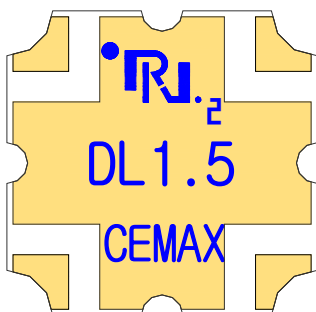


1. Description

1-1. Part number: DL1.5nS



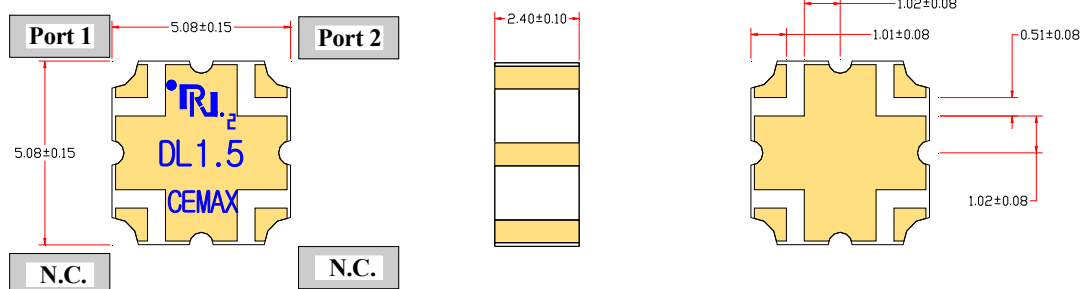
1-2. Features

- Surface mount type
- RoHS Compliance (Pb = Free)
- LTCC base (Er = 6)
- Low loss Silver (Ag) Conductor
- Gold plated

2. Electrical Specification(at room temperature)

	Return Loss min (dB)			Insertion Loss min (dB)			Group Delay (nS)		
	0.5n	1.0n	1.5n	0.5n	1.0n	1.5n	0.5n	1.0n	1.5n
500MHz - 700MHz	-20	-20	-20	-0.6	-1.0	-1.0	0.5± 0.1	0.95± 0.08	1.5± 0.15
700MHz - 1000MHz	-18	-20	-20	-0.8	-1.4	-1.4	0.5± 0.15	0.95± 0.1	1.6± 0.05
1000MHz - 1400MHz	-20	-20	-14	-0.8	-1.4	-1.7	0.45± 0.1	0.65± 0.2	1.3± 0.1
1400MHz - 1800MHz	-14	-15	-14	-1.0	-1.5	-1.9	0.45± 0.1	0.90± 0.15	1.5± 0.2
1800MHz - 2100MHz	-12	-15	-15	-1.3	-1.4	-1.9	0.35± 0.3	0.20± 0.20	1.3± 0.1
2100MHz - 2800MHz	-12	-12	-10	-1.5	-2.0	-2.5	0.45±0.15	0.95± 0.2	1.35±0.1

3. Mechanical Specification

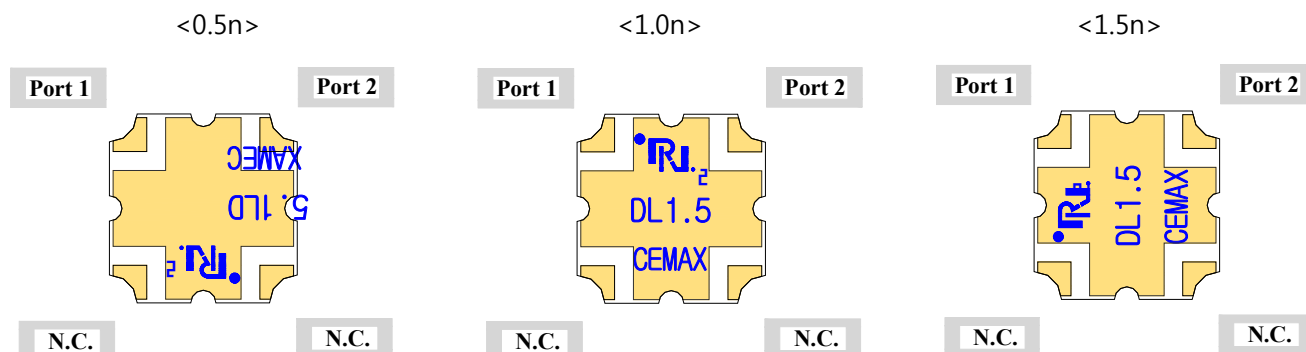


[Unit = mm]

3-1. Weight

- 0.17 Grams typical

4. Port Configuration

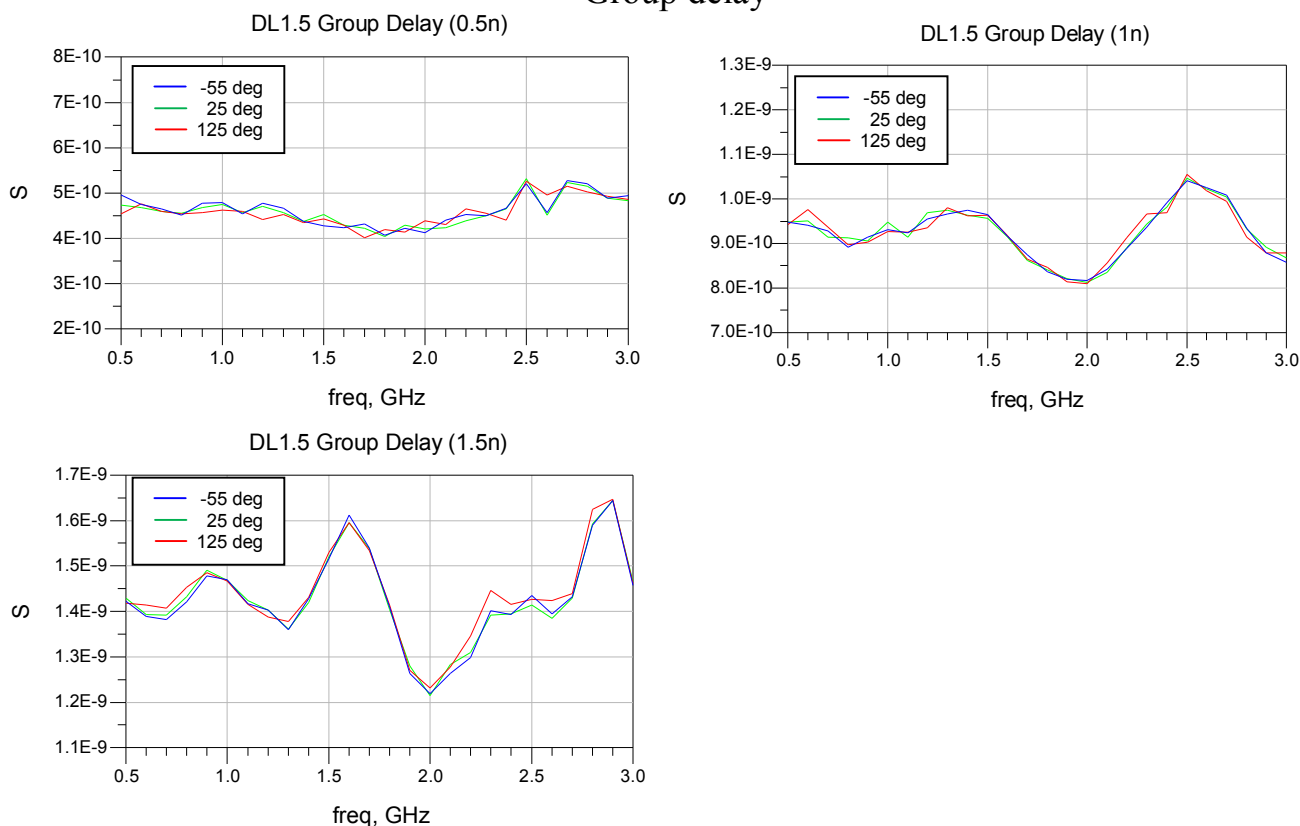


Configuration	Port 1	Port 2	N.C.	N.C.
Case 1.	Input	Output	N.C.	N.C.
Case 2.	Output	Input	N.C.	N.C.

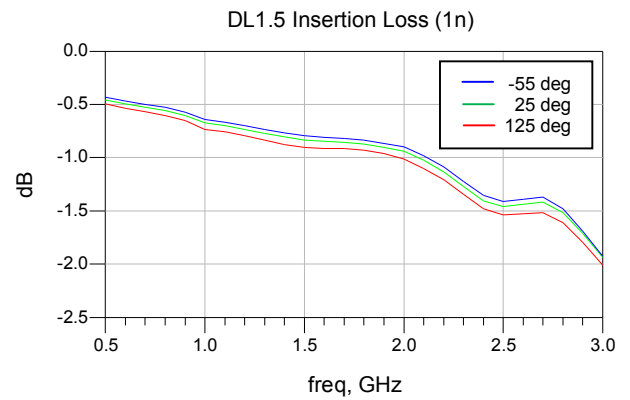
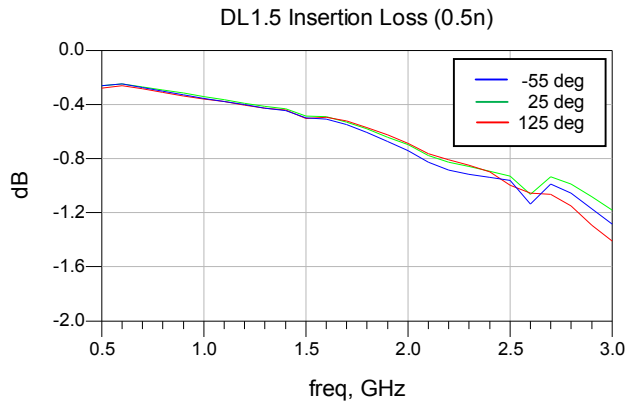
* Once Port 1 is determined, the other three ports are defined automatically.

5. Typical data over temperature (−55, +25 and +125°C)

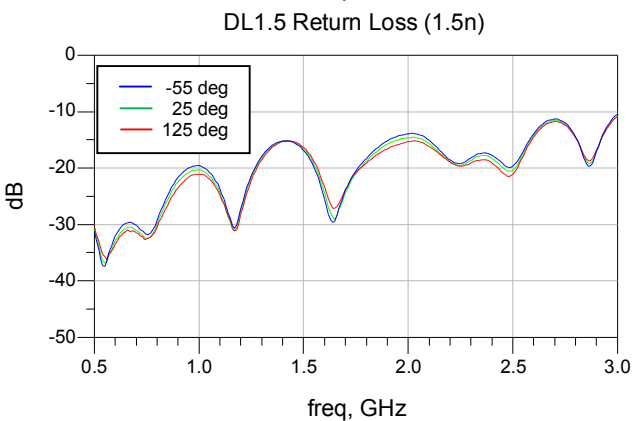
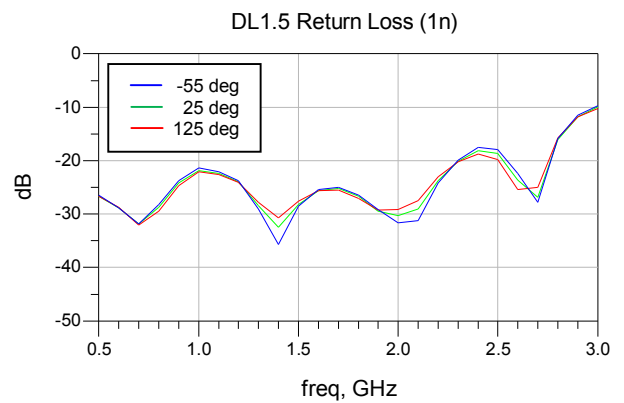
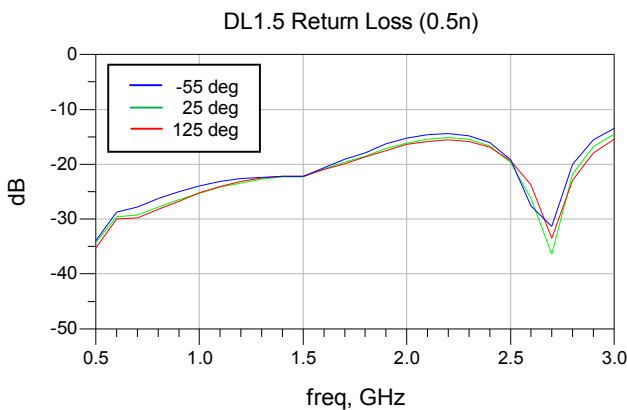
< Group delay >



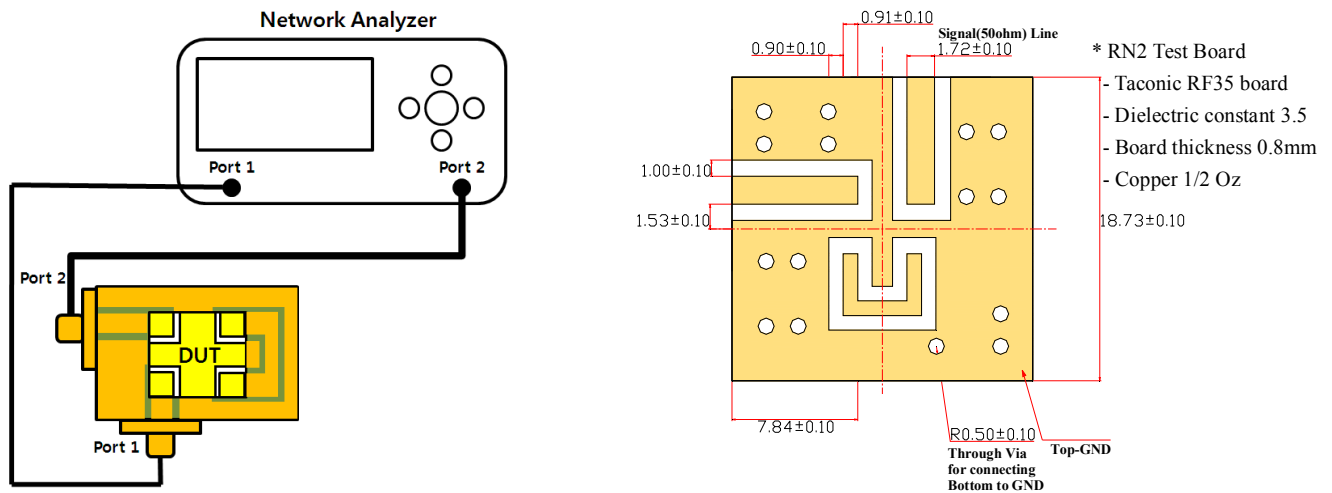
< Insertion Loss >



< Return Loss >



6. Test Method



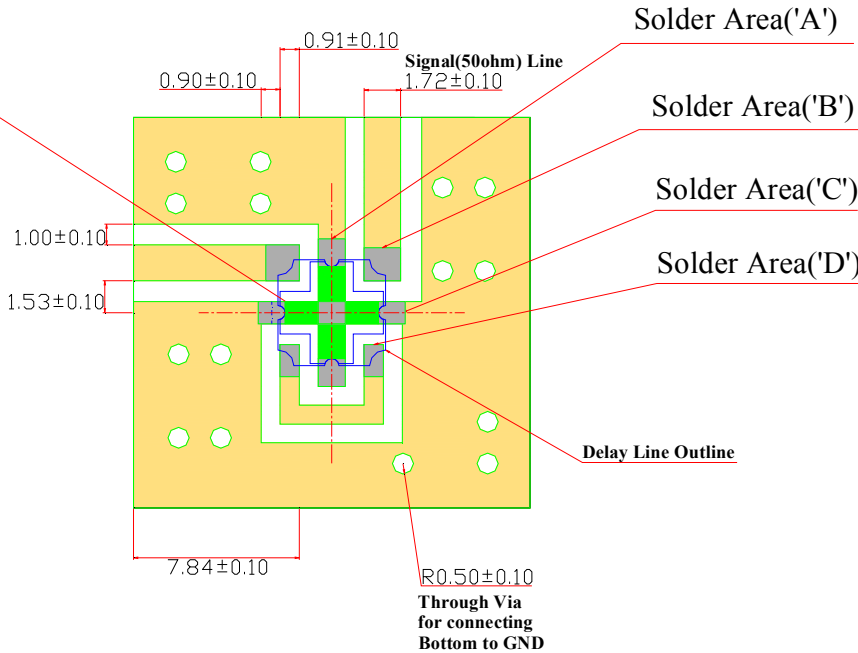
To recognize the specified performance of the part, it has to be evaluated on the RN2 test board shown above.

1. Calibrate the network analyzer
2. Measure the data of **Return Loss** through Port 1 to Port 1 (S11)
3. Measure the data of **Insertion Loss** and **Group delay** through Port 1 to Port 2 (S21)

7. Recommended PCB layout and Solder mask patter

PROJECTION	No.	DATE	REVISION & DESCRIPTION	SIGNATURE	
				REVIEWED	CHECKED
	1	2011.12.13	New - Drawing		
	2				
	3				

Attention: Solder Resistor Area
Solder Resistor should be printed on the board.



Dimensions and labels in the diagram:

- 0.91±0.10
- 0.90±0.10
- Signal(50ohm) Line 1.72±0.10
- 1.00±0.10
- 1.53±0.10
- 7.84±0.10
- R0.50±0.10 Through Via for connecting Bottom to GND
- Solder Area('A')
- Solder Area('B')
- Solder Area('C')
- Solder Area('D')
- Delay Line Outline

NOTE.

1. Test Solder Cream : SAC-305 (Alpa Metal)
2. Lead Free Solder Alloy : Sn/Ag/Cu Ratio Of 96.5/3.0/0.5
3. Solder Area ('A') Demension : 1.27 mm by 1.34 mm
4. Solder Area ('B') Demension : 1.72 mm by 1.58 mm
5. Solder Area ('C') Demension : 1.27 mm by 1.06mm
6. Solder Area ('D') Demension : 0.91 mm by 1.54mm

No.	DESCRIPTION	UNIT	TOTAL	PERUNIT	TOTAL
		QUANTITY			
TITLE	DL4 - Recommended Solder Quantity &Area	RN2 DWG No.	11-1213-01	SCALE	1/1
				SIZE	A4
					DIMENSION mm