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Pulse
A YAGEO Company

TECHNICAL DATA SHEET

Description: 0605 Coupler

PART NUMBER: CPL0605LL15R2460A

Features:

- Compact size
- RoHS compliant

Applications:

- WLAN,802.11a/b/g/ax
- Dual Band 2.4/6 GHz

ELECTRICAL SPECIFICATIONS

DESCRIPTION	Value	
Pass Band	2400~2500 MHz	4900~7125 MHz
Impedance	50Ω	
Insertion Loss (dB)	0.22 dB (Max.) at 25℃	0.32 dB (Max.) at 25℃
Return Loss (dB)	17.7 (Min.)	17.7 (Min.)
Coupling (dB)	24.5±1.0	17±2.0
Directivity (dB)	16 (Min.)	16 (Min.)
Operating Temperature	-40 ~ +125℃	
Power Capacity	2W max.	

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RoHS COMPLIANT

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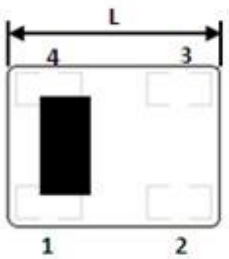
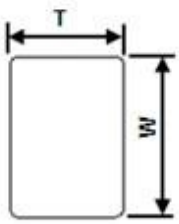
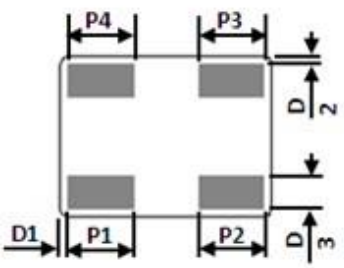
MECHANICAL DIMENSION

Outline







Termination

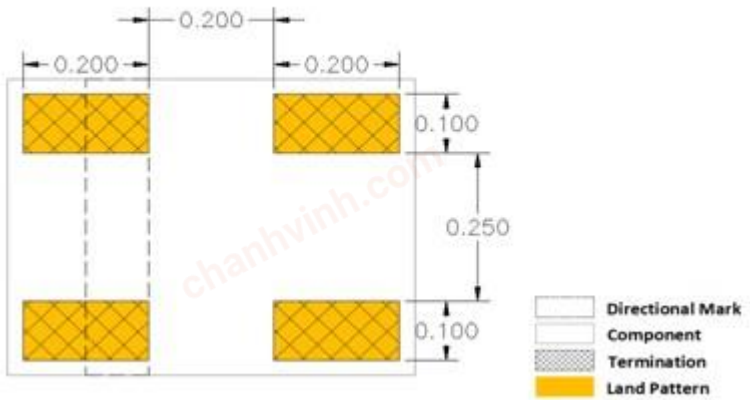
Terminal name	Function
1	Coupling
2	50 ohm terminal
3	Output
4	Input

Mechanical

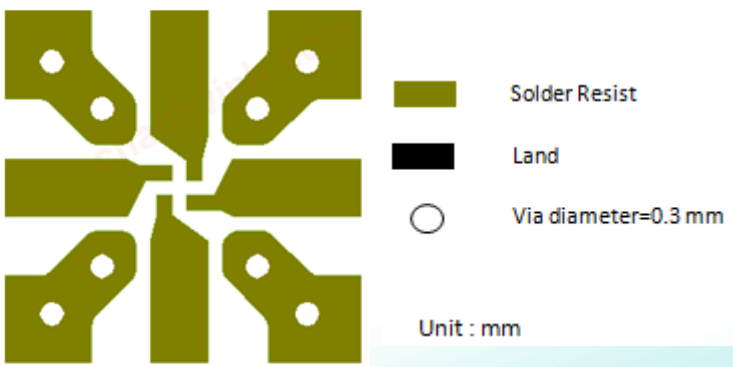
	Dimension
L (mm)	0.65±0.10
W (mm)	0.50±0.10
T (mm)	0.35±0.10
P1 (mm)	0.20±0.10
P2 (mm)	0.20±0.10
P3 (mm)	0.20±0.10
P4 (mm)	0.20±0.10
D1 (mm)	0.025±0.025
D2 (mm)	0.025±0.025
D3 (mm)	0.10±0.10

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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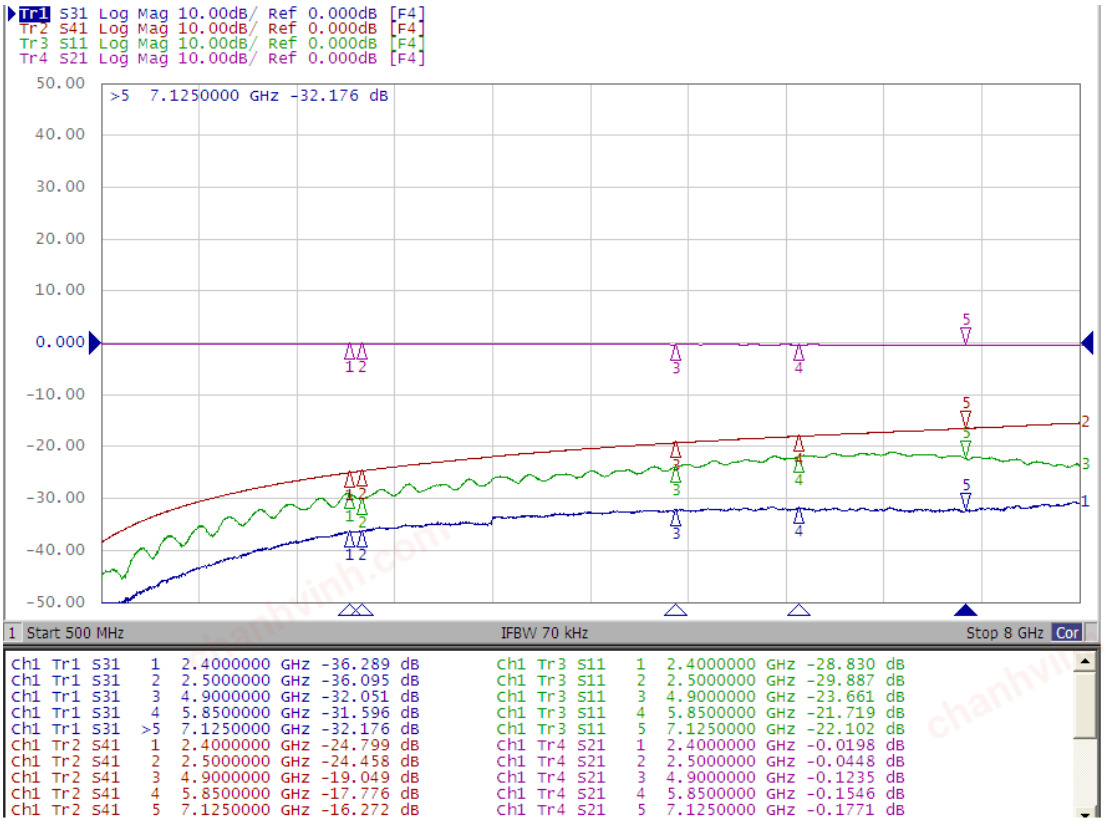
ELECTRICAL PERFORMANCES

Frequency Characteristics



Ch1 Tr1 S31	1	2.4000000 GHz	-36.289 dB	Ch1 Tr3 S11	1	2.4000000 GHz	-28.830 dB
Ch1 Tr1 S31	2	2.5000000 GHz	-36.095 dB	Ch1 Tr3 S11	2	2.5000000 GHz	-29.887 dB
Ch1 Tr1 S31	3	4.9000000 GHz	-32.051 dB	Ch1 Tr3 S11	3	4.9000000 GHz	-23.661 dB
Ch1 Tr1 S31	4	5.8500000 GHz	-31.596 dB	Ch1 Tr3 S11	4	5.8500000 GHz	-21.719 dB
Ch1 Tr1 S31	>5	7.1250000 GHz	-32.176 dB	Ch1 Tr3 S11	5	7.1250000 GHz	-22.102 dB
Ch1 Tr2 S41	1	2.4000000 GHz	-24.799 dB	Ch1 Tr4 S21	1	2.4000000 GHz	-0.0198 dB
Ch1 Tr2 S41	2	2.5000000 GHz	-24.458 dB	Ch1 Tr4 S21	2	2.5000000 GHz	-0.0448 dB
Ch1 Tr2 S41	3	4.9000000 GHz	-19.049 dB	Ch1 Tr4 S21	3	4.9000000 GHz	-0.1235 dB
Ch1 Tr2 S41	4	5.8500000 GHz	-17.776 dB	Ch1 Tr4 S21	4	5.8500000 GHz	-0.1546 dB
Ch1 Tr2 S41	5	7.1250000 GHz	-16.272 dB	Ch1 Tr4 S21	5	7.1250000 GHz	-0.1771 dB

- 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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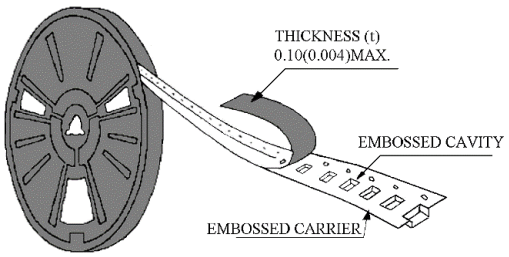
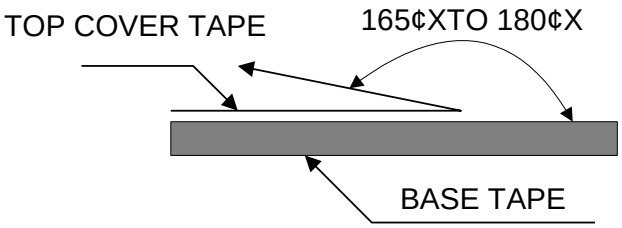
PACKING SPECIFICATION

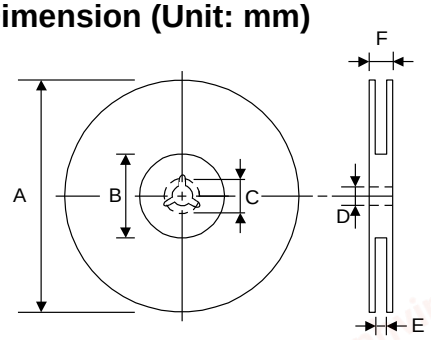
Peel-off force





The force for peeling of cover tape is 10 grams in the arrow direction.

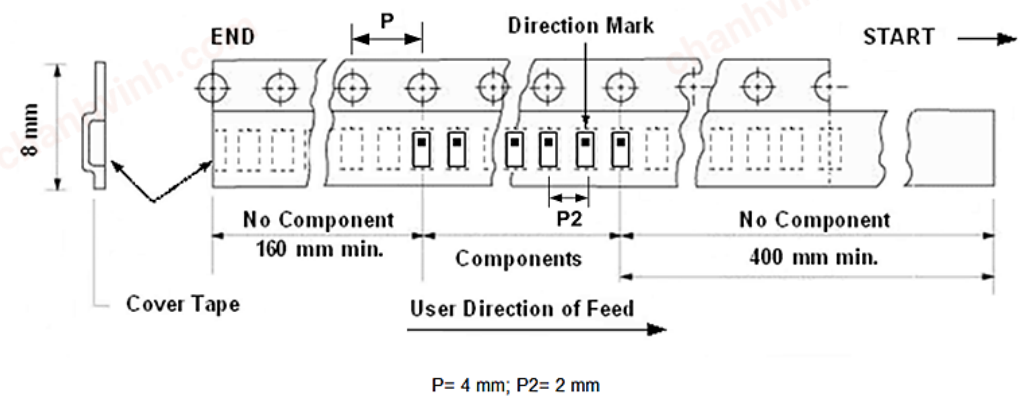
Dimension (Unit: mm)



TYPE	A	B	C	D	E	F
8 mm	178±1	60+0.5 -0	-	13±0.2	9±0.5	12±0.5
12 mm	178±0.3	60±0.2	19.3±0.1	13.5±0.1	13.6±0.1	-

Taping quantity

SERIES	5824 5724	5320 5220	4532	4516	3225	3216 2520	2012 1608	1005 0605
PCS/Reel	5000	3000	1000	2000	2500	3000	4000	10000



P= 4 mm; P2= 2 mm

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REVISION HISTORY

Revision	Date	Description
Version 1	Mar. 23, 2021	- New issue

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