

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

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Tel: 86 512 6807 9998



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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

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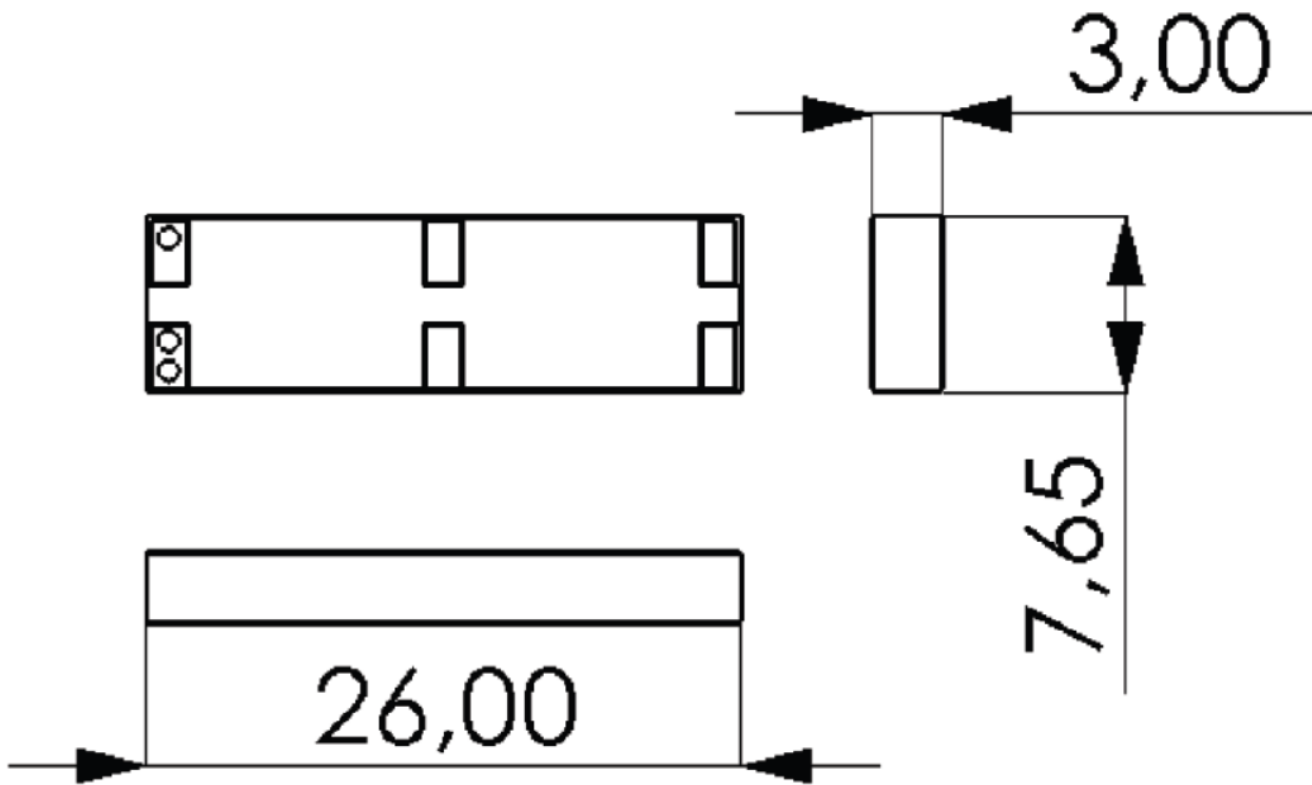
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Description: 824-2170MHz SMD Antenna

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MECHANICAL DRAWING



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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

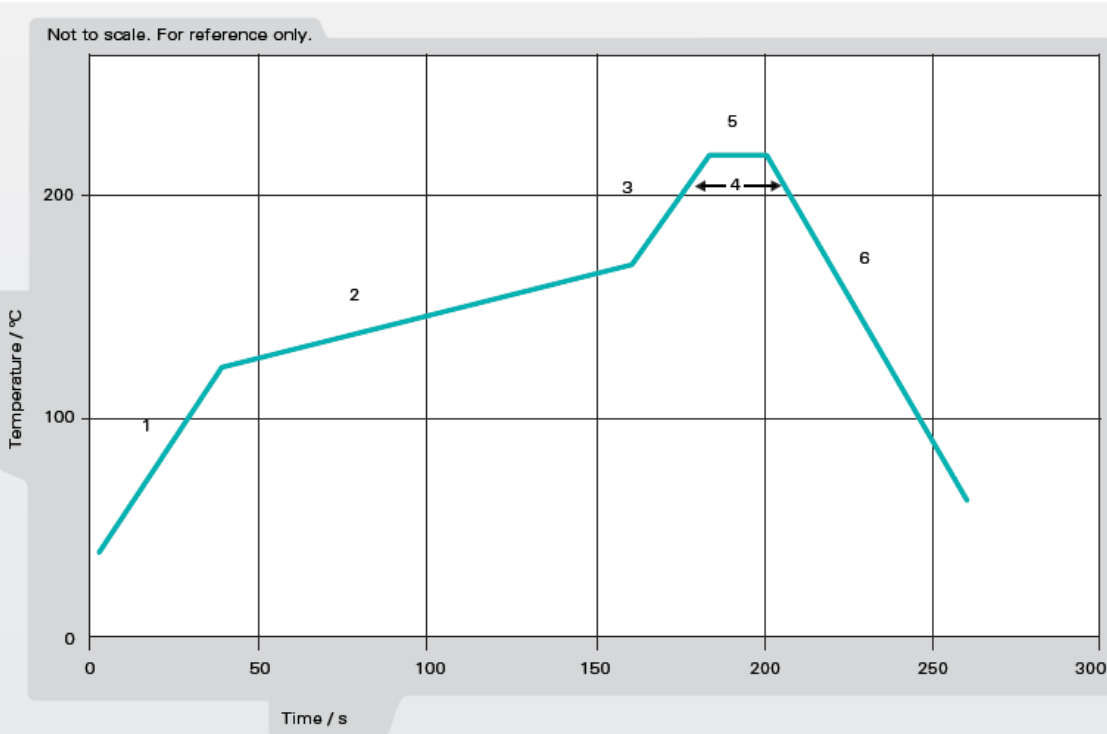


Figure 1. Minimum temperature profile recommendation for reflow soldering process

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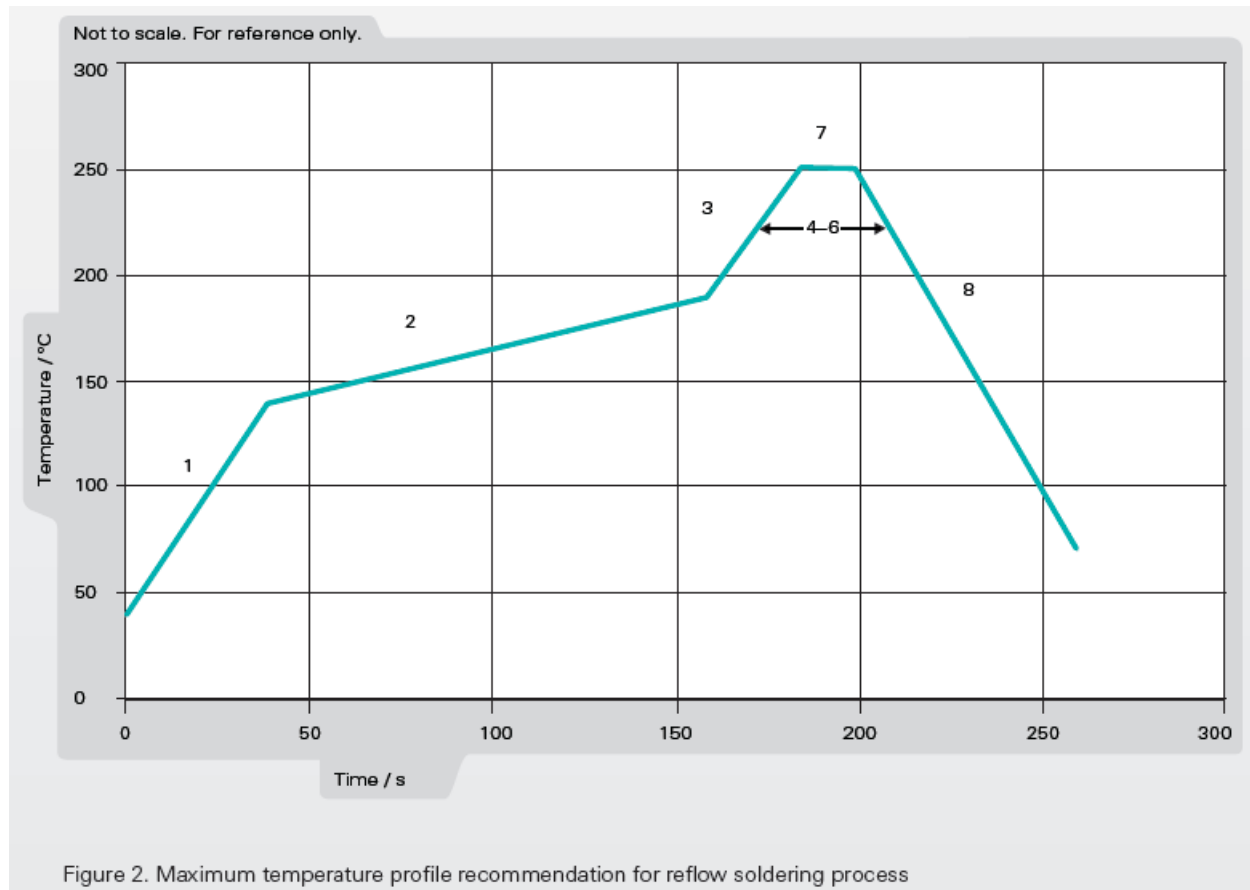
Description: 824-2170MHz SMD Antenna

Series: Domino

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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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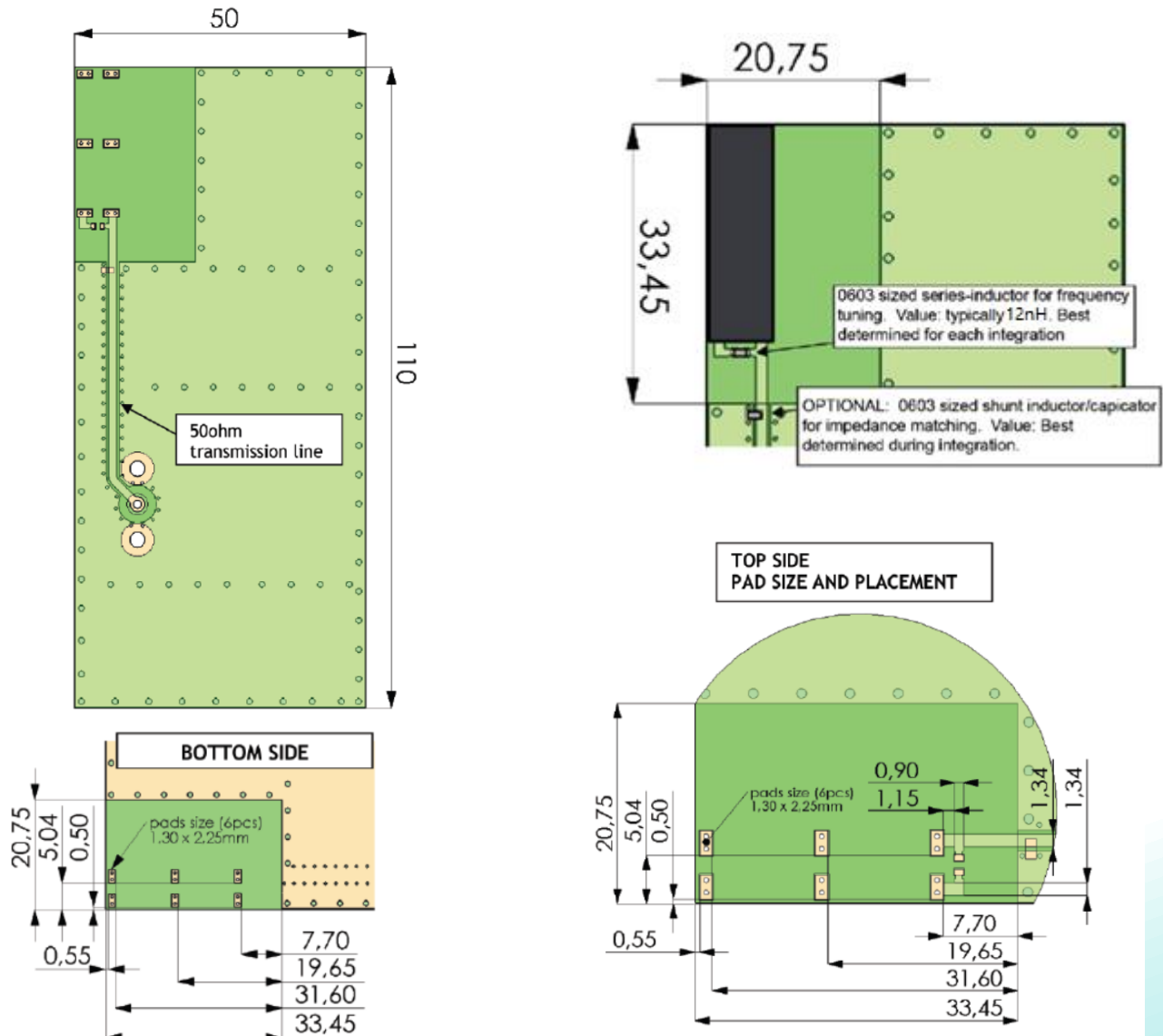
TEST SETUP

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



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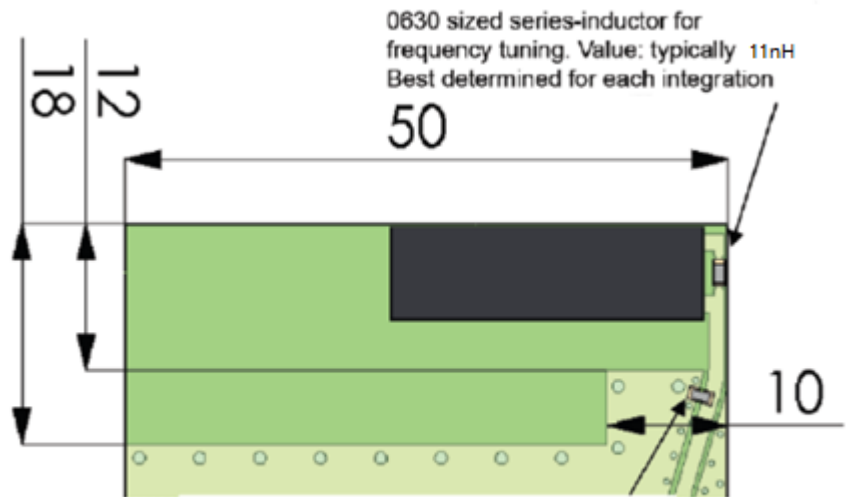
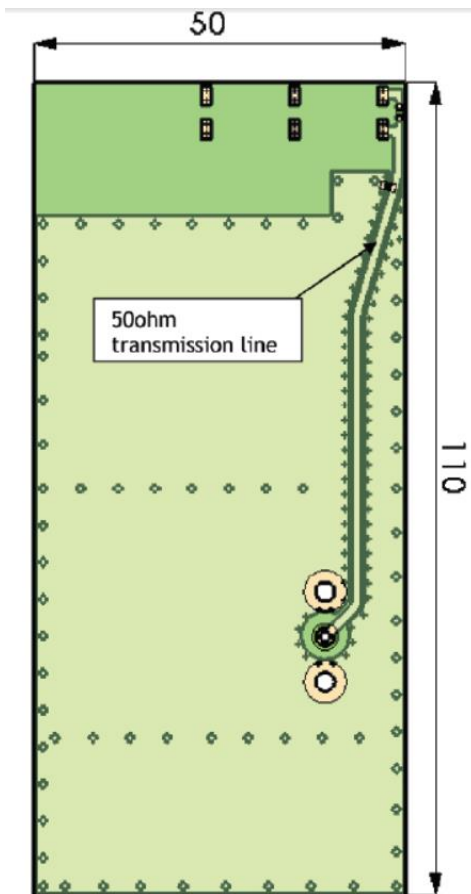
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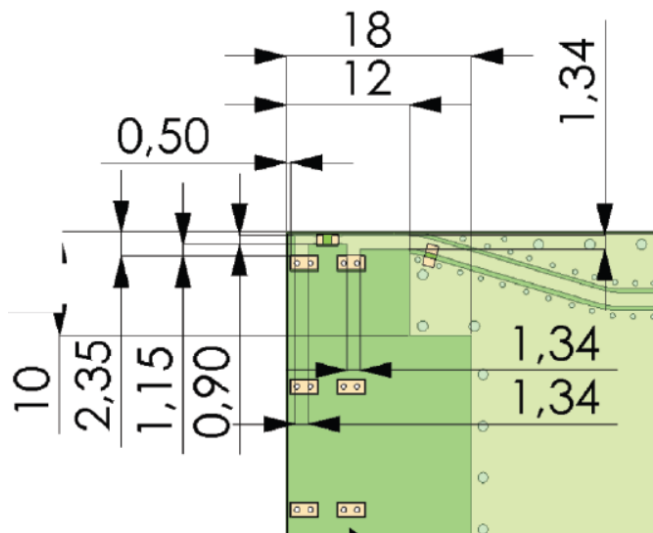
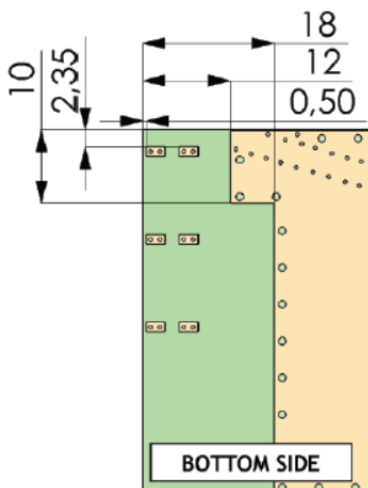
Series: Domino

PART NUMBER: W3544X

W3544B - Antenna positioned horizontally on PWB corner



OPTIONAL:
0630 sized shunt inductor/capacitor for impedance matching. Value: best determined during integration



TOP SIDE:
THESE PADS (6pcs) ARE SAME SIZED AND HAVE SAME DISTANCE FROM EACH OTHER AS IN VERSION A

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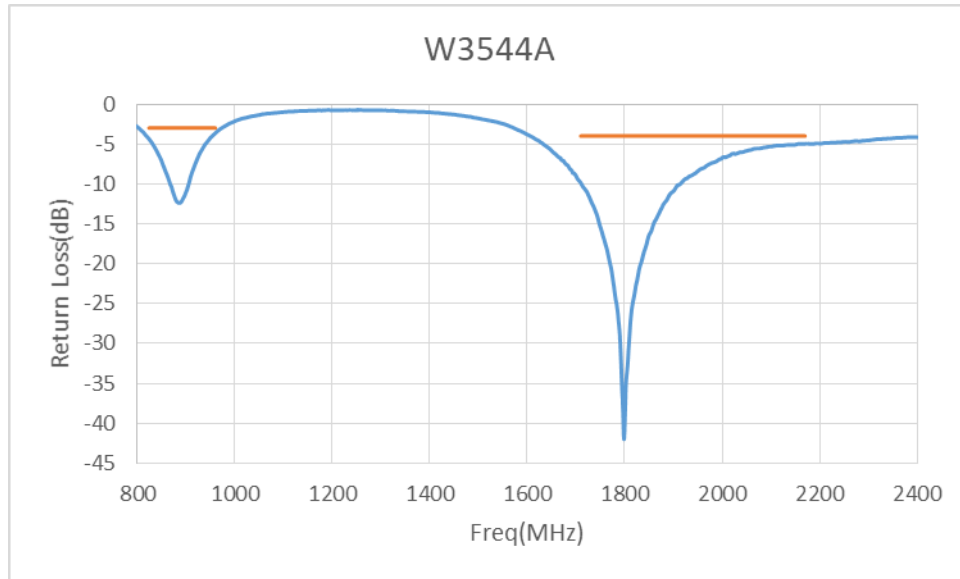
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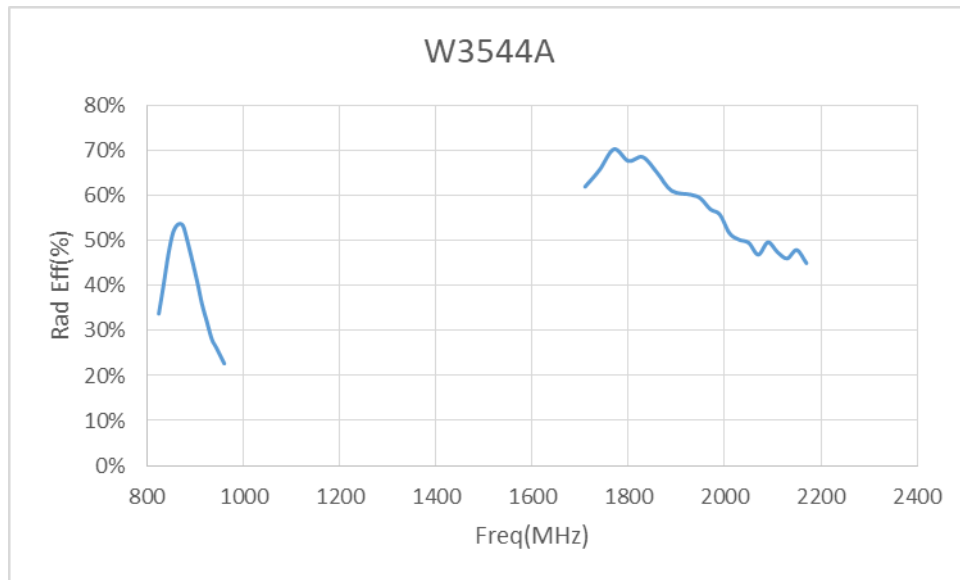
PART NUMBER: W3544X

CHARTS

Return loss of W3544A



Radiation Efficiency of W3544A



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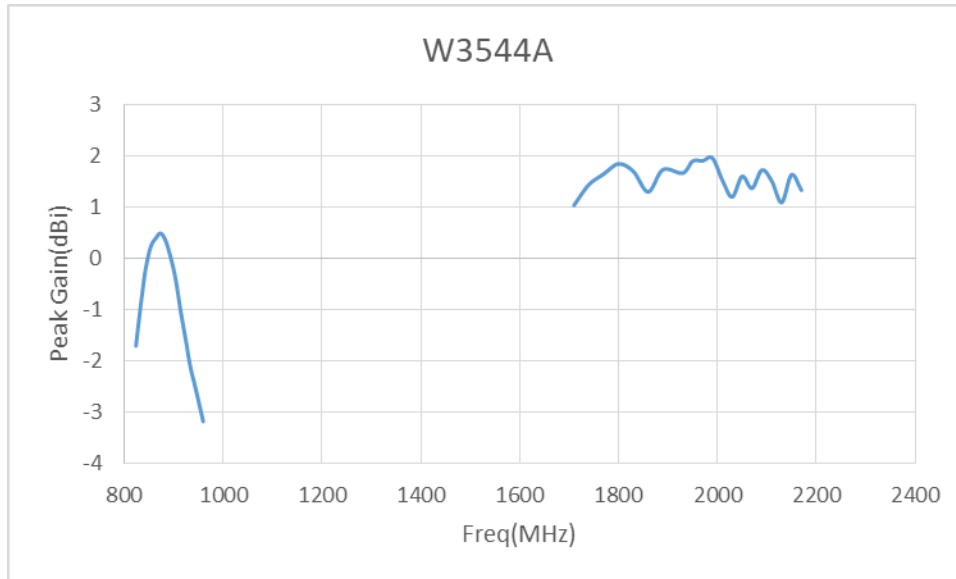
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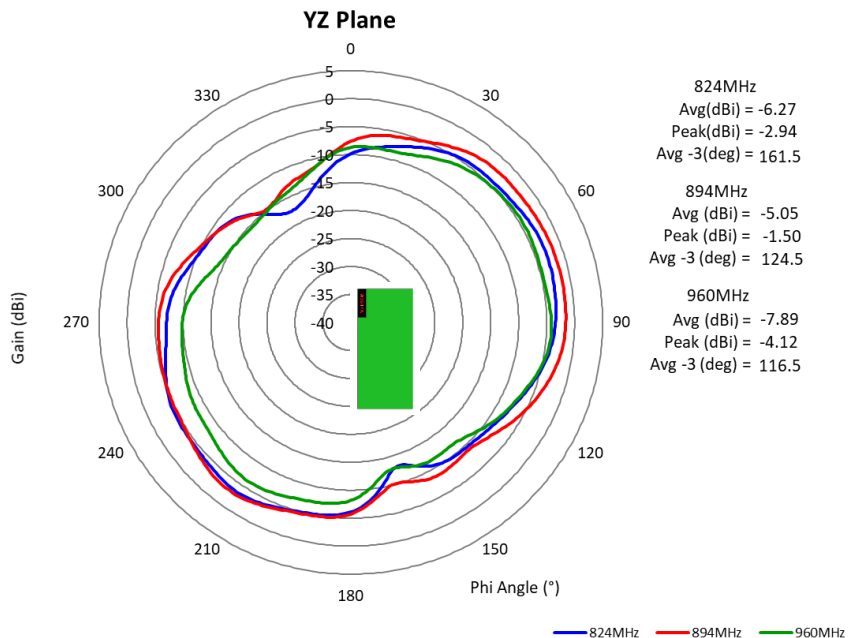
PART NUMBER: W3544X

CHARTS

Peak Gain of W3544A



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



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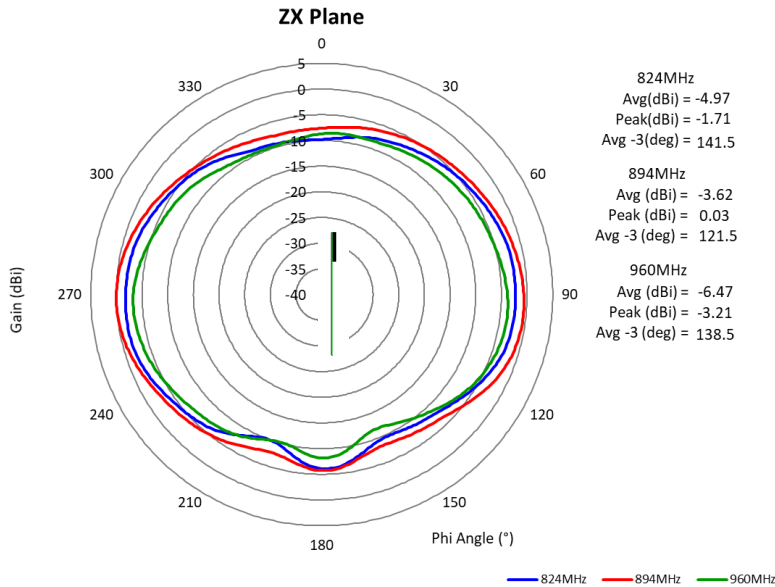
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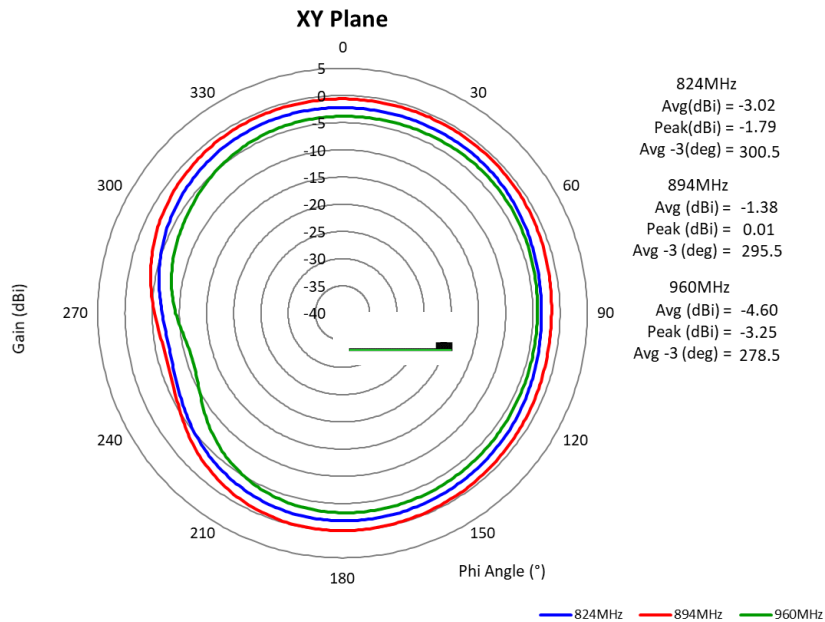
PART NUMBER: W3544X

CHARTS

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



Low band Radiation pattern at horizontal plane of W3544A



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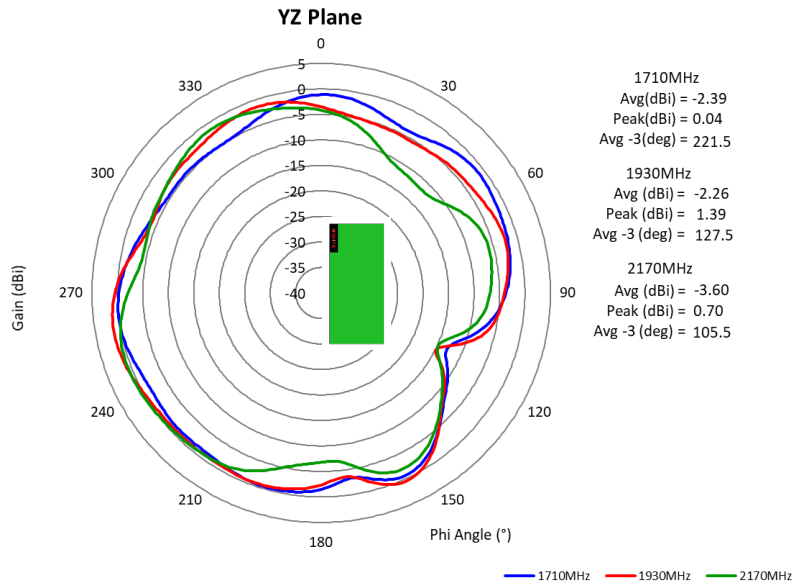
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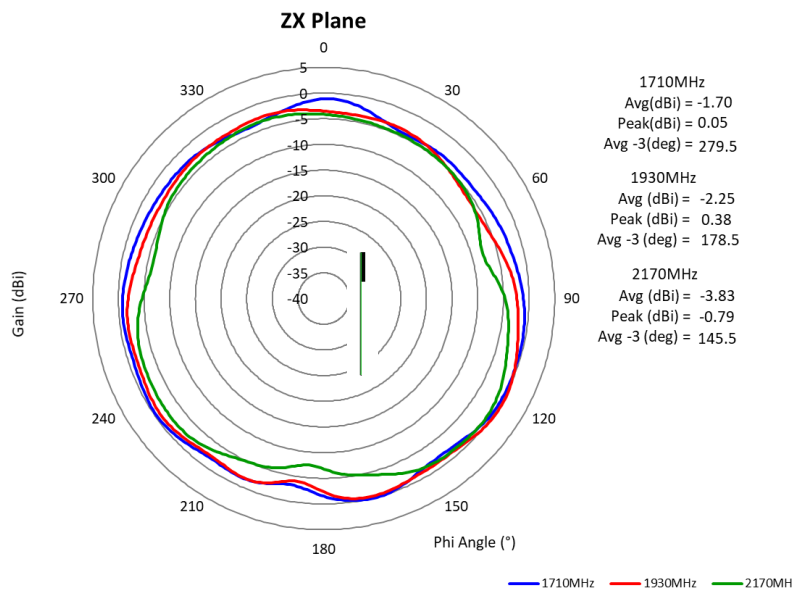
PART NUMBER: W3544X

CHARTS

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



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



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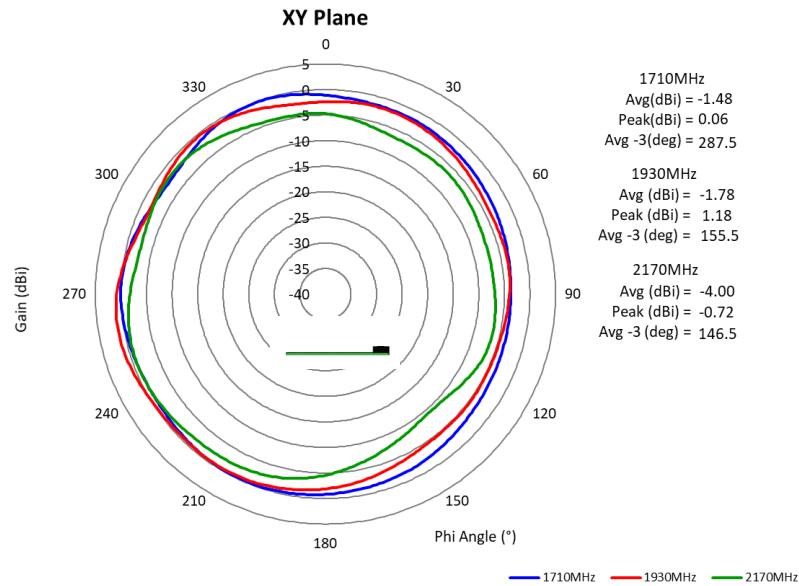
Description: 824-2170MHz SMD Antenna

Series: Domino

PART NUMBER: W3544X

CHARTS

High band Radiation pattern at Horizontal plane of W3544A



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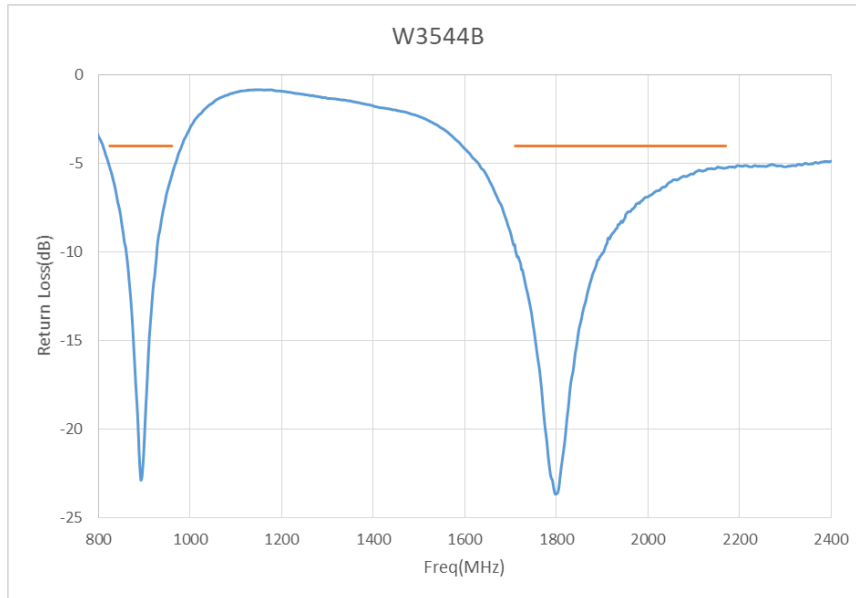
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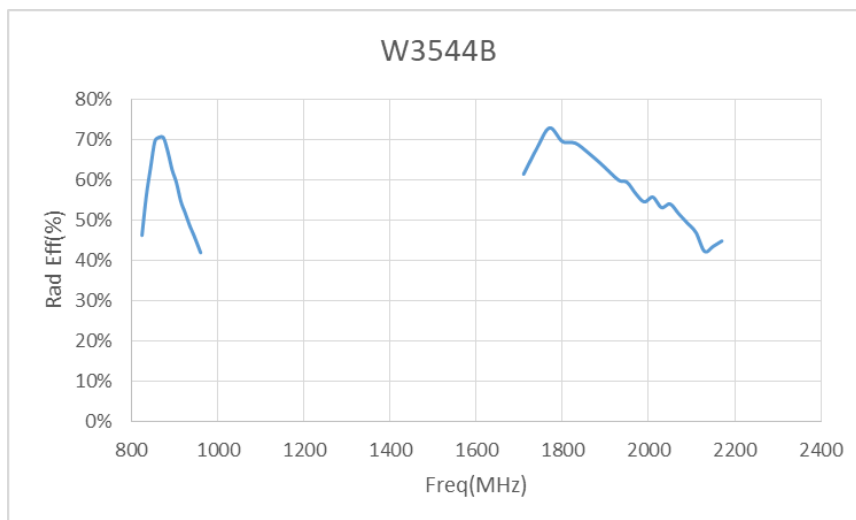
PART NUMBER: W3544X

CHARTS

Return loss of W3544B



Radiation Efficiency of W3544B



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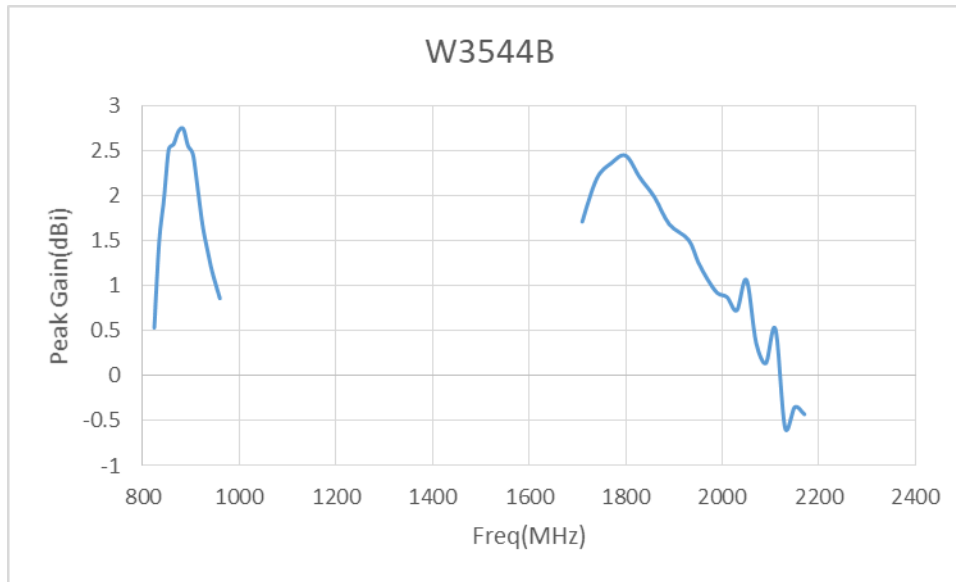
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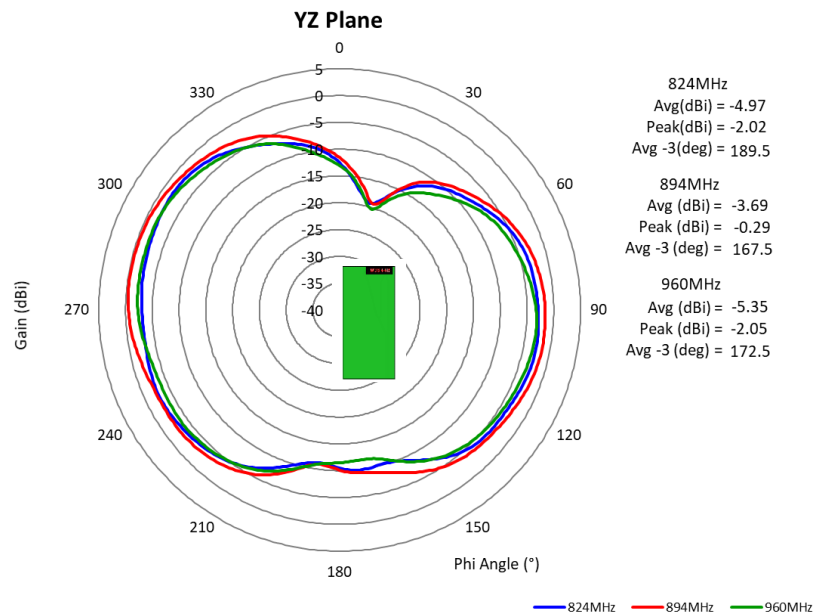
PART NUMBER: W3544X

CHARTS

Peak Gain of W3544B



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



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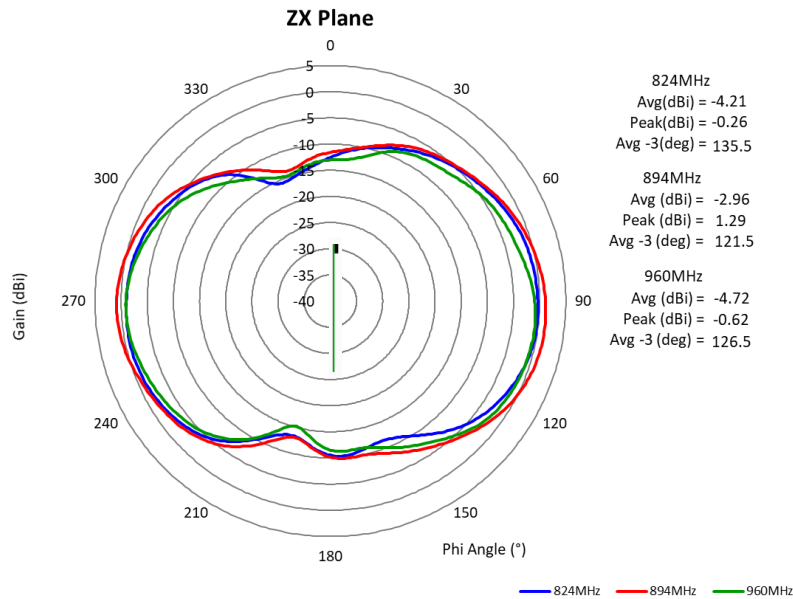
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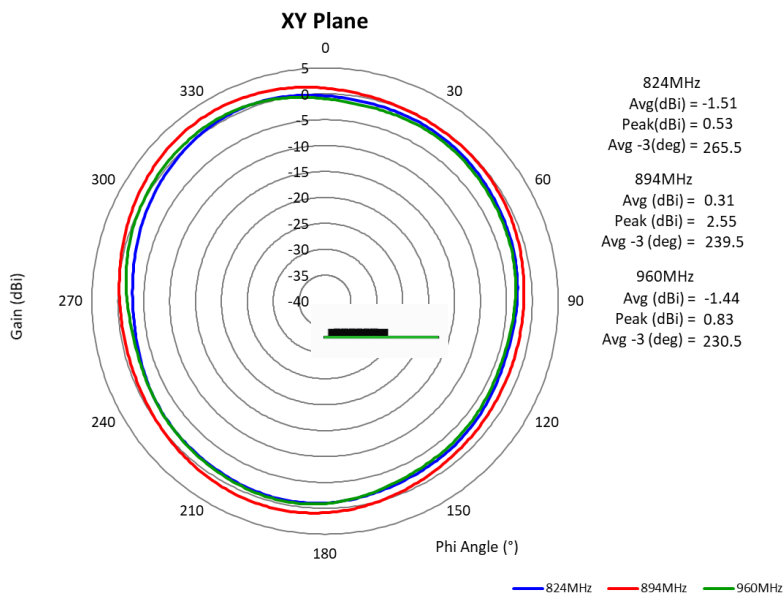
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CHARTS

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



Low band Radiation pattern at horizontal plane of W3544B



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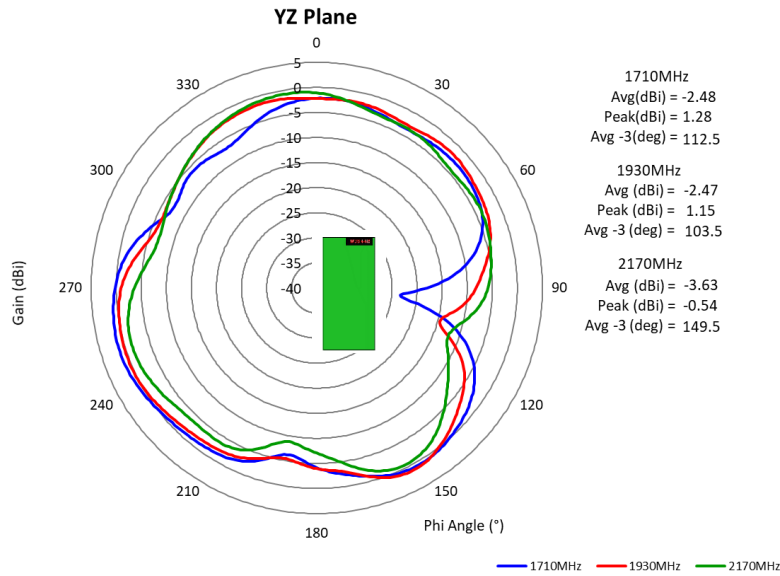
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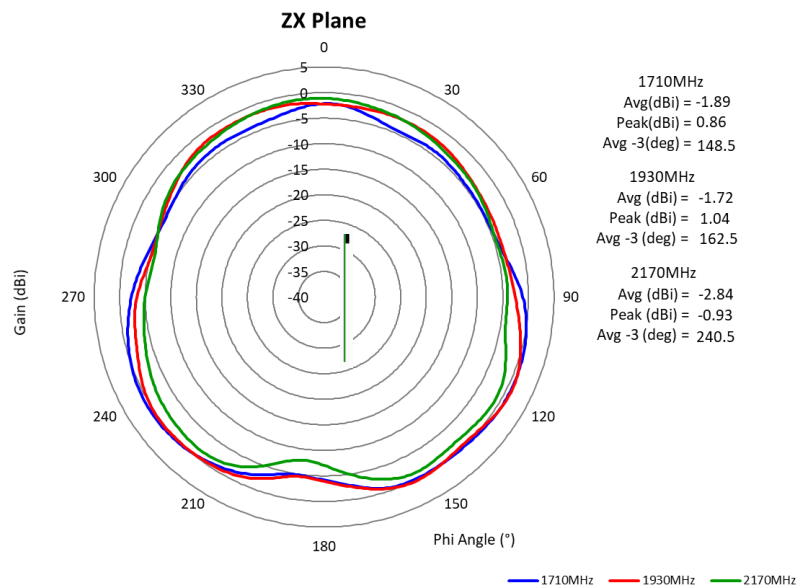
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CHARTS

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



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



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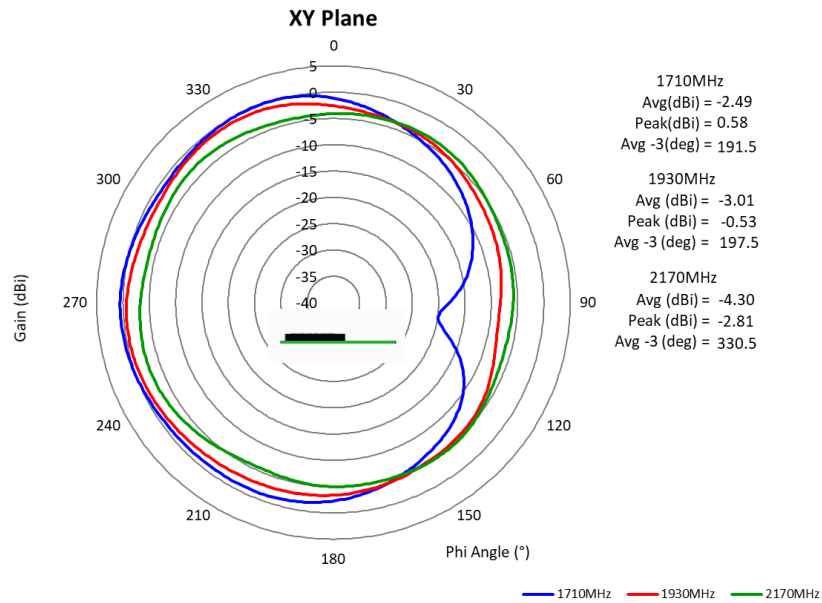
Description: 824-2170MHz SMD Antenna

Series: Domino

PART NUMBER: W3544X

CHARTS

High band Radiation pattern at Horizontal plane of W3544B



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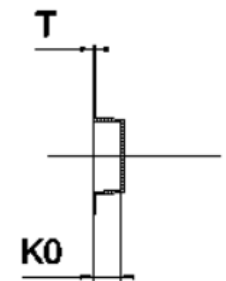
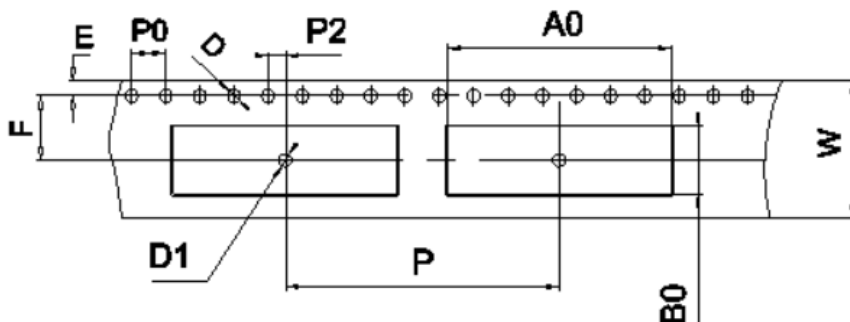
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PACKAGING

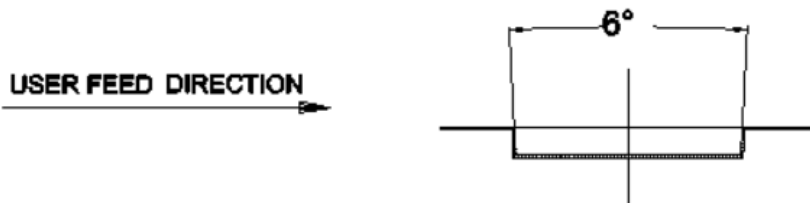
140pcs Antennas Per 1pcs 7" Tape & Reel

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.

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ASSEMBLY

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

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

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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JONHON

«JONHON» (основан в 1970 г.)

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(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

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(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

Web: <http://oceanchips.ru/>

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