

## 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**

<b>Power Requirements</b>	50-60 Hz
<b>Power Output (per channel)</b>	
<b>5414</b>	100 W (100 V)
<b>5434</b>	300 W (100 V)
<b>5454</b>	500 W (100 V)
<b>Efficiency at full power</b>	> 55%
<b>Frequency Response at full power</b>	± -0.3 dB 20 Hz - 20 kHz
<b>Power Bandwidth</b>	20 Hz – 20 kHz, +/- 0.3 dB
<b>Signal-to-Noise Ratio</b>	> 100 dB 20 Hz – 20 kHz ref
<b>Total Harmonic Distortion, THD</b>	< 0.3%
<b>Output Clipping Level</b>	100 V RMS
<b>Input Level for full power</b>	0 dBu
<b>Input Clipping</b>	21 dBu
<b>Input Impedance</b>	12 kΩ

## Mechanical:

<b>Height</b>	2 rack units, 3.47" (8.81 cm)
<b>Width (without rack mount ears)</b>	17.2" (43.7 cm)
<b>Depth</b>	17.87" (454 mm)
<b>Weight</b>	30.86 lbs (14 kg)

## Connectors:

<b>Mains Power</b>	Power switch, 230 V cord, fuse
<b>24 VDC Backup Supply</b>	2-pin, Phoenix, 10.16 mm
<b>Audio Inputs (4)</b>	10-pin Phoenix, 3.81 mm spacing
<b>Speaker Outputs (2 pair)</b>	5-pin Phoenix, 5.08 mm spacing
<b>Amp Alive Contacts (2)</b>	Part of 10-pin Phoenix, 3.81 mm spacing
<b>AC OK (1)</b>	Part of 10-pin Phoenix, 3.81 mm spacing
<b>DC OK (1)</b>	Part of 10-pin Phoenix, 3.81 mm spacing
<b>Remote Switch (1)</b>	Part of 10-pin Phoenix, 3.81 mm spacing

## Environmental:

<b>Operating Temperature Range</b>	+32°F – +122°F (+0°C – +50°C)
<b>Applicable for typical voice paging and background music applications</b>	
<b>Storage Temperature Range</b>	-40°F – +158°F (-40°C – +70°C)
<b>Mains Power</b>	230-240 VAC 50-60 Hz
<b>Backup Power</b>	24 VDC

## Heat

### Heat Dissipation (Idle)

<b>5414</b>	75 W
<b>5434</b>	75 W
<b>5454</b>	75 W

### Heat Dissipation 1/8 Load (Speech)

<b>5414</b>	80 W
<b>5434</b>	140 W
<b>5454</b>	200 W

### Heat Dissipation 1/3 Load (compressed Music)

<b>5414</b>	90 W
<b>5434</b>	200 W
<b>5454</b>	330 W

### Heat Dissipation Full Power

<b>5414</b>	120 W
<b>5434</b>	340 W
<b>5454</b>	550 W