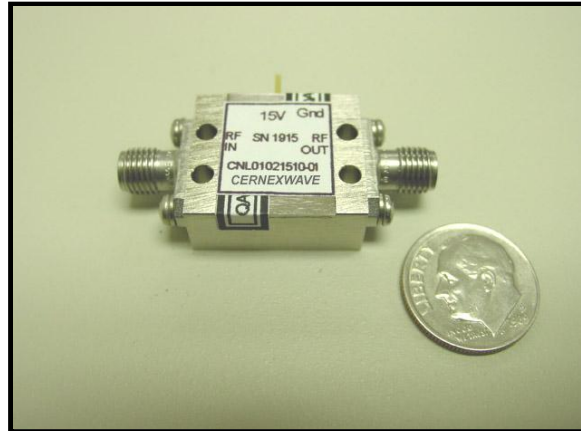


Narrow Band Low Noise Amplifiers

FEATURES:

- ❖ Coverage From 0.3 to 97.0 GHz
- ❖ Removable Connectors
- ❖ Noise Figure As Low As 0.3dB
- ❖ Compact/Rugged Thin-Film Construction
- ❖ Economically Priced



DESCRIPTION:

CNL Series

Cernexwave's CNL series offer coverage of most needed bands. Typical applications include airborne, shipboard, and ground electronic systems, IFF, radar, and communication receivers, EHF satellite communications. Low noise performance of these CNL series, combined with a wide selection of gain and output power, provide some of the industry's most versatile amplifiers.

SPECIFICATIONS:

| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | P1dB (dBm) Min. | VSWR In/Out Max. | Current @ 12 VDC (mA) Typ. | Case Type |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|----------------------------|-----------|
| CNLU4U43808 | 0.43-0.45 | 30 | 0.50 | 0.80 | 10 | 2:1 | 100 | MSA4 |
| CNLU5U63805 | 0.5-0.6 | 30 | 0.25 | 0.50 | 10 | 2:1/1.8:1 | 185 | MSA4 |
| CNLU5U73009 | 0.5-0.7 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNLU5U73014 | 0.5-0.7 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNLU5U74009 | 0.5-0.7 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNLU5U74014 | 0.5-0.7 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNLU6U83009 | 0.6-0.8 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNLU6U83014 | 0.6-0.8 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNLU6U84009 | 0.6-0.8 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNLU6U84014 | 0.6-0.8 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNLU7U83804 | 0.7-0.8 | 30 | 0.50 | 0.40 | 10 | 1.5:1 | 90 | MSA4 |
| CNLU7U93008 | 0.7-0.9 | 30 | 0.50 | 0.8 | 10 | 2:1 | 175 | MSA4 |
| CNLU7U93009 | 0.7-0.9 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNLU7U93014 | 0.7-0.9 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNLU7U94009 | 0.7-0.9 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNLU7U94014 | 0.7-0.9 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNLU8011005 | 0.8-1.0 | 14 | 1.00 | 0.5 | 15 | 1.6:1 | 125 | MSA2 |



Narrow Band Low Noise Amplifiers

| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | P1dB (dBm) Min. | VSWR In/Out Max. | Current @ 12 VDC (mA) Typ. | Case Type |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|----------------------------|-----------|
| CNLU8013009 | 0.8-1.0 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNLU8013014 | 0.8-1.0 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNLU8014009 | 0.8-1.0 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNLU8014014 | 0.8-1.0 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNLU9013009 | 0.9-1.1 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNLU9013014 | 0.9-1.1 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNLU9014009 | 0.9-1.1 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNLU9014014 | 0.9-1.1 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNLU9013005 | 0.9-1.2 | 30 | 0.50 | 0.5 | 13 | 1.5:1 | 150 | MSA4 |
| CNLU9014408 | 0.95-1.05 | 44 | 0.50 | 0.8 | 10 | 2:1 | 125 | MSA6 |
| CNLU9012507 | 0.95-1.22 | 30 | 0.50 | 0.7 | 15 | 1.8:1 | 100 | MSA4 |
| CNLU9012508 | 0.95-1.22 | 30 | 0.50 | 0.8 | 15 | 1.8:1/1.5:1 | 100 | MSA4 |
| CNLU9013011 | 0.95-1.22 | 30 | 0.50 | 1.10 | 15 | 1.8:1 | 100 | MSA4 |
| CNLU9013805 | 0.95-1.45 | 38 | 0.50 | 0.5 | 13 | 1.8:1 | 150 | MSA6 |
| CNLU9011210 | 0.95-1.6 | 14 | 1.00 | 1.00 | 13 | 2.0:1 | 80 | MSA2 |
| CNLU9013806 | 0.95-1.75 | 38 | 1.00 | 0.6 | 13 | 1.75:1 | 200 | MSA6 |
| CNL01014408 | 1.0-1.1 | 44 | 0.50 | 0.8 | 10 | 2.0:1 | 125 | MSA6 |
| CNL010130092 | 1.0-1.2 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNL010130142 | 1.0-1.2 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNL010140092 | 1.0-1.2 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNL010140142 | 1.0-1.2 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNL010130143 | 1.1-1.3 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNL010140093 | 1.1-1.3 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNL010140143 | 1.1-1.3 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNL010130094 | 1.2-1.4 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNL010130144 | 1.2-1.4 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNL010140094 | 1.2-1.4 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNL010140144 | 1.2-1.4 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNL010140056 | 1.2-1.6 | 40 | 0.50 | 0.5 | 13 | 1.5:1 | 125 | MSA6 |
| CNL010128044 | 1.3-1.4 | 28 | 0.50 | 0.40 | 10 | 1.5:1 | 90 | MSA4 |
| CNL010130095 | 1.3-1.5 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNL010130145 | 1.3-1.5 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNL010140095 | 1.3-1.5 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNL010140145 | 1.3-1.5 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNL010130066 | 1.4-1.6 | 30 | 0.50 | 0.7 | 10 | 2:1 | 150 | MSA4 |
| CNL010130096 | 1.4-1.6 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNL010130146 | 1.4-1.6 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNL010140096 | 1.4-1.6 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNL010140146 | 1.4-1.6 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNL010250067 | 1.4-2.7 | 50 | 1.00 | 0.6 | 10 | 2:1 | 250 | MSA6 |



Narrow Band Low Noise Amplifiers

| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | P1dB (dBm) Min. | VSWR In/Out Max. | Current @ 12 VDC (mA) Typ. | Case Type |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|----------------------------|-----------|
| CNL010150046 | 1.5-1.6 | 50 | 0.50 | 0.43 | 10 | 1.3:1 | 200 | MSB6 |
| CNL010160046 | 1.5-1.6 | 60 | 0.50 | 0.4 | 13 | 1.5:1 | 250 | MSA8 |
| CNL010130077 | 1.5-1.7 | 30 | 0.50 | 0.7 | 10 | 2:1 | 150 | MSA4 |
| CNL010130097 | 1.5-1.7 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNL010130147 | 1.5-1.7 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNL010140097 | 1.5-1.7 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNL010140147 | 1.5-1.7 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNL010113058 | 1.5-1.8 | 13 | 0.50 | 0.5 | 10 | 2.5:1 | 125 | MSA2 |
| CNL010115078 | 1.5-1.8 | 13 | 0.50 | 0.7 | 10 | 2:1 | 125 | MSA2 |
| CNL010140058 | 1.5-1.8 | 40 | 0.50 | 0.5 | 13 | 1.5:1 | 175 | MSA6 |
| CNL010130046 | 1.52-1.66 | 30 | 0.50 | 0.4 | 10 | 1.5:1 | 125 | MSA4 |
| CNL010130078 | 1.6-1.8 | 30 | 0.50 | 0.7 | 10 | 2:1 | 150 | MSA4 |
| CNL010130098 | 1.6-1.8 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNL010130148 | 1.6-1.8 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNL010140098 | 1.6-1.8 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNL010140148 | 1.6-1.8 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNL010130099 | 1.7-1.9 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNL010130069 | 1.7-1.9 | 30 | 0.50 | 0.6 | 10 | 2:1 | 150 | MSA4 |
| CNL010130149 | 1.7-1.9 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNL010140099 | 1.7-1.9 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNL010140149 | 1.7-1.9 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNL010238014 | 1.7-2.4 | 38 | 0.50 | 1.0 | 10 | 1.8:1 | 200 | MSA6 |
| CNL01023006 | 1.8-2.0 | 30 | 0.50 | 0.6 | 10 | 2:1 | 150 | MSA4 |
| CNL01023009 | 1.8-2.0 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNL01023014 | 1.8-2.0 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNL01024009 | 1.8-2.0 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNL01024014 | 1.8-2.0 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNL010230061 | 1.9-2.1 | 30 | 0.50 | 0.6 | 10 | 2:1 | 150 | MSA4 |
| CNL010230091 | 1.9-2.1 | 30 | 0.50 | 0.9 | 10 | 2:1 | 150 | MSA4 |
| CNL010230141 | 1.9-2.1 | 30 | 0.50 | 1.4 | 10 | 2:1 | 150 | MSA4 |
| CNL010240091 | 1.9-2.1 | 40 | 0.75 | 0.9 | 10 | 2:1 | 200 | MSA6 |
| CNL010240141 | 1.9-2.1 | 40 | 0.75 | 1.4 | 10 | 2:1 | 200 | MSA6 |
| CNL020230072 | 2.0-2.2 | 30 | 0.50 | 0.7 | 10 | 2:1 | 150 | MSA4 |
| CNL020230102 | 2.0-2.2 | 30 | 0.50 | 1.0 | 10 | 2:1 | 150 | MSA4 |
| CNL020230152 | 2.0-2.2 | 30 | 0.50 | 1.5 | 10 | 2:1 | 150 | MSA4 |
| CNL020240102 | 2.0-2.2 | 40 | 0.75 | 1.0 | 10 | 2:1 | 200 | MSA6 |
| CNL020240152 | 2.0-2.2 | 40 | 0.75 | 1.5 | 10 | 2:1 | 200 | MSA6 |
| CNL020236084 | 2.05-2.4 | 36 | 1.00 | 0.8 | 10 | 1.5:1 | 125 | MSA6 |
| CNL020230073 | 2.1-2.3 | 30 | 0.50 | 0.7 | 10 | 2:1 | 150 | MSA4 |
| CNL020230103 | 2.1-2.3 | 30 | 0.50 | 1.0 | 10 | 2:1 | 150 | MSA4 |



Narrow Band Low Noise Amplifiers

| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | P1dB (dBm) Min. | VSWR In/Out Max. | Current @ 12 VDC (mA) Typ. | Case Type |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|----------------------------|-----------|
| CNL020230153 | 2.1-2.3 | 30 | 0.50 | 1.5 | 10 | 2:1 | 150 | MSA4 |
| CNL020240103 | 2.1-2.3 | 40 | 0.75 | 1.0 | 10 | 2:1 | 200 | MSA6 |
| CNL020240153 | 2.1-2.3 | 40 | 0.75 | 1.5 | 10 | 2:1 | 200 | MSA6 |
| CNL020260044 | 2.19-2.4 | 60 | 0.50 | 0.45 | 10 | 1.3:1 | 250 | MSA8 |
| CNL020260057 | 2.1-2.7 | 60 | 1.00 | 0.55 | 10 | 1.5:1 | 200 | MSA8 |
| CNL020240073 | 2.2-2.3 | 40 | 0.50 | 0.70 | 5 | 1.5:1 | 175 | MSA6 |
| CNL020250043 | 2.2-2.3 | 50 | 0.50 | 0.45 | 10 | 1.3:1 | 225 | MSA6 |
| CNL020230074 | 2.2-2.4 | 30 | 0.50 | 0.7 | 10 | 2:1 | 150 | MSA3 |
| CNL020230104 | 2.2-2.4 | 30 | 0.50 | 1.0 | 10 | 2:1 | 150 | MSA3 |
| CNL020230154 | 2.2-2.4 | 30 | 0.50 | 1.5 | 10 | 2:1 | 150 | MSA3 |
| CNL020240104 | 2.2-2.4 | 40 | 0.75 | 1.0 | 10 | 2:1 | 200 | MSA4 |
| CNL020240154 | 2.2-2.4 | 40 | 0.75 | 1.5 | 10 | 2:1 | 200 | MSA4 |
| CNL020232054 | 2.3-2.4 | 32 | 0.50 | 0.5 | 10 | 1.5:1 | 185 | MSA6 |
| CNL020230085 | 2.3-2.5 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL020230105 | 2.3-2.5 | 30 | 0.50 | 1.0 | 10 | 2:1 | 150 | MSA3 |
| CNL020230155 | 2.3-2.5 | 30 | 0.50 | 1.5 | 10 | 2:1 | 150 | MSA3 |
| CNL020240105 | 2.3-2.5 | 40 | 0.75 | 1.0 | 10 | 2:1 | 200 | MSA4 |
| CNL020240155 | 2.3-2.5 | 40 | 0.75 | 1.5 | 10 | 2:1 | 200 | MSA4 |
| CNL020226057 | 2.3-2.7 | 26 | 0.50 | 0.5 | 10 | 1.5:1 | 90 | MSA4 |
| CNL020230086 | 2.4-2.6 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL020230106 | 2.4-2.6 | 30 | 0.50 | 1.0 | 10 | 2:1 | 150 | MSA3 |
| CNL020230156 | 2.4-2.6 | 30 | 0.50 | 1.5 | 10 | 2:1 | 150 | MSA3 |
| CNL020240106 | 2.4-2.6 | 40 | 0.75 | 1.0 | 10 | 2:1 | 200 | MSA4 |
| CNL020240156 | 2.4-2.6 | 40 | 0.75 | 1.5 | 10 | 2:1 | 200 | MSA4 |
| CNL020203087 | 2.5-2.7 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL020230107 | 2.5-2.7 | 30 | 0.50 | 1.0 | 10 | 2:1 | 150 | MSA3 |
| CNL020230157 | 2.5-2.7 | 30 | 0.50 | 1.5 | 10 | 2:1 | 150 | MSA3 |
| CNL020240107 | 2.5-2.7 | 40 | 0.75 | 1.0 | 10 | 2:1 | 200 | MSA4 |
| CNL020240157 | 2.5-2.7 | 40 | 0.75 | 1.5 | 10 | 2:1 | 200 | MSA4 |
| CNL020226058 | 2.6-2.8 | 26 | 0.50 | 0.5 | 13 | 1.5:1 | 125 | MSA4 |
| CNL020230088 | 2.6-2.8 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL020230108 | 2.6-2.8 | 30 | 0.50 | 1.0 | 10 | 2:1 | 150 | MSA3 |
| CNL020230158 | 2.6-2.8 | 30 | 0.50 | 1.5 | 10 | 2:1 | 150 | MSA3 |
| CNL020240108 | 2.6-2.8 | 40 | 0.75 | 1.0 | 10 | 2:1 | 200 | MSA4 |
| CNL020240158 | 2.6-2.8 | 40 | 0.75 | 1.5 | 10 | 2:1 | 200 | MSA4 |
| CNL020230089 | 2.7-2.9 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL020230109 | 2.7-2.9 | 30 | 0.50 | 1.0 | 10 | 2:1 | 150 | MSA3 |
| CNL020230159 | 2.7-2.9 | 30 | 0.50 | 1.5 | 10 | 2:1 | 150 | MSA3 |
| CNL020240109 | 2.7-2.9 | 40 | 0.75 | 1.0 | 10 | 2:1 | 200 | MSA4 |
| CNL020240159 | 2.7-2.9 | 40 | 0.75 | 1.5 | 10 | 2:1 | 200 | MSA4 |



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| CNL02033008 | 2.8-3.0 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|----------------------------|-----------|
| CNL02033010 | 2.8-3.0 | 30 | 0.50 | 1.1 | 10 | 2:1 | 150 | MSA3 |
| CNL02033015 | 2.8-3.0 | 30 | 0.50 | 1.6 | 10 | 2:1 | 150 | MSA3 |
| CNL02034011 | 2.8-3.0 | 40 | 0.75 | 1.1 | 10 | 2:1 | 200 | MSA4 |
| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | P1dB (dBm) Min. | VSWR In/Out Max. | Current @ 12 VDC (mA) Typ. | Case Type |
| CNL02033016 | 2.8-3.0 | 40 | 0.75 | 1.6 | 10 | 2:1 | 200 | MSA4 |
| CNL020330081 | 2.9-3.1 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL020330111 | 2.9-3.1 | 30 | 0.50 | 1.1 | 10 | 2:1 | 150 | MSA3 |
| CNL020330161 | 2.9-3.1 | 30 | 0.50 | 1.6 | 10 | 2:1 | 150 | MSA3 |
| CNL020340111 | 2.9-3.1 | 40 | 0.75 | 1.1 | 10 | 2:1 | 200 | MSA4 |
| CNL020340161 | 2.9-3.1 | 40 | 0.75 | 1.6 | 10 | 2:1 | 200 | MSA4 |
| CNL030330082 | 3.0-3.2 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL030330112 | 3.0-3.2 | 30 | 0.50 | 1.1 | 10 | 2:1 | 150 | MSA3 |
| CNL030330162 | 3.0-3.2 | 30 | 0.50 | 1.6 | 10 | 2:1 | 150 | MSA3 |
| CNL030340112 | 3.0-3.2 | 40 | 0.75 | 1.1 | 10 | 2:1 | 200 | MSA4 |
| CNL030340162 | 3.0-3.2 | 40 | 0.75 | 1.6 | 10 | 2:1 | 200 | MSA4 |
| CNL030329055 | 3.0-3.5 | 29 | 0.50 | 0.5 | 10 | 1.5:1 | 150 | MSA4 |
| CNL030330083 | 3.1-3.3 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL030330113 | 3.1-3.3 | 30 | 0.50 | 1.1 | 10 | 2:1 | 150 | MSA3 |
| CNL030330163 | 3.1-3.3 | 30 | 0.50 | 1.6 | 10 | 2:1 | 150 | MSA3 |
| CNL030340113 | 3.1-3.3 | 40 | 0.75 | 1.1 | 10 | 2:1 | 200 | MSA4 |
| CNL030340163 | 3.1-3.3 | 40 | 0.75 | 1.6 | 10 | 2:1 | 200 | MSA4 |
| CNL030330084 | 3.2-3.4 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL030330114 | 3.2-3.4 | 30 | 0.50 | 1.1 | 10 | 2:1 | 150 | MSA3 |
| CNL030330164 | 3.2-3.4 | 30 | 0.50 | 1.6 | 10 | 2:1 | 150 | MSA3 |
| CNL030340114 | 3.2-3.4 | 40 | 0.75 | 1.1 | 10 | 2:1 | 200 | MSA4 |
| CNL030340164 | 3.2-3.4 | 40 | 0.75 | 1.6 | 10 | 2:1 | 200 | MSA4 |
| CNL030330085 | 3.3-3.5 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL030330115 | 3.3-3.5 | 30 | 0.50 | 1.1 | 10 | 2:1 | 150 | MSA3 |
| CNL030330165 | 3.3-3.5 | 30 | 0.50 | 1.6 | 10 | 2:1 | 150 | MSA3 |
| CNL030340115 | 3.3-3.5 | 40 | 0.75 | 1.1 | 10 | 2:1 | 200 | MSA4 |
| CNL030340165 | 3.3-3.5 | 40 | 0.75 | 1.6 | 10 | 2:1 | 200 | MSA4 |
| CNL030330086 | 3.4-3.6 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL030330116 | 3.4-3.6 | 30 | 0.50 | 1.1 | 10 | 2:1 | 150 | MSA3 |
| CNL030330166 | 3.4-3.6 | 30 | 0.50 | 1.6 | 10 | 2:1 | 150 | MSA3 |
| CNL030340116 | 3.4-3.6 | 40 | 0.75 | 1.1 | 10 | 2:1 | 200 | MSA4 |
| CNL030340166 | 3.4-3.6 | 40 | 0.75 | 1.6 | 10 | 2:1 | 200 | MSA4 |
| CNL030428052 | 3.4-4.2 | 28 | 1.00 | 0.5 | 10 | 2:1 | 175 | MSA4 |
| CNL030450042 | 3.4-4.2 | 50 | 1.00 | 0.43 | 10 | 1.45:1 | 200 | MSA6 |
| CNL030460042 | 3.4-4.2 | 60 | 1.50 | 0.45 | 10 | 1.45:1 | 225 | MSA7 |
| CNL030330087 | 3.5-3.7 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |



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| CNL030330117 | 3.5-3.7 | 30 | 0.50 | 1.1 | 10 | 2:1 | 150 | MSA3 |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|----------------------------|-----------|
| CNL030330167 | 3.5-3.7 | 30 | 0.50 | 1.6 | 10 | 2:1 | 150 | MSA3 |
| CNL030340117 | 3.5-3.7 | 40 | 0.75 | 1.1 | 10 | 2:1 | 200 | MSA4 |
| CNL030340167 | 3.5-3.7 | 40 | 0.75 | 1.6 | 10 | 2:1 | 200 | MSA4 |
| CNL030330088 | 3.6-3.8 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | P1dB (dBm) Min. | VSWR In/Out Max. | Current @ 12 VDC (mA) Typ. | Case Type |
| CNL030330118 | 3.6-3.8 | 30 | 0.50 | 1.1 | 10 | 2:1 | 150 | MSA3 |
| CNL030330168 | 3.6-3.8 | 30 | 0.50 | 1.6 | 10 | 2:1 | 150 | MSA3 |
| CNL030340118 | 3.6-3.8 | 40 | 0.75 | 1.1 | 10 | 2:1 | 200 | MSA4 |
| CNL030340168 | 3.6-3.8 | 40 | 0.75 | 1.6 | 10 | 2:1 | 200 | MSA4 |
| CNL030410062 | 3.6-4.2 | 50 | 1.50 | 0.69 | 10 | 1.45:1 | 75 | MSA6 |
| CNL030435052 | 3.6-4.2 | 35 | 0.50 | 0.5 | 13 | 2:1 | 135 | MSA6 |
| CNL030435042 | 3.6-4.2 | 35 | 0.50 | 0.43 | 10 | 1.45:1 | 200 | MSA5 |
| CNL030435062 | 3.6-4.2 | 35 | 0.50 | 0.69 | 10 | 1.45:1 | 125 | MSA5 |
| CNL030450042 | 3.6-4.2 | 50 | 0.75 | 0.49 | 10 | 1.45:1 | 300 | MSA6 |
| CNL03043008 | 3.7-4.2 | 30 | 0.75 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL03043012 | 3.7-4.2 | 30 | 0.50 | 1.2 | 10 | 2:1 | 150 | MSA3 |
| CNL03043017 | 3.7-4.2 | 30 | 0.50 | 1.7 | 10 | 2:1 | 150 | MSA3 |
| CNL03044012 | 3.7-4.2 | 40 | 0.75 | 1.2 | 10 | 2:1 | 200 | MSA4 |
| CNL03044017 | 3.7-4.2 | 40 | 0.75 | 1.7 | 10 | 2:1 | 200 | MSA4 |
| CNL04053008 | 4.4-5.0 | 30 | 0.50 | 0.8 | 10 | 2:1 | 150 | MSA3 |
| CNL04053012 | 4.4-5.0 | 30 | 0.50 | 1.2 | 10 | 2:1 | 150 | MSA3 |
| CNL04053017 | 4.4-5.0 | 30 | 0.50 | 1.7 | 10 | 2:1 | 150 | MSA3 |
| CNL04054012 | 4.4-5.0 | 40 | 0.75 | 1.2 | 12 | 2:1 | 200 | MSA4 |
| CNL04054017 | 4.4-5.0 | 40 | 0.75 | 1.7 | 12 | 2:1 | 200 | MSA4 |
| CNL040536051 | 4.4-5.1 | 36 | 0.50 | 0.5 | 10 | 1.5:1 | 125 | MSA6 |
| CNL040540055 | 4.4-5.5 | 40 | 1.00 | 0.55 | 10 | 1.45:1 | 175 | MSA5 |
| CNL040560065 | 4.4-5.5 | 60 | 1.00 | 0.69 | 10 | 1.45:1 | 225 | MSA8 |
| CNL05072509 | 5.0-7.0 | 25 | 1.00 | 0.9 | 10 | 1.5:1 | 100 | MSA3 |
| CNL05073409 | 5.0-7.0 | 34 | 1.00 | 0.9 | 10 | 2:1 | 100 | MSA3 |
| CNL05053009 | 5.4-5.9 | 30 | 0.75 | 0.9 | 10 | 2:1 | 150 | MSA3 |
| CNL05053012 | 5.4-5.9 | 30 | 1.0 | 1.2 | 12 | 2:1 | 150 | MSA3 |
| CNL05053017 | 5.4-5.9 | 30 | 0.50 | 1.7 | 12 | 2:1 | 150 | MSA3 |
| CNL05054012 | 5.4-5.9 | 40 | 0.75 | 1.2 | 12 | 2:1 | 200 | MSA4 |
| CNL05054017 | 5.4-5.9 | 40 | 0.75 | 1.7 | 12 | 2:1 | 200 | MSA4 |
| CNL050616131 | 5.8-6.1 | 16 | 0.50 | 1.3 | 11 | 1.8:1 | 125 | MSB2 |
| CNL05063009 | 5.9-6.4 | 30 | 0.75 | 0.9 | 10 | 2:1 | 150 | MSA3 |
| CNL05063013 | 5.9-6.4 | 30 | 0.50 | 1.3 | 12 | 2:1 | 150 | MSA3 |
| CNL05063018 | 5.9-6.4 | 30 | 0.50 | 1.8 | 12 | 2:1 | 150 | MSA3 |
| CNL05064013 | 5.9-6.4 | 40 | 0.75 | 1.3 | 12 | 2:1 | 200 | MSA4 |
| CNL05064018 | 5.9-6.4 | 40 | 0.75 | 1.8 | 12 | 2:1 | 200 | MSA4 |



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| CNL050739061 | 5.9-7.1 | 39 | 1.00 | 0.69 | 10 | 1.45:1 | 150 | MSB5 |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|----------------------------|-----------|
| CNL06073010 | 6.4-7.2 | 30 | 0.75 | 1.0 | 10 | 2:1 | 150 | MSA3 |
| CNL06073013 | 6.4-7.2 | 30 | 0.50 | 1.3 | 12 | 2:1 | 150 | MSA3 |
| CNL06073018 | 6.4-7.2 | 30 | 0.50 | 1.8 | 12 | 2:1 | 150 | MSA3 |
| CNL06074013 | 6.4-7.2 | 40 | 0.75 | 1.3 | 12 | 2:1 | 200 | MSA4 |
| CNL06074018 | 6.4-7.2 | 40 | 0.75 | 1.8 | 12 | 2:1 | 200 | MSA4 |
| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | P1dB (dBm) Min. | VSWR In/Out Max. | Current @ 12 VDC (mA) Typ. | Case Type |
| CNL070828084 | 7.1-8.4 | 28 | 1.00 | 0.80 | 10 | 2:1 | 150 | MSB3 |
| CNL070834084 | 7.1-8.4 | 34 | 1.00 | 0.8 | 13 | 1.8:1 | 200 | MSB4 |
| CNL070850074 | 7.1-8.4 | 50 | 1.00 | 0.75 | 10 | 1.4:1 | 200 | MSB6 |
| CNL070850064 | 7.1-8.4 | 50 | 1.00 | 0.69 | 10 | 1.4:1 | 200 | MSB6 |
| CNL070860064 | 7.1-8.4 | 60 | 1.00 | 0.69 | 10 | 1.4:1 | 275 | MSB6 |
| CNL07073011 | 7.2-7.8 | 30 | 1.0 | 1.1 | 10 | 2:1 | 150 | MSB3 |
| CNL07072813 | 7.2-7.8 | 28 | 0.50 | 1.3 | 12 | 2:1 | 150 | MSB3 |
| CNL07072818 | 7.2-7.8 | 28 | 0.50 | 1.8 | 12 | 2:1 | 150 | MSB3 |
| CNL07073813 | 7.2-7.8 | 38 | 0.75 | 1.3 | 12 | 2:1 | 200 | MSB4 |
| CNL07073818 | 7.2-7.8 | 38 | 0.75 | 1.8 | 12 | 2:1 | 200 | MSB4 |
| CNL070723077 | 7.25-7.75 | 23 | 0.75 | 0.7 | 10 | 1.5:1 | 100 | MSB3 |
| CNL070750067 | 7.25-7.75 | 50 | 1.00 | 0.60 | 10 | 1.45:1 | 250 | MSB6 |
| CNL070840092 | 7.7-8.2 | 40 | 1.00 | 0.90 | 15 | 1.5:1 | 175 | MSB5 |
| CNL07083011 | 7.9-8.4 | 30 | 0.75 | 1.1 | 10 | 2:1 | 150 | MSB3 |
| CNL07082614 | 7.9-8.4 | 26 | 0.50 | 1.4 | 12 | 2:1 | 150 | MSB3 |
| CNL07082619 | 7.9-8.4 | 26 | 0.50 | 1.9 | 12 | 2:1 | 150 | MSB3 |
| CNL070828204 | 7.9-8.4 | 28 | 0.50 | 2.0 | 10 | 2:1 | 100 | MSB3 |
| CNL07083814 | 7.9-8.4 | 38 | 0.75 | 1.4 | 12 | 2:1 | 200 | MSB4 |
| CNL07083819 | 7.9-8.4 | 38 | 0.75 | 1.9 | 12 | 2:1 | 200 | MSB4 |
| CNL080840064 | 8.0-8.4 | 40 | 0.50 | 0.69 | 10 | 1.4:1 | 175 | MSB5 |
| CNL08092514 | 8.5-9.6 | 25 | 0.50 | 1.4 | 12 | 2:1 | 175 | MSB3 |
| CNL080922519 | 8.5-9.6 | 25 | 0.50 | 1.9 | 12 | 2:1 | 175 | MSB3 |
| CNL08093614 | 8.5-9.6 | 36 | 0.75 | 1.4 | 12 | 2:1 | 225 | MSA4 |
| CNL08093619 | 8.5-9.6 | 36 | 0.75 | 1.9 | 12 | 2:1 | 225 | MSB4 |
| CNL08093011 | 8.5-9.6 | 30 | 1.0 | 1.1 | 10 | 2:1 | 175 | MSB4 |
| CNL09092514 | 9.0-9.5 | 25 | 0.50 | 1.4 | 12 | 2:1 | 175 | MSB4 |
| CNL09092519 | 9.0-9.5 | 25 | 0.50 | 1.9 | 12 | 2:1 | 175 | MSB4 |
| CNL09093614 | 9.0-9.5 | 36 | 0.75 | 1.4 | 12 | 2:1 | 225 | MSB5 |
| CNL09093619 | 9.0-9.5 | 36 | 0.75 | 1.9 | 12 | 2:1 | 225 | MSB5 |
| CNL09093011 | 9.0-9.5 | 30 | 0.75 | 1.1 | 10 | 2:1 | 175 | MSB4 |
| CNL09103210 | 9.0-10.0 | 32 | 0.75 | 1.0 | 10 | 1.5:1 | 165 | MSB4 |
| CNL09102514 | 9.5-10.5 | 25 | 0.50 | 1.4 | 12 | 2:1 | 175 | MSB4 |
| CNL09102519 | 9.5-10.5 | 25 | 0.50 | 1.9 | 12 | 2:1 | 175 | MSB4 |
| CNL09103614 | 9.5-10.5 | 36 | 0.75 | 1.4 | 12 | 2:1 | 225 | MSB5 |



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| CNL09103619 | 9.5-10.5 | 36 | 0.75 | 1.9 | 12 | 2:1 | 225 | MSB5 |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|----------------------------|-----------|
| CNL09103011 | 9.5-10.5 | 30 | 1.00 | 1.1 | 10 | 2:1 | 175 | MSB4 |
| CNL101116142 | 10.7-11.2 | 16 | 1.50 | 1.4 | 10 | 1.5:1 | 125 | MSB3 |
| CNL10112415 | 10.7-11.7 | 24 | 0.50 | 1.5 | 12 | 2:1 | 175 | MSB4 |
| CNL10112420 | 10.7-11.7 | 24 | 0.50 | 2.0 | 12 | 2:1 | 175 | MSB4 |
| CNL10113515 | 10.7-11.7 | 35 | 0.75 | 1.5 | 12 | 2:1 | 225 | MSB5 |
| CNL10113520 | 10.7-11.7 | 35 | 0.75 | 2.0 | 12 | 2:1 | 225 | MSB5 |
| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | P1dB (dBm) Min. | VSWR In/Out Max. | Current @ 12 VDC (mA) Typ. | Case Type |
| CNL10113012 | 10.7-11.7 | 30 | 1.00 | 1.2 | 10 | 2:1 | 175 | MSB4 |
| CNL101132107 | 10.7-11.7 | 32 | 1.00 | 1.0 | 10 | 1.5:1 | 200 | MSB4 |
| CNL101214127 | 10.7-12.7 | 14 | 1.50 | 1.29 | 8 | 1.4:1/2:1 | 75 | MSB3 |
| CNL101238107 | 10.7-12.7 | 38 | 1.00 | 1.0 | 10 | 2:1 | 150 | MSB5 |
| CNL101240127 | 10.7-12.7 | 40 | 1.50 | 1.29 | 10 | 1.4:1 | 100 | MSB5 |
| CNL101240107 | 10.7-12.7 | 40 | 1.50 | 1.0 | 10 | 1.5:1 | 160 | MSB5 |
| CNL101245107 | 10.7-12.7 | 45 | 1.00 | 1.0 | 10 | 2:1 | 190 | MSB5 |
| CNL101252107 | 10.7-12.7 | 52 | 1.00 | 1.0 | 10 | 2:1 | 225 | MSB5 |
| CNL101228117 | 10.7-12.75 | 28 | 1.00 | 1.10 | 10 | 1.8:1 | 175 | MSB4 |
| CNL101240157 | 10.7-12.75 | 40 | 1.50 | 1.06 | 10 | 1.4:1 | 150 | MSB5 |
| CNL101260147 | 10.7-12.75 | 60 | 2.00 | 1.45 | 10 | 1.4:1 | 250 | MSB6 |
| CNL101150107 | 10.95-11.7 | 50 | 1.00 | 1.06 | 10 | 1.4:1 | 375 | MSB6 |
| CNL101123097 | 10.95-11.75 | 23 | 0.75 | 0.90 | 10 | 1.5:1 | 200 | MSB3 |
| CNL111223092 | 11.7-12.2 | 23 | 0.75 | 0.90 | 10 | 1.5:1 | 200 | MSB3 |
| CNL11122415 | 11.7-12.2 | 24 | 0.50 | 1.5 | 12 | 2:1 | 200 | MSB3 |
| CNL11122420 | 11.7-12.2 | 24 | 0.50 | 2.0 | 12 | 2:1 | 200 | MSB3 |
| CNL11123515 | 11.7-12.2 | 35 | 0.75 | 1.5 | 12 | 2:1 | 225 | MSB4 |
| CNL11123520 | 11.7-12.2 | 35 | 0.75 | 2.0 | 12 | 2:1 | 225 | MSB4 |
| CNL11123012 | 11.7-12.2 | 30 | 0.75 | 1.2 | 10 | 2:1 | 200 | MSB3 |
| CNL12122416 | 12.2-12.7 | 24 | 0.50 | 1.6 | 12 | 2:1 | 200 | MSB3 |
| CNL12122421 | 12.2-12.7 | 24 | 0.50 | 2.1 | 12 | 2:1 | 200 | MSB3 |
| CNL12123516 | 12.2-12.7 | 35 | 0.75 | 1.6 | 12 | 2:1 | 225 | MSB4 |
| CNL12123521 | 12.2-12.7 | 35 | 0.75 | 2.1 | 12 | 2:1 | 225 | MSB4 |
| CNL12123013 | 12.2-12.7 | 30 | 0.75 | 1.3 | 10 | 2:1 | 175 | MSB4 |
| CNL12126010 | 12.25-12.75 | 60 | 1.00 | 1.06 | 10 | 1.45:1 | 425 | MSB6 |
| CNL12132217 | 12.7-13.2 | 22 | 0.50 | 1.7 | 12 | 2:1 | 175 | MSB3 |
| CNL12132222 | 12.7-13.2 | 22 | 0.50 | 2.2 | 12 | 2:1 | 175 | MSB3 |
| CNL121328102 | 12.7-13.2 | 28 | 1.00 | 1.0 | 10 | 2:1 | 200 | MSB4 |
| CNL12133317 | 12.7-13.2 | 33 | 0.75 | 1.7 | 12 | 2:1 | 225 | MSB4 |
| CNL12133322 | 12.7-13.2 | 33 | 0.75 | 2.2 | 12 | 2:1 | 225 | MSB4 |
| CNL12133014 | 12.7-13.2 | 30 | 0.75 | 1.4 | 10 | 2:1 | 175 | MSB4 |
| CNL121540183 | 12.7-15.3 | 40 | 1.50 | 1.81 | 10 | 1.45:1/2:1 | 275 | MSB5 |
| CNL121540113 | 12.7-15.3 | 40 | 1.00 | 1.10 | 10 | 1.8:1 | 200 | MSB5 |



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| CNL13142118 | 13.2-14.2 | 21 | 0.50 | 1.8 | 12 | 2:1 | 175 | MSB3 |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|----------------------------|-----------|
| CNL13142123 | 13.2-14.2 | 21 | 0.50 | 2.3 | 12 | 2:1 | 175 | MSB3 |
| CNL13143218 | 13.2-14.2 | 32 | 0.75 | 1.8 | 12 | 2:1 | 225 | MSB4 |
| CNL13143223 | 13.2-14.2 | 32 | 0.75 | 2.3 | 12 | 2:1 | 225 | MSB4 |
| CNL13143015 | 13.2-14.2 | 30 | 0.75 | 1.5 | 10 | 2:1 | 175 | MSB4 |
| CNL14142119 | 14.0-14.5 | 21 | 0.50 | 1.9 | 10 | 2:1 | 175 | MSB3 |
| CNL14142124 | 14.0-14.5 | 21 | 0.50 | 2.4 | 10 | 2:1 | 175 | MSB3 |
| CNL14143218 | 14.0-14.5 | 32 | 0.75 | 1.9 | 10 | 2:1 | 225 | MSB4 |
| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | P1dB (dBm) Min. | VSWR In/Out Max. | Current @ 12 VDC (mA) Typ. | Case Type |
| CNL14143224 | 14.0-14.5 | 32 | 0.75 | 2.4 | 10 | 2:1 | 225 | MSB4 |
| CNL14143015 | 14.0-14.5 | 30 | 0.75 | 1.5 | 10 | 2:1 | 175 | MSB4 |
| CNL141434145 | 14.0-14.5 | 34 | 0.75 | 1.4 | 10 | 1.5:1 | 225 | MSB5 |
| CNL141540134 | 14.4-15.4 | 40 | 1.00 | 1.30 | 15 | 1.8:1 | 275 | MSB5 |
| CNL14163718 | 14.0-16.0 | 37 | 1.00 | 1.81 | 10 | 1.45:1/2:1 | 175 | MSB5 |
| CNL14152019 | 14.5-15.3 | 20 | 0.50 | 1.9 | 10 | 2:1 | 175 | MSB3 |
| CNL14152024 | 14.5-15.3 | 20 | 0.50 | 2.4 | 10 | 2:1 | 175 | MSB3 |
| CNL14153019 | 14.5-15.3 | 30 | 0.75 | 1.9 | 10 | 2:1 | 225 | MSB4 |
| CNL14153024 | 14.5-15.3 | 30 | 0.75 | 2.4 | 10 | 2:1 | 225 | MSB4 |
| CNL14153016 | 14.5-15.3 | 30 | 0.75 | 1.6 | 10 | 2:1 | 175 | MSB4 |
| CNL151530204 | 15.1-15.4 | 30 | 1.00 | 2.0 | 10 | 2:1 | 140 | MSB4 |
| CNL15162019 | 15.5-16.5 | 20 | 0.50 | 1.9 | 10 | 2:1 | 175 | MSB3 |
| CNL15162024 | 15.5-16.5 | 20 | 0.50 | 2.4 | 10 | 2:1 | 175 | MSB3 |
| CNL15163019 | 15.5-16.5 | 30 | 0.75 | 1.9 | 10 | 2:1 | 225 | MSB4 |
| CNL15163024 | 15.5-16.5 | 30 | 0.75 | 2.4 | 10 | 2:1 | 225 | MSB4 |
| CNL15163016 | 15.5-16.5 | 30 | 0.75 | 1.6 | 10 | 2:1 | 175 | MSB4 |
| CNL16172020 | 16.5-17.5 | 20 | 0.50 | 2.0 | 10 | 2:1 | 175 | MSB3 |
| CNL16172025 | 16.5-17.5 | 20 | 0.50 | 2.5 | 10 | 2:1 | 175 | MSB3 |
| CNL16173020 | 16.5-17.5 | 30 | 0.75 | 2.0 | 10 | 2:1 | 225 | MSB4 |
| CNL16172025 | 16.5-17.5 | 30 | 0.75 | 2.5 | 10 | 2:1 | 225 | MSB4 |
| CNL16173017 | 16.5-17.5 | 30 | 0.75 | 1.7 | 10 | 2:1 | 225 | MSB4 |
| CNL171722165 | 17.0-17.5 | 22 | 1.00 | 1.6 | 10 | 1.5:1 | 200 | MSB3 |
| CNL17190950 | 17.0-19.0 | 9 | 1.00 | 5.0 | 22 | 2:1 | 125 | MSA4 |
| CNL17192020 | 17.7-19.7 | 20 | 0.50 | 2.0 | 10 | 2:1 | 175 | MSB2 |
| CNL17192025 | 17.7-19.7 | 20 | 0.50 | 2.5 | 10 | 2:1 | 175 | MSB2 |
| CNL17193020 | 17.7-19.7 | 30 | 1.00 | 2.0 | 10 | 2:1 | 225 | MSB3 |
| CNL17193025 | 17.7-19.7 | 30 | 0.75 | 2.5 | 10 | 2:1 | 225 | MSB3 |
| CNL171930187 | 17.7-19.7 | 30 | 1.00 | 1.81 | 10 | 1.45:1/2:1 | 125 | MSB3 |
| CNL171938187 | 17.7-19.7 | 38 | 1.00 | 1.8 | 11 | 1.8:1 | 150 | MSB4 |
| CNL171946187 | 17.7-19.7 | 46 | 1.50 | 1.8 | 12 | 1.8:1 | 150 | MSB6 |
| CNL172145183 | 17.8-21.3 | 45 | 2.00 | 1.81 | 10 | 2:1 | 175 | MSB4 |
| CNL182640245 | 18.0-26.5 | 40 | 2.00 | 2.4 | 10 | 2:1 | 275 | MSB4 |



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| CNL18182020 | 18.1-18.6 | 20 | 0.50 | 2.0 | 10 | 2:1 | 175 | MSB2 |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|----------------------------|-----------|
| CNL18182025 | 18.1-18.6 | 20 | 0.50 | 2.5 | 10 | 2:1 | 175 | MSB2 |
| CNL18183020 | 18.1-18.6 | 30 | 0.75 | 2.0 | 10 | 2:1 | 225 | MSB3 |
| CNL18183025 | 18.1-18.6 | 30 | 0.75 | 2.5 | 10 | 2:1 | 225 | MSB3 |
| CNL18183018 | 18.1-18.6 | 30 | 0.75 | 1.8 | 10 | 2:1 | 225 | MSB3 |
| CNL18192022 | 18.3-19.4 | 20 | 0.50 | 2.2 | 10 | 2:1 | 175 | MSB2 |
| CNL18192027 | 18.3-19.4 | 20 | 0.50 | 2.7 | 10 | 2:1 | 175 | MSB2 |
| CNL18193022 | 18.3-19.4 | 30 | 0.75 | 2.2 | 10 | 2:1 | 225 | MSB3 |
| CNL18193027 | 18.3-19.4 | 30 | 0.75 | 2.7 | 10 | 2:1 | 225 | MSB3 |
| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | P1dB (dBm) Min. | VSWR In/Out Max. | Current @ 12 VDC (mA) Typ. | Case Type |
| CNL19201822 | 19.2-20.2 | 18 | 0.50 | 2.2 | 10 | 2:1 | 200 | MSB2 |
| CNL19201827 | 19.2-20.2 | 18 | 0.50 | 2.7 | 10 | 2:1 | 250 | MSB2 |
| CNL19202722 | 19.2-20.2 | 27 | 0.75 | 2.2 | 10 | 2:1 | 200 | MSB3 |
| CNL19202727 | 19.2-20.2 | 27 | 0.75 | 2.7 | 10 | 2:1 | 250 | MSB3 |
| CNL20212017 | 20.2-21.2 | 20 Typ | 0.8 | 1.7 | 7 | 2:1 | 110 | * |
| CNL202122182 | 20.2-21.2 | 22 | 1.75 | 1.8 | 8 | 1.5:1 | 200 | MSB2 |
| CNL20212224 | 20.2-21.2 | 22 | 0.50 | 2.4 | 10 | 2:1 | 250 | MSB2 |
| CNL20212229 | 20.2-21.2 | 22 | 0.50 | 2.9 | 10 | 2:1 | 300 | MSB2 |
| CNL20213017 | 20.2-21.2 | 30 Typ | 1.0 | 1.7 | 10 | 2:1 | 180 | * |
| CNL20213224 | 20.2-21.2 | 32 | 0.75 | 2.4 | 10 | 2:1 | 250 | MSB3 |
| CNL20213229 | 20.2-21.2 | 32 | 0.75 | 2.9 | 10 | 2:1 | 300 | MSB3 |
| CNL202150182 | 20.2-21.2 | 50 | 1.00 | 1.81 | 10 | 1.88:1 | 350 | MSB4 |
| CNL21222019 | 21.0-22.0 | 20 | 2.00 | 1.9 | 10 | 2.5:1 | 85 | MSB2 |
| CNL21222025 | 21.0-22.0 | 20 | 2.00 | 2.5 | 10 | 2.5:1 | 85 | MSB2 |
| CNL21242820 | 21.0-24.0 | 28 | 1.75 | 2.0 | 13 | 2:1 | 200 | MSB4 |
| CNL21243720 | 21.0-24.0 | 37 | 1.00 | 2.0 | 13 | 1.8:1 | 200 | MSB4 |
| CNL21232226 | 21.2-23.6 | 22 | 0.50 | 2.6 | 10 | 2:1 | 250 | MSB2 |
| CNL21232232 | 21.2-23.6 | 22 | 0.50 | 3.2 | 10 | 2:1 | 300 | MSB2 |
| CNL21233226 | 21.2-23.6 | 32 | 0.75 | 2.6 | 10 | 2:1 | 250 | MSB3 |
| CNL21233232 | 21.2-23.6 | 32 | 0.75 | 3.2 | 10 | 2:1 | 300 | MSB3 |
| CNL22241825 | 22.0-24.0 | 20 | 2.00 | 2.5 | 10 | 2:1 | 100 | MSB2 |
| CNL23252017 | 23.0-25.0 | 20 Typ | 0.80 | 1.7 | 7 | 2:1 | 110 | * |
| CNL23253017 | 23.0-25.0 | 30 Typ | 1.00 | 1.7 | 10 | 2:1 | 180 | * |
| CNL232716405 | 23.0-27.5 | 16 | 1.75 | 4.0 | 10 | 2:1 | 125 | MSB2 |
| CNL23242228 | 23.2-24.6 | 22 | 0.50 | 2.8 | 10 | 2:1 | 250 | MSB2 |
| CNL23242233 | 23.2-24.6 | 22 | 0.50 | 3.3 | 10 | 2:1 | 165 | MSB2 |
| CNL23243228 | 23.2-24.6 | 32 | 0.75 | 2.8 | 10 | 2:1 | 250 | MSB3 |
| CNL23243233 | 23.2-24.6 | 32 | 0.75 | 3.3 | 10 | 2:1 | 300 | MSB3 |
| CNL24261825 | 24.0-26.0 | 18 | 2.0 | 2.5 | 10 | 2.5:1 | 100 | MSB2 |
| CNL24263025 | 24.0-26.0 | 30 Typ | 2.00 | 2.5 | 10 | 2.5:1 | 180 | * |
| CNL242520223 | 24.2-25.3 | 20 | 1.50 | 2.2 | 10 | 1.8:1 | 200 | MSB2 |



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| CNL24252228 | 24.2-25.6 | 22 | 0.50 | 2.8 | 10 | 2:1 | 250 | MSB2 |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|----------------------------|-----------|
| CNL24252233 | 24.2-25.6 | 22 | 0.50 | 3.3 | 10 | 2:1 | 300 | MSB2 |
| CNL24253228 | 24.2-25.6 | 32 | 0.75 | 2.8 | 10 | 2:1 | 250 | MSB3 |
| CNL24253233 | 24.2-25.6 | 32 | 0.75 | 3.3 | 10 | 2:1 | 300 | MSB3 |
| CNL25282525 | 25.0-28.0 | 25 | 1.50 | 2.5 | 10 | 2.5:1 | 125 | MSB2 |
| CNL25262228 | 25.2-26.6 | 22 | 0.50 | 2.8 | 10 | 2:1 | 250 | MSB2 |
| CNL25262233 | 25.2-26.6 | 22 | 0.50 | 3.3 | 10 | 2:1 | 300 | MSB2 |
| CNL25263228 | 25.2-26.6 | 32 | 0.75 | 2.8 | 10 | 2:1 | 250 | MSB3 |
| CNL25263233 | 25.2-26.6 | 32 | 0.75 | 3.3 | 10 | 2:1 | 300 | MSB3 |
| CNL25271829 | 25.0-27.5 | 18 | 0.75 | 2.9 | 10 | 2:1 | 250 | MK3 |
| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | P1dB (dBm) Min. | VSWR In/Out Max. | Current @ 12 VDC (mA) Typ. | Case Type |
| CNL25271835 | 25.0-27.5 | 18 | 0.75 | 3.5 | 10 | 2:1 | 300 | MK3 |
| CNL25273029 | 25.0-27.5 | 30 | 1.00 | 2.9 | 10 | 2:1 | 350 | MK3 |
| CNL25273035 | 25.0-27.5 | 30 | 1.00 | 3.5 | 10 | 2:1 | 250 | MK3 |
| CNL27281835 | 27.0-28.5 | 18 | 0.50 | 3.5 | 10 | 2:1 | 250 | MK3 |
| CNL27282435 | 27.0-28.5 | 24 | 0.75 | 3.5 | 10 | 2:1 | 300 | MK3 |
| CNL27283035 | 27.0-28.5 | 30 | 1.00 | 3.5 | 10 | 2:1 | 350 | MK3 |
| CNL27292025 | 27.0-29.0 | 20 Typ | 0.75 | 2.5 | 7 | 2:1 | 120 | * |
| CNL27293025 | 27.0-29.0 | 30 Typ | 1.00 | 2.5 | 10 | 2:1 | 150 | * |
| CNL28302435 | 28.0-30.0 | 24 | 0.75 | 3.5 | 8 | 2:1 | 300 | MK3 |
| CNL28303035 | 28.0-30.0 | 30 | 1.00 | 3.5 | 8 | 2:1 | 350 | MK3 |
| CNL28301835 | 28.0-30.0 | 18 | 1.00 | 3.5 | 8 | 2:1 | 250 | MK3 |
| CNL29311835 | 29.5-31.5 | 18 | 0.50 | 3.5 | 8 | 2:1 | 250 | MK3 |
| CNL29312435 | 29.5-31.5 | 24 | 0.75 | 3.5 | 8 | 2:1 | 300 | MK3 |
| CNL29313035 | 29.5-31.5 | 30 | 1.00 | 3.5 | 8 | 2:1 | 350 | MK3 |
| CNL30322025 | 30.0-32.0 | 20 Typ | 0.75 | 2.5 | 7 | 2.2 | 80 | * |
| CNL30323025 | 30.0-32.0 | 30 Typ | 1.00 | 2.5 | 10 | 2.2 | 120 | * |
| CNL31331840 | 31.0-33.0 | 18 | 0.50 | 4.0 | 8 | 2:1 | 250 | MK3 |
| CNL31332440 | 31.0-33.0 | 24 | 0.75 | 4.0 | 8 | 2:1 | 300 | MK3 |
| CNL31333040 | 31.0-33.0 | 30 | 1.00 | 4.0 | 8 | 2:1 | 350 | MK3 |
| CNL32341840 | 32.5-34.5 | 18 | 0.50 | 4.0 | 8 | 2:1 | 250 | MK3 |
| CNL32342440 | 32.5-34.5 | 24 | 0.75 | 4.0 | 8 | 2:1 | 300 | MK3 |
| CNL32343040 | 32.5-34.5 | 30 | 1.00 | 4.0 | 8 | 2:1 | 350 | MK3 |
| CNL34361845 | 34.0-36.0 | 18 | 0.50 | 4.5 | 8 | 2:1 | 250 | MK3 |
| CNL34362025 | 34.0-36.0 | 20 Typ | 0.75 | 2.5 | 7 | 2.2 | 80 | * |
| CNL34362445 | 34.0-36.0 | 24 | 0.75 | 4.5 | 8 | 2:1 | 300 | MK3 |
| CNL34363025 | 34.0-36.0 | 30 Typ | 1.00 | 2.5 | 10 | 2.2 | 120 | * |
| CNL34363045 | 34.0-36.0 | 30 | 1.00 | 4.5 | 8 | 2:1 | 350 | MK3 |
| CNL35371845 | 35.5-37.5 | 18 | 0.50 | 4.5 | 8 | 2:1 | 250 | MK3 |
| CNL35372445 | 35.5-37.5 | 24 | 0.75 | 4.5 | 8 | 2:1 | 300 | MK3 |
| CNL35373045 | 35.5-37.5 | 30 | 1.00 | 4.5 | 8 | 2:1 | 350 | MK3 |



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| CNL36382025 | 36.0-38.0 | 20 Typ | 0.75 | 2.5 | 7 | 2.2 | 80 | * |
|--------------|-----------------------|----------------|--------------------------|--------------|-----------------|------------------|----------------------------|-----------|
| CNL36383025 | 36.0-38.0 | 30 Typ | 1.00 | 2.8 | 10 | 2.2 | 120 | * |
| CNL37391850 | 37.0-39.0 | 18 | 0.50 | 5.0 | 8 | 2:1 | 250 | MK3 |
| CNL37392450 | 37.0-39.0 | 24 | 1.50 | 5.0 | 8 | 2:1 | 300 | MK3 |
| CNL37393050 | 37.0-39.0 | 30 | 1.00 | 5.0 | 8 | 2:1 | 350 | MK3 |
| CNL38401850 | 38.0-40.0 | 18 | 0.50 | 5.0 | 8 | 2:1 | 250 | MK3 |
| CNL38402450 | 38.0-40.0 | 24 | 0.75 | 5.0 | 8 | 2:1 | 300 | MK3 |
| CNL38403050 | 38.0-40.0 | 30 | 1.00 | 5.0 | 8 | 2:1 | 350 | MSA3 |
| CNL43452040 | 43.5-45.5 | 20 Typ | 1.50 | 4.0 Typ | 5 Typ | 2.0 | 175 | MSB3 |
| CNL43453040 | 43.5-45.5 | 30 Typ | 2.00 | 4.0 Typ | 5 Typ | 2.0 | 270 | MSB3 |
| CNL49511045 | 49.0-51.0 | 10 Typ | 0.50 | 4.5 Typ | 5 Typ | 2.2 | 80 | * |
| Model Number | Frequency Range (GHz) | Gain (dB) Min. | SS Flatness (+/-dB) Max. | NF (dB) Max. | P1dB (dBm) Min. | VSWR In/Out Max. | Current @ 12 VDC (mA) Typ. | Case Type |
| CNL49512045 | 49.0-51.0 | 20 Typ | 0.75 | 4.5 Typ | 7 Typ | 2.2 | 160 | * |
| CNL49513045 | 49.0-51.0 | 30 Typ | 1.00 | 4.5 Typ | 10 Typ | 2.2 | 240 | * |
| CNL49511070 | 49.0-51.0 | 10 Typ | 0.70 | 7 Typ | 13 Typ | 2.2 | 300 | * |
| CNL49512070 | 49.0-51.0 | 20 Typ | 1.00 | 7 Typ | 15 Typ | 2.2 | 400 | * |
| CNL49513070 | 49.0-51.0 | 30 Typ | 1.25 | 7 Typ | 18 Typ | 2.2 | 700 | * |
| CNL54561050 | 54.0-56.0 | 10 Typ | 0.75 | 5 Typ | 5 Typ | 2.2 | 80 | * |
| CNL54562050 | 54.0-56.0 | 20 Typ | 1.00 | 5 Typ | 7 Typ | 2.2 | 160 | * |
| CNL54563050 | 54.0-56.0 | 30 Typ | 1.30 | 5 Typ | 10 Typ | 2.2 | 240 | * |
| CNL54561080 | 54.0-56.0 | 10 Typ | 0.75 | 8 Typ | 15 Typ | 2.2 | 400 | * |
| CNL54562080 | 54.0-56.0 | 20 Typ | 1.00 | 8 Typ | 17 Typ | 2.2 | 600 | * |
| CNL54563080 | 54.0-56.0 | 30 Typ | 1.30 | 8 Typ | 20Psat Typ | 2.2 | 700 | * |
| CNL57591550 | 57.0-59.0 | 15 | 1.00 | 5.0 | 8 | 2:1 | 100 | * |
| CNL58601550 | 58.0-60.0 | 15 | 1.00 | 5.0 | 8 | 2:1 | 100 | * |
| CNL59611550 | 59.0-61.0 | 15 | 1.00 | 5.0 | 8 | 2:1 | 100 | * |
| CNL59612045 | 59.0-61.0 | 20 Typ | 0.75 | 4.5 Typ | 7 Typ | 2.2 | 160 | * |
| CNL59613045 | 59.0-61.0 | 30 Typ | 1.00 | 4.5 Typ | 10 Typ | 2.2 | 240 | * |
| CNL60621550 | 60.0-62.0 | 15 | 1.00 | 5.0 | 8 | 2:1 | 100 | * |
| CNL61631550 | 61.0-63.0 | 15 | 1.00 | 5.0 | 8 | 2:1 | 100 | * |
| CNL62641550 | 62.0-64.0 | 15 | 1.00 | 5.0 | 8 | 2:1 | 100 | * |
| CNL63651550 | 63.0-65.0 | 15 | 1.00 | 5.0 | 8 | 2:1 | 100 | * |
| CNL85861570 | 85.0-86.0 | 15 | 1.00 | 7.0 | 5 | 2:1 | 100 | * |
| CNL86871570 | 86.0-87.0 | 15 | 1.00 | 7.0 | 5 | 2:1 | 100 | * |
| CNL87881570 | 87.0-88.0 | 12 | 1.00 | 7.0 | 5 typ | 2:1 | 100 | * |
| CNL87882570 | 87.0-88.0 | 25 | 1.50 | 7.0 | 5 typ | 2:1 | 150 | * |
| CNL88891570 | 88.0-89.0 | 15 | 1.00 | 7.0 | 5 typ | 2:1 | 100 | * |
| CNL88892570 | 88.0-89.0 | 25 | 1.50 | 7.0 | 5 typ | 2:1 | 1.50 | * |
| CNL89902570 | 89.0-90.0 | 25 | 1.50 | 7.0 | 5 typ | 2:1 | 1.50 | * |
| CNL89901270 | 89.0-90.0 | 12 | 1.00 | 7.0 | 5 typ | 2:1 | 100 | * |
| CNL90911270 | 90.0-91.0 | 12 | 1.00 | 7.0 | 5 typ | 2:1 | 100 | * |



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| | | | | | | | | |
|-------------|-----------|----|------|-----|-------|-----|-----|---|
| CNL90912570 | 90.0-91.0 | 25 | 1.50 | 7.0 | 5 typ | 2:1 | 150 | * |
| CNL90921270 | 90.0-92.0 | 12 | 1.00 | 7.0 | 5 typ | 2:1 | 50 | * |
| CNL90922570 | 90.0-92.0 | 25 | 1.50 | 7.0 | 5 typ | 2:1 | 150 | * |
| CNL92931270 | 92.0-93.0 | 12 | 1.00 | 7.0 | 5 typ | 2:1 | 100 | * |
| CNL92932570 | 92.0-93.0 | 25 | 1.50 | 7.0 | 5 typ | 2:1 | 150 | * |
| CNL93941270 | 93.0-94.0 | 12 | 1.00 | 7.0 | 5 typ | 2:1 | 100 | * |
| CNL94951270 | 94.0-95.0 | 12 | 1.00 | 7.0 | 5 typ | 2:1 | 100 | * |
| CNL95961270 | 95.0-96.0 | 12 | 1.00 | 7.0 | 5 typ | 2:1 | 100 | * |
| CNL96971270 | 96.0-97.0 | 12 | 1.00 | 7.0 | 5 typ | 2:1 | 100 | * |
| CNL93942570 | 93.0-94.0 | 25 | 1.50 | 7.0 | 5 typ | 2:1 | 80 | * |
| CNL94952570 | 94.0-95.0 | 25 | 1.50 | 7.0 | 5 typ | 2:1 | 150 | * |
| CNL96972570 | 96.0-97.0 | 25 | 1.50 | 7.0 | 5 typ | 2:1 | 150 | * |

ALL THE ABOVE SPECIFICATIONS ARE @ 25°C

OTHER FREQUENCY BANDS & NOISE FIGURES ARE ALSO AVAILABLE.

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