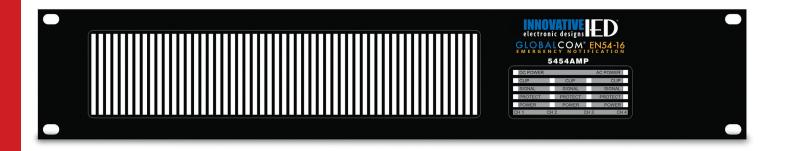


5414AMP / 5434AMP / 5454AMP

GLOBALCOM® 5400 Power Amplifiers



General Description

The 5400 series of amplifiers are an integral part of the IED GLOBALCOM 5400 Series Communications System. The amplifiers feature four channels of 100, 300 or 500 watt amplification.

The amplifier is Class D switching mode which provides benefits such as: higher efficiency, increased reliability, improved performance, and lower operating cost.

Switching mode operation combined with high voltage power devices make it possible to eliminate the heavy, costly, bulky transformers used by some amplifiers to drive 70.7V distributed speaker lines.

The amplifiers are internally monitored and limited to prevent over-current and over-temperature conditions, also protecting the amplifiers from harm due to short circuits on the speaker lines.

The 70.7V floating direct outputs reduce more than just the weight: Installation and rack prices will drop significantly. The cost for energy consumption will average at roughly one third of any ordinary amplifier.

In addition to mains power, a 24VDC power input is provided in the event of power loss which will automatically switch to 24V battery power - without any loss of output power. The amplifiers are typically paired with a 5404DZM or 5432DZM for EN54-16 compliant systems.

The mainframe requires two (2) rack units (3.5") of vertical space in a 19" equipment rack / cabinet. All cooling is front to back.

Features

- Class D
- Discrete build of power amp modules
- 70.7 Volts direct output (without a transformer)
- 24 VDC backup power
- High power, high efficiency Switched-Mode Power
- Supply (SMPS) with Power Factor Correction (PFC)
- Protection circuits: DC, LF, HF, Thermal, Short Circuit,
- Current Limiter
- External remote power on/off control
- Temperature controlled, variable speed, low noise fans
- High Tech Surface Mounting Technology (SMT) Design
- Four 100, 300, or 500 Watt amplifier output channels

Front Panel Features

- DC Power Indicator (green)
- AC Power Indicator (green)
- For each amplifier channel:
- Clip Indicator (red)
- Signal Indicator (green)
- Protection Indicator(red)
- Amplifier Power Indicator (green)

Available Models

Mode	el Ch	nannels	Output Power (per channel)	Output Type	Gain
5414	1	4	100 W	70.7 V	39.2 dB
5434	1	4	300 W	70.7 V	39.2 dB
5454	1	4	500 W	70.7 V	39.2 dB

Specifications

Electrical, Analog

All Measurements at 240VAC unless noted otherwise

Power Requirements 50-60 Hz

Power Output (per channel)

5414-US 100 W (70.7 V)

 5434-US 300 W (70.7 V)

 5454-US 500 W (70.7 V)

Efficiency at full power > 55%

Frequency Response at full power \pm -0.3 dB 20 Hz - 20 kHz Power Bandwidth \pm 0.3 dB 20 Hz - 20 kHz, +/- 0.3 dB Signal-to-Noise Ratio \pm 100 dB 20 Hz - 20 kHz ref

Mechanical

Height 2 rack units, 3.47" (8.81 cm)

 Width (without rack mount ears)
 17.2" (43.7 cm)

 Depth
 17.87" (454 mm)

 Weight
 30.86 lbs (14 kg)

Connectors

Mains PowerPower switch, 120 V cord, fuse24 VDC Backup Supply2-pin, Phoenix, 10.16 mm

Audio Inputs (4) 10-pin Phoenix, 3.81 mm spacing

Speaker Outputs (2 pair) 5-pin Phoenix, 5.08 mm spacing

Amp Alive Contacts (2) Part of 10-pin Phoenix, 3.81 mm spacing
AC OK (1) Part of 10-pin Phoenix, 3.81 mm spacing
DC OK (1) Part of 10-pin Phoenix, 3.81 mm spacing
Remote Switch (1) Part of 10-pin Phoenix, 3.81 mm spacing

Environmental

Operating Temperature Range $+32^{\circ}F - +122^{\circ}F (+0^{\circ}C - +50^{\circ}C)$

Applicable for typical voice paging and background music

applications

Storage Temperature Range $-40^{\circ}\text{F} - +158^{\circ}\text{F} (-40^{\circ}\text{C} - +70^{\circ}\text{C})$

Mains Power 105-120 VAC 50-60 Hz

Backup Power 24 VDC

Heat

Heat Dissipation (Idle)

5414 75 W 5434 75 W 5454 75 W Heat Dissipation 1/8 Load (Speech) 5414 80 W

5414 80 W **5434** 140 W **5454** 200 W

Heat Dissipation 1/3 Load (compressed Music)

 5414
 90 W

 5434
 200 W

 5454
 330 W

Heat Dissipation Full Power

5414120 W**5434**340 W**5454**550 W