MODEL 5800842-001

2.0-6.0 GHz
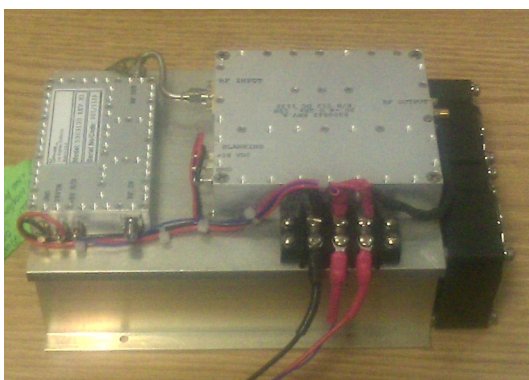## 5 WATTS
LINEAR POWER RF AMPLIFIER

Solid State Broadband High Power RF Amplifier

The 5800842-001 is a 5 Watt broadband amplifier that covers the 2.0-6.0 GHz frequency range. This small and lightweight amplifier utilizes Class A/AB linear power devices that provide an excellent 3rd 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$_{RF}$ amplifiers, the 5800842-001 comes with an extended multiyear warranty.

Specifications subject to change without notice

	Parameter	Specification @ 25° C
Electrical		
1	Frequency Range	2.0-6.0 GHz
2	Saturated Output Power	5 Watts Typ.
3	Power at P1dB Compression	3 Watts Min
3	Small Signal Gain	+37 dB min
4	Small signal gain flatness	± 2.0 dB max
5	IP$_3$	+46 dBm typical
6	Input VSWR	2:1 max
7	Harmonics	-20 dBc typical @ 3 Watts
8	Spurious Signals	< -60 dBc typical @ 3 Watts
9	Input/Output Impedance	50 Ohms nominal
10	DC Input Current	4 Amps max
11	DC Input	24 –30 VDC*
12	RF Input	+3 dBm max
13	RF Input Signal Format	CW/AM/FM/PM/Pulse
14	Class of Operation	A/AB
15	Blanking	On = Open or 3-5 Vdc Off = <0.5 Vdc
Mechanical		
16	Dimensions (W Heatsink and Fans)	L 9" x W 5.2" x H 4.25"
17	Weight (W Heatsink and Fans)	5 Lbs.
18	Connectors	RF IN/Out: SMA female DC terminals: Voltage in
19	Grounding	Chassis
20	Cooling	Adequate Heatsink Required
Environmental		
21	Baseplate Temperature	0º C to +50º C
22	Operating Humidity	95% Non-condensing
23	Operating Altitude	Up to 10,000' Above Sea Level
24	Shock and Vibration	Normal Truck Transport

*= Higher Voltages translates to an increase in Power out

FEATURES:
Heatsink and Fans Included
Enable/Disable Pin

Pin Layout:
Pin 1: GND (black)
Pin 2: Voltage in (red)
Pin 3: Shutdown (blue)