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Pulse A YAGEO Company | LARSEN Antennas

TECHNICAL DATA SHEET

Description: 1608 2.4G&5GHz Diplexer

PART NUMBER: DPX1608LL65R2455A

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
	2400~2500MHz	4900~6000MHz
Insertion Loss	0.40dB (Max)	0.7dB (Max)
Return Loss	12.0dB (Min)	12.0dB (Min)
Attenuation	30dB(Min).@4800~5000MHz 32dB(Min).@7200~7500MHz	27dB(Min).@2400~2500MHz 27dB(Min).@10300~11700MHz 20dB(Min).@15450~16200MHz
Isolation	32dB(Min).@2400~2500MHz 32dB(Min).@4800~5950MHz	
Operating Temperature	-40 ~ 85℃	

In the effort to improve our products, we reserve the right to make changes judged to be necessary.
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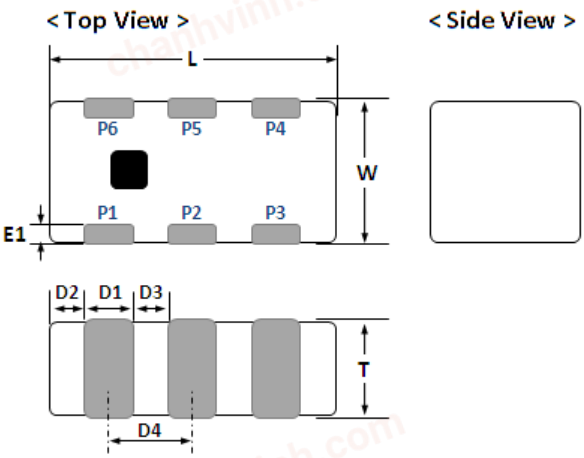
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MECHANICAL DIMENSION

Outline



Termination

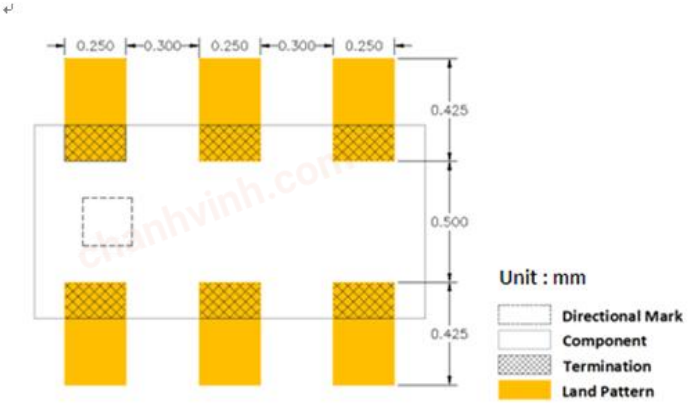
Terminal name	Function
P1	GND
P2	Common
P3	GND
P4	Low band
P5	GND
P6	High band

Mechanical

	Dimension
L (mm)	1.60±0.15
W (mm)	0.80±0.15
T (mm)	0.60±0.15
D1 (mm)	0.25±0.10
D2 (mm)	0.125±0.10
D3 (mm)	0.30±0.10
D4 (mm)	0.55±0.10
E1 (mm)	0.15±0.10

Reference design of EVB

Recommended Land Pattern



Recommended PCB Pattern



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

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RoHS COMPLIANT

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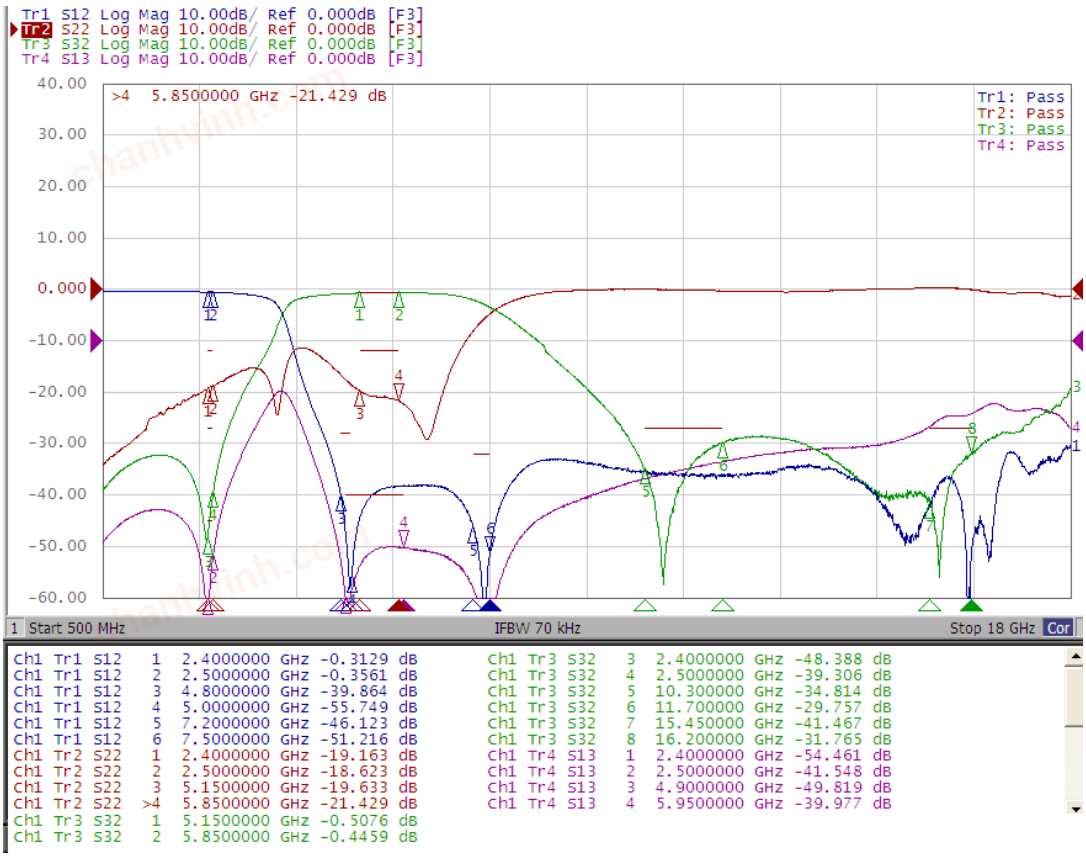
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ELECTRICAL PERFORMANCES



Ch1	Tr1	S12	1	2.4000000	GHz	-0.3129	dB	Ch1	Tr3	S32	3	2.4000000	GHz	-48.388	dB
Ch1	Tr1	S12	2	2.5000000	GHz	-0.3561	dB	Ch1	Tr3	S32	4	2.5000000	GHz	-39.306	dB
Ch1	Tr1	S12	3	4.8000000	GHz	-39.864	dB	Ch1	Tr3	S32	5	10.300000	GHz	-34.814	dB
Ch1	Tr1	S12	4	5.0000000	GHz	-55.749	dB	Ch1	Tr3	S32	6	11.700000	GHz	-29.757	dB
Ch1	Tr1	S12	5	7.2000000	GHz	-46.123	dB	Ch1	Tr3	S32	7	15.450000	GHz	-41.467	dB
Ch1	Tr1	S12	6	7.5000000	GHz	-51.216	dB	Ch1	Tr3	S32	8	16.200000	GHz	-31.765	dB
Ch1	Tr2	S22	1	2.4000000	GHz	-19.163	dB	Ch1	Tr4	S13	1	2.4000000	GHz	-54.461	dB
Ch1	Tr2	S22	2	2.5000000	GHz	-18.623	dB	Ch1	Tr4	S13	2	2.5000000	GHz	-41.548	dB
Ch1	Tr2	S22	3	5.1500000	GHz	-19.633	dB	Ch1	Tr4	S13	3	4.9000000	GHz	-49.819	dB
Ch1	Tr2	S22	>4	5.8500000	GHz	-21.429	dB	Ch1	Tr4	S13	4	5.9500000	GHz	-39.977	dB
Ch1	Tr3	S32	1	5.1500000	GHz	-0.5076	dB								
Ch1	Tr3	S32	2	5.8500000	GHz	-0.4459	dB								

- Measured on Agilent E5071C Network Analyzer
- Common port : Port 2 (Return loss : S22)
- Low band port : Port 1 (Low band Insertion loss S21, and attenuation at high band)
- High band port : Port 3 (High band Insertion loss S32, and attenuation at low band)

Frequency Characteristics

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REVISION HISTORY

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

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