

# Ascendo

ELEVATE YOUR SOUND

## DSP-4 D



DATA SHEET

# AUDIO

Table 1. Inputs

|                        |                                                |
|------------------------|------------------------------------------------|
| ADC Frequency response | 20Hz-20kHz: +0.0 -1.0dB (Slow Roll-off Filter) |
| ADC Dynamic Range      | typ 120dB (A)                                  |
| ADC Fullscale          | 20dBV, 22.2 dBu, 10V RMS                       |
| Analog Input Impedance | 20 kOhm                                        |
| AES3 Samplingrate      | 44.1kHz - 192kHz ASRC                          |
| DANTE Samplingrate     | 48kHz / 96kHz                                  |
| DANTE RX Channels      | 2                                              |

Table 2. Outputs

|                               |                                                    |
|-------------------------------|----------------------------------------------------|
| Max Output Voltage            | 15.2dBu<br><br>6.3V peak<br><br>4.47V RMS          |
| Max DC Offset                 | < 2mV                                              |
| Frequency response            | 20Hz-20kHz: +0.0 -1.8dB (DAC Slow Roll-off Filter) |
| Output Noise (Digital Input)  | typ -107 dBu (A)                                   |
| Dynamic Range (Digital Input) | typ 120dB (A)                                      |
| CCIF IMD (18 + 19kHz -9dBFS)  | typ -102dB                                         |
| Output Impedance              | 100Ohm                                             |

# DSP

|              |                          |
|--------------|--------------------------|
| Architecture | ARM-based floating point |
| Channels     | 4                        |

|                            |                                                                                                    |        |
|----------------------------|----------------------------------------------------------------------------------------------------|--------|
| <b>Inputs</b>              | 4 x input matrix per channel (DANTE / AES67 via DEP/ AES3 / Analog), sine, white-pink- brown-noise |        |
| <b>Level Control</b>       | Mute, Volume, Phase                                                                                |        |
| <b>User-Strip Filter</b>   | 32 x EQ / Highpass / Lowpass                                                                       |        |
| <b>Filter types</b>        | bell, notch, highshelf, lowshelf, allpass 1th / 2nd order                                          |        |
| <b>High- Lowpass types</b> | 6 - 48dB/Oct, Bessel, Butterworth, Linkwitz/Riley, Variable Q                                      |        |
| <b>FIR Filter</b>          | 512 Tabs, ASCII file import                                                                        |        |
| <b>Delay</b>               | 48000 Samples / 330m / 1s (resolution 0.001 units) per channel                                     |        |
| <b>Converters</b>          | ADC                                                                                                | DAC    |
|                            | ES9822PRO                                                                                          | ES9081 |

# CONNECTOR



Figure 1. DSP-4D connections

|                                       |                                                                        |
|---------------------------------------|------------------------------------------------------------------------|
| <b>Control input connectors</b>       | Dual RJ45 ( 1Gbit/s Ethernet )                                         |
| <b>Audio signal input connectors</b>  | RJ45 (4 x DANTE / AES67)<br><br>XLR (2 x Analog In balanced, 1 x AES3) |
| <b>Audio signal output connectors</b> | XLR (4 x Analog Out balanced, DSP controlled)                          |
| <b>12V Trigger In</b>                 | Galvanic Isolated 3.5mm TS (Mono) audio jack (Tip +12V, Sleeve GND)    |
| <b>AC mains</b>                       | IEC C14 inlet / IEC C13 plug                                           |

# AC MAINS POWER

|                            |                                  |       |
|----------------------------|----------------------------------|-------|
| Power supply               | Universal, regulated switch mode |       |
| Operating Voltage          | 90 - 264VAC 50/60Hz              |       |
| AC Current typ.            | @230V                            | @110V |
|                            | 25mA                             | 55mA  |
| Inrush Current             | 40A max.                         |       |
| Earth Leakage Current      | < 0.2mA / 240V                   |       |
| Power Factor               | @230V                            | @110V |
|                            | 0.5                              | 0.5   |
| Consumption / current draw | @230V                            | @110V |
| standby                    | 50mW                             | 48mW  |
| on                         | 5.75W                            | 6.05W |

# THERMAL

|                                          |                        |            |             |            |
|------------------------------------------|------------------------|------------|-------------|------------|
| Enviromental<br>operating<br>temperature | 0 - 40°C               |            |             |            |
| Thermal dissipation                      | passive cooled, no fan |            |             |            |
|                                          | @230V                  |            | @110V       |            |
| standby                                  | 0.04 kcal/h            | 0.17 BTU/h | 0.04 kcal/h | 0.16 BTU/h |
| on                                       | 5 kcal/h               | 20 BTU/h   | 5 kcal/h    | 20 BTU/h   |

# USER INTERFACES

|          |                                              |
|----------|----------------------------------------------|
| Hardware | Multicolor LED for all 4 Channels and Status |
|          | Mains Switch (back)                          |
| Software | MAXX REMOTE                                  |
|          | RESTful-API                                  |

# DIMENSIONS / WEIGHT

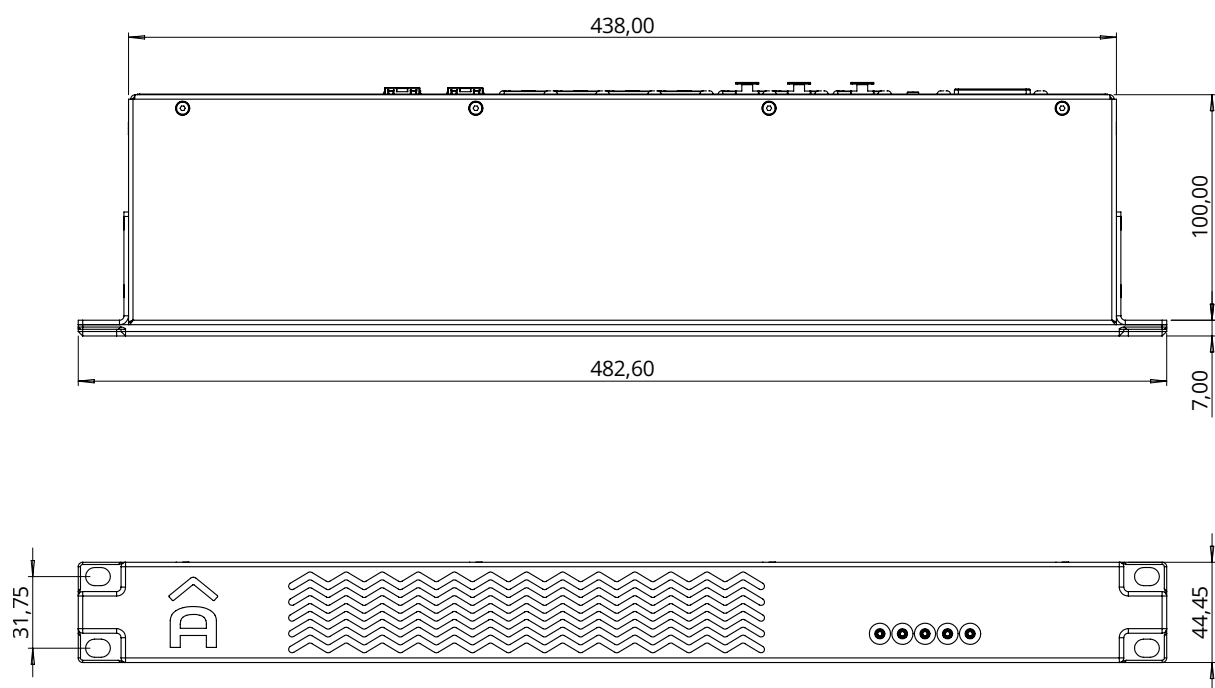


Figure 2. DSP-4D dimensions

|                  |                   |
|------------------|-------------------|
| Dimensions       | W 482.60mm (19")  |
|                  | H 43.75mm (1 RU)  |
|                  | D 100mm           |
| Weight           | 2.1 kg            |
| Dimensions Boxed | 49.5 x 41 x 11 cm |
| Weight Boxed     | 3.5 kg            |



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