

# Architectural & Engineering Specifications

## Messenger G2 Two XL - Steerable Line Array

### Messenger G2 2XL – DSP Side Lobe Free Line Array

The unit shall be an Ateis UK Messenger G2 TwoXL or equal and approved.

This shall comprise an extruded metal case containing multiple loudspeaker driver units complete with amplification and control circuitry.

In order to simplify delivery, handling and installation the unit shall be supplied in two sections.

The unit shall include dual audio inputs, AC and DC power supply inputs and full surveillance so that it is suitable for voice alarm applications.

Fault indication shall be via fault contacts and integrated LED.

Loudspeaker driver spacing shall be linear so that the acoustic centre can be varied permitting mounting heights from 1.2m to 4m to suit varied architectural requirements.

The unit shall be supplied as standard with ambient noise sensing and control (ANS) and shall feature temperature monitoring with active frost protection of the loudspeaker drivers.

The unit shall provide symmetrical and asymmetrical lobe options including multiple lobes to be suitable for a wide range of applications.

The unit shall be configured by a separate PC-based application and shall then operate in a fully stand-alone mode.

The unit shall have a wide frequency range to be suitable for speech and music, and shall include comprehensive digital signal processing.

The unit shall be capable of producing a sound pressure level of 94dB at a distance of 70m.

The unit shall provide the following:

- Extruded Metal Case
  - 177W x 181D x 5378H mm
  - 96kg Nett weight
  - 0 - 40 Degrees C operating
  - RAL1016 standard colour
- 48 Fibre Transducers
  - Weatherproof
  - 108mm Diameter
  - Wide range
  - High efficiency
  - Loudspeaker surveillance
- AC Power Supply
  - 115/230V AC
  - IEC connector
  - 686W full power consumption
  - 0dBu pink noise
- DC Power Supply
  - 16 - 27V DC
  - Automotive connector
  - 27.2A full power consumption
  - 0dBu pink noise
  - 0.9A quiescent power consumption
  - Auto-mute enabled
  - Low battery isolation at 16V DC
- Audio Inputs
  - Dual inputs
  - 18kHz - 20kHz tone detection

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- 0.775V rms sensitivity
- 20dB - +20dB programmable gain
- 600Ohm transformer balanced
- Integrated signal limiter
- Phoenix type connector
- Audio Outputs
  - Dual outputs
  - 20kHz tone generation
  - 0.775V rms nominal
  - 20dB - +20dB programmable gain
  - 600Ohm transformer balanced
  - Phoenix type connector
- Audio Outputs
  - Dual outputs
  - 20kHz tone generation
  - 0.775V rms nominal
  - 20dB - +20dB programmable gain
  - 600Ohm transformer balanced
  - Phoenix type connector
- Communications
  - RS485 in
  - RS485 out
  - RS232
  - Ethernet TCP/IP RJ45
  - 32 Device addresses
- Contact Inputs
  - Opto-isolated lobe programme switching
  - Opto-isolated audio input switching
- Fault Outputs
  - Voltage free NC critical fault output
  - Voltage-free NC routine fault output
  - Integrated fault indication LED
  - Integrated fault logging
    - Date and time stamped
- Amplification
  - Multi channel
  - 70W rms per channel
  - High efficiency class D
  - Thermal protection
- Amplifier surveillance
- I2S LVDS communication
- Audio Processing
  - ADI Shark 21369 DSP
    - 1330Mflops
  - 2Mb SRAM
  - 24 channel output filter
    - 400 tabs
  - 24 Bit A/D D/A delta-sigma conversion
    - 64x oversampling
  - 32 Bit floating point processing
  - 48kHz sample rate
  - 0 - 1000ms signal alignment delay
    - 0.4Q - 10Q
    - 7 Band parametric EQ
    - 5 response presets
    - 20dB - +20dB gain
  - Noise gate
    - 20dBu - -100dBu level
    - 100ms - 2000ms hold time
    - 100ms - 2000ms soft fade time
  - Peak limiter
    - 20dBu - 0dBu level
    - 200ms - 5000ms release time
  - Software controlled mute
  - Software indicators
    - Clipping detected
    - Limiter activated
    - Noise gate activated
  - Integrated ambient noise control (ANS)
- Acoustic Processing
  - Programmable vertical dispersion
    - 25, 20, 15, 10, 7, 5, 3 degree
    - Symmetrical and asymmetrical
  - Programmable lobe control
    - 1 - 3 lobes
    - Side lobe suppression
  - Programmable lobe steering
    - 25 degree - +25 degree

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## Messenger G2 Two XL - Steerable Line Array

Fixed horizontal dispersion  
145 degree  
Programmable acoustic centre  
Flexible physical  
mounting  
Patented algorithm

- Acoustic Performance  
90Hz - 18kHz typical frequency  
response  
94dB Maximum SPL at 70m  
+/- 2dB  
Pink noise  
C weighted  
>110dBA Signal to noise ratio

### IMPORTANT

Specifications are subject to  
change without prior notice.  
More information can be found  
at the website: [www.ateis.co.uk](http://www.ateis.co.uk)

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