

# Ascolto® AH1635

Ascolto® – the intelligent series of active column speakers. Thanks to the elegant slim-line design and the customizable color, they integrate seamlessly into any given environment.

The full-aluminium body and front grid provide maximum protection against dust and splash water, complying with IP54 standard. High quality components, such as the acoustically perfect-matched premium neodym drivers produce accurate and natural sound (music and speech).

Our active line arrays employ the latest DSP technology, allowing beam steering and sound shaping for optimal intelligibility in even the most demanding locations.

| Column speaker        | Width in mm | Hight in mm | Depth in mm |
|-----------------------|-------------|-------------|-------------|
| Ascolto AH0835        | 116         | 1050        | 121         |
| <b>Ascolto AH1635</b> | <b>116</b>  | <b>1780</b> | <b>121</b>  |
| Ascolto AH2435        | 116         | 2486        | 121         |
| Ascolto AH3235        | 116         | 3204        | 121         |
| Ascolto AH4035        | 116         | 4266        | 121         |
| Ascolto AH4835        | 116         | 4972        | 121         |
| Ascolto AH5635        | 116         | 5690        | 121         |
| Ascolto AH6435        | 116         | 6408        | 121         |

## Technical datas

### GENERAL SPECIFICATIONS

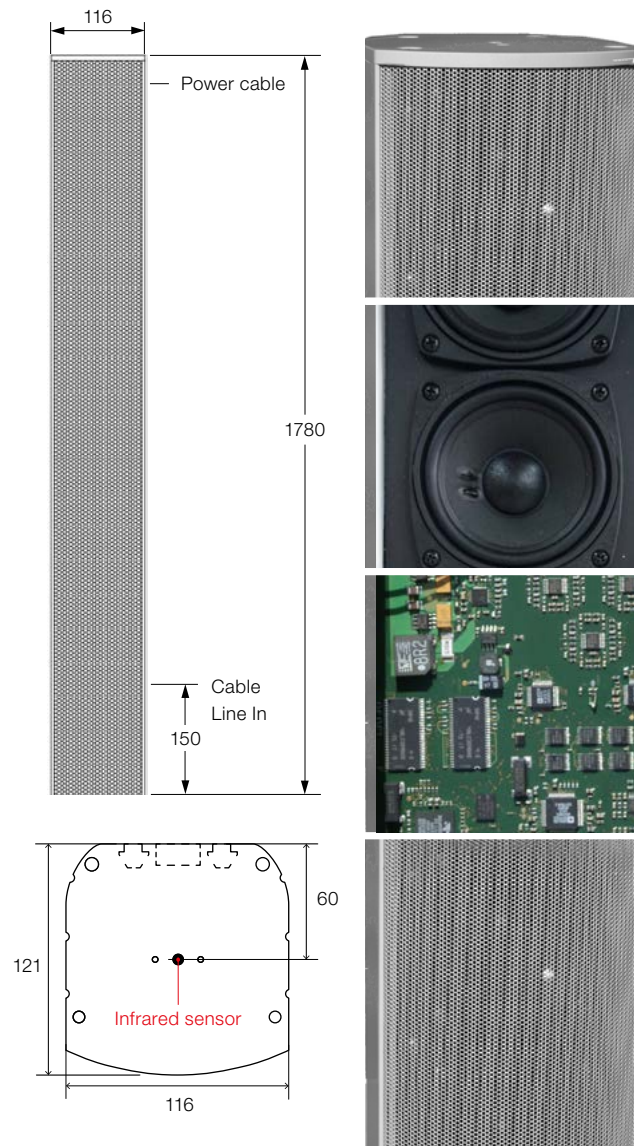
|                        |                          |
|------------------------|--------------------------|
| Dimensions (H x W x D) | 1780 x 116 x 121 mm      |
| Weight                 | 8.2 kg                   |
| Housing                | Aluminium, powder-coated |
| Temperature range      | 0 °C to 40 °C            |
| Standard colour        | RAL 9010                 |
| Special colours        | RAL or NCS               |
| Protection             | IP54                     |
| Certificate            | CE                       |

### ACOUSTIC SPECIFICATIONS

|                           |   |
|---------------------------|---|
| Frequency                 | 80 Hz – 20 kHz  |
| SPL max. (Nominal/Peak)   | 103 dB/ 106 dB at 10 m<br>100 dB/ 103 dB at 20 m<br>98 dB/ 101 dB at 30 m |
| Coverage angle horizontal | 130°  |
| Tilting angle vertical    | -60° to 60°   |
| Opening angle vertical    | 16.9° to 40°  |
| Typical Throw/Max. Throw  | 20 m/25 m   |
| Dynamic range             | 102 dB  |
| Transducers               | 16 x 3.5" Full range Neodym   |
| Sensitivity (1 W/1 m)     | 88.7 dB   |

### ELECTRICAL SPECIFICATIONS

| Audio Input 1       | Line              |
|---------------------|-------------------|
| Input level nominal | 0 dBu (2.19 Vpp)  |
| Input level max.    | 10 dBu (6.92 Vpp) |
| Type                | Balanced          |
| Impedance           | 20 kΩ at 1 kHz    |



|                      |                           |
|----------------------|---------------------------|
| <b>Audio Input 2</b> | <b>100 V</b>              |
| Input level          | 39.2 dBu (200 Vpp)        |
| Type                 | Balanced with transformer |
| Impedance            | 20 kΩ at 1 kHz            |

|                        |   |
|------------------------|---|
| <b>Power amplifier</b> |   |
| Type                   | PWM (Class-D)                                       |
| Output power           | 16 × 35 W RMS (8 Ω)                                 |
| Power efficiency       | 86 %  |
| THD+N                  | 0.07 % at 10 W RMS/Channel                          |
| Input signal           | Balanced  |
| Channel protections    | Thermal shutdown (> 150° C)<br>Output short circuit |

|                   |   |
|-------------------|---|
| <b>DSP</b>        |   |
| Processor         | 48 bit fixed point DSP<br>76 bit internal accumulator<br>145 MHz  |
| Sample rate       | 48 kHz  |
| A/D Conversion    | Resolution: 24 bit linear PCM<br>Conversion: 1 bit delta-sigma 256 ×<br>Sample rate: 48 KHz<br>SNR: 102 dB (A-weighted)   |
| D/A Conversion    | Resolution: 24 bit linear PCM<br>Conversion: upsampling 128 ×<br>Sample rate: 48 KHz<br>SNR: 102 dB (A-weighted)  |
| Signal processing | Beam forming filtering<br>Input equilization (8 Biquad)<br>Volume: -120 dB FS to 0 dB FS<br>Delay: 0–30 m, step 0.1 m<br>Dynamic Compressor 2-bands<br>Input signal activity detector |

|                       |  |
|-----------------------|--|
| <b>Control module</b> |  |
| Processor             | 32 bit ARM-Cortex M3<br>RISC<br>50 MHz   |
| Network interface     | RS485, Full Duplex,<br>115'200 baud/s  |
| Processor activities  | DSP Booting<br>DSP Mounting<br>PWM Power amp. functions controlling<br>PWM Power amp. status monitoring<br>Audio Input channel funct. controlling<br>Auto Stand-by Controlling<br>RS485 Communication<br>Panel LEDs controlling<br>Firmware update |

|                   |  |
|-------------------|--|
| <b>PSU-Modul</b>  |  |
| Voltage range     | 90–264 VAC   |
| Input Frequency   | 47–67 Hz   |
| Energy efficiency | 91 % at 230 VAC  |
| Input current     | 2 A at 230 VAC (full load)<br>4 A at 115 VAC (full load)                         |
| Power consumption | - steady state voltage 395 VA<br>- open circuit voltage 12 VA<br>- stand-by 4 VA |

**Dimensions and fitting (measuring in mm)**

