

Regulatory WLAN Antenna Information

(English Language Required for Intel Regulatory Review / Approval)

(OEM/ODM or antenna vendor is required to complete this document with platform antenna information.

Remove Intel references and make this your own document)

Platform information												
Brand	ODM	****End product model name	Intel platform (ex: Yes, No or NA)	Platform type (ex: regular NB, convertible PC, AIO...etc)	*SAR minimum separation (mm)							
Intel		Dipole reference antenna										
****Please fill in exact product model name and make sure the model name is visible on product cover or any parts for end users recognize for authority inspection.												
Antenna information												
Vendor	Type	Antenna Part number (Main)		Antenna Part number (Aux)								
Wieson	Dipole	ARY121-0009-002-H0		NA								
Peak gain w/ cable loss (dBi)												
2.4GHz 2400-2500MHz	5.2&5.3GHz 5150-5350MHz	5.5GHz 5470-5725MHz	5.8GHz 5725-5850MHz	6.2GHz 5925-6425MHz	6.5GHz 6425-6525MHz	6.7GHz 6525-6875MHz	6.9GHz 6875-7125MHz					
3.10	4.11	5.17	5.17	5.06	4.71	4.49	5.34					
Module information												
(Please check with "x" when applies, or to fill-in proper model in empty column and specify (manual key-in) if you use non-regular sku, ie. Low power sku or mid power sku.)												
Model	Form factor and suffixes											
9560 (JfP 2)		NGW		D2W		D2WL	AX200 (CcP2)		NGW		D2WL	
9260 (ThP 2)		NGW		D2WL			AX101 (HrP1)		NGW		D2W	
9461 (JfP 1)		NGW		D2W			AX210 (TyP2)		NGW			
9462 (JfP 1)		NGW		D2W			AX211 (GfP2)		NGW			
AX201 (HrP2)		NGW		D2W		D2WL	Other Intel model					
Intel Reference Gain/Type/ Separation distance												
Antenna Type	Antenna Peak gain (In dBi)					Distance to the end user (mm)						
	2.4GHz 2400-2500MHz	5.2GHz 5150-5250MHz	5.3GHz 5250-5350MHz	5.5GHz 5470-5725MHz	5.8GHz 5725-5850MHz							
PIFA	3.24	3.64	3.73	4.77	4.97	Generic sku: refer to modular FCC SAR report Mid-power sku: ≥8 Low power sku: ≥5						
Notes (marked with *)												
*SAR minimum separation (mm)												
- Regular NB: Minimum antenna-to-body (from antenna bottom to the bottom of the device)												
- Tablet / Convertible PC: Minimum antenna-to-edge (5 sides of the device)												
- Mini-tablet: Minimum antenna-to-edge (6 sides of the device)												

Antenna Sample / Antenna Data Requirements for worldwide regulatory approval

Section	Description of Required OEM / ODM Antenna Information	US / IC	EU	Japan	Taiwan	S.Korea
1A	Part Number for Antenna only	Required	Required	Required	Required	Required
1B	Antenna Manufacturer Name	Required	Required	Required	Required	Required
1C	Description of Antenna Type	Required	N/A	N/A	N/A	N/A
1D	Part number of Antenna Assembly / cable impedance, length & diameter.	Required	Desired	Desired	Desired	Desired
1E	Tx1, Tx2 & Tx3 antenna (Peak Gain W/ cable loss) *	Required	Required	Required	Required	Required
	1E OR 1F, 1G, 1H					
1F	Tx1, Tx2 & Tx3 antenna (Peak Gain only) *	Required	Required	Required	Required	Required
1G	VSWR of cable including connector	Required	Required	Required	Required	Required
1H	Tx1, Tx2 & Tx3 antenna (Cable loss W/ connector) *	Required	Required	Required	Required	Required
2	Dimensioned Photographs <u>and</u> Drawings of Tx1, Tx2, and Tx3 (or Rx3) antennas	Required	Required	Required	Required	Required
3	Radiation patterns of antennas loaded in the host platform.	Required	Desired	Required	N/A	Required
4	Platform model name / number - correlated to antenna manufacturer and antenna part number	Required	Required	Desired	Required	Desired
5	Photograph(s) or Drawings showing location of antennas in platform. <u>(S. Korea requires photographs of antennas for approval submission). Taiwan requires pictures of each antenna type shown in the system.</u>	Required	Required	Desired	<u>Required (Photos)</u>	<u>Required (Photos)</u>
6	Mech. drawings / photos with dimensions of antenna locations and distance from end-user (For evaluation of SAR testing requirement).	Required	N/A	N/A	N/A	N/A
7	Photograph(s) or Drawings showing the location of all antennas (WLAN, other) and distance between those transmitting antennas. Information will be used to evaluate whether co-location testing is required.	Required	N/A	N/A	N/A	N/A
8	Local representative contact information for LMA/ PARS process.	Required	N/A	N/A	N/A	N/A

Antenna Information

Section 1. Antenna Assembly Specifications

1A Antenna Part Number	1B Manufacture	1C Antenna Type	1D Cable Assembly Part Number and Information	1E *Peak Gain W/ Cable loss (dBi)	1F Peak Gain w/o Cable Loss (dBi)	1G VSWR	1H Cable Loss (dB)
P/N: ARY121-0009- 002-H0 Main Antenna	Wieson	Dipole	P/N: AR9851-0009- 005-H0 50 ohm Coaxial length: 12cm diameter: 1.1mm	2400-2500MHz 3.10 dBi (peak)	2400-2500MHz ___.__ dBi (peak)	2400-2500MHz ___.__ max	2400-2500MHz ___.__ dBi (peak)
				5150-5350MHz 4.11 dBi (peak)	5150-5350MHz ___.__ dBi (peak)	5150-5350MHz ___.__ max	5150-5350MHz ___.__ dBi (peak)
				5470-5725MHz 5.17 dBi (peak)	5470-5725MHz ___.__ dBi (peak)	5470-5725MHz ___.__ max	5470-5725MHz ___.__ dBi (peak)
				5725-5850MHz 5.17 dBi (peak)	5725-5850MHz ___.__ dBi (peak)	5725-5850MHz ___.__ max	5725-5850MHz ___.__ dBi (peak)
				5925-6425MHz 5.06 dBi (peak)	5925-6425MHz ___.__ dBi (peak)	5925-6425MHz ___.__ max	5925-6425MHz ___.__ dBi (peak)
				6425-6525MHz 4.71 dBi (peak)	6425-6525MHz ___.__ dBi (peak)	6425-6525MHz ___.__ max	6425-6525MHz ___.__ dBi (peak)
				6525-6875MHz 4.49 dBi (peak)	6525-6875MHz ___.__ dBi (peak)	6525-6875MHz ___.__ max	6525-6875MHz ___.__ dBi (peak)
				6875-7125MHz 5.34 dBi (peak)	6875-7125MHz ___.__ dBi (peak)	6875-7125MHz ___.__ max	6875-7125MHz ___.__ dBi (peak)

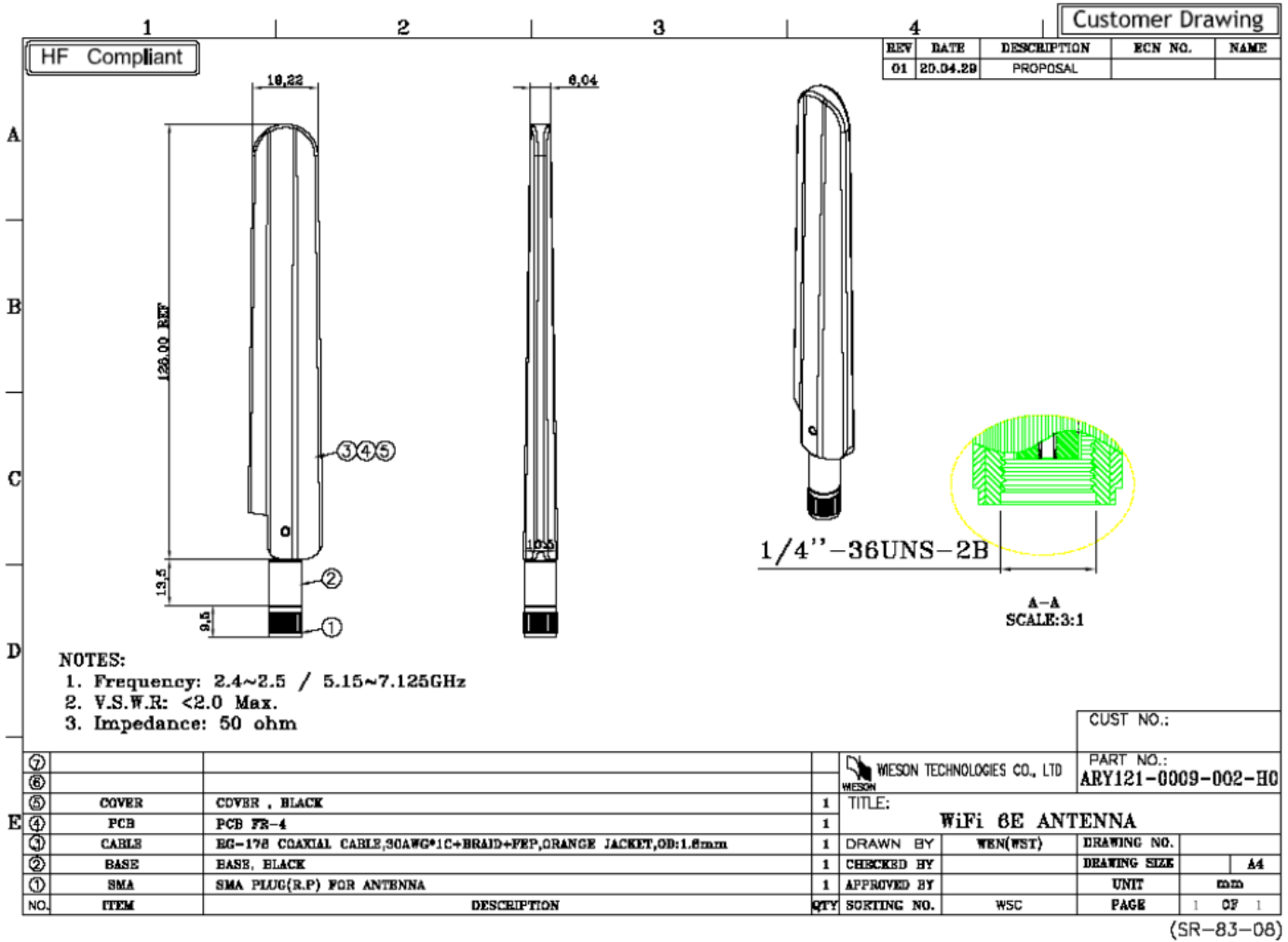
- Antenna Peak Gain required being test in system basis.
- 1E frame contend absolutely peak antenna gain include H/V

Antenna Peak Gain Table:

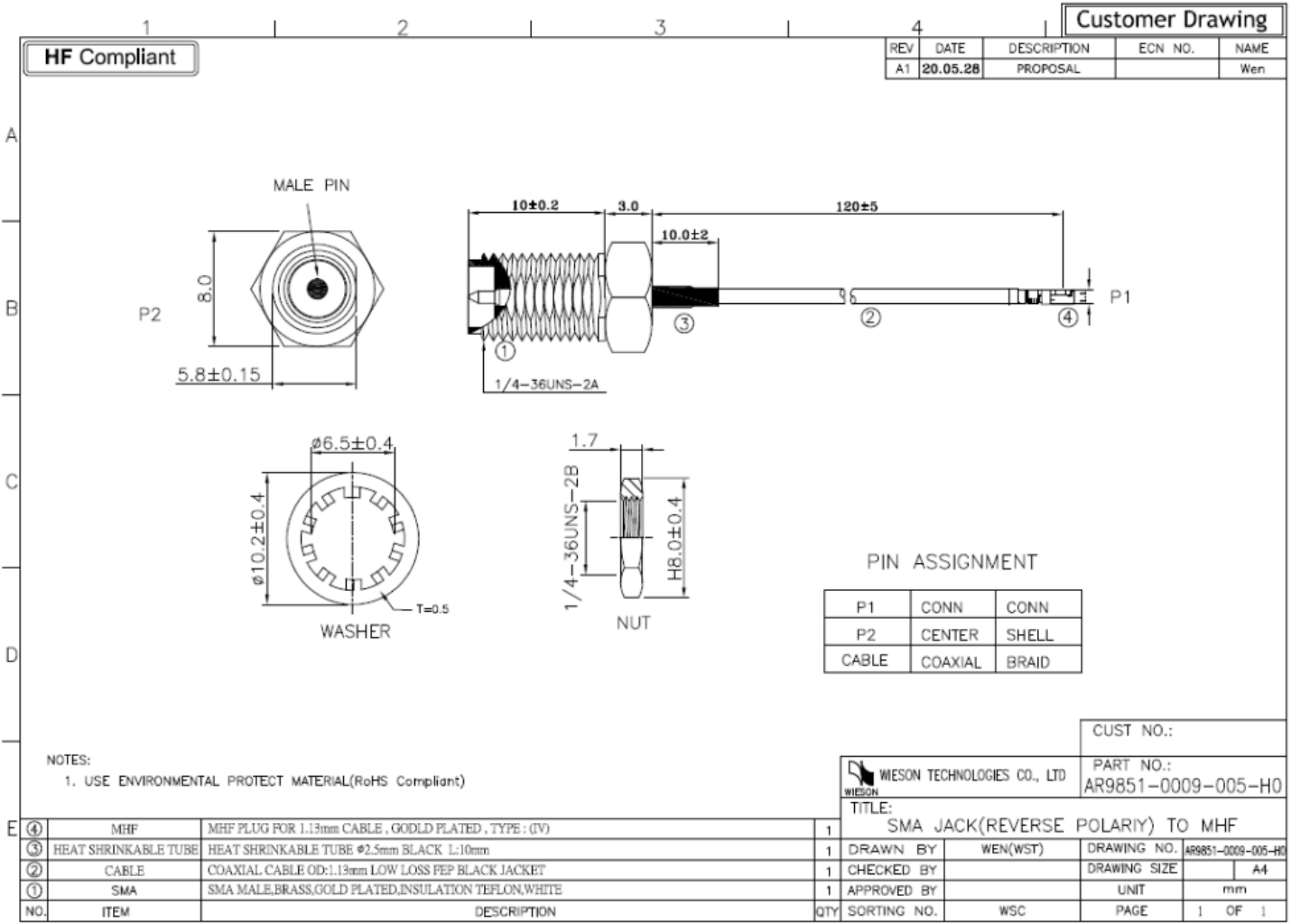
	Main antenna
Frequency (MHz)	3D Antenna Gain Value (Including Cable loss)
	(dBi)
2400	3.10
2450	2.87
2500	2.46
5150	4.03
5250	4.02
5350	4.11
5470	4.82
5600	4.55
5725	5.17
5785	5.12
5850	4.76
5925	5.06
6000	4.97
6125	3.72
6225	4.25
6325	4.48
6425	4.71
6525	4.49
6625	4.46
6725	4.32
6875	4.25
6925	4.67
7000	4.55
7125	5.34

Section 2. Dimensioned Photos or Drawings of Antennas

Main Antenna Dimensioned Drawing:



Cable Drawing:

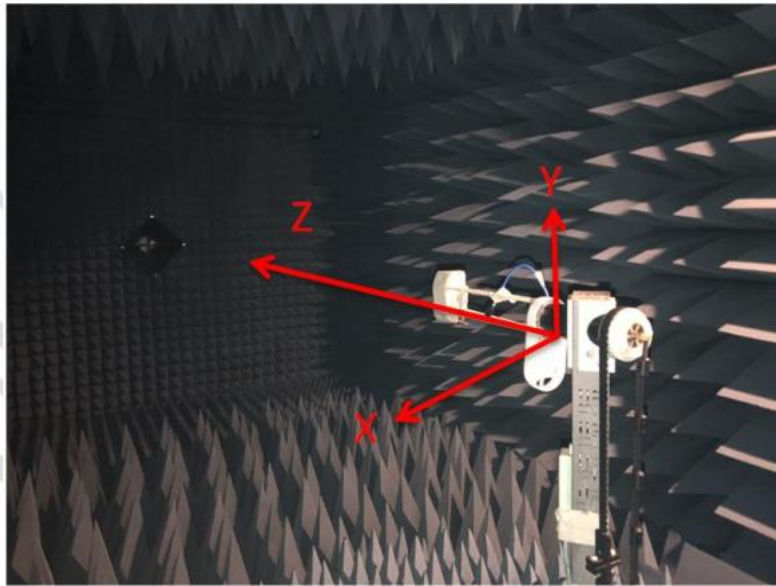
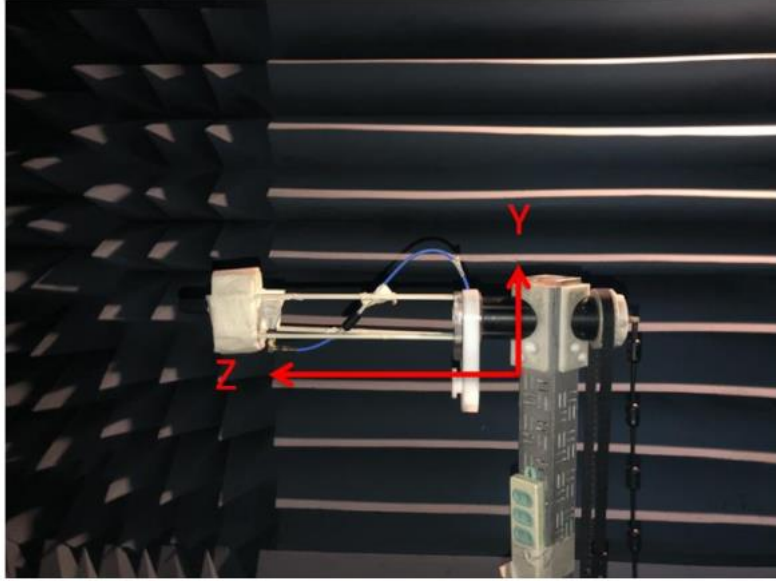


[ARTICLE:044032 V6]

Main Antenna Photo

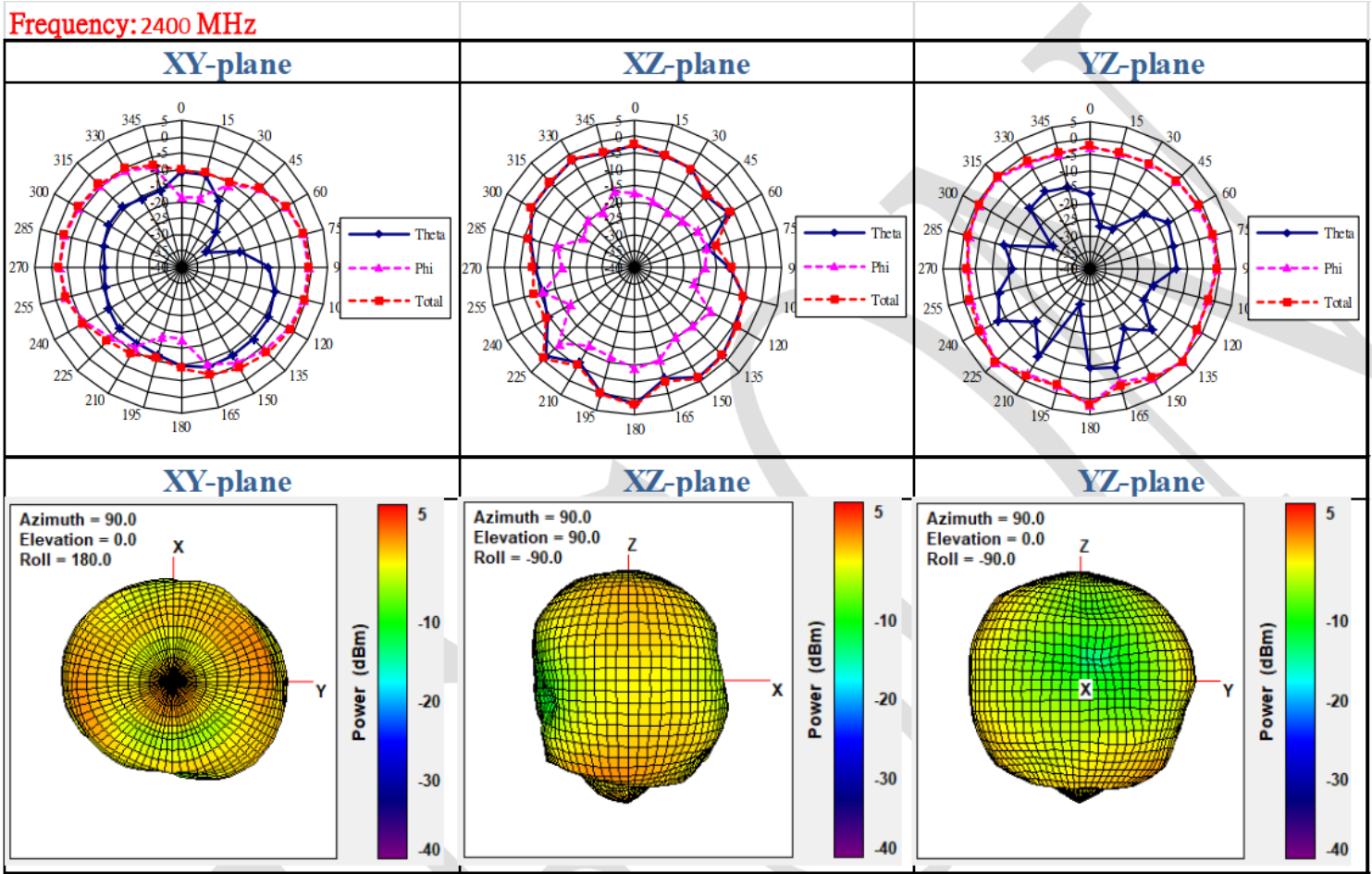


Section 3. Radiation characteristics of antennae Loaded in Host Platform



2400-2500MHz radiation characteristic

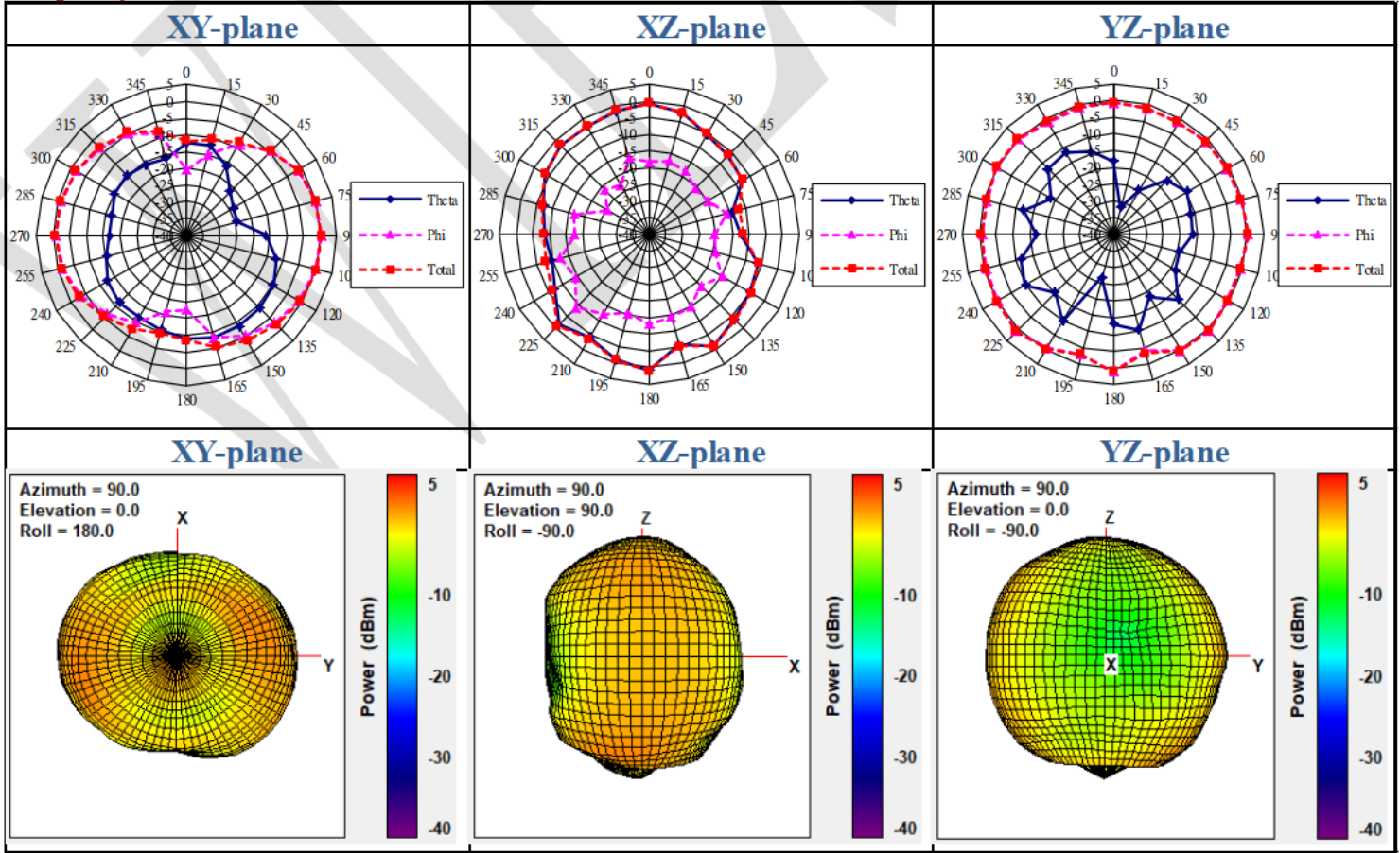
Main antenna: 2400 MHz



Center Frequency	2400 MHz
3D peak(dBi)	3.10

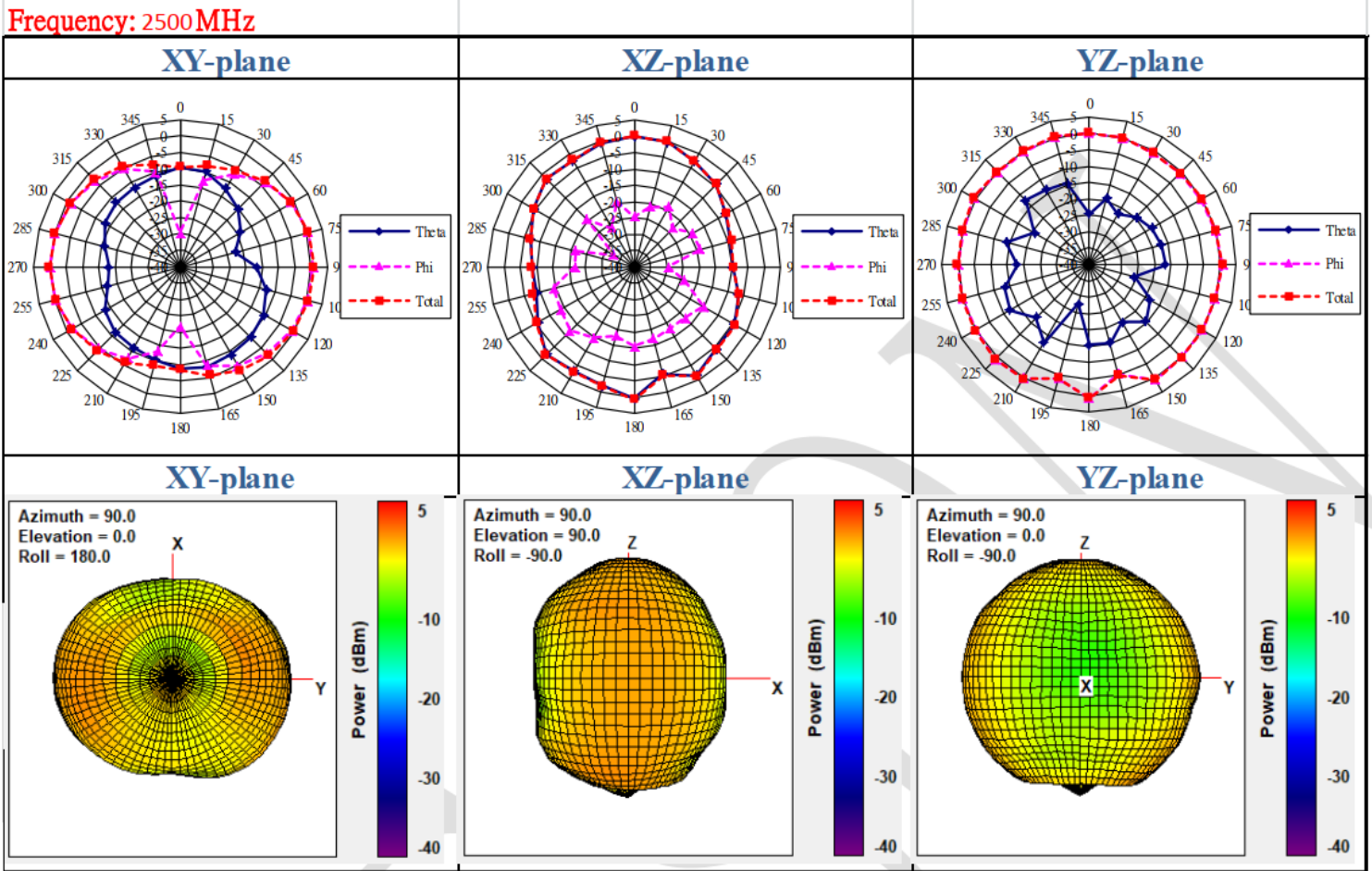
Main antenna: 2450 MHz

Frequency: 2450MHz



Center Frequency	2450 MHz
3D peak(dBi)	2.87

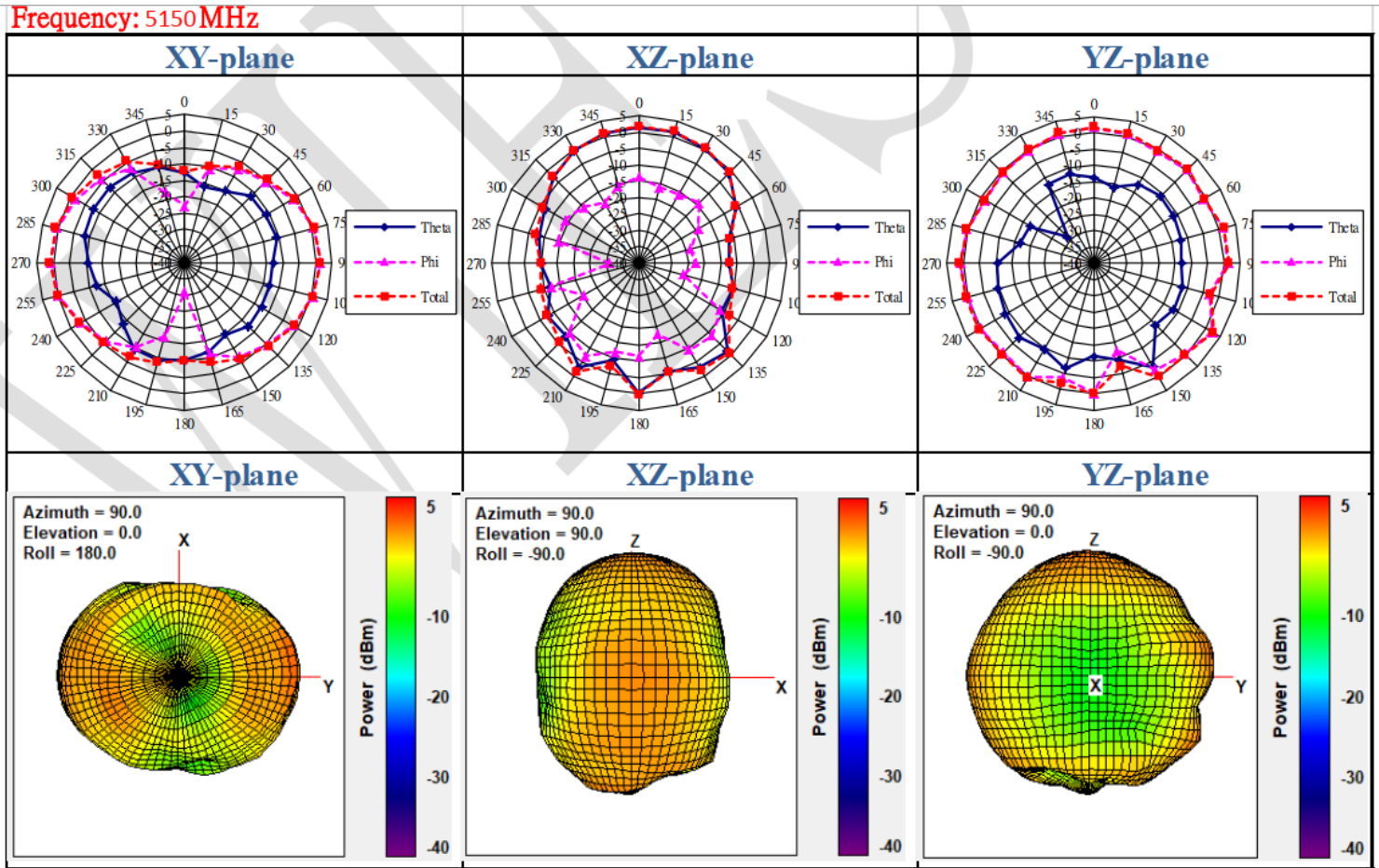
Main antenna: 2500 MHz



Center Frequency	2500 MHz
3D peak(dBi)	2.46

5150-5350 MHz radiation characteristic

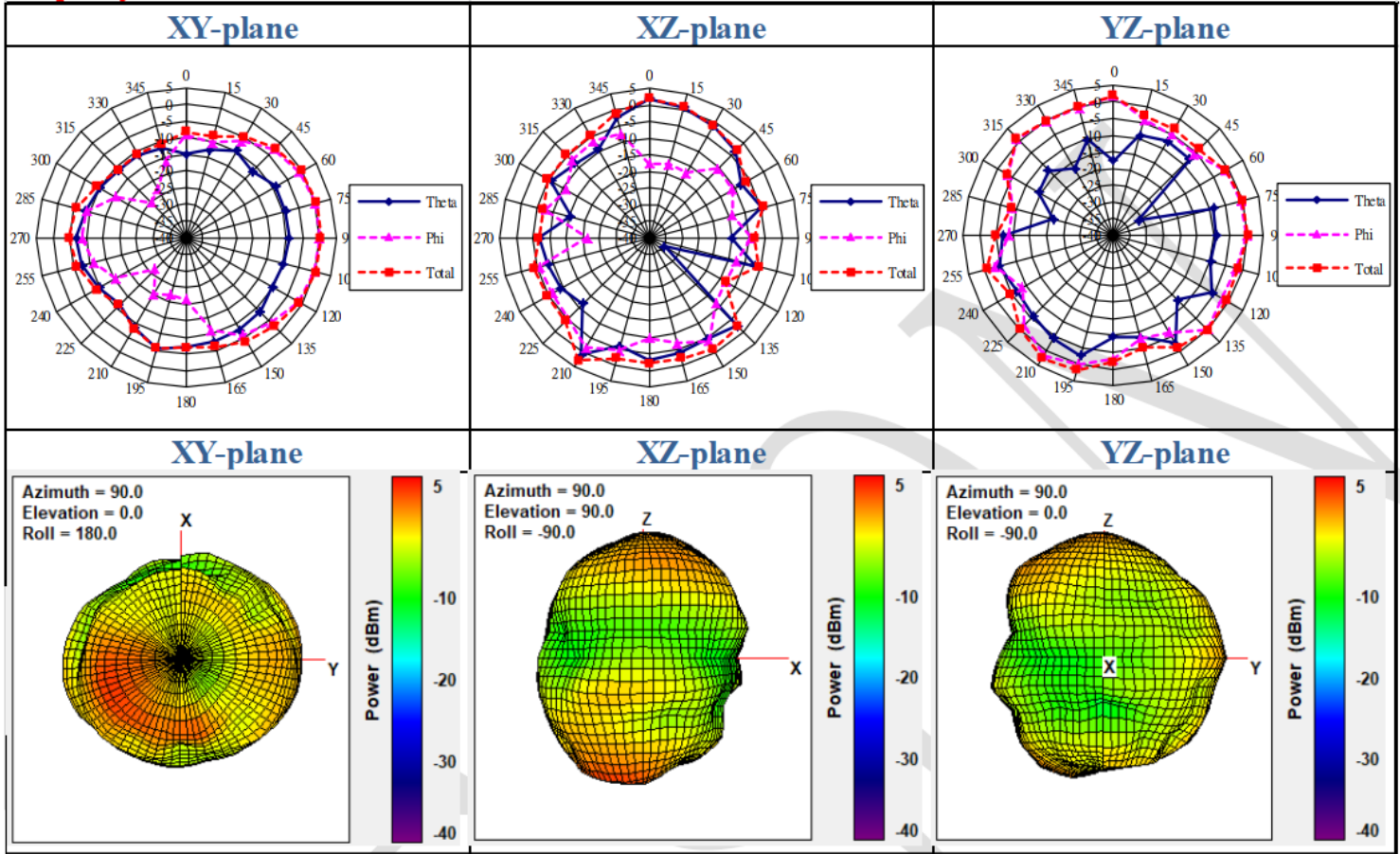
Main antenna: 5150 MHz



Center Frequency	5150 MHz
3D peak(dBi)	4.03

Main antenna: 6125 MHz

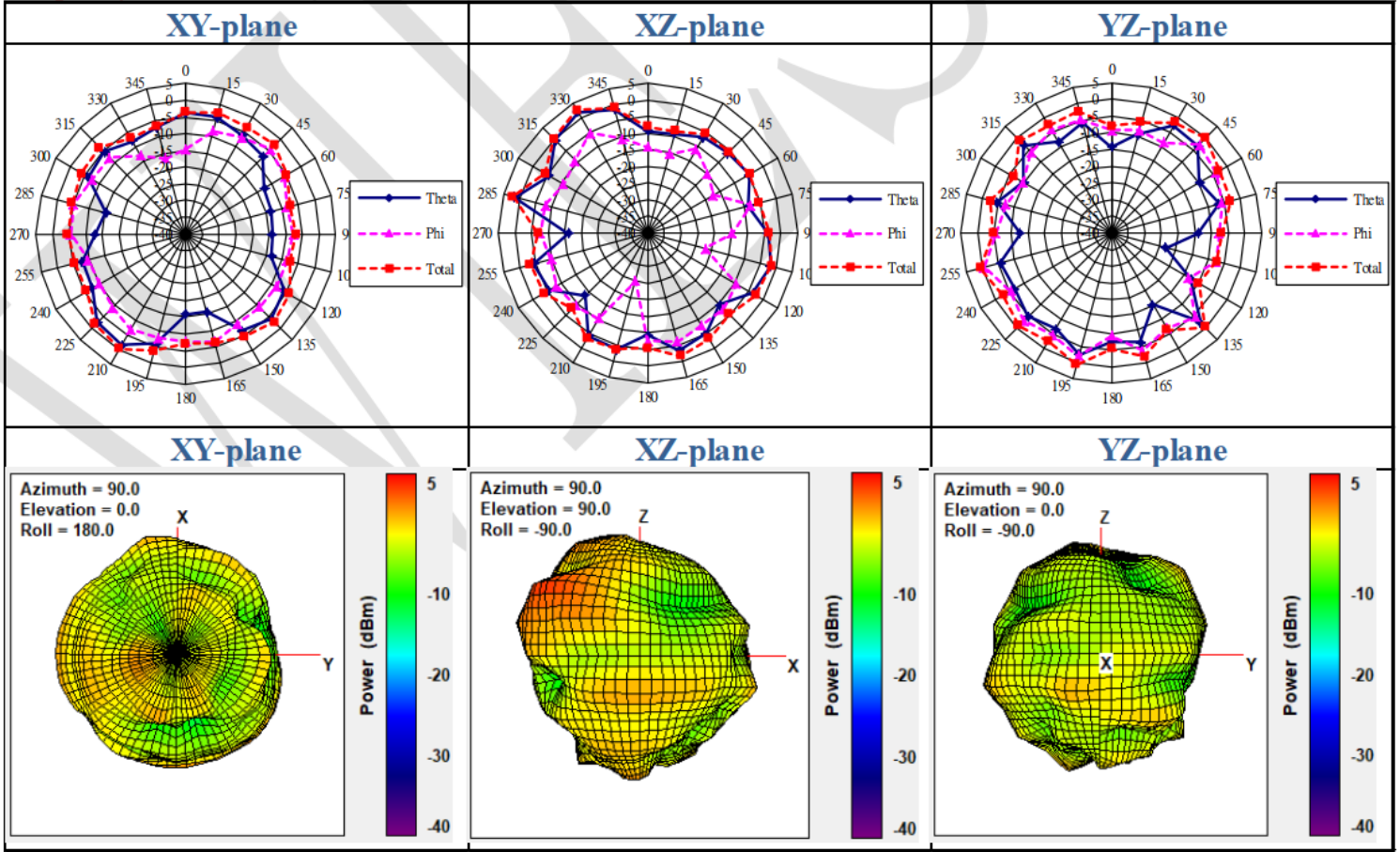
Frequency: 6125 MHz



Center Frequency	6125 MHz
3D peak(dBi)	3.72

Main antenna: 7125 MHz

Frequency: 7125MHz



Center Frequency	7125 MHz
3D peak(dBi)	5.34