RF AMPLIFIER
MODEL TR7215

Features
- High Gain: 31.5 dB Typical
- Output Power: +13 dBm Typical
- Environmental Screening Available

Specifications

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>TYPICAL</th>
<th>MIN/MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ta= 25 ºC</td>
<td>Ta = -55 ºC to +85 ºC</td>
</tr>
<tr>
<td>Frequency</td>
<td>5-200 MHz</td>
<td>5-200 MHz</td>
</tr>
<tr>
<td>Gain (dB)</td>
<td>31.5</td>
<td>30.0 Min.</td>
</tr>
<tr>
<td>Power @ 1 dB</td>
<td>+13</td>
<td>+10.0 Min.</td>
</tr>
<tr>
<td>Comp. (dBm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reverse</td>
<td>-40</td>
<td>-35 Max.</td>
</tr>
<tr>
<td>Isolation (dB)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VSWR In</td>
<td>&lt;1.10:1</td>
<td>1.5:1 Max.</td>
</tr>
<tr>
<td>Out</td>
<td>&lt;1.25:1</td>
<td>1.5:1 Max.</td>
</tr>
<tr>
<td>Noise Figure (dB)</td>
<td>2.5</td>
<td>4.0 Max.</td>
</tr>
<tr>
<td>Power Vdc</td>
<td>+15</td>
<td>+15 Min.</td>
</tr>
<tr>
<td>mA</td>
<td>58</td>
<td>70 Max.</td>
</tr>
</tbody>
</table>

Note: Care should always be taken to effectively ground the case of each unit.

Typical Performance Data

Typical Intermodulation Performance at 25 ºC
Second Order Harmonic Intercept Point........+45 dBm (Typ.)
Second Order Two Tone Intercept Point.........+39 dBm (Typ.)
Third Order Two Tone Intercept Point..........+26 dBm (Typ.)

Maximum Ratings
Ambient Operating Temperature ............... -55ºC to + 100 ºC
Storage Temperature .......................... -62ºC to + 125 ºC
Case Temperature ................................ + 125 ºC
DC Voltage ..................................... + 18 Volts
Continuous RF Input Power ..................... + 20 dBm
Short Term RF Input Power .... 200 Milliwatts (1 Minute Max.)
Maximum Peak Power ......................... 0.5 Watt (3 μsec Max.)

Linear S-Parameters

FREQ. | S11 | S12 | S21 | S22 |
-----|-----|-----|-----|-----|
Hz    | Mag | Deg | Mag | Deg |
-----|-----|-----|-----|-----|
5    | -54 | 39.35 | 2 | 9 | 1 | 4 | .01 | .07 | -175 |
25   | -86 | 38.74 | 19 | 21 | 1 | 10 | .01 | .09 | -168 |
50   | -160 | 38.53 | 28 | 37 | 1 | 10 | .01 | .12 | -175 |
75   | -160 | 38.23 | 19 | 37 | 1 | 10 | .01 | .12 | -175 |
100  | -150 | 38.26 | 28 | 37 | 1 | 10 | .01 | .12 | -175 |
125  | -148 | 38.18 | 19 | 37 | 1 | 10 | .01 | .12 | -175 |
150  | -162 | 38.18 | 28 | 37 | 1 | 10 | .01 | .12 | -175 |
175  | -161 | 37.93 | 19 | 37 | 1 | 10 | .01 | .12 | -175 |
200  | -147 | 36.06 | 28 | 37 | 1 | 10 | .01 | .12 | -175 |

Legend ———— + 25 ºC ———— + 85 ºC ———— - 55 ºC