

## MODEL 4038

**240-272 MHz**  
**1000 WATTS**  
**LINEAR POWER RF AMPLIFIER**

### Solid State Band-specific High Power RF Amplifier

The 4038 is a 1000 Watt band-specific amplifier that covers the 240-272 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 4038 comes with an extended multiyear warranty.

|                             | Parameter                  | Specification @ 25° C                 |
|-----------------------------|----------------------------|---------------------------------------|
| <b><u>Electrical</u></b>    |                            |                                       |
| 1                           | Frequency Range            | 240-272 MHz                           |
| 2                           | Saturated Output Power     | 1000 Watts Minimum                    |
| 3                           | Power Output @ 1dB Comp.   | 800 Watts Minimum                     |
| 4                           | Small Signal Gain          | +60 dB min                            |
| 5                           | Small Signal Gain Flatness | ± 1.0dB max                           |
| 6                           | IP <sub>3</sub>            | +70 dBm Minimum                       |
| 7                           | Input VSWR                 | 2:1 max                               |
| 8                           | Harmonics                  | -20 dBc @ 650 Watts                   |
| 9                           | Spurious Signals           | < -60 dBc                             |
| 10                          | Input/Output Impedance     | 50 Ohms nominal                       |
| 11                          | AC Input Power             | 3500 Watts max                        |
| 12                          | AC Input                   | 180 – 240 VAC, single phase           |
| 13                          | RF Input                   | 0 dBm typical                         |
| 14                          | RF Input Signal Format     | Optimized for Multi Carrier Operation |
| 15                          | Class of Operation         | A/AB                                  |
| <b><u>Mechanical</u></b>    |                            |                                       |
| 16                          | Dimensions                 | 19" x 10.5" x 26"                     |
| 17                          | Weight                     | 110 lb. max                           |
| 18                          | Connectors                 | Type-N                                |
| 19                          | Grounding                  | Chassis                               |
| 20                          | Cooling                    | Internal Forced Air                   |
| <b><u>Environmental</u></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.

### CIRCUIT CONTROL

- ◇ Standby (amplifier disable)
- ◇ Gain/power setting with 25dB range
- ◇ VSWR protection Reset
- ◇ ALC On/ Off

### CIRCUIT INDICATIONS

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

### ORDERING MODELS

- ◇ RE - R model with Ethernet, IEEE488 and RS232
- ◇ FE - F model with Ethernet, IEEE488 and RS232

### CIRCUIT PROTECTIONS

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



FE Model Shown