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## MODEL 5150-001

**0.9 - 2.2 GHz**  
**12.5 WATTS**  
**LINEAR POWER RF AMPLIFIER**

### Solid State Broadband High Power RF Amplifier

The 5150-001 is a 12.5 Watt broadband amplifier that covers the 0.9 - 2.2 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 5150-001 comes with an extended multiyear warranty.

	Parameter	Specification @ 25° C
<b>Electrical</b>		
1	Frequency Range	0.9 – 2.2GHz
2	Saturated Output Power	12.5 Watts typical
3	Power Output @ 1dB Comp.	8 Watts min
4	Small Signal Gain	+42 dB min
5	Small Signal Gain Flatness	± 2.0 dB max
6	IP <sub>3</sub>	+50 dBm typical
7	Input VSWR	2:1 max
8	Harmonics	-20 dBc typical @ 8 Watts
9	Spurious Signals	< -60 dBc typical @ 8 Watts
10	Input/Output Impedance	50 Ohms nominal
11	AC Input Power	200 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 5.25" x 20"
17	Weight	38 lb. max
18	Connectors	Type-SMA
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.



FE Model Shown

### “-001” SPECIAL FEATURES

- ◇ Optimized for the 900-2200 MHz Band
- ◇ SMA Input/Output RF Connectors

### ORDERING MODELS

- ◇ **R** - Rear Panel Connector Model
- ◇ **F** - Front Panel Connector Model
- ◇ **FE** - Rear Panel Connector Model with Ethernet, IEEE488 and RS232 Communication Ports
- ◇ **RE** - Front Panel Connector Model with Ethernet, IEEE488 and RS232 Communication Ports



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LINEAR POWER RF AMPLIFIER

### FRONT PANEL CONTROLLER FEATURES

- ◇ Forward Power Monitoring
- ◇ Reflected Power Monitoring
- ◇ Gain Control (Continuously Variable VVA 20dB)
- ◇ Fault Status
- ◇ Full Protection Of any VSWR Condition, Open or Short, into any Phase angle
- ◇ Remote Control Access via the Ethernet, RS-232, or IEEE-488 Communications ports
- ◇ Integrated Automatic Leveling Control to allow end-user to maintain output even with variances in temperature, or input RF level
- ◇ Standby/Enable Control
- ◇ Front Panel Display for easy viewing of System Status Locally
- ◇ Keypad buttons for full local control

### CIRCUIT CONTROL (WITH FRONT PANEL CONTROLLER)

- ◇ Standby (amplifier disable)
- ◇ Gain/power setting with 20dB range
- ◇ VSWR protection Reset
- ◇ ALC On/ Off

### CIRCUIT INDICATIONS (WITH FRONT PANEL CONTROLLER)

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

### CIRCUIT PROTECTIONS

- ◇ Thermal Overload
- ◇ Over Current
- ◇ Over Voltage
- ◇ Open or Short VSWR Conditions (With Front Panel Controller)

### RFPA SYSTEM OPTIONS

- ◇ Switched Filter Bank
- ◇ Input Power Requirements
- ◇ Ruggedized Version
- ◇ Cabinet Requirements
- ◇ Outdoor Version
- ◇ Sample Ports
- ◇ Racking Options
- ◇ Many More!
- ◇ **Consult Factory with Specific Requirements**

