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## MODEL 5254-001

1.0 - 2.5 GHz 180 WATTS LINEAR POWER RF AMPLIFIER

# Solid State Broadband High Power RF Amplifier

The 5254-001 is a 180 Watt broadband amplifier that covers the 1.0 – 2.5 GHz frequency range. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide an excellent 3<sup>rd</sup> order intercept point, high gain, and a wide dynamic range.

Due to robust engineering and employment of the most advanced devices and components, this amplifier achieves high efficiency operation with proven reliability. Like all OPHIR<sub>RF</sub> amplifiers, the 5254-001 comes with an extended multiyear warranty.

	<u>Parameter</u>	Specification @ 25° C
Electrical		
1	Frequency Range	1.0 – 2.5 GHz
2	Saturated Output Power	180 Watts rated
3	Small Signal Gain	+52 dB min
4	Small Signal Gain Flatness	<u>+</u> 3.0 dB max
5	IP <sub>3</sub>	+56 dBm typical
6	Input VSWR	2:1 max
7	Harmonics	-15 dBc typical @ 180 W
8	Spurious Signals	< -60 dBc minimum @ 180 W
9	Input/Output Impedance	50 Ohms nominal
10	AC Input Power	1600 Watts max
11	AC Input	100 – 240 VAC, single phase
12	RF Input	+10 dBm max
13	RF Input Signal Format	CW/AM/FM/PM/Pulse
14	Class of Operation	A/AB
<u>Mechanical</u>		
16	Dimensions	19" x 5.25" x 26"
17	Weight	42 lb. max
18	Connectors	Type-N
19	Grounding	Chassis
20	Cooling	Internal Forced Air
<u>Environmental</u>		
21	Operating Temperature	0° C to +50° C
22	Operating Humidity	95% Non-condensing
23	Operating Altitude	Up to 10,000' Above Sea Level
24	Shock and Vibration	Normal Truck Transport

Specifications subject to change without notice

#### **CIRCUIT PROTECTIONS**

- ♦ Thermal Overload
- ♦ Over Current
- ♦ Over Voltage

#### **CIRCUIT CONTROL**

- ♦ Standby (amplifier disable)
- ♦ Gain/power setting with 25dB range
- ♦ VSWR protection Reset
- ♦ ALC On/ Off

### **CIRCUIT INDICATIONS**

- ♦ Forward Power
- ♦ Reflected power
- ♦ VSWR Fault
- ♦ Temp Fault
- ♦ Gain Setting (VVA) percentage



FE Model Shown

### **ORDERING MODELS**

- ♦ RE R model with Ethernet, IEEE488 and RS232
- ♦ FE F model with Ethernet, IEEE488 and RS232

03/13 Approved By: \_\_\_\_\_\_ Date: \_\_\_\_\_