

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 or No)	Platform Type (ex: regular NB, convertible PC, AIO...etc)	*SAR minimum separation (mm)
ASUS	NO	RC73XA	NO	Tablet	1.61

*****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(Main/Aux)	Antenna Part number (Main)	Antenna Part number (Aux)
INPAQ	PIFA	WA-P-LE-02-379	WA-P-LE-01-112

Peak gain w/ cable loss (dBi)*										
	2.4GHz 2400- 2483.5MHz	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	7GHz 6875- 7125MHz
Main	1.94	2.13	2.13	2.75	3.34	3.34	2.53	2.79	2.60	2.60
Aux	1.76	1.84	1.72	2.22	2.92	2.92	2.53	2.71	2.71	2.06

MTK Reference Gain/Type/ Separation distance

Antenna Type	Antenna Peak gain (in dBi)											Distance to the end user(mm)
	2.4GHz 2400- 2483.5MHz	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	6.7GHz 6525- 6875MHz	7GHz 6875- 7125MHz	
Design	3	5	5	5	5	5	5	5	5	5	5	Generic sku: refer to modular FCC SAR report Mid-power sku: ≥8 Low power sku: ≥5
PIFA	3.18	4.92	4.92	4.92	4.92	4.92	4.76	4.29	4.61	4.61	4.09	
Dipole	2.42	3.87	3.87	3.87	3.87	3.87	3.93	3.61	3.61	3.61	3.14	

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)

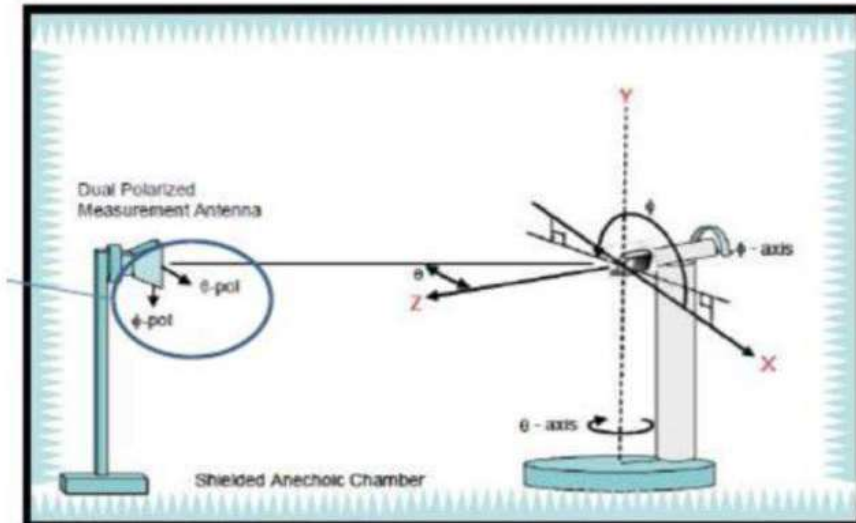
- Mini-tablet: Minimum antenna-to-edge (6 sides of the device)

* 3D Peak Antenna gain should be equal or greater than -2 dBi

- If a host integrator plans to use a lower gain antenna of the same type, additional CBP(FCC)/EDT(EU) testing need to be performed while the module is installed in the host.

1. Applicable test methods

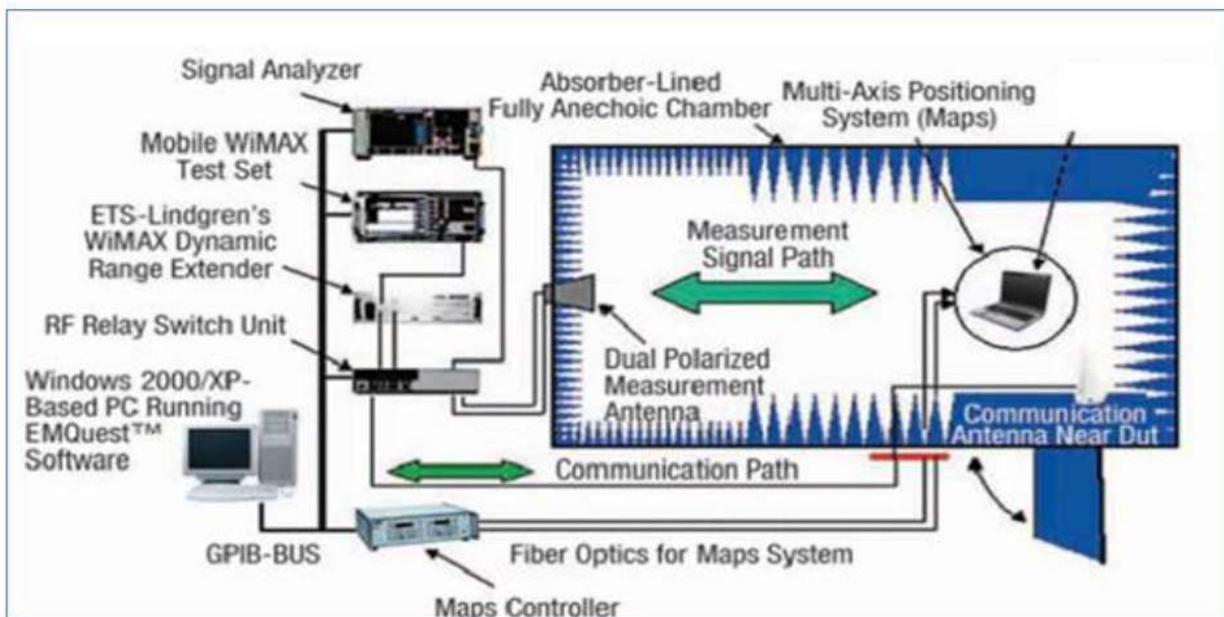
<insert test description here for test method>



2. Test & System Description

<insert test diagram here for test site utilized>

ETS 8500



Equipment List

Equipment Description	Manufacturer	Identification no.	Current calibration date	Next calibration date
Network analyzer	Agilent	E5071C	2025/01/07	2026/01/06
Measurement software	ETS-Lindgren	EMQuest	2024/03/03	2025/03/03
Multi axis positioning system(MAPSTM)	ETS-Lindgren	EMCO 2115	2024/03/03	2025/03/03
Multi axis positioning system(MAPSTM)	ETS-Lindgren	EMCO 2110	2024/03/03	2025/03/03
MAPSTM controller	ETS-Lindgren	EMCO 2090	2024/03/03	2025/03/03
Horn antenna	ETS-Lindgren	3164-10	2024/03/03	2025/03/03
Cable 40cm 18 GHz	Jmtt	201EH012010400	2024/04/07	2025/04/08
Cable 6m 18 GHz	Jmtt	201EH012016000	2024/04/07	2025/04/08
Cable 6m 18 GHz	Jmtt	201EH012016000	2024/04/07	2025/04/08
Cable 3.5m 18 GHz	Jmtt	201EH012013500	2024/04/07	2025/04/08
Cable 1.5m 18 GHz	Jmtt	201EH012011500	2024/04/07	2025/04/08

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	1E Main, Aux & Tx3 antenna (Peak Gain W/ cable loss) *	Required	Required	Required	Required	Required
	1E OR 1F, 1G, 1H					
1F	Main, Aux & Tx3 antenna (Peak Gain only) *	Required	Required	Required	Required	Required
1G	VSWR of cable including connector	Required	Required	Required	Required	Required
1H	Main, Aux & Tx3 antenna(Cable loss W/ connector) *	Required	Required	Required	Required	Required
2	Dimensioned Photographs and Drawings of Main, Aux, and Tx3 (or Rx3) antennas	Required	Required	Required	Required	Required
3	Radiation patterns of antennas loaded in the host platform.	Required	Desired	Required	Required	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. (S. Korea requires photographs of antennas for approval submission). Taiwan requires pictures of each antenna type shown in the system.	Required	Required	Desired	Required (Photos)	Required (Photos)
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

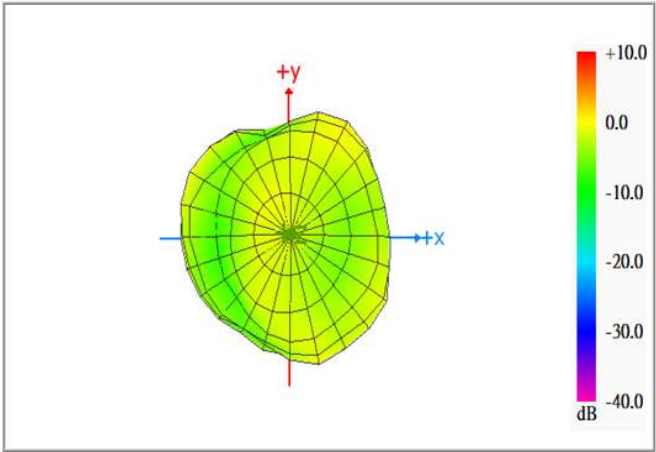
Section 1. Antenna Assembly Specifications

1A Antenna Part Number	1B Manu- facture	1C Antenna Type	1D Cable Assembly Part Number and Information	Freq Range MHz	1E *Peak Gain W/ Cable loss (dBi)	1F Peak Gain w/o Cable Loss (dBi)	1G VSWR	1H Cable Loss (dBi)
WA-P-LE-02-379 Main/Rx1 Antenna	INPAQ	PIFA	50 ohm Coaxial Length: 115 mm Diameter: 1.13 mm Low loss Connector: IPEX 20565-001R-13	2400-2483.5	1.94 dBi, (peak)	2.25 dBi, (peak)	3 dBi, (peak)	0.31 dBi, (peak)
				5150-5250	2.13 dBi, (peak)	2.60 dBi, (peak)	3 dBi, (peak)	0.47 dBi, (peak)
				5250-5350	2.13 dBi, (peak)	2.60 dBi, (peak)	3 dBi, (peak)	0.47 dBi, (peak)
				5470-5725	2.75 dBi, (peak)	3.23 dBi, (peak)	3 dBi, (peak)	0.48 dBi, (peak)
				5725-5850	3.34 dBi, (peak)	3.83 dBi, (peak)	3 dBi, (peak)	0.49 dBi, (peak)
				5850-5895	3.34 dBi, (peak)	3.84 dBi, (peak)	3 dBi, (peak)	0.50 dBi, (peak)
				5925-6425	2.53 dBi, (peak)	3.05 dBi, (peak)	3 dBi, (peak)	0.52 dBi, (peak)
				6425-6525	2.79 dBi, (peak)	3.32 dBi, (peak)	3 dBi, (peak)	0.53 dBi, (peak)
				6525-6875	2.60 dBi, (peak)	3.14 dBi, (peak)	3 dBi, (peak)	0.54 dBi, (peak)
				6875-7125	2.60 dBi, (peak)	3.16 dBi, (peak)	3 dBi, (peak)	0.56 dBi, (peak)
1A Antenna Part Number	1B Manufacture	1C Antenna Type	1D Cable Assembly Part Number and Information	Freq Range MHz	1E *Peak Gain W/ Cable loss (dBi)	1F Peak Gain w/o Cable Loss (dBi)	1G VSWR	1H Cable Loss (dBi)
WA-P-LE-01-112 Aux/Rx2 Antenna	INPAQ	PIFA	50 ohm Coaxial Length: 170 mm Diameter: 1.13 mm Low loss Connector: IPEX 20565-001R-13	2400-2483.5	1.76 dBi, (peak)	2.23 dBi, (peak)	3 dBi, (peak)	0.47 dBi, (peak)
				5150-5250	1.84 dBi, (peak)	2.54 dBi, (peak)	3 dBi, (peak)	0.70 dBi, (peak)
				5250-5350	1.72 dBi, (peak)	2.42 dBi, (peak)	3 dBi, (peak)	0.70 dBi, (peak)
				5470-5725	2.22 dBi, (peak)	2.94 dBi, (peak)	3 dBi, (peak)	0.72 dBi, (peak)
				5725-5850	2.92 dBi, (peak)	3.65 dBi, (peak)	3 dBi, (peak)	0.73 dBi, (peak)
				5850-5895	2.92 dBi, (peak)	3.66 dBi, (peak)	3 dBi, (peak)	0.74 dBi, (peak)
				5925-6425	2.53 dBi, (peak)	3.30 dBi, (peak)	3 dBi, (peak)	0.77 dBi, (peak)
				6425-6525	2.71 dBi, (peak)	3.49 dBi, (peak)	3 dBi, (peak)	0.78 dBi, (peak)
				6525-6875	2.71 dBi, (peak)	3.51 dBi, (peak)	3 dBi, (peak)	0.80 dBi, (peak)
				6875-7125	2.06 dBi, (peak)	2.88 dBi, (peak)	3 dBi, (peak)	0.82 dBi, (peak)

Section 3. Radiation characteristics of antennae Loaded in Host Platform

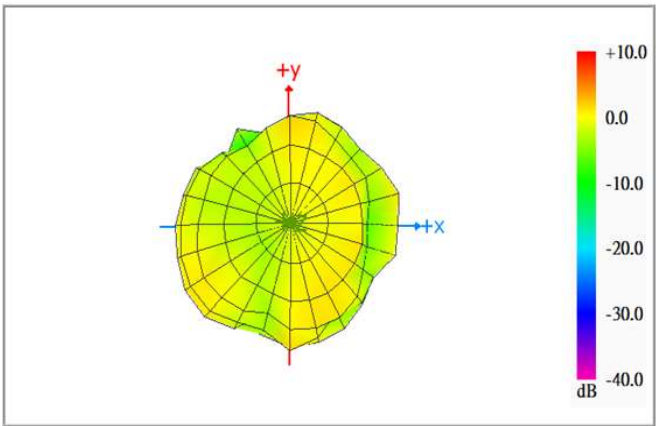
Max Antenna

Max Antenna 3D Radiation Pattern 2400-2483.5 MHz



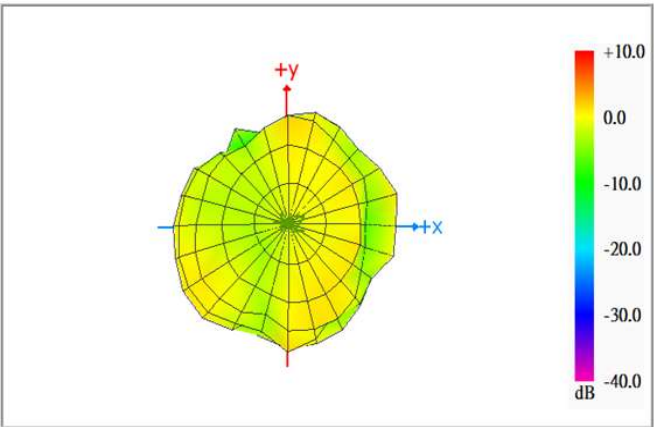
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	1.94

Max Antenna 3D Radiation Pattern 5150-5250 MHz



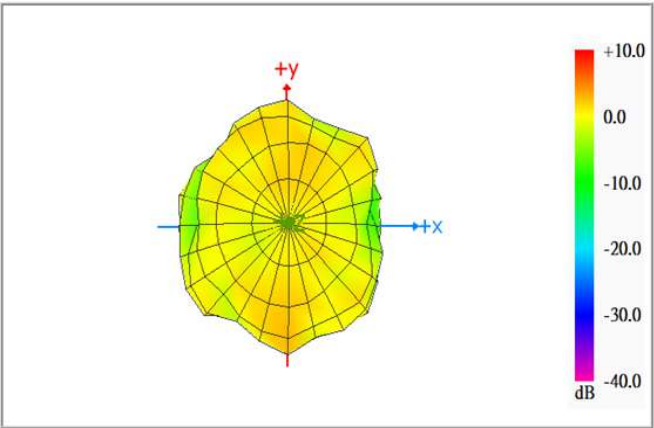
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.13

Max Antenna 3D Radiation Pattern 5250-5350 MHz



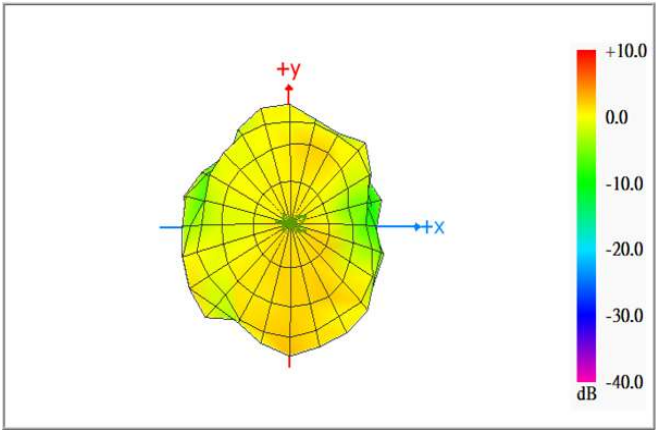
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.13

Max Antenna 3D Radiation Pattern 5470-5725 MHz



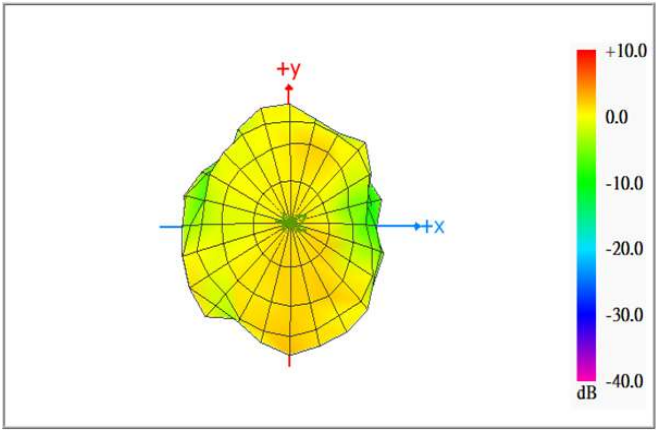
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.75

Max Antenna 3D Radiation Pattern 5725-5850 MHz



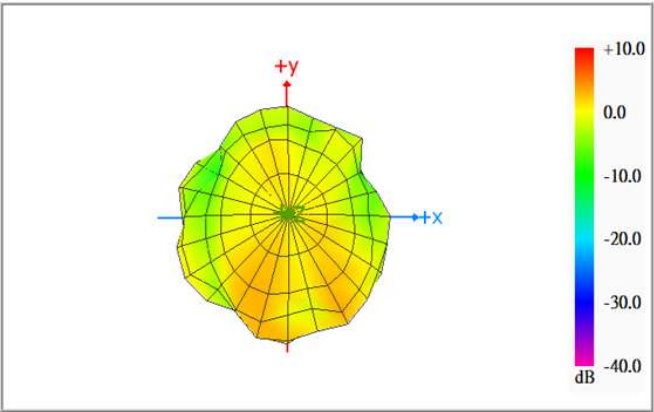
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	3.34

Max Antenna 3D Radiation Pattern 5850-5895 MHz



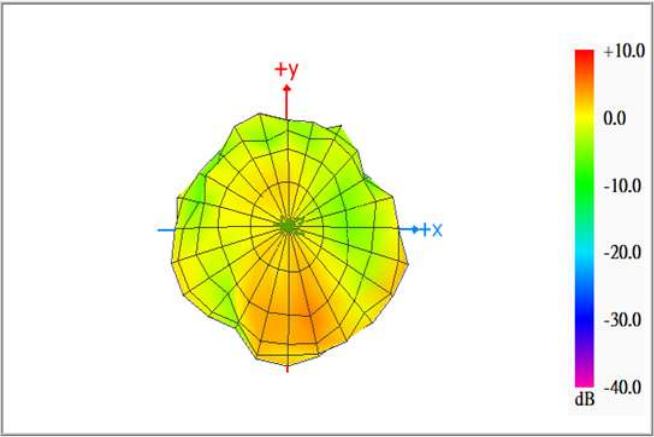
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	3.34

Max Antenna 3D Radiation Pattern 5925-6425 MHz



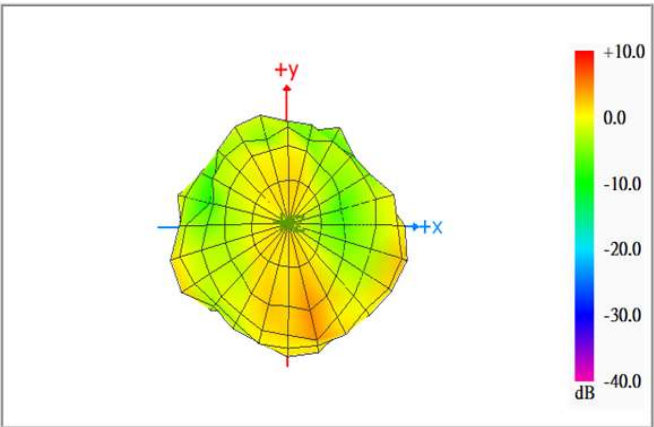
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.53

Max Antenna 3D Radiation Pattern 6425-6525 MHz



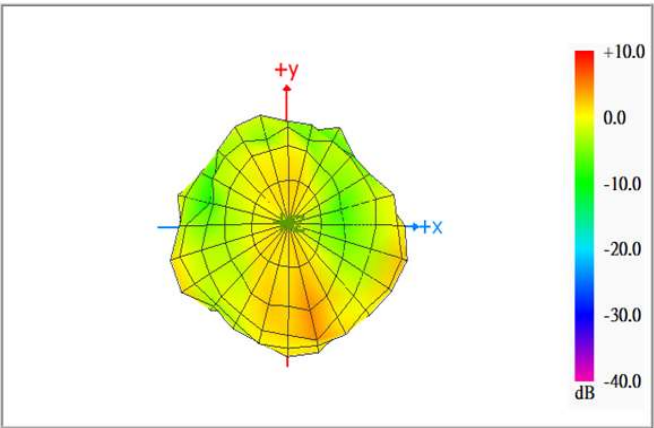
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.79

Max Antenna 3D Radiation Pattern 6525-6875 MHz



Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.60

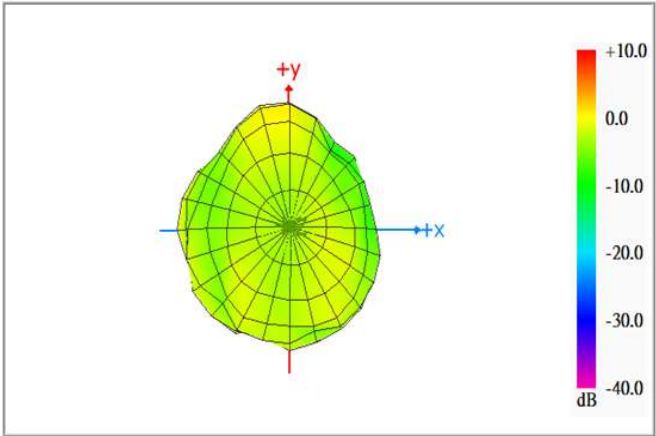
Max Antenna 3D Radiation Pattern 6875-7125 MHz



Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.60

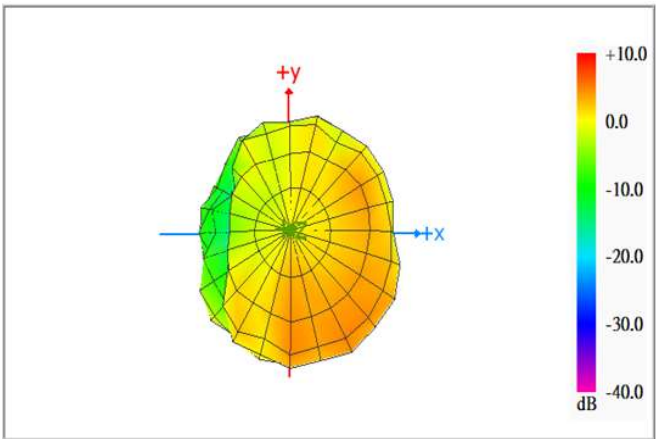
Auxiliary Antenna

Max Antenna 3D Radiation Pattern 2400-2483.5 MHz



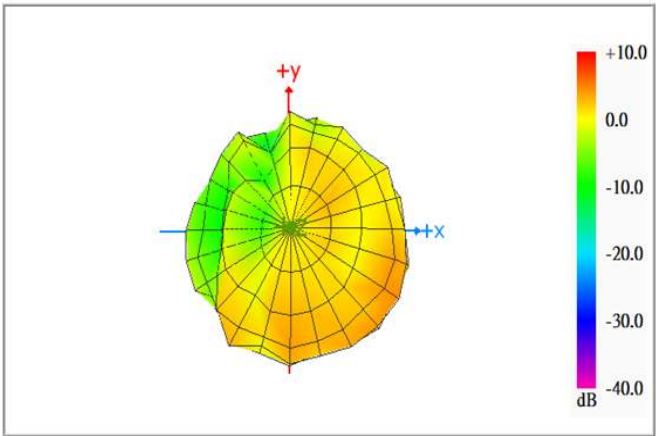
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	1.76

Max Antenna 3D Radiation Pattern 5150-5250 MHz



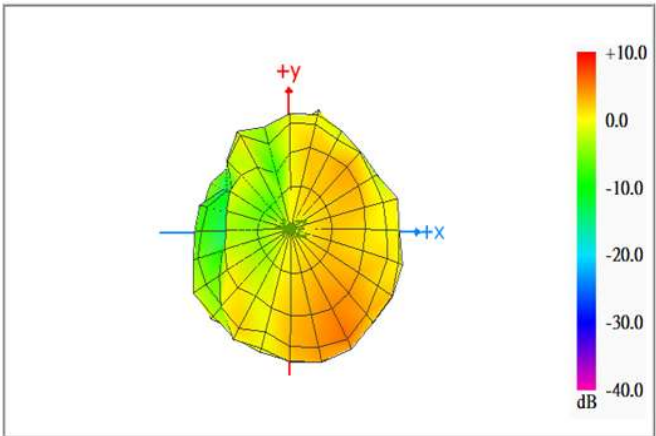
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	1.84

Max Antenna 3D Radiation Pattern 5250-5350 MHz



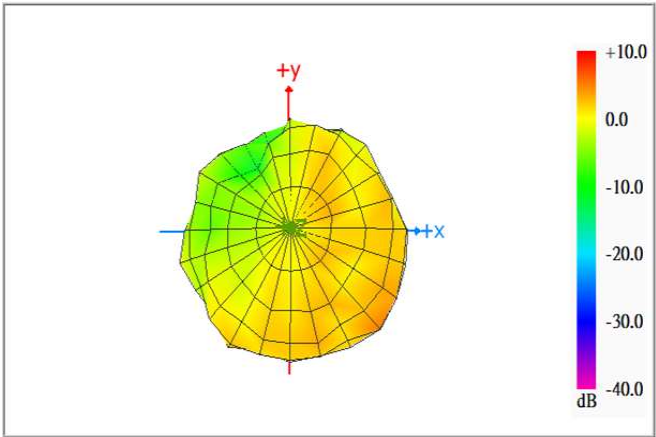
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	1.72

Max Antenna 3D Radiation Pattern 5470-5725 MHz



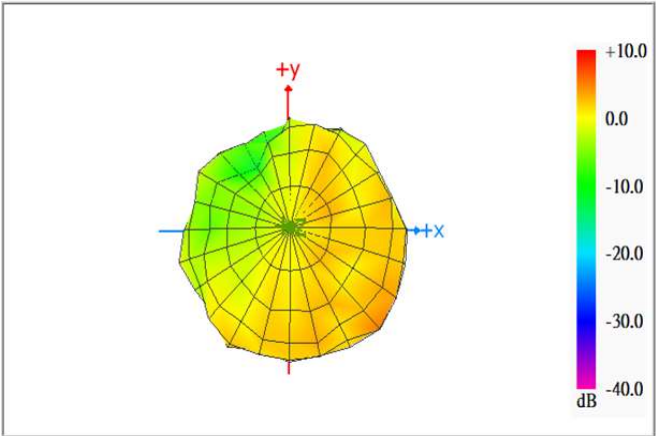
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.22

Max Antenna 3D Radiation Pattern 5725-5850 MHz



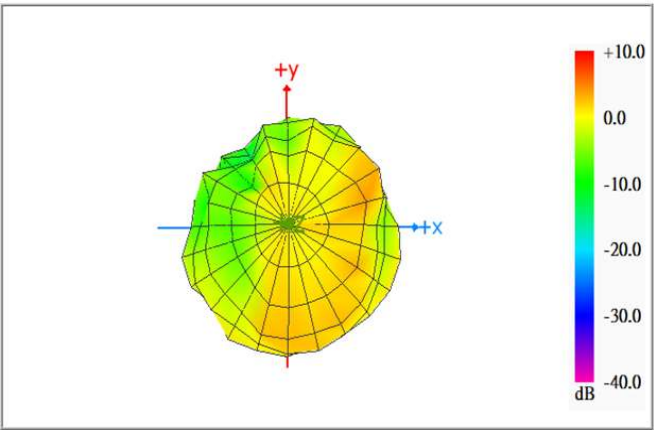
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.92

Max Antenna 3D Radiation Pattern 5850-5895 MHz



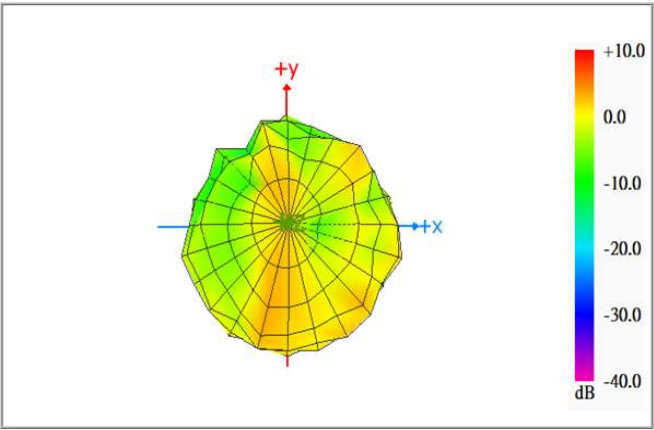
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.92

Max Antenna 3D Radiation Pattern 5925-6425 MHz



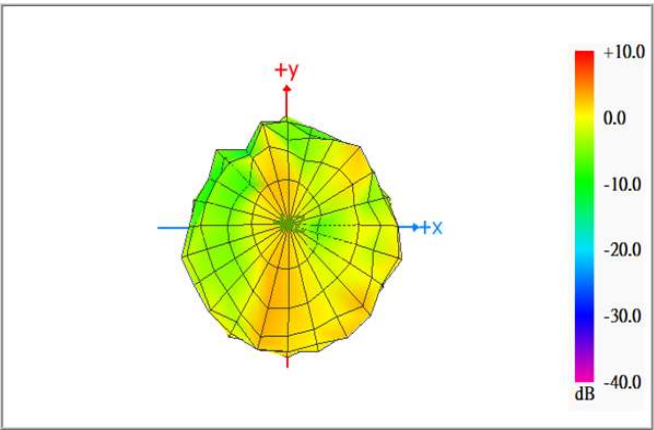
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.53

Max Antenna 3D Radiation Pattern 6425-6525 MHz



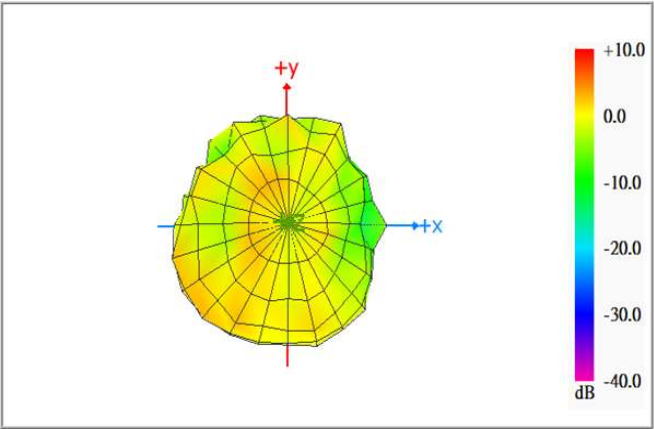
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.71

Max Antenna 3D Radiation Pattern 6525-6875 MHz



Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.71

Max Antenna 3D Radiation Pattern 6875-7125 MHz



Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.06