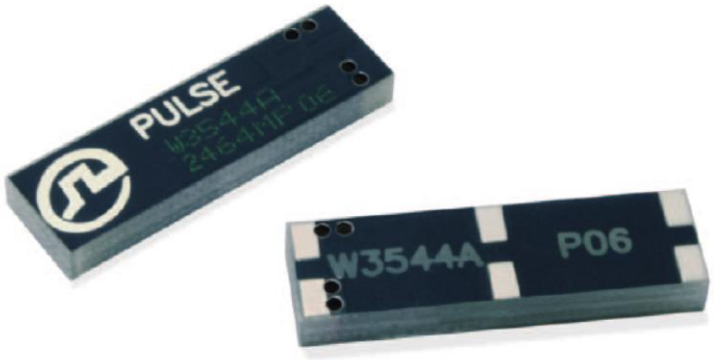
Pulse | LARSEN Antennas
A YAGEO Company

TECHNICAL DATA SHEET

Description: 824-2170MHz SMD Antenna

Series: Domino

PART NUMBER: W3544X



Features:

- Frequency
  - 824-960/1710-2170MHz
- Impedance 50 Ohm
- Efficiency average
  - 40%/55% for W3544A
  - 55%/57% for W3544B
- Size 7.65 x 26 x 3 mm
- SMD Compliant
- A and B variants for different mounting positions on PCB

Applications:

- 2G/3G Cellular antenna
- GPRS
- Nb-IoT, LTE Cat M1

All dimensions are in mm

Issue: 1922

RoHS COMPLIANT

For more information:

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Jiangsu Province, Suzhou 215009 PR China
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Description: 824-2170MHz SMD Antenna

Series: Domino

PART NUMBER: W3544X

ELECTRICAL SPECIFICATIONS*

Frequency	824-960/1710-2170MHz
Nominal Impedance	50Ω
Return Loss	<-3dB/-4dB for W3544A <-4dB/-4dB for W3544B
Average Radiation Efficiency	40%/55% for W3544A 55%/57% for W3544B
Average Peak Gain	-0.9dBi/1.5dBi for W3544A 1.9dBi/1dBi for W3544B
Maximum power input	3W

MECHANICAL SPECIFICATIONS

Overall Length	7.65 x 26 x 3 mm
Weight	1.11 g
Antenna Color	Black
Mounting	SMD
Moisture Sensitivity Level	MSL3

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-45 ~ 85° C
Storage Temperature	-45 ~ 85° C
RoHS Compliant	Yes

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

Issue: 1922

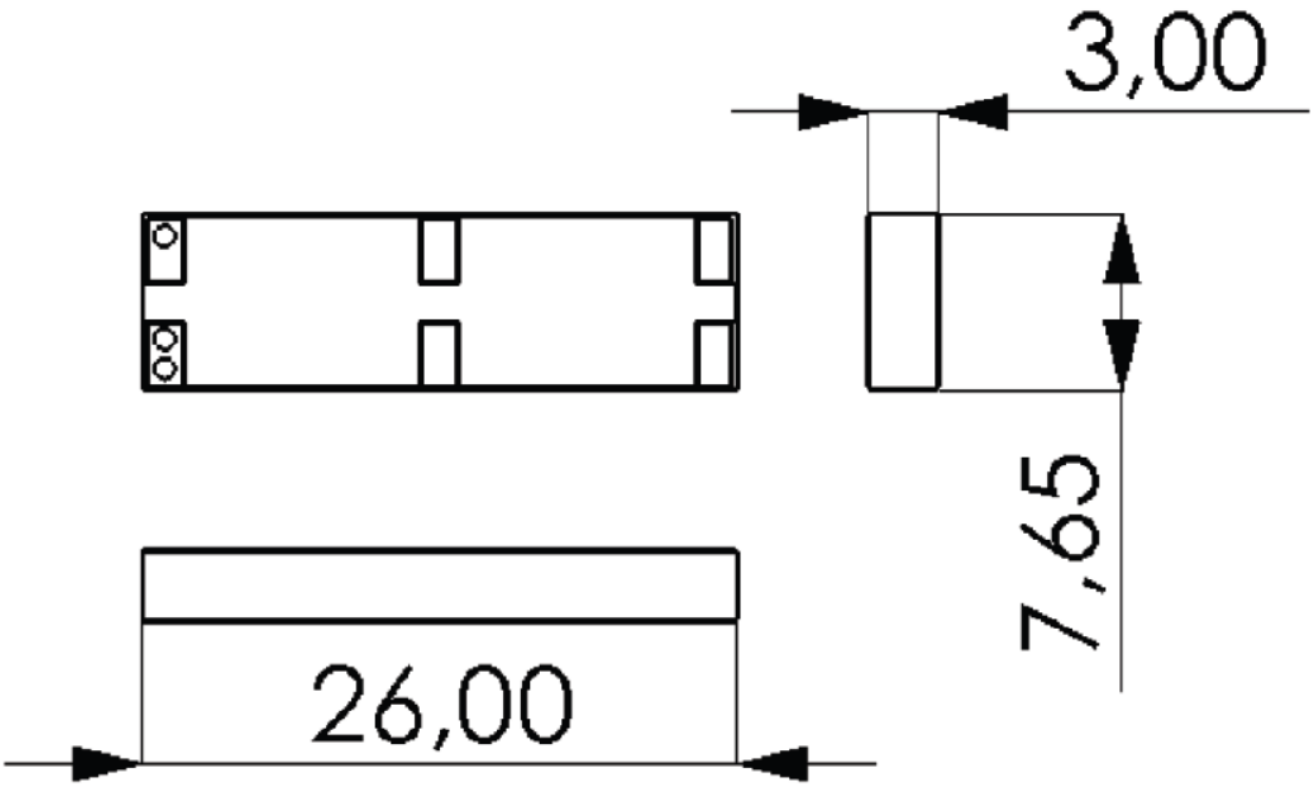
RoHS COMPLIANT

Description: 824-2170MHz SMD Antenna

Series: Domino

PART NUMBER: W3544X

MECHANICAL DRAWING



Description: 824-2170MHz SMD Antenna

Series: Domino

PART NUMBER: W3544X

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

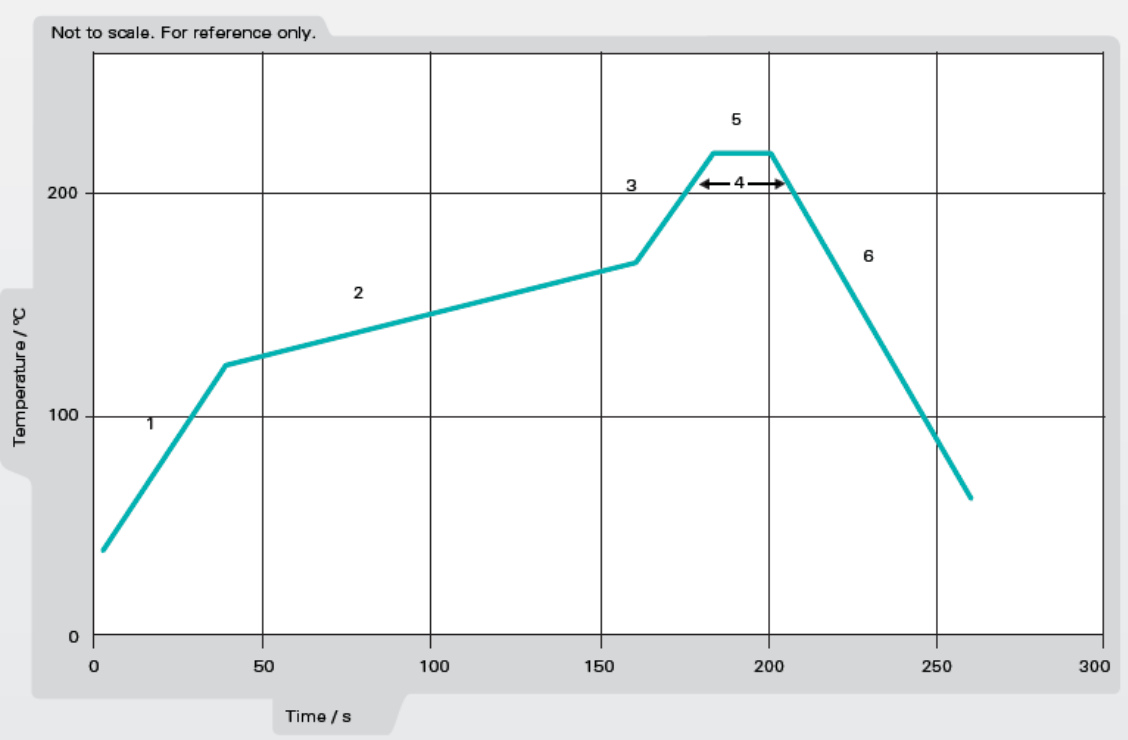


Figure 1. Minimum temperature profile recommendation for reflow soldering process

RoHS COMPLIANT

Description: 824-2170MHz SMD Antenna

Series: Domino

PART NUMBER: W3544X

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

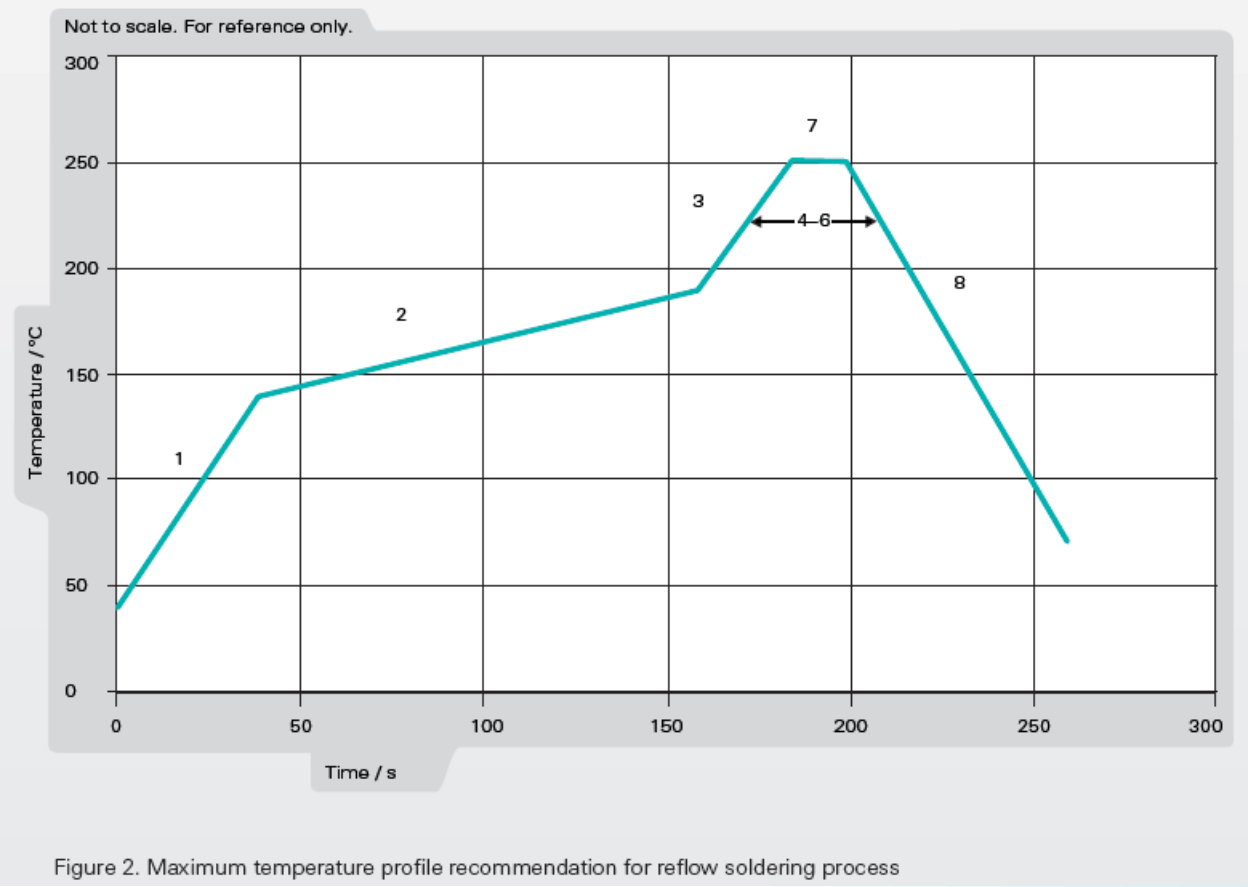


Figure 2. Maximum temperature profile recommendation for reflow soldering process

RoHS COMPLIANT

Description: 824-2170MHz SMD Antenna

Series: Domino

PART NUMBER: W3544X

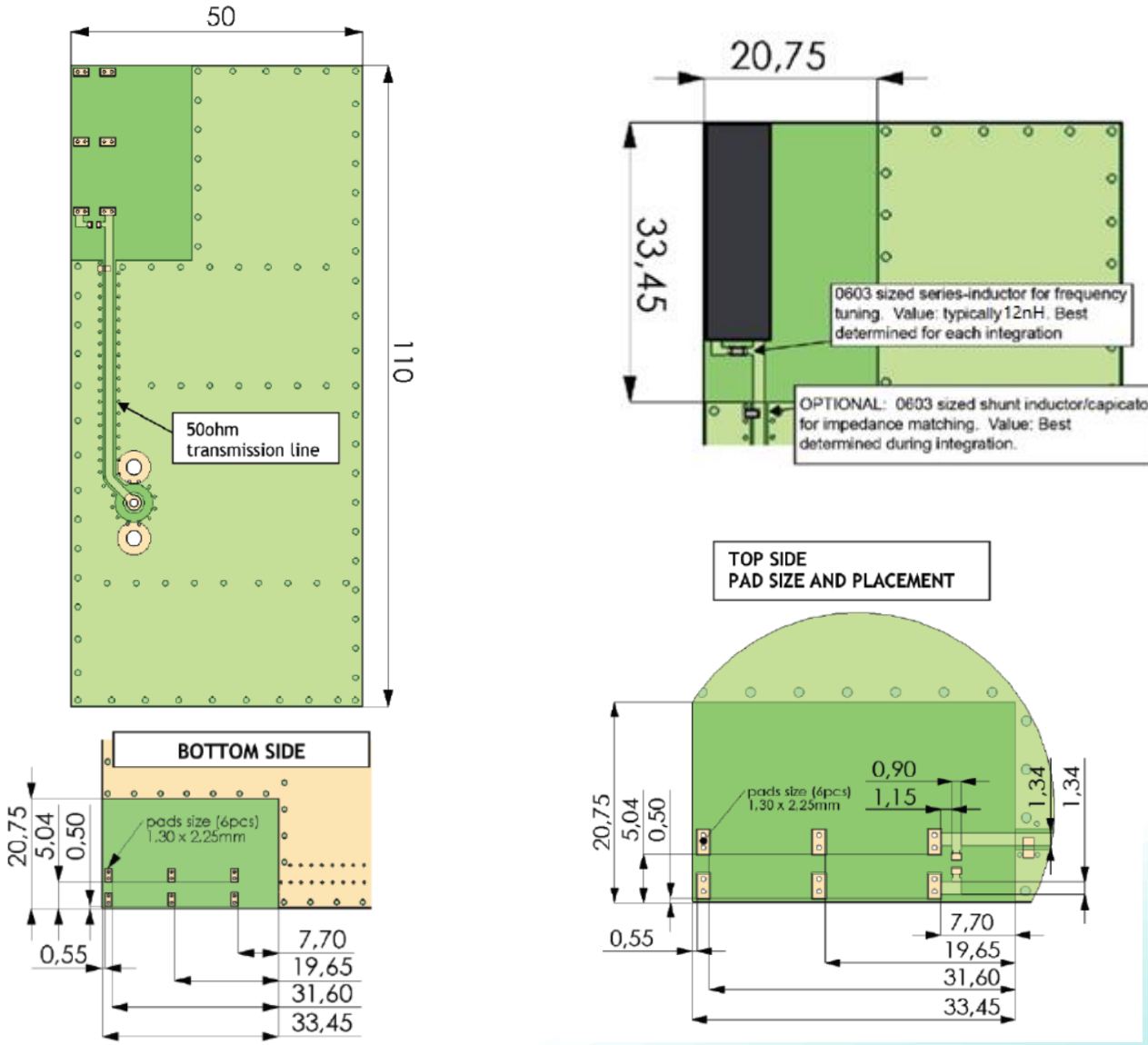
TEST SETUP

Test Setup for Electrical Measurements

Recommended test board layout for electrical characteristic measurement. Test board outline size 110 mm x 50 mm. Ground cleared under antenna.

NOTE: All measurements are in mm.

W3544A - Antenna positioned vertically on PWB corner



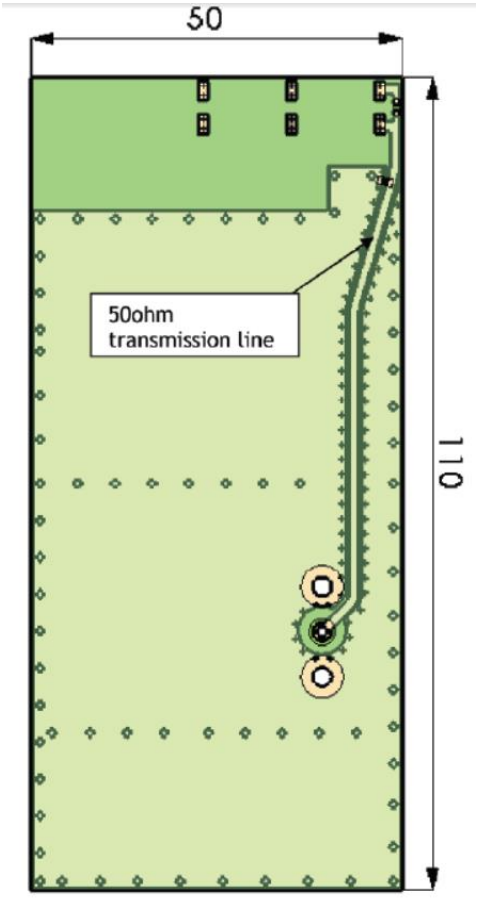
RoHS COMPLIANT

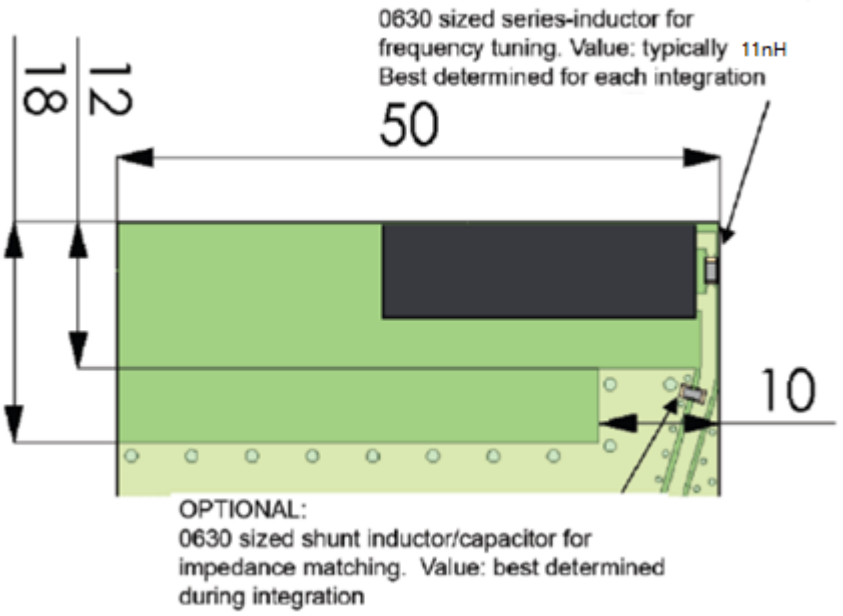
Description: 824-2170MHz SMD Antenna

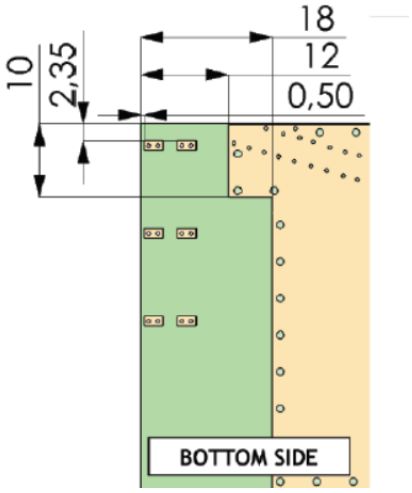
Series: Domino

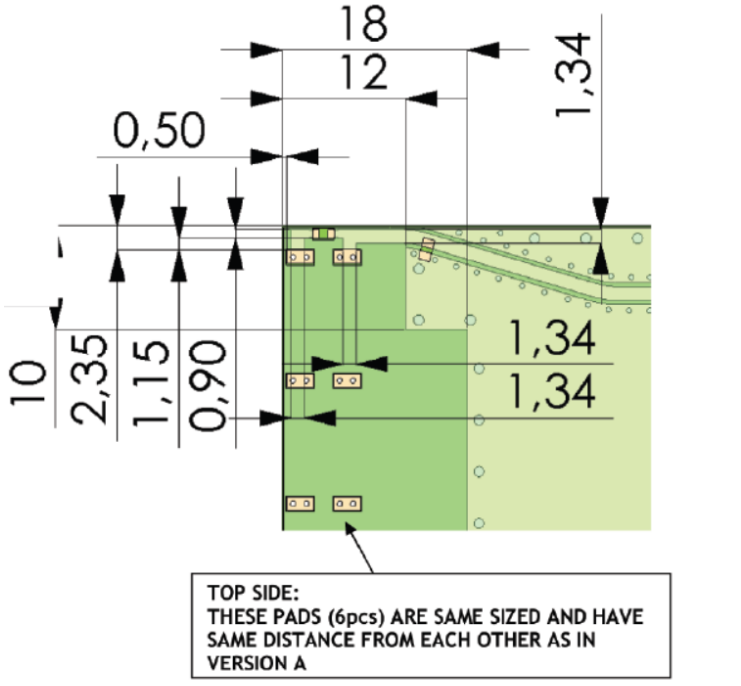
PART NUMBER: W3544X

W3544B - Antenna positioned horizontally on PWB corner









RoHS COMPLIANT

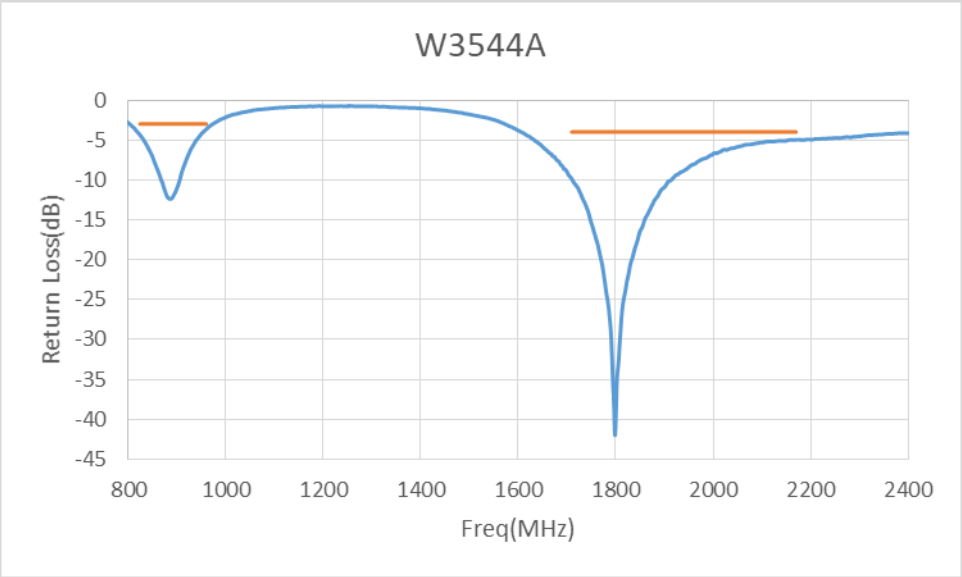
Description: 824-2170MHz SMD Antenna

Series: Domino

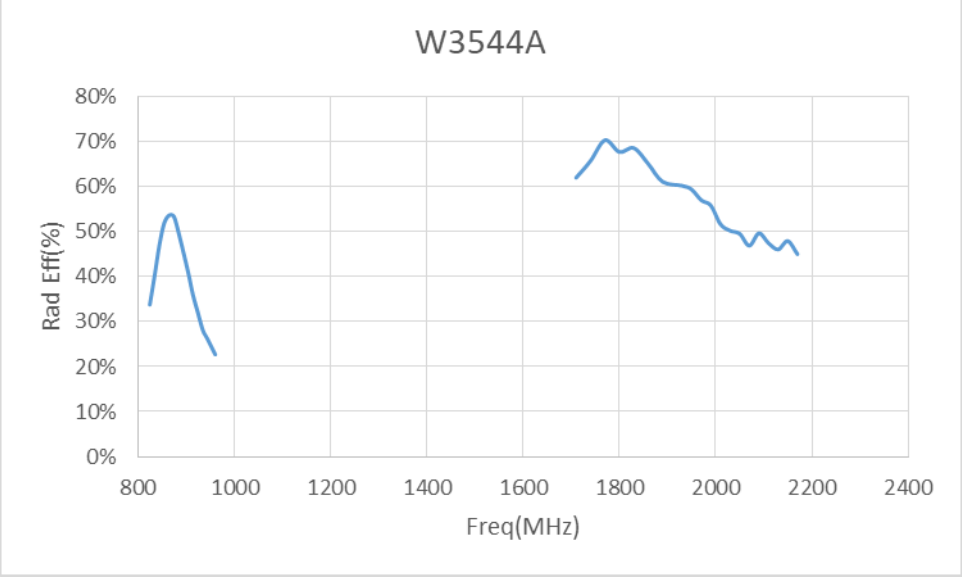
PART NUMBER: W3544X

CHARTS

Return loss of W3544A



Radiation Efficiency of W3544A



RoHS COMPLIANT

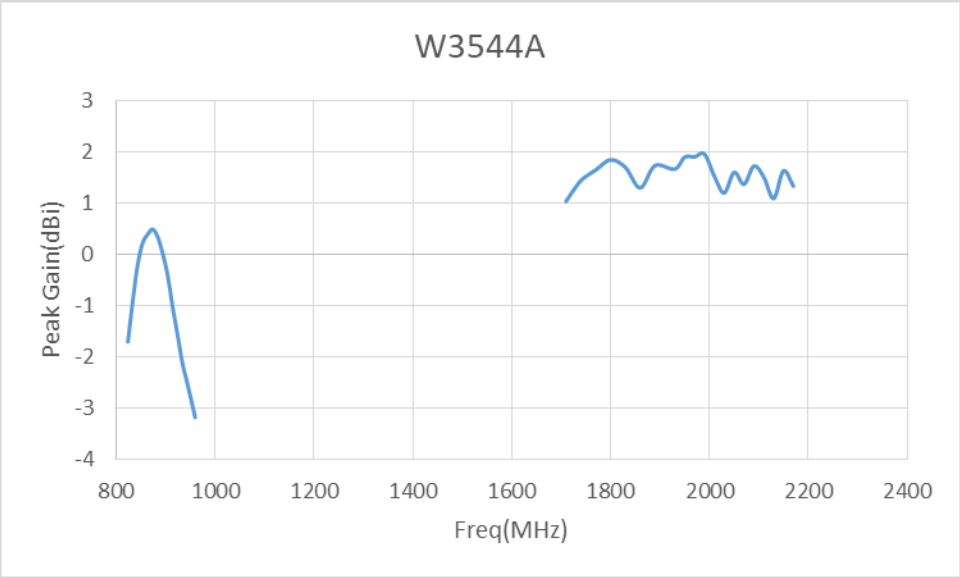
Description: 824-2170MHz SMD Antenna

Series: Domino

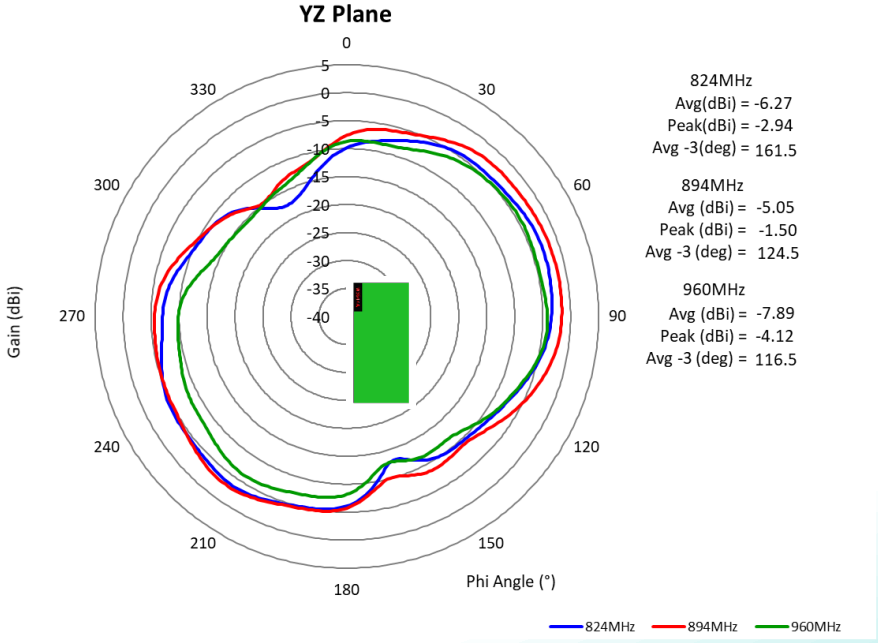
PART NUMBER: W3544X

CHARTS

Peak Gain of W3544A



Low band Radiation pattern at Vertical plane, front view of W3544A



RoHS COMPLIANT

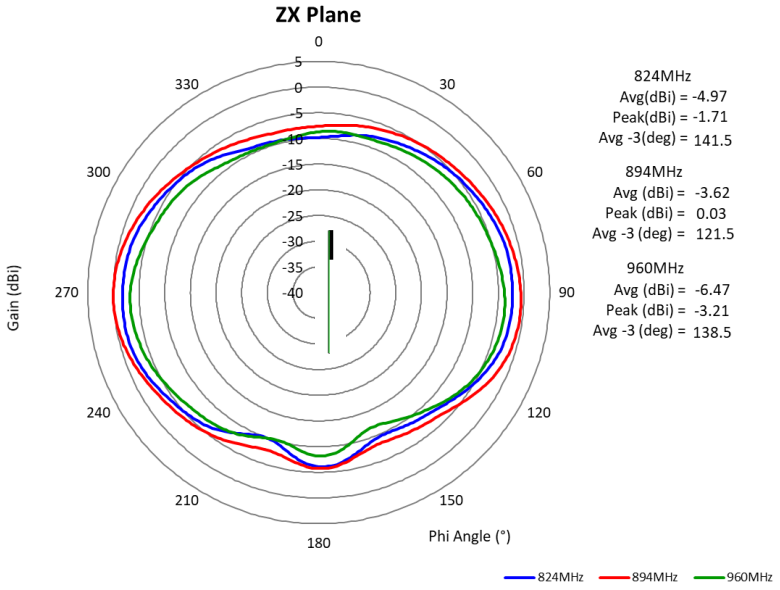
Description: 824-2170MHz SMD Antenna

Series: Domino

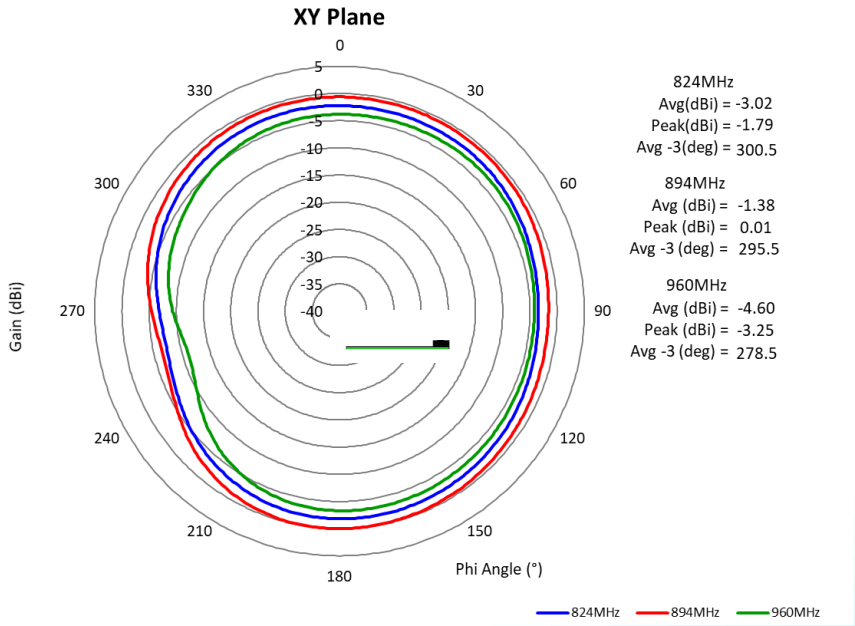
PART NUMBER: W3544X

CHARTS

Low band Radiation pattern at Vertical plane, side view of W3544A



Low band Radiation pattern at horizontal plane of W3544A



RoHS COMPLIANT

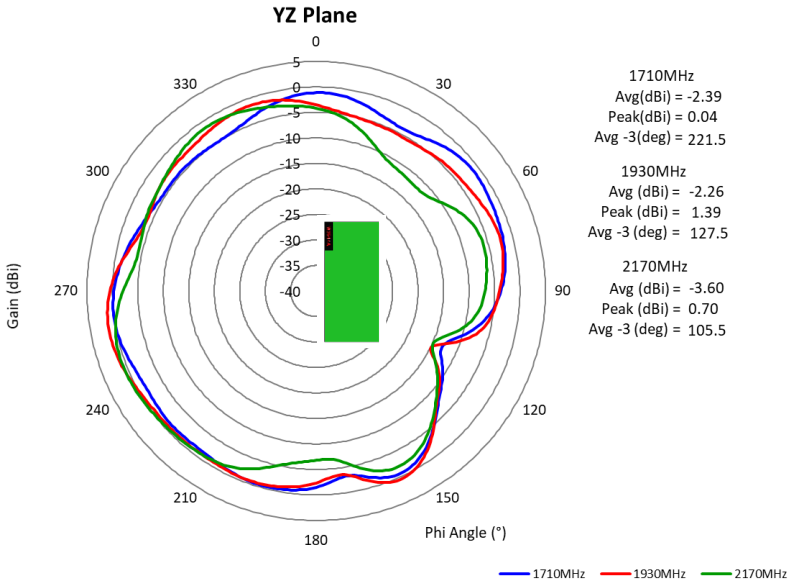
Description: 824-2170MHz SMD Antenna

Series: Domino

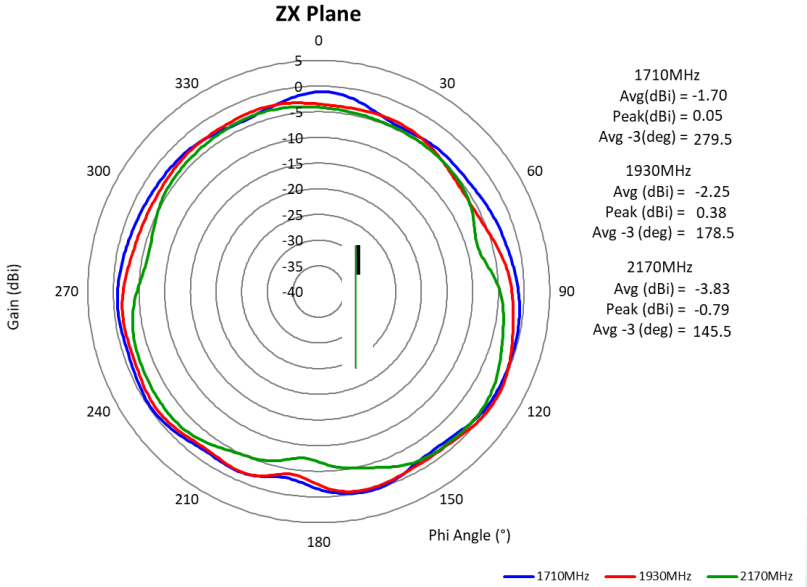
PART NUMBER: W3544X

CHARTS

High band Radiation pattern at Vertical plane, front view of W3544A



High band Radiation pattern at Vertical plane, side view of W3544A



RoHS COMPLIANT

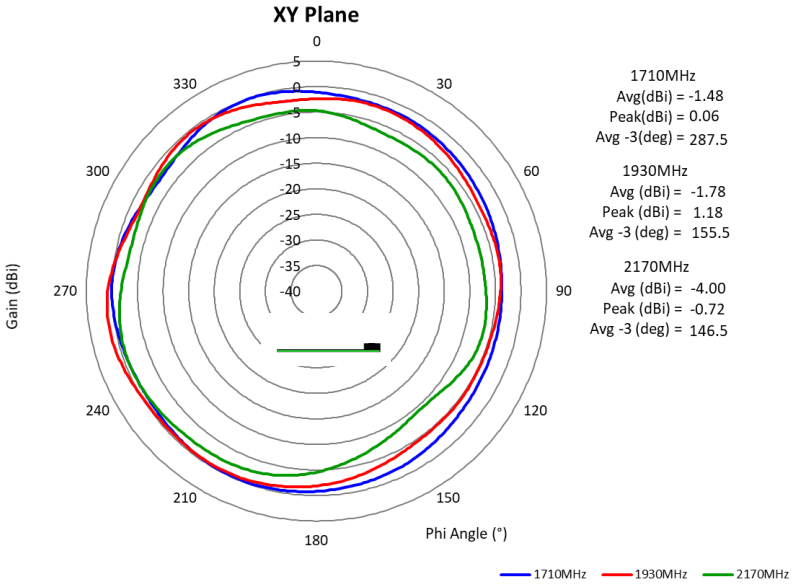
Description: 824-2170MHz SMD Antenna

Series: Domino

PART NUMBER: W3544X

CHARTS

High band Radiation pattern at Horizontal plane of W3544A



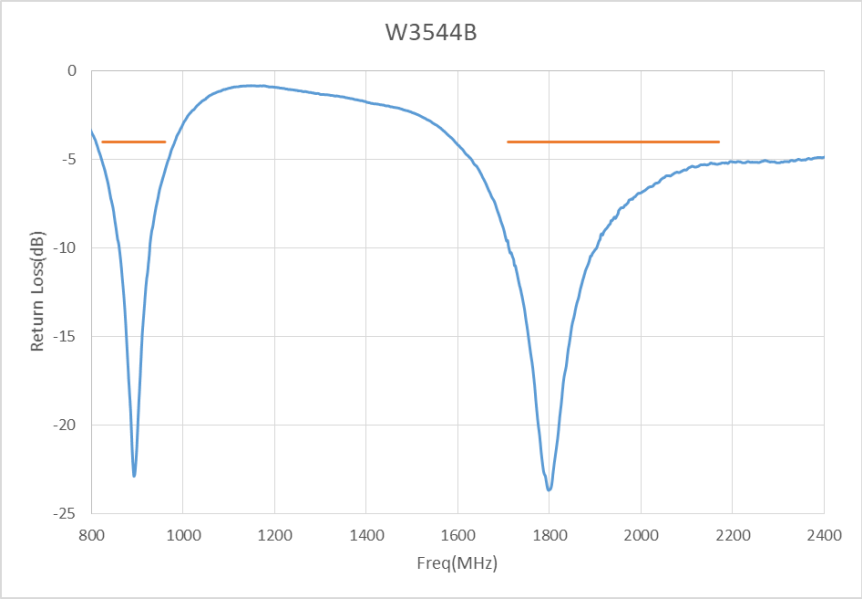
Description: 824-2170MHz SMD Antenna

Series: Domino

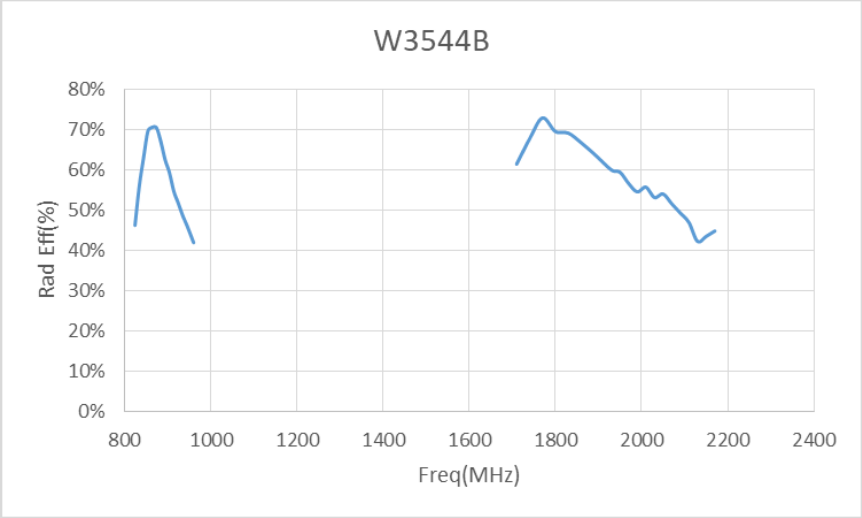
PART NUMBER: W3544X

CHARTS

Return loss of W3544B



Radiation Efficiency of W3544B



RoHS COMPLIANT

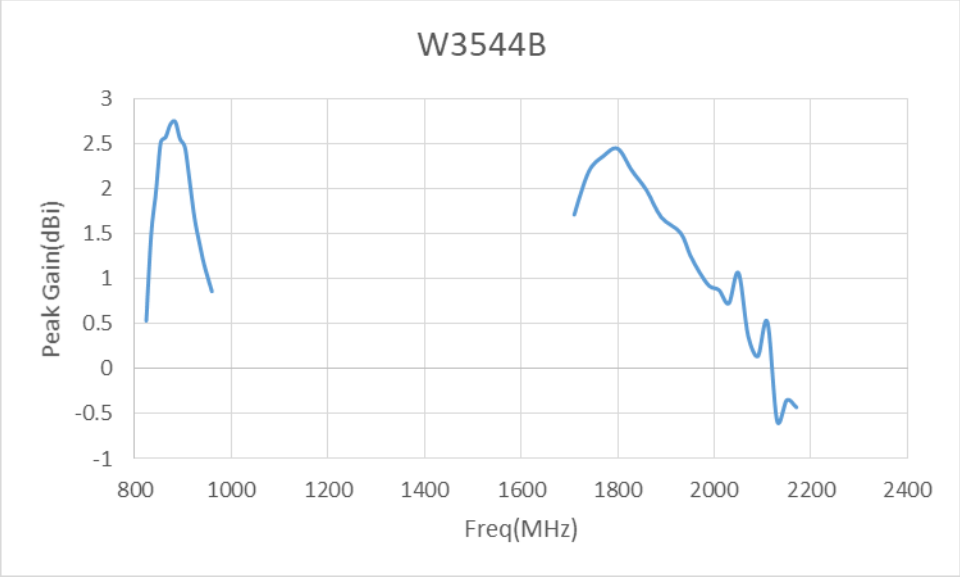
Description: 824-2170MHz SMD Antenna

Series: Domino

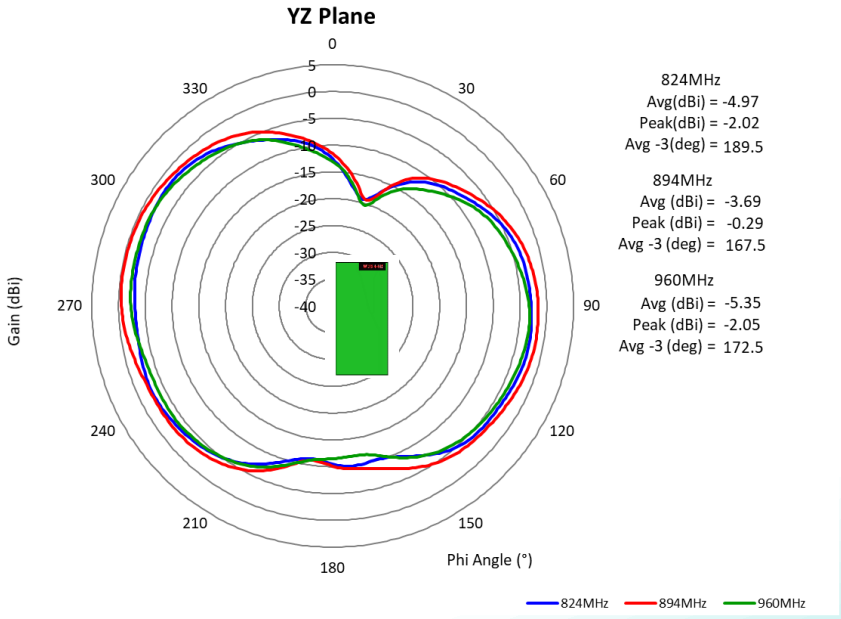
PART NUMBER: W3544X

CHARTS

Peak Gain of W3544B



Low band Radiation pattern at Vertical plane, front view of W3544B



RoHS COMPLIANT

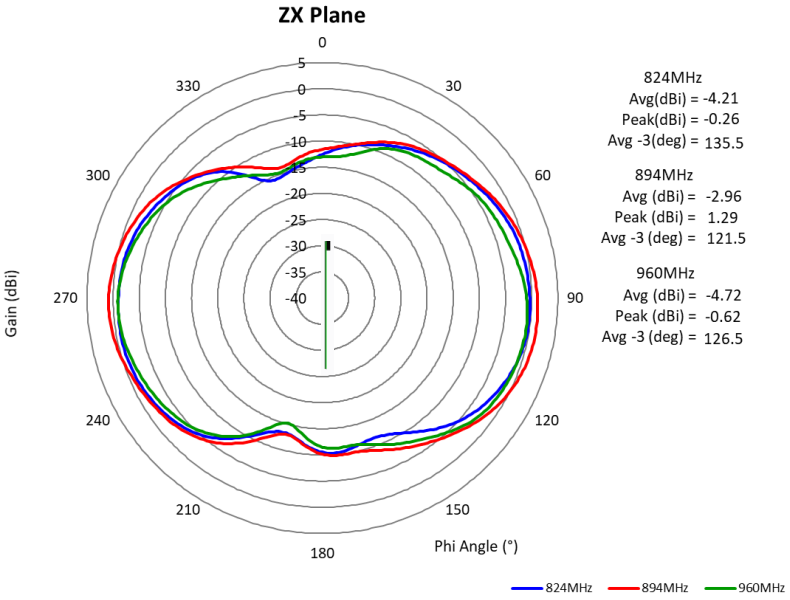
Description: 824-2170MHz SMD Antenna

Series: Domino

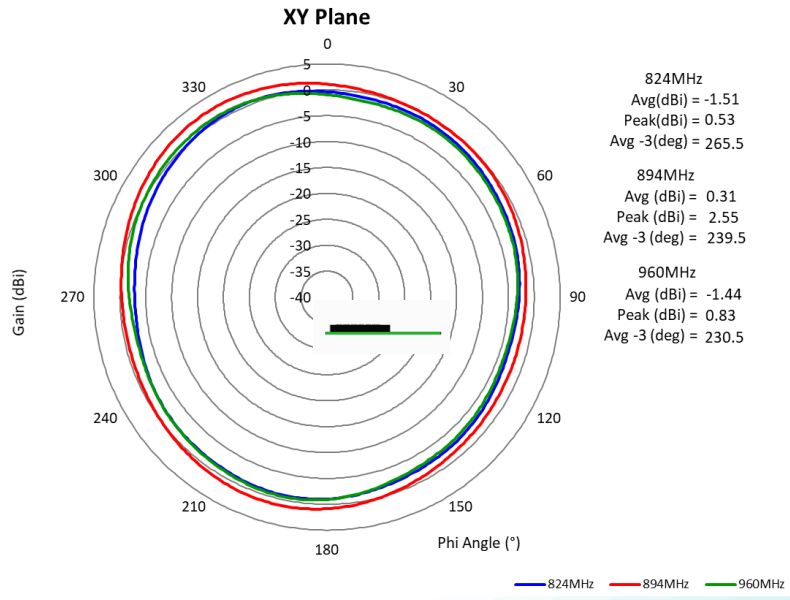
PART NUMBER: W3544X

CHARTS

Low band Radiation pattern at Vertical plane, side view of W3544B



Low band Radiation pattern at horizontal plane of W3544B



RoHS COMPLIANT

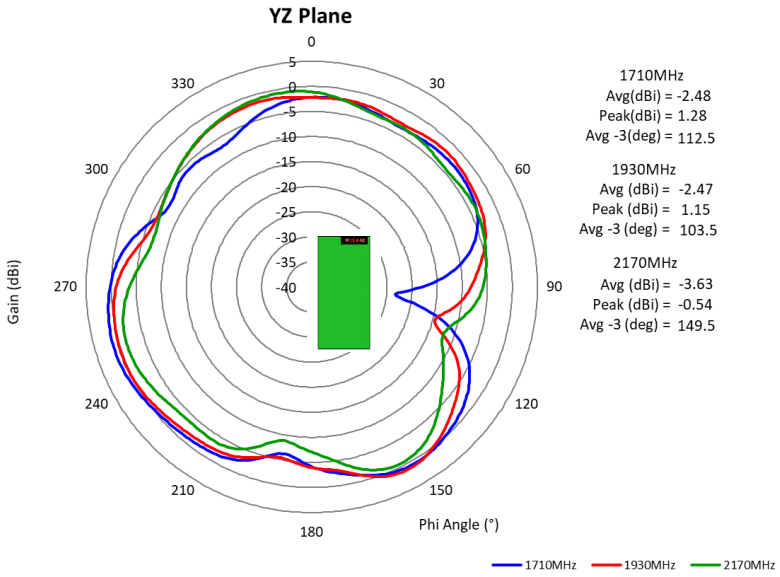
Description: 824-2170MHz SMD Antenna

Series: Domino

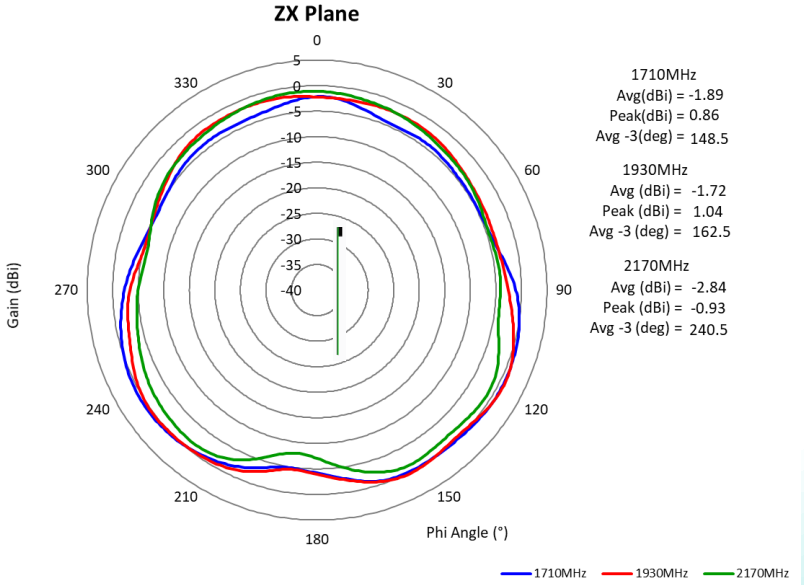
PART NUMBER: W3544X

CHARTS

High band Radiation pattern at Vertical plane, front view of W3544B



High band Radiation pattern at Vertical plane, side view of W3544B



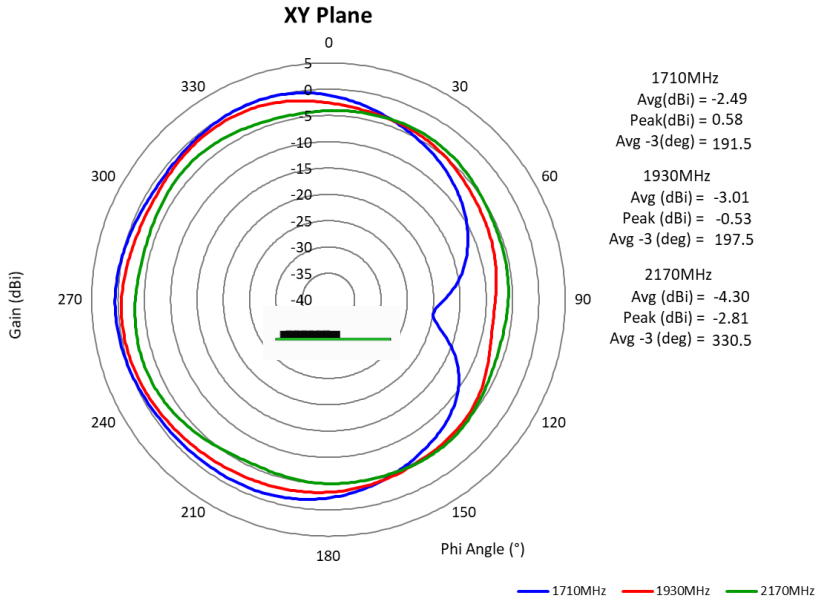
Description: 824-2170MHz SMD Antenna

Series: Domino

PART NUMBER: W3544X

CHARTS

High band Radiation pattern at Horizontal plane of W3544B



Description: 824-2170MHz SMD Antenna

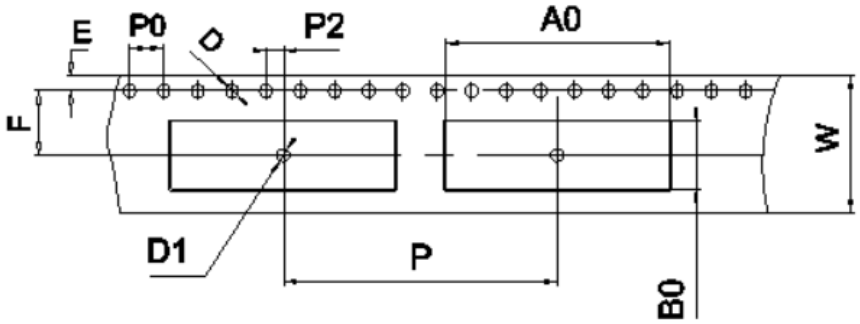
Series: Domino

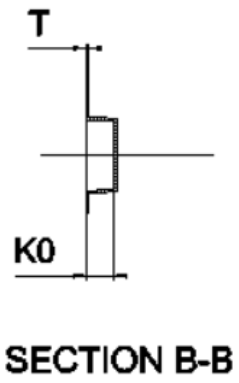
PART NUMBER: W3544X

PACKAGING

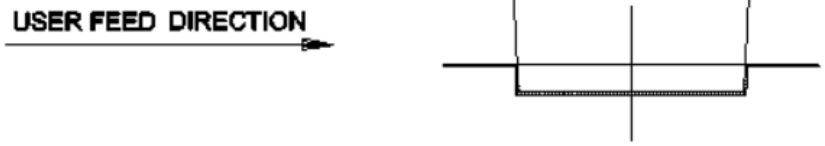
140pcs Antennas Per 1pcs 7” Tape & Reel
10 pcs 7” Tape & Reel (total 1,400 pcs Antennas) per 1 box

ITEM	W	A0	B0	K0	P	F	E	D	D1	P0	P2	t	7″	
DIM	16.0	26.7	8.35	3.3	32.0	7.5	1.75	1.50	1.50	4.00	2.00	0.3	LENGTH / REEL	UNITS / REEL
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 -0.00	+0.10 -0.00	+0.10 -0.10	+0.10 -0.10	+0.05 -0.05	4.7M/R	130PCS





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.

RoHS COMPLIANT

Description: 824-2170MHz SMD Antenna

Series: Domino

PART NUMBER: W3544X

ASSEMBLY

Part Number	Positioning
W3544A	Vertically mounted at board edge
W3544B	Horizontally mounted at board edge

RoHS COMPLIANT

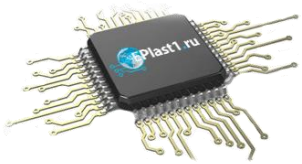
Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits,General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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Факс: 8 (812) 320-02-42
Электронная почта: org@eplast1.ru
Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.