

ANTENNA INFORMATION

| | |
|----------------------|---|
| Antenna manufacturer | WIESON |
| Address | 15F., No.237, Sec.1, Datong Rd., Xizhi Dist., New Taipei City, Taiwan |
| Antenna Part number | Main/Aux: ARY121-0009-002-H0 |
| Antenna type | Dipole |

| | |
|----------------|---|
| Test Location | JUST RF Testing Lab |
| Address | No. 99, Anzhong Road, Xindian District, New Taipei City, Taiwan |
| Test Personnel | Peng Ning Yen |
| Testing date | 2023/7/3 |

| Antenna Peak gain w/ cable loss (dBi)* | | | | | | | | | | |
|--|---------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|-------------------------|
| | 2.4GHz 2400-2483.5 MHz | 5.2GHz 5150-5250MHz | 5.3GHz 5250-5350MHz | 5.6GHz 5470-5725MHz | 5.8GHz 5725-5850MHz | 5.9GHz 5850-5895MHz | 6.2GHz 5925-6425MHz | 6.5GHz 6425-6525MHz | 6.7GHz 6525-6875MHz | 7.0 GHz 6875-7125MHz |
| Main/ Aux | 2.95 | 4.03 | 4.11 | 5.15 | 5.13 | 4.45 | 5.02 | 4.71 | 4.49 | 4.96 |

| Cable Assembly Part Number and Information | | | | | |
|--|--------------------|------------------|--------------------|----------------|-----------------|
| | Cable PN | Cable length(cm) | Cable diameter(mm) | Impedance(ohm) | Connector type |
| Main/ Aux | AR9851-0009-005-H0 | 12±0.5 | 1.13 | 50 | SMA to MHF Plug |

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1. Document Revision History

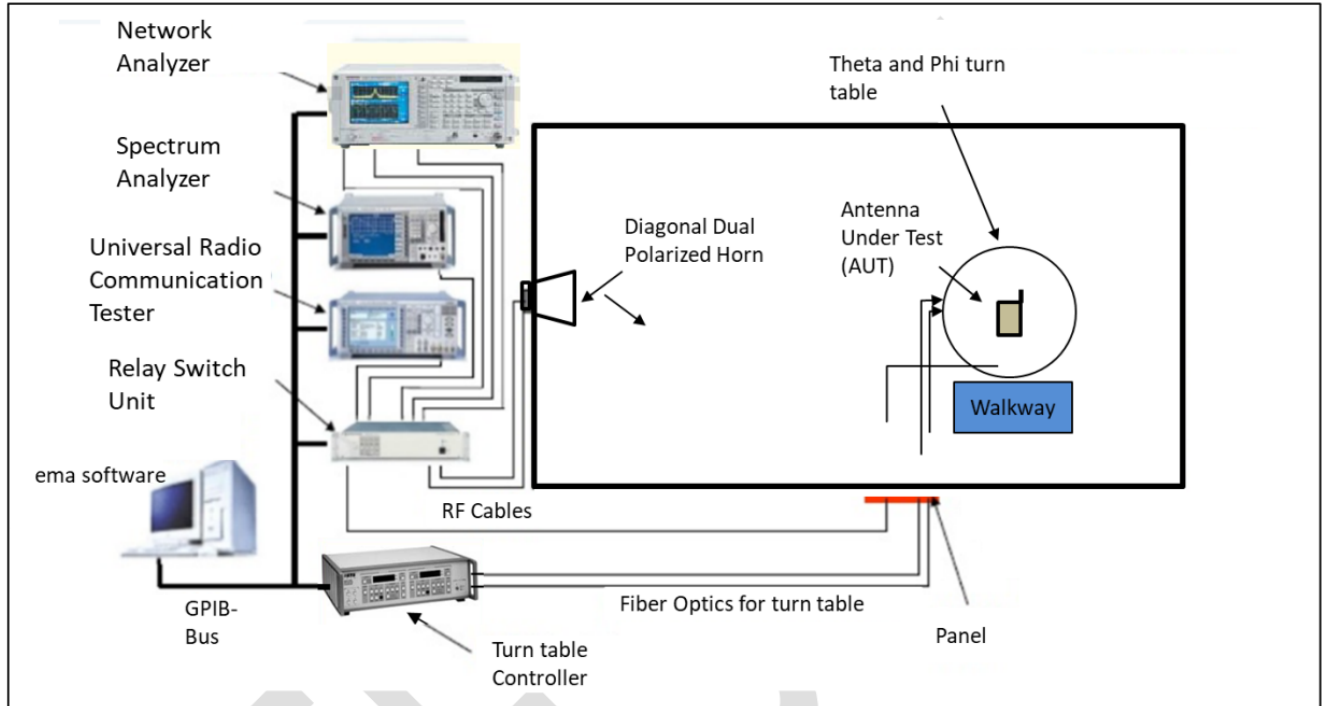
| Revision # | Revision Details | Issued Date |
|-------------------|----------------------------|--------------------|
| Rev.01 | First Issue | 2023/07/24 |
| Rev.02 | Add test location | 2023/08/23 |
| Rev.03 | Add test date | 2023/09/25 |
| Rev.04 | Add name of Test Personnel | 2023/10/02 |

2. Test & System Description

2.1 Measurement Method and System

Measurement was performed with a Full Anechoic Chamber

2.2 Test setup



2.4 Equipment list

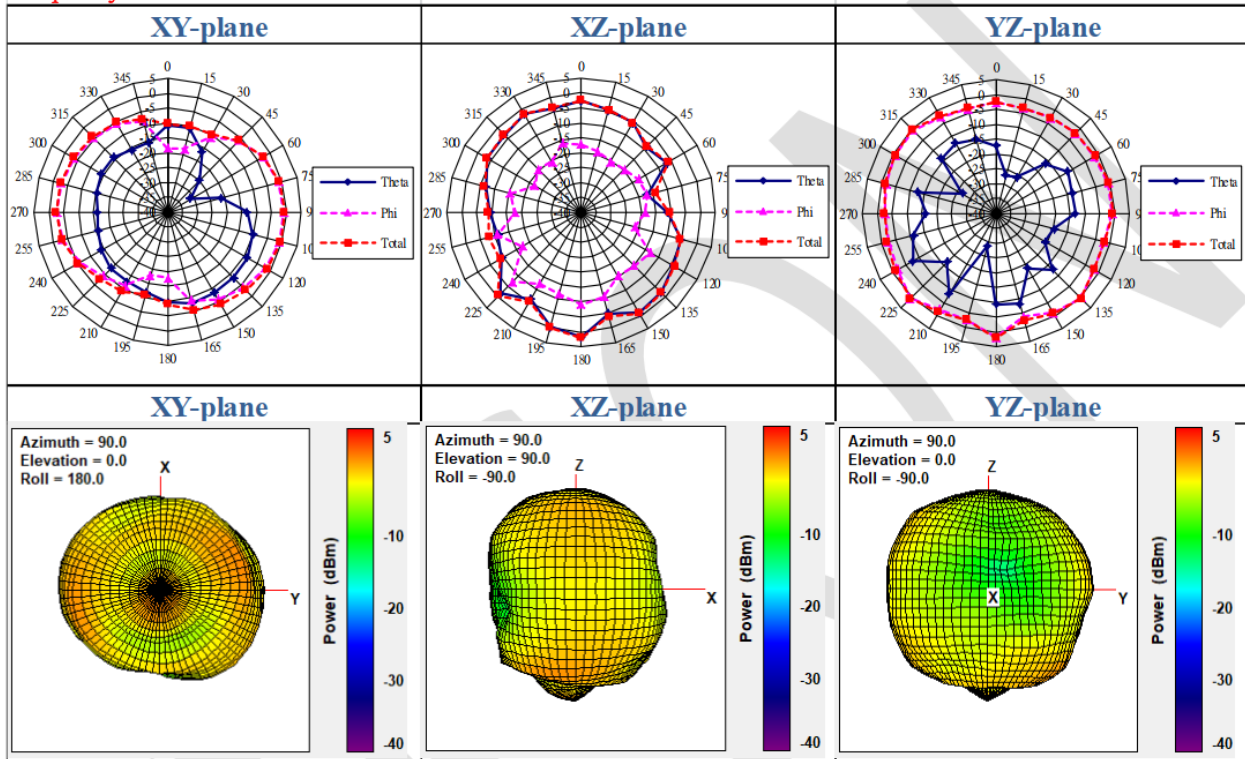
| Device | Type/Model | Serial# | Manufacturer | Cal. Date | Cal. Due Date |
|--------------------------------------|-----------------|-------------------|----------------------------|-----------|---------------|
| Anechoic Chamber | SpaceSacer 26H | 3100508-182-00007 | ETS-Lindqren | 30-Jun-23 | 30-Jun-24 |
| Dual Polarized Diagonal Horn Antenna | 3164 | 3164-03 | ETS-Lindqren | 30-Jun-23 | 30-Jun-24 |
| Spectrum Analyzer(SA) | FSV – FSP | 3100505-19-00011 | RCHDE&SCHWARZ | 24-Mar-23 | 24-Sep-26 |
| Network Analyzer(NA) | ZNB4 | - | RCHDE&SCHWARZ | 24-Mar-23 | 24-Sep-26 |
| Network Analyzer(NA) | R3767CG | 130101611 | ADVANTEST | 24-Mar-23 | 24-Sep-26 |
| Network Analyzer(NA) | C4209 | 101548/102977 | TS RF Instruments Co., Ltd | 24-Mar-23 | 24-Sep-26 |
| Universal radicomunication tester | CMW500 – CMU200 | 101548/102977 | RCHDE&SCHWARZ | 28-May-23 | 28-Nov-26 |
| Turn table Controller | EMCO 2090 | 23525 | ETS(EMCO) | N/A | N/A |
| Slot Switch(SW) | Aqilent 3499B | 3100508-041-00001 | Aqilent | N/A | N/A |
| Power Amplifier(PA) | ZVE-8G+ | SN427201705 | PLANAR MONOLITHICS | 28-May-23 | 28-Nov-26 |
| Low-noise Amplifier(LNA) | ZFL-500 | 3100504-27-00014 | MInI-Clrccuits | 28-May-23 | 28-Nov-26 |

3 Radiation characteristics of antenna loaded in Host Platform

Main/Auxiliary Antenna

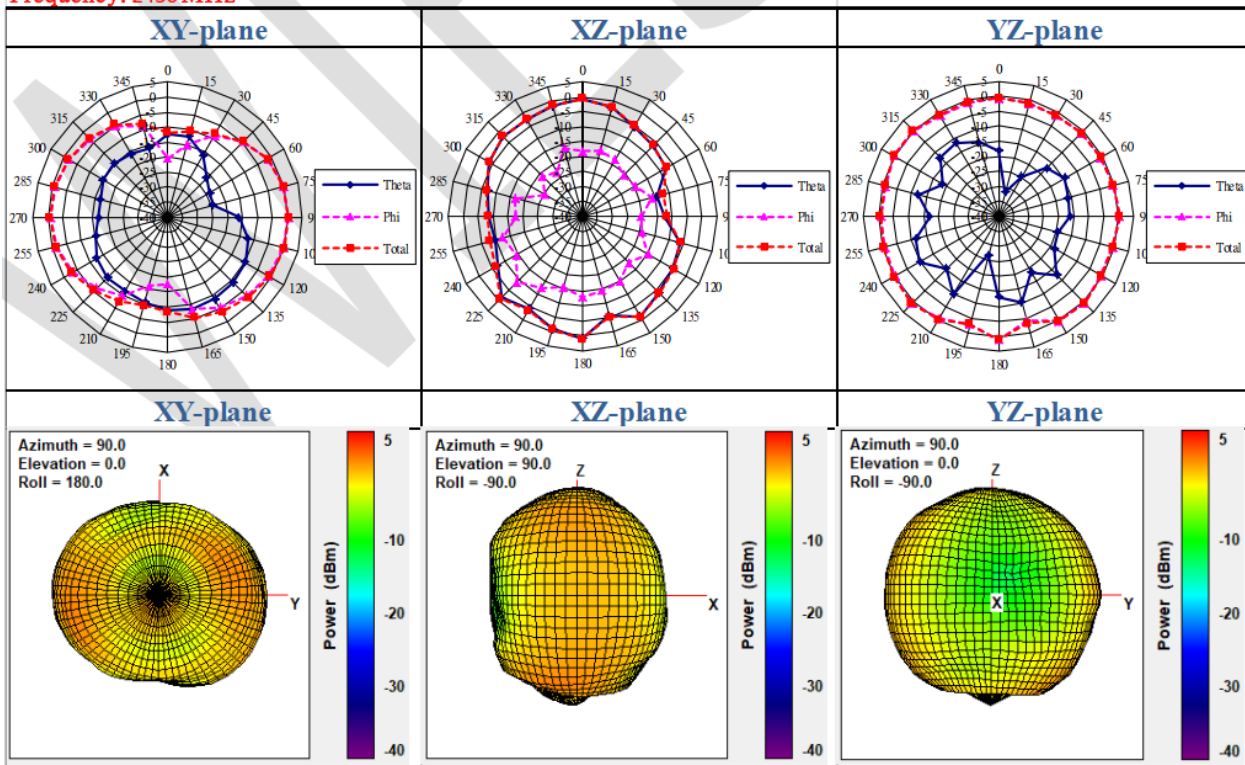
Antenna 3D Radiation Pattern- 2400 MHz

Frequency: 2400 MHz



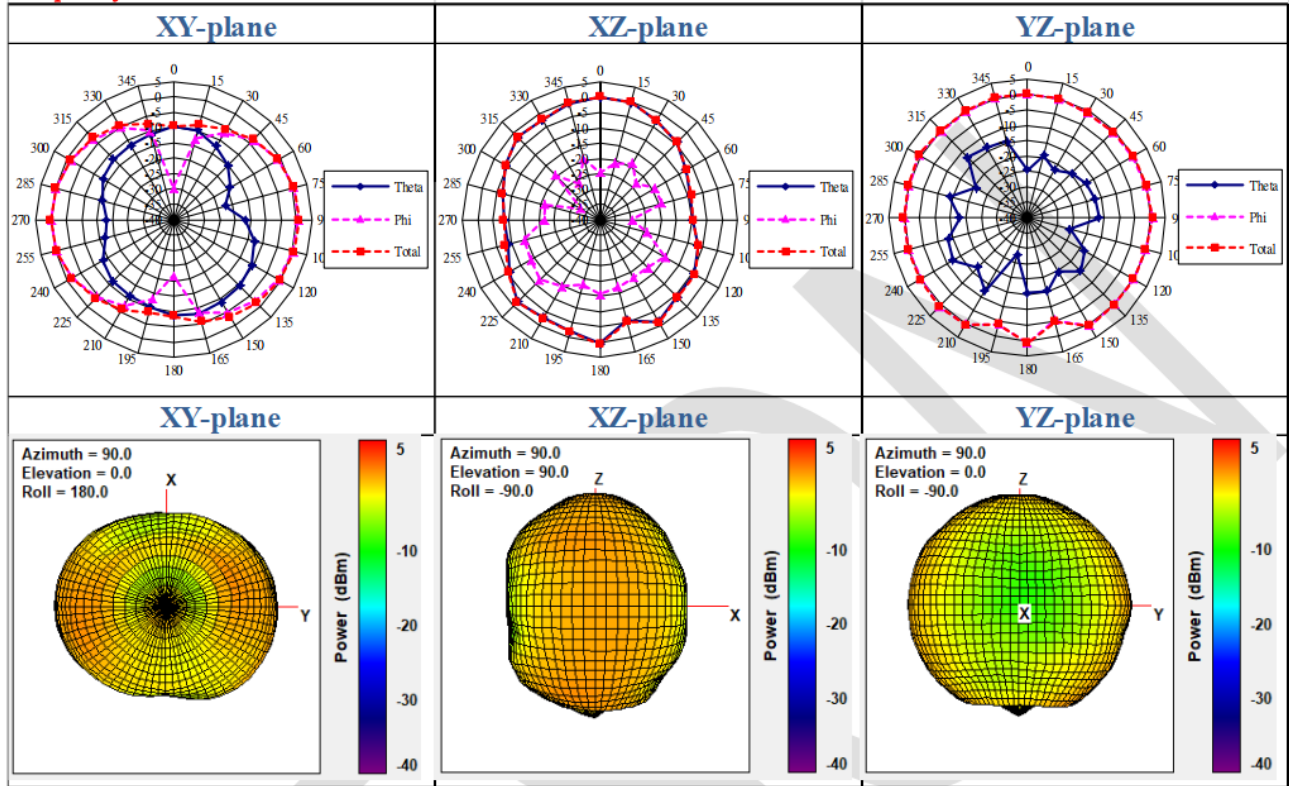
Antenna 3D Radiation Pattern- 2450 MHz

Frequency: 2450 MHz



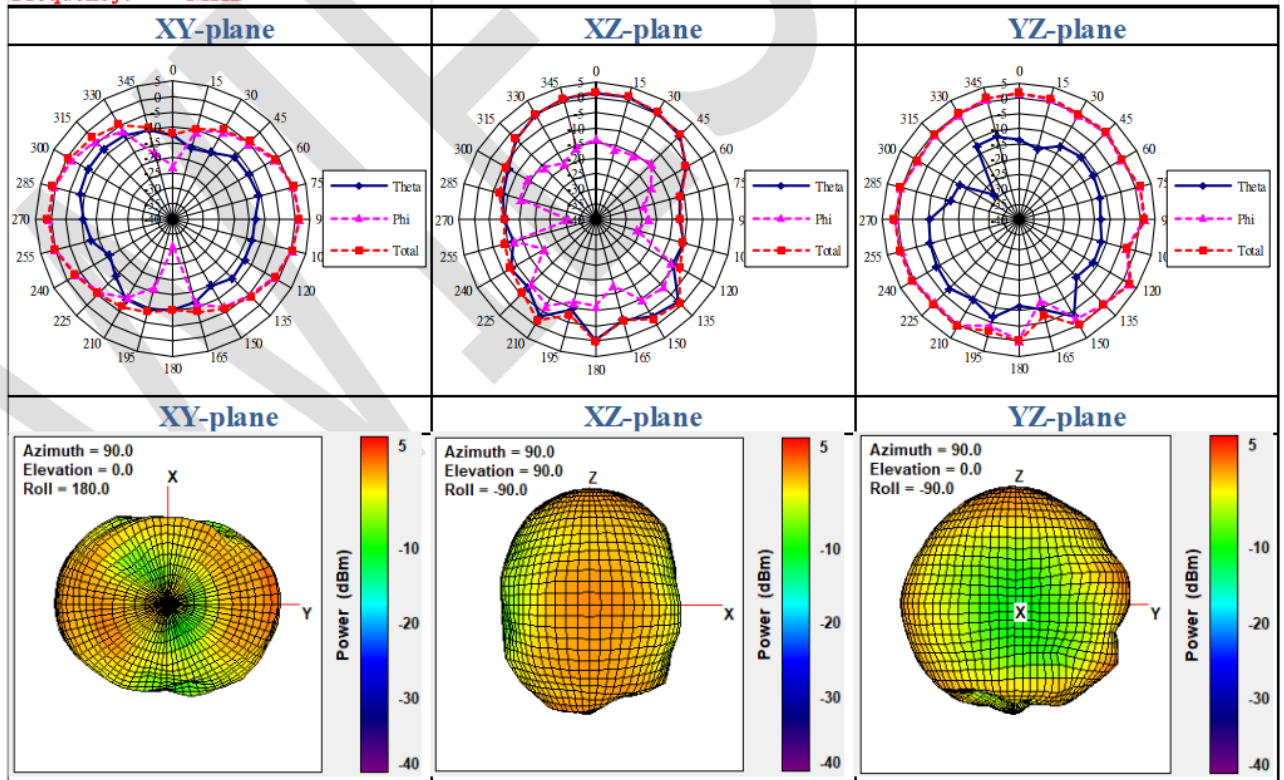
Antenna 3D Radiation Pattern- 2500 MHz

Frequency: 2500 MHz

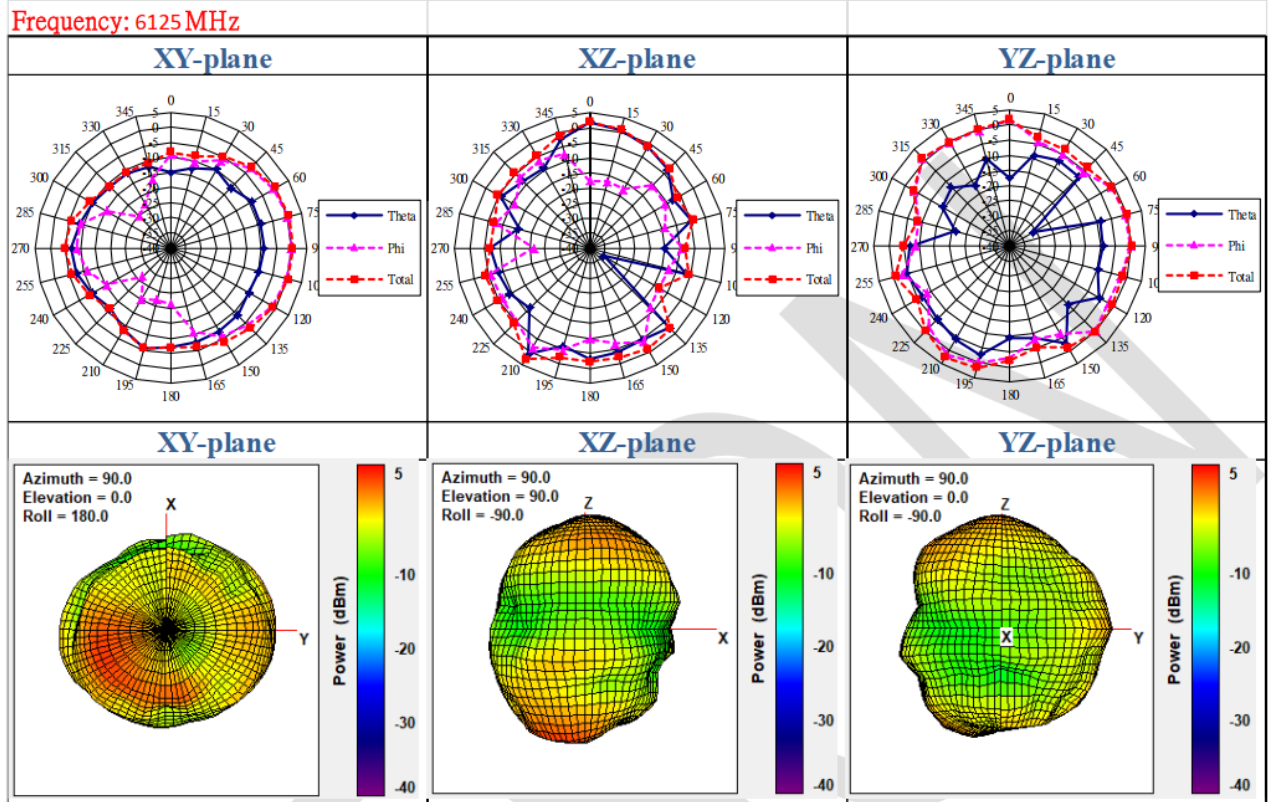


Antenna 3D Radiation Pattern- 5150 MHz

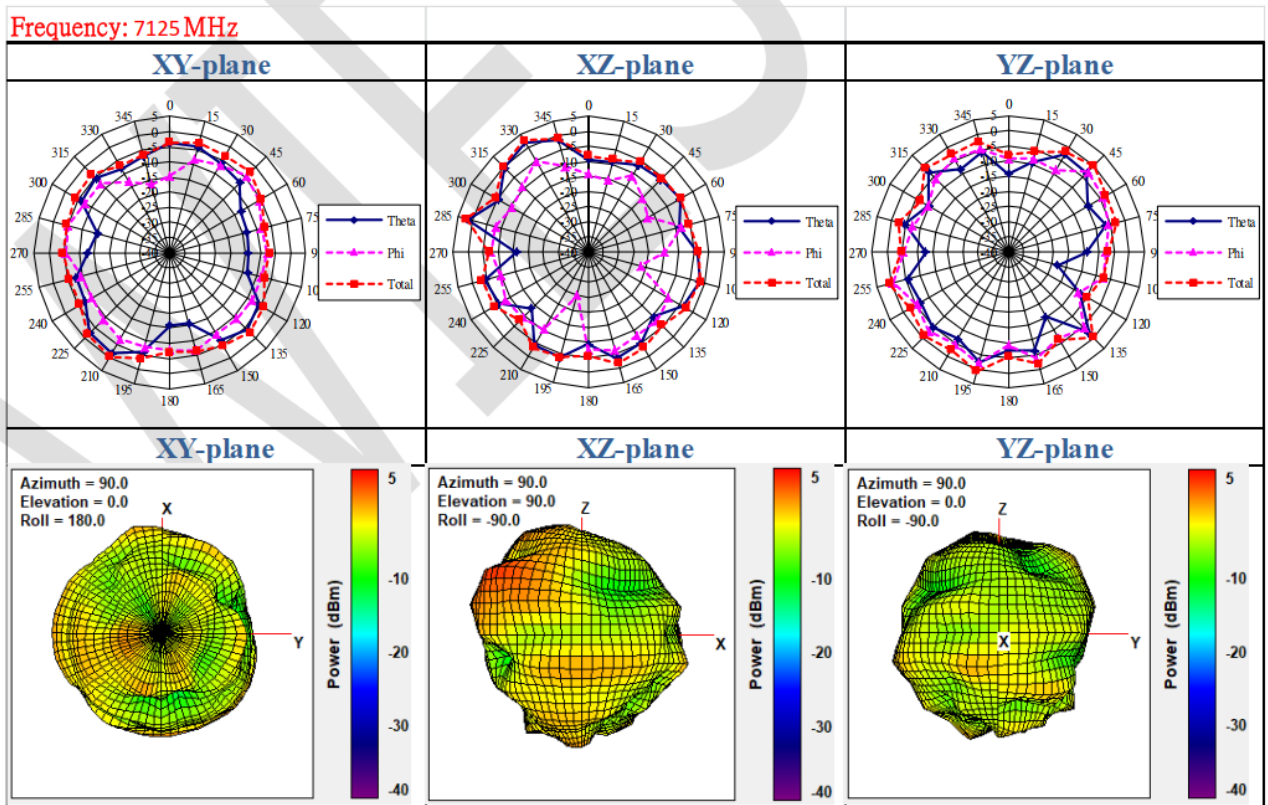
Frequency: 5150 MHz



Antenna 3D Radiation Pattern- 6125 MHz

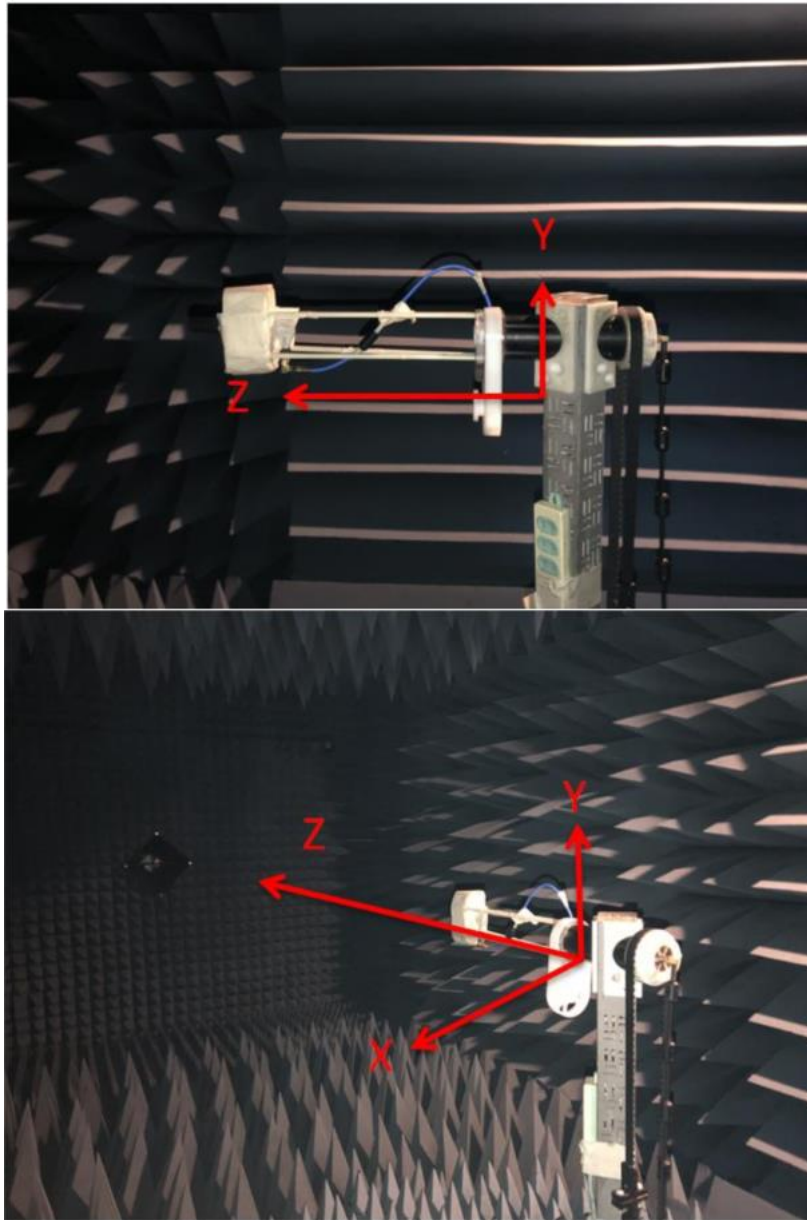


Antenna 3D Radiation Pattern- 7125 MHz



Annex A. Photographs

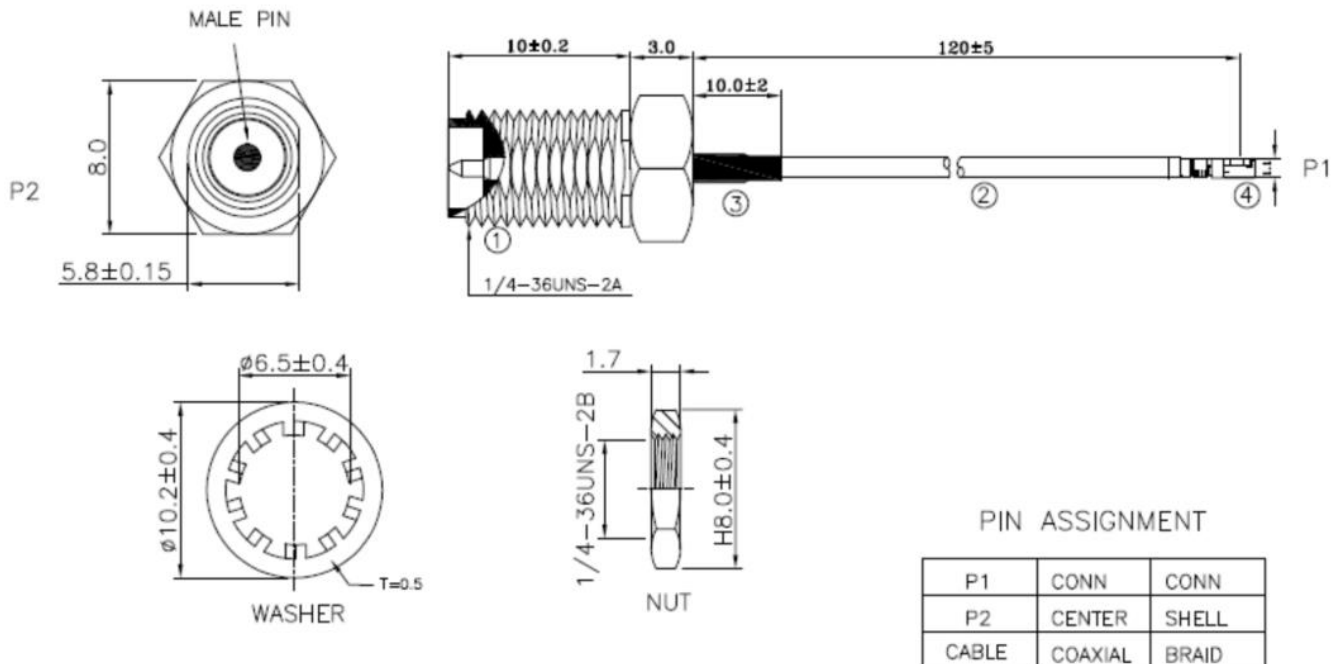
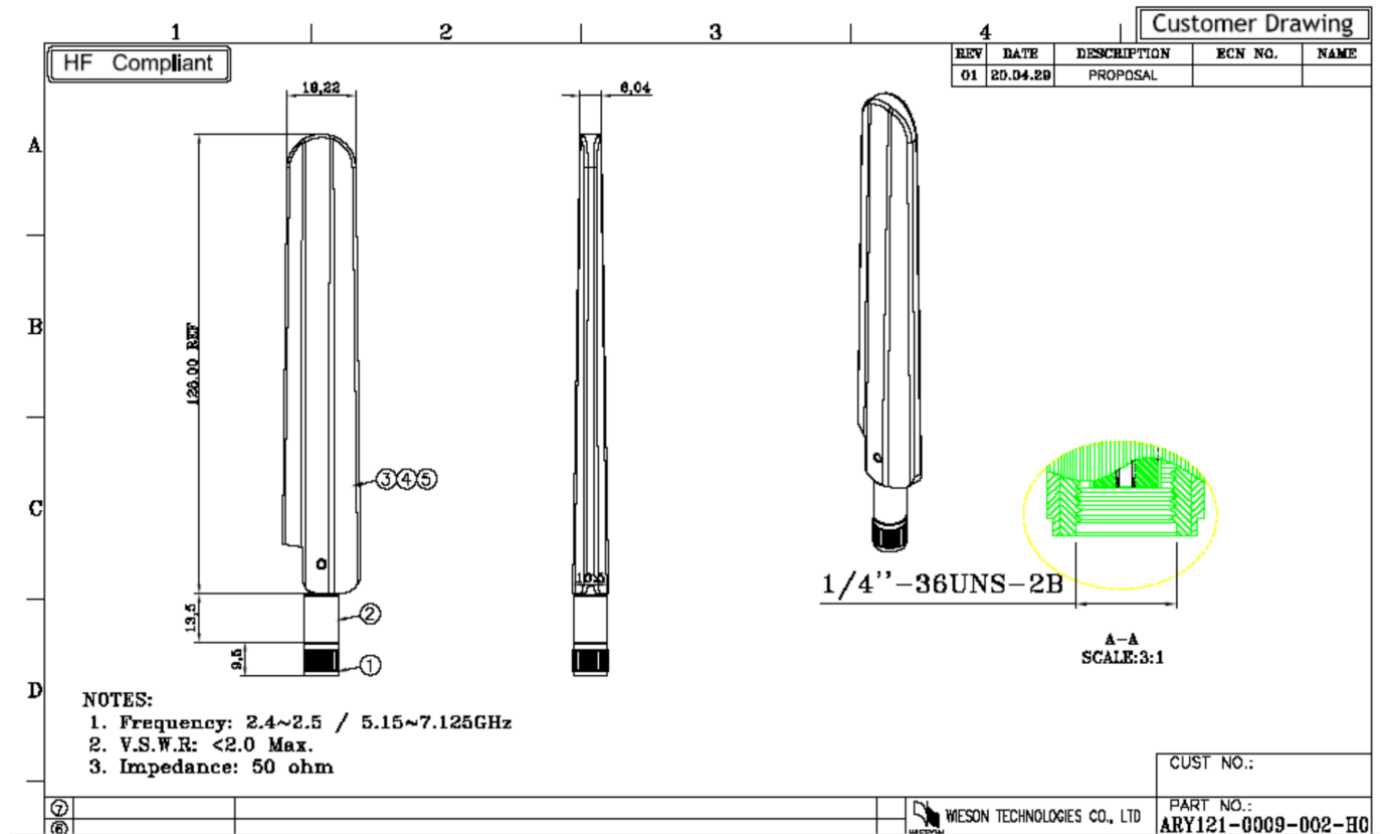
A.1 Setup Photo



A.2 Test sample

Main/Aux Antenna

Antenna Drawing



Antenna Photo

