



CERAMIC BALUN

RF Transformer

NCS4-272+

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 web site for RoHS Compliance 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°

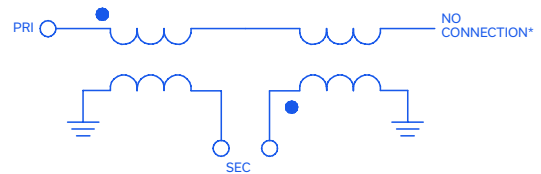
MAXIMUM RATINGS

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 J



*Internal open circuit





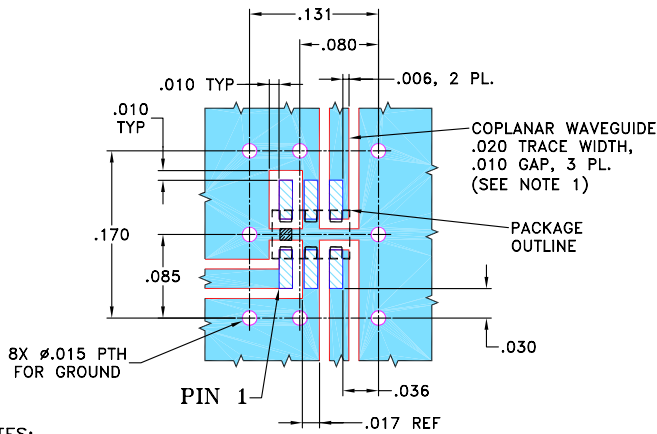
PAD CONNECTIONS

PRIMARY DOT (Unbalanced Port)	1
PRIMARY (GND)	2
SECONDARY DOT (Balanced)	4
SECONDARY (Balanced)	3
NO CONNECTION	6
NOT USED (GND Externally)	5

Pads 2,4,5 are DC-connected internally.

PRODUCT MARKING: N/A

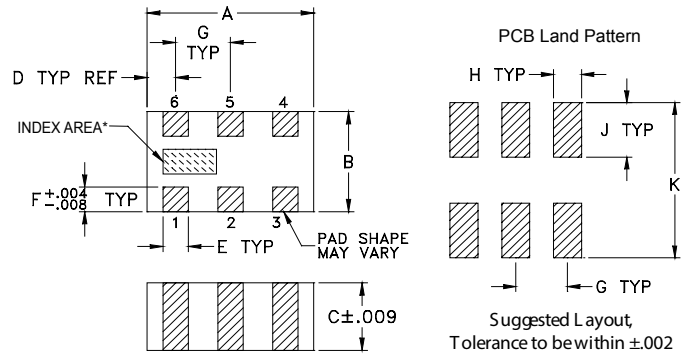
DEMO BOARD MCL P/N: TB-419+ SUGGESTED PCB LAYOUT (PL-264)



NOTES:

1. COPLANAR WAVEGUIDE PARAMETERS ARE SHOWN FOR ROGERS R04350B WITH DIELECTRIC THICKNESS $.010'' \pm .001''$. COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH AND GAP MAY NEED TO BE MODIFIED.
 2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.
- DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER).
 DENOTES COPPER LAND PATTERN FREE OF SOLDER MASK

OUTLINE DRAWING



OUTLINE DIMENSIONS (Inches/mm)

A	B	C	D	E	F
.079	.049	.033	.014	.012	.012
2.01	1.24	0.84	0.36	0.30	0.30
G	H	J	K	wt	
.026	.014	.039	.110	grams	
0.66	0.36	1.00	2.80	.008	

TAPE & REEL INFORMATION: F74