



**THE DATASHEET OF
NCS4-272+**





CERAMIC BALUN

RF Transformer

NCS4-272+

Mini-Circuits

50Ω 2300 to 2700 MHz 1:4 Ratio

FEATURES

- Wideband, 2300 to 2700 MHz
- Low phase unbalance, 5 deg and amplitude unbalance, 0.3 dB typ.
- Miniature size, 0.079"x0.049"x0.033"
- LTCC construction
- Low cost
- Aqueous washable



Generic photo used for illustration purposes only

CASE STYLE: GE0805C-1

+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our website for methodologies and qualifications

APPLICATIONS

- WLAN
- WIMAX/WIBRO
- MMD
- Radar

ELECTRICAL SPECIFICATIONS¹ AT 25°C

| Parameter | Frequency (MHz) | Min. | Typ. | Max. | Units |
|-------------------------------------|-----------------|------|------|------|--------|
| Impedance Ratio (Secondary/Primary) | | | 4 | | |
| Frequency Range | | 2300 | | 2700 | MHz |
| Insertion Loss ¹ | 2300 - 2700 | — | 1.0 | — | dB |
| Amplitude Unbalance | 2300 - 2700 | — | 0.3 | — | dB |
| Phase Unbalance ² | 2300 - 2700 | — | 5 | — | Degree |

1. Insertion Loss is referenced to mid-band loss, 0.8 dB. Reference Demo Board TB-419+

2. Relative to 180°

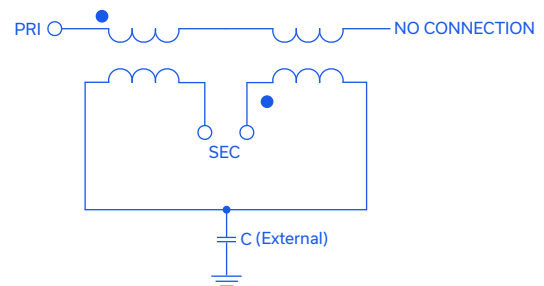
ABSOLUTE MAXIMUM RATINGS

| Parameter | Ratings |
|-----------------------|----------------|
| Operating Temperature | -40°C to 85°C |
| Storage Temperature | -55°C to 100°C |
| RF Power ³ | 3W |

3. Derate linearly to 2W at 85°C.

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

CONFIGURATION R



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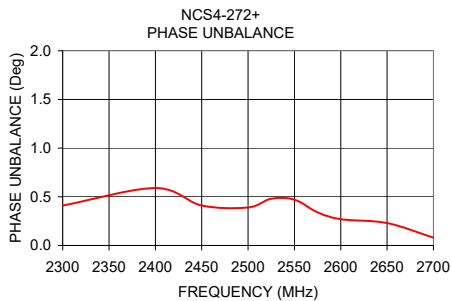
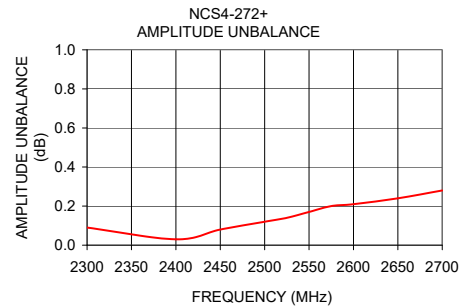
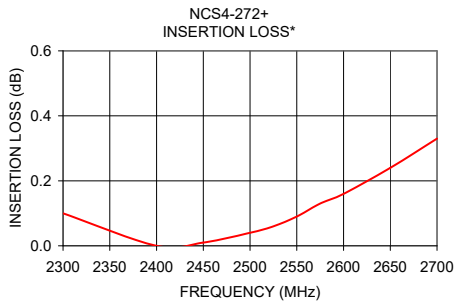


50Ω 2300 to 2700 MHz 1:4 Ratio

TYPICAL PERFORMANCE DATA⁴

| Frequency (MHz) | Insertion Loss (dB) | Input Return Loss (dB) | Amplitude Unbalance (dB) | Phase Unbalance (deg) |
|-----------------|---------------------|------------------------|--------------------------|-----------------------|
| 2300 | 0.10 | 16.96 | 0.09 | 0.41 |
| 2400 | 0.00 | 25.02 | 0.03 | 0.59 |
| 2450 | 0.01 | 23.15 | 0.08 | 0.41 |
| 2500 | 0.04 | 19.33 | 0.12 | 0.39 |
| 2525 | 0.06 | 17.78 | 0.14 | 0.48 |
| 2550 | 0.09 | 16.48 | 0.17 | 0.47 |
| 2575 | 0.13 | 15.42 | 0.20 | 0.34 |
| 2600 | 0.16 | 14.50 | 0.21 | 0.27 |
| 2650 | 0.24 | 12.99 | 0.24 | 0.23 |
| 2700 | 0.33 | 11.81 | 0.28 | 0.08 |

4. Measured with Agilent E5071B network analyzer using impedance conversion and port extension.




NOTES

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
- B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuit's applicable established test performance criteria and measurement instructions.
- C. The parts covered by this specification document are subject to Mini-Circuits standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the standard. Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/terms/viewterm.html



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