

## MODEL 5020-006

**500 - 1000 MHz**  
**200 WATTS**  
**LINEAR POWER RF AMPLIFIER**

### Solid State Broadband High Power RF Amplifier

The 5020-006 is a 200 Watt broadband amplifier that covers the 500 – 1000 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 5020-006 comes with an extended multiyear warranty.

#### CIRCUIT PROTECTIONS

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

#### 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

Specifications subject to change without notice

|                             | Parameter                   | Specification @ 25° C         |
|-----------------------------|-----------------------------|-------------------------------|
| <b><u>Electrical</u></b>    |                             |                               |
| 1                           | Frequency Range             | 500 – 1000 MHz                |
| 2                           | Saturated Output Power      | 200 Watts Min                 |
| 3                           | Power Output @ 1dB Comp.    | 150 Watts Min                 |
| 4                           | Small Signal Gain           | +53 dB min                    |
| 5                           | Small Signal Gain Flatness  | ± 1.5 dB max                  |
| 6                           | Third Order Intercept Point | +60 dBm                       |
| 7                           | Input/Output VSWR           | 2:1 typ (@ 50 Ohms)           |
| 8                           | Harmonics                   | -20 dBc typical @ 150 Watts   |
| 9                           | Spurious Signals            | -60 dBc typical @ 150 Watts   |
| 10                          | Input/Output Impedance      | 50 Ohms nominal               |
| 11                          | Power Consumption           | 900 Watts                     |
| 12                          | AC Input                    | 100 – 240 VAC, single phase   |
| 13                          | RF Input Overdrive          | 0dBm Maximum                  |
| 14                          | RF Input Signal Format      | CW/AM/FM/PM/Pulse             |
| 15                          | Class of Operation          | AB Linear                     |
| <b><u>Mechanical</u></b>    |                             |                               |
| 16                          | Dimensions                  | 19" x 5.25" x 20"             |
| 17                          | Weight                      | 48 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        |



RE Model Shown

#### ORDERING MODELS

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