

2.4/5GHz 1005 Diplexer: LDP1005R2455L202

Applications:

WLAN, 802.11b/g, ISM Band...

Features

SMD, high reliability, ultra Impact...

Part number

LDP 1005 R 2455 L2 02
(1) (2) (3) (4) (5) (6)

(1) Product code	LTCC-DPX
(2) Size Code	1.0x0.5mm
(3) Packing	Tape and reel
(4) Frequency	2.4/5GHz
(5) Series	L2
(6) Type	02

Electrical Specification

Low-band				
Item	Frequency Range(MHz)	Min.	Typ.	Max.
Insertion Loss(db)	2400~2500	-	0.35	0.5
Insertion Loss(db) at -40~85℃	2400~2500	-	-	0.6
Return Loss(db)	2400~2500	12	20	-
Attenuation(db)	4800~6000	23	27.8	-
	7200~7500	23	27.2	-
High-band				
Item	Frequency Range(MHz)	Min.	Typ.	Max.
Insertion Loss(db)	4900~5950	-	0.6	0.8
Insertion Loss(db) at -40~85℃	4900~5950	-	-	1.0
Return Loss(db)	4900~5950	10	18.5	-
Attenuation(db)	30~2400	25	27.5	-
	2400~2500	32	38.8	-
	2500~2690	23	27.1	-
	9800~11900	20	25.0	-
Common				
Item	Frequency Range(MHz)	Min.	Typ.	Max.
Return Loss(db)	2400~2500	12	20	-
	2400~2500	10	18.5	-

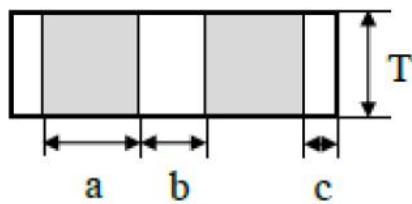
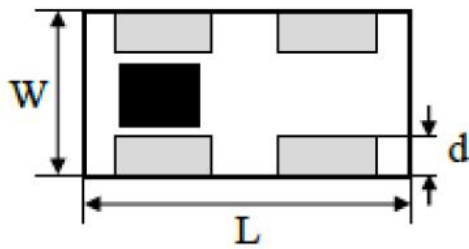
Operating Temperature Range:-40~85℃

Power Capacity:3W max.

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Dimension and Terminal Configuration

Outline



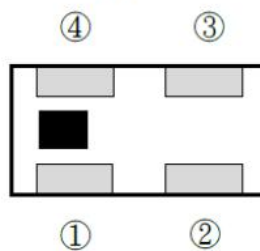
Dimension

L	W	T	a
1.00±0.10	0.50±0.10	0.33 max.	0.30±0.10
b	c	d	
0.20±0.10	0.10±0.10	0.12±0.07	

NOTE : Dimensions in mm.

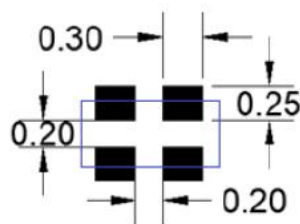
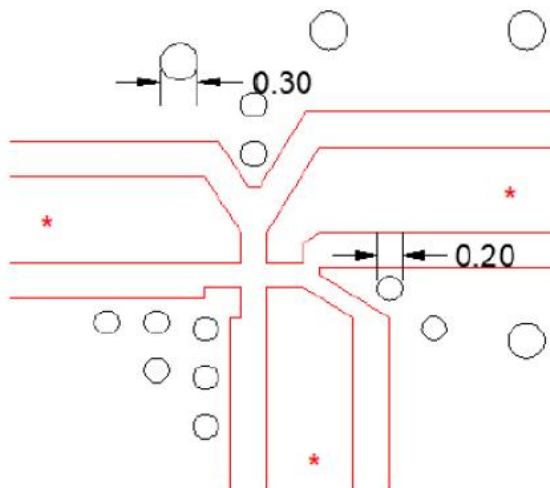
Termination

Top View

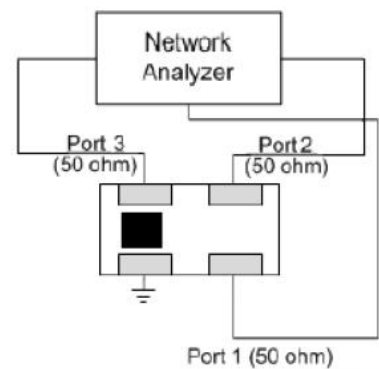


Terminal name	Function
P1	Common
P2	GND
P3	Low band
P4	High band

Evaluation Board Reference



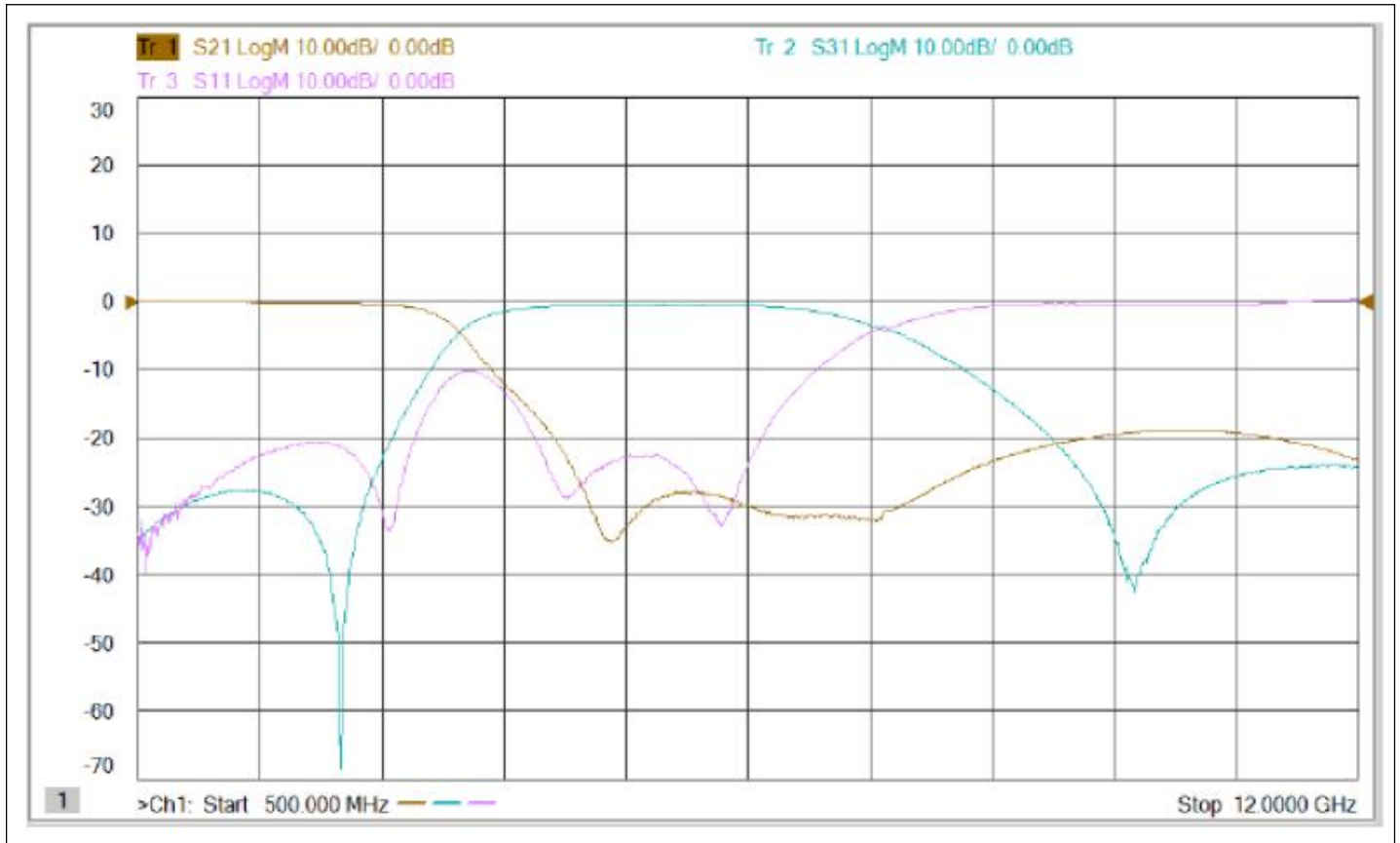
Unit : mm



Test Instrument :
Agilent E5071C Network Analyzer
or equivalent.

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Electrical Characteristics

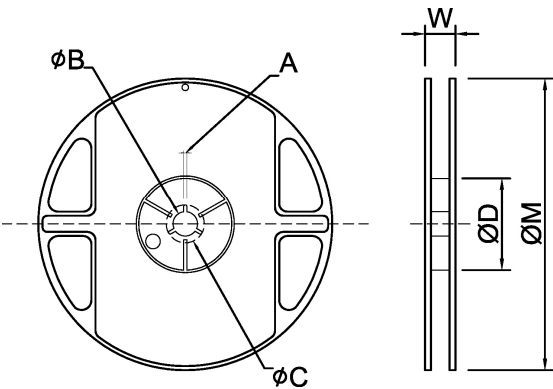


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Taping Specifications

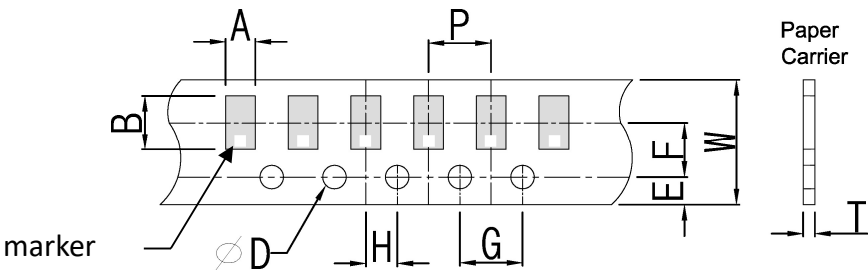
Reel and Taping Specification

Reel Specification



TYPE	SIZE		A	ψB	ψC	ψD	W	ψM
1005	7"	10K/Reel	2.0 ± 0.5	13.5 ± 1.0	21 ± 1.0	60 ± 1.0	11.5 ± 2.0	178 ± 2.0

Tapping Specification

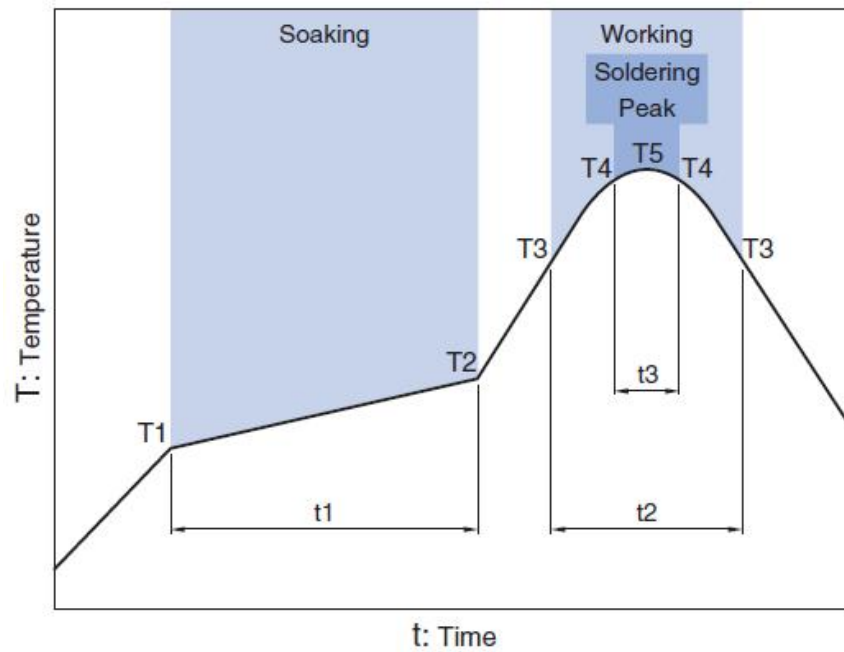


Packaging	Type	A	B	W	E	F	G	H	T	ψD	P
Paper Type	1005	1.00 ± 0.20	1.55 ± 0.20	8.0 ± 0.20	1.75 ± 0.10	3.3 ± 0.05	4.0 ± 0.10	2.0 ± 0.05	0.75 ± 0.10	$1.50^{+0.10}_{-0}$	4.0 ± 0.1

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Recommended Reflow Profile

Pb free solder



Soaking			Working		Soldering		Peak
Temp.		Time	Temp.	Time	Temp.	Time	Temp.
T1	T2	t1	T3	t2	T4	t3	T5
150°C	180°C	60 to 120sec	230°C	more than 30sec	247 to 253°C	within 10sec	260°C Max.

Revision History

Version	Date	Description
Ver.01	Jul .2023	New issue.