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## Solid State Band-specific High Power RF Amplifier

The 4042-002 is a 500 Watt band-specific amplifier that covers the 0.95 – 30 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 4042-002 comes with an extended multiyear warranty.

### CIRCUIT PROTECTIONS

- ◊ Thermal Overload
- ◊ Over Current
- ◊ Over Voltage

### ORDERING MODELS

- ◊ R - Rear Panel Connectors
- ◊ F - Front Panel Connectors
- ◊ RE - R model w/Control Option
- ◊ FE - F model w/Control Option

## MODEL 4042-002

0.95 - 30 MHz

500 WATTS

LINEAR POWER RF AMPLIFIER

|                      | Parameter                  | Specification @ 25 °C         |
|----------------------|----------------------------|-------------------------------|
| <b>Electrical</b>    |                            |                               |
| 1                    | Frequency Range            | 0.95 – 30 MHz                 |
| 2                    | Saturated Output Power     | 500 Watts typical             |
| 3                    | Power Output @ 1dB Comp.   | 300 Watts min                 |
| 5                    | Small Signal Gain          | +57 dB min                    |
| 6                    | Small Signal Gain Flatness | ± 2.0 dB max                  |
| 7                    | IP <sub>3</sub>            | +61 dBm typical               |
| 8                    | Input VSWR                 | 2:1 max                       |
| 9                    | Harmonics                  | -15 dBc typical @ 300 Watts   |
| 10                   | Spurious Signals           | < -60 dBc typical @ 300 Watts |
| 11                   | Input/Output Impedance     | 50 Ohms nominal               |
| 12                   | AC Input Power             | 1800 Watts max                |
| 13                   | AC Input                   | 100 – 240 VAC, single phase   |
| 14                   | RF Input                   | 0 dBm max.                    |
| 15                   | RF Input Signal Format     | CW/AM/FM/PM/Pulse             |
| 16                   | Class of Operation         | AB                            |
| <b>Mechanical</b>    |                            |                               |
| 17                   | Dimensions                 | 19" x 7.0" x 20"              |
| 18                   | Weight                     | 60 lb. max                    |
| 19                   | Connectors                 | Type-N                        |
| 20                   | Grounding                  | Chassis                       |
| 21                   | Cooling                    | Internal Forced Air           |
| <b>Environmental</b> |                            |                               |
| 22                   | Operating Temperature      | 0° C to +50° C                |
| 23                   | Operating Humidity         | 95% Non-condensing            |
| 24                   | Operating Altitude         | Up to 10,000' Above Sea Level |
| 25                   | Shock and Vibration        | Normal Truck Transport        |

Specifications subject to change without notice.



FE Model Shown

Approved By: \_\_\_\_\_

Date: \_\_\_\_\_