5300 Beethoven Street, Los Angeles, CA 90066
TEL: (310)306-5556 • FAX: (310)821-7413
WEB: www.ophirrf.com • E-MAIL: sales@ophirrf.com

MODEL 5138

1.0 - 2.0 GHz
2500 WATTS
LINEAR POWER RF AMPLIFIER

Solid State Broadband High Power RF Amplifier

The 5138 is a 2500 Watt broadband amplifier that covers the 1.0 – 2.0 GHz frequency range. This Compact RF 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 5138 comes with an extended multiyear warranty backed by Ophir RF's commitment to total customer satisfaction.

	Parameter	Specification @ 25° C
Electrical		
1	Frequency Range	1.0 – 2.0 GHz
2	Saturated Output Power	2500 Watts typ.
3	Small Signal Gain	+65 dB min
4	Power Flatness	+/- 4.0 dB max with no ALC +/- 1.0 dB max with internal leveling
5	IP_3	+68 dBm typical
6	Input VSWR	2:1 max
7	Harmonics	-20 dBc typical
8	Spurious Signals	< -60 dBc typical
9	Input/Output Impedance	50 Ohms nominal
10	AC Input Power	20 kW max
11	AC Input	208VAC 3Ø (Three Phase)* *Please specify AC Power requirements with factory
12	RF Input	+10 dBm max
13	RF Input Signal Format	CW/AM/FM/PM/Pulse
14	Class of Operation	A/AB
Mechanical		
15	Dimensions	Height 90cm Width: 205cm Depth: 105cm
16	Weight	432 kg. max
17	Connectors	Type-N (RF Input) EIA 1 5/8 (RF Output)
18	Grounding	Chassis
19	Cooling	Internal Forced Air
Environmental		
20	Operating Temperature	0º C to +40º C
21	Operating Humidity	95% Non-condensing
22	Operating Altitude	Up to 10,000' Above Sea Level
23	Shock and Vibration	Normal Truck Transport

Specifications subject to change without notice

R (*Rear Connector*) VERSION 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

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FRONT PANEL CONTROLLER FEATURES (*Optional*)

◊ 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, phase or input RF level
◊ Standby/Enable Control
◊ Front Panel Display for easy viewing of System Status Locally
◊ Keypad buttons for full local control

RFPA SYSTEM OPTIONS

◊ Switched Filter Bank
◊ Input Power Requirements
◊ Ruggedized Version
◊ Cabinet Requirements
◊ Outdoor Version
◊ Sample Ports
◊ Racking Options

CIRCUIT INDICATIONS

(WITH FRONT PANEL CONTROLLER)

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

CIRCUIT CONTROL

(WITH FRONT PANEL CONTROLLER)

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

CIRCUIT PROTECTIONS

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

TYPICAL PERFORMANCE DATA FOR MODEL 5138

Freq (MHz)	RF Output (dBm)
1000	64.3
1100	64.6
1200	64.6
1300	64.6
1400	64.4
1500	64.4
1600	64.9
1700	64.5
1800	64.5
1900	64.7
2000	64.4

Certified to ISO 9001:2008

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