

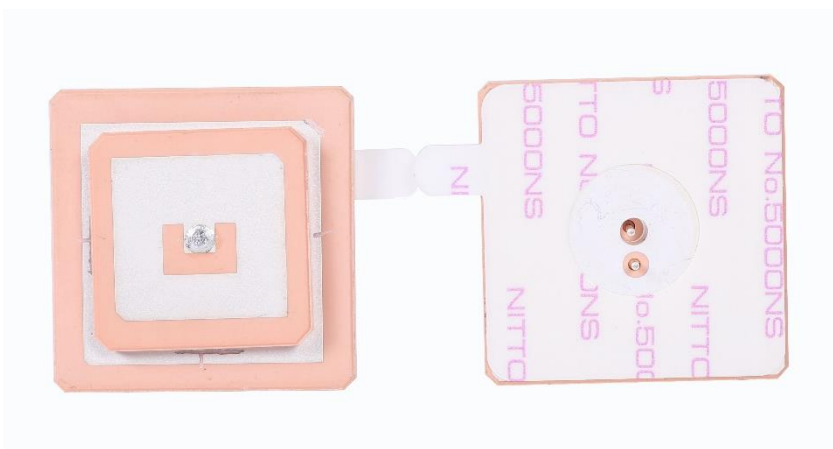
Description: GNSS L1+L5 Pin Feed Patch Antenna

Series: Combo Patch

PART NUMBER: W3231

Features:

- Antenna type stacked patch
- Gain +2 dBic @ 1176.45MHz
- Gain +3 dBic @ 1575.42MHz
- Gain 0 dBic @ 1602.65MHz
- Polarization RCHP
- Size 35 x 35 x 7 mm
- Separate feed pins for L1 and L5 bands



Applications:

- GNSS multiband receivers
- High precision navigation and tracking devices

All dimensions are in mm / inches

Issue: 2020

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

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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: GNSS L1+L5 Pin Feed Patch Antenna**Series:** Combo Patch**PART NUMBER:** W3231**ELECTRICAL SPECIFICATIONS ***

Antenna Type	Stacked Patch Antenna
Frequency	1176.45 ± 1.023MHz 1575.42 ± 1.023MHz 1602.56 ± 4MHz
Nominal Impedance	50 Ω
Return Loss (Max)	-10 / -8 / -4 dB
Radiation Pattern	Omni Hor plane Directional Ver plane
Gain (Typ)	2 / 3 / 0 dBic
Efficiency (Min)	70 / 60 / 40 %
Polarization	RHCP
Axial Ratio (Max)	14 / 4 / 6 dB

MECHANICAL SPECIFICATIONS

Size	35x35x7mm
Weight	25g
Color	Gray

ENVIRONMENTAL SPECIFICATIONS

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

* Test with 70mm*70mm ground plane.

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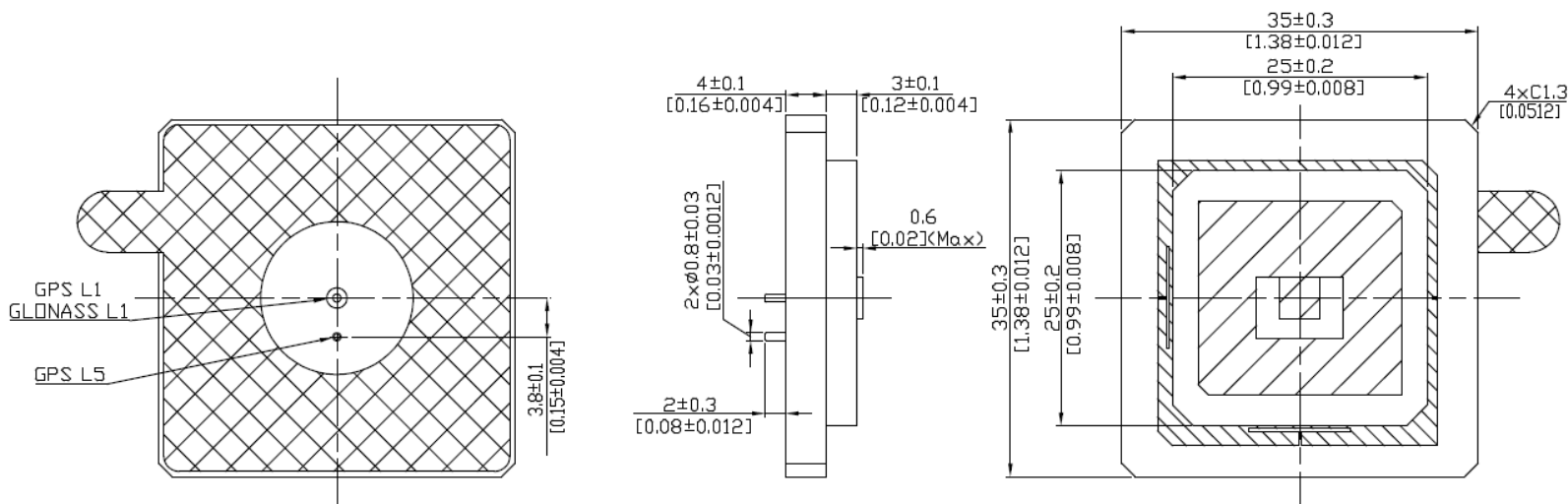
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MECHANICAL DRAWING



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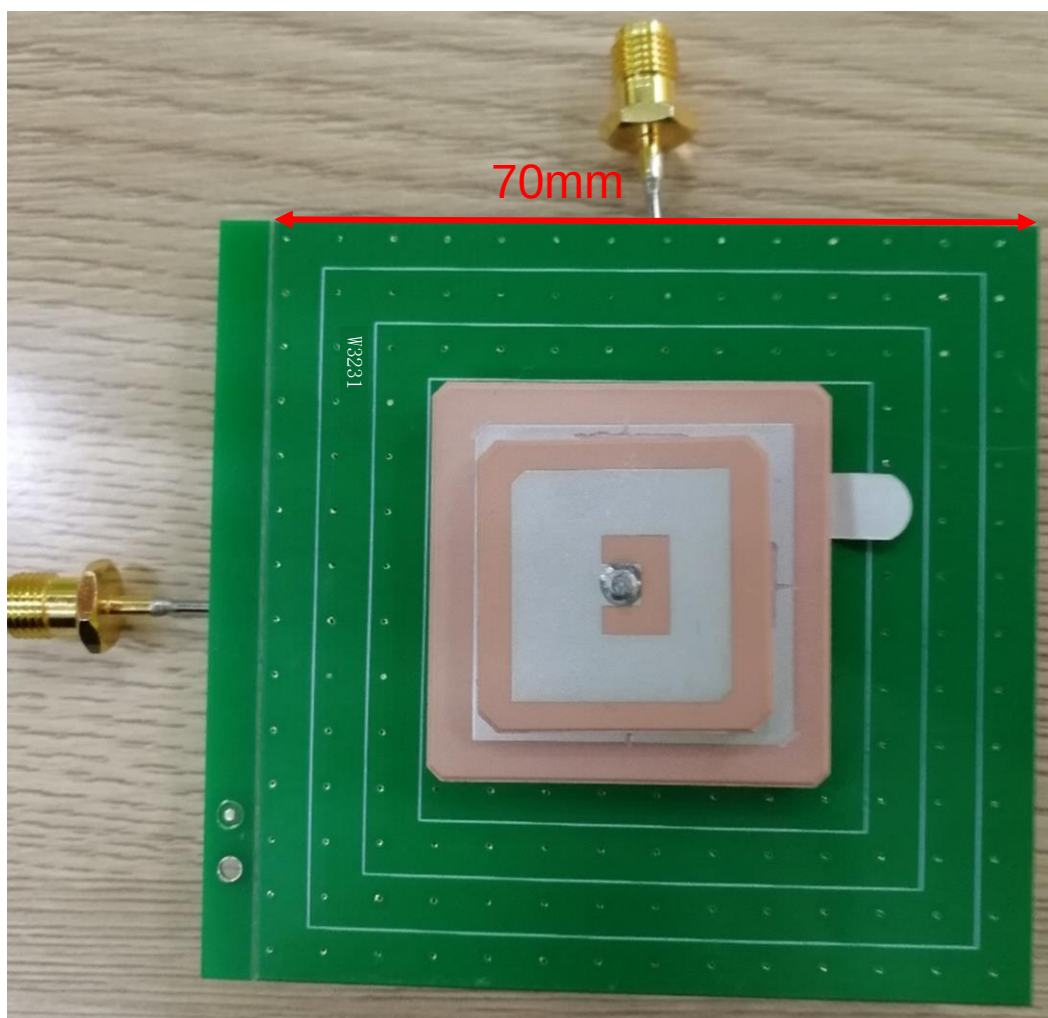
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TEST SETUP



* Test with 70mm*70mm ground plane.

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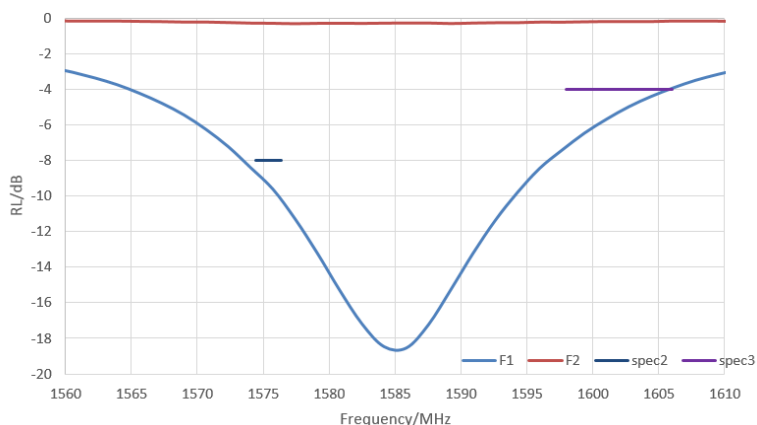
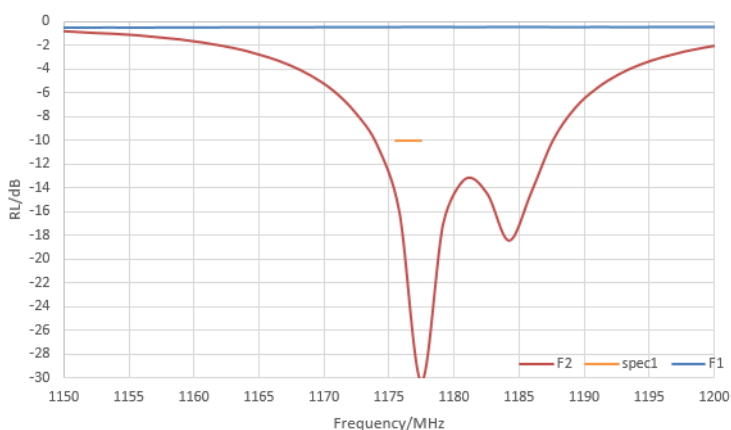
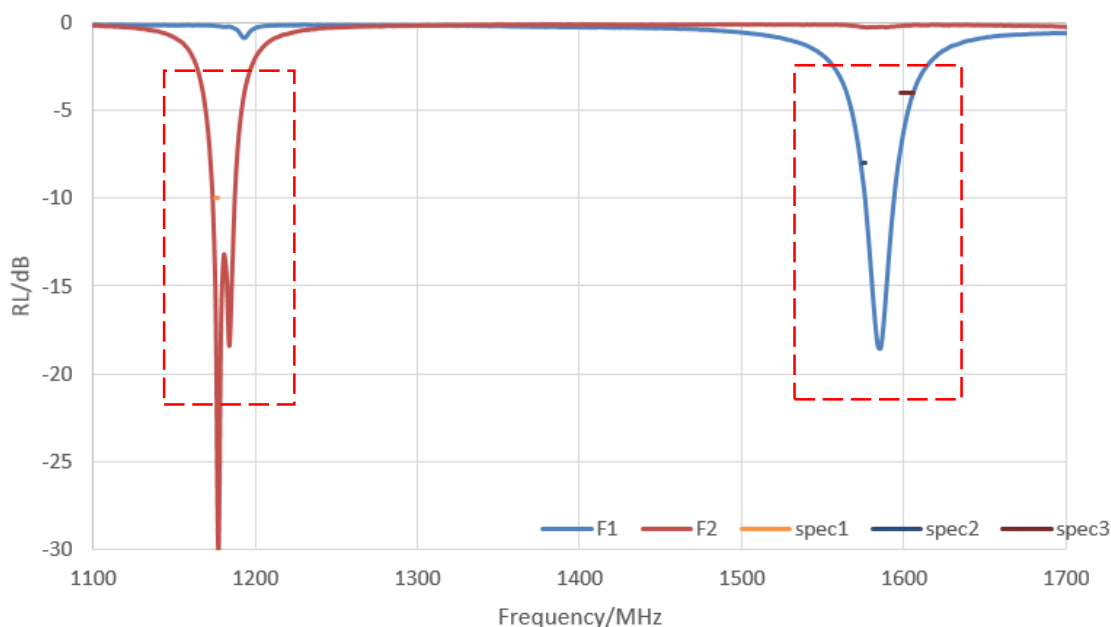
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CHARTS

Return Loss vs Frequency



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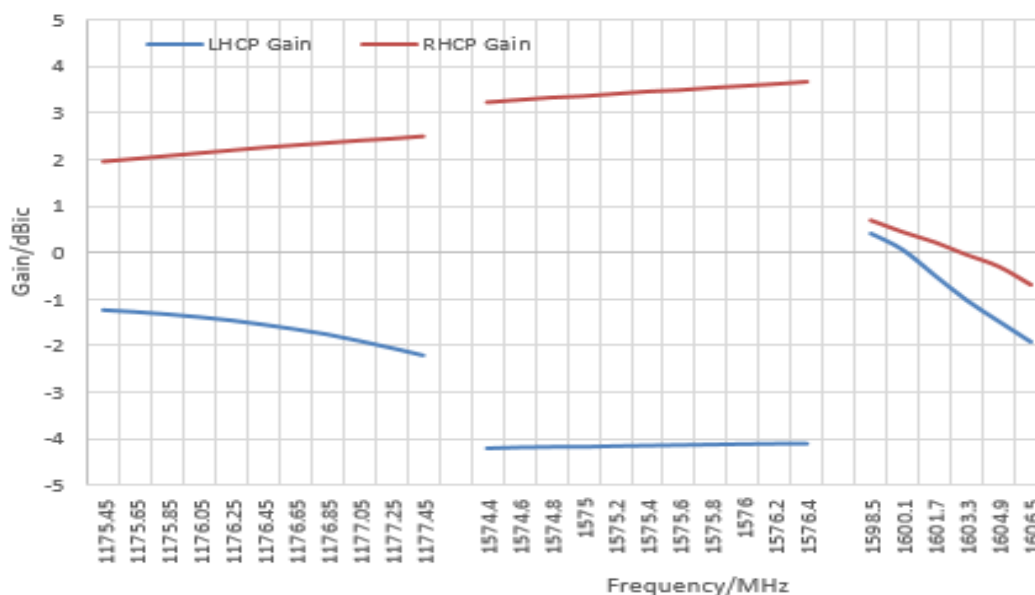
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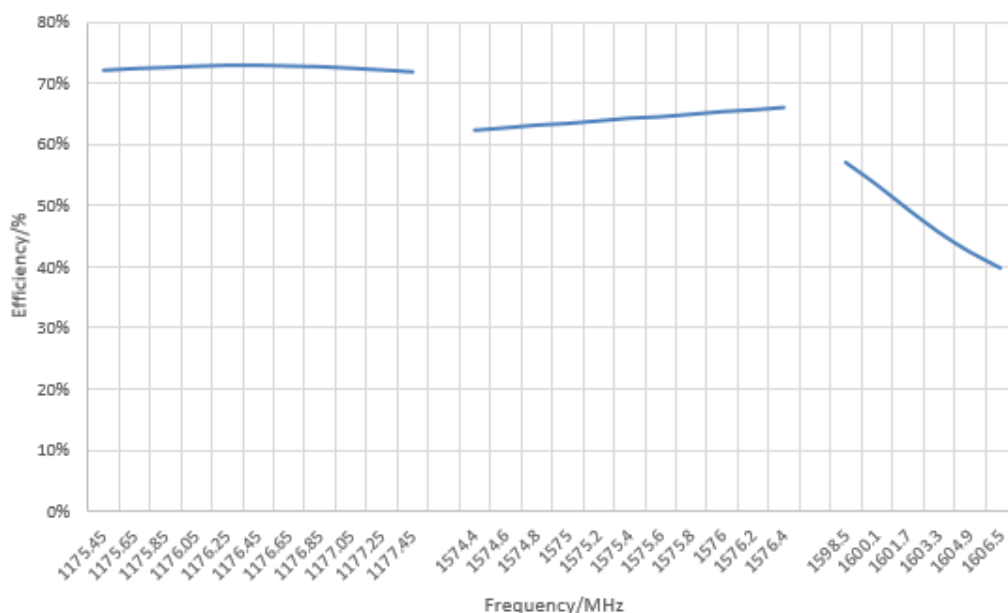
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CHARTS

Gain vs Frequency



Radiation Efficiency vs Frequency



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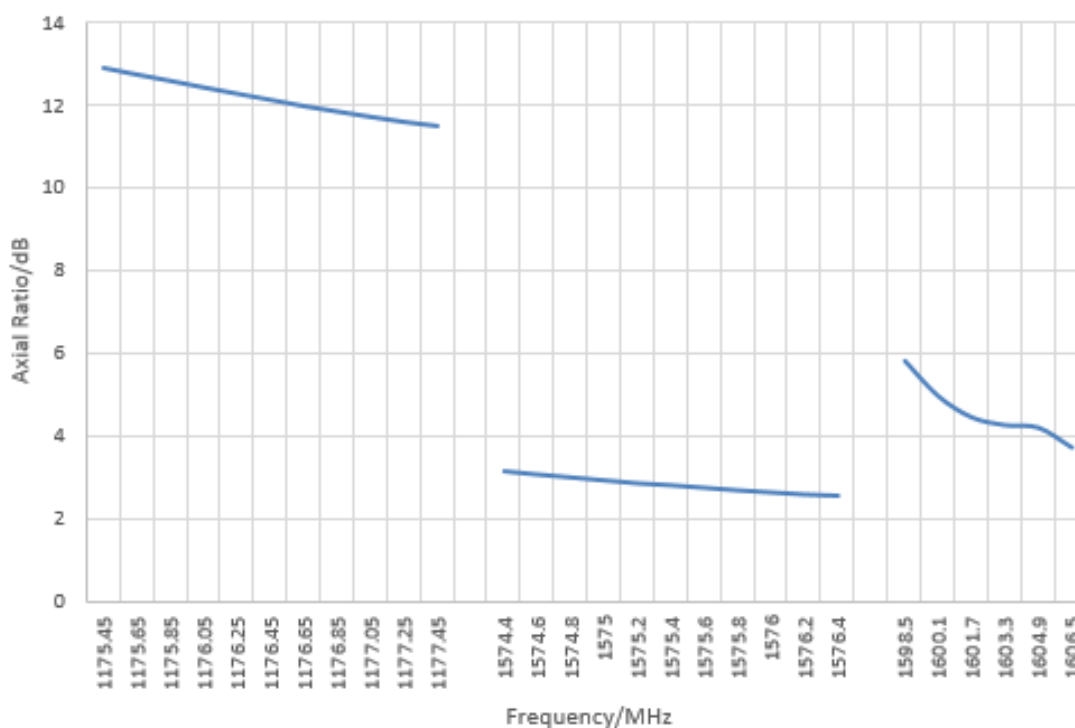
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Axial Ratio vs Frequency



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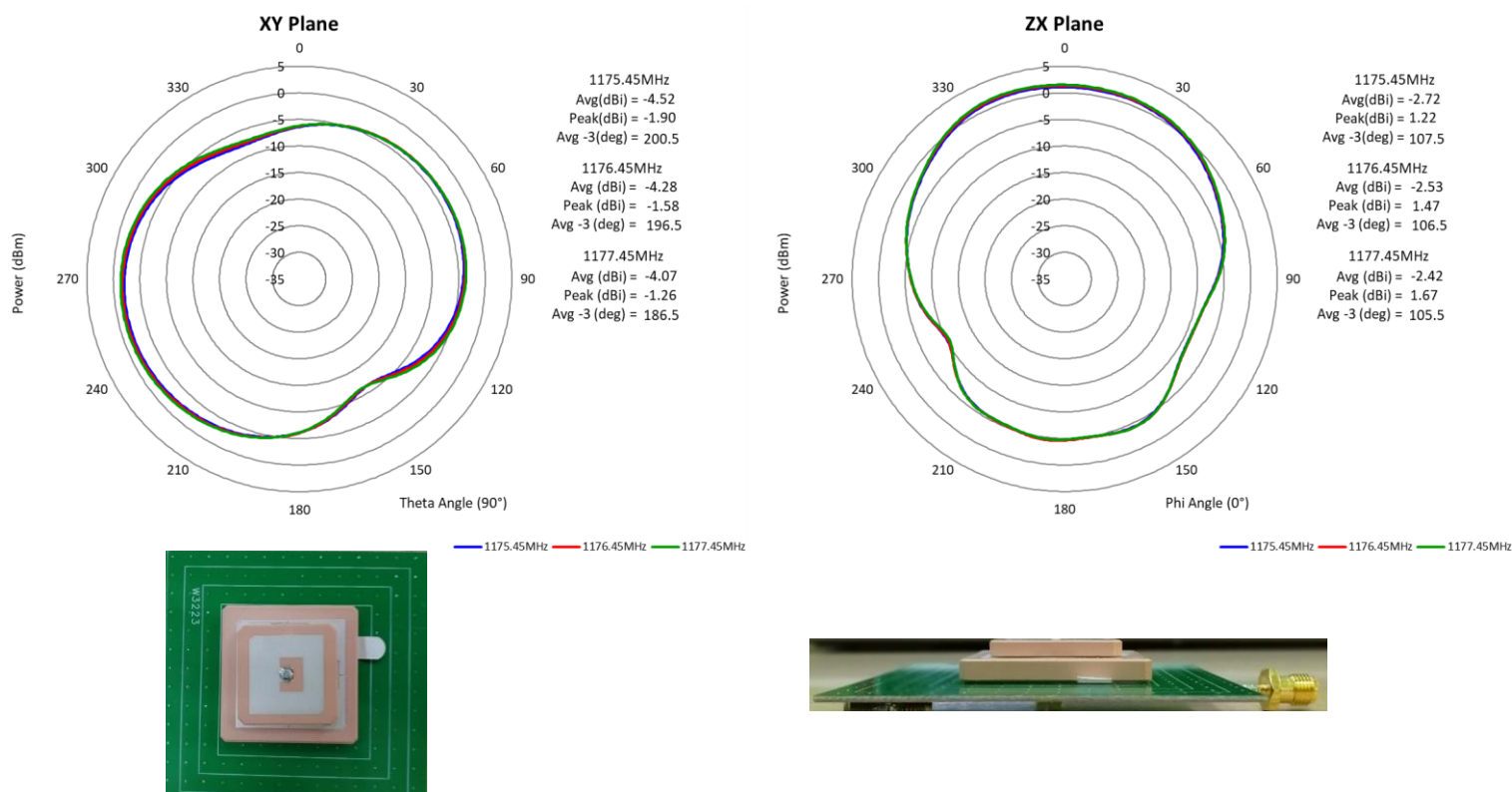
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CHARTS

Radiation Pattern 2D/GPS L5



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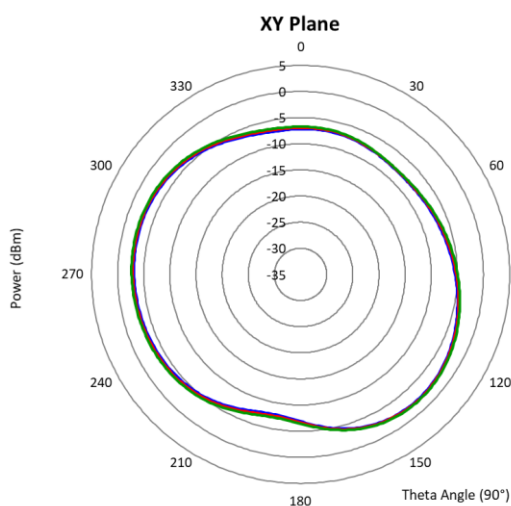
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CHARTS

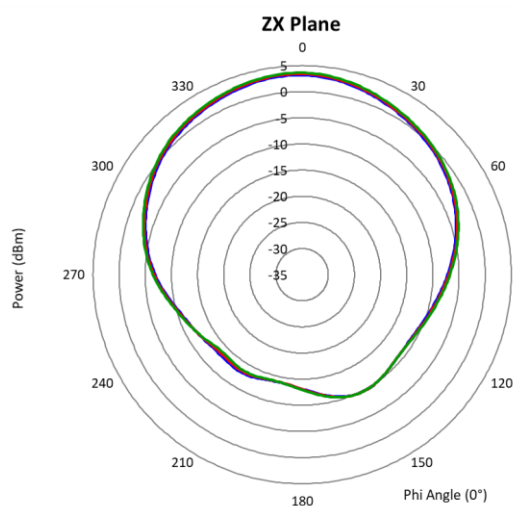
Radiation Pattern 2D/GPS L1



1574.4MHz
Avg(dBi) = -4.81
Peak(dBi) = -2.21
Avg -3(deg) = 182.5

1575.4MHz
Avg (dBi) = -4.59
Peak (dBi) = -2.06
Avg -3 (deg) = 185.5

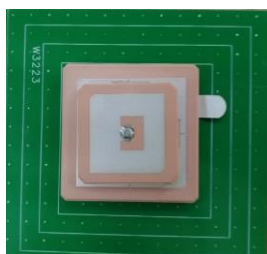
1576.4MHz
Avg (dBi) = -4.39
Peak (dBi) = -1.92
Avg -3 (deg) = 190.5



1574.4MHz
Avg(dBi) = -2.40
Peak(dBi) = 3.20
Avg -3(deg) = 86.5

1575.4MHz
Avg (dBi) = -2.17
Peak (dBi) = 3.43
Avg -3 (deg) = 87.5

1576.4MHz
Avg (dBi) = -1.95
Peak (dBi) = 3.65
Avg -3 (deg) = 87.5



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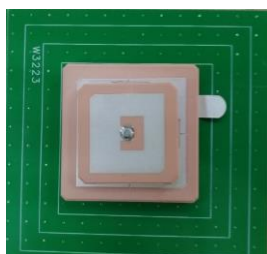
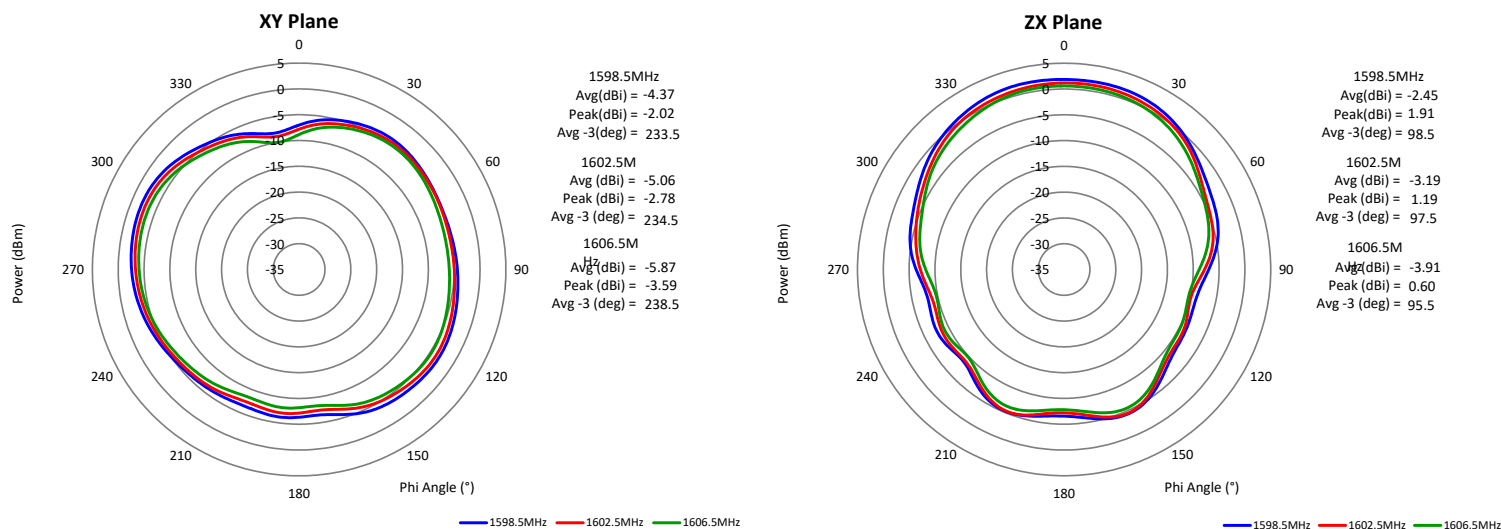
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CHARTS

Radiation Pattern 2D/ Glonass L1



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PACKAGING

120pcs antenna per PE bag

120pcs antenna per inbox

240pcs antenna per outbox

Outbox: 400mm*300mm*180mm