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## MODEL 5175

**1.0 - 3.0 GHz**  
**200 WATTS**  
**LINEAR POWER RF AMPLIFIER**

### Solid State Broadband High Power RF Amplifier

The 5175 is a 200 Watt broadband amplifier that covers the 1.0 – 3.0 GHz 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.

### ORDERING MODELS

- ◇ RE - Rear panel RF connectors with IEEE488, Ethernet and RS232
- ◇ FE - Front panel RF connectors with IEEE488, Ethernet and RS232

### CIRCUIT PROTECTIONS

- ◇ Thermal Overload
- ◇ Over Current
- ◇ Over Voltage
- ◇ VSWR protection
- ◇ RF Output over drive

|                      | Parameter                  | Specification @ 25° C  |
|----------------------|----------------------------|--|
| <b>Electrical</b>    |                            |  |
| 1                    | Frequency Range            | 1.0 – 3.0 GHz  |
| 2                    | Saturated Output Power     | 200 Watts min  |
| 3                    | Power Output @ 1dB Comp.   | 100 Watts min  |
| 4                    | Small Signal Gain          | +54 dB min   |
| 5                    | Small Signal Gain Flatness | +/-1.0 dB max with ALC<br>@ -20dBm input power<br>+/-5dB max with no ALC |
| 6                    | IP <sub>3</sub>            | +60 dBm typ  |
| 7                    | Input VSWR                 | 2:1 max  |
| 8                    | Harmonics                  | -20 dBc typical @ 100 Watts  |
| 9                    | Spurious Signals           | > -60 dBc typical  |
| 10                   | Input/Output Impedance     | 50 Ohms nominal  |
| 11                   | AC Input Power             | 2500 Watts max   |
| 12                   | AC Input                   | 186 – 264 VAC, three phase   |
| 13                   | RF Input                   | +10 dBm max  |
| 14                   | EMI Radiation              | -40dBm per meter   |
| 15                   | Class of Operation         | A/AB   |
| <b>Mechanical</b>    |                            |  |
| 16                   | Dimensions                 | 19" x 14" x 26" , (8U)   |
| 17                   | Weight                     | 150 lb. max  |
| 18                   | Connectors                 | Type-N for RF<br>BNC for Gating<br>RJ-45 for control                     |
| 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   |

### CIRCUIT INDICATIONS

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

### CIRCUIT CONTROL

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