Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: 1608 1.5G&2.4GHz Diplexer

PART NUMBER: DPX1608LL87R2455A

Features:

- Compact size : 1.6x0.8x0.6mm
- RoHS compliant

Applications:

- WLAN, 802.11a/b/g/n
- ISM Band

ELECTRICAL SPECIFICATIONS

DESCRIPTION	VALUE		
Pass Band	Low Band	High Band	
	1575-1610 MHz	2400-2500 MHz	4900-5950 MHz
Insertion Loss	0.5dB(Typ.)	0.5dB(Typ)	0.4dB(Typ.)
	0.6dB(Max)	0.7dB(Max)	0.6dB(Max)
V.S.W.R / Return-Loss	2.0 (Max) / 10.0 dB (Min)	2.0 (Max) / 10.0 dB (Min)	2.0 (Max) / 10.0 dB (Min)
Attenuation	15dB (Min).@2.4~2.5GHz	15dB (Min).@1.57~1.61GHz	
	15dB (Min).@4.9~6.0GHz		
Isolation	20 dB (Min)		
Operating Temperature	-40~+85℃		

RoHS COMPLIANT

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Tel: 86 512 6807 9998

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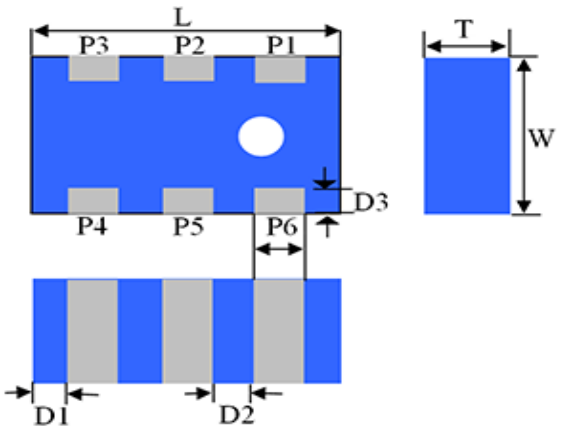
MECHANICAL DIMENSION

Outline



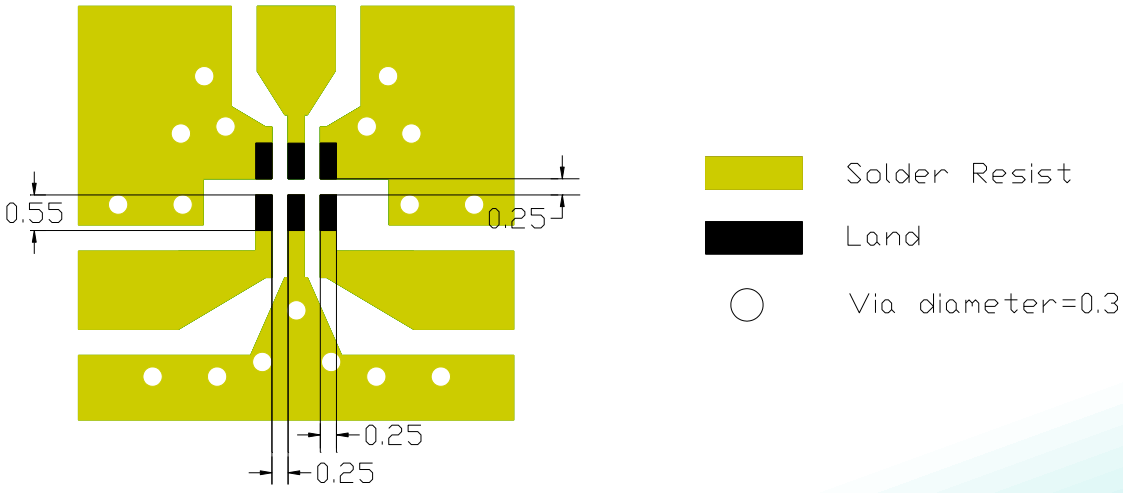
Termination

Terminal name	Function
P1	GND
P2	Common
P3	GND
P4	Low band
P5	GND
P6	High band

Mechanical

	Dimension
L (mm)	1.60±0.15
W (mm)	0.80±0.15
T (mm)	0.60±0.15
P1 (mm)	0.20±0.15
P2 (mm)	0.20±0.15
P3 (mm)	0.20±0.15
P4 (mm)	0.20±0.15
P5 (mm)	0.20±0.15
P6 (mm)	0.20±0.15
D1 (mm)	0.20±0.15
D2 (mm)	0.30±0.10
D3 (mm)	0.15±0.10

Reference design of EVB



Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

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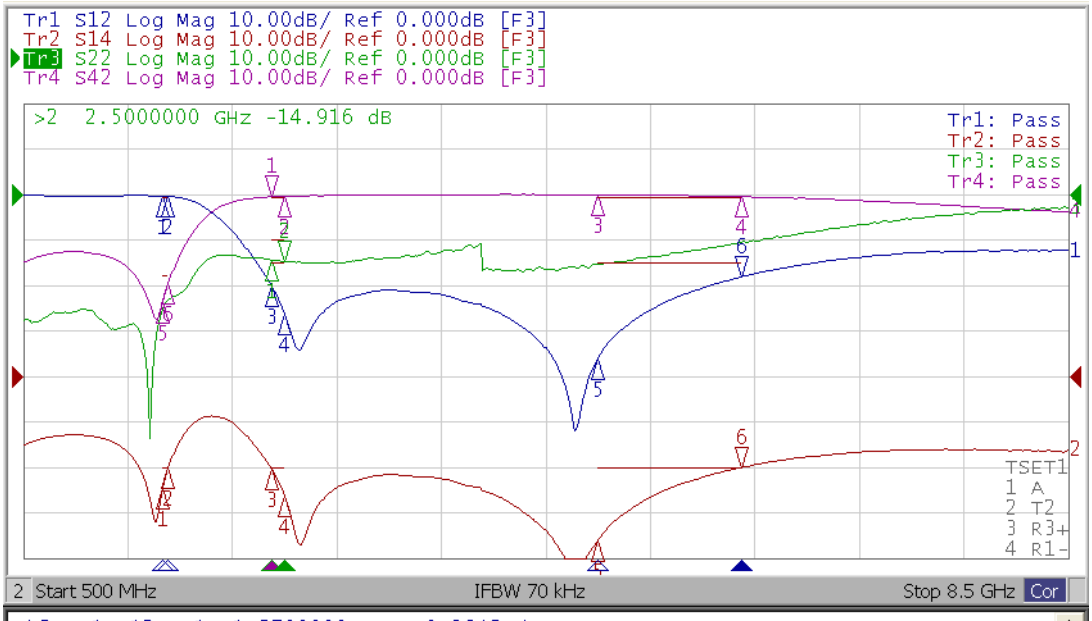
ELECTRICAL PERFORMANCES



Ch2	Tr1	S12	1	1.5700000 GHz -0.3648 dB
Ch2	Tr1	S12	2	1.6100000 GHz -0.4435 dB
Ch2	Tr1	S12	3	2.4000000 GHz -20.147 dB
Ch2	Tr1	S12	4	2.5000000 GHz -26.272 dB
Ch2	Tr1	S12	5	4.9000000 GHz -36.148 dB
Ch2	Tr1	S12	6	6.0000000 GHz -18.117 dB
Ch2	Tr2	S14	1	1.5700000 GHz -24.699 dB
Ch2	Tr2	S14	2	1.6100000 GHz -21.156 dB
Ch2	Tr2	S14	3	2.4000000 GHz -21.326 dB
Ch2	Tr2	S14	4	2.5000000 GHz -26.224 dB
Ch2	Tr2	S14	5	4.9000000 GHz -36.111 dB
Ch2	Tr2	S14	6	6.0000000 GHz -21.019 dB
Ch2	Tr3	S22	1	2.4000000 GHz -14.419 dB
Ch2	Tr3	S22	>2	2.5000000 GHz -14.916 dB
Ch2	Tr4	S42	1	2.4000000 GHz -0.4934 dB
Ch2	Tr4	S42	2	2.5000000 GHz -0.4047 dB
Ch2	Tr4	S42	3	4.9000000 GHz -0.0670 dB
Ch2	Tr4	S42	4	6.0000000 GHz -0.5113 dB
Ch2	Tr4	S42	5	1.5700000 GHz -23.910 dB
Ch2	Tr4	S42	6	1.6100000 GHz -19.666 dB

- Measured on Agilent E5071C Network Analyzer
- Common port: Port 2(Return loss S22)
- Low band port: Port 1(Low band insertion loss S12, and attenuation at high band)
- High band port: Port 4(High band insertion loss S42, and attenuation at low band)

Frequency Characteristics

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REVISION HISTORY

Revision	Date	Description
Version 1	Oct. 06, 2020	- New issue

RoHS COMPLIANT