

HOLOPLOT



# HOLOPLOT X1

## Modul 96

Data Sheet / Version 1.1 en

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# X1 Modul 96 Data Sheet



E508851  
CCN: AZOT, AZOT7  
AV Equipment

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## CONFIGURATION: TWO-LAYER MATRIX ARRANGEMENT

|          |                                                           |
|----------|-----------------------------------------------------------|
| LF layer | 18x 5-inch cone driver in individual dual-ported chambers |
| HF layer | 78x 1.3-inch soft dome tweeter with integrated waveguides |

## MAXIMUM SPL (for optimized parallel beam configuration<sup>1</sup>)

|          |                     |
|----------|---------------------|
| LF layer | 142 dB <sup>2</sup> |
| HF layer | 152 dB <sup>2</sup> |

## FREQUENCY RESPONSE

|        |                 |
|--------|-----------------|
| ±3 dB  | 100 - 18,000 Hz |
| -10 dB | 85 - 20,000 Hz  |

## BEAMFORMING CAPABILITIES: <sup>3</sup> HOLOPLOT 3D AUDIO-BEAMFORMING TECHNOLOGY

|                 |                                                                                                                                                                                                                                                 |
|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of beams | Up to 12 beams in parallel per X1 Matrix Array: <ul style="list-style-type: none"><li>• 8 fully user-configurable parametric beams and virtual sources</li><li>• 4 beams providing optimized coverage over a predefined audience area</li></ul> |
| Vertical        | Steering angle and opening angle user adjustable (0.1° steps) / defined by HOLOPLOT algorithms                                                                                                                                                  |
| Horizontal      | Steering angle and opening angle user adjustable (0.1° steps) / defined by HOLOPLOT algorithms                                                                                                                                                  |

<sup>1</sup> Max. SPL capabilities are dependent on beam configuration and array size and should be assessed using *HOLOPLOT Plan*

<sup>2</sup> Peak level referred back to 1 m under free field conditions using band-limited pink noise with crest factor 4

<sup>3</sup> Beamforming capabilities are dependent on array size and should be assessed using *HOLOPLOT Plan*

## AMPLIFICATION

|                                |                                         |
|--------------------------------|-----------------------------------------|
| Type                           | 6x 16-channel digital amplifier modules |
| Max. Output Power <sup>4</sup> | HF: 78x 240 Wpk                         |
|                                | LF: 18x 500 Wpk                         |

## PROCESSING

|              |                                                                                                                                                                                                                                                                                         |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type         | High-performance Field Programmable Gate Array (FPGA) computing the HOLOPLOT proprietary digital signal processing algorithms for 3D Audio-Beamforming and Wave Field Synthesis<br><br>Dual-core ARM® Cortex™-A9 running HOLOPLOT OS, a Linux-based, distributed audio operating system |
| DSP Channels | 96                                                                                                                                                                                                                                                                                      |
| Computation  | 7,600 parametric EQ bands and more than 1,100 Finite Impulse Response (FIR) filters with over 430,000 filter taps                                                                                                                                                                       |

## POWER CONSUMPTION

|            |         |
|------------|---------|
| Sleep Mode | 120 W   |
| Idle       | 300 W   |
| Continuous | 650 W   |
| Max Power  | 1,450 W |

## CONNECTORS ON ELECTRONICS PACKAGE

|               |                                                                                                                                                                             |
|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Control/Audio | 4x etherCON Cat 6A (RJ45) for Control and Audio-over-IP (RAVENNA, Dante®, AES67)<br><br>2x etherCON Cat 6A (RJ45) for HoloLink<br><br>2x etherCON Cat 6A (RJ45) for SubLink |
| Power         | 1x Amphenol HP-3-MDQ for AC Power IN (115 - 240 V AC, 50 - 60 Hz)<br><br>1x Amphenol HP-3-MDQ for AC Power OUT (208 - 240 V AC, 50 - 60 Hz)                                 |

<sup>4</sup> Peak power based on the maximum unclipped voltage the amplifier will produce into the nominal load impedance

PHYSICAL CHARACTERISTICS

|            |                                    |
|------------|------------------------------------|
| Dimensions | 800 mm x 600 mm x 457 mm (±2.5 mm) |
| Weight     | 100 kg                             |

MATERIALS AND COLOURS

|                     |                                                                                                     |
|---------------------|-----------------------------------------------------------------------------------------------------|
| Loudspeaker Cabinet | Glass fiber-reinforced polycarbonate, flame retardant, slightly textured black finish (RAL 9005)    |
| Electronics Package | Aluminum alloy, powder-coated black (RAL 9005)                                                      |
| Protective Grille   | Hexagon-perforated steel with hydrophobic, damp and dust repellent acoustic cloth, black (RAL 9005) |

ENVIRONMENTAL CONDITIONS

| Device Condition         | Temperature      | Humidity                          | Altitude        |
|--------------------------|------------------|-----------------------------------|-----------------|
| Packaged in shipping box | -20 °C to +60 °C | to 90% at +60 °C                  | to 12,000 m MSL |
| Operating                | +10 °C to +45 °C | to 70% at +45° C (non-condensing) | to 2,000 m MSL  |

MECHANICAL DETAILS  
All measurements given in mm

