Coaxial
Low Noise Amplifier

50Ω 0.1 to 500 MHz

Features
• very low noise, 2.9 dB typ.
• good VSWR, 1.5 :1 typ.
• protected by US Patent, 6,943,629

Applications
• VHF/UHF
• small signal amplifier
• communications system

Low Noise Amplifier Electrical Specifications

<table>
<thead>
<tr>
<th>MODEL NO.</th>
<th>FREQUENCY (MHz)</th>
<th>NOISE FIGURE (dB)</th>
<th>GAIN (dB)</th>
<th>MAXIMUM POWER (dBm)</th>
<th>INTERCEPT POWER (dBm)</th>
<th>VSWR :1</th>
<th>DC POWER</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZFL-500LN (±)</td>
<td>0.1 to 500</td>
<td>2.9</td>
<td>24</td>
<td>±0.5</td>
<td>±5</td>
<td>±14</td>
<td>1.5</td>
</tr>
</tbody>
</table>

m = mid range [2 fL to fU/2]

*VSWR 1.6:1 max. from 0.1 to 0.2 MHz.
Open load is not recommended, potentially can cause damage.
With no load derate max input power by 20 dB

Maximum Ratings
Operating Temperature -20°C to 71°C
Storage Temperature -55°C to 100°C
DC Voltage +17V Max.

Permanent damage may occur if any of these limits are exceeded.

Outline Drawing

Outline Dimensions (inch/min)

A  B  C  D  E  F  G  H  J  L  M  N  P  Q  R  S  T  wt.
1.25 1.25  .75  .63  .36  1.000 1.000  .125 125 46 2.18 2.18 16.88 16.88 48 48  grams
31.75 31.75 19.05 16.00 9.14 25.40 25.40 3.18 3.18 11.68 55.37 42.88 1.52 19.05 12.70 20.32 11.43 7.37 38
## Typical Performance Data/Curves

### ZFL-500LN+ ZFL-500LN

<table>
<thead>
<tr>
<th>FREQUENCY (MHz)</th>
<th>GAIN (dB)</th>
<th>DIRECTIVITY (dB)</th>
<th>VSWR (:1)</th>
<th>NOISE FIGURE (dB)</th>
<th>POUT at 1 dB COMPR. (dBm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.10</td>
<td>24.30</td>
<td>27.80</td>
<td>28.40</td>
<td>34.40</td>
<td>27.80</td>
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<tr>
<td>0.60</td>
<td>24.41</td>
<td>27.98</td>
<td>28.60</td>
<td>30.00</td>
<td>28.80</td>
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<tr>
<td>5.40</td>
<td>24.37</td>
<td>27.94</td>
<td>28.56</td>
<td>29.00</td>
<td>26.50</td>
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<tr>
<td>53.30</td>
<td>24.49</td>
<td>28.15</td>
<td>28.75</td>
<td>26.90</td>
<td>27.20</td>
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<tr>
<td>193.40</td>
<td>24.65</td>
<td>28.31</td>
<td>28.89</td>
<td>26.90</td>
<td>26.50</td>
</tr>
<tr>
<td>243.60</td>
<td>24.66</td>
<td>28.12</td>
<td>28.81</td>
<td>29.60</td>
<td>25.70</td>
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<tr>
<td>307.70</td>
<td>24.73</td>
<td>28.10</td>
<td>28.75</td>
<td>27.20</td>
<td>24.40</td>
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<tr>
<td>371.80</td>
<td>24.83</td>
<td>28.11</td>
<td>28.74</td>
<td>26.80</td>
<td>25.20</td>
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<tr>
<td>435.90</td>
<td>24.88</td>
<td>28.09</td>
<td>28.68</td>
<td>27.20</td>
<td>23.50</td>
</tr>
<tr>
<td>500.00</td>
<td>24.79</td>
<td>27.89</td>
<td>28.44</td>
<td>26.50</td>
<td>25.30</td>
</tr>
</tbody>
</table>

**ZFL-500LN**

**GAIN**

**DIRECTIVITY**

**VSWR**

**NOISE FIGURE**

**OUTPUT POWER AT 1-dB COMPRESSION**

**MINI-CIRCUITS®**

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