



INTEGRA

- SELF-CONTAINED WALL MOUNT VOICE ALARM
- INTEGRATED IP AUDIO NETWORKING
- SIMPLE INSTALLATION
- HIGH EFFICIENCY
- 3, 5, 7 OR 10 AMPLIFIER CHANNELS
- UP TO 500W PER CHANNEL
- UP TO 2000W TOTAL LOAD
- DC / IMPEDANCE LOUDSPEAKER MONITORING
- EN54-16 COMPLIANT

OVERVIEW

ASL's INTEGRA all-in-one network enabled voice alarm solution is available with three, five, seven and ten channels of amplification. The unit has 12 audio inputs and internal storage for up to 64 recorded messages. With a maximum power of 2000W, integrated audio-over-IP networking, powerful audio processing, and integrated battery charger and battery mounting shelf all in a compact wall-mount enclosure, INTEGRA provides a complete voice alarm solution for both medium to large centralised and decentralised PAVA systems.

NETWORK AUDIO

Up to 32 INTEGRA can be linked over IP to enable broadcasts from any location to any combination of zones in large decentralised systems. ASL's Ethernet switches enable a voice alarm compliant ring network topology. INTEGRA and the rack mount equivalent VIPEDIA-12 interoperate seamlessly. Each INTEGRA can process up to 6 concurrent audio channels.

AMPLIFICATION

Three variants are available, with either 3, 5, 7 or 10 channels of amplification. One amplifier can be configured as either a standby or active amplifier. Each individual amplifier can deliver up to 500W, with a total maximum overall load on one INTEGRA of 2000W.

Each amplifier provides dual isolatable A and B loudspeaker circuits and supports both DC and Impedance line surveillance. For applications which require maximum availability, two internal standby amplifiers are supported (requires the optional V2000-STBY module.)

AUDIO INPUTS

INTEGRA supports ASL MPS and EMS paging microphones. Two of the twelve microphone inputs provide hardware bypass to ensure continued all-call Emergency microphone operation even if the INTEGRA router's DSP or CPU have failed. Up to 64 monitored recorded messages can be stored internally, with a total duration of up to 40 minutes.

AUDIO PROCESSING

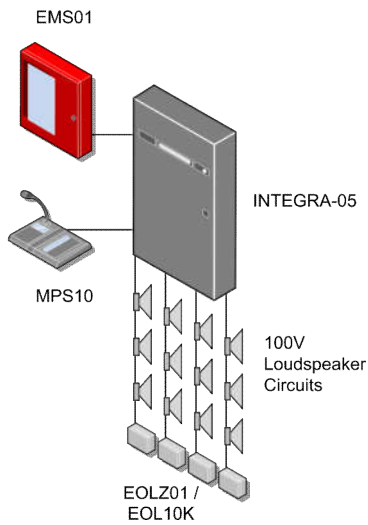
Powerful DSP based audio processing include input dynamics, individually adjustable digital output delay of up to 5 seconds, and 10 band parametric equalisation.

CONTROL

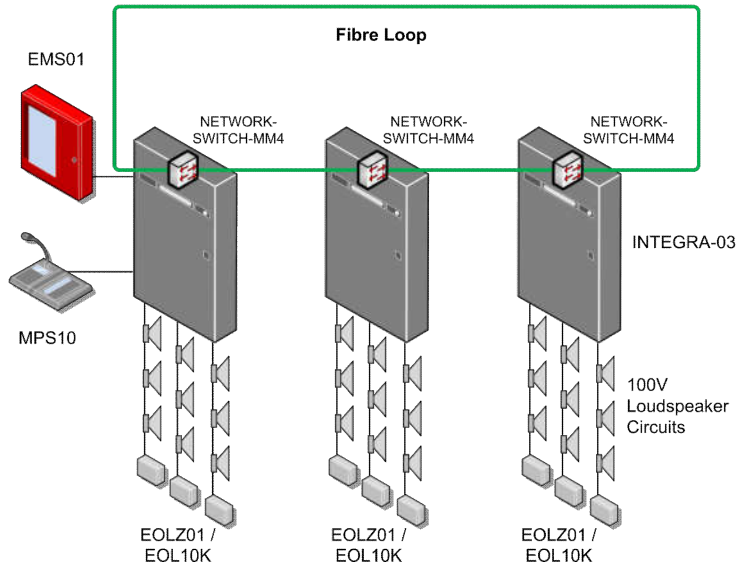
The unit also includes 12 general purpose control inputs, 12 general purpose control outputs and two relay outputs. Inputs are typically used to interface INTEGRA to the Fire Alarm System. Control capability can be expanded to more than 100 GPIO connections using the BMB01 unit if required.

IMPLEMENTATION OPTIONS

Centralised



Decentralised



NETWORK-SWITCH

In EN54-16 and other Voice Alarm Architectures, each INTEGRA also requires a suitable Ethernet switch. Both single and multimode fibre options are available. Please see part codes in the optional accessories section below.

INTEGRA PART CODES

INTEGRA-03	3 x 500W Amp Channel / 2000W Max Single Box Voice Alarm System
INTEGRA-05	5 x 500W Amp Channel / 2000W Max Single Box Voice Alarm System
INTEGRA-07	7 x 500W Amp Channel / 2000W Max Single Box Voice Alarm System
INTEGRA-10	10 x 500W Amp Channel / 2000W Max Single Box Voice Alarm System

OPTIONAL ACCESSORIES

Network Switches (Required for decentralised systems)

NETWORK-SWITCH-MM4	Dual Multimode Fibre + 2 RJ45
NETWORK-SWITCH-SM4	Dual Single Mode Fibre + 2 RJ45

Desktop Microphones

MPS01-G0-AN	Paging & Emergency Mic - 01 Button - Analogue
MPS10-G0-AN	Paging & Emergency Mic - 10 Button - Analogue
MPS01-G0-IP	Paging & Emergency Mic - 01 Button - IP
MPS10-G0-IP	Paging & Emergency Mic - 10 Button - IP

Wall Mount Microphones

EMS01	Emergency Microphone Station
EMS20	Emergency Microphone Station - 10 Button
EMS50	Emergency Microphone Station - 10 Button

Battery Packs

BPC75-BAT	Battery Set - 75Ah (2 x 12V Powersonic PS12750)
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End of Line Monitoring Units

EOL10K-10PK	DC Monitoring End Of Line Resistor (10 pack)
EOLZ01-10PK	Impedance Monitoring End Of Line Device (10 pack)

TECH SPEC

Power

AC Supply Voltage 230V (+25% / -16%)
 AC Supply Frequency 50 / 60 Hz
 Quiescent Current (no amplifiers) 525mA
 Quiescent Current (per amplifier) 23mA
 Maximum Audio Output Power 2000W

Battery Pack

Capacity (Ah) 75AH
 Capacity (T)..... 24 hours (quiescent) + 30 mins (full power)

Audio - General

Digital Format..... 48kHz / 24-bit PCM
 THD..... <0.01% at 1 kHz
 Crosstalk >70 dB at 1 kHz
 Residual Noise <90 dBu (A)
 Frequency Response 20 Hz to 20 kHz ±0.5 dB

Audio - Inputs

Analogue Input Channels 12
 Input Sensitivity -60 / - 40 / -20 / 0 dBu
 Max Input Level +20 dBu
 Input Trim -90 dB to +10 dB (1 dB steps)
 Switchable HPF 20 to 500 Hz / Slope: 12 dB/oct
 EQ 4 Band Parametric
 Dynamics Gate/Compressor/Limiter
 Chime Off / 1 note / 2 note / 3 note / Custom
 Chime Level -60 dB to +10 dB (1 dB steps)
 Hardware bypass broadcast capability 2 inputs

Amplification

Type Transformerless Class D
 Amplifier Channels 2 / 5 / 7 / 10
 Standby Amplifiers 1 (Standard) 2 (with option card)
 Max power output per channel 500W
 Efficiency ≥85%
 Frequency response 100Hz to 20kHz +/- 3dB
 THD < 0.5%
 Output Noise 85dB below full output

Audio Processing

Delay (per output) 1 ms to 5000 ms (1 ms steps)
 EQ 10 Band Parametric
 Dynamics Limiter / Hard Clipper
 Loudspeaker Monitoring DC, Impedance, Loop Return

Control Interfaces

Inputs 12
 Outputs 12 (open-collector)
 General Fault Relay (With N/O, COM, connections) 1
 Voice Alarm Indicator Relay 1
 BMB01 IO Expansion Interface 1

Environmental

Operating -10°C to +40°C
 Storage -20°C to +55°C
 Humidity Range 0% to 93% non-condensing
 Ingress Protection IP32

Mechanical

Finish Low Smoke Zero Halogen (LSZH)
 Dimensions (H x W x D) 980mm x 600mm x 220mm
 Weight (no amplifiers) 40kg
 Weight (BPC75-BAT batteries) 46kg
 Weight (per amplifier channel inc. surveillance) 0.8kg



This equipment is designed and manufactured to conform to the following EC standards:

EMC: EN55103-1/E1, EN55103-2/E5, EN50121-4, ENV50204

Safety: EN60065

Manufacturer

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Assessed to ISO 9001
 LPCB Cert No: C1043