# 2.4G WIFI Antenna

## MODEL: TH-240N

### 1.. GENERAL DESCRIPTION

| Model No | P/N |
|---|---|
| TH-240N | TH240N-SMA(M) |

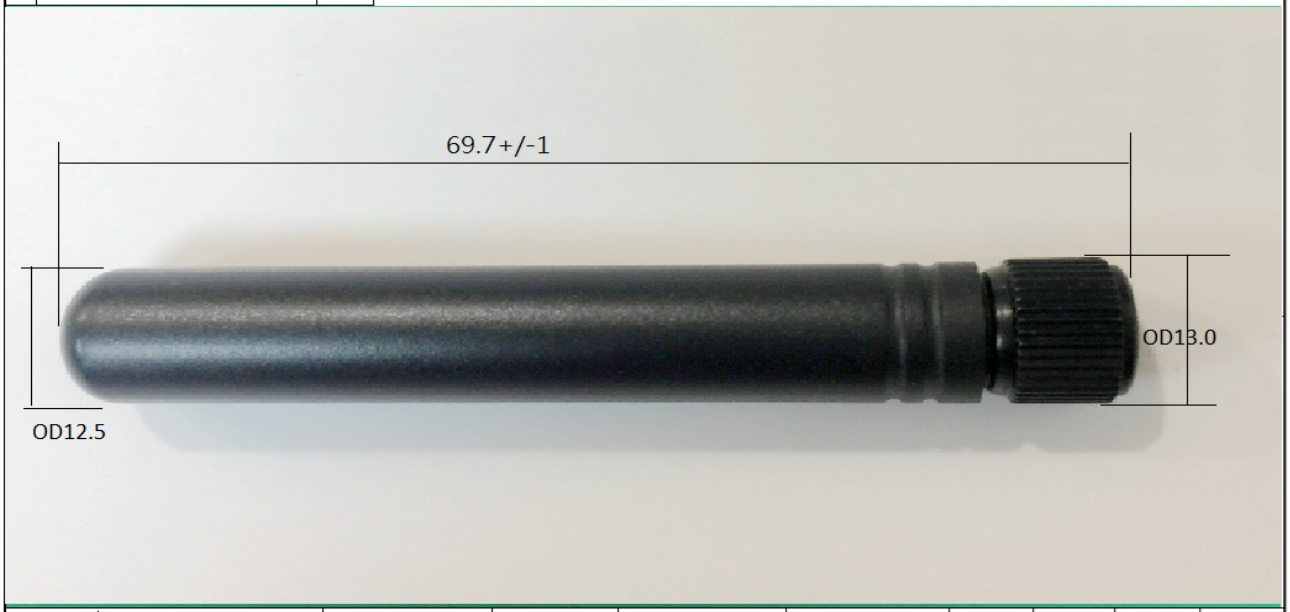
### 1.1 Electrical Properties

| Parameter | Description |
|---|---|
| Frequency Band | 2.4~2.5GHz |
| Nominal Impedance | 50 ohm |
| Polarization | Vertical |
| Electrical Wave | 1 /4 λ |
| Admitted Power radiation | 1W |
| V.S.W.R | 3.0:1 Max |
| Antenna Gain | 0~2 dB |
| | |

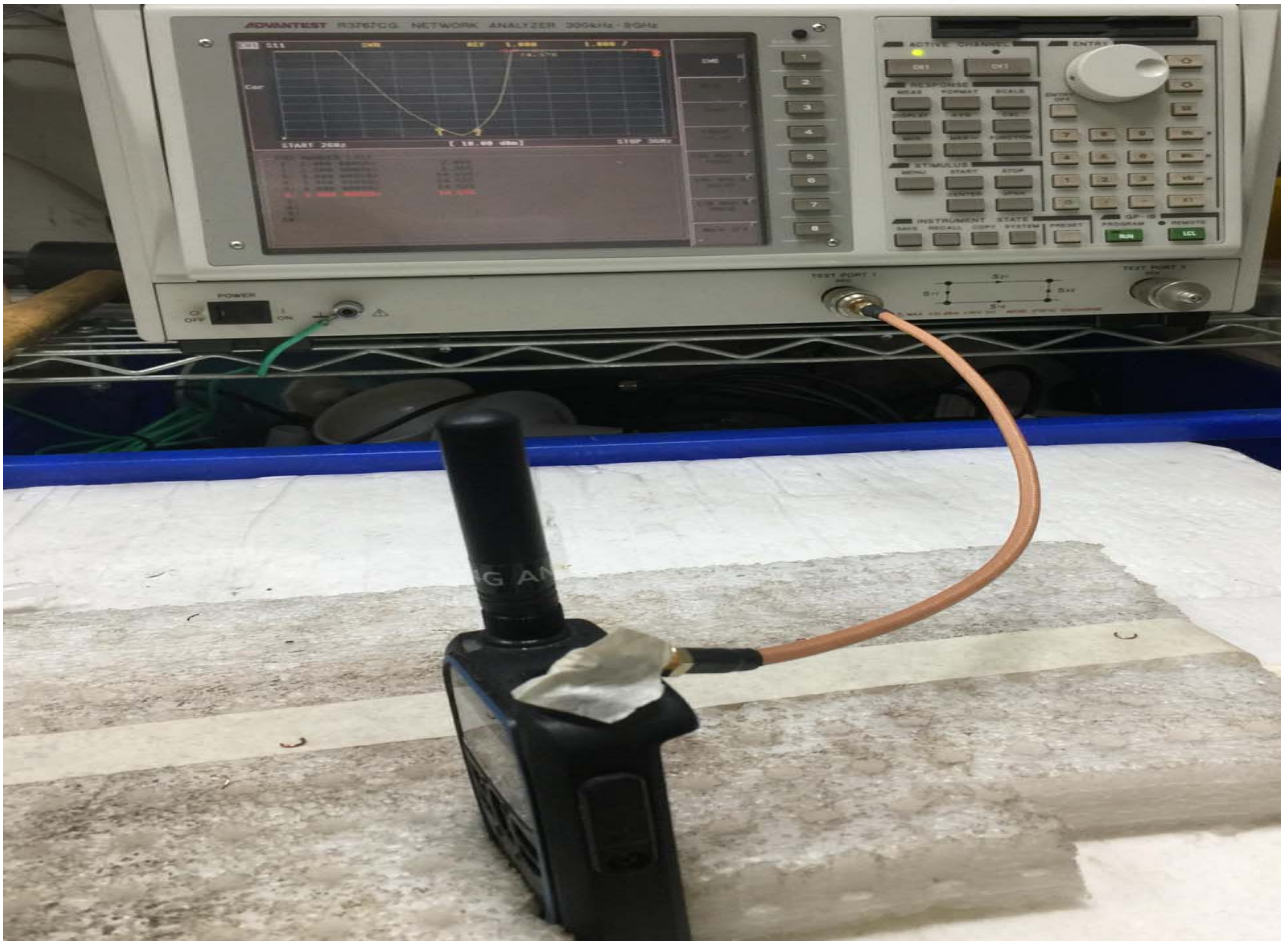
### 1.2 Mechanical Properties

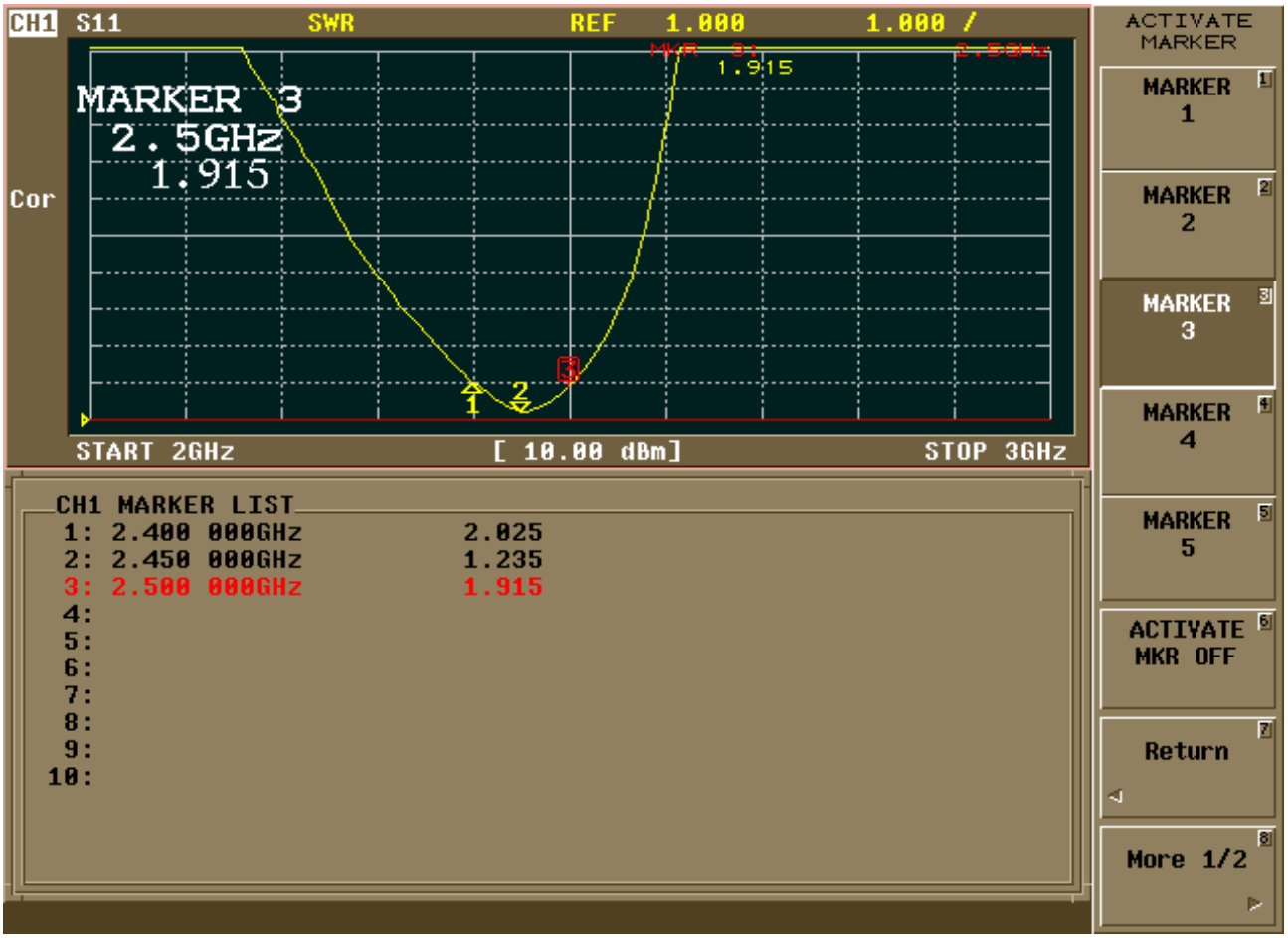
| Parameter | Description |
|---|---|
| Antenna Type | External Antenna |
| Material | ASA-UV (UL94-HB) |
| Touch Type | Screw Type |
| Connector Type | SMA (Male) |
| Antenna Dimensions | OD12.5 x 69.7mm±1 |
| Antenna Color | Black |
| Operating Temperature Range | -40°C~+80°C |
| Storage Temperature Range | -40°C~+80°C |
| Waterproof | IPX7 (Must match the silicone pad - optional) |

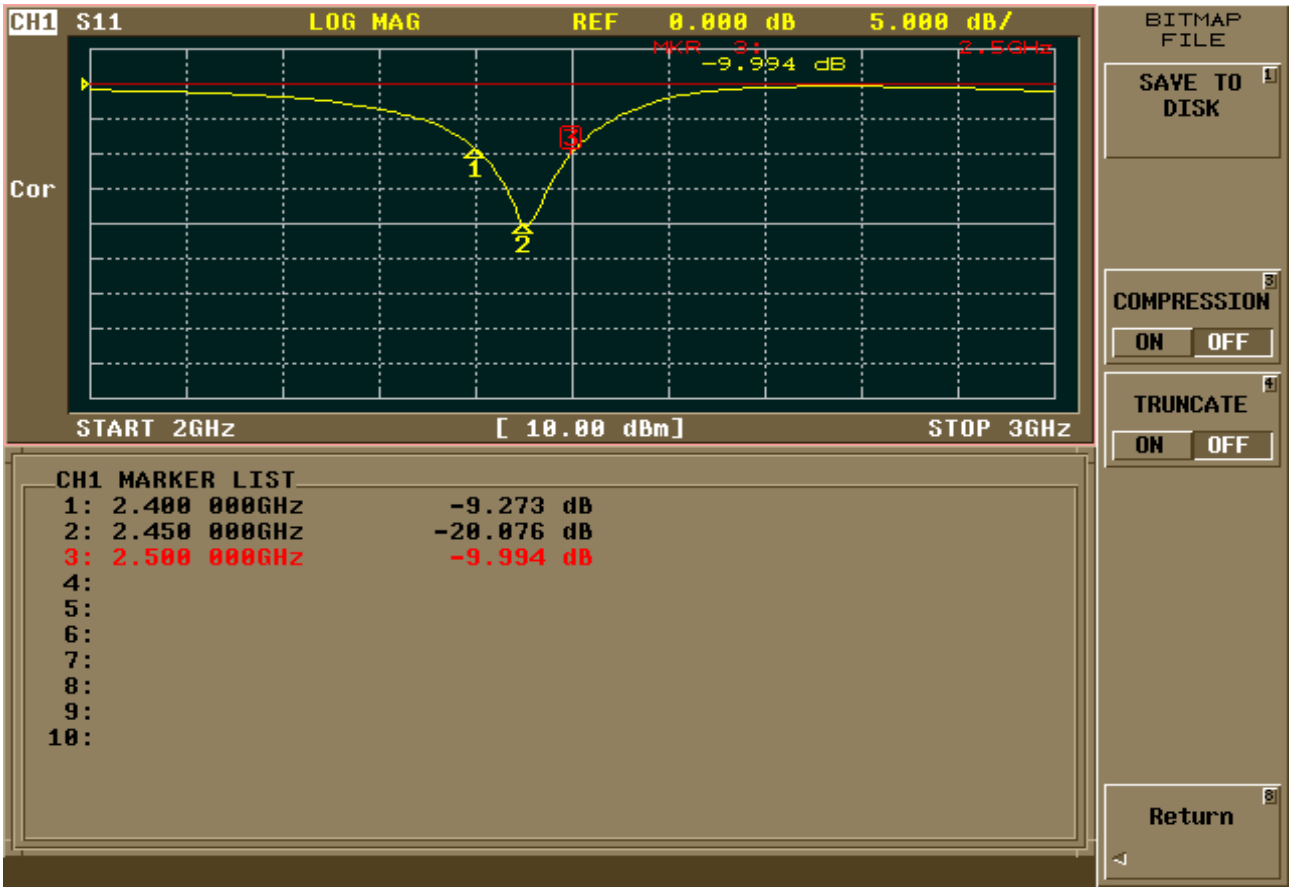
| NO. | NAME | Q, TY |
|---|---|---|
| 01 | ASA-UV Tube | 01 |
| 02 | SMA(M) | 01 |
| | | |




| Third angle projection | CUSTOMER'S | MODEL | PARTS NUMBER | FREQUENCY | UNIT | SCALE | DATE | VERSION |
|---|---|---|---|---|---|---|---|---|
| | | TH240N | | | M/M | | 20190813 | 1 |
| | TOLERANCE | X. XX±0. 15 | NAME | PARTS NUMBER | APPROVED | CHECKED | DRAWING | DESIGNED |
| | SURFACE ROUGHNESS | S | APPEARANCE | | | | | |

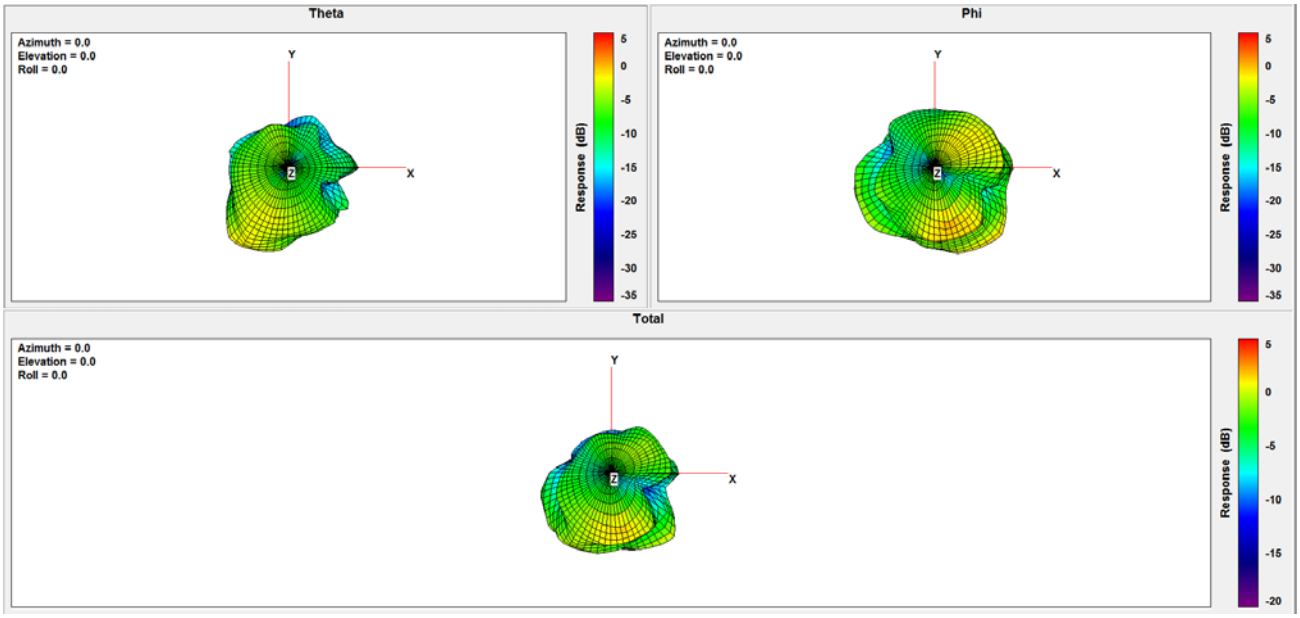



CH1 S11 SWR REF 1.000 1.000 /
MKR 3: 2.5GHz
1.915
MARKER 3
2.5GHz
1.915
Cor
START 2GHz [ 10.00 dBm] STOP 3GHz
CH1 MARKER LIST
1: 2.400 000GHz 2.025
2: 2.450 000GHz 1.235
3: 2.500 000GHz 1.915
4:
5:
6:
7:
8:
9:
10:
ACTIVATE MARKER
MARKER 1
MARKER 2
MARKER 3
MARKER 4
MARKER 5
ACTIVATE MKR OFF
Return
More 1/2

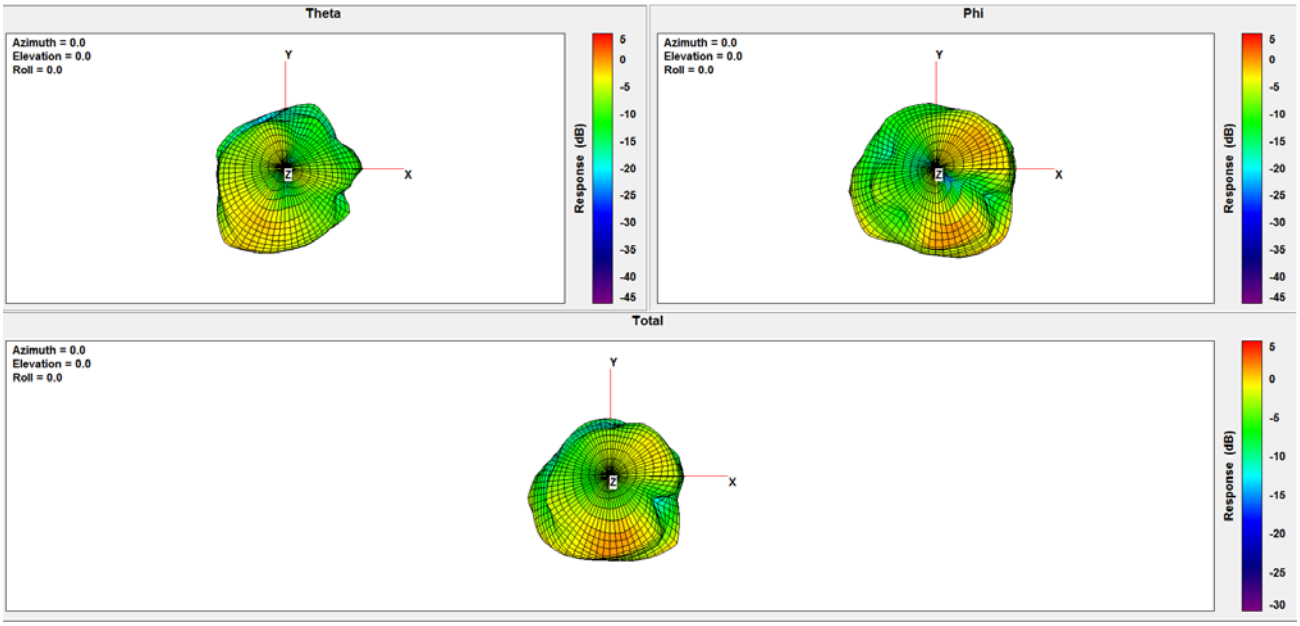

CH1 S11 LOG MAG REF 0.000 dB 5.000 dB/
MKR 3: 2.5GHz
-9.994 dB
Cor
START 2GHz [ 10.00 dBm] STOP 3GHz
CH1 MARKER LIST
1: 2.400 000GHz -9.273 dB
2: 2.450 000GHz -20.076 dB
3: 2.500 000GHz -9.994 dB
4:
5:
6:
7:
8:
9:
10:
BITMAP FILE
SAVE TO DISK
COMPRESSION
ON OFF
TRUNCATE
ON OFF
Return

| Frequency (MHz) | 2400 | 2410 | 2420 | 2430 | 2440 | 2450 | 2460 | 2470 | 2480 | 2490 | 2500 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Gain (dBi) | 2.04 | 2.02 | 2.16 | 2.27 | 2.34 | 2.19 | 2.13 | 1.98 | 1.78 | 1.56 | 1.37 |
| Efficiency (%) | 39.28 | 40.31 | 40.83 | 40.55 | 40.65 | 39.59 | 39.90 | 38.75 | 37.21 | 35.22 | 32.66 |

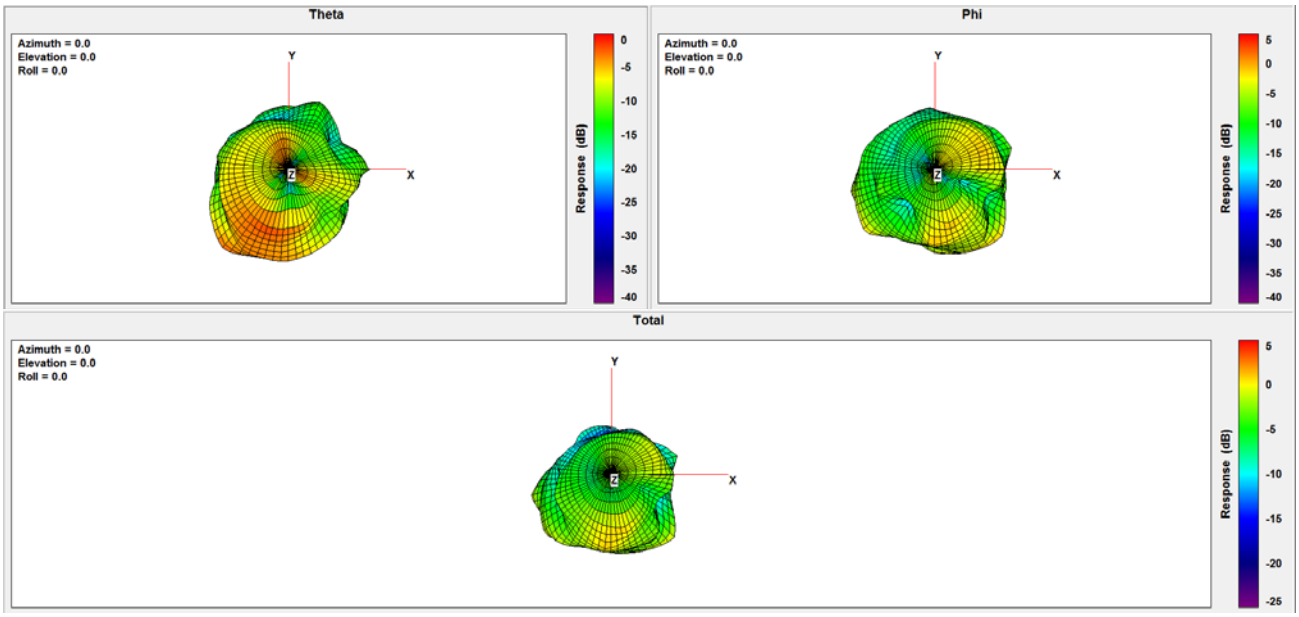
**2.4G**




**2.45G**



## 2.5G


Theta
Azimuth = 0.0
Elevation = 0.0
Roll = 0.0
Y
X
Z
Response (dB)
0
-5
-10
-15
-20
-25
-30
-35
-40
Phi
Azimuth = 0.0
Elevation = 0.0
Roll = 0.0
Y
X
Z
Response (dB)
5
0
-5
-10
-15
-20
-25
-30
-35
-40
Total
Azimuth = 0.0
Elevation = 0.0
Roll = 0.0
Y
X
Z
Response (dB)
5
0
-5
-10
-15
-20
-25