



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 4022-002

2.35-2.55 GHz

200 WATTS

LINEAR POWER RF AMPLIFIER

Solid State Broadband High Power RF Amplifier

The 4022-002 is a 200 Watt band specific amplifier that covers the 2.35-2.55 GHz frequency range. This small and lightweight amplifier utilizes Class A 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 4022-002 comes with an extended multiyear warranty backed by Ophir RF's commitment to total customer satisfaction.

| | Parameter | Specification @ 25° C |
|----------------------|------------------------|-------------------------------|
| Electrical | | |
| 1 | Frequency Range | 2.35-2.55 GHz |
| 2 | P1dB Output Power | 200 Watts Minimum |
| 3 | Small Signal Gain | +55 dB min |
| 4 | Power Flatness | ± 1.0 dB max |
| 5 | IP ₃ | +59 dBm typical |
| 6 | Input VSWR | 2:1 max |
| 7 | Harmonics | -20 dBc Minimum |
| 8 | Spurious Signals | < -60 dBc Minimum |
| 9 | Input/Output Impedance | 50 Ohms nominal |
| 10 | AC Input Power | 1800 Watts max |
| 11 | AC Input | 100 – 240 VAC, single phase |
| 12 | RF Input | +3 dBm max without damage |
| 13 | RF Input Signal Format | CW/AM/FM/PM/Pulse |
| 14 | Class of Operation | A |
| Mechanical | | |
| 15 | Dimensions | 19" x 8.75" x 24" |
| 16 | Weight | 93 Lbs. |
| 17 | Connectors | Type-N |
| 18 | Grounding | Chassis |
| 19 | Cooling | Internal Forced Air |
| Environmental | | |
| 20 | Operating Temperature | 0° C to +50° 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



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

INTERNAL ISOLATOR FOR FULL VSWR OPERATION AND PROTECTION



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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, phase 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**

