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**MODEL 5038FE-015**  
**1.0 - 1.5 GHz**  
**200 WATTS**  
**LINEAR POWER RF AMPLIFIER**

### Solid State Broadband High Power RF Amplifier

The 5038FE-015 is a 200-Watt broadband amplifier that covers the 1.0 – 1.5 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 5038FE-015 comes with an extended multiyear warranty.

	Parameter	Specification @ 25° C
<b>Electrical</b>		
1	Frequency Range	1.0 – 1.5 GHz
2	Saturated Output Power	200 Watts typical
3	Power Output @ 1dB Comp.	120 Watts min
4	Small Signal Gain	+54 dB min
5	Small Signal 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 @ 120 Watts
9	Spurious Signals	< -60 dBc typical @ 120 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	Pulse
15	Pulse Width	1 - 100 µs
16	Pulse Repetition Interval	1221 - 1800 µs
17	Trigger Input*	>3V = On, <1V = Off
18	Class of Operation	A/AB
<b>Mechanical</b>		
	Dimensions	19" x 5.25" x 20"
	Weight	47 lb. max
	Connectors	RF: Type-N (front panel) Trigger: BNC (rear panel)
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



\*The trigger is required to synchronize power measurements and must bracket the RF input

Specifications subject to change without notice.



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### FRONT PANEL CONTROLLER FEATURES

- ◇ Forward power monitoring (Peak power for pulse mode)
- ◇ Reflected power monitoring (Peak power for pulse mode)
- ◇ Gain Control (Dynamic range of 20 dB)
- ◇ 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

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

### CIRCUIT INDICATIONS

- ◇ Forward power (Peak power for pulse mode)
- ◇ Reflected power (Peak power for pulse mode)
- ◇ VSWR Fault
- ◇ Temp Fault
- ◇ Gain Setting percentage

### CIRCUIT PROTECTIONS

- ◇ Thermal Overload
- ◇ Over Current
- ◇ Over Voltage
- ◇ Open or Short VSWR Conditions

