Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: 1608 LTE Coupler

PART NUMBER: CPL1608LL09RWHEXA

Features:

- Compact size : 1.60x0.80x0.70mm
- RoHS compliant

Applications:

- WWAN Hexa-band
- LTE (0.7-2.7GHz)

ELECTRICAL SPECIFICATIONS

DESCRIPTION	Value		
Pass Band	689.5-960.5 MHz	1700-2100 MHz	2300-2700 MHz
Insertion Loss (dB)	0.25 (Max.) at 25°C	0.3 (Max.) at 25°C	0.4 (Max.) at 25°C
V.S.W.R	1.4 (Max)		
Coupling (dB)	23 ~ 28	19.5 ~ 22.5	19.5 ~ 24.5
Isolation (dB)	37 min.	35 min.	32 min.
Operating Temperature	-40 ~ +85℃		

RoHS COMPLIANT

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Tel: 86 512 6807 9998

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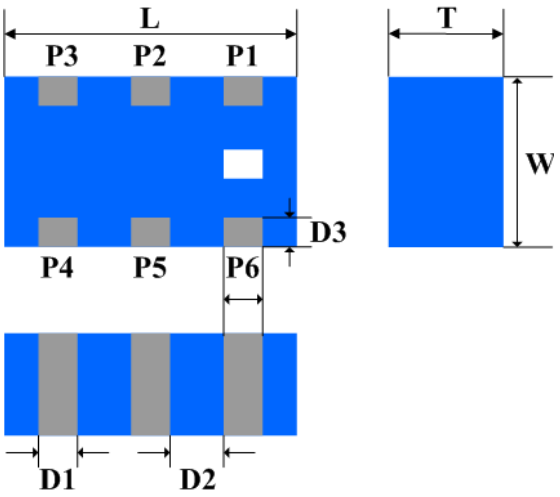
MECHANICAL DIMENSION

Outline



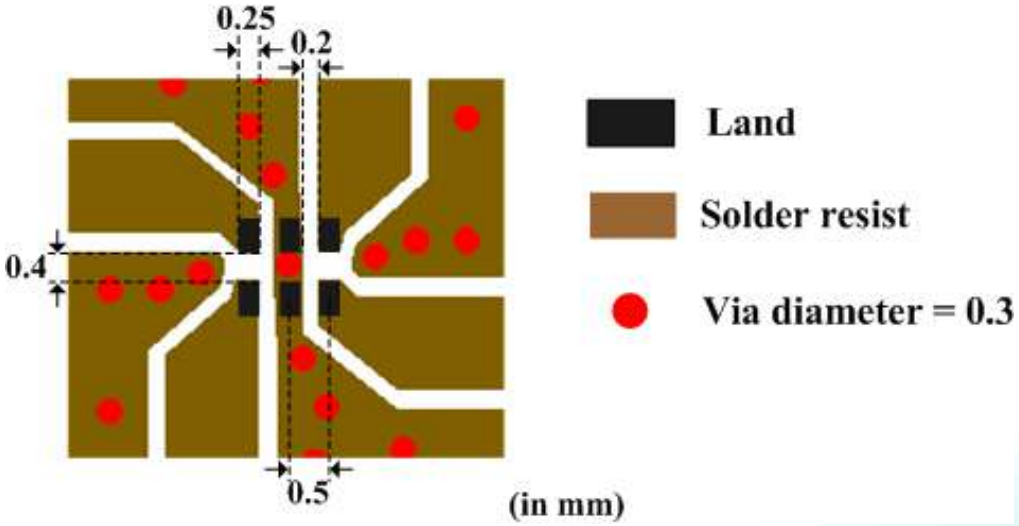
Termination

Terminal name	function
P1	Input
P2	GND
P3	Coupling
P4	50-Ω Term
P5	GND
P6	Output

Mechanical

	Dimension
L (mm)	1.60±0.15
W (mm)	0.80±0.15
T (mm)	0.70±0.15
P1 (mm)	0.20±0.15
P2 (mm)	0.20±0.15
P3 (mm)	0.20±0.15
P4 (mm)	0.20±0.15
P5 (mm)	0.20±0.15
P6 (mm)	0.20±0.15
D1 (mm)	0.20±0.15
D2 (mm)	0.30±0.10
D3 (mm)	0.15±0.10

Reference design of EVB



•Line width should be designed to match 50Ω characteristic impedance, depending on PCB

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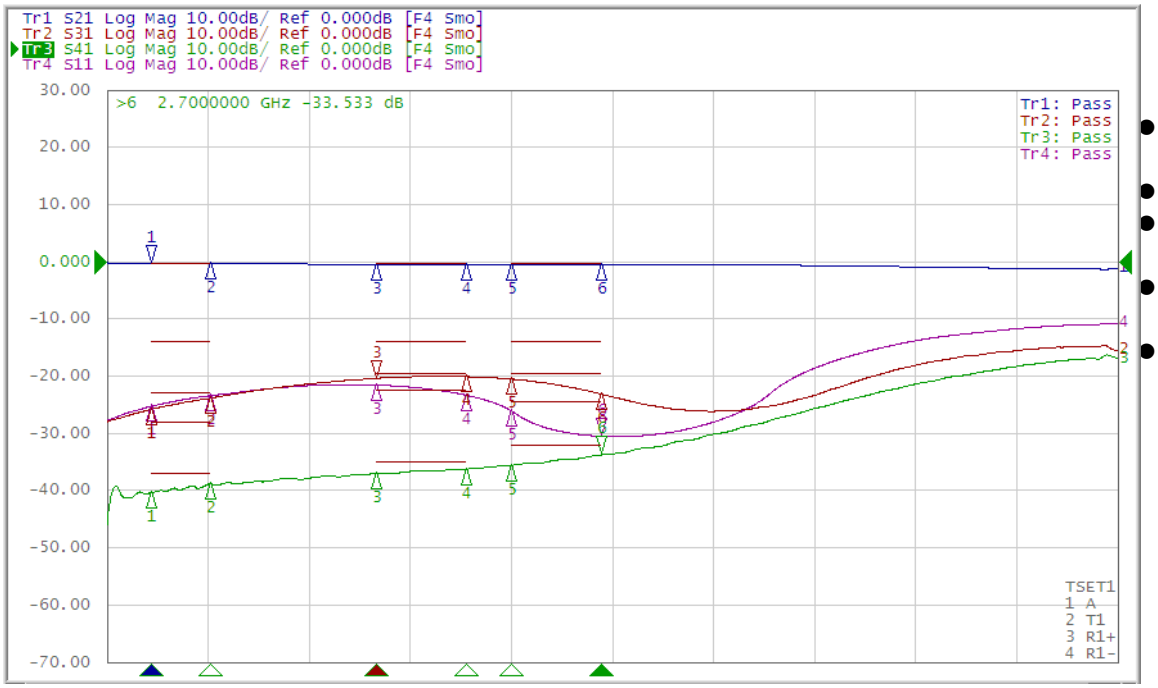
ELECTRICAL PERFORMANCES



- 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)

Ch3	Tr1	S21	1	698.50000	MHz	-0.1197	dB	Ch3	Tr2	S31	1	698.50000	MHz	-25.562	dB
Ch3	Tr1	S21	2	960.50000	MHz	-0.1510	dB	Ch3	Tr2	S31	2	960.50000	MHz	-23.625	dB
Ch3	Tr1	S21	3	1.7000000	GHz	-0.2316	dB	Ch3	Tr2	S31	3	1.7000000	GHz	-20.163	dB
Ch3	Tr1	S21	4	2.1000000	GHz	-0.2537	dB	Ch3	Tr2	S31	4	2.1000000	GHz	-19.869	dB
Ch3	Tr1	S21	5	2.3000000	GHz	-0.2568	dB	Ch3	Tr2	S31	5	2.3000000	GHz	-20.300	dB
Ch3	Tr1	S21	6	2.7000000	GHz	-0.2593	dB	Ch3	Tr2	S31	6	2.7000000	GHz	-22.937	dB
Ch3	Tr3	S41	1	698.50000	MHz	-40.107	dB	Ch3	Tr4	S11	1	698.50000	MHz	-25.030	dB
Ch3	Tr3	S41	2	960.50000	MHz	-38.596	dB	Ch3	Tr4	S11	2	960.50000	MHz	-23.184	dB
Ch3	Tr3	S41	3	1.7000000	GHz	-36.693	dB	Ch3	Tr4	S11	3	1.7000000	GHz	-21.346	dB
Ch3	Tr3	S41	4	2.1000000	GHz	-36.007	dB	Ch3	Tr4	S11	4	2.1000000	GHz	-23.121	dB
Ch3	Tr3	S41	5	2.3000000	GHz	-35.424	dB	Ch3	Tr4	S11	5	2.3000000	GHz	-25.834	dB
Ch3	Tr3	S41	>6	2.7000000	GHz	-33.533	dB	Ch3	Tr4	S11	6	2.7000000	GHz	-30.285	dB

Frequency Characteristics

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REVISION HISTORY

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

RoHS COMPLIANT