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## **MODEL 5125FE-014**

20 - 1000 MHz 70 WATTS LINEAR POWER RF AMPLIFIER

# Solid State Broadband High Power RF Amplifier

The 5125FE-014 is a 70 Watt broadband amplifier that covers the 20 – 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. amplifier this achieves high efficiency operation with proven The 5125FE-014 reliability. RF has connectors located on the Front of the amplifier and communication ports on the Rear.

| 344  | <u>Parameter</u>           | Specification @ 25° C         |  |
|--|----------------------------|-------------------------------|--|
| Electrical                                       |                            |                               |  |
| 1  | Frequency Range            | 20 – 1000 MHz                 |  |
| 2  | Saturated Output Power     | 70 Watts typical              |  |
| 3  | Power Output @ 1dB Comp.   | 40 Watts min                  |  |
| 4  | Small Signal Gain          | +49 dB min                    |  |
| 5  | Small Signal Gain Flatness | <u>+</u> 2.0 dB max           |  |
| 6  | IP <sub>3</sub>            | +52 dBm typical               |  |
| 7  | Input VSWR                 | 2:1 max                       |  |
| 8  | Harmonics                  | -20 dBc typical @ 40 Watts    |  |
| 9  | Spurious Signals           | < -60 dBc typical @ 40 Watts  |  |
| 10   | Input/Output Impedance     | 50 Ohms nominal               |  |
| 11   | AC Input Power             | 750 Watts max                 |  |
| 12   | AC Input                   | 100 – 240 VAC, single phase   |  |
| 13   | RF Input                   | 0 dBm max                     |  |
| 14   | RF Input Signal Format     | CW/AM/FM/PM/Pulse             |  |
| 15   | Class of Operation         | AB                            |  |
| 16   | Customized Software        | Set as Master Controller      |  |
| <u>Mechanical</u>                                |                            |                               |  |
| 17   | Dimensions                 | 19" x 5.25" x 20"             |  |
| 18   | Weight                     | 48 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. |                            |                               |  |

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#### CIRCUIT INDICATIONS

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

## CIRCUIT PROTECTIONS

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

#### COMMUNICATION

- ♦ Ethernet
- ♦ IEEE-488

04/10

### **AMPLIFIER OPTIONS USING 6900001 (RF RELAY)**

- ♦ Can be Used as standalone amplifier
- ♦ Can be Used in Dual Mode with 5163FE-014 only

| Approved By: | ] | Date: |  |
|--------------|---|-------|--|
|              |   |       |  |