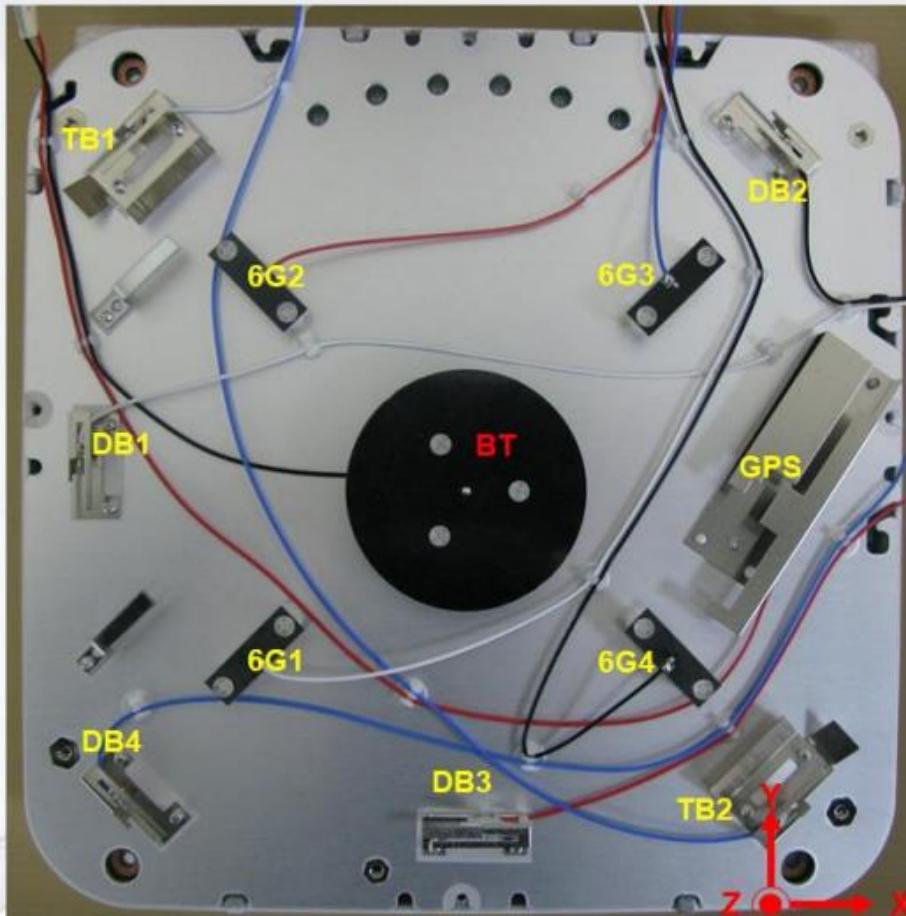




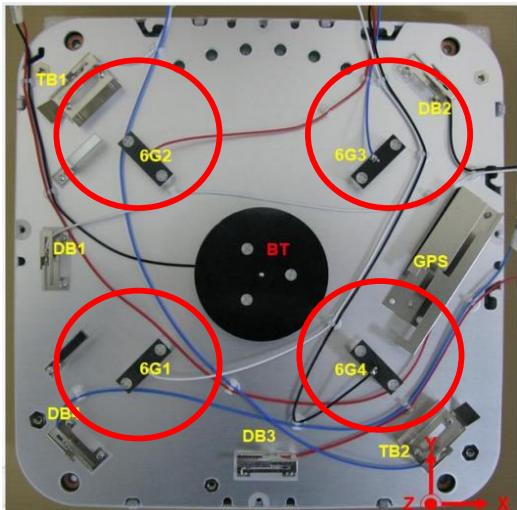
C460 DVT3 Antenna Test Report

Vendor: WHAYU
P/N: C393-510253-A
GPS Antenna: PIFA
WiFi 6G Antenna : Dipole
WiFi 2/5G Antenna: PIFA
WiFi 2/5/6G Antenna: PIFA
BT Antenna: Dipole





Antenna Return Loss _ Ant 6G1~4



6G1



6G2



6G3

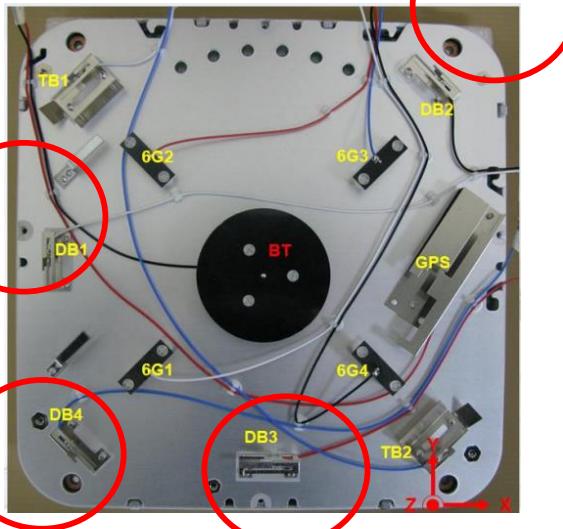


6G4





Antenna Return Loss _ Ant DB1~4



DB1

TR3 S22 Log Mag 10.00 dB/ Ref 0.000 dB [F2]

| | | |
|----|---------------|------------|
| 1 | 2.4000000 GHz | -12.072 dB |
| 2 | 2.4500000 GHz | -14.434 dB |
| 3 | 2.5000000 GHz | -19.811 dB |
| 4 | 2.5500000 GHz | -17.040 dB |
| 5 | 2.6000000 GHz | -26.010 dB |
| 6 | 2.6500000 GHz | -26.816 dB |
| 7 | 2.7000000 GHz | -12.406 dB |
| >8 | 2.7125000 GHz | -12.298 dB |
| 9 | 0.0000000 GHz | 0.000 dB |

TR3 S22 Log Mag 10.00 dB/ Ref 0.000 dB [F2]

| | | |
|----|---------------|------------|
| 1 | 2.4000000 GHz | -20.635 dB |
| 2 | 2.4500000 GHz | -16.064 dB |
| 3 | 2.5000000 GHz | -15.108 dB |
| 4 | 2.5500000 GHz | -22.722 dB |
| 5 | 2.6000000 GHz | -14.568 dB |
| 6 | 2.6500000 GHz | -8.1962 dB |
| >8 | 2.7125000 GHz | 0.000 dB |

TR3 S22 Log Mag 10.00 dB/ Ref 0.000 dB [F2]

| | | |
|----|---------------|------------|
| 1 | 2.4000000 GHz | -12.829 dB |
| 2 | 2.4500000 GHz | -11.468 dB |
| 3 | 2.5000000 GHz | -19.136 dB |
| 4 | 2.5500000 GHz | -11.478 dB |
| 5 | 2.6000000 GHz | -18.229 dB |
| 6 | 2.6500000 GHz | -19.849 dB |
| 7 | 2.7000000 GHz | -15.055 dB |
| >8 | 2.7125000 GHz | -14.126 dB |
| 9 | 0.0000000 GHz | 0.000 dB |

DB3

TR3 S22 Log Mag 10.00 dB/ Ref 0.000 dB [F2]

| | | |
|----|---------------|------------|
| 1 | 2.4000000 GHz | -12.302 dB |
| 2 | 2.4500000 GHz | -13.285 dB |
| 3 | 2.5000000 GHz | -16.815 dB |
| 4 | 2.5500000 GHz | -15.277 dB |
| 5 | 2.6000000 GHz | -21.055 dB |
| 6 | 2.6500000 GHz | -29.448 dB |
| 7 | 2.7000000 GHz | -20.901 dB |
| >8 | 2.7125000 GHz | -12.462 dB |
| 9 | 0.0000000 GHz | 0.000 dB |

DB4

TR3 S22 Log Mag 10.00 dB/ Ref 0.000 dB [F2]

| | | |
|----|---------------|------------|
| 1 | 2.4000000 GHz | -12.072 dB |
| 2 | 2.4500000 GHz | -13.285 dB |
| 3 | 2.5000000 GHz | -16.815 dB |
| 4 | 2.5500000 GHz | -15.277 dB |
| 5 | 2.6000000 GHz | -21.055 dB |
| 6 | 2.6500000 GHz | -29.448 dB |
| 7 | 2.7000000 GHz | -20.901 dB |
| >8 | 2.7125000 GHz | -12.462 dB |
| 9 | 0.0000000 GHz | 0.000 dB |

2.42GHz 2.48GHz

5.15GHz 5.85GHz

2.42GHz 2.48GHz

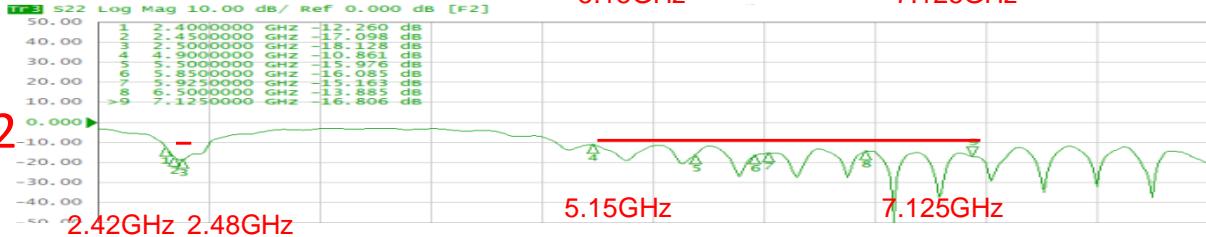
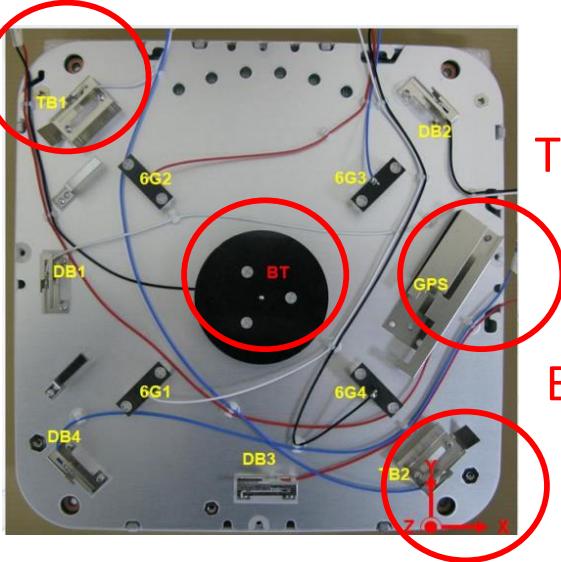
5.15GHz 5.85GHz

2.42GHz 2.48GHz

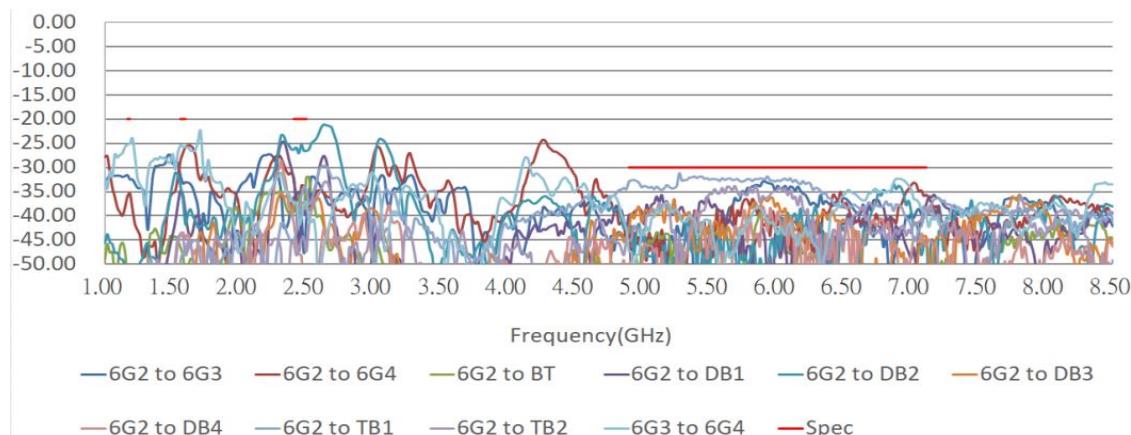
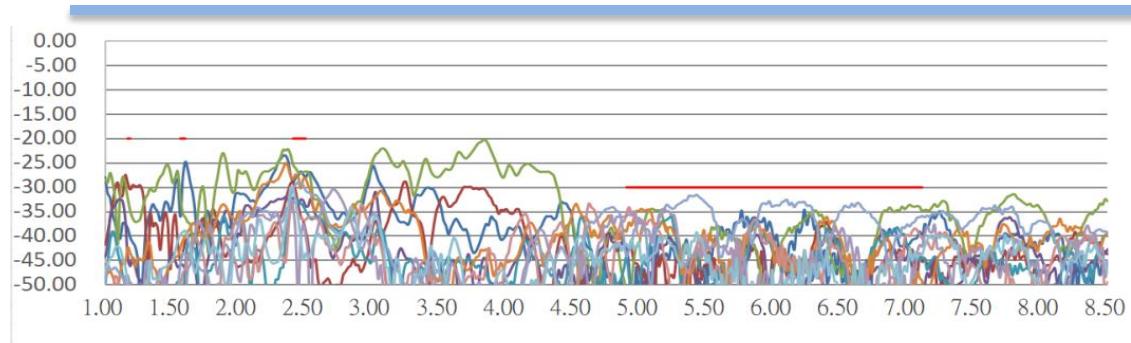
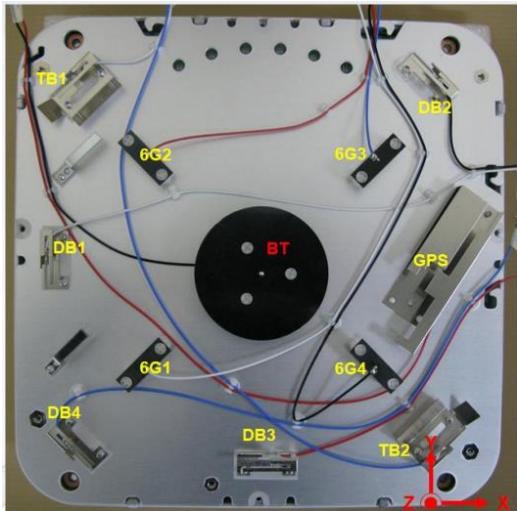
5.15GHz 5.85GHz



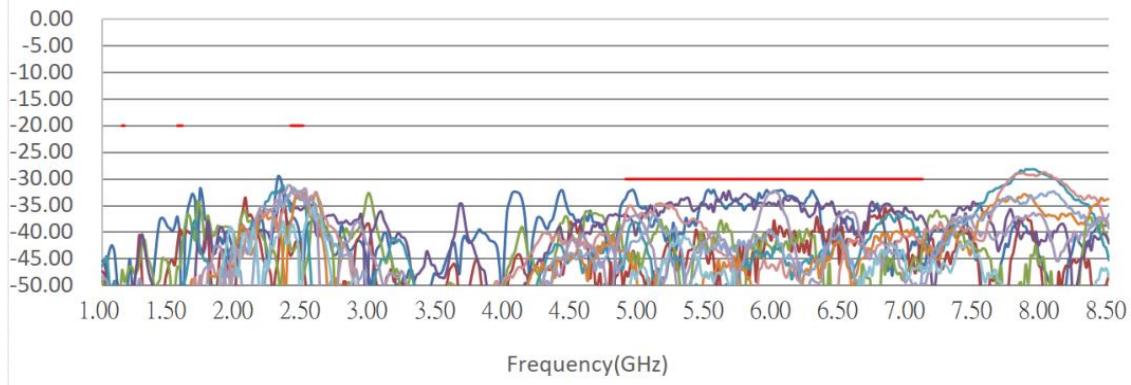
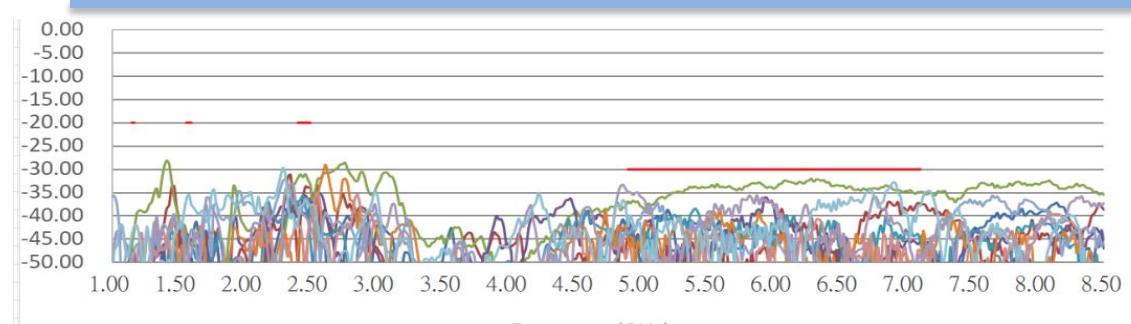
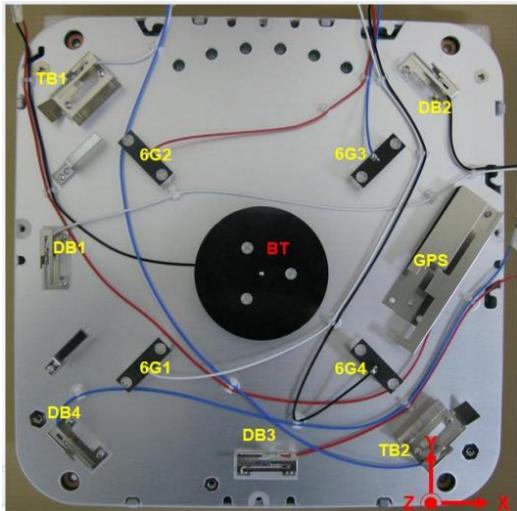
Antenna Return Loss _ Ant TB, BT & GPS



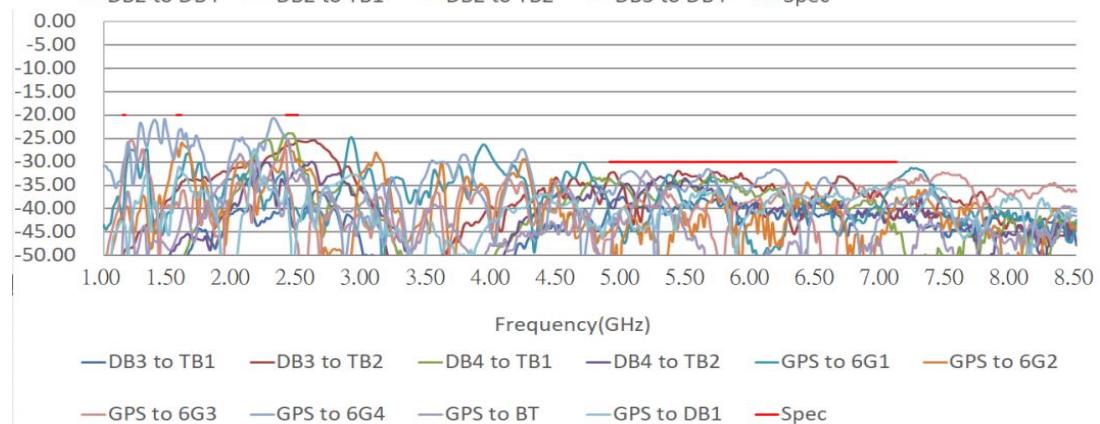
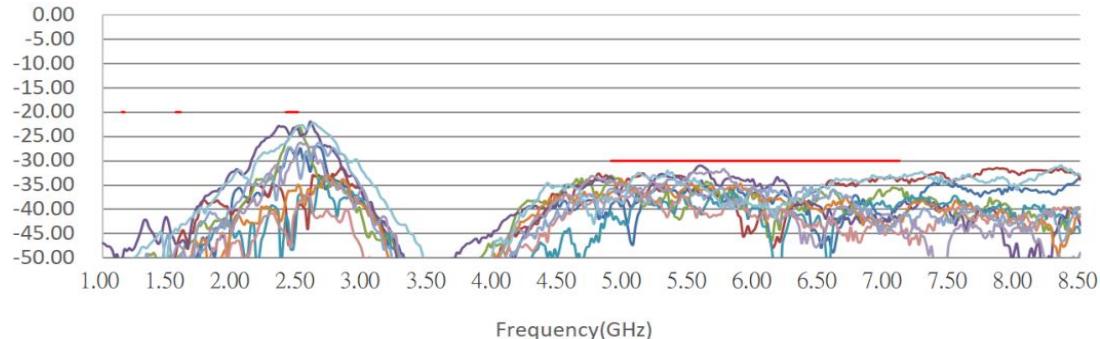
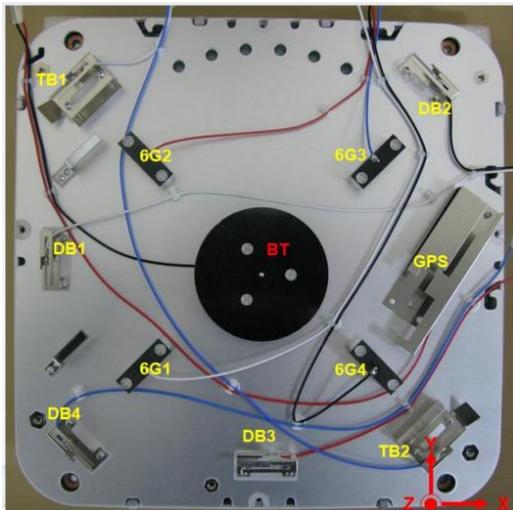
Antenna Isolation(1/4)



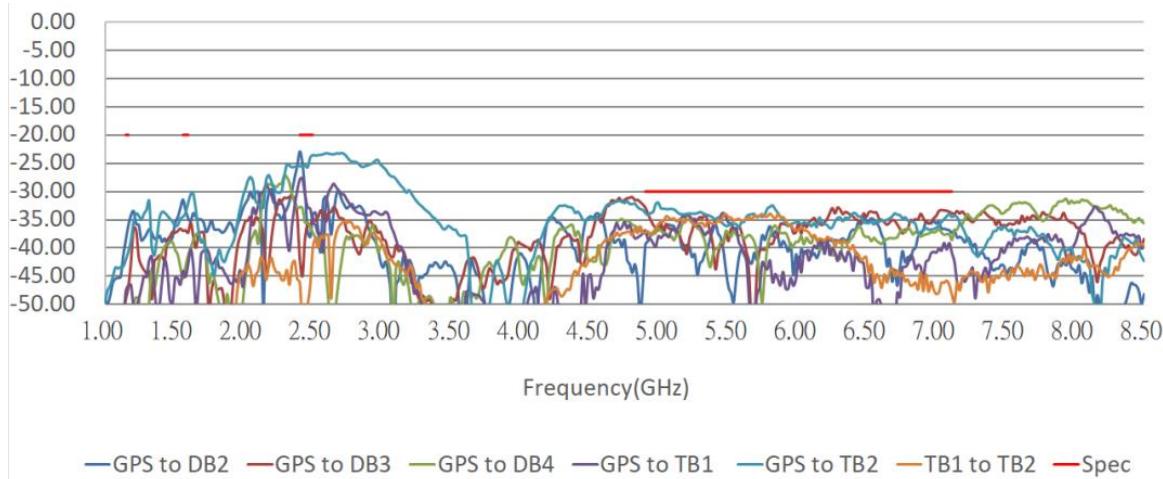
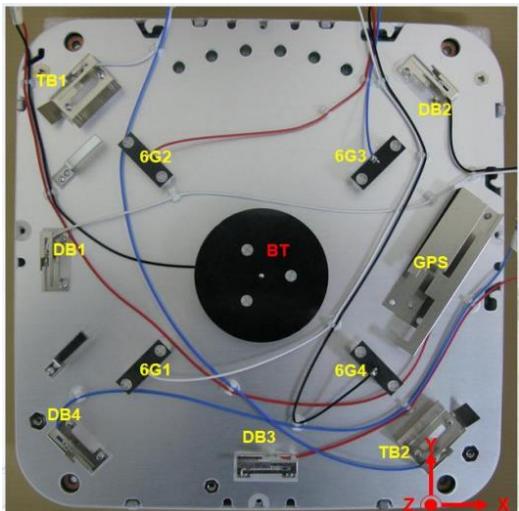
Antenna Isolation(2/4)



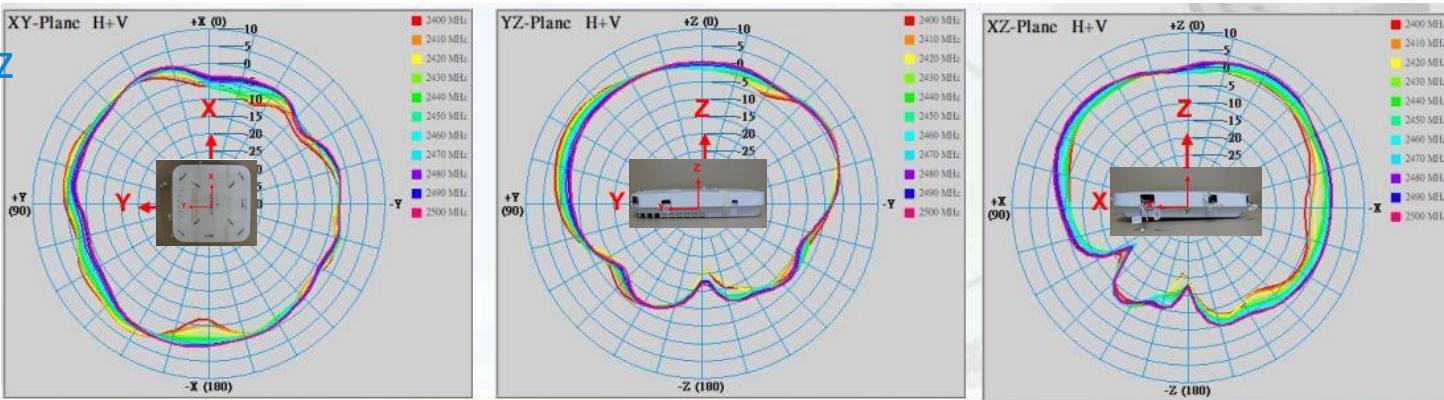
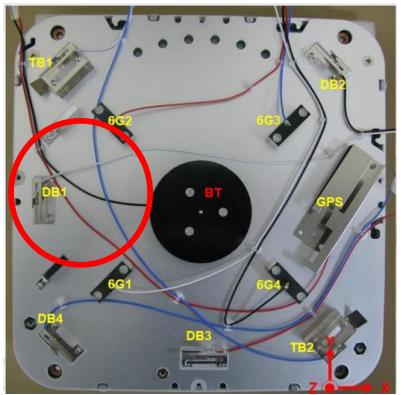
Antenna Isolation(3/4)



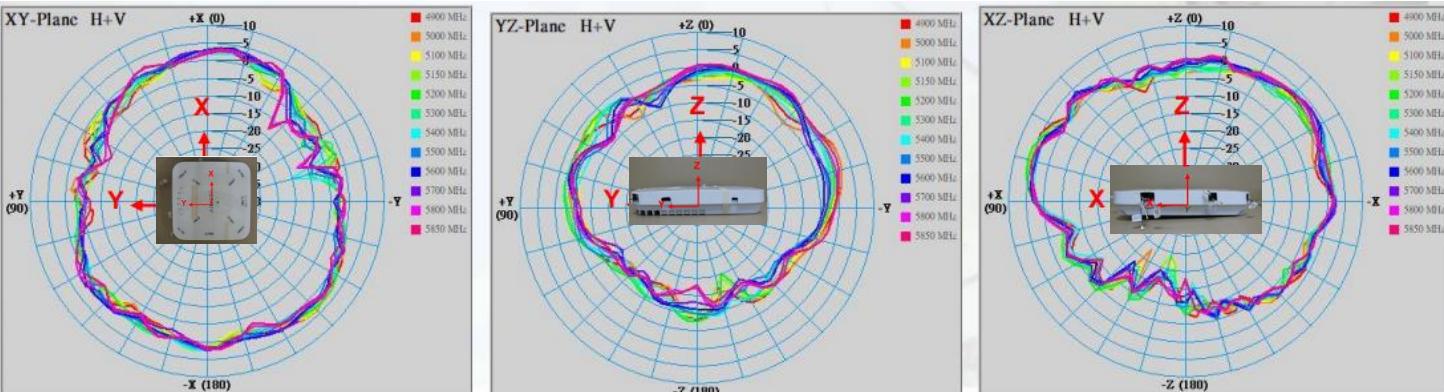
Antenna Isolation(4/4)



2.45GHz

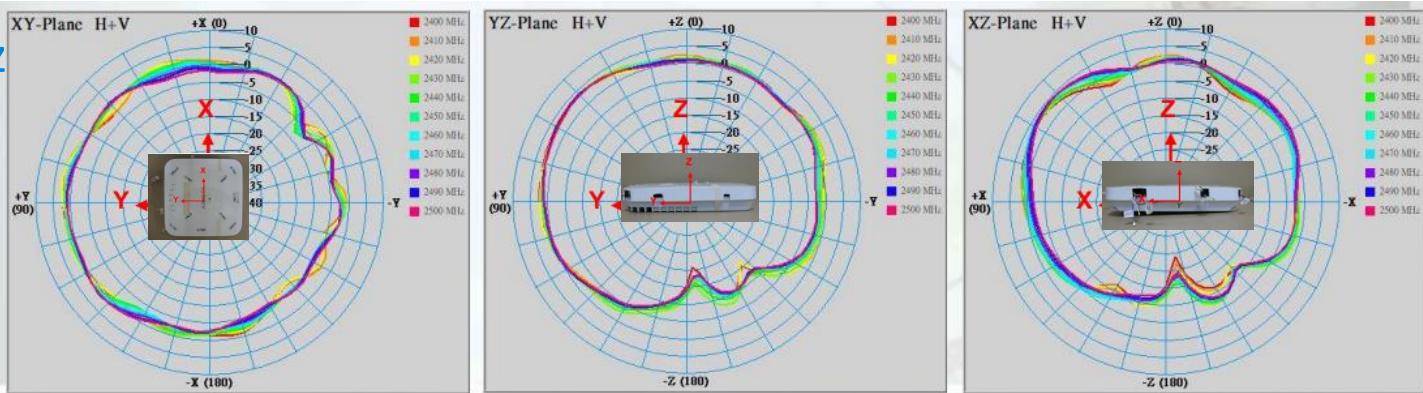
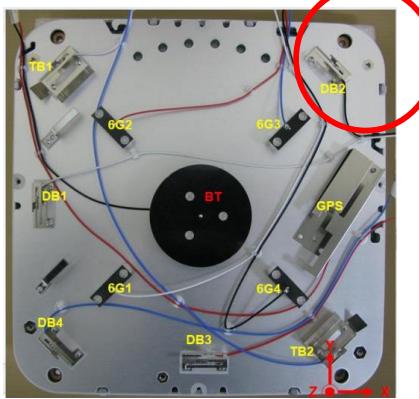


5.5GHz

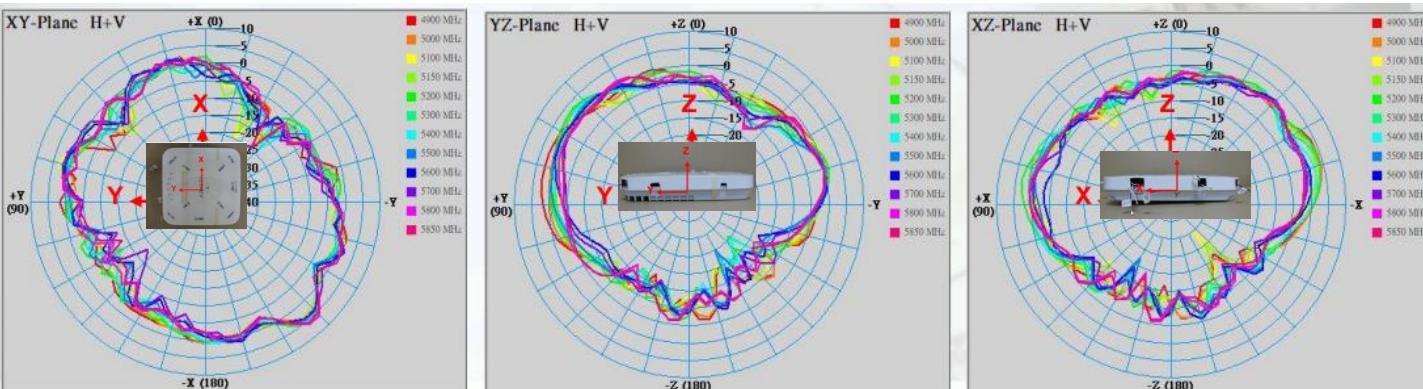


2D Radiation Pattern Ant DB2

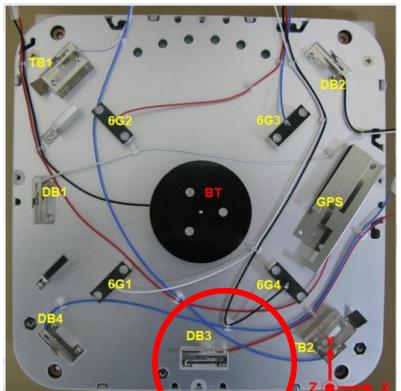
2.45GHz



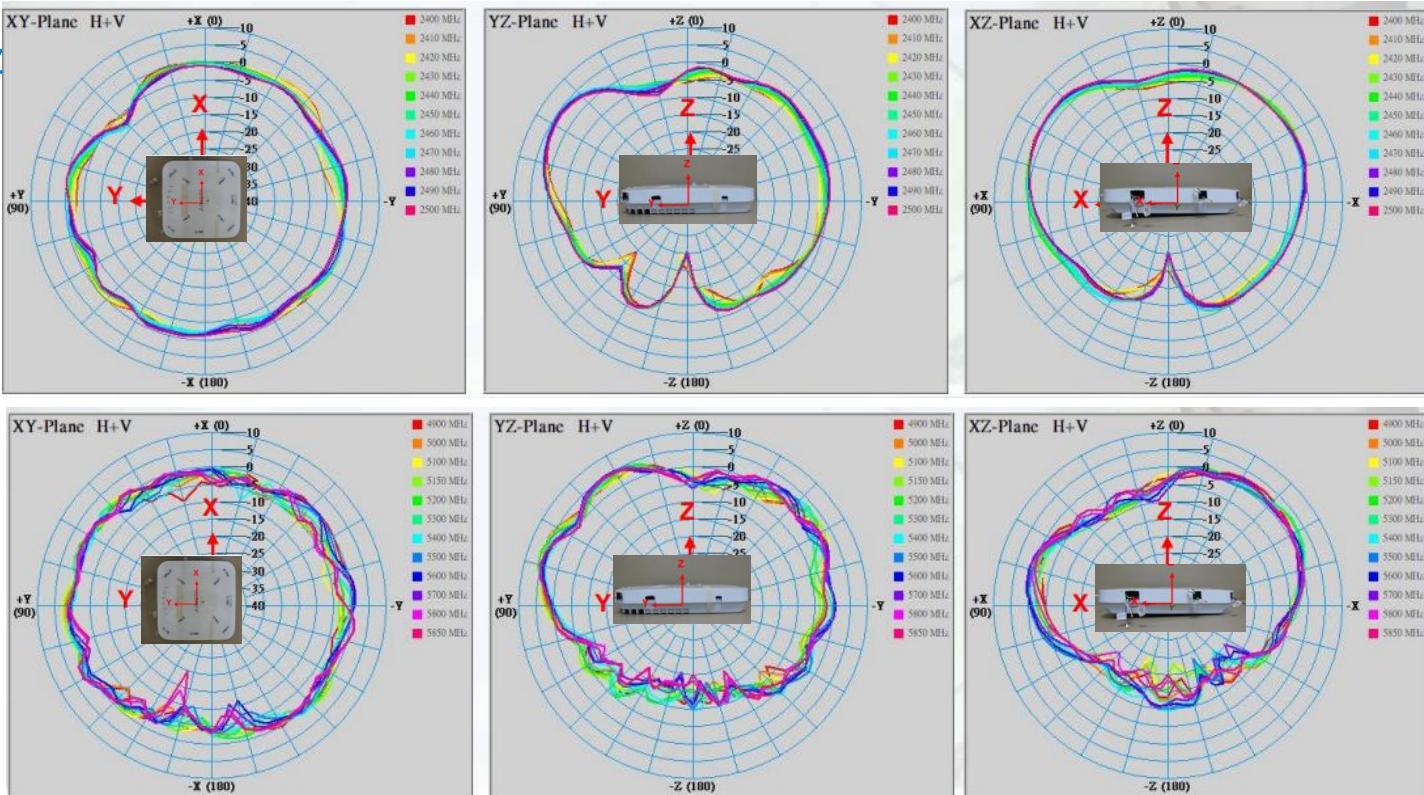
5.5GHz



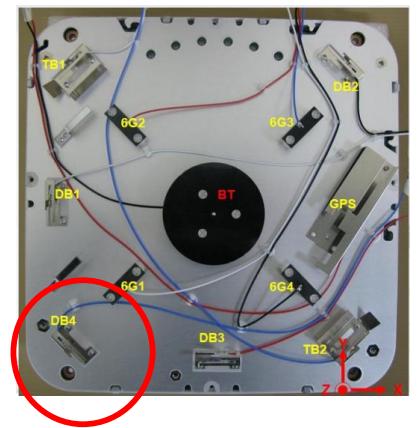
2.45GHz



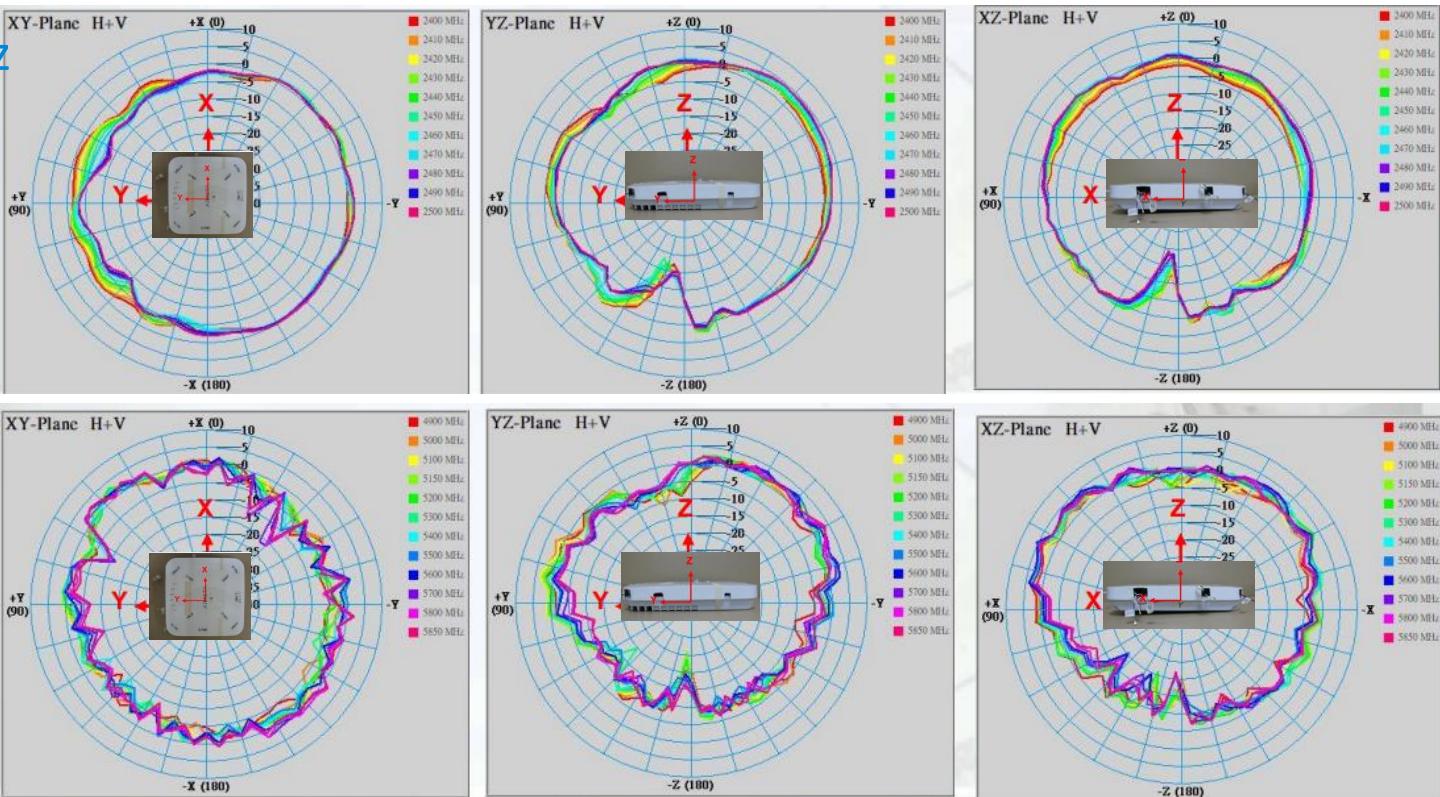
5.5GHz



2.45GHz

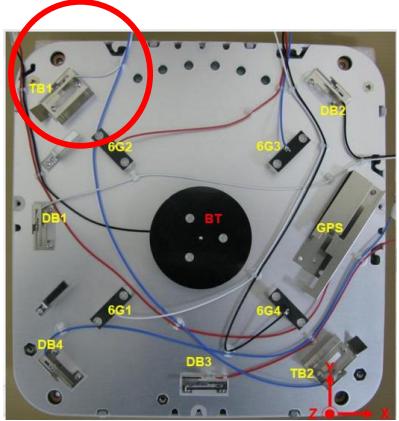


5.5GHz



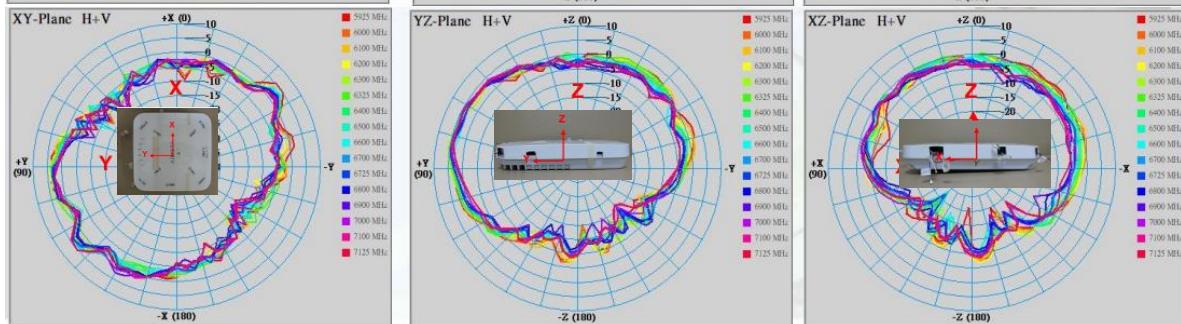
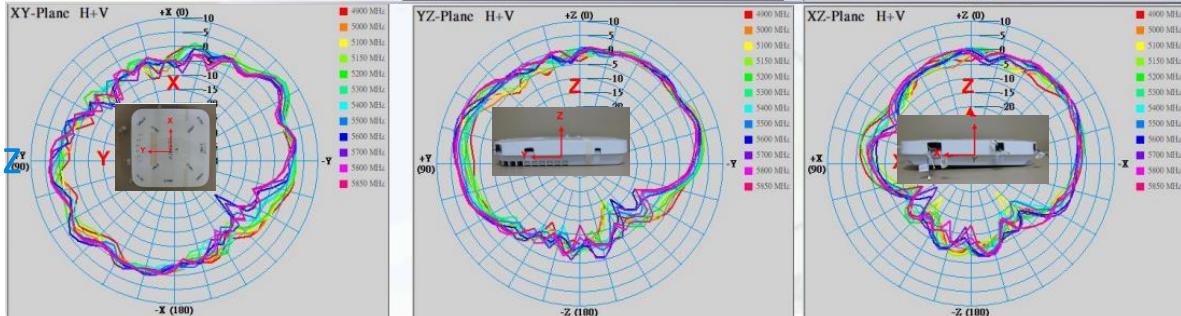
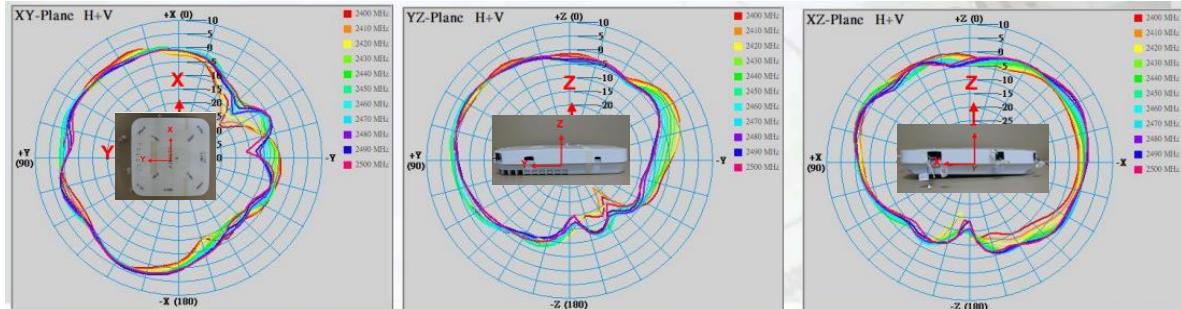


2.45GHz



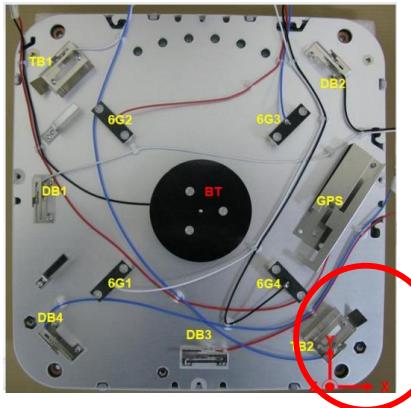
6.5GHz

2D Radiation Pattern Ant TB1



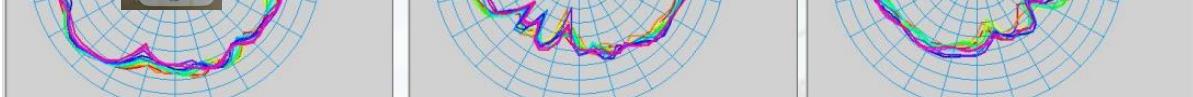
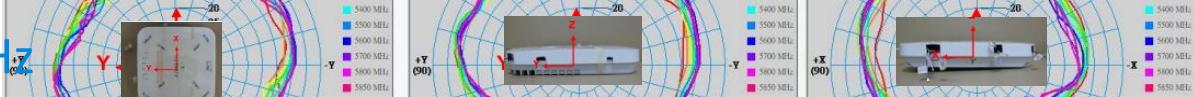
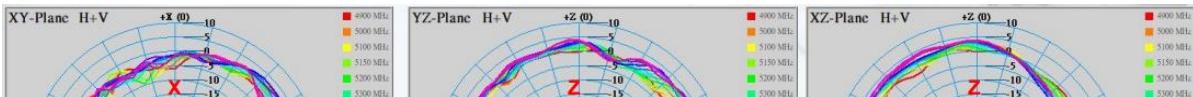
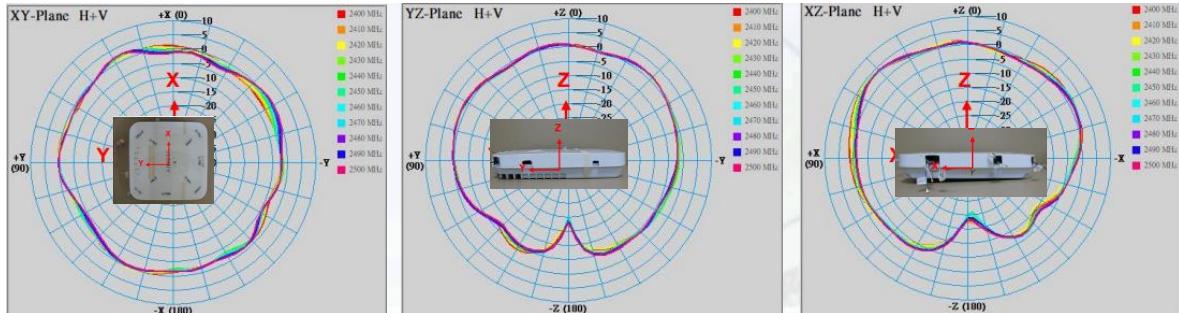


2.45GHz

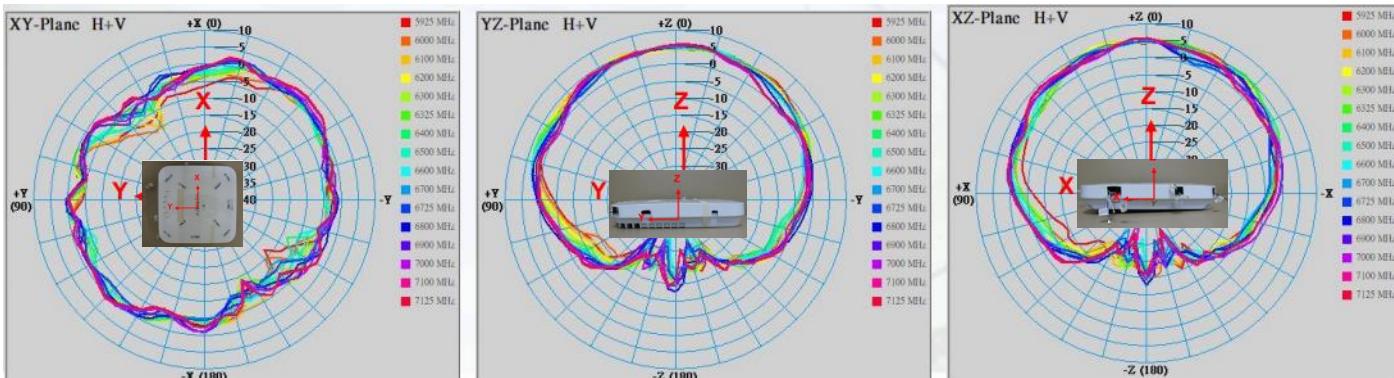
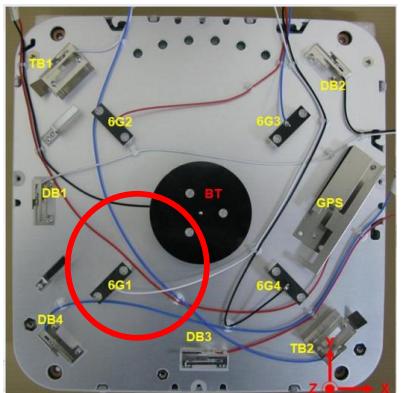


6.5GHz

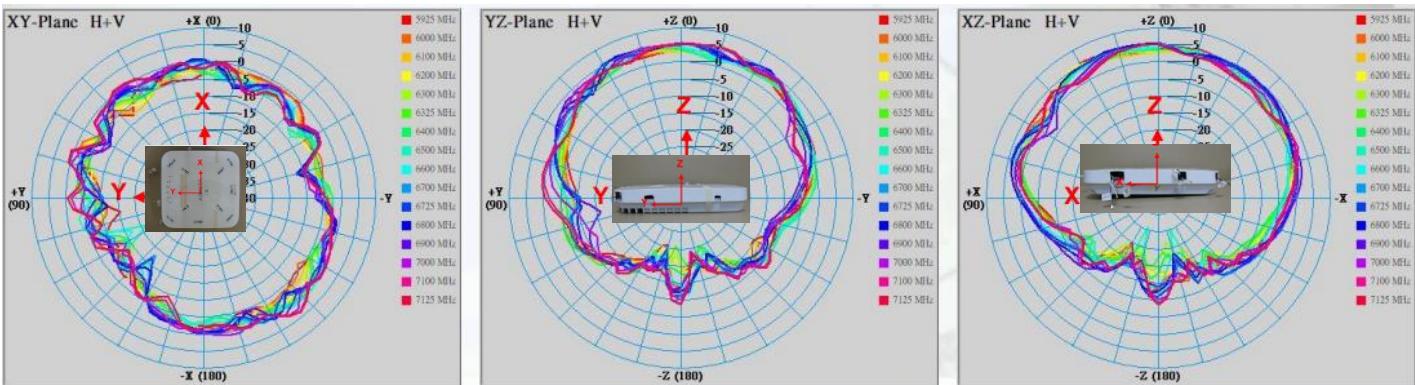
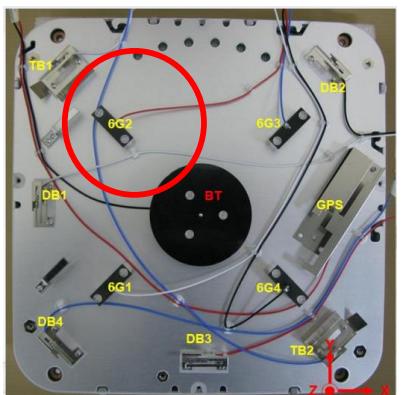
2D Radiation Pattern Ant TB2



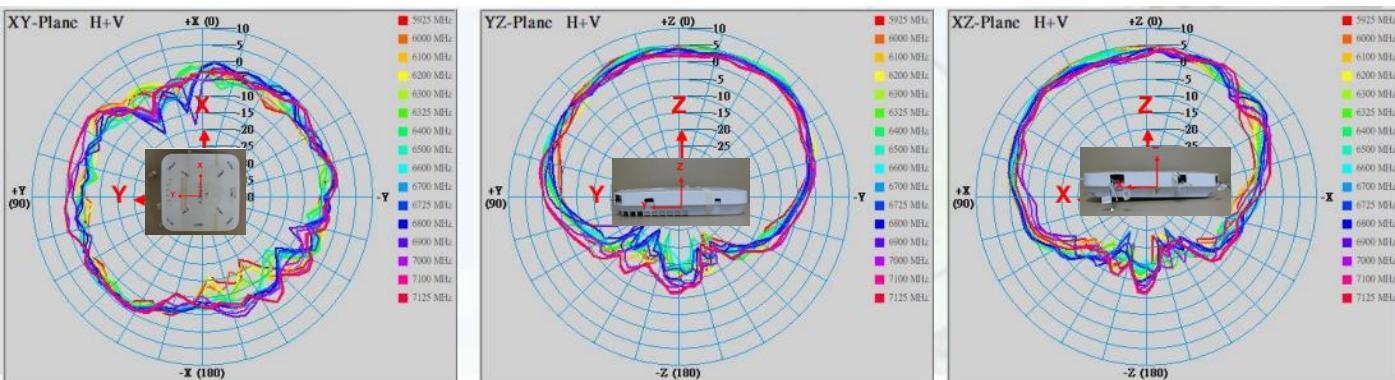
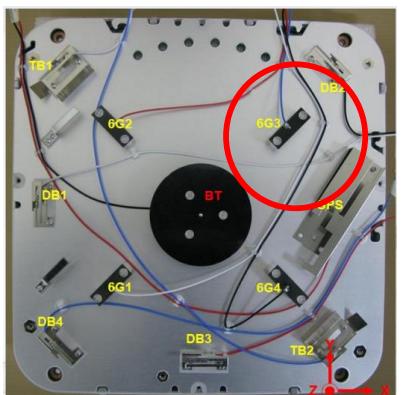
6.5GHz



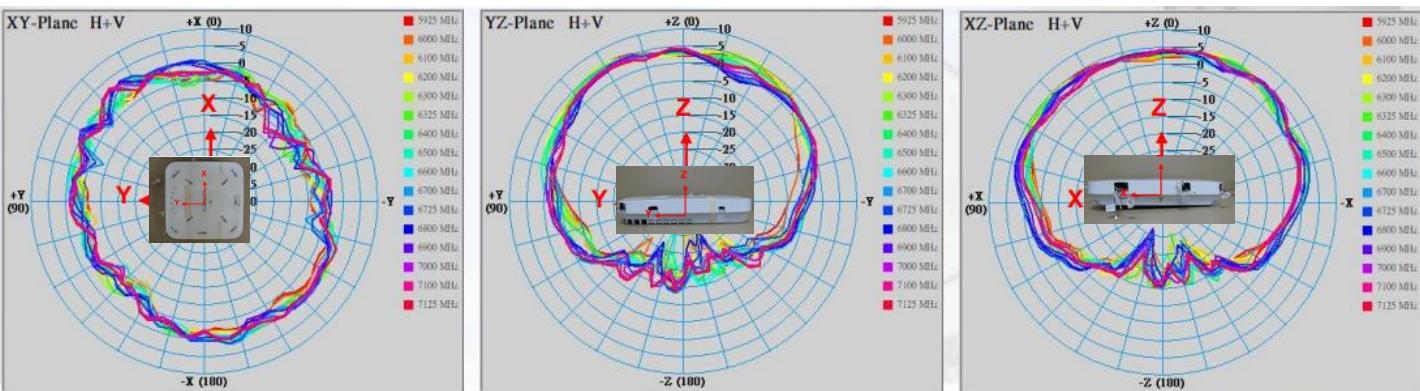
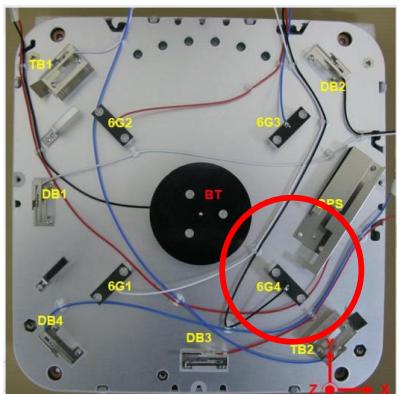
6.5GHz



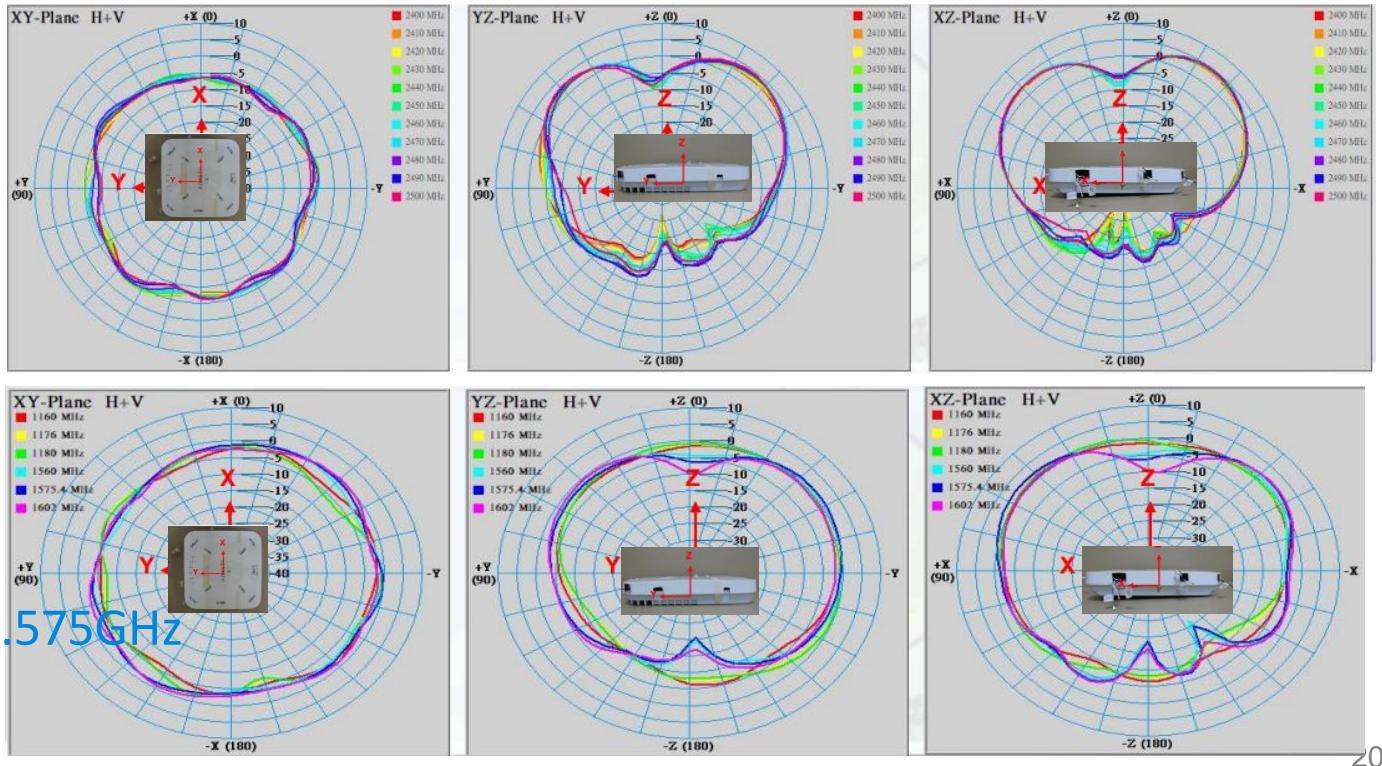
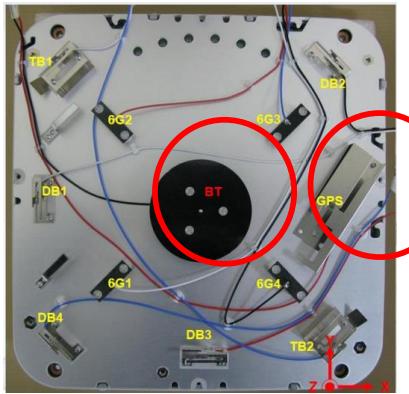
6.5GHz



6.5GHz



2.45GHz





Antenna Spec. Summary

| | BT | 6G1 | 6G2 | 6G3 | 6G4 | TB1 | | | TB2 | | | DB1 | | DB2 | | DB3 | | DB4 | | GPS |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------------|
| Band | 2GHz | 6GHz | 6GHz | 6GHz | 6GHz | 2GHz | 5GHz | 6GHz | 2GHz | 5GHz | 6GHz | 2GHz | 5GHz | 2GHz | 5GHz | 2GHz | 5GHz | 2GHz | 5GHz | 1.1GHZ 1.57GHZ |
| Peak Gain | 4.8 | 6.3 | 6.2 | 6.4 | 6.2 | 4.2 | 6.1 | 6.4 | 4.3 | 6.3 | 6.5 | 4.4 | 5.7 | 4.8 | 6.5 | 4.8 | 5.5 | 4.4 | 7.2 | 1.~2.7 |
| Efficiency | 70 | 68 | 68 | 76 | 68 | 73 | 73 | 71 | 69 | 70 | 66 | 67 | 71 | 75 | 76 | 71 | 72 | 67 | 70 | 50~65 |

- We did the test with DVT3 sample.
- The GPS antenna efficiency is 50~65% and peak gain is 1~2.7dBi
- WiFi antennas can meet the gain/efficiency spec. (65% efficiency and 4dB gain at 2GHz, 5dB gain at 5GHz, 6dB at 6GHz)
- All antennas can meet the isolation spec. (20dB at 2GHz and 30dB at 5/6GHz)