Pulse A YAGEO Company | LARSEN Antennas

TECHNICAL DATA SHEET

Description: 2012 1.57G&2.4G&5GHz Triplexer

PART NUMBER: TPX2012LL95R1525A

Features:

- Compact size : 2.0x1.2x0.9mm
- RoHS compliant

Applications:

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

ELECTRICAL SPECIFICATIONS

DESCRIPTION	VALUE		
Pass Band	Low Band	Middle Band	High Band
	1570~1610MHz	2400~2500MHz	4900~5950MHz
Insertion loss	0.8dB (Max) at 25℃	0.7dB (Max) at 25℃	0.8dB (Max) at 25℃
V.S.W.R /Return-Loss	2.0(Max)/10.0dB(Min)	2.0(Max) /10.0dB(Min)	1.6(Max) /13.0dB(Min)
Attenuation	20dB(Min).@2.4~2.5GHz 20dB(Min).@4.8~6.0GHz	17.5dB(Min).@4.8~5.0GHz 10dB(Min).@7.2~7.5GHz 10dB(Min).@9.6~10.0GHz	27dB(Min).@0.86~0.96GHz 25dB(Min).@1.545~1.605GHz 25dB(Min).@1.71~1.99GHz 30dB(Min).@2.17GHz 8dB(Min).@8.1GHz 15dB(Min).@8.82~9.8GHz 27dB(Min).@9.8~10.76GHz 25dB(Min).@10.76~11.8GHz
Isolation	Middle Band to High Band: 17dB(Min). @4.8~5.0GHz Middle Band to Low Band: 20dB(Min).@1.559~1.606GHz High Band to Low Band: 25dB(Min). @1.559~1.606GHz		
Operating Temperature	-40 ~ 85℃		
Dimension	2.0 x 1.2 x 0.9mm		

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For more information:

RoHS COMPLIANT

Pulse Worldwide Headquarters
15255 Innovation Drive #100
San Diego, CA 92128
USA
Tel:1-858-674-8100

Pulse/Larsen Antennas
18110 SE 34th St Bldg 2 Suite 250
Vancouver, WA 98683
USA
Tel: 1-360-944-7551

Europe Headquarters
Pulse GmbH & Do, KG
Zeppelinstrasse 15
Herrenberg, Germany
Tel: 49 7032 7806 0

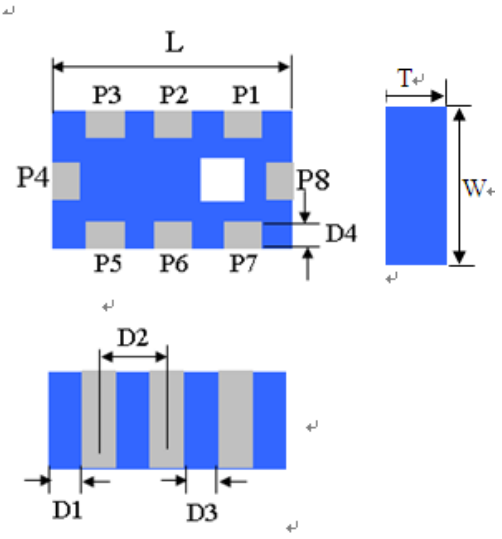
Pulse (Suzhou) Wireless Products Co, Inc.
99 Huo Ju Road(#29 Bldg,4th Phase
Suzhou New District
Jiangsu Province, Suzhou 215009 PR China
Tel: 86 512 6807 9998

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MECHANICAL DIMENSION

Outline



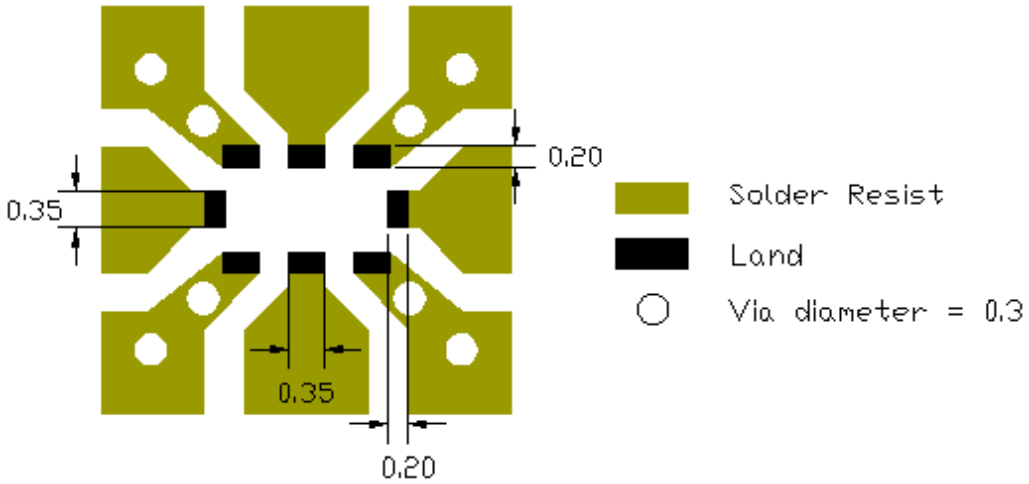
Termination

Terminal name	Dimension
P1	GND
P2	Common
P3	GND
P4	Low band
P5	GND
P6	High band
P7	GND
P8	Middle band

Mechanical

	Dimension
L (mm)	2.00±0.15
W (mm)	1.25±0.15
T (mm)	0.90±0.15
P1 (mm)	0.40±0.15
P2 (mm)	0.40±0.15
P3 (mm)	0.40±0.15
P4 (mm)	0.50±0.15
P5 (mm)	0.40±0.15
P6 (mm)	0.40±0.15
P7 (mm)	0.40±0.15
P8 (mm)	0.50±0.15
D1 (mm)	0.2±0.15
D2 (mm)	0.65±0.15
D3 (mm)	0.35±0.15
D4 (mm)	0.3±0.15

Reference design of EVB



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

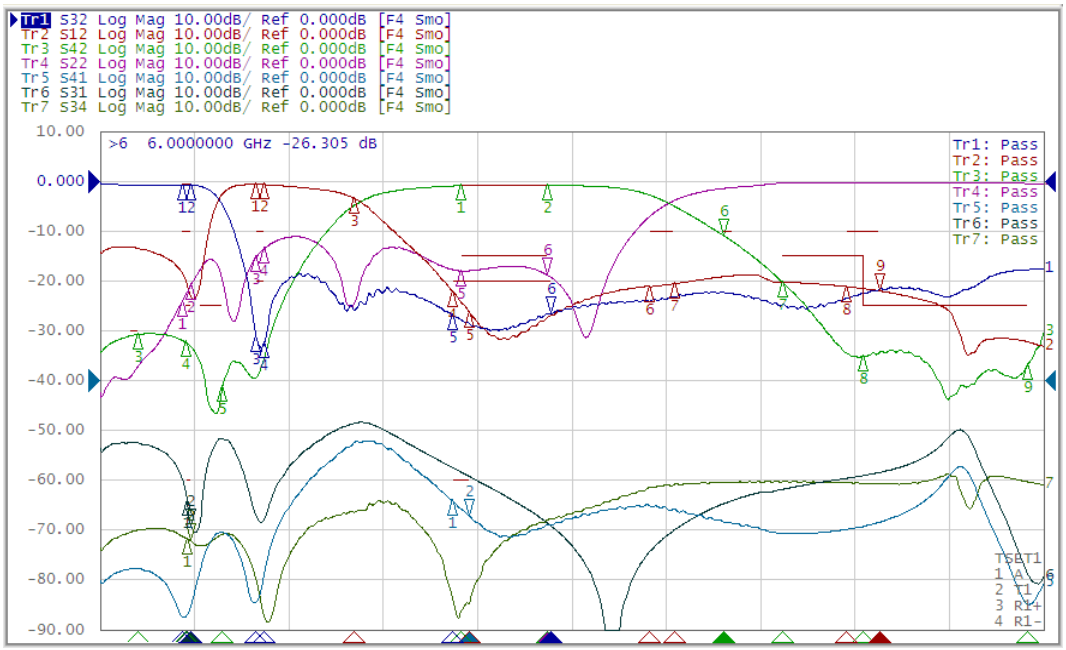
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ELECTRICAL PERFORMANCES



- Measured on Agilent E5071C Network Analyzer
- Common port: Port 2 (Return loss S22)
- Low band port: Port 3 (Low band insertion loss S32)
- Middle band port Port1(Middle band insertion loss S12)
- High band port: Port 4 (High band insertion loss S42)

Ch1	Tr1	S32	1	1.5000000	GHz	-0.5586	dB
Ch1	Tr1	S32	2	1.6100000	GHz	-0.5791	dB
Ch1	Tr1	S32	3	2.4000000	GHz	-30.879	dB
Ch1	Tr1	S32	4	2.5000000	GHz	-32.204	dB
Ch1	Tr1	S32	5	4.8000000	GHz	-26.721	dB
Ch1	Tr1	S32	>6	6.0000000	GHz	-26.305	dB
Ch1	Tr2	S12	1	2.4000000	GHz	-0.5684	dB
Ch1	Tr2	S12	2	2.5000000	GHz	-0.5735	dB
Ch1	Tr2	S12	3	3.6000000	GHz	-3.2768	dB
Ch1	Tr2	S12	4	4.8000000	GHz	-21.918	dB
Ch1	Tr2	S12	5	5.0000000	GHz	-26.187	dB
Ch1	Tr2	S12	6	7.2000000	GHz	-20.939	dB
Ch1	Tr2	S12	7	7.5000000	GHz	-20.324	dB
Ch1	Tr2	S12	8	9.6000000	GHz	-20.905	dB
Ch1	Tr2	S12	9	10.000000	GHz	-21.743	dB
Ch1	Tr3	S42	1	4.9000000	GHz	-0.6100	dB
Ch1	Tr3	S42	2	5.9500000	GHz	-0.6780	dB
Ch1	Tr3	S42	3	960.00000	MHz	-30.459	dB
Ch1	Tr3	S42	4	1.5450000	GHz	-32.103	dB
Ch1	Tr3	S42	5	1.9900000	GHz	-41.089	dB
Ch1	Tr3	S42	6	8.1000000	GHz	-10.656	dB
Ch1	Tr3	S42	7	8.8200000	GHz	-20.082	dB
Ch1	Tr3	S42	8	9.8000000	GHz	-34.917	dB
Ch1	Tr3	S42	9	11.800000	GHz	-36.619	dB

Ch1	Tr4	S22	1	1.5000000	GHz	-23.867	dB
Ch1	Tr4	S22	2	1.6100000	GHz	-20.476	dB
Ch1	Tr4	S22	3	2.4000000	GHz	-14.974	dB
Ch1	Tr4	S22	4	2.5000000	GHz	-13.230	dB
Ch1	Tr4	S22	5	4.9000000	GHz	-17.736	dB
Ch1	Tr4	S22	6	5.9500000	GHz	-18.567	dB
Ch1	Tr5	S41	1	4.8000000	GHz	-23.936	dB
Ch1	Tr5	S41	2	5.0000000	GHz	-26.923	dB
Ch1	Tr6	S31	1	1.5590000	GHz	-23.813	dB
Ch1	Tr6	S31	2	1.6060000	GHz	-28.857	dB
Ch1	Tr7	S34	1	1.5590000	GHz	-31.531	dB
Ch1	Tr7	S34	2	1.6060000	GHz	-31.979	dB

Frequency Characteristics

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REVISION HISTORY

Revision	Date	Description
Version 1	Set. 30, 2020	- New issue

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