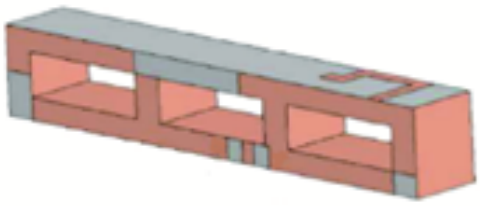
Pulse A YAGEO Company | LARSEN Antennas

TECHNICAL DATA SHEET

Description: 3505 PENTA Band Chip Antenna

PART NUMBER: ANT3505B002TWPENS



Features:

- Size : 35.0x5.0x6.0 mm
- High radiation efficiency
- Multi-band coverage
- Reflow process compatible
- RoHS compliant

Applications:

- Global cellular network devices
- Telematics
- Cellular broadband access
- M2M module

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15255 Innovation Drive #100
San Diego, CA 92128
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Pulse/Larsen Antennas
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Herrenberg, Germany
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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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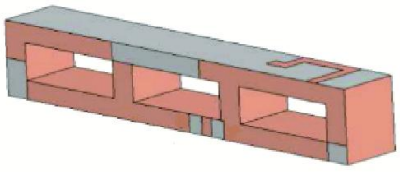
ELECTRICAL SPECIFICATIONS

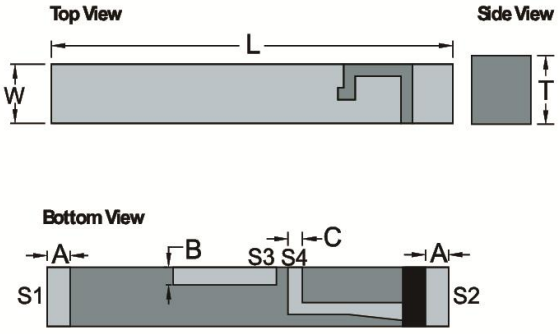
Working Frequency	824~960 / 1710~2170 MHz
Bandwidth	140MHz / 470 MHz(Typ.)
Return Loss	2.8 / 3.5 dB Min.
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Peak Gain	2.91 dBi(Typ.)
Impedance	50 Ω
Operating Temperature	- 40~105 ℃
Maximum Power	4 W
Termination	Ag (Environmentally-Friendly Leadless)
Resistance to Soldering Heats	260℃ , 5sec.

NOTE
1. The specification is defined on Pulse evaluation board

MECHANICAL DRAWING

	Dimension
L (mm)	35.0 ±0.20
W (mm)	5.00 ±0.20
T (mm)	6.00 ±0.20
A (mm)	2.00 ±0.20
B(mm)	1.50 ±0.20
C(mm)	1.27 ±0.20





YNH00140

Terminal name	Function
S1	Soldering Point
S2	Soldering Point
S3	GND
S4	Feeding Point

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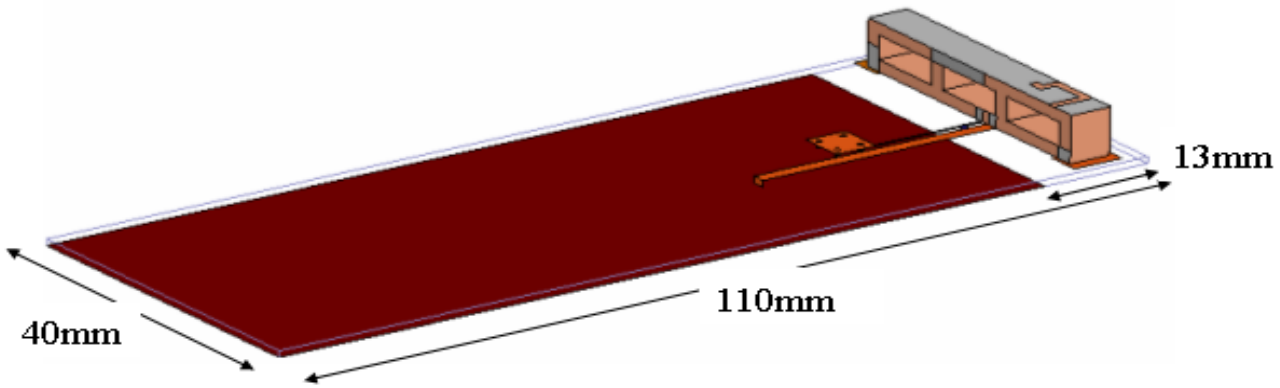
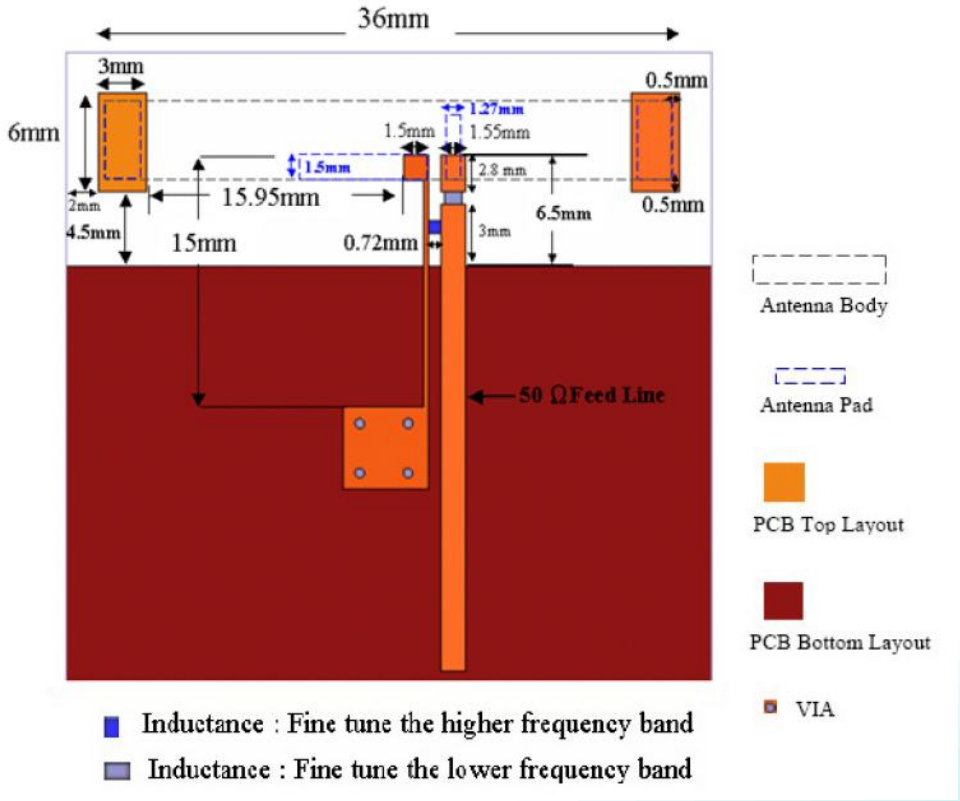
REFERENCE DESIGN OF EVALUATION BOARD



Outlook and dimension of evaluation board



Details of soldering Pad

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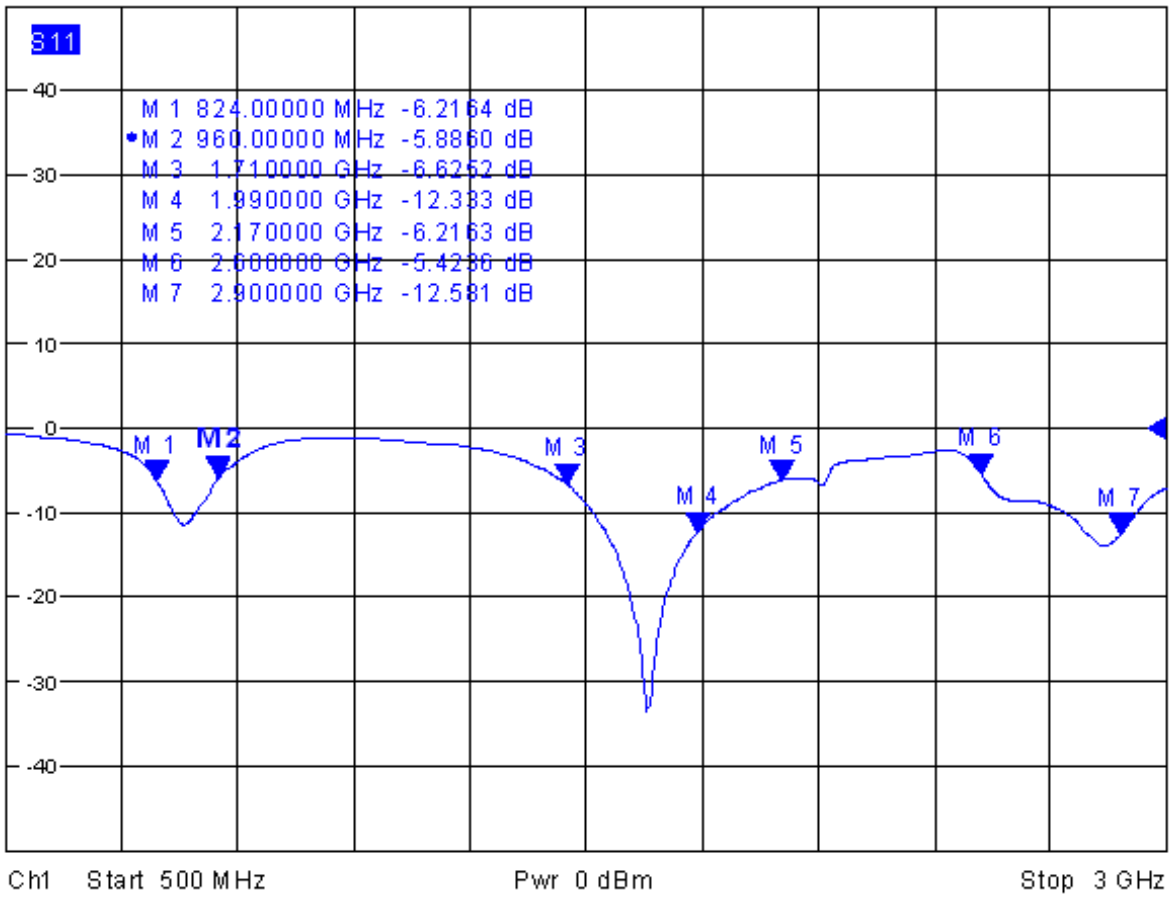
ELECTRICAL PERFORMANCES



Return loss

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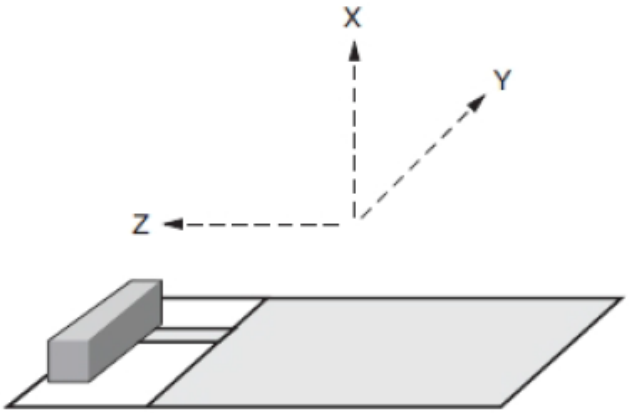
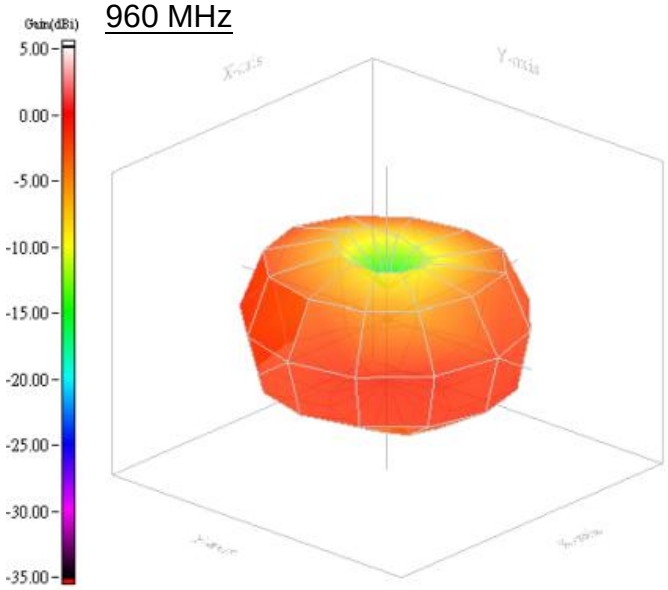
ELECTRICAL PERFORMANCES



Evaluation board and XYZ direction

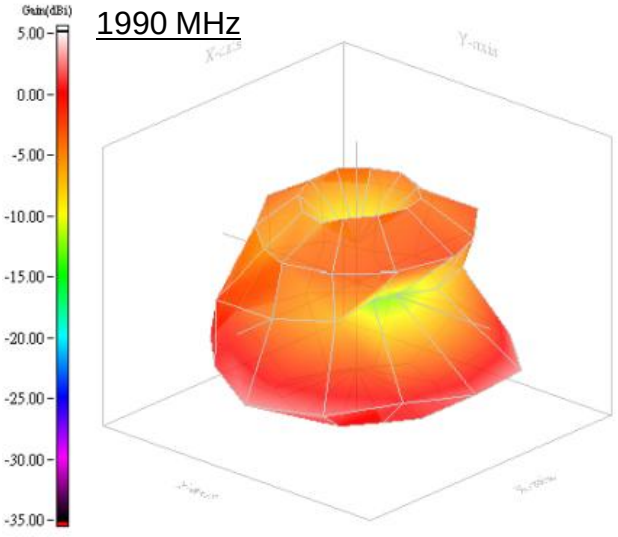
Return loss

960 MHz



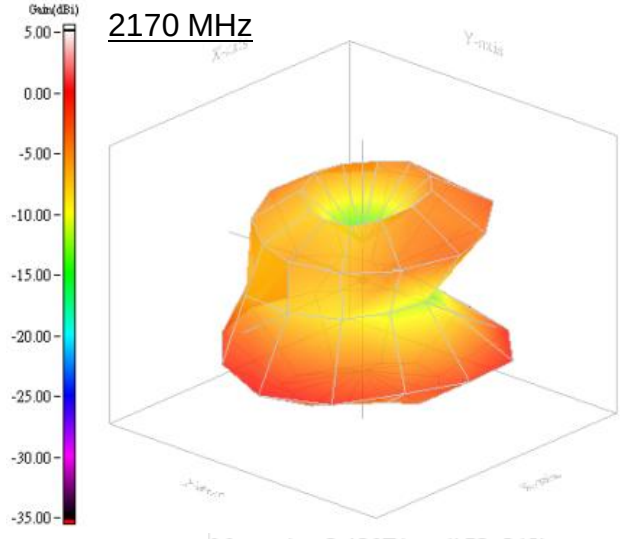
Max gain= -0.81dBi, at (120, 240)
MEG (mean effective gain)= -4.67dBi
Directivity(dB)= 2.14
Efficiency= -2.95dB, 50.72%

1990 MHz



Max gain= 2.71dBi, at (120, 120)
MEG (mean effective gain)= -2.53dBi
Directivity(dB)= 4.34
Efficiency= -1.63dB, 68.72%

2170 MHz



Max gain= 0.49dBi, at (150, 240)
MEG (mean effective gain)= -4.67dBi
Directivity(dB)= 4.34
Efficiency= -3.85dB, 41.21%

Radiation pattern

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REVISION HISTORY

Revision	Date	Description
Version 1	Oct. 14, 2020	- New issue