

**Description:** 791-960MHz SMT Antenna**Series:** Domino**PART NUMBER:** W3325**Features:**

- Frequency 791-960MHz
- Size 14 x 7 x 1.5mm
- Gain 1.3dBi
- Efficiency >55%
- SMD compatible

**Applications:**

- Nb-IoT
- LTE Cat-M1
- ISM 868/915
- Sensors
- IoT connected devices

All dimensions are in mm / inches

Issue: 2043

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**Series:** Domino

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## ELECTRICAL SPECIFICATIONS

Antenna Type	PCB, SMD
Frequency	791-960MHz
Nominal Impedance	50 Ω
Return loss	5dB
Radiation Pattern	Omni
Peak Gain	1.3dBi
Nominal Efficiency	55%
Polarization	Vertical

## MECHANICAL SPECIFICATIONS

Overall Length	14mm(L) * 7mm(W) * 1.5mm(T)
Weight	0.31 g
Antenna Color / Material	Black / Composite
Assembly method	SMD / Reflow
Packing	Tape & Reel
Moisture Sensitivity Level	MSL3

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40 ~ +85° C
Storage Temperature	-40 ~ +85° C
RoHS Compliant	Yes

## OTHER SPECIFICATIONS

(\*) All RF parameters measured on Pulse reference test PCB

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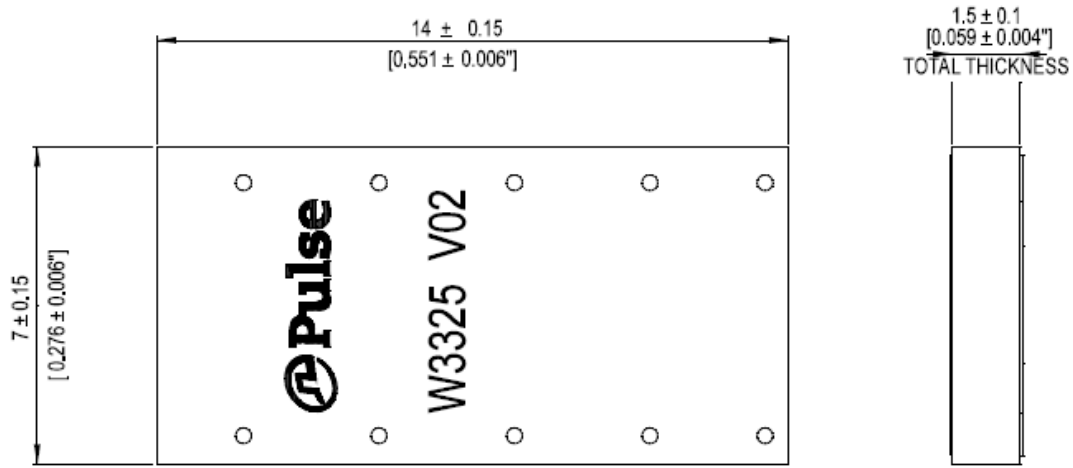
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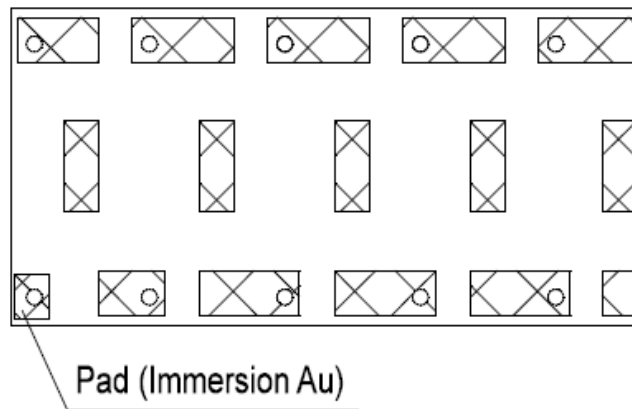
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### MECHANICAL DRAWING



Front Side



Bottom Side

All dimension are measured in mm/[in].

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### Recommendation for reflow soldering process

Printing stencil thickness 0,15 - 0,25 mm is recommended for the solder paste. The maximum soldering temperature should not exceed 260°C. The temperature profile recommendations for reflow soldering process is presented in the Figures 1 and 2. The reflow profile

presented in figure 1 describes minimum reflow temperatures. The reflow profile presented in figure 2 describes maximum reflow temperatures. located at the center of the coverage area.

	Method of heat transfer	Controlled hot air convection
1	Average temperature gradient in preheating	2.5 °C/s
2	Soak time	2-3 minutes
3	Max temperature gradient in reflow	3 °C/s
4	Time above 217 °C	Max 30 sec
5	Peak temperature in reflow	230 °C for 10 seconds
6	Temperature gradient in cooling	Max -5 °C/s

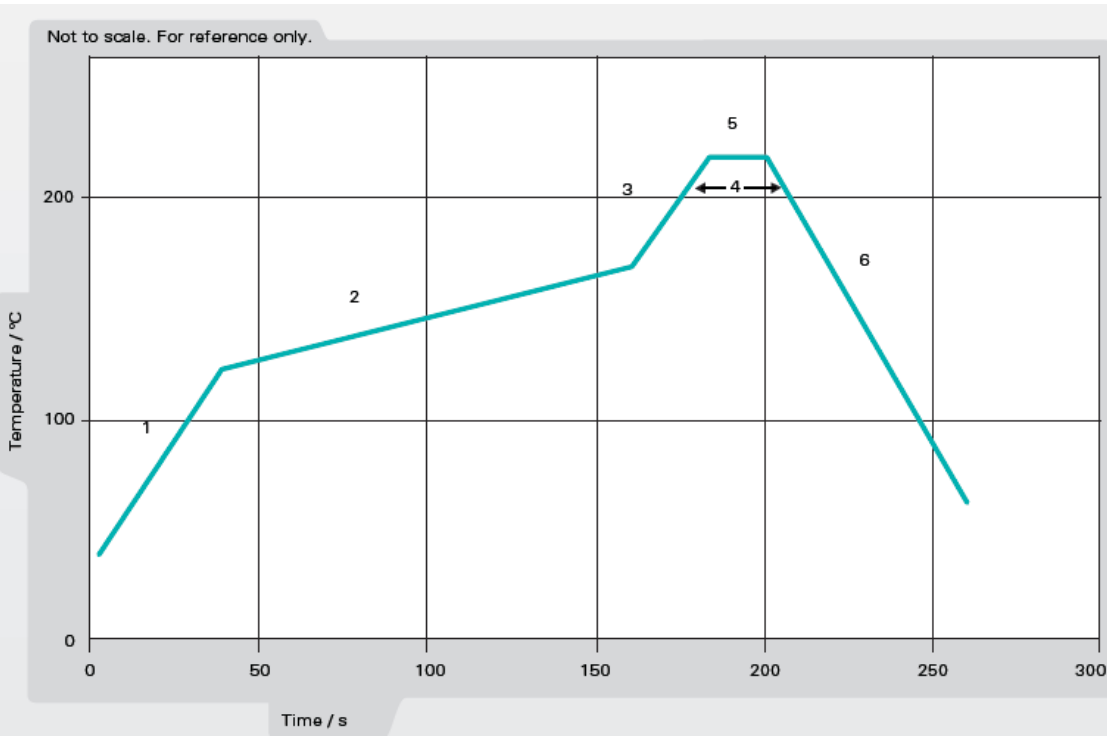


Figure 1. Minimum temperature profile recommendation for reflow soldering process

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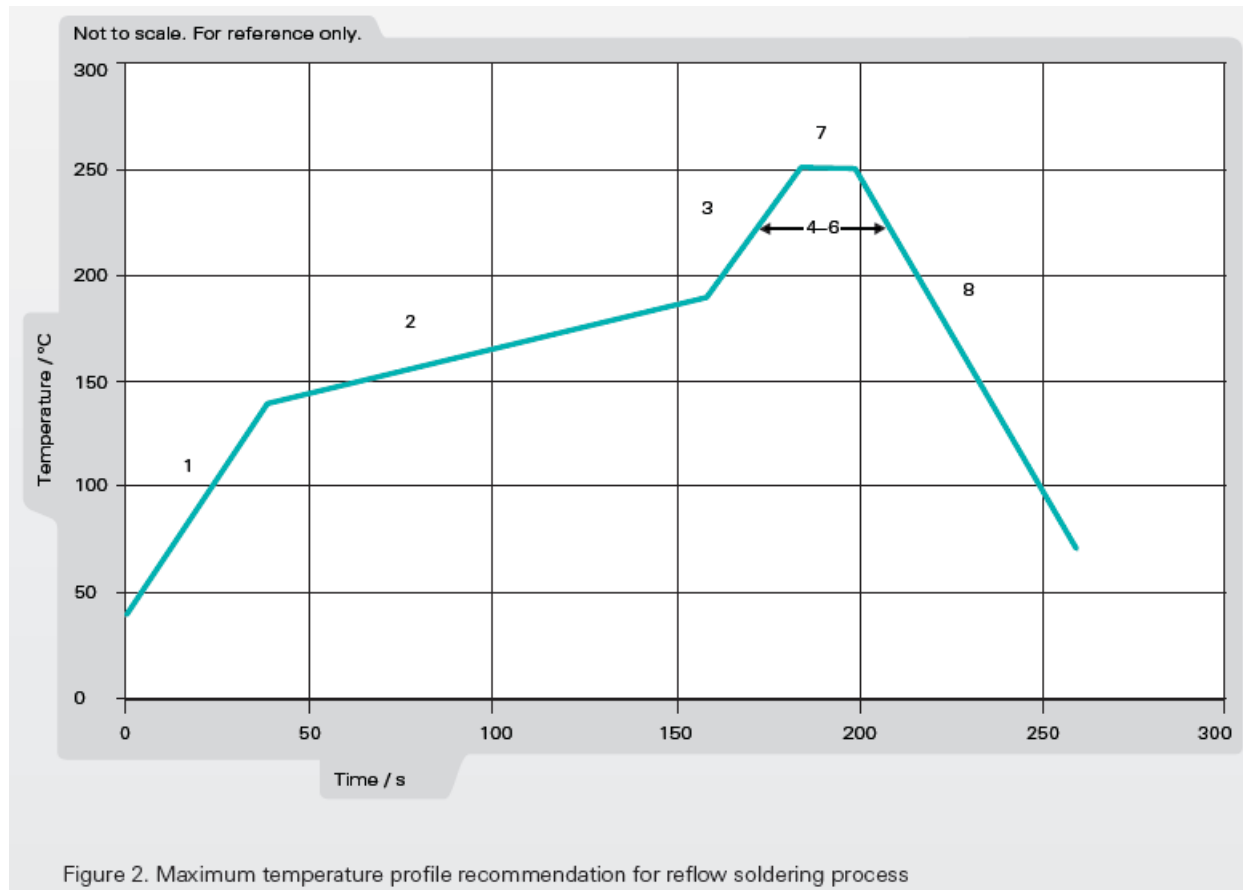
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### Recommendation for reflow soldering process

	Method of heat transfer	Controlled hot air convection
1	Average temperature gradient in preheating	2.5 °C/s
2	Soak time	2-3 minutes
3	Max temperature gradient in reflow	3 °C/s
4	Time above 217 °C	Max 60 sec
5	Time above 230 °C	Max 50 sec
6	Time above 250 °C	Max 10 sec
7	Peak temperature in reflow	260 °C for 5 seconds
8	Temperature gradient in cooling	Max -5 °C/s



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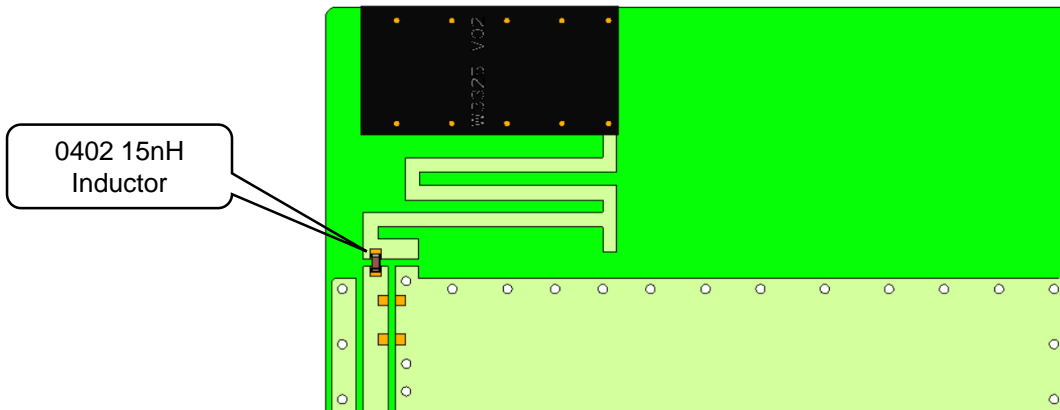
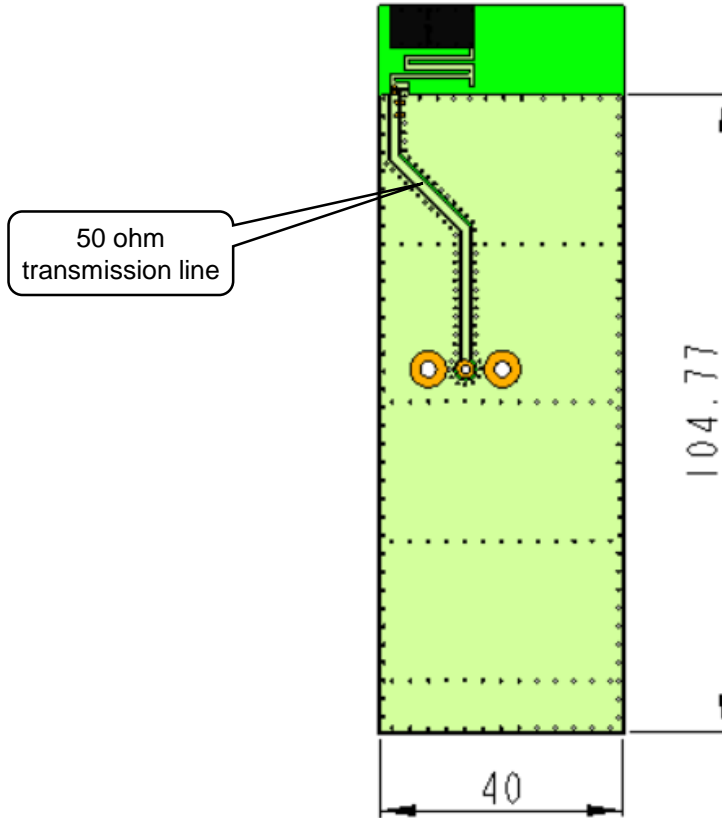
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**TEST SETUP**

Pulse reference test PCB for W3325 antenna



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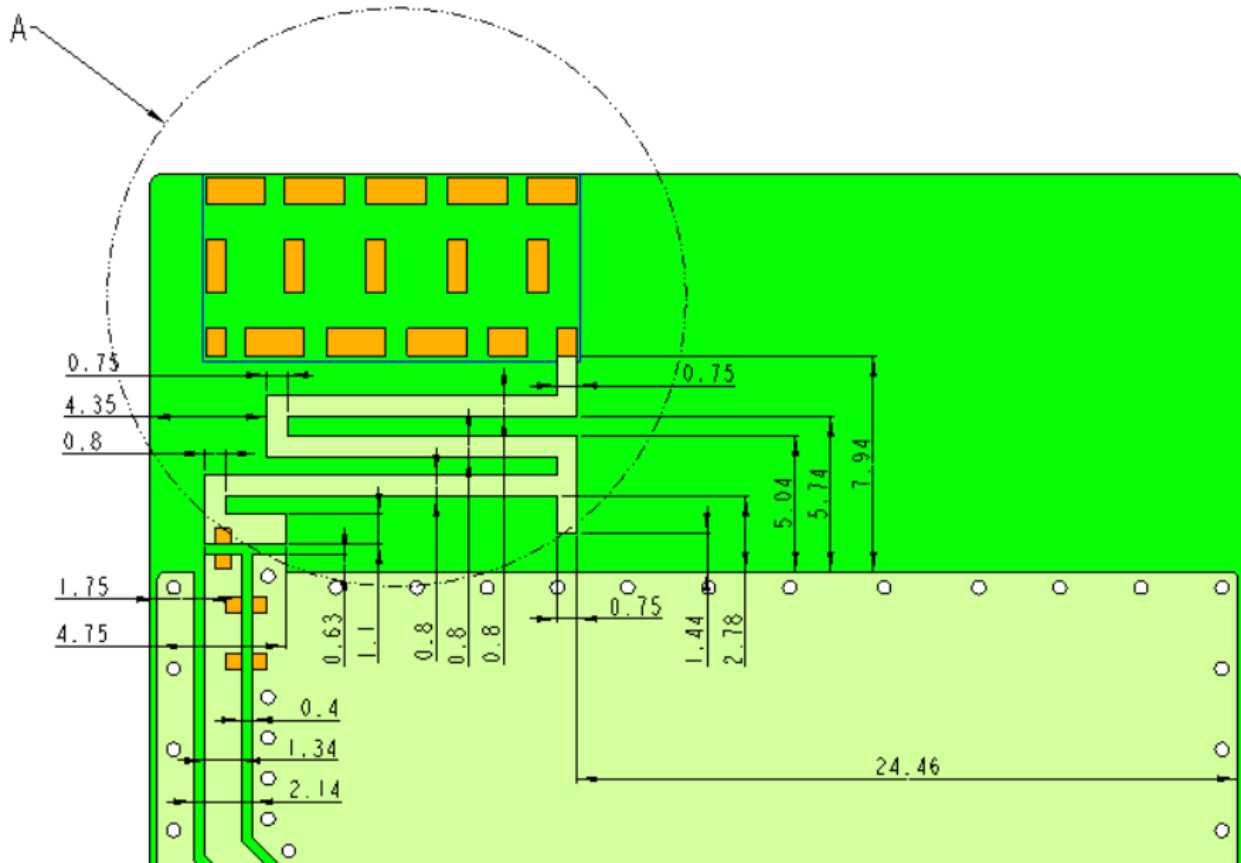
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**TEST SETUP**



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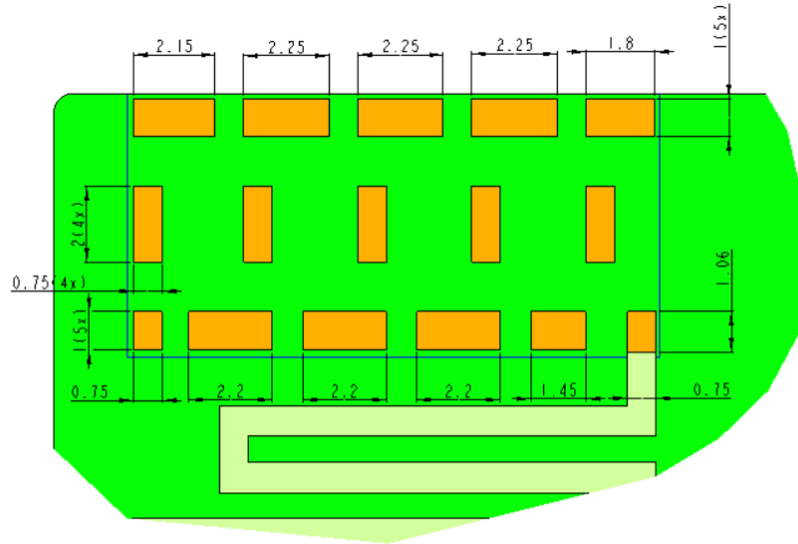
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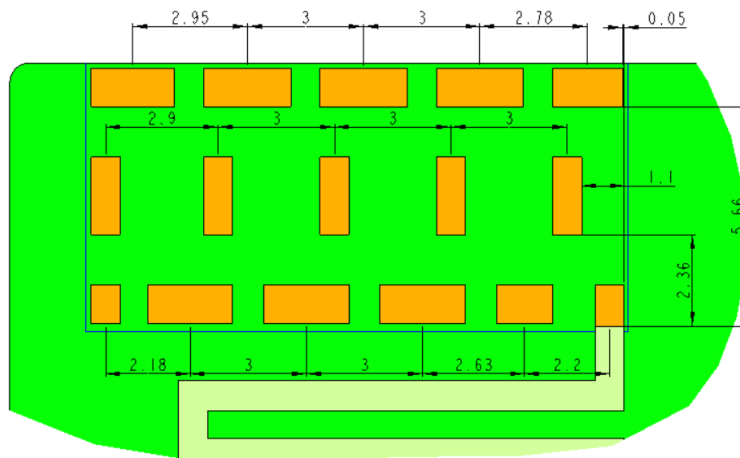
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A-1



A-2

Recommended test board PCB layout for electrical characteristic measurement.

Substrate material ISOLA 185HR.

Total thickness: 1mm

All dimensions are in mm

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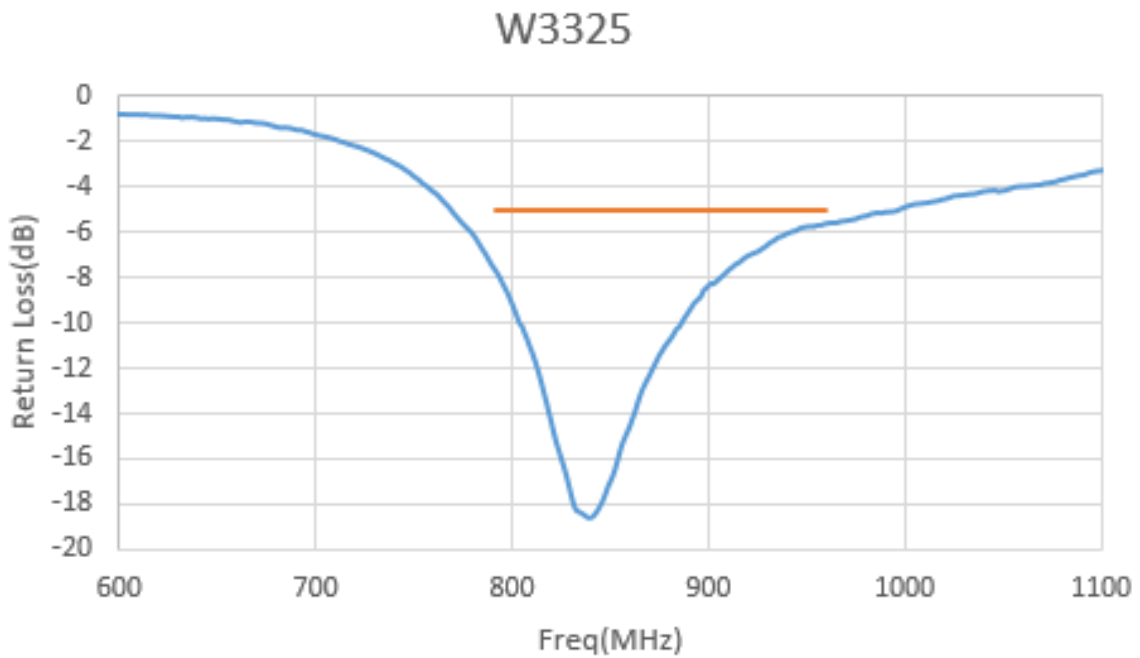
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**CHARTS**

**Return Loss**



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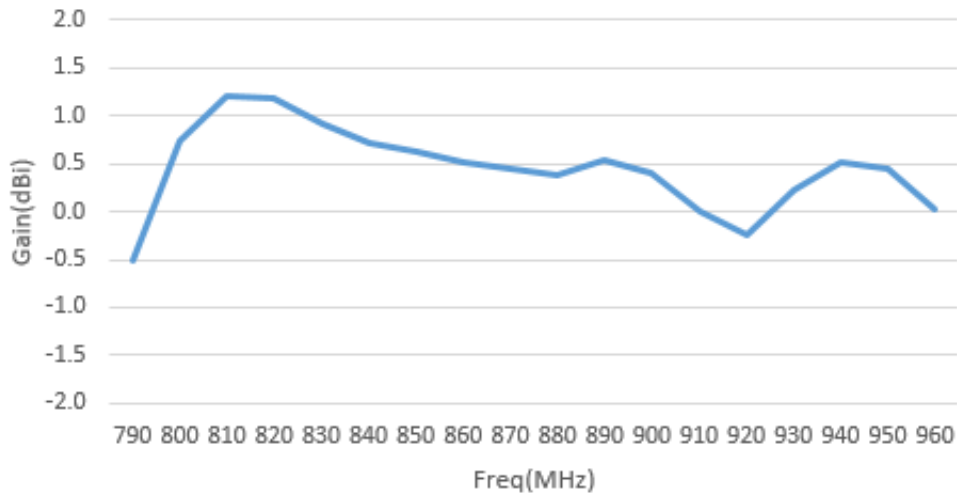
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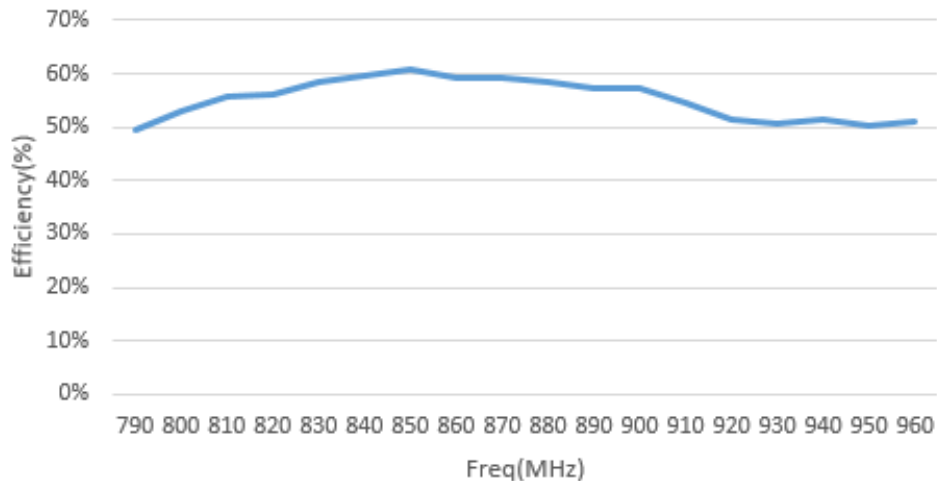
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## CHARTS

### Gain(dBi)



### Efficiency(%)



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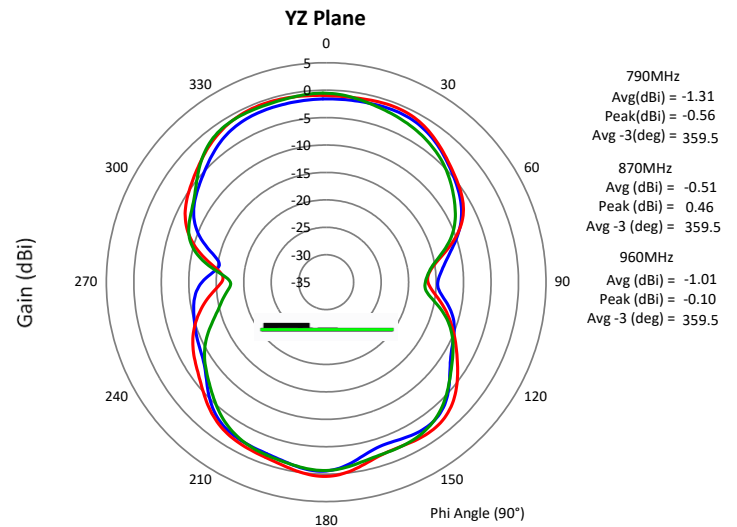
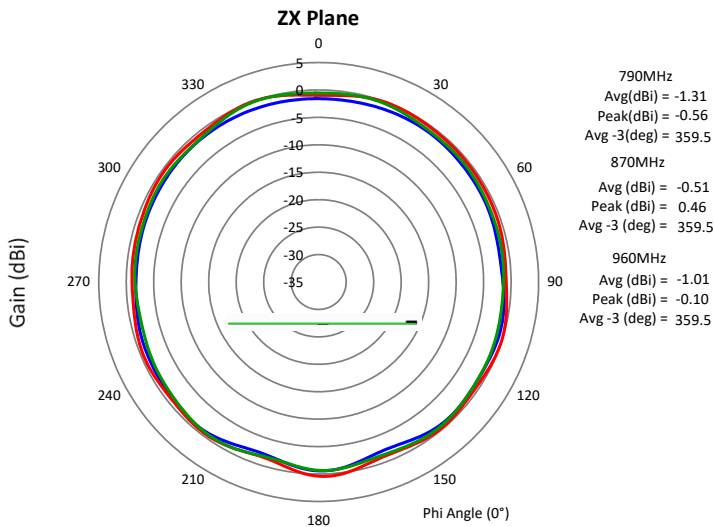
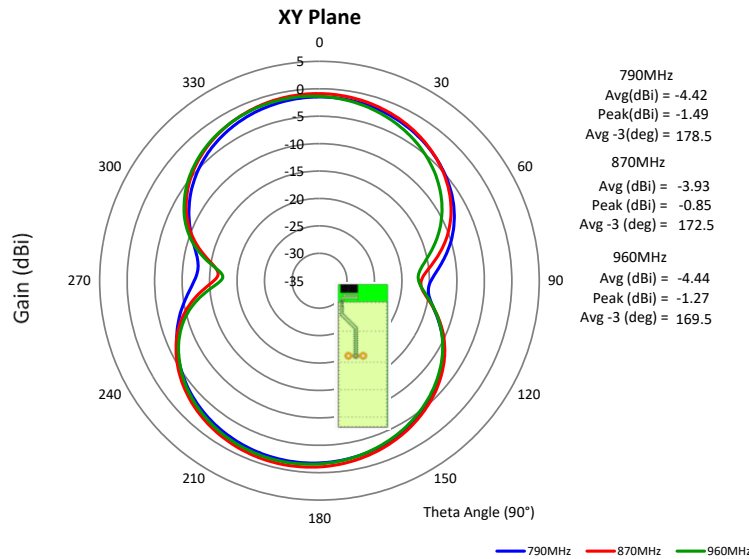
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## CHARTS

### Radiation Pattern 2D (791-960MHz)



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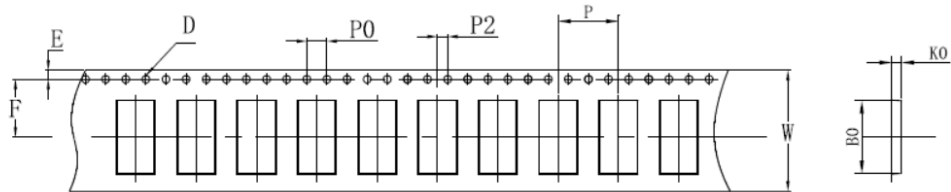
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### PACKAGING

750pcs Antennas Per 1pcs 7" Tape & Reel

8 pcs 7" Tape & Reel (total 6,000pcs Antennas) per 1 box

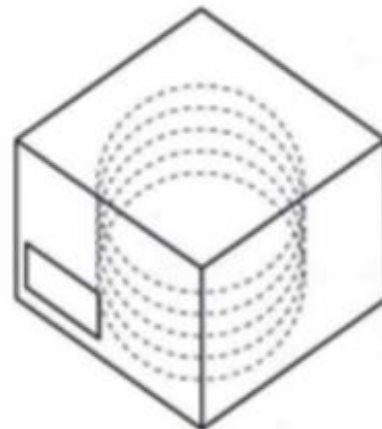
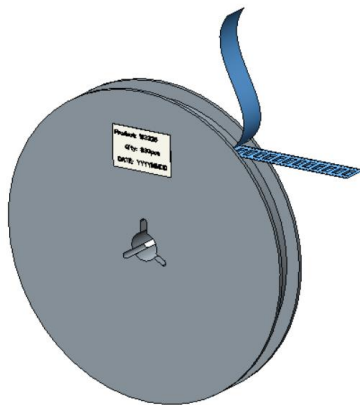
ITEM	W	A0	B0	K0	K1	P	F	E	D	D1	P0	P2
DIM	24.0	7.4	14.4	1.9		12	11.5	1.75	1.50	1.5	4.00	2.00
TOLE	+0.30 -0.30	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10	+0.10 -0.00	+0.10 -0.10	+0.10 -0.10	+0.10 -0.10



SECTION B-B



SECTION A-A



According to MSL3 packing requirement, MBB-Moisture Barrel Bag, Desiccant, HIC-Humidity Indicator Card, MSID Label, Caution Label are required.

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