Solid State
Broadband High
Power RF Amplifier

The 5174 is a 100 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 3rd 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 OPHIRRF amplifiers, the 5174 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
◊ RT - RE model w/Ethernet Interface
◊ FT - FE model w/Ethernet Interface

MODEL 5174
1.0 - 3.0 GHz
100 WATTS
LINEAR POWER RF AMPLIFIER

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification @ 25°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>1.0 – 3.0 GHz</td>
</tr>
<tr>
<td>Saturated Output Power</td>
<td>100 Watts typical</td>
</tr>
<tr>
<td>Power Output @ 1dB Comp.</td>
<td>80 Watts min</td>
</tr>
<tr>
<td>Small Signal Gain</td>
<td>+51 dB min</td>
</tr>
<tr>
<td>Small Signal Gain Flatness</td>
<td>± 2.0 dB max</td>
</tr>
<tr>
<td>IP3</td>
<td>+59 dBm typical</td>
</tr>
<tr>
<td>Input VSWR</td>
<td>2.1 max</td>
</tr>
<tr>
<td>Harmonics</td>
<td>-20 dBC typical @ 80 Watts</td>
</tr>
<tr>
<td>Spurious Signals</td>
<td>&gt; -60 dBC typical @ 80 Watts</td>
</tr>
<tr>
<td>Input/Output Impedance</td>
<td>50 Ohms nominal</td>
</tr>
<tr>
<td>AC Input Power</td>
<td>1200 Watts max</td>
</tr>
<tr>
<td>AC Input</td>
<td>100 – 240 VAC, single phase</td>
</tr>
<tr>
<td>RF Input</td>
<td>+10 dBm max</td>
</tr>
<tr>
<td>RF Input Signal Format</td>
<td>CW/AM/FM/PM/Pulse</td>
</tr>
<tr>
<td>Class of Operation</td>
<td>A/AB</td>
</tr>
<tr>
<td>Dimensions</td>
<td>19&quot; x 8.75&quot; x 26&quot;</td>
</tr>
<tr>
<td>Weight</td>
<td>80 lb. max</td>
</tr>
<tr>
<td>Connectors</td>
<td>Type-N</td>
</tr>
<tr>
<td>Grounding</td>
<td>Chassis</td>
</tr>
<tr>
<td>Cooling</td>
<td>Internal Forced Air</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0°C to +50°C</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>95% Non-condensing</td>
</tr>
<tr>
<td>Operating Altitude</td>
<td>Up to 10,000' Above Sea Level</td>
</tr>
<tr>
<td>Shock and Vibration</td>
<td>Normal Truck Transport</td>
</tr>
</tbody>
</table>

Specifications subject to change without notice.