

V2000



- UP TO 2000W IN 2U / 19" HOUSING
- EN 54-16 AND EN 54-4 COMPLIANT
- HOUSES UP TO 10 SEPARATE AMPLIFIER CARDS
- HOT SWAPPABLE AMPLIFIERS CARDS
- INTEGRATED BATTERY CHARGER
- VERY HIGH EFFICIENCY & LOW STANDBY CURRENT
- INTERNAL & EXTERNAL STANDBY OPTIONS

OVERVIEW

The V2000 Voice Alarm Amplifier Mainframe is EN 54-16 and EN 54-4 compliant and provides the housing, control, and power supplies for up to ten ASL D-Series power amplifier modules in a 2U enclosure. Two D-Series amplifier module types are available, with a maximum power rating of 500W (D500) or 150W (D150). These are lightweight transformerless amplifier modules whose output power is configurable in software from 25W up to their maximum rating. The ability to configure the output power on each module enables optimum assignment of amplifier power within the overall capacity of mainframe and hence a compact system design.

Amplifier Interface

The LSZDC amplifier interfaces provide each amplifier module with 0dB analogue audio inputs, dual isolatable A and B loudspeaker circuit and either DC, Impedance or Loop Return loudspeaker line surveillance. Standby amplification can be provided internally within the V2000, or by means of an external standby amplifier. Use of an internal standby amplifier requires no standby wiring to be made. Use of an external standby amplifier requires the optional V2000-STBY module.

Power Supply

The mainframe includes a mains power supply, designed to operate on 230V, 50Hz / 60Hz AC mains supply, while battery backup is provided by means of a 24V DC power input.

Battery Charging

The integrated EN 54-4 compliant battery charger provides enough current to charge the battery system for a fully loaded 2000W system, including one VIPEDIA-12, avoiding the need for an external battery charger.

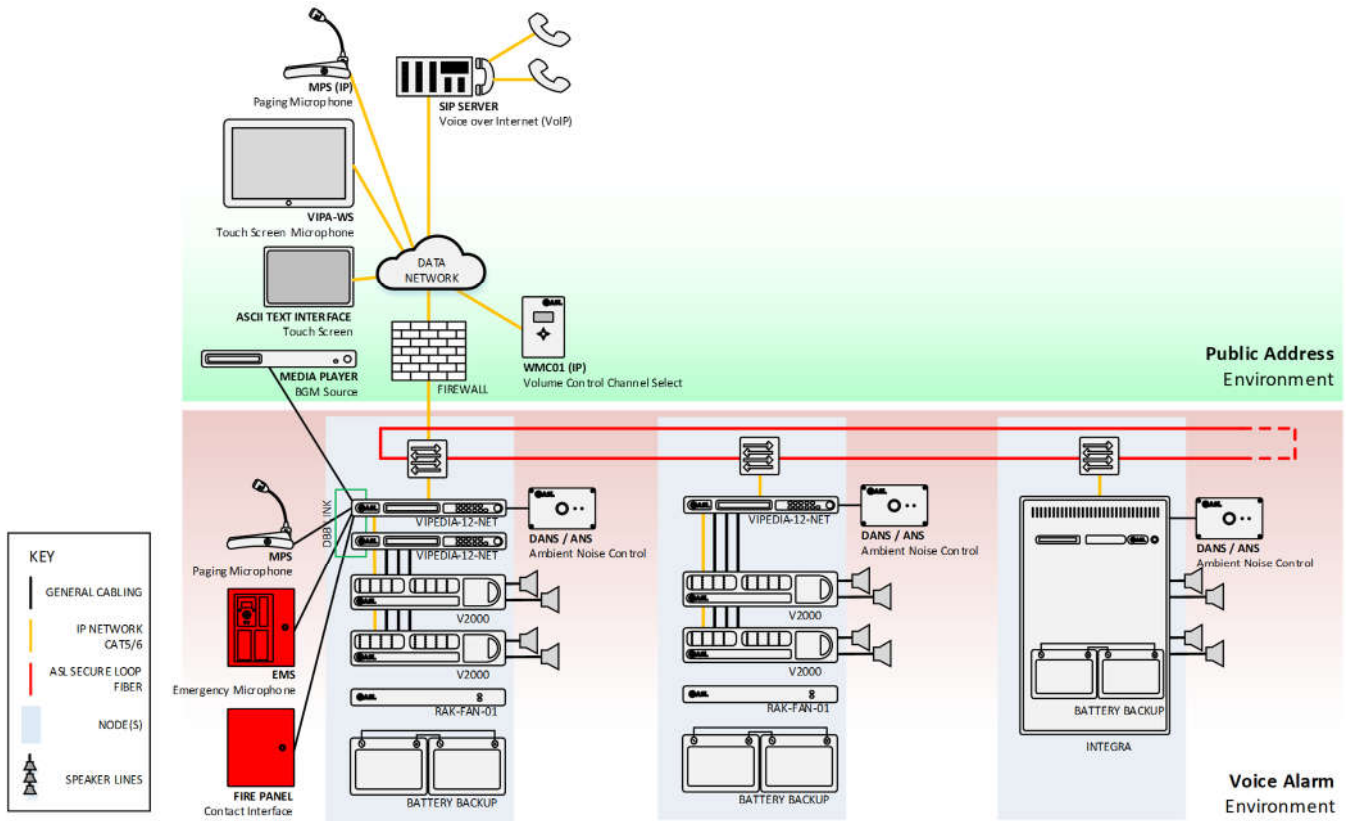
Configurable Amplifier Powers

The configurable output power capability of the D500 and D150 amplifier modules enables very flexible use of the mainframe, with reduced mainframe count, less quiescent power requirement, and improved environmental performance compared with traditional amplifier designs. Example applications are:

- Ten off 150W amplifier = 1 x V2000 mainframe and 10 x D150 amplifier module
- Quad 500W amplifier = 1 x V2000 mainframe and 4 x D500 amplifier module
- Mix-and-match options such as four 50W zones, two 300W zones, and two 500W zone all driven from a single V2000 mainframe, including a standby amplifier.

TYPICAL ARCHITECTURE

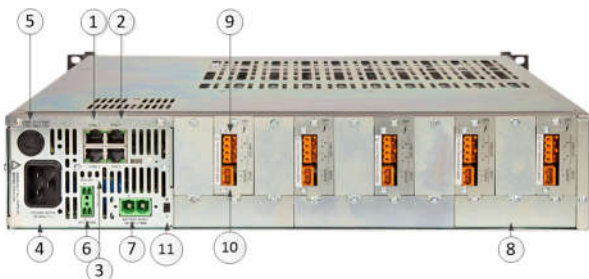
The example below shows an multi zone system using networked VIPEDIA. The interface between VIPEDIA and V2000 is 0dBu analogue, with one channel to each amplifier's LSZDC card. Control and communications (status reporting) uses Ethernet. 100V Loudspeaker circuits connect to the LSZDC interface card associated with each amplifier. Each frame includes a single internal standby amplifier, automatically switched if a fault is detected in an active module.



FRONT AND REAR PANELS



1. Amplifier Indication LEDs (per amplifier)
2. Mainframe Indication LEDs (per frame)



1. RS485 & Audio Monitor
2. Dual Ethernet Ports
3. Status LED
4. Mains Power Input
5. Mains Fuse
6. DC PSU Output & Battery Temperature Sensor
7. DC Power Input & Battery Charger Output
8. V2000-STBY Slot (Not fitted)
9. 100V A & B Loudspeaker Amplifier Output (not fitted as standard)
10. Amplifier Audio Input (not fitted as standard)
11. Earth Lift Switch

SPECIFICATION

Power & Heat

AC Supply Voltage.....	230V AC (+25% / -16%)
AC Supply Frequency.....	50—60 Hz
DC Supply.....	21-28 V
Quiescent Current.....	80mA ¹
Inrush Current (max).....	21A
Current Consumption (tone input signal).....	11A
Current Consumption (speech input signal).....	5A
	@ 2000W load, 10no D500 amplifiers

¹No amplifiers, 24V supply

Environmental

Operating.....	-10°C to +55°C ²
Storage.....	-20°C to +55°C
Humidity Range.....	0% to 93% non-condensing
Ingress Protection.....	IP20

²With RAK-FAN-01 fans fitted. Otherwise 40°C. Note that fans are required in certain configurations. See ASL design guide for more information.

Compatibility

DSP Audio Router.....	VIPEDIA Range
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Mechanical

Dimensions (H x W x D).....	86mm x 436mm x 425mm
Mounting.....	19-inch rack mounting (2U)
Finish.....	Low Smoke / Zero Halogen
Colour.....	Silver & Black
Weight (frame only).....	7.7 kg

PRODUCT PART CODES

V2000..... 2000W 10 Channel Public Address / Voice Alarm Amplifier Mainframe / Batteries, Amplifiers & Interface Cards not included

COMPATIBLE HARDWARE

D150.....	Amplifier Card up to 150W
D500.....	Amplifier Card up to 500W
LSZDC.....	Amplifier Interface Cards
RAK-FAN01.....	Fan tray for the V2000
RAK-DUCT01.....	Ducting for the V2000 Fan Tray
V2000-BDIST.....	Battery Breaker for the V2000



This equipment is designed and manufactured to conform to the following EU Directives:

Electromagnetic Compatibility (EMC):	2014/30/EU
Low Voltage:	2014/35/EU
Restriction of Hazardous Substances (RoHS):	2011/65/EU

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Assessed to ISO 9001

LPCB Cert No: 1043QMS

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