

WAG-P-LTE10-00-001

1. Explanation of Part Number :

WAG - P - LTE10 - 00 - 001
 (1) (2) (3) (4) (5)

- (1) Product type : wireless antenna
 - (2) Material : PCB
 - (3) Frequency : 824~960MHz 、 1710~2170MHz
 - (4) Connector Types : 00
 - (5) Suffix for special requirements : 001
- ※ RoHS Compliant

2. Electrical Specification :

ITEM	SPECIFICATION
Frequency Band	824~960 MHz 、 1710~2170 MHz
VSWR	3.5 Max (depends on the special environment)
Polarization	Linear
Impedance	50 ohm Typ.
Operating temperature	-45 ~85 °C
Dimension	24 x 5.5 x 3.9mm

* Test condition : Test board size 114*45 mm
Matching circuit may be required

UNLESS OTHER SPECIFIED TOLERANCES ON :
 X=N/R X.X=N/R X.XX =N/R
 ANGLES=N/R HOLEDIA=N/R



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SCALE : N/R

UNIT : mm

DRAWN BY : 郭副哲

CHECKED BY : 林存蔚

DESIGNED BY : 陳立中

APPROVED BY : 謝立庭

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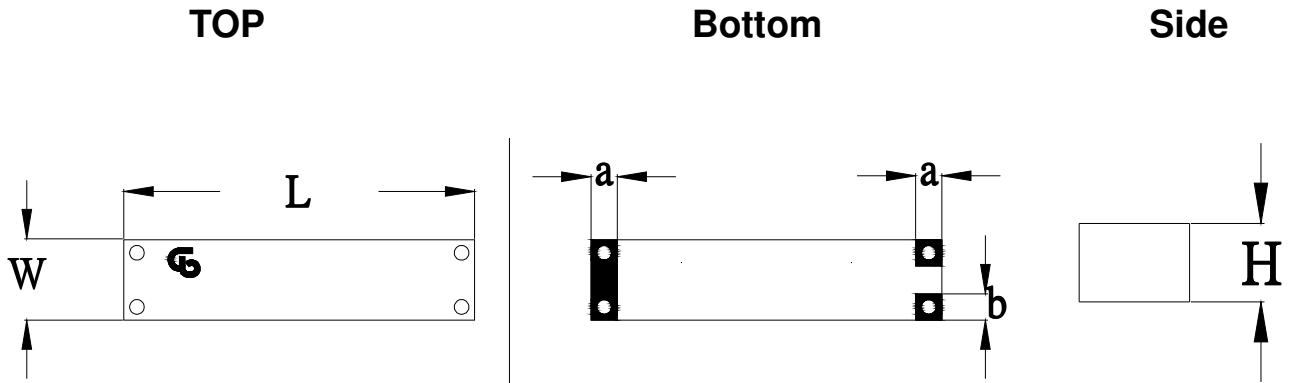
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DOCUMENT
NO.

ENS000118910

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P2

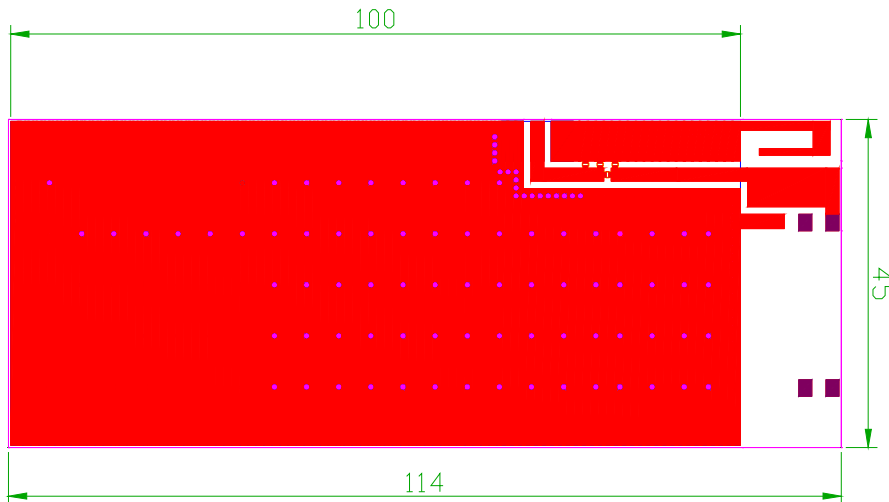
3. Physical Dimension :



Chip Antenna	L	W	H	a	b
WAG-P-LTE10-00-001	24±0.3	5.5±0.3	3.9±0.3	1.8±0.25	1.8±0.25

4. Recommend PCB Layout :

Top View



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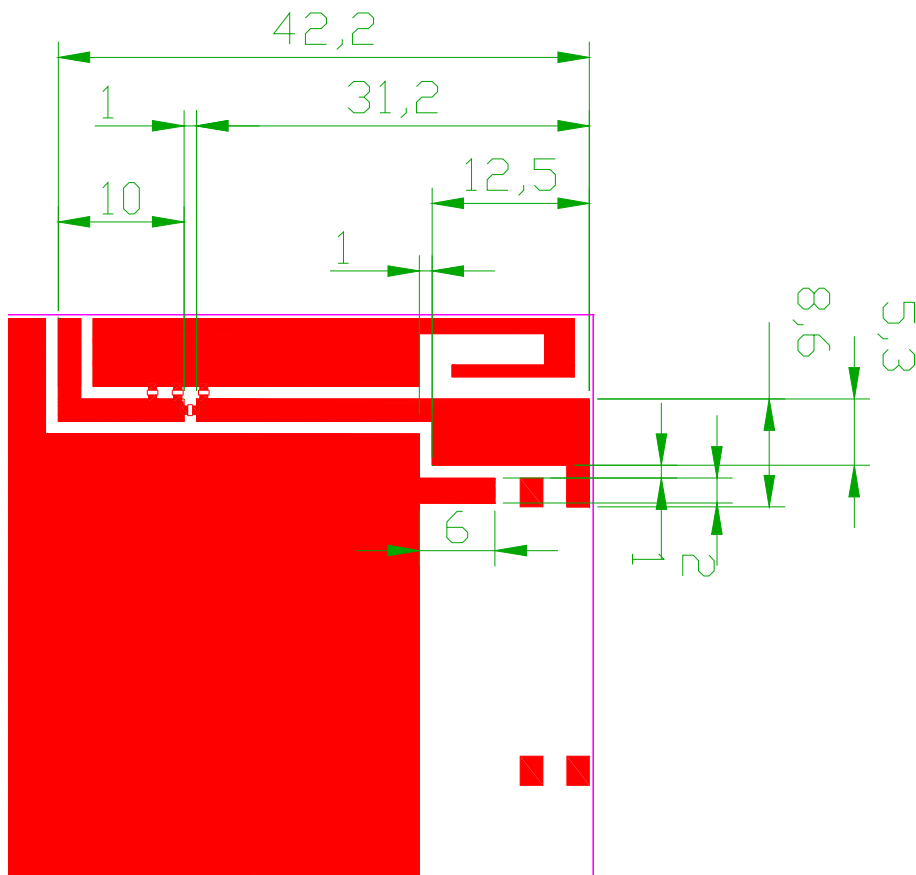
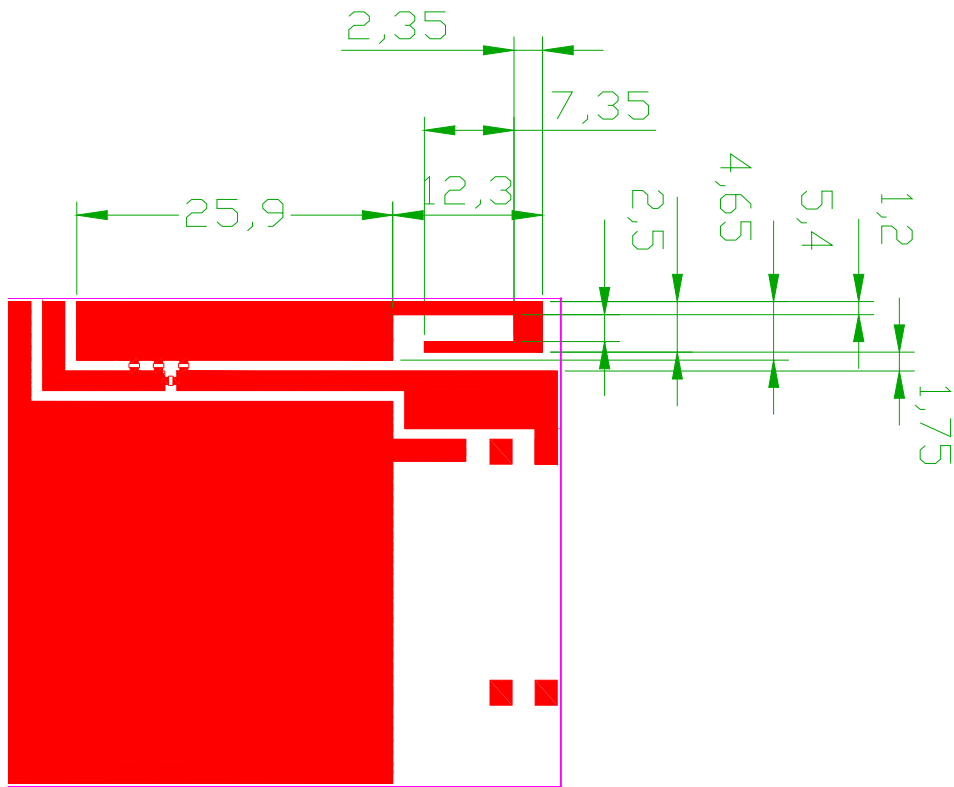
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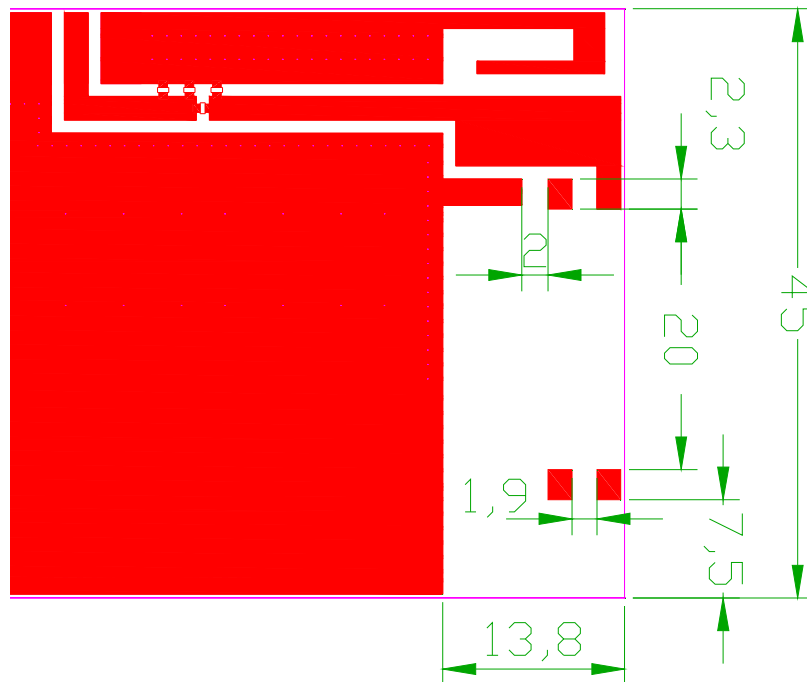
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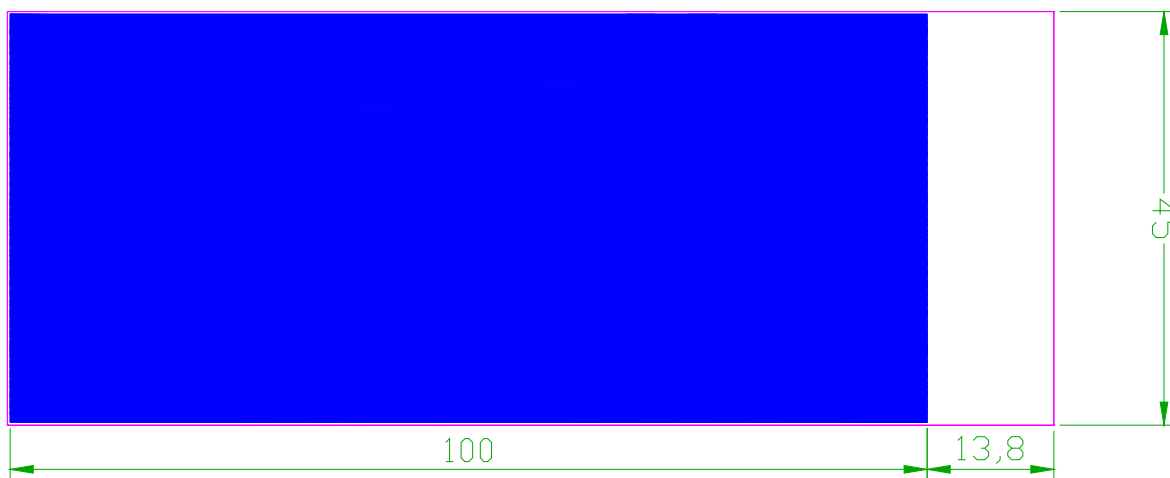
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Bottom View



- Top Layer
- Bottom Layer
- Top Solder

Unit : mm

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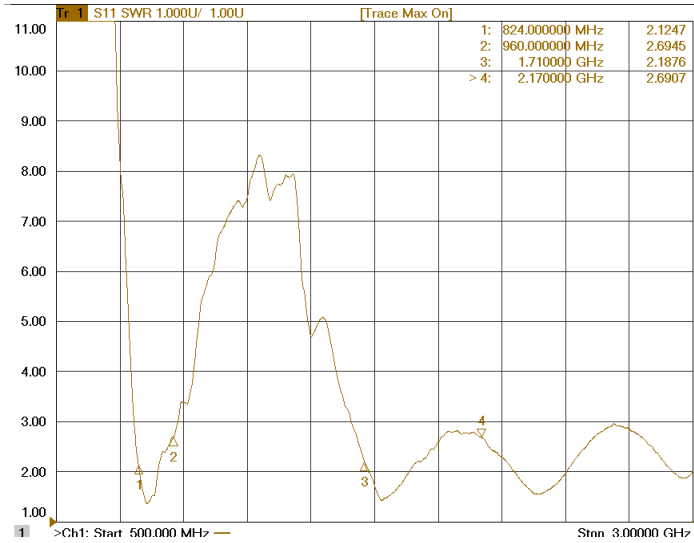
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5. Electrical Characteristics :

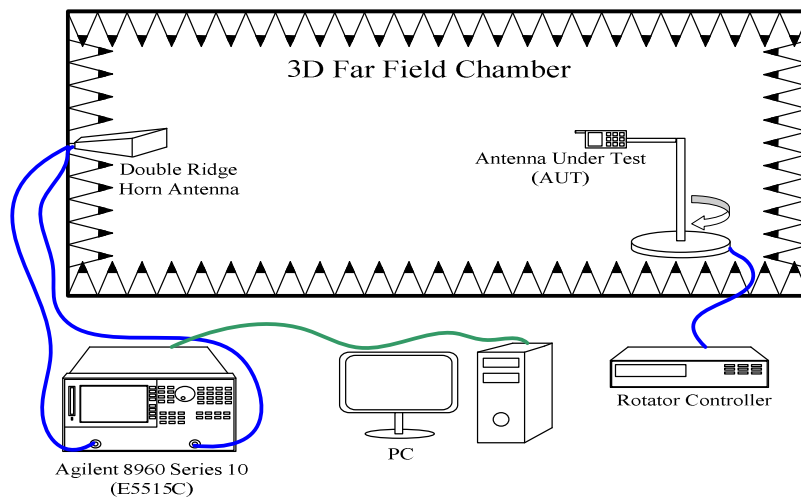
VSWR



Frequency (MHz)	VSWR
824	2.12
960	2.69
1710	2.18
2170	2.69

Radiation Pattern

The Gain pattern is measured in INPAQ’s FAR-field chamber. DUT is placed on the table of rotator, a standard horn antenna and Vector Network Analyzer is used to collect data.



3D Chamber Definition

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Efficiency & Peak Gain

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
824	2.26	56.69
830	2.54	60.76
832	2.51	60.10
836	2.7	63.25
837	2.81	65.24
845	2.92	67.75
847	3.02	69.63
849	3.15	72.07
860	3.36	73.54
862	3.35	74.66
868	3.33	74.95
869	3.35	74.25
875	3.18	73.75
880	3.29	70.34
894	2.92	67.72
900	2.77	64.81
915	2.96	64.51
925	2.98	64.85
940	2.98	65.29
960	2.42	61.04

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
1710	2.67	50.99
1732	3.16	55.48
1750	3.67	58.43
1755	3.69	60.17
1785	3.54	64.98
1805	3.11	65.98
1840	3.75	65.33
1850	3.62	64.59
1880	3.43	65.47
1910	3.29	63.93
1920	3.19	67.03
1930	2.9	70.27
1950	2.79	66.56
1960	2.76	65.92
1980	2.83	64.88
1990	2.74	63.87
2110	2.05	62.55
2132	1.95	63.81
2140	2.04	65.26
2155	1.8	62.05
2170	2.02	63.50

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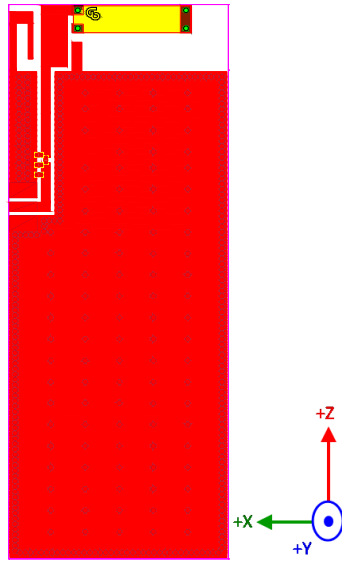
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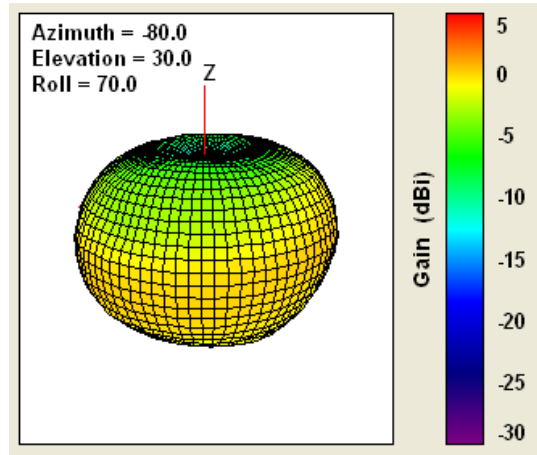
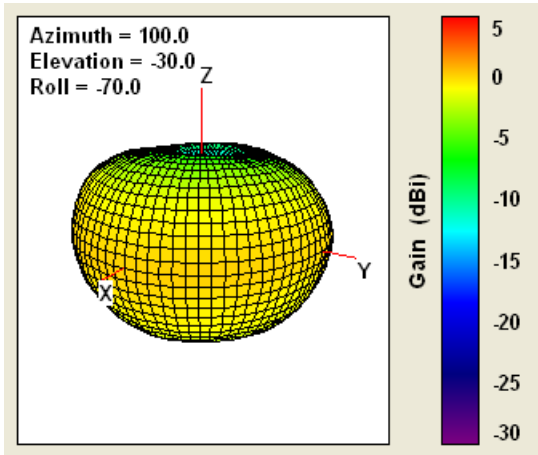
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3D Radiation Patten



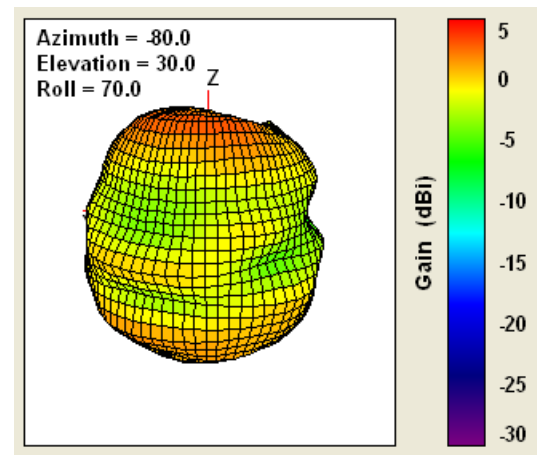
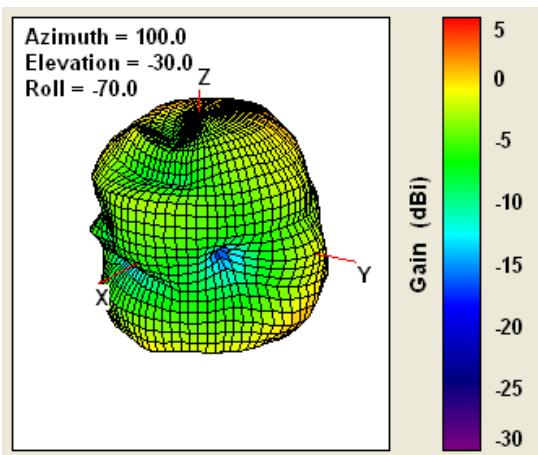
894MHz

894MHz



1950MHz

1950MHz



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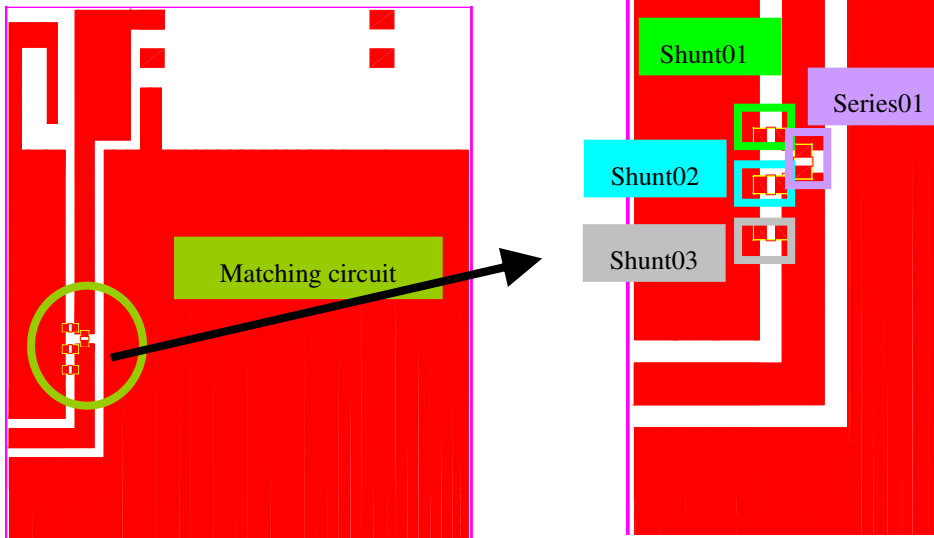
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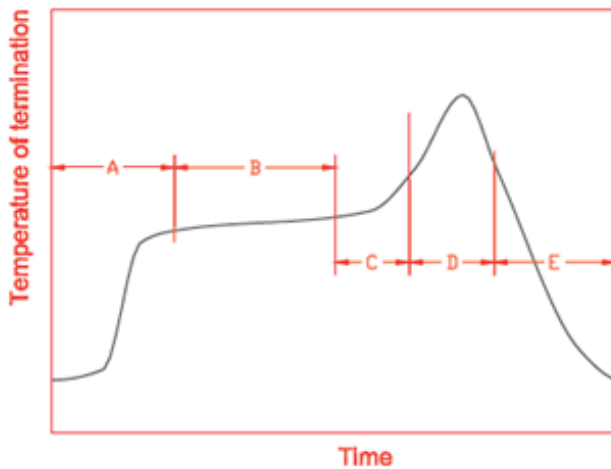
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Matching Circuit on Demoboard



Circuit Symbol	Size	Description
Series01	0402	9 pF Capacitance
Shunt03	0402	3.6 nH Inductor

6. Recommended reflow soldering :



A	1 st rising temperature	The normal to Preheating temperature	30s to 60s
B	Preheating	140°C to 200°C	90s to 120s
C	2 nd rising temperature	Preheating to 217°C	30s to 60s
D	Main heating	240°C ~ 260°C	20s to 40s
E	Regular cooling	200°C to 100°C	3°C/s ~ 6C/s

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