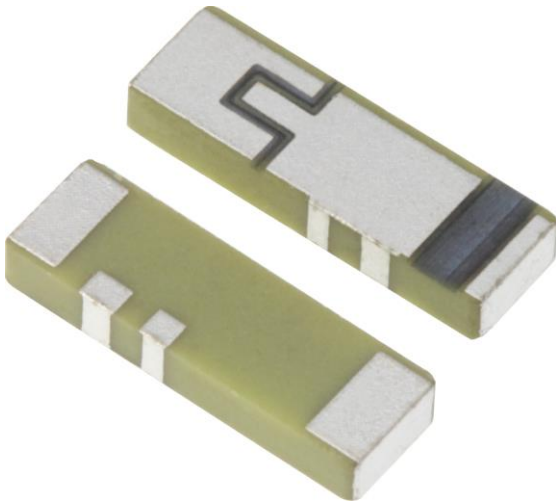


Features:

- Frequency: 1558-1616/2400-2500MHz
- Omni directional radiation
- Low profile
- Size W x L x H (10 x 3.2 x 1.5mm)
- Lead free materials
- Fully SMD compatible
- MSL Level 3
- RoHS Compliant



Applications:

- Combo 2-in-1 Antenna
- Single feed point
- GNSS L1 band
- Bluetooth, WLAN, WiFi (2.4 – 2.5GHz)

All dimensions are in mm / inches

Issue: 1837

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For more information:

Pulse Worldwide Headquarters
15255 Innovation Drive #100
San Diego, CA 92128
USA
Tel: 1-858-674-8100

Pulse/Larsen Antennas
18110 SE 34th St Bldg 2 Suite 250
Vancouver, WA 98683
USA
Tel: 1-360-944-7551

Europe Headquarters
Pulse GmbH & Do, KG
Zeppelinstrasse 15
Herrenberg, Germany
Tel: 49 7032 7806 0

Pulse (Suzhou) Wireless Products Co, Inc.
99 Huo Ju Road(#29 Bldg,4th Phase
Suzhou New District
Jiangsu Province, Suzhou 215009 PR China
Tel: 86 512 6807 9998



**Description: Ceramic Single Feed GNSS/BT
Antenna****Series: Ceramic Antenna****PART NUMBER: W3056****ELECTRICAL SPECIFICATIONS**

Antenna Type	Ceramic Chip
Frequency	1558-1616MHz/2.4-2.5GHz
Nominal Impedance	50 Ω
Return Loss / Max (BD / GPS / GLONASS / BT)	-4 / -5 / -3 / -7 (dB)
Radiation Pattern – XY Plane & ZY Plane	Omni
Radiation Pattern – ZX Plane	Directional
Gain / Min (BD / GPS / GLONASS / BT)	-0.5 / 0.5 / 0 / 2 (dBi)
Efficiency / Min (BD / GPS / GLONASS / BT)	35% / 45% / 45% / 65%
Polarization	Linear-Vertical
Power Withstanding	1W

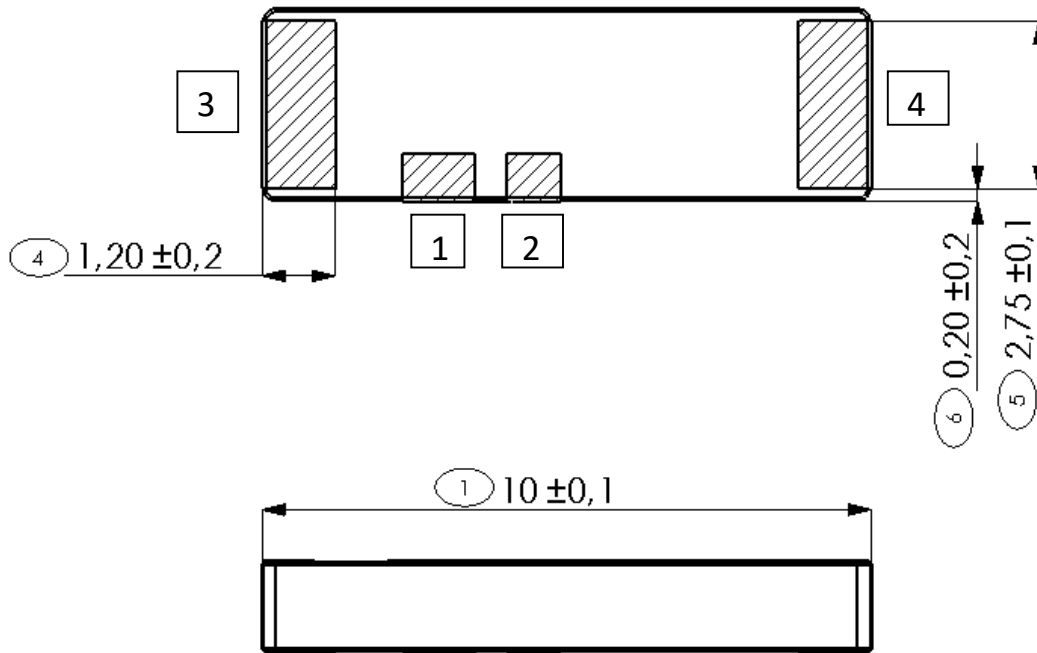
MECHANICAL SPECIFICATIONS

Overall Length	10mm
Weight	0.24g
Antenna Color	White

ENVIRONMENTAL SPECIFICATIONS

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

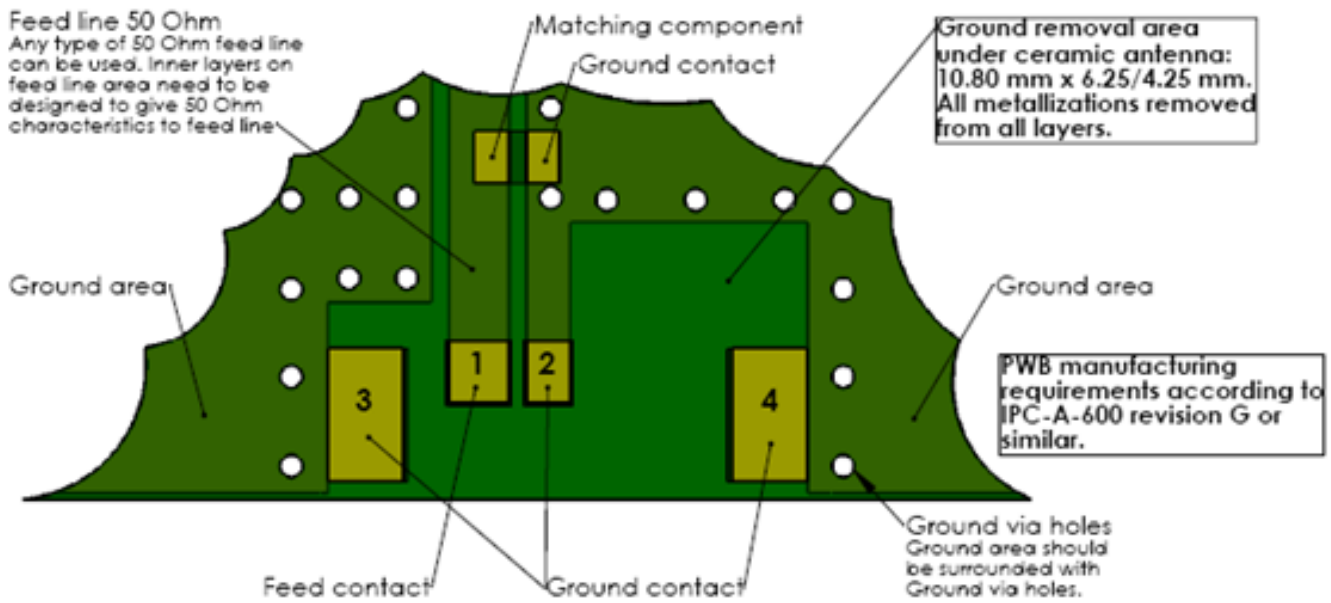
MECHANICAL DRAWING



No.	Terminal Name	Terminal Dimensions
1	Feed	1.34 x 0.80 mm
2	GND	1.00 x 0.80 mm
3	GND	2.75 x 1.20 mm
4	GND	2.75 x 1.20 mm

TEST SETUP

Test board information



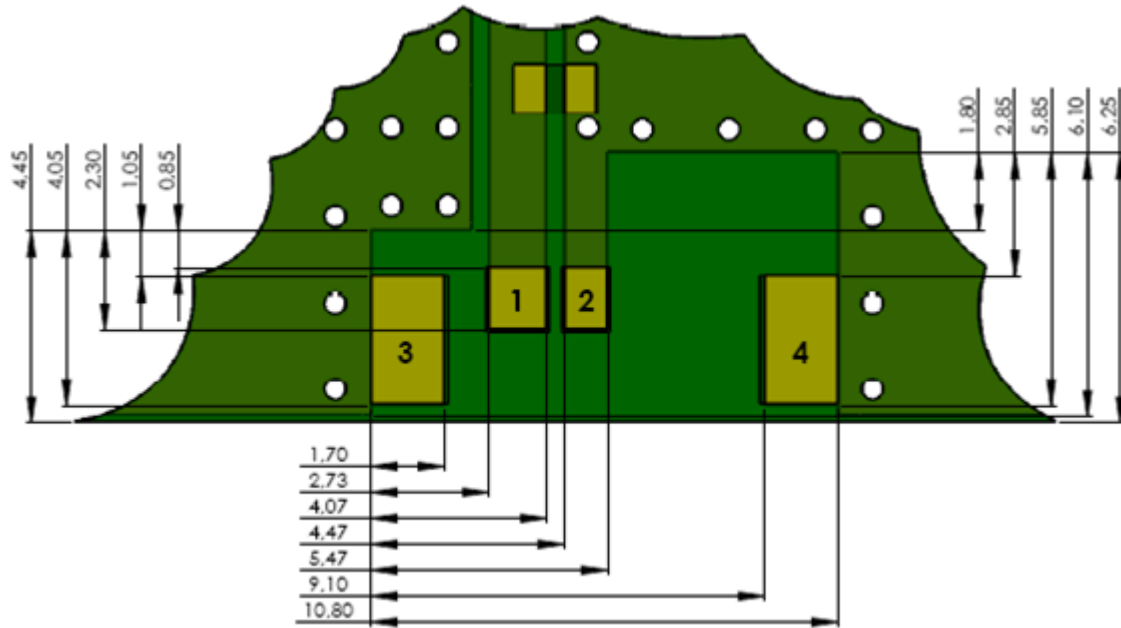
Note: Electrical characteristics are measured on test pwb with matching circuit (2.2 nH shunt matching inductor on feed).

Recommended Antenna Pad Dimensions on PWB Layout (top surface)

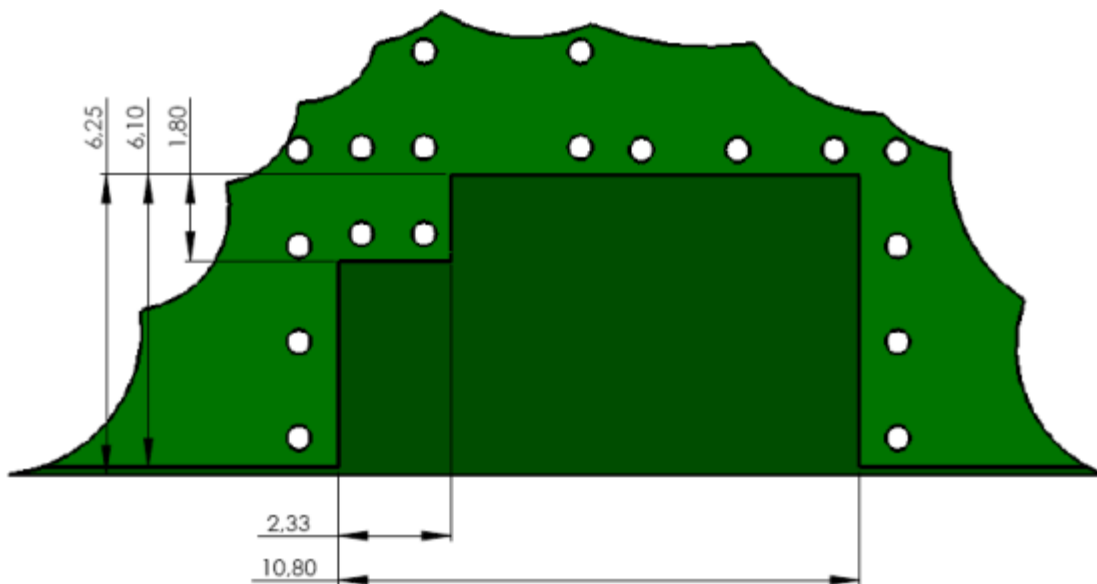
PWB features		
No.	Terminal Name	Terminal Dimensions
1	Feed	1.45 x 1.34 mm
2	GND	1.45 x 1.00 mm
3	GND	3.00 x 1.70 mm
4	GND	3.00 x 1.70 mm

TEST SETUP

Recommended ground clearance area under antenna on PWB (top surface)



Recommended ground clearance area under antenna on PWB (bottom surface)



Issue: 1837

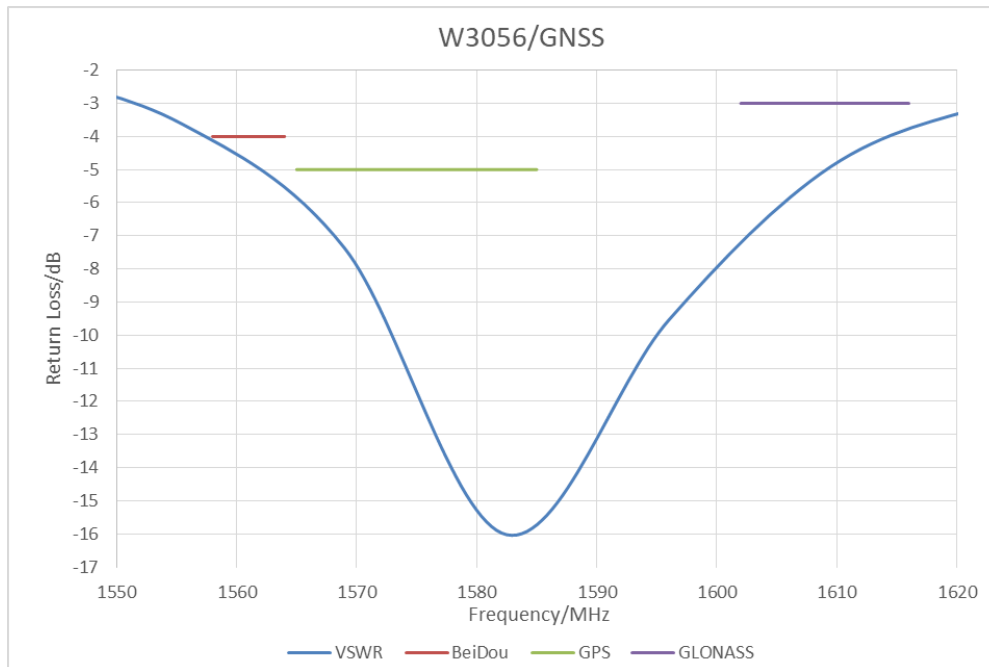
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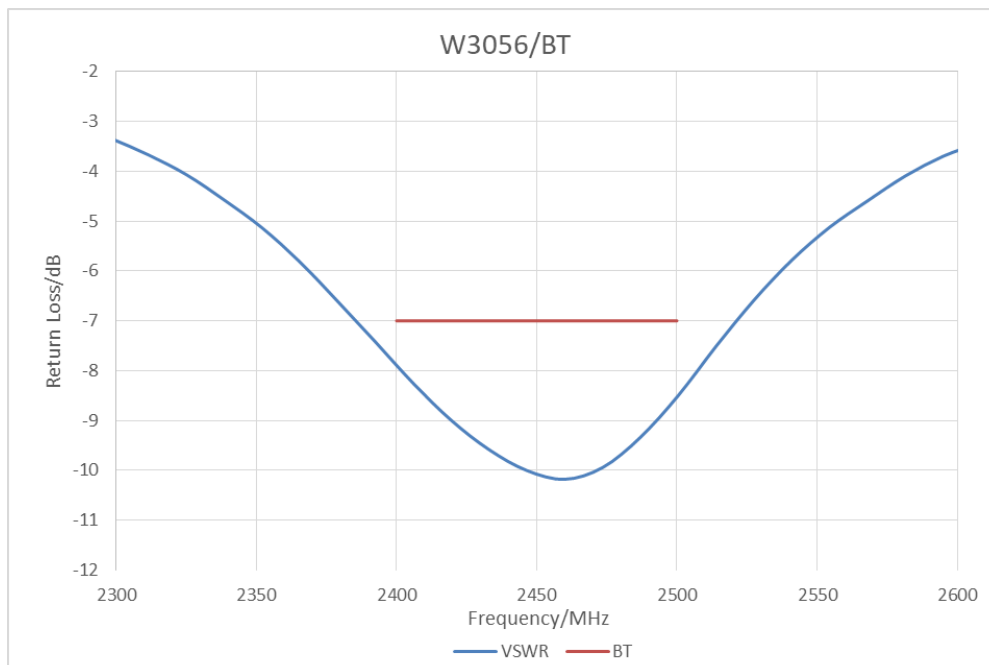
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CHARTS

Return Loss/GNSS



Return Loss/ BT



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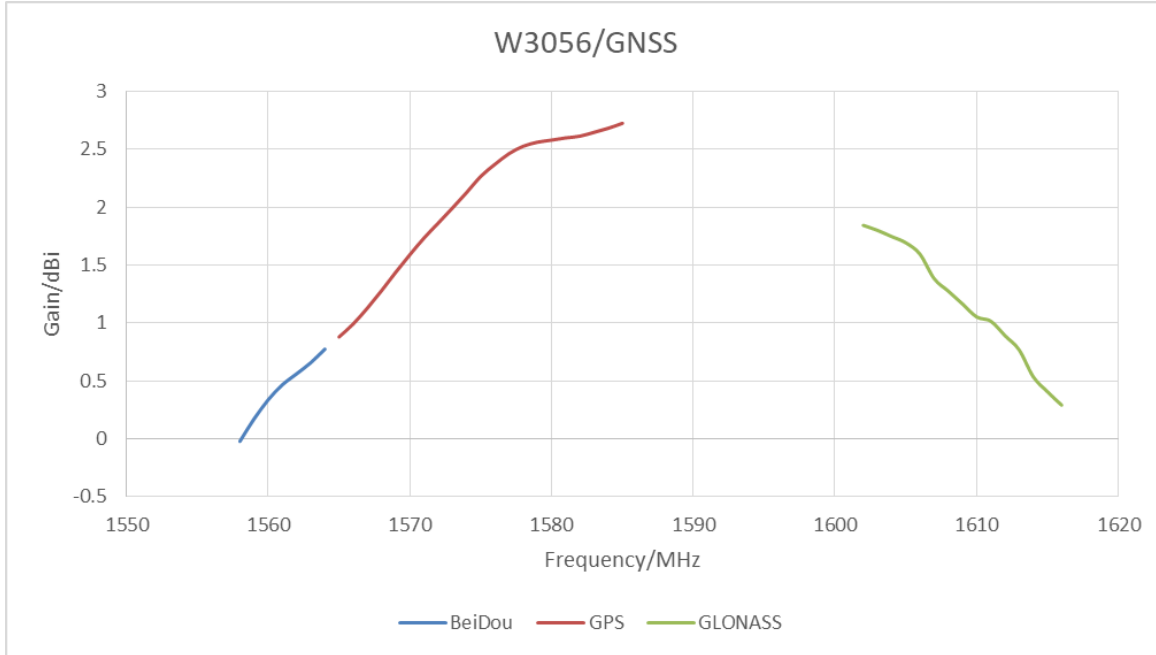
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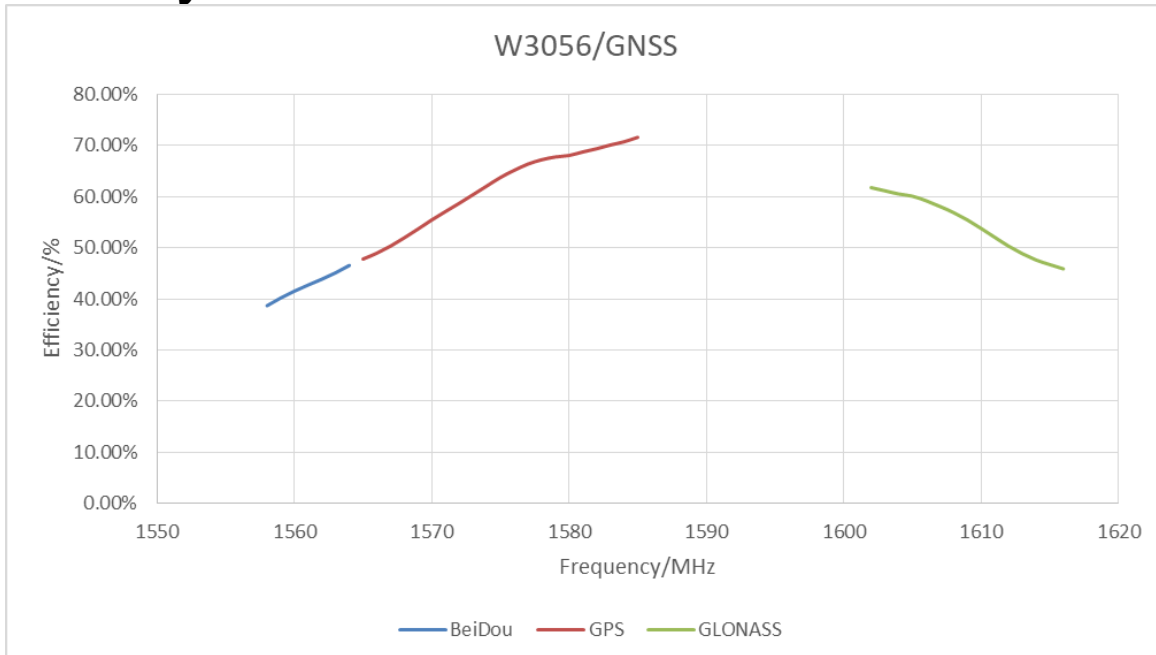
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CHARTS

Peaking Gain/ GNSS



Rad Efficiency/ GNSS



Issue: 1837

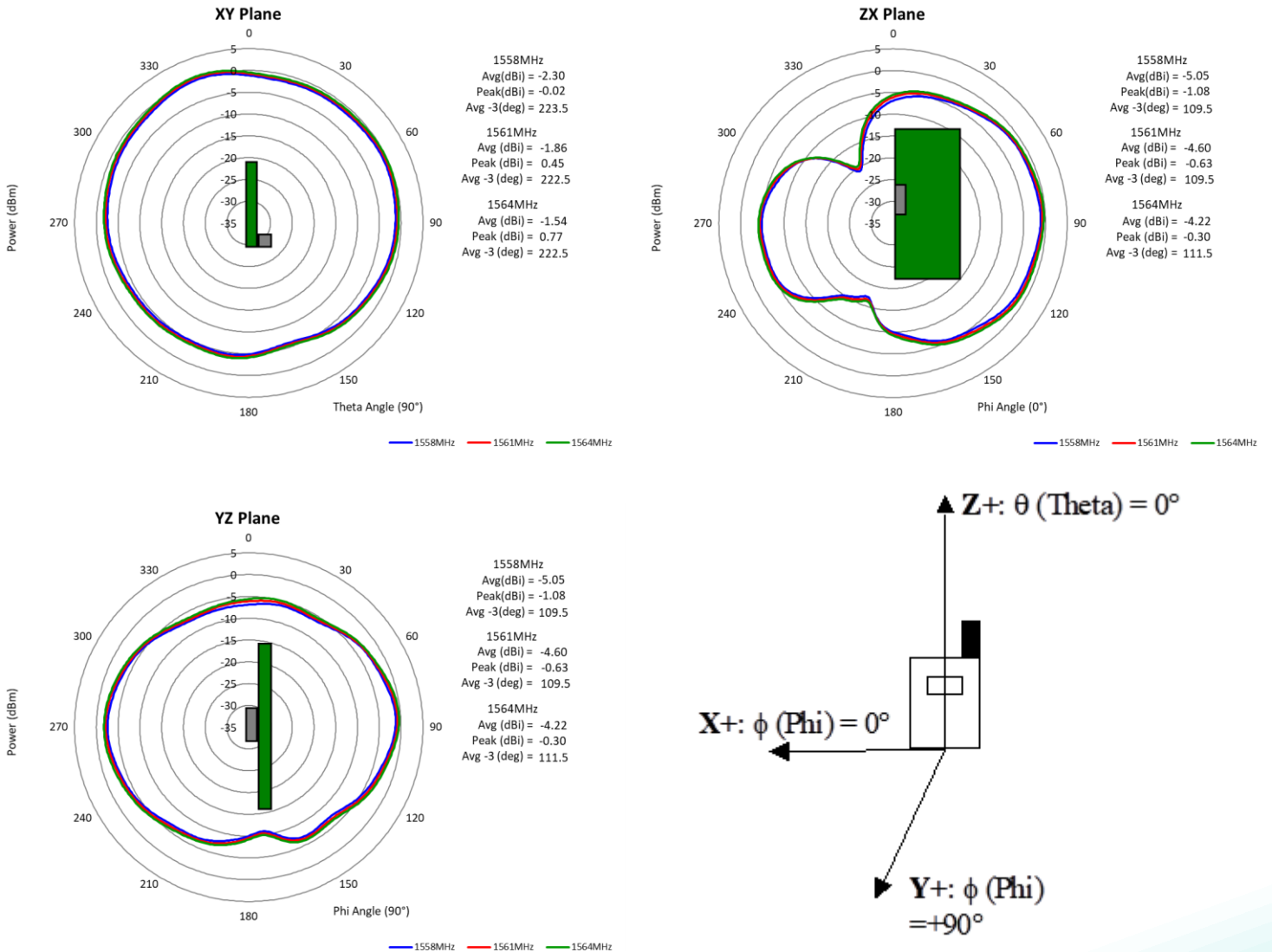
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CHARTS

Typical Free Space Radiation Patterns / BeiDou



Issue: 1837

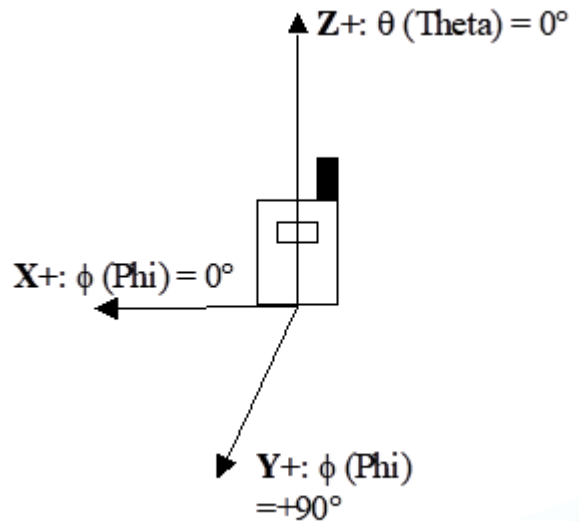
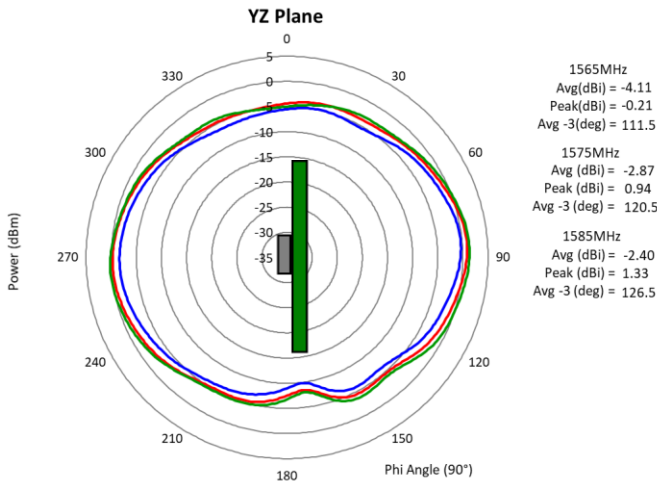
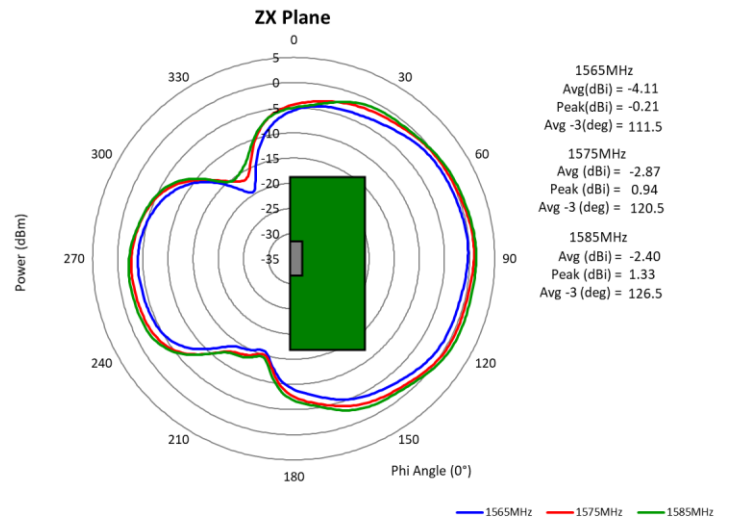
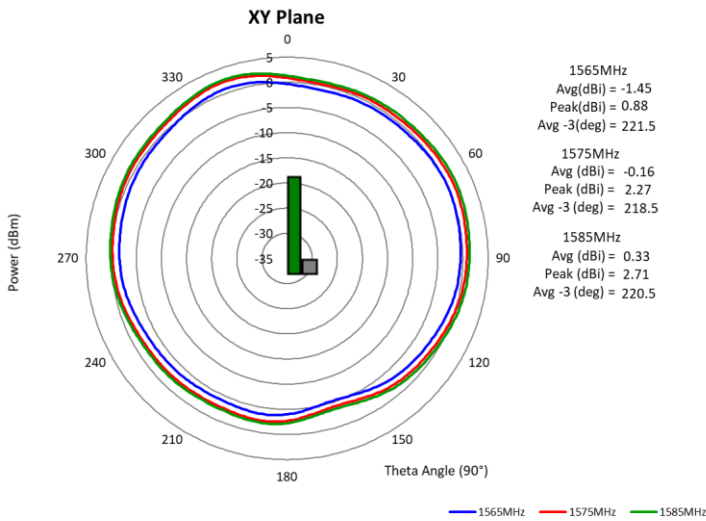
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CHARTS

Typical Free Space Radiation Patterns / GPS



Issue: 1837

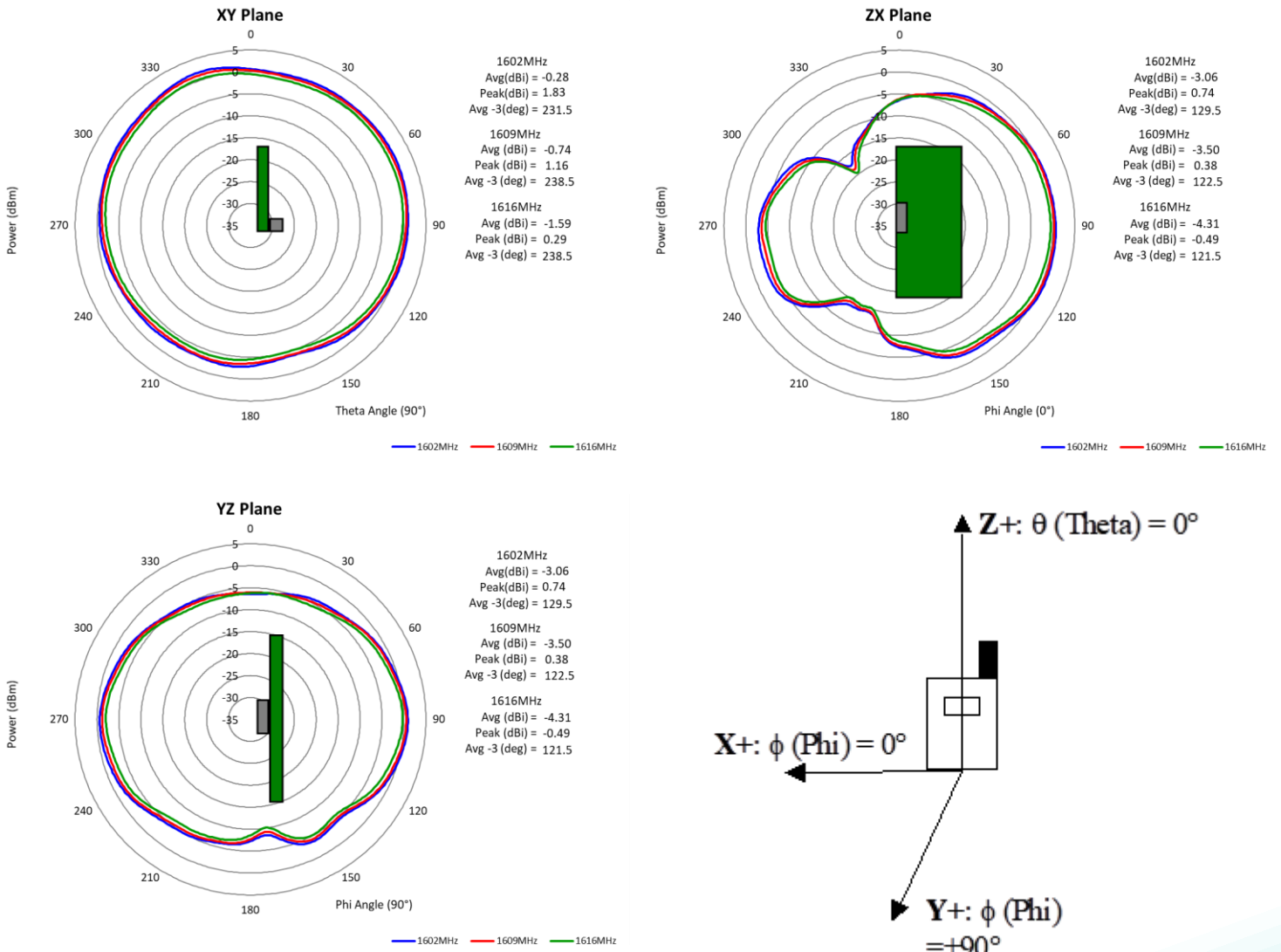
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CHARTS

Typical Free Space Radiation Patterns / GLONASS



Issue: 1837

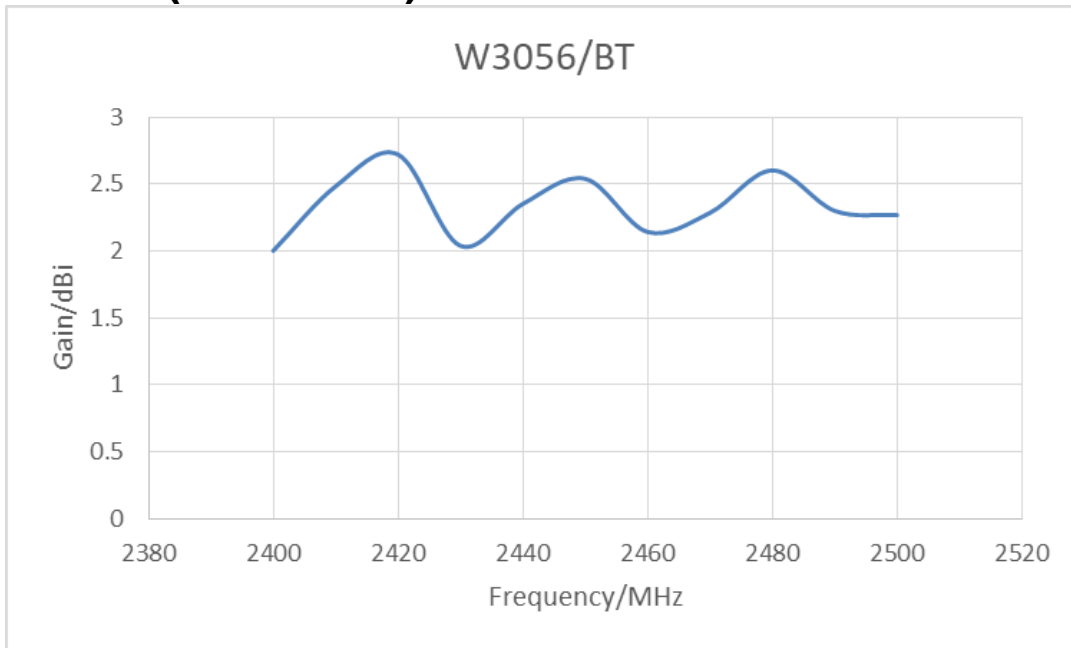
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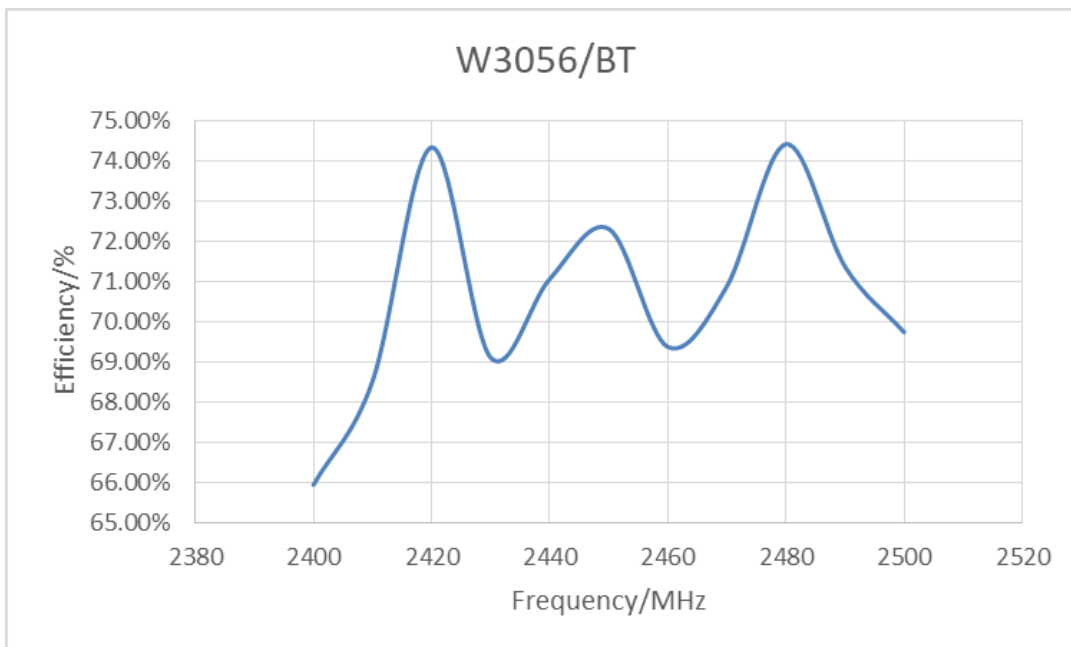
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CHARTS

Peaking Gain/ BT(2.4G-2.5G)



Rad Efficiency/ BT(2.4G-2.5G)



Issue: 1837

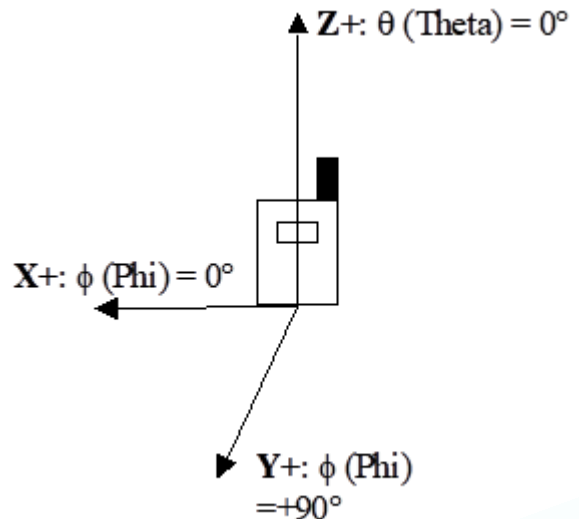
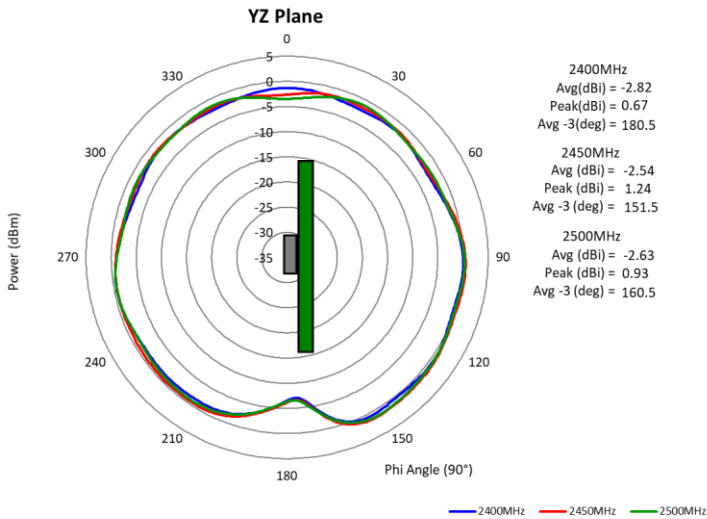
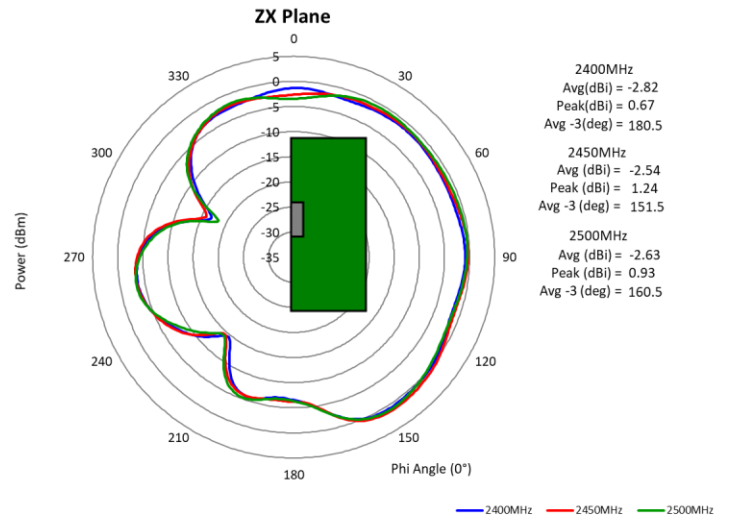
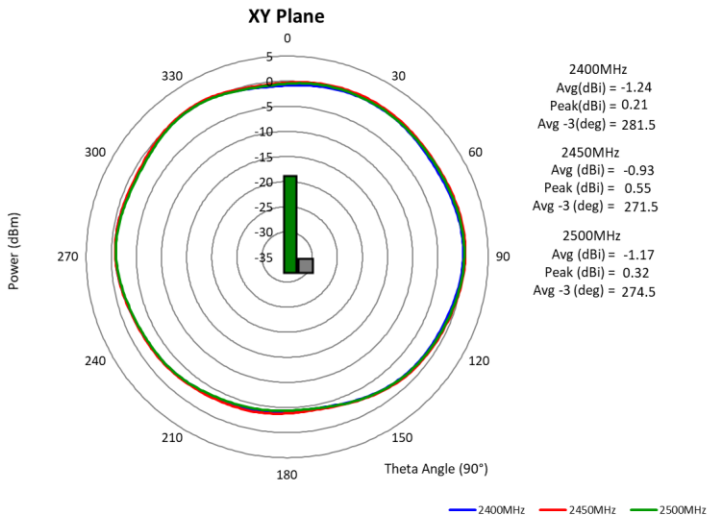
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CHARTS

Typical Free Space Radiation Patterns / BT(2.4G-2.5G)



Issue: 1837

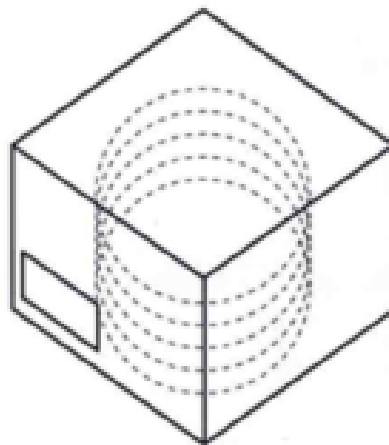
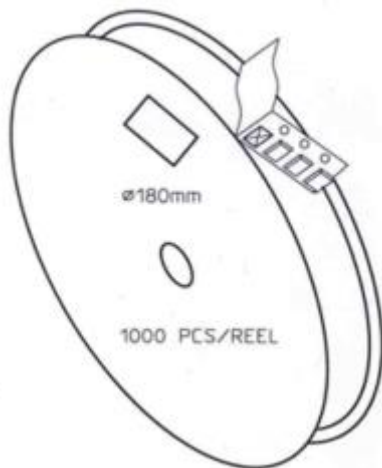
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PACKAGING

1. Tape and reel packing with plastic vacuum bag.
1000 PCS/ REEL, 4 Reels/ BOX



2. MSL: Level 3

2.1 Calculated shelf life in sealed bag: 12 months at $< 30^{\circ}\text{C}$ and 60% relative humidity (RH)

2.2 Peak temperature in reflow: 260°C

2.3 After bag is opened, devices that will be subjected to reflow solder or other temperature process must:

- a) Mount within: 168 hours of factory conditions $\leq 30^{\circ}\text{C}/60\%$
- b) stored at $< 20\%$ RH

2.4 Devices require bake, before mounting, if:

- a) Humidity Indicator Card is $> 20\%$ when read at $23 \pm 5^{\circ}\text{C}$
- b) 3a or 3b not met

2.5 If baking is required, devices may be baked for 24 hours at $125\sim 130^{\circ}\text{C}$

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.)

Разъемы специального, военного и аэрокосмического назначения:

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

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

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



Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

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

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А