

Description: 0605 2.4G&5GHz Coupler
PART NUMBER: CPL0605AT13R2455A
Features:

- Compact size : 0.65x0.5x0.38mm
- RoHS compliant

Applications:

- WLAN,802.11a/b/g
- Dual Band 2.4/5 GHz

ELECTRICAL SPECIFICATIONS

DESCRIPTION	Value	
Pass Band	2400-2500 MHz	4900-5950 MHz
Impedance	50Ω	
Insertion Loss (dB)	0.55 dB (Max.) at 25°C	0.55 dB (Max.) at 25°C
V.S.W.R	1.5 (Max)	1.5 (Max)
Coupling (dB)	17 ~ 21	10.5 ~ 14.5
Directivity (dB)	13 (Min)	13 (Min)
Operating Temperature	-40 ~ +85°C	

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

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For more information:

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

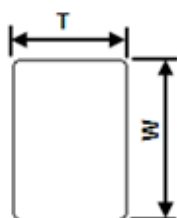
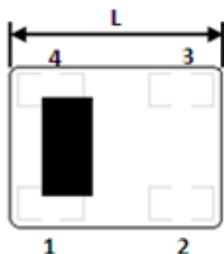


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MECHANICAL DIMENSION

Outline



Termination

Terminal name

function

Dimension

(1)

Coupling

(2)

50 ohm terminal

(3)

Output

(4)

Input

L (mm) 0.65 ± 0.05

W (mm) 0.50 ± 0.05

T (mm) 0.38 ± 0.05

P1 (mm) 0.20 ± 0.05

P2 (mm) 0.20 ± 0.05

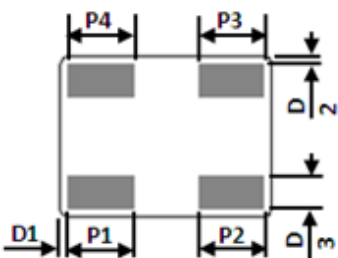
P3 (mm) 0.20 ± 0.05

P4 (mm) 0.20 ± 0.05

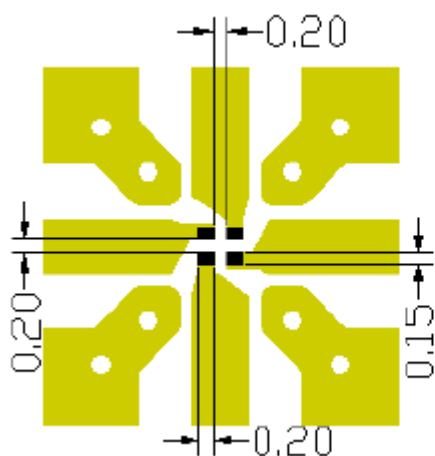
D1 (mm) 0.025 ± 0.025

D2 (mm) 0.025 ± 0.025

D3 (mm) 0.10 ± 0.05



Reference design of EVB



 Solder Resist

 Land

 Via Diameter=0.3
(unit mm)

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

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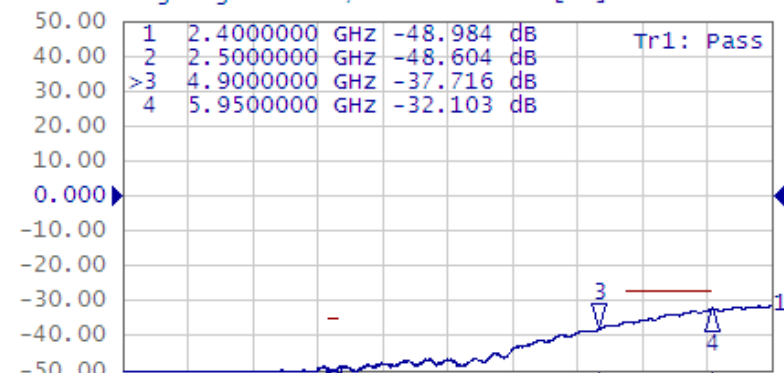
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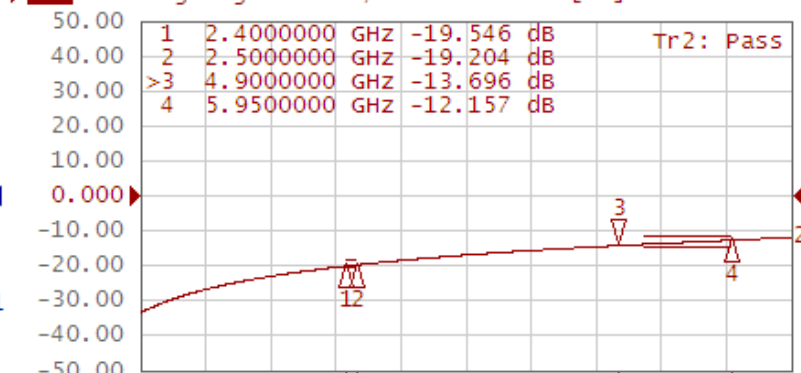
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ELECTRICAL PERFORMANCES

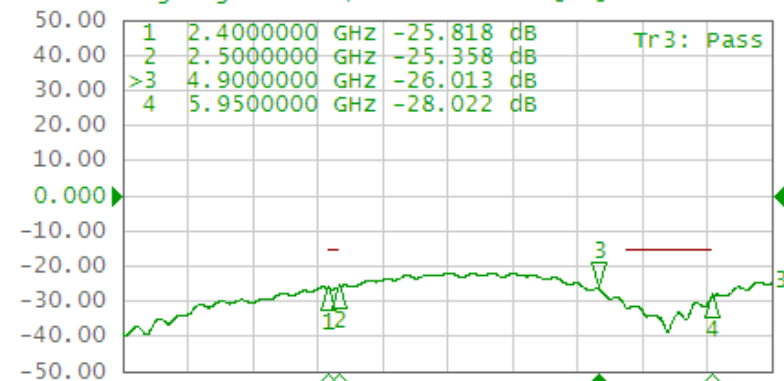
Tr1 S31 Log Mag 10.00dB/ Ref 0.000dB [F4]



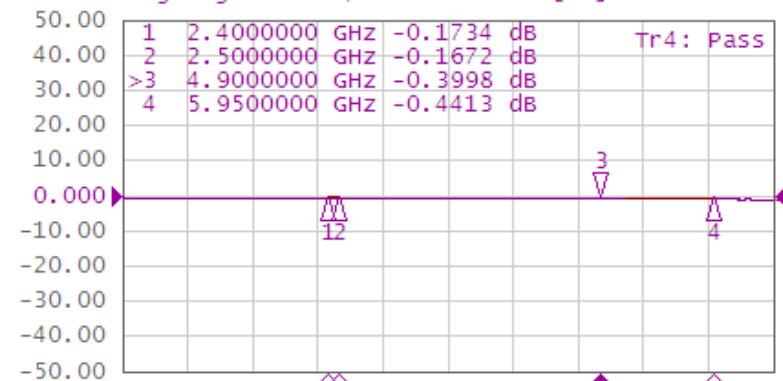
Tr2 S41 Log Mag 10.00dB/ Ref 0.000dB [F4]



Tr3 S11 Log Mag 10.00dB/ Ref 0.000dB [F4]



Tr4 S21 Log Mag 10.00dB/ Ref 0.000dB [F4]



- Measured on Agilent E5071C Network Analyzer
- Input port: Port 1 (Return loss: S11)
- Output port: Port 2 (Insertion loss: S21)
- Coupling port: Port 4 (Coupling: S41)
- 50 ohm terminal port: Port 3 (Isolation: S31)

Frequency Characteristics

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REVISION HISTORY

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

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