chanhvinh.com

# Metal Surface Mount WiFi Antenna

*TWA422CC01 – 2.4 to 2.5 GHz/5.15 to 5.85GHz*

OBSOLETE



## *Features & Applications:*

- *WiFi antenna is designed for use on metal surface*
- *FPCB with adhesive*
- *Size 29x26.4x2.45mm*
- *1.13mm cable with I-PEX MHF 4L*
- *RoHS Compliant*

**ELECTRICAL SPECIFICATIONS @ 25°C**

**General Specifications**

| Antenna type | Nominal Impedance | Polarization | Radiation pattern | Power withstanding |
|---|---|---|---|---|
| PIFA | 50Ω | Linear | Omni | 1W |

| Frequency (MHz) | 2400-2500 | 5150-5850 |
|---|---|---|
| Return Loss(dB) | <-7 | <-9 |
| Peak Gain (dBi) | 1.75 | 5.72 |
| Efficiency (%) | 36 | 50 |

**MECHANICAL SPECIFICATIONS**

**TWA422CC01**

| Dimension (Length x Width x Height) | Material | Color | Cable Type | Connector Type | Cable length | Weight |
|---|---|---|---|---|---|---|
| 29mm x 26.4mm x 2.45mm | FPCB | Black | 1.13 coaxial cable | I-PEX MHF 4L | 95mm | 1.97g |

**ENVIRONMENTAL SPECIFICATIONS**

**TWA422CC01**

| Storage Temperature | Operating Temperature | Ingress Protection | RoHS Compliant |
|---|---|---|---|
| -40/+85° C | -40/+85° C | N/A | Yes |

chanhvinh.com

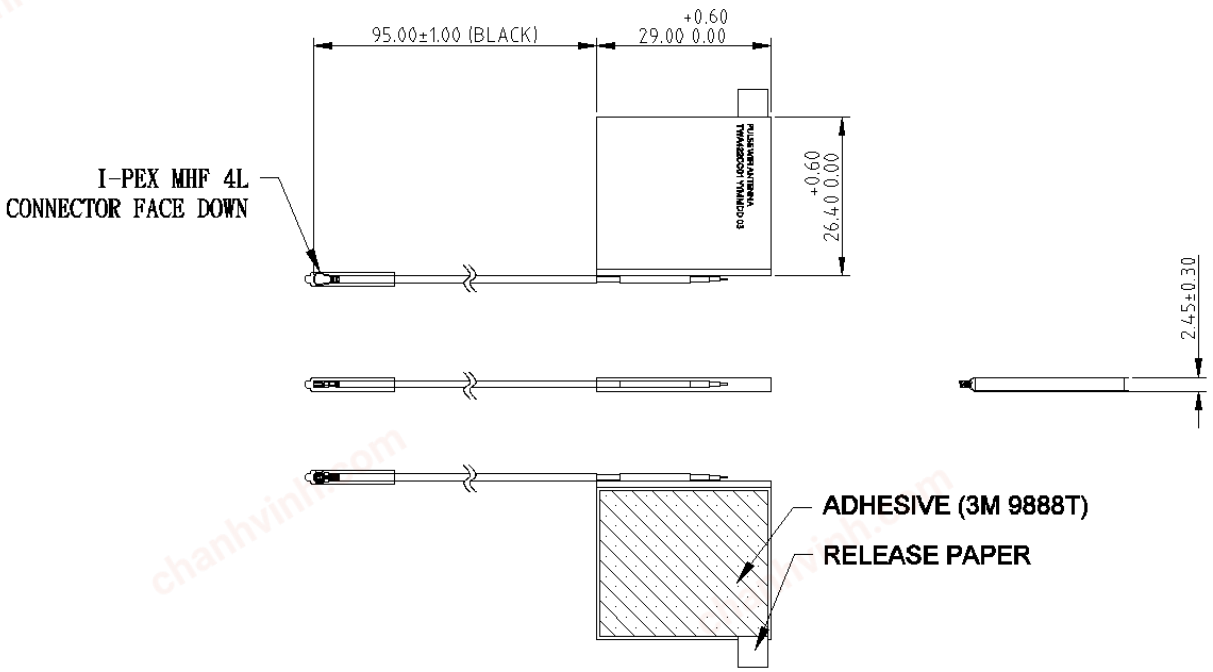
# Metal Surface Mount WiFi Antenna

*TWA422CC01 – 2.4 to 2.5 GHz/5.15 to 5.85GHz*

OBSOLETE

## Mechanical Drawing

TWA422CC01




Units: mm

chanhvinh.com

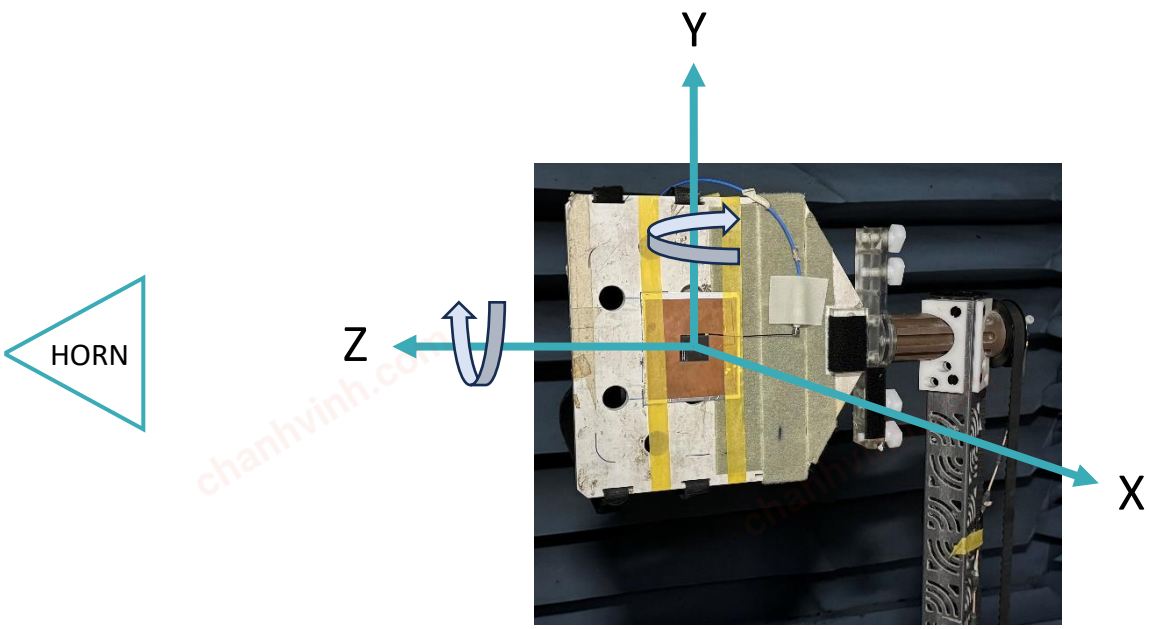


# Test Setup

## General / Chamber Setup

- Measured at Pulse YP (ETS Lindgren Chamber)
- Test data measured with 95mm cable
- The antenna is mounted on a 100mm x 100mm x 1mm metal plate

*Measurement setup*

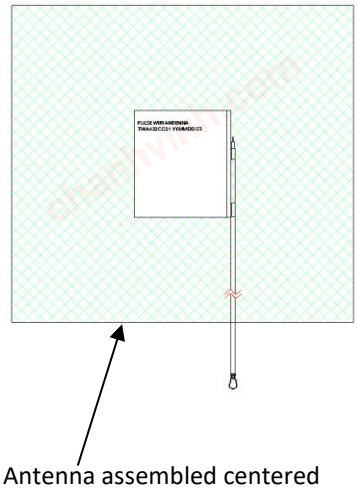


chanhvinh.com

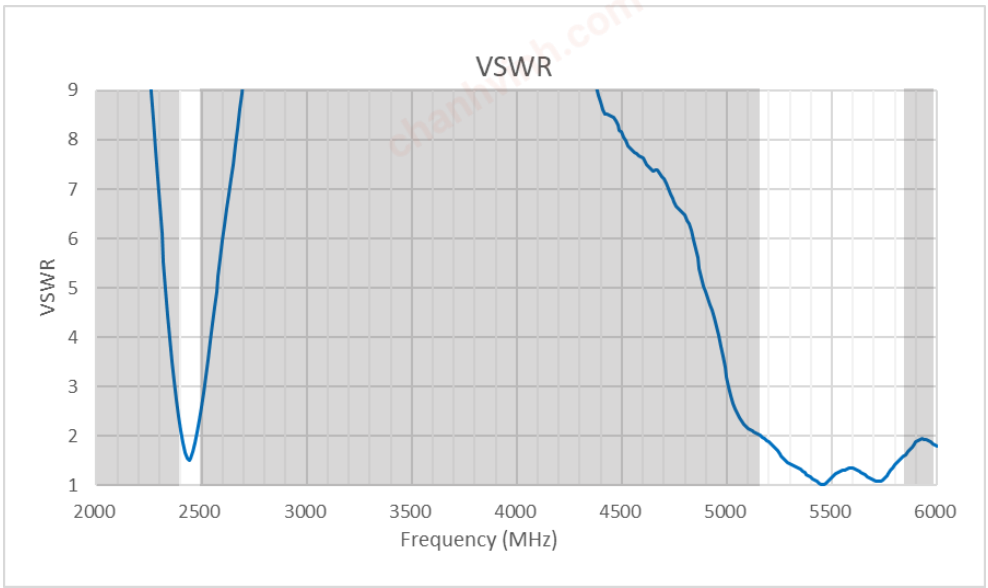


## Charts – VSWR

### Test data



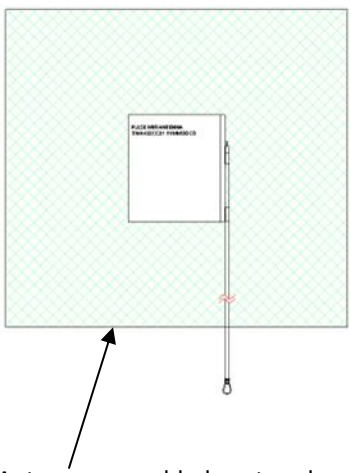
Antenna assembled centered on a 100 mm x 100 mm x 1 mm metal plate



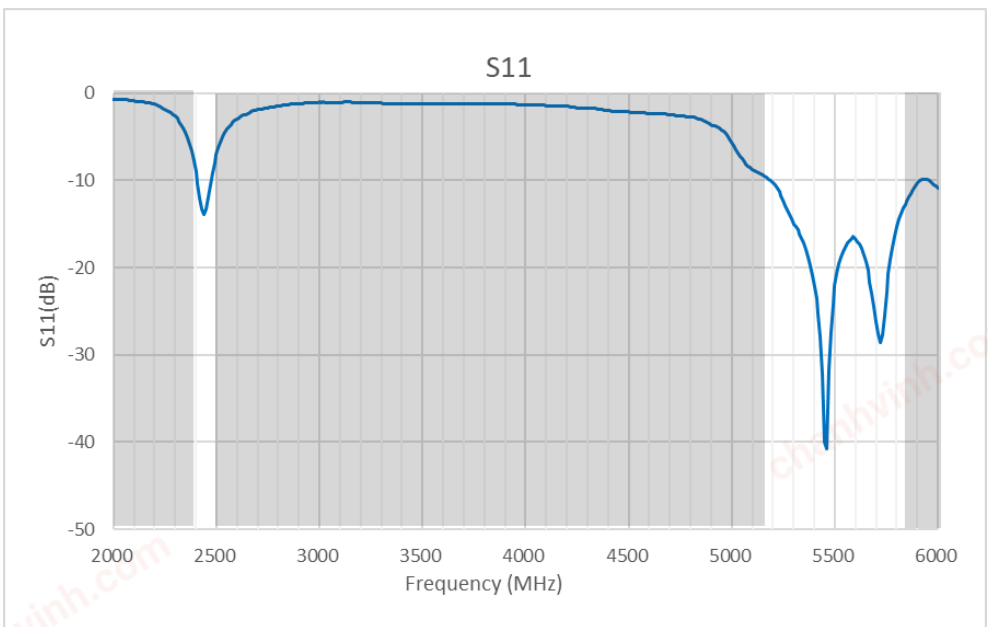

* Data measured with a 100mm x 100mm x 1mm metal plate

## Charts –Return Loss

### Test data



Antenna assembled centered on a 100 mm x 100 mm x 1 mm metal plate




* Data measured with a 100mm x 100mm x 1mm metal plate

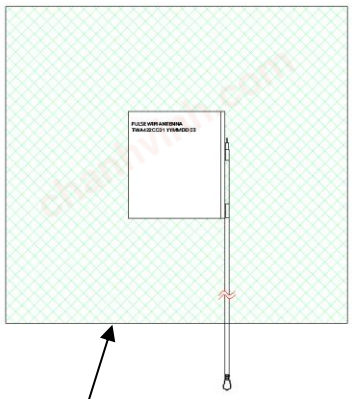
chanhvinh.com



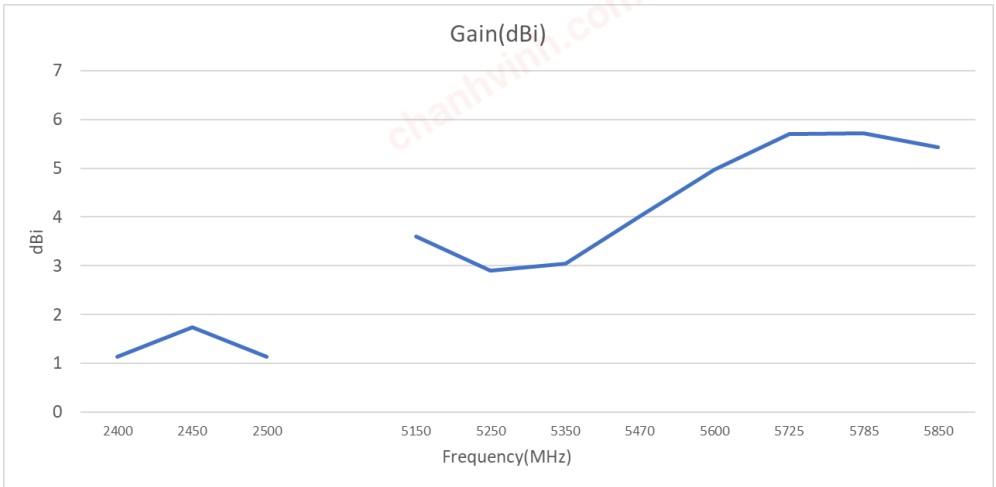
OBSOLETE

## Charts – Peak Gain(dBi)

Test data



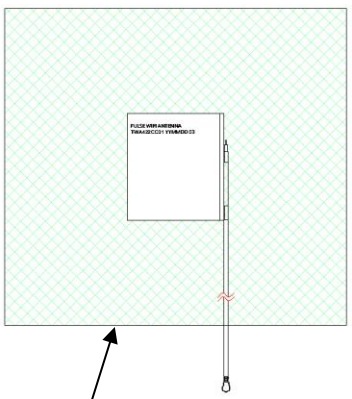
Antenna assembled centered on a 100 mm x 100 mm x 1 mm metal plate



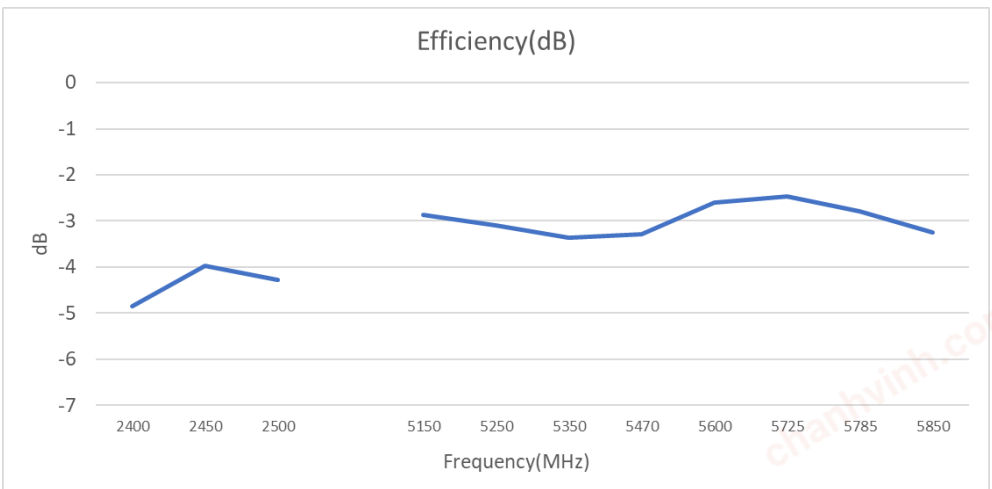

* Data measured with a 100mm x 100mm x 1mm metal plate

## Charts – Efficiency(dB)

Test data



Antenna assembled centered on a 100 mm x 100 mm x 1 mm metal plate



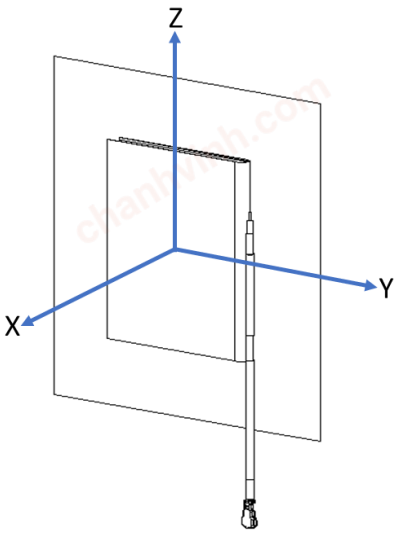

* Data measured with a 100mm x 100mm x 1mm metal plate

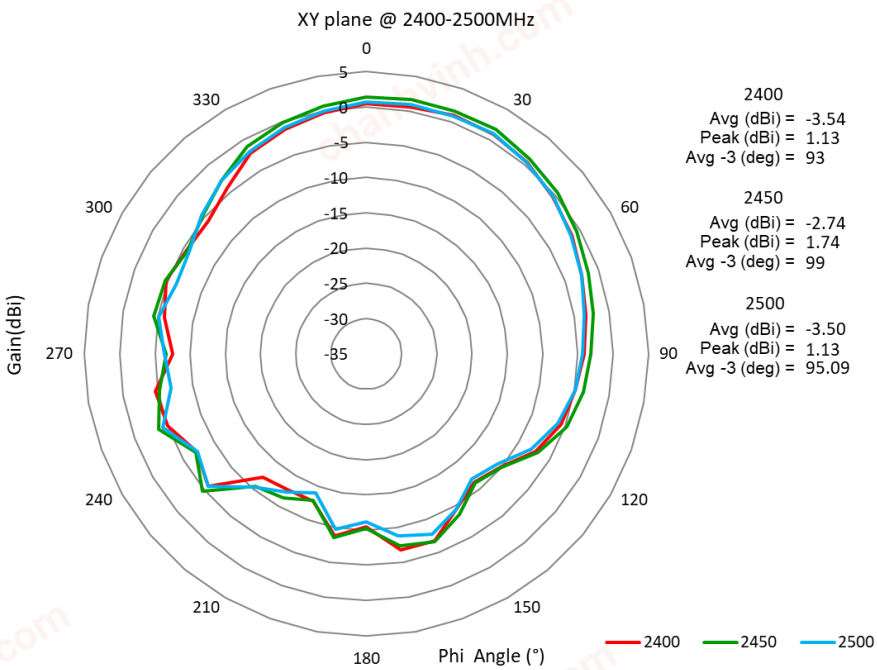
chanhvinh.com

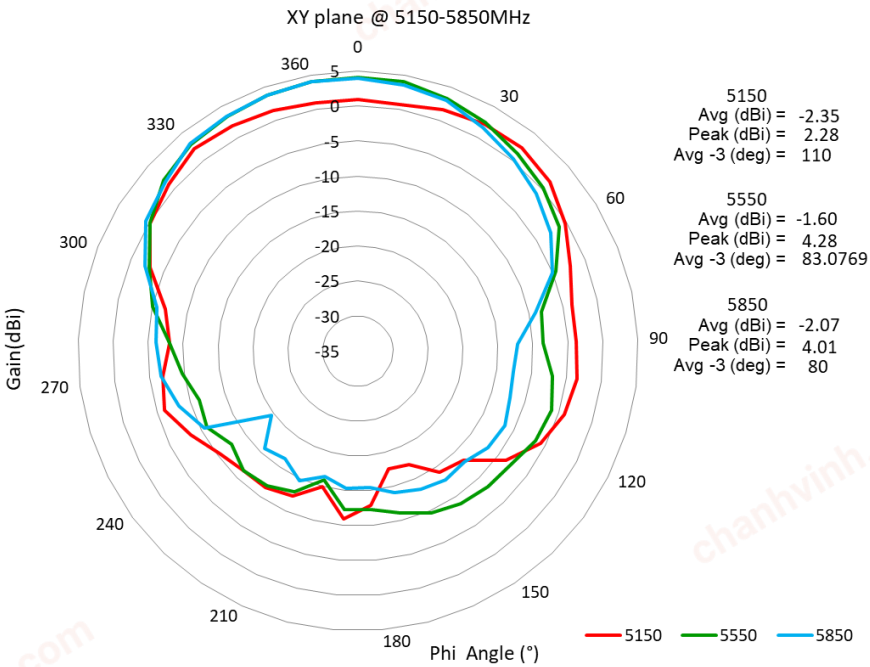


## Radiation Pattern – XY Gain Plots

Test data



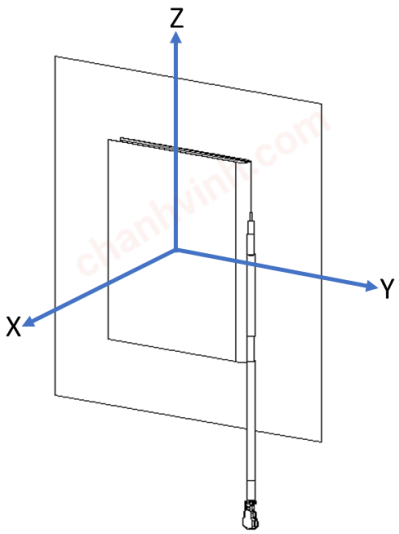
chanhvinh.com

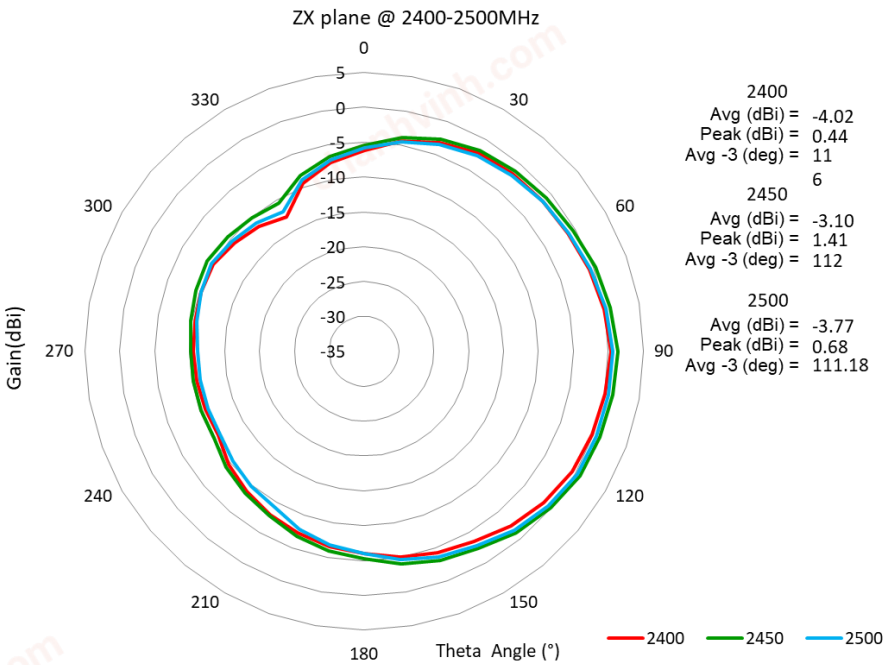


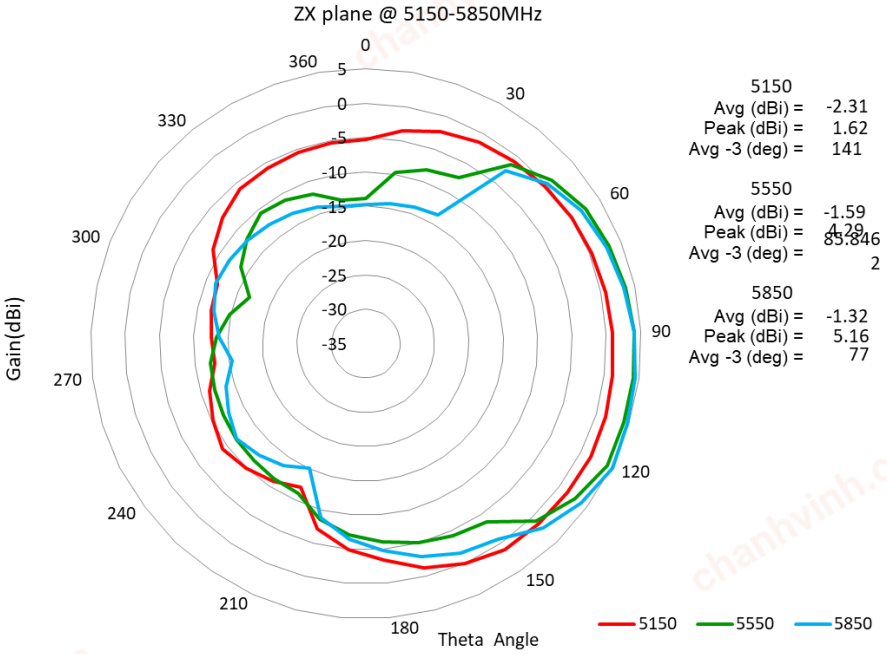
OBSOLETE

## Radiation Pattern – ZX Gain Plots

### Test data



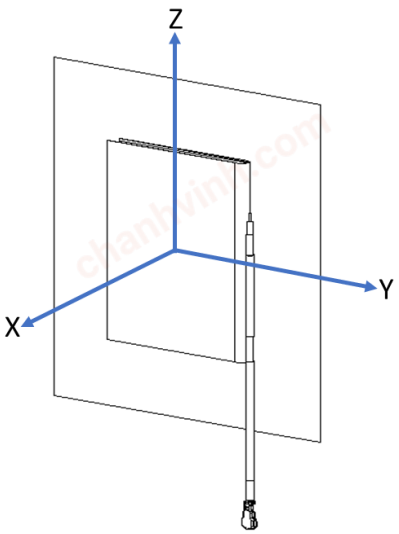
chanhvinh.com

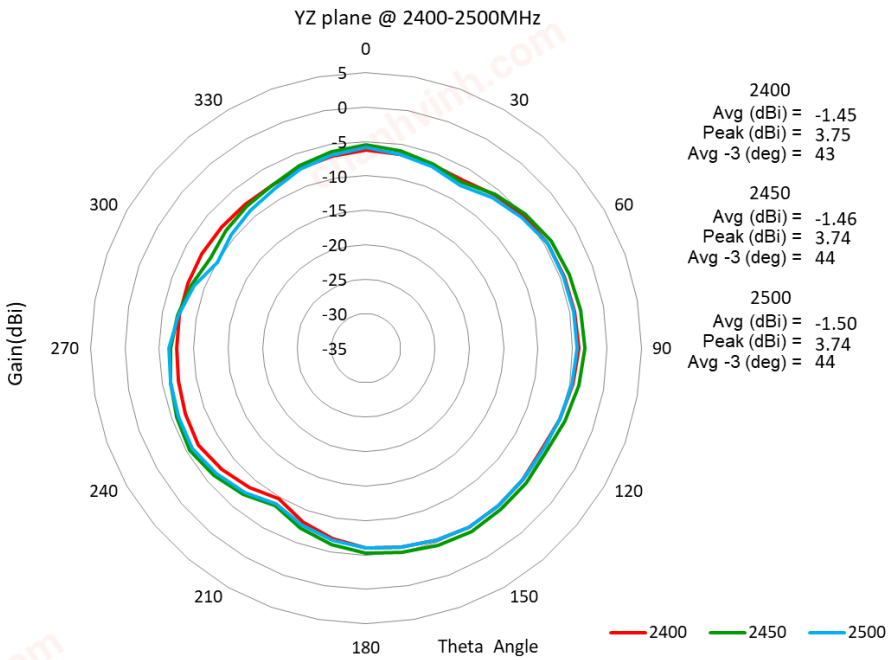


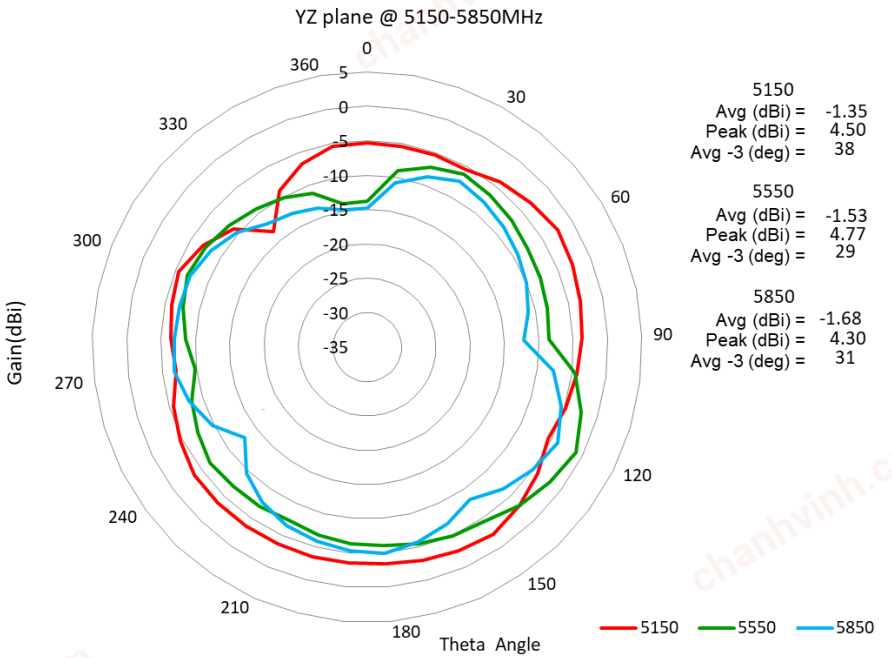
OBSOLETE

## Radiation Pattern – YZ Gain Plots

### Test data



chanhvinh.com



OBSOLETE

## PACKAGING

TWA422CC01

10 PCS/PE bag
10 PE bag/foam bag
50 foam bag/carton box
Total 5000 PCS/carton box
Package box: 460mm*235mm*140mm



For More Information:
Americas - antennas.us@pulseelectronics.com | Europe – antennas.eu@pulseelectronics.com | Asia – antennas.as@pulseelectronics.com | Questions? +1-800-ANTENNA
Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners. © Copyright , 2020. Pulse Electronics, Inc. All rights reserved.
Company address: Pulse Electronics, a YAGEO Company, 15255 Innovation Drive, Suite #100, San Diego, CA 92128
***'YAGEO Corporation and its affiliates do not recommend the use of commercial, automotive, and/or COTS grade products for high reliability applications or manned space flight.'***