CERAMIC BALUN

RF Transformer

NCS1.5-232+

50Ω 400 to 2300 MHz 1:1.5 Ratio

FEATURES

- Wideband, 400 to 2300 MHz
- Low phase unbalance, 5 deg. and amplitude unbalance, 0.9 dB typ.
- Miniature size 0805 (2.0x1.23mm)
- LTCC construction
- Low cost
- Aqueous washable

Generic photo used for illustration purposes only

CASE STYLE: GE0805C-9

+RoHS Compliant

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

APPLICATIONS

- WCDMA
- PCS
- GPS
- ISM
- WLAN
- UHF
- LTE
- Cellular

ELECTRICAL SPECIFICATIONS AT 25°C

Parameter	Frequency (MHz)	Min.	Typ.	Max.	Units
Impedance Ratio (Secondary/Primary)			1.5		
Frequency Range		400		2300	MHz
Insertion Loss[1]	400 - 2300	—	1.2	1.6	dB
Amplitude Unbalance	400 - 2300	—	0.8	1.5	dB
	1650 - 1950	—	0.5	1.0	
Phase Unbalance[2]	400 - 2300	—	8	12	Degree
	1650 - 1950	—	3	9	

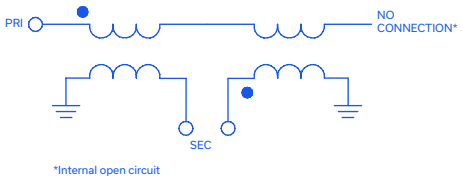
1. Reference Demo Board TB-626+
2. Relative to 180°

MAXIMUM RATINGS

Parameter	Ratings
Operating Temperature	-55°C to 100°C
Storage Temperature	-55°C to 100°C
RF Power[3]	2W at 25°C

3. Passband rating, derate linearly to 1W at 100°C ambient
Permanent damage may occur if any of these limits are exceeded.

CONFIGURATION J



*Internal open circuit

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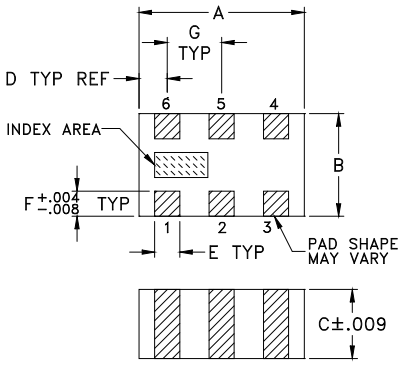
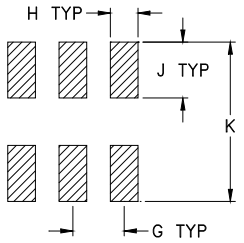
PAD CONNECTIONS

PRIMARY DOT (Unbalanced Port)	2
PRIMARY (GND)	1,3
SECONDARY DOT (Balanced)	4
SECONDARY (Balanced)	6
NO CONNECTION	5

OUTLINE DRAWING



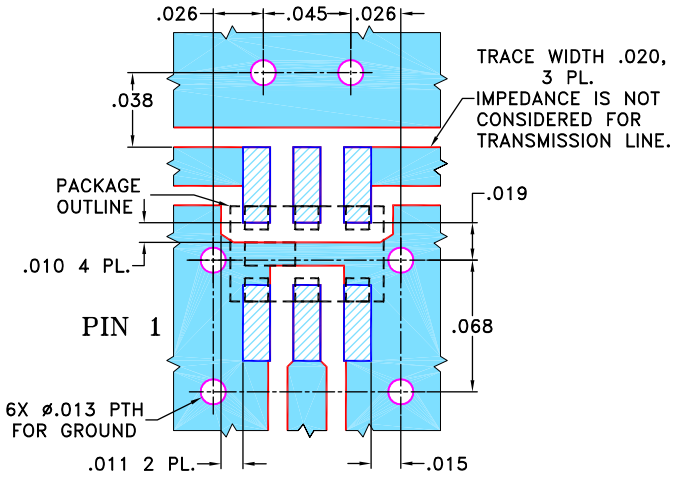
PCB Land Pattern



Suggested Layout,
Tolerance to be within±.002

PRODUCT MARKING: N/A

DEMO BOARD MCL P/N: TB-626+
SUGGESTED PCB LAYOUT (PL-348)



NOTES:
1. TRACE WIDTH IS SHOWN FOR REFERENCE ONLY.
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 DIMENSIONS (Inches / mm)

A	B	C	D	E	F
.079	.049	.033	.014	.012	.012
2.0	1.24	0.84	0.36	0.30	0.30

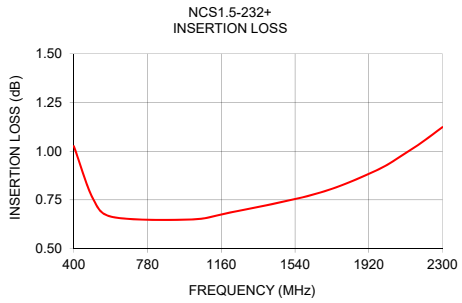
G	H	J	K		wt
.026	.014	.039	.110		grams
0.66	0.36	1.00	2.80		.008

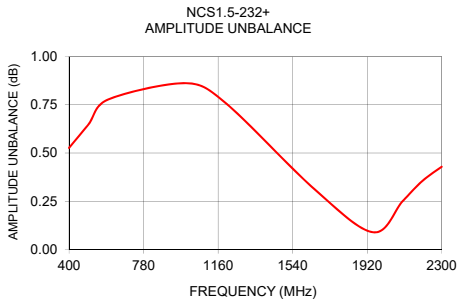
TAPE & REEL INFORMATION: F74

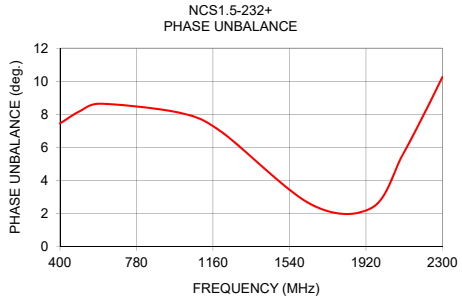
TYPICAL PERFORMANCE DATA[3]

Frequency (MHz)	Insertion Loss (dB)	Input Return Loss (dB)	Amplitude Unbalance (dB)	Phase Unbalance (deg)
400	1.03	11.76	0.53	7.45
500	0.75	15.77	0.65	8.20
600	0.66	18.11	0.78	8.64
1000	0.65	18.24	0.86	8.08
1200	0.68	18.23	0.76	6.96
1650	0.78	18.84	0.31	2.53
1950	0.90	17.26	0.09	2.35
2100	0.98	15.94	0.25	5.50
2200	1.05	15.14	0.35	7.81
2300	1.12	14.44	0.43	10.26

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







NOTES

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