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**MODEL 5059**  
**20 - 500 MHz**  
**50 WATTS**  
**LINEAR POWER RF AMPLIFIER**

**Solid State  
 Broadband High  
 Power RF Amplifier**

The 5059 is a 50 Watt broadband amplifier that covers the 20 – 500 MHz 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 5059 comes with an extended multiyear warranty.

**CIRCUIT PROTECTIONS**

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

	Parameter	Specification @ 25° C
<b>Electrical</b>		
1	Frequency Range	20 – 500 MHz
2	Saturated Output Power	50 Watts typical
3	Power Output @ 1dB Comp.	30 Watts min
4	Small Signal Gain	+47 dB min
5	Small Signal Gain Flatness	± 2.0 dB max
6	IP <sub>3</sub>	+51 dBm typical
7	Input VSWR	2:1 max
8	Harmonics	-15 dBc minimum @ 30 Watts -20 dBc typical @ 30 Watts
9	Spurious Signals	< -60 dBc typical @ 30 Watts
10	Input/Output Impedance	50 Ohms nominal
11	AC Input Power	300 Watts max
12	AC Input	100 – 240 VAC, single phase
13	RF Input	0 dBm
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	36 Lbs.
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.



**FE MODEL SHOWN**

**ORDERING MODELS**

- ◇ RE - Rear RF Connector model with Front Panel Controller Ethernet, IEEE-488 and RS232
- ◇ FE - Front RF Connector model with Front Panel Controller Ethernet, IEEE-488 and RS232
- ◇ R - Rear RF Connector model
- ◇ F - Front RF Connector model