

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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Description: 0605 2.4G&5GHz Coupler

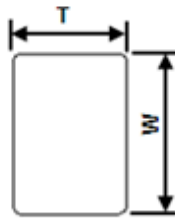
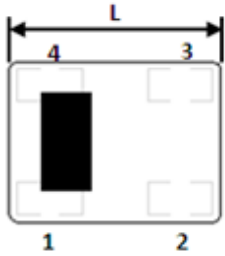
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MECHANICAL DIMENSION

Outline

Termination

Mechanical



Terminal name

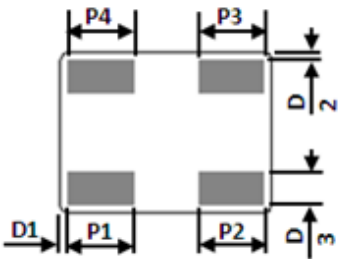
function

Dimension

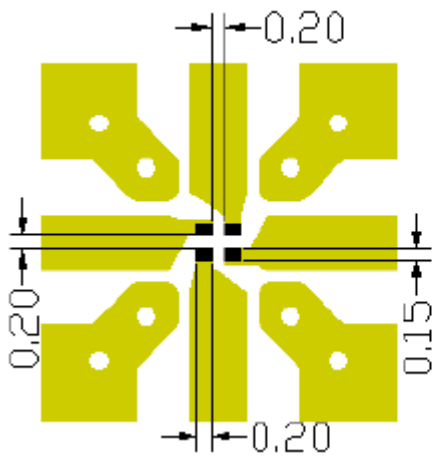
- (1)
- (2)
- (3)
- (4)

- Coupling
- 50 ohm terminal
- Output
- Input

	Dimension
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)

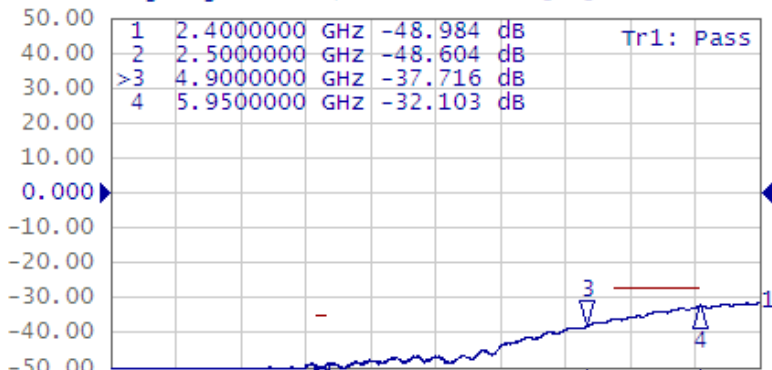
Line width should be designed to match 50Ω characteristic impedance, depending on PCB material and thickness.

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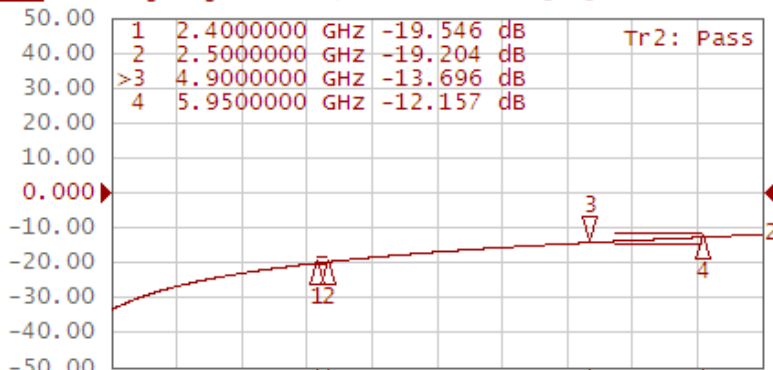
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ELECTRICAL PERFORMANCES

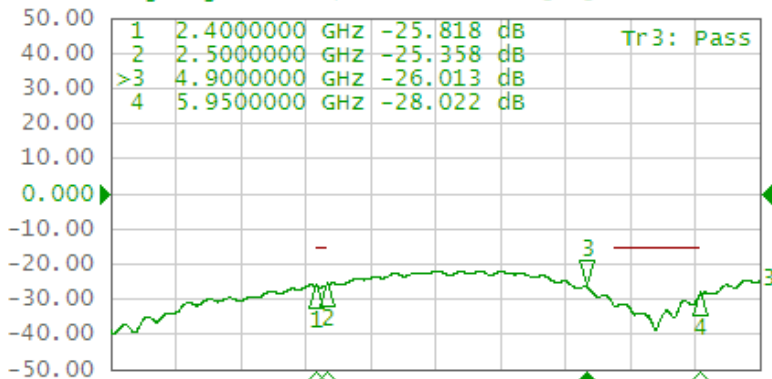
Tr1 S31 Log Mag 10.00dB/ Ref 0.000dB [F4]



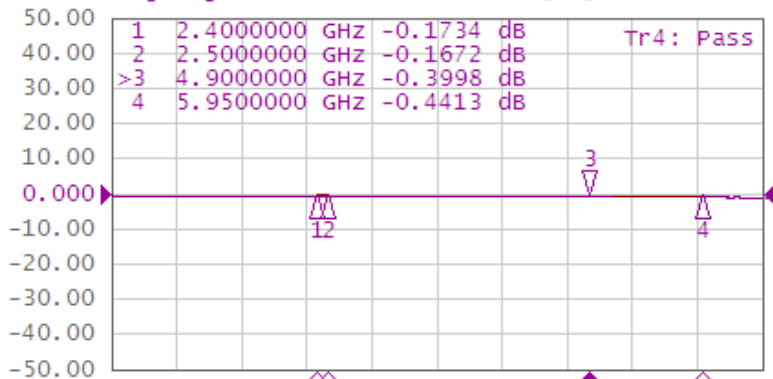
Tr2 S41 Log Mag 10.00dB/ Ref 0.000dB [F4]



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