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**MODEL 5174RE-900**

**1 - 3 GHz**  
**100 WATTS**  
**LINEAR POWER RF AMPLIFIER**

## Solid State Broadband High Power RF Amplifier

The 5174RE-900 is a 100 Watt broadband amplifier that covers the 1 – 3 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 5174RE-900 comes with an extended multiyear warranty.

	Parameter	Specification @ 25° C
<b>Electrical</b>		
1	Frequency Range	1.0 – 3.0 GHz
2	Saturated Output Power	100 Watts typical
3	Power Output @ 1dB Comp.	80 Watts min
4	Small Signal Gain	+51 dB min
5	Gain Flatness	± 2.0 dB max
6	IP <sub>3</sub>	+59 dBm typical
7	Input VSWR	2:1 max
8	Harmonics	-20 dBc typical @ 80 Watts
9	Spurious Signals	< -60 dBc typical @ 80 Watts
10	Input/Output Impedance	50 Ohms nominal
11	AC Input Power	1200 Watts max
12	AC Input	100 – 240 VAC, single phase
13	RF Input	+10 dBm max
14	RF Input Signal Format	CW/AM/FM/PM/Pulse
15	Class of Operation	A/AB
<b>Mechanical</b>		
16	Dimensions	19" x 8.75" x 26"
17	Weight	80 lb. max
18	Connectors	Type-N
19	Grounding	Chassis
20	Cooling	Internal Forced Air
<b>Environmental</b>		
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 INDICATIONS

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

- ◇ Customer Specific Front Panel
- ◇ Front Panel Controller
- ◇ Rear Panel Mounted DB9-Female for External RF Enable / Standby Control

NOTE: Pin 5 is GND, Pin 1 is the Control Line.

- IF Pin 1: OPEN - RF Standby Condition (Nominal Gain - 30dB min.)
- IF Pin 1: GND - RF Enabled (Amplifier in Normal Operation) ( < 100mA to Activate )

### CIRCUIT PROTECTIONS

- ◇ Thermal Overload
- ◇ Over Current
- ◇ Over Voltage