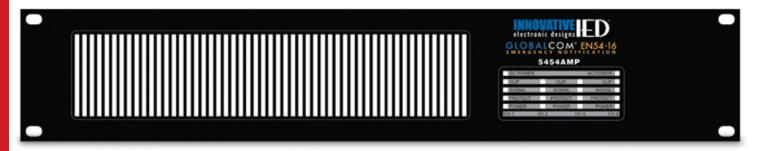


# 5414AMP / 5434AMP / 5454AMP

## **GLOBALCOM®** 5400 Power Amplifiers



#### **Features**

- Class D
- · Discrete build of power amp modules
- 100-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)

### **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 100V 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 100V 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.

#### **Available Models**

Model	Channels	Output Power (per channel)	Output Type	Gain
5414	4	100 W	100 V	39.2 dB
5434	4	300 W	100 V	39.2 dB
5454	4	500 W	100 V	39.2 dB

### **Specifications**

**Electrical, Analog** 

All Measurements at 240VAC unless noted otherwise

Power Requirements 50-60 Hz

**Power Output (per channel)** 

**5414** 100 W (100 V)

 **5434** 300 W (100 V)

 **5454** 500 W (100 V)

**Efficiency at full power** > 55%

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

 $\begin{array}{lll} \textbf{Total Harmonic Distortion, THD} & < 0.3\% \\ \textbf{Output Clipping Level} & 100 \, \text{V RMS} \\ \textbf{Input Level for full power} & 0 \, \text{dBu} \\ \textbf{Input Clipping} & 21 \, \text{dBu} \\ \textbf{Input Impedance} & 12 \, \text{k}\Omega \\ \end{array}$ 

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, 230 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** 230-240 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 **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

**5414** 120 W **5434** 340 W **5454** 550 W