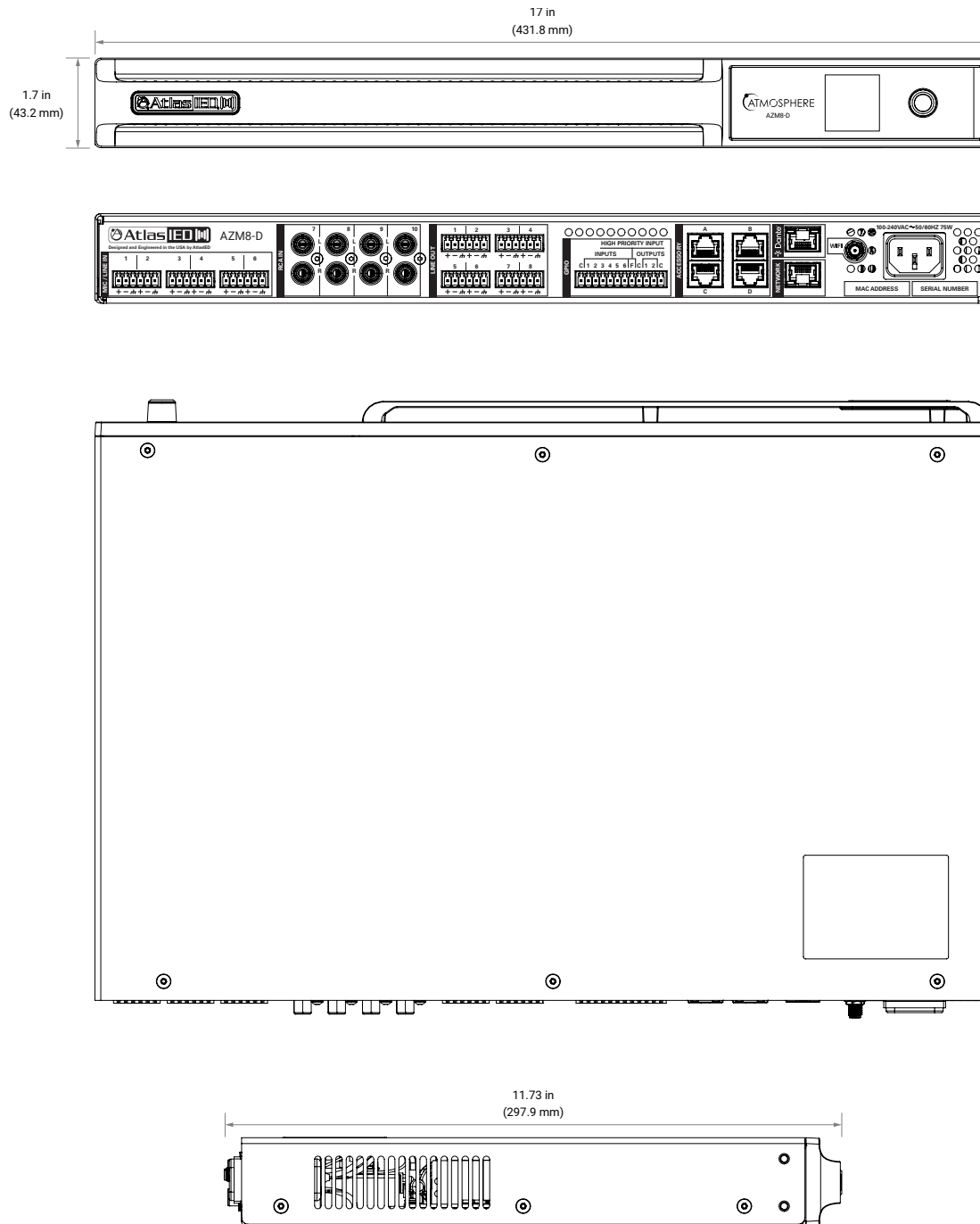
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

DIMENSIONAL DRAWINGS

AZM8-D



AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

**AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW**

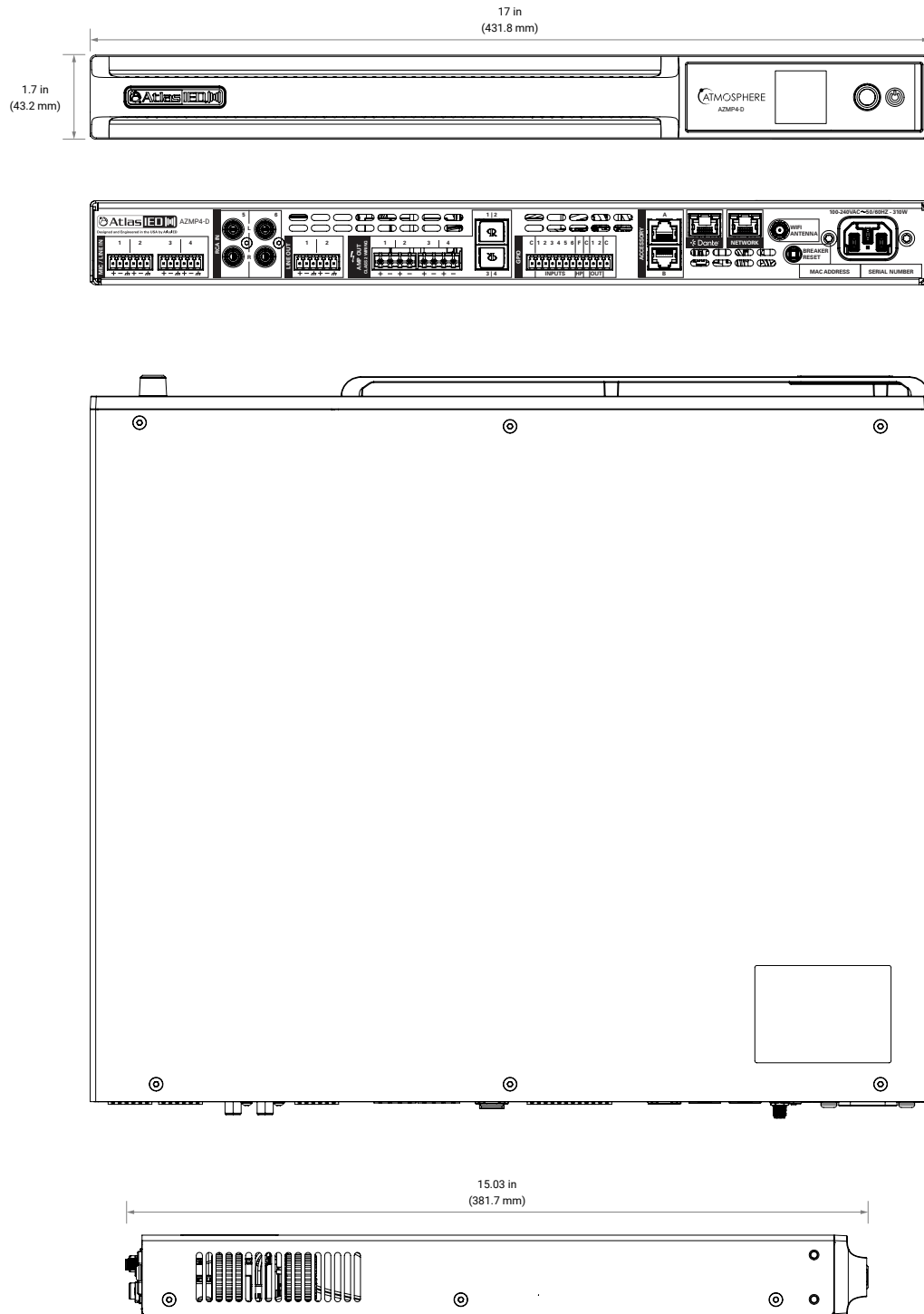
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

DIMENSIONAL DRAWINGS

AZMP4-D



AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW

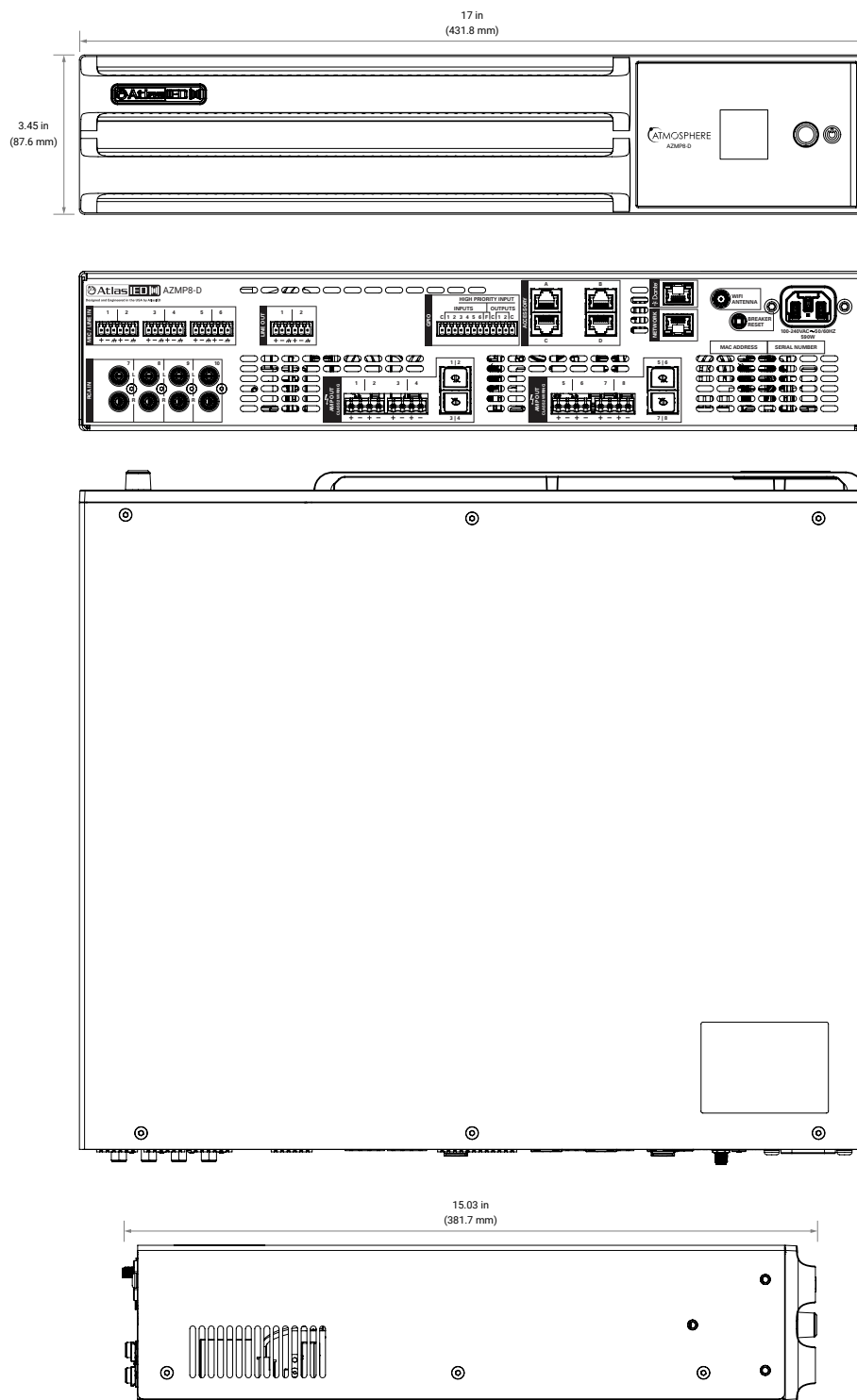
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

DIMENSIONAL DRAWINGS

AZMP8-D



AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

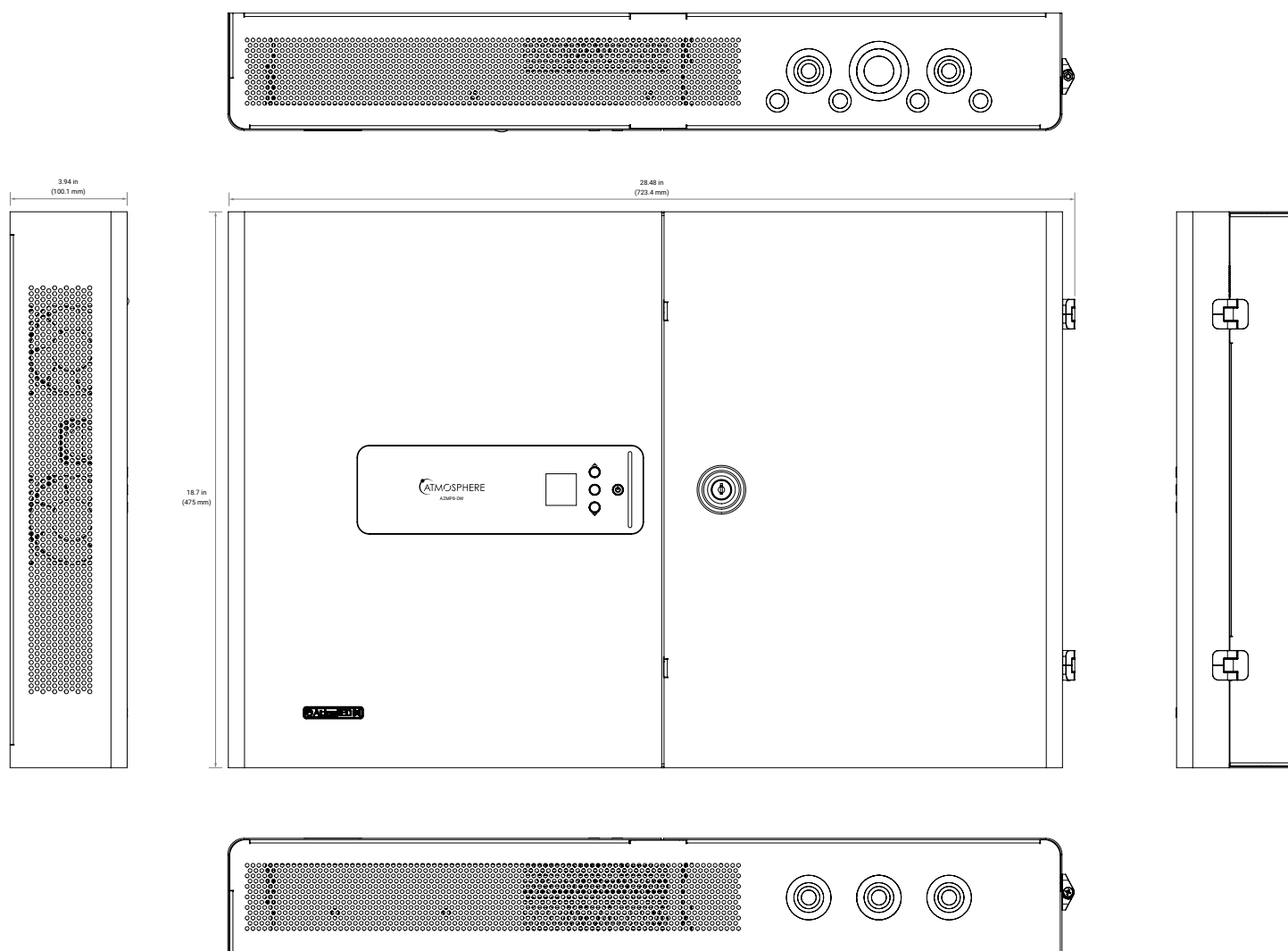
AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

DIMENSIONAL DRAWINGS

AZMP8-DW



AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

**AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW**

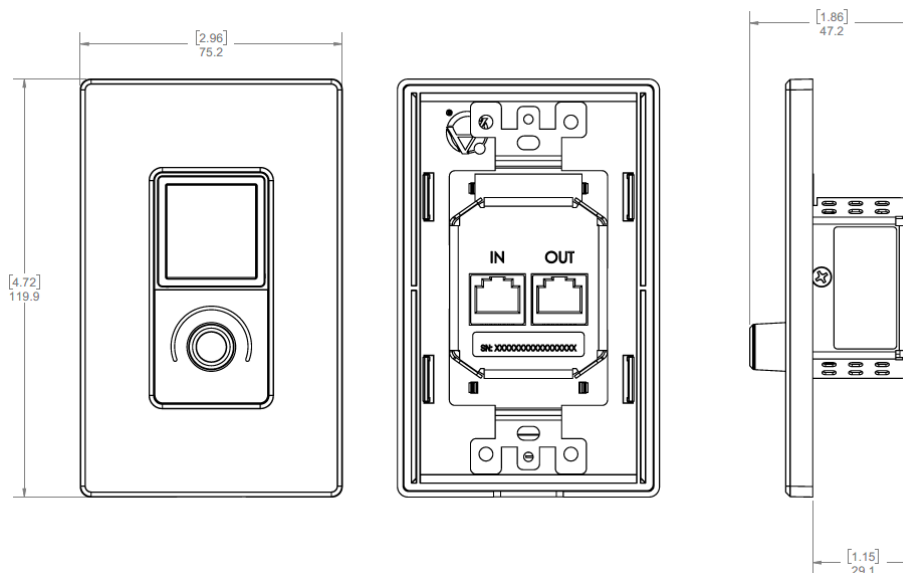
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



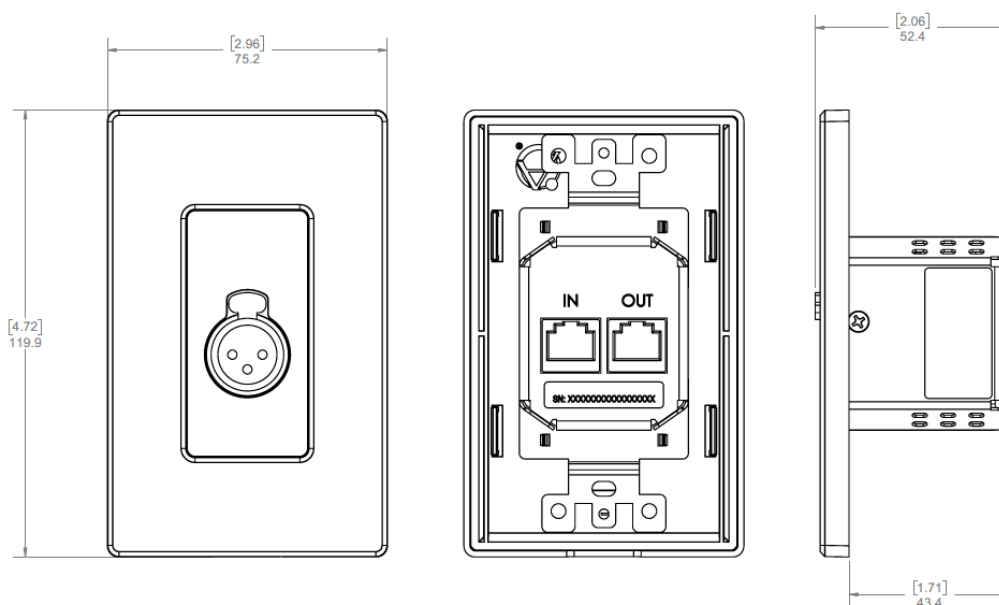
TECHNICAL DATA SHEET

DIMENSIONAL DRAWINGS

C-V, C-ZSV, A-RCA, A-BT, and X-ANS share the same dimensions



A-XLR



AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

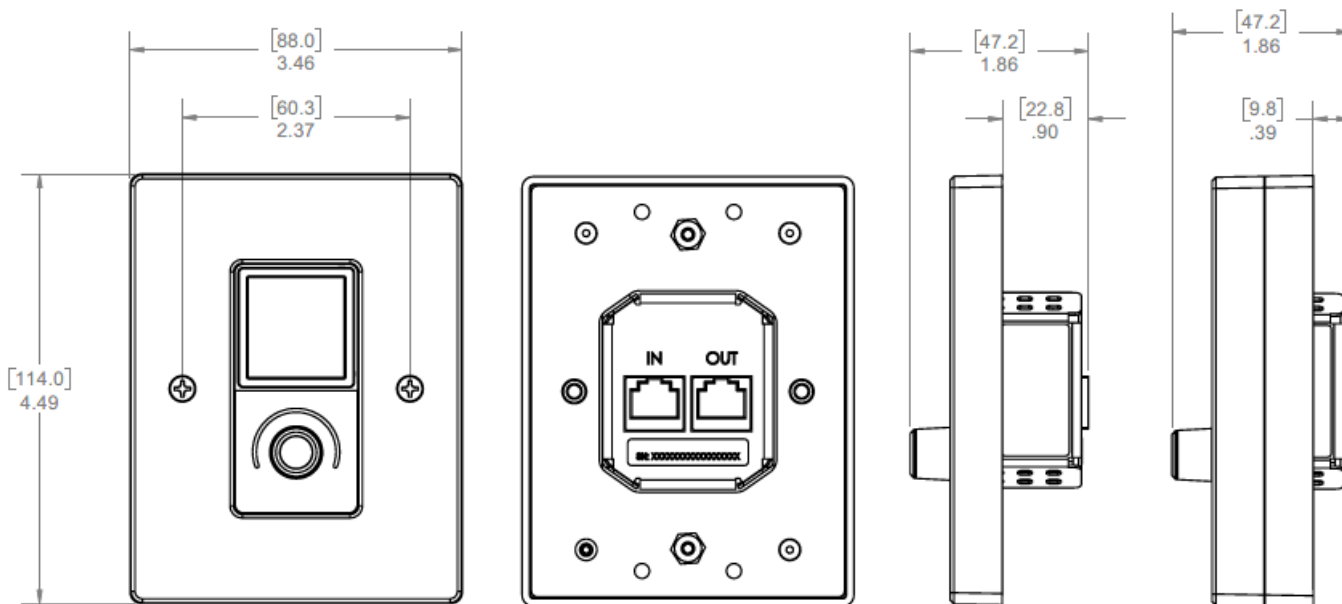
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AZMP8-D / AZMP8-DW
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



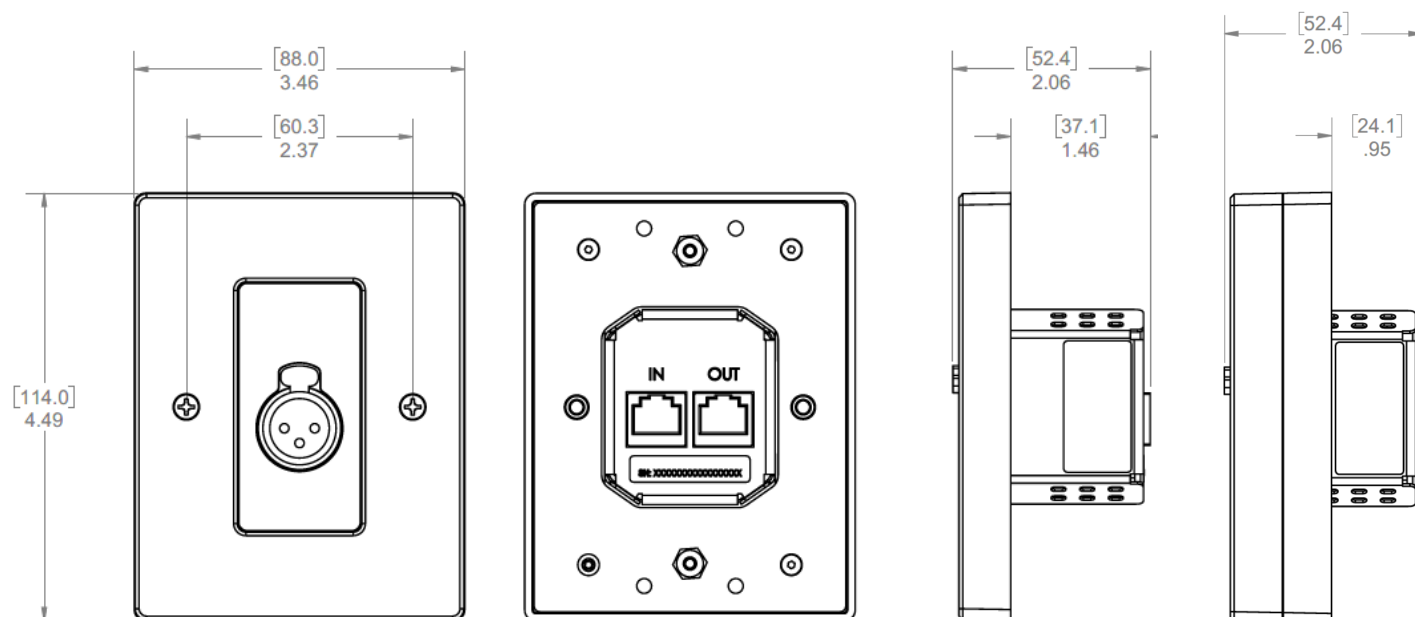
TECHNICAL DATA SHEET

DIMENSIONAL DRAWINGS

C-V-EU, C-ZSV-EU, A-RCA-EU, A-BT-EU, and X-ANS-EU share the same dimensions



A-XLR-EU



AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

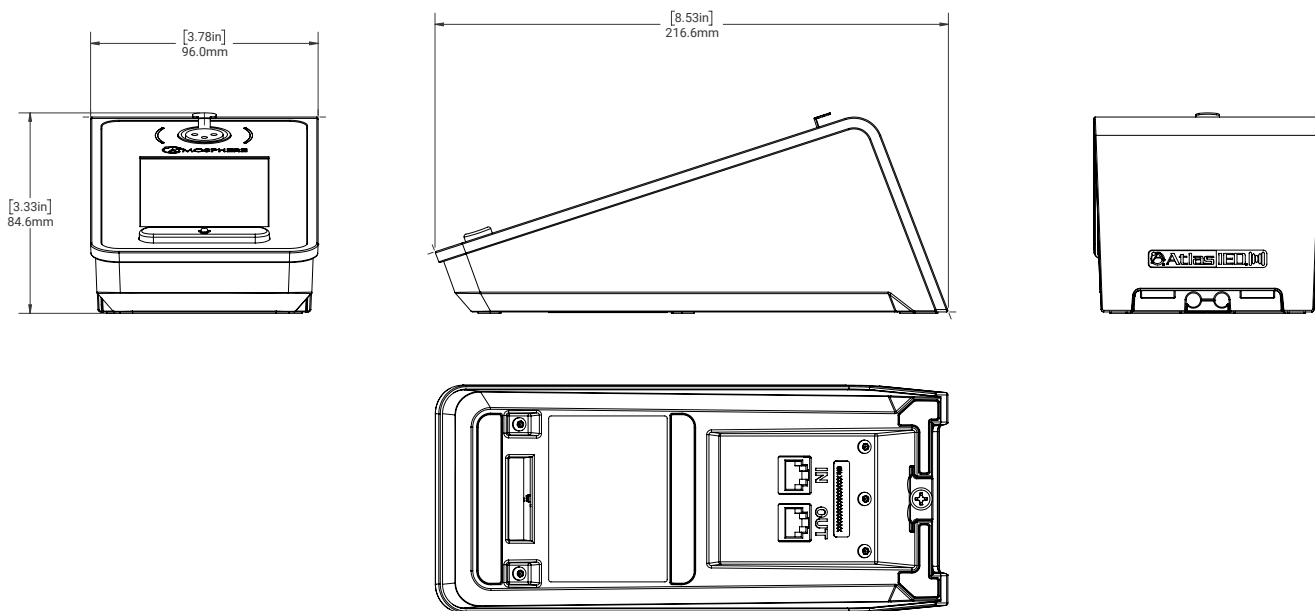
AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



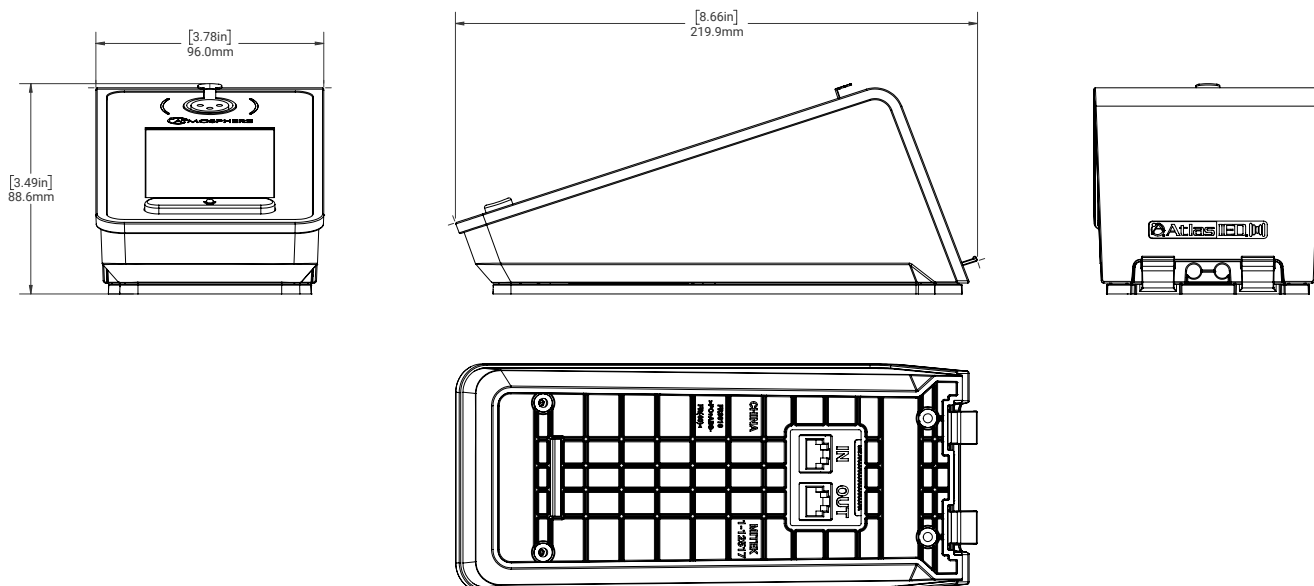
TECHNICAL DATA SHEET

DIMENSIONAL DRAWINGS

X-ZPS



X-ZPS with desk mount installed



AZM4 / AZM8
ATMOSPHERE SIGNAL PROCESSOR

AZMP4 / AZMP8
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER

AZM4-D / AZM8-D / AZMP4-D
AZMP8-D / AZMP8-DW
ATMOSPHERE SIGNAL PROCESSOR
AND AMPLIFIER WITH DANTE



TECHNICAL DATA SHEET

DIMENSIONAL DRAWINGS

X-ZPS with 16" gooseneck mic installed

