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# MODEL 5202

## 10 kHz - 300 MHz 250 WATTS LINEAR POWER RF AMPLIFIER

# Solid State Broadband High Power RF Amplifier

The 5202 is a 250 Watt broadband amplifier that covers the 10 kHz – 300 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.

# **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

#### **ORDERING MODELS**

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

|                      | <u>Parameter</u>           | Specification @ 25° C         |
|----------------------|----------------------------|-------------------------------|
| Electrical           |                            |                               |
| 1                    | Frequency Range            | 0.01 – 300 MHz                |
| 2                    | Saturated Output Power     | 250 Watts typical             |
| 3                    | Power Output @ 1dB Comp.   | 150 Watts min                 |
| 4                    | Small Signal Gain          | +55 dB min                    |
| 5                    | Small Signal Gain Flatness | <u>+</u> 2.5 dB max           |
| 6                    | IP <sub>3</sub>            | +60 dBm typical               |
| 7                    | Input VSWR                 | 2:1 max                       |
| 8                    | Harmonics                  | -15 dBc typical @ 150 Watts   |
| 9                    | Spurious Signals           | < -60 dBc minimum             |
| 10                   | Input/Output Impedance     | 50 Ohms nominal               |
| 11                   | AC Input Power             | 2000 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                            |
| <u>Mechanical</u>    |                            |                               |
| 16                   | Dimensions                 | 19" x 8.75" x 20"             |
| 17                   | Weight                     | 80 lb. max                    |
| 18                   | Connectors                 | Type-N                        |
| 19                   | Grounding                  | Chassis                       |
| 20                   | Cooling                    | Internal Forced Air           |
| <b>Environmental</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        |



FE Model Shown

Specifications subject to change without notice

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