Application Solutions.

Product Overview

iPA400
Intelligent 400W PA Amplifier Mainframe

iPA400 fitted with
2 x MX200 Amplifier Modules

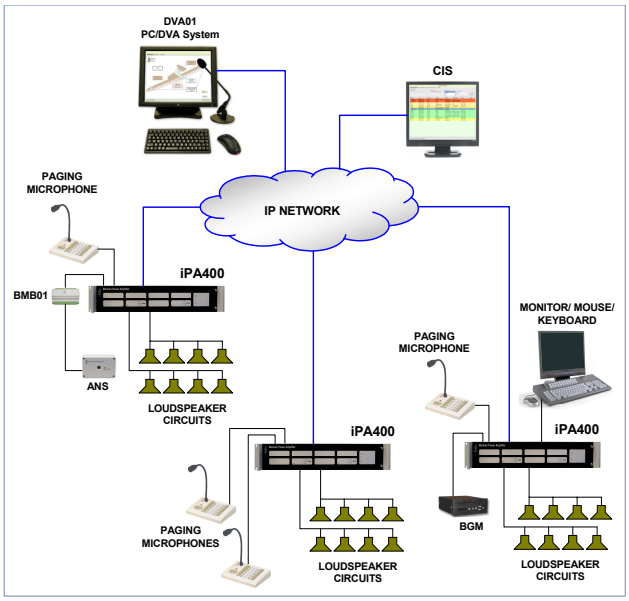
- 400 W 2U amplifier mainframe
- Modular amplifier units allow flexible output power configuration
- Two microphone/analogue audio inputs
- Ambient noise sensing (via a BMB01)
- Remote or local commissioning, monitoring, and maintenance
- IP connectivity
- Built-in VoIP (Voice over Internet Protocol)
- Built-in PC/DVA functions
- Ideal for VoIP LLPA (Long Line Public Address)
- NTP (Network Timing Protocol) can be used for system time synchronisation

The iPA400 Intelligent Public Address Amplifier Mainframe is a 2U rack mount unit which combines amplification, routing, and Ethernet connectivity.

Amplification is provided by high efficiency and low quiescent current modular amplifiers using ASL proprietary Adaptive Class D technology, whilst Voice over IP and Digital Voice announcement are provided by an embedded controller supporting the ASL VIPA software suite.

The iPA400 can be fitted with the ASL MX series 100 V PA/VA amplifier modules in any of the following standard combinations: 4 x 100 W, 2 x 200 W, 1 x 400 W, or 2 x 100 W + 1 x 200 W. The amplifier modules are inserted from the front of the mainframe, and are protected by a removable front panel.

Two multifunction audio input and serial I/O ports enable the connection of any of ASL's general paging microphones, the ASL BMB01 Remote I/O Unit, or other audio sources. The BMB01 unit in turn enables the connection of ASL Ambient Noise Sensors and remote control units, and also provides flexible general purpose analogue and digital I/O connectivity. Microphones connected to these ports can be configured for paging and DVA routing locally at the host iPA400, or elsewhere over the network.



The iPA400 can be controlled from an ASL or third party workstation in the IP network, or can have a directly connected monitor, mouse and keyboard, or touchscreen.

The base iPA400 VIPA software set includes: Operating System, Voice over IP, PC/DVA back end, interfaces to ASL microphones, and IP interfaces for control and fault reporting.

iPA400s can be configured to run as stand-alone units or in a network. They support full peer-to-peer IP communications for both Voice and Control. This provides an IP enabled distributed operating platform for ASL software and other applications, with connectivity, control, and monitoring functions.

ASL's Voice over IP solution allows the iPA400s audio outputs to be synchronised across the network, and allows the use of both high and low bandwidth codecs as appropriate to the application.

The software can be controlled and upgraded either locally or remotely.

For further details, and for information on other products, please visit www.asl-control.co.uk.

SPECIFICATION

iPA400[1]

General

AC Supply Voltage ... European standard AC mains/IEC320 inlet
230 V +10/-6% RMS 50Hz AC/T6.3A L 250 V fuse
Inrush Current (worst case) ..... 24.2 A
Maximum AC Power Consumption ..... 745 VA
(iPA400 fully configured and all amplifier modules delivering 100 V 1 kHz sinewave into rated resistive loads)
Internal Fuses ..... T25A 1¼" fuses
Internal Lithium Battery ..... DURACELL CR2032 or equivalent
Standard Configuration[2] ..... 1 x MX400 400 W Amplifier Module
2 x MX200 200 W Amplifier Module
4 x MX100 100 W Amplifier Module
2 x 100 W + 1 x 200 W Amplifier Modules
(No standby amplifier provision)
Format ..... 2U 19-inch rack mounting metal frame
Colour ..... black front panel with silver annotation

External Interfaces

100 V Line Outputs ..... able to drive single loudspeaker circuits
2-Way pluggable Wago cage clamp terminal block
Microphone/Audio/Data Port[3] ..... 2 x ports
Balanced Audio Input .... 0 dBu/10 kΩ/-20 dBu max. sensitivity
Aux. DC Supply Output ..... nominal 24 V @ 500 mA
Serial Interface RS485
Connection ..... 8-Way pluggable Wago cage clamp terminal block
Compatible with ASL paging microphones and BMB01 Remote I/O Unit[4]
Serial Port ..... 1 x RS232 (9-Way standard D connector)[5]
Ethernet Port ..... 1 x 100BASE-T Ethernet (RJ45 socket)
USB Port ..... 2 x USB 2.0 (USB type A socket)
VGA Port ..... 1 x standard VGA port (15-Way HD D connector)

Environmental[6]

Temperature Range (storage and operating) ..... −5 °C to +50 °C
Humidity Range ..... 0% to 93% non-condensing
Ingress Protection IP20
Vibration/Impact EN60068-2-6/EN60068-2-75

Dimensions and Weight

Dimensions (H x W x D) ..... 86 mm x 436 mm x 425 mm (excluding handles)
Weight ..... 12 kg (iPA400 frame only)
iPA400 frame + 1 x MX400 ..... 16.9 kg
iPA400 frame + 2 x MX200 ..... 17.4 kg
iPA400 frame + 4 x MX100 ..... 18.4 kg
iPA400 frame + 2 x MX100 + 1 x MX200 ..... 17.9 kg

[1] ASL amplifiers on 230 V mains power can produce full output, with normal programme material, into loads 25% greater than those specified. In these conditions, a MX100 will deliver full output with 125 W of load connected, a MX200 will deliver full output with 250 W of load connected, and a MX400 will deliver full output with 500 W of load connected.
[2] The number of amplifier modules can be configured to the customer's requirements. Please refer to Application Solutions (Safety and Security) Limited for details.
[3] Each port can support either an ASL microphone, or a BMB01 unit, or another audio source, or a BMB01 unit and another audio source. Note that one port cannot support an ASL microphone and a BMB01 unit at time.
[4] Up to two ASL ANS sensors may be configured per amplifier module.
[5] RS232 Port is duplicated on front of the iPA400 behind the removable front panel.
[6] Details available on request.

MX100

Output Power ..... 100 W @ 100 V RMS[1]
Output Voltage and Input Sensitivity ..... 100 V RMS into 100 Ω load for 0 dBu 1 kHz input signal
Regulation ..... No load to full load, better than 1.5 dB
Efficiency 80%
Quiescent Current (no signal, @ 24 V supply) ..... 70 mA
Quiescent Current ..... 140 mA (nominal) with typical surveillance signal, @ 24 V supply
Fusing ..... 1 x F6.3A 20 mm
Frequency Response ..... 100 Hz – 18 kHz, ±3 dB
THD (@ 100 V RMS output, full load) ..... <0.5% @ 1 kHz
Residual Noise ..... Better than 80 dB (A-weighted) below full output
Dimensions (H x W x D) ..... 79 mm x 79 mm x 250 mm
Weight ..... 1.6 kg

MX200

Output Power ..... 200 W @ 100 V RMS[1]
Output Voltage and Input Sensitivity ..... 100 V RMS into 50 Ω load for 0 dBu 1 kHz input signal
Regulation ..... No load to full load, better than 1.5 dB
Efficiency 80%
Quiescent Current (no signal, @ 24 V supply) ..... 70 mA
Quiescent Current ..... 140 mA (nominal) with typical surveillance signal, @ 24 V supply
Fusing ..... 1 x F15A 1¼"
Frequency Response ..... 100 Hz – 18 kHz, ±3 dB
THD (@ 100 V RMS output, full load) ..... <0.5% @ 1 kHz
Residual Noise ..... Better than 80 dB (A-weighted) below full output
Dimensions (H x W x D) ..... 79 mm x 159 mm x 250 mm
Weight ..... 2.7 kg

MX400

Output Power ..... 400 W @ 100 V RMS[1]
Output Voltage and Input Sensitivity ..... 100 V RMS into 25 Ω load for 0 dBu 1 kHz input signal
Regulation ..... No load to full load, better than 1.5 dB
Efficiency 80%
Quiescent Current (no signal, @ 24 V supply) ..... 90 mA
Quiescent Current ..... 150 mA (nominal) with typical surveillance signal, @ 24 V supply
Fusing ..... 2 x F15A 1¼"
Frequency Response ..... 100 Hz – 18 kHz, ±3 dB
THD (@ 100 V RMS output, full load) ..... <0.5% @ 1 kHz
Residual Noise ..... Better than 80 dB (A-weighted) below full output
Dimensions (H x W x D) ..... 79 mm x 316 mm x 250 mm
Weight ..... 4.9 kg

CE This equipment is designed and manufactured to conform to the following EC standards:
EMC: EN61000-6-4:2007, EN61000-6-2:2005
Safety: EN 60065:2002

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QUALITY ASSURED FIRM
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