

Regulatory LTE Antenna Information (Template)

(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	Platform model name	Platform type (ex: regular NB, convertible PC, AIO...etc)			SAR minimum separation (mm)			
KeepTruckin	Quanta	X55	Truck tracker			N/A			
Antenna information						Peak gain w/ cable loss (dBi)			
Vendor	Type	Antenna Part number (LTE)				707.5MHz	756MHz	1715MHz	1905MHz
INPAQ	Monopole	WA-F-LTE8-03-005-B				0.90	0.85	5.40	5.79
Module information (Pls check with "x" when applies)									
Model	Form factor and suffixes								
7265 (StP 2)	NGW	D2W				17265NGW (Maple Peak)			
	AN	NB		BN					
3165 (StP 1)	NGW								
7260 (WP 2)	NGW	HMW		SDW					
	AN	NB		BN					
3160 (WP 1)	NGW	HMW		SDW					
Intel Reference Gain/Type/ Separation distance									
Antenna Type	Antenna Peak gain (In dBi)				Distance to the end user (mm)				
	707.5MHz	756MHz	1715MHz	1905MHz					
Monopole	0.90	0.85	5.40	5.79	>8 (generic sku) >5 (low power sku)				
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)									

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 and 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. (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 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 (dBi)
P/N: WA-F-LTE8-03-005-B	INPAQ	Monopole TYPE	N/A	701.5-713.5MHz 0.90 dBi (peak)	N/A	N/A	N/A
				731.5-743.5MHz 0.80 dBi (peak)	N/A	N/A	N/A
				746-756MHz 0.85 dBi (peak)	N/A	N/A	N/A
				777-787MHz 0.31 dBi (peak)	N/A	N/A	N/A
				814-849MHz -0.68 dBi (peak)	N/A	N/A	N/A
				859-894MHz 0.04 dBi (peak)	N/A	N/A	N/A
				1715-1750MHz 5.40 dBi (peak)	N/A	N/A	N/A
				1855-1905MHz 5.79 dBi (peak)	N/A	N/A	N/A
				1935-1985MHz 5.75 dBi (peak)	N/A	N/A	N/A
				2115-2150MHz 4.60 dBi (peak)	N/A	N/A	N/A

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

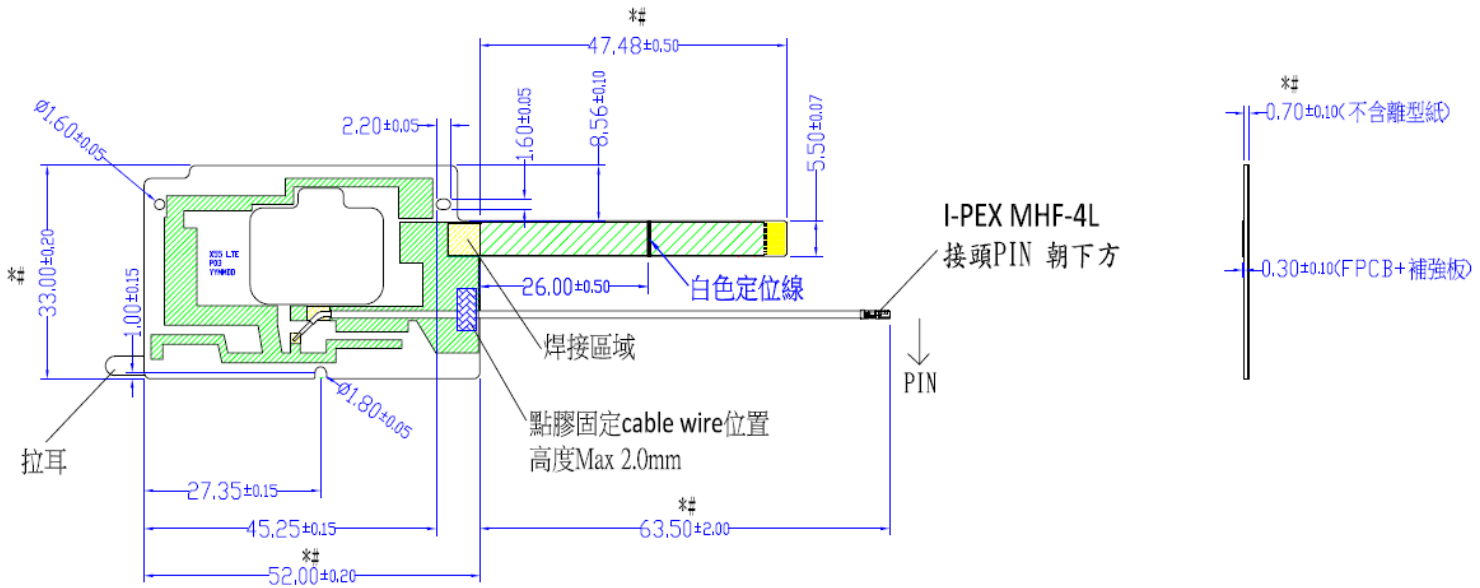
Antenna Peak Gain Table:

Frequency (MHz)	LTE antenna	
	Horizontal (dBi)	Vertical (dBi)
701.5	-2.62	-0.63
707.5	-2.6	-0.36
713.5	-2.64	-0.38
731.5	-2.9	-0.22
737.5	-2.92	-0.01
743.5	-2.85	0.26
746	-2.89	0.51
751	-2.59	0.54
756	-2.88	0.69
777	-4.21	0.16
782	-4.09	0.18
787	-4.16	-0.24
814	-3.05	-1.68
824	-2.74	-2.02
849	-1.63	-2.14
859	-1.46	-0.84
880	-1.70	-0.69
894	-2.47	-1.98
1715	2.7	4.04
1732.5	2.16	4.3
1750	1.29	4.28
1855	-2.27	4.41
1880	0.22	4.65
1905	2.32	5.36
1935	1.73	5.49
1960	1.05	5.14
1985	0.67	4.28
2115	-1.06	2.16
2132.5	-2.29	3.9
2150	-2.59	4.56

Section 2. Dimensioned Photos or Drawings of Antennas

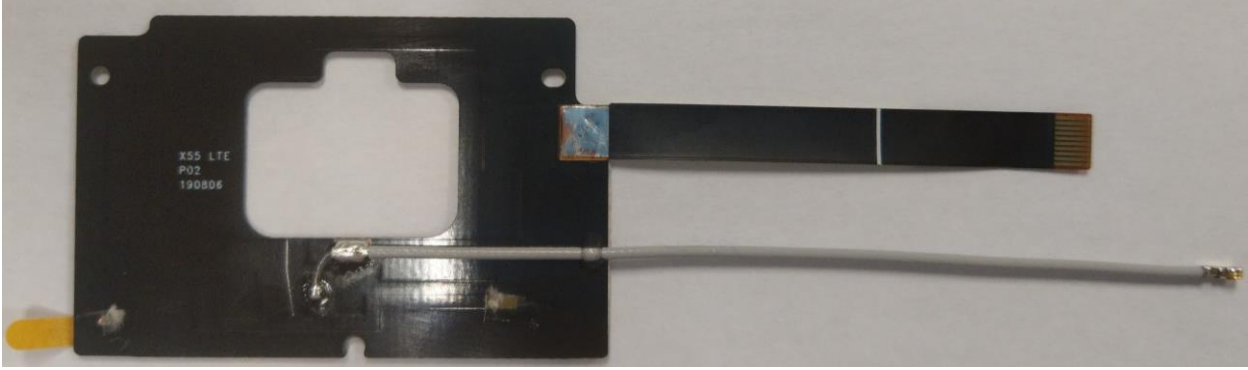
Include a dimensioned photo and dimensioned drawing of LTE antenna here.

LTE Antenna Dimensioned Drawing:

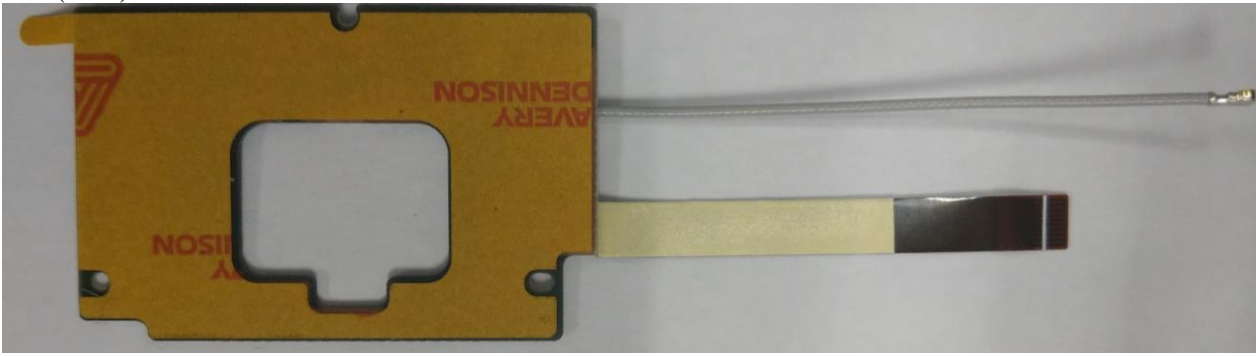


LTE Antenna Photo:

LTE (Front)



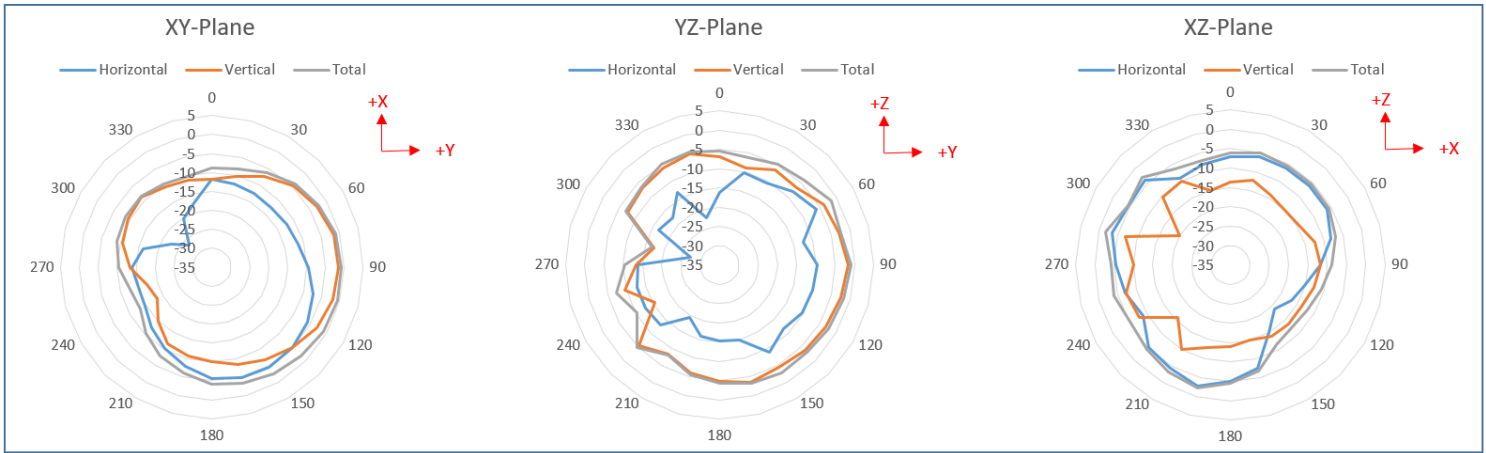
LTE (Back)



Section 3. Radiation characteristics of antennae Loaded in Host Platform

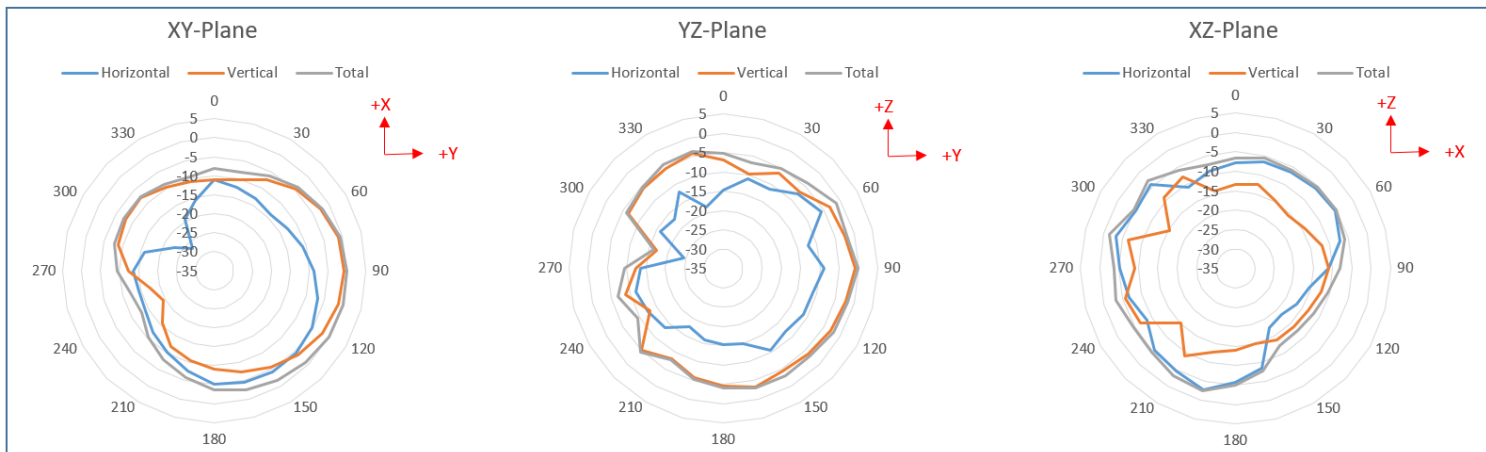
701.5-713.5 MHz radiation characteristic TX (Band 12)

LTE antenna: 701.5 MHz



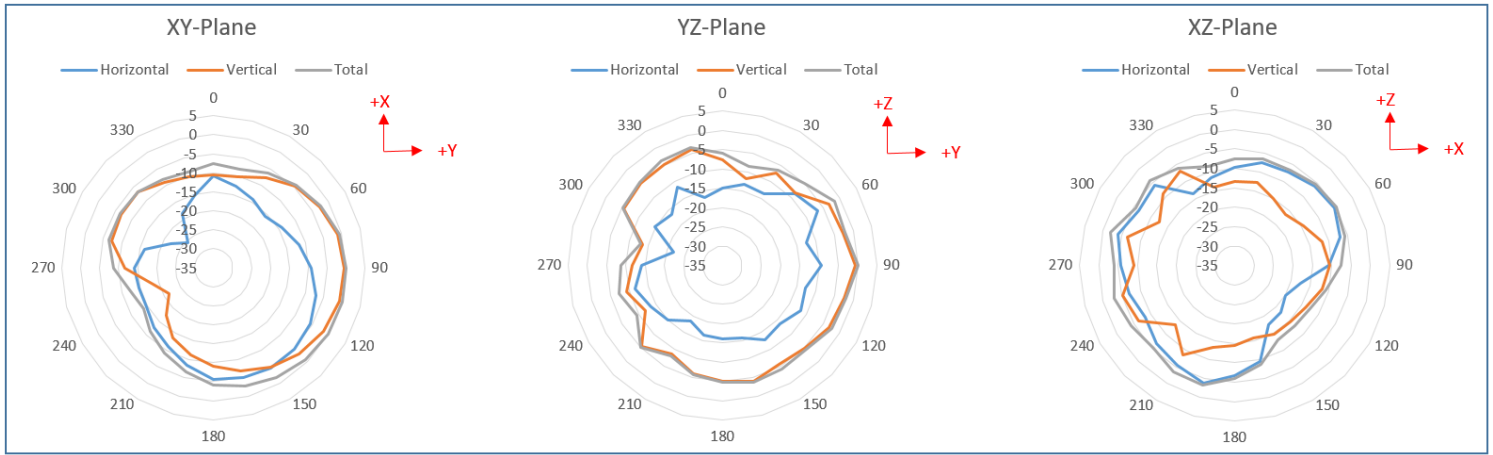
Center Frequency	701.5 MHz
Horizontal (dBi) peak	-2.62
Vertical (dBi) peak	-1.13

LTE antenna: 707.5 MHz



Center Frequency	707.5 MHz
Horizontal (dBi) peak	-2.6
Vertical (dBi) peak	-0.59

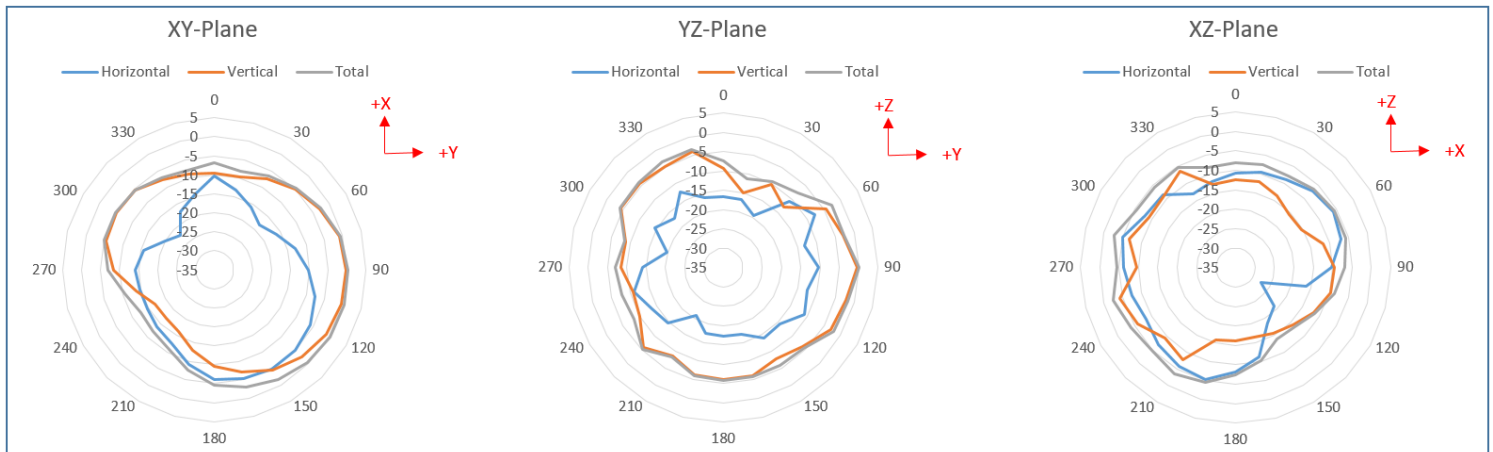
LTE antenna: 713.5 MHz



Center Frequency	713.5 MHz
Horizontal (dBi) peak	-2.6
Vertical (dBi) peak	-0.63

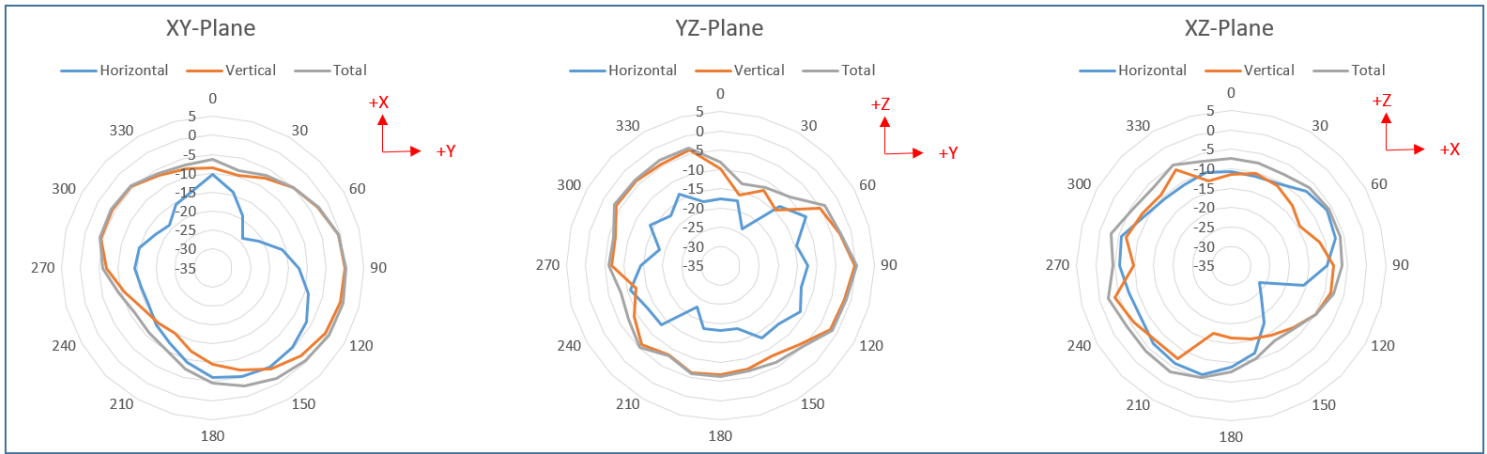
731.5-743.5 MHz radiation characteristic RX (Band 12)

LTE antenna: 731.5 MHz



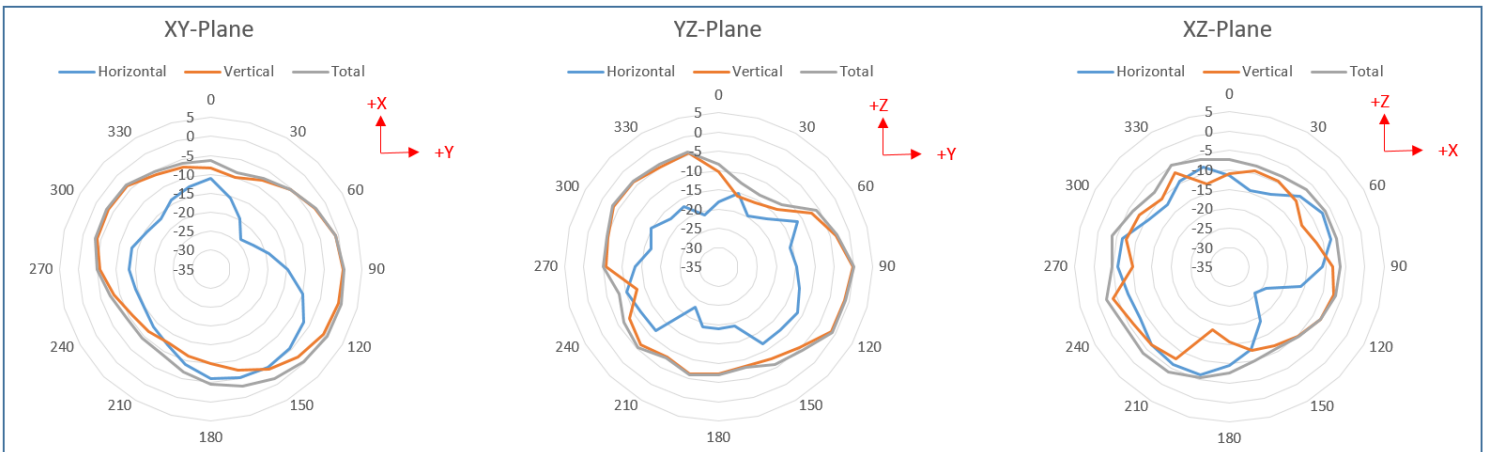
Center Frequency	731.5MHz
Horizontal (dBi) peak	-2.75
Vertical (dBi) peak	-0.35

LTE antenna: 737.5 MHz



Center Frequency	737.5 MHz
Horizontal (dBi) peak	-2.92
Vertical (dBi) peak	-0.04

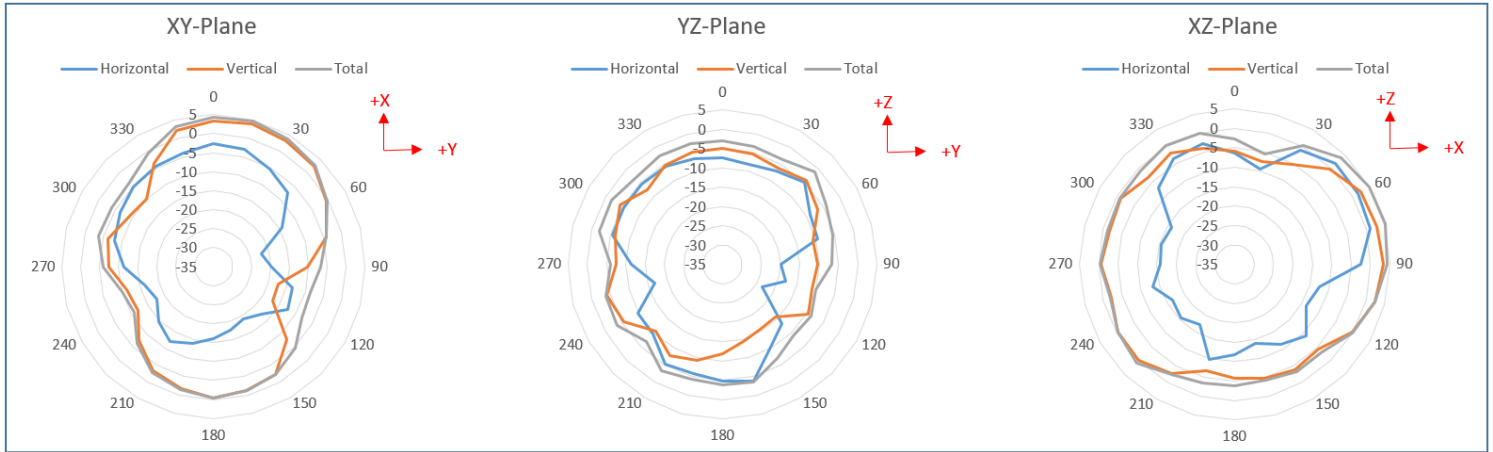
LTE antenna: 743.5 MHz



Center Frequency	743.5 MHz
Horizontal (dBi) peak	-2.92
Vertical (dBi) peak	0.44

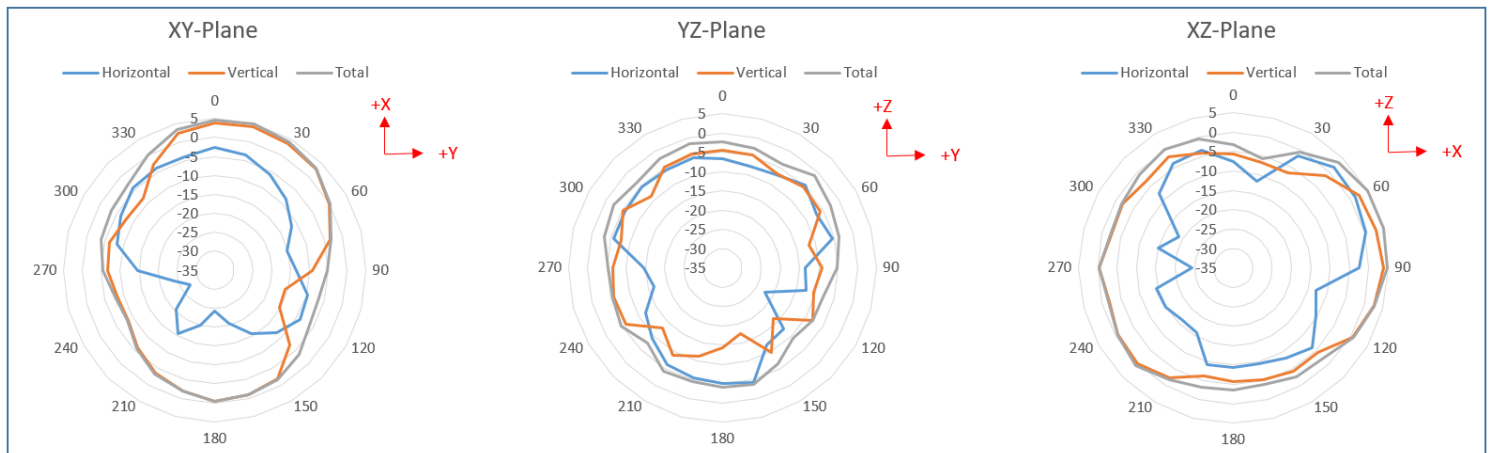
1710-1755 MHz radiation characteristic TX (Band 4)

LTE antenna: 1715 MHz



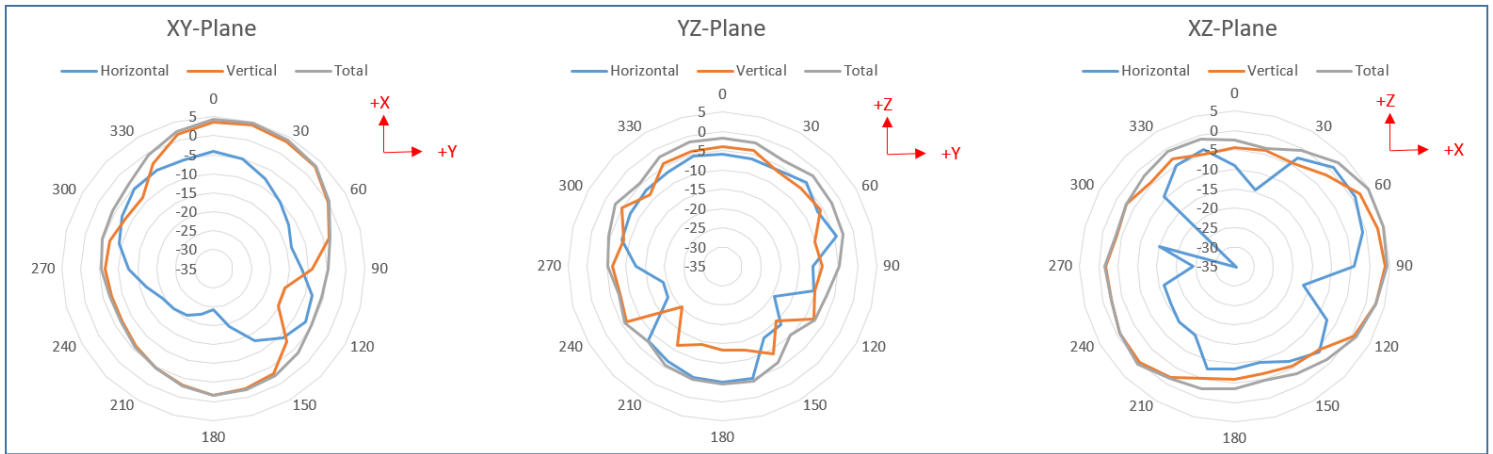
Center Frequency	1715 MHz
Horizontal (dBi) peak	2.63
Vertical (dBi) peak	3.99

LTE antenna: 1732.5 MHz



Center Frequency	1732.5 MHz
Horizontal (dBi) peak	2.16
Vertical (dBi) peak	4.26

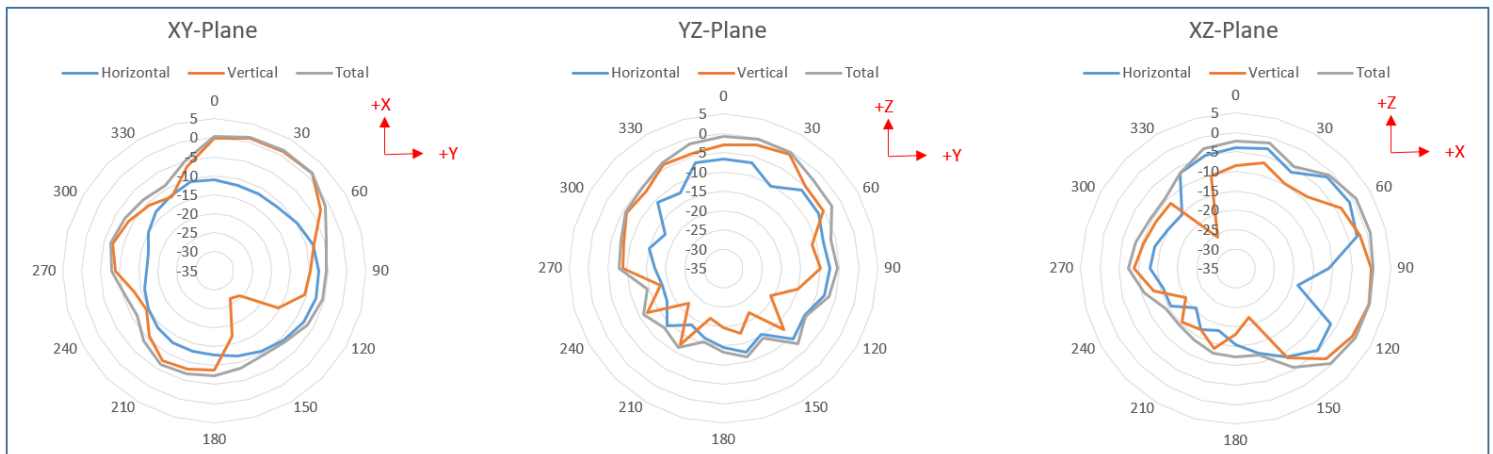
LTE antenna: 1750 MHz



Center Frequency	1750 MHz
Horizontal (dBi) peak	1.29
Vertical (dBi) peak	4.24

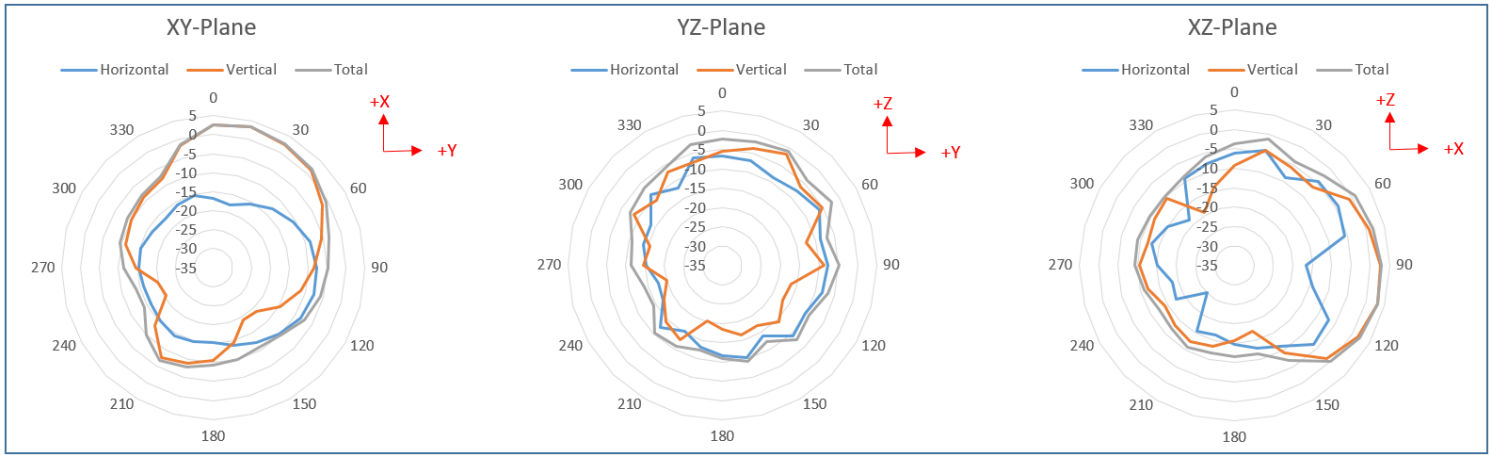
2115–2150 MHz radiation characteristic RX (Band 4)

LTE antenna: 2115 MHz



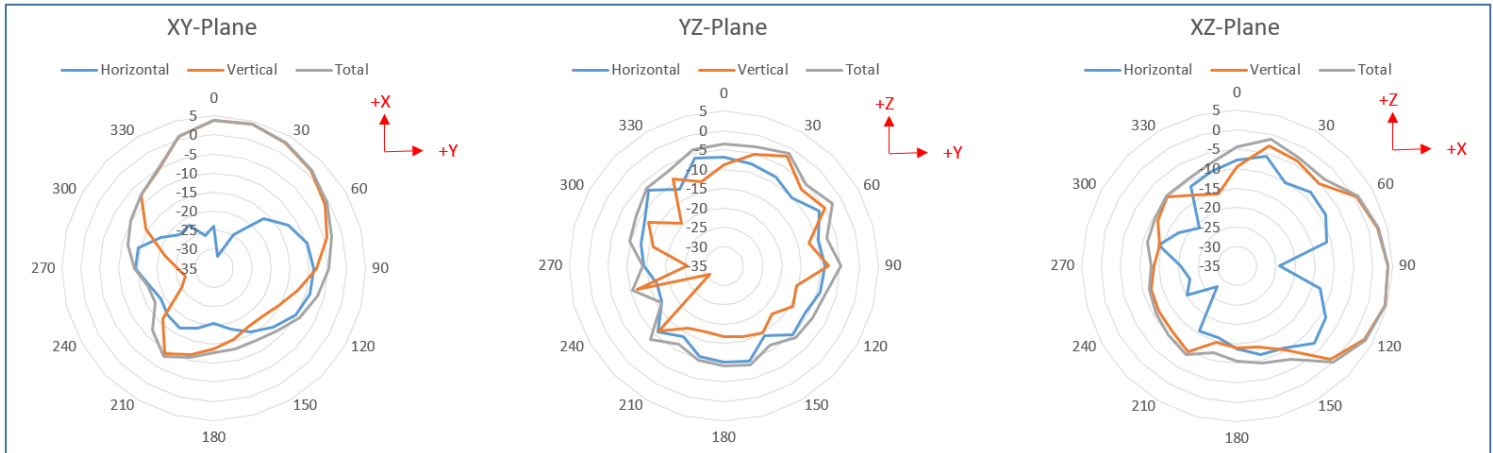
Center Frequency	2115 MHz
Horizontal (dBi) peak	-1.08
Vertical (dBi) peak	1.27

LTE antenna: 2132.5 MHz



Center Frequency	2132.5 MHz
Horizontal (dBi) peak	-2.75
Vertical (dBi) peak	3.41

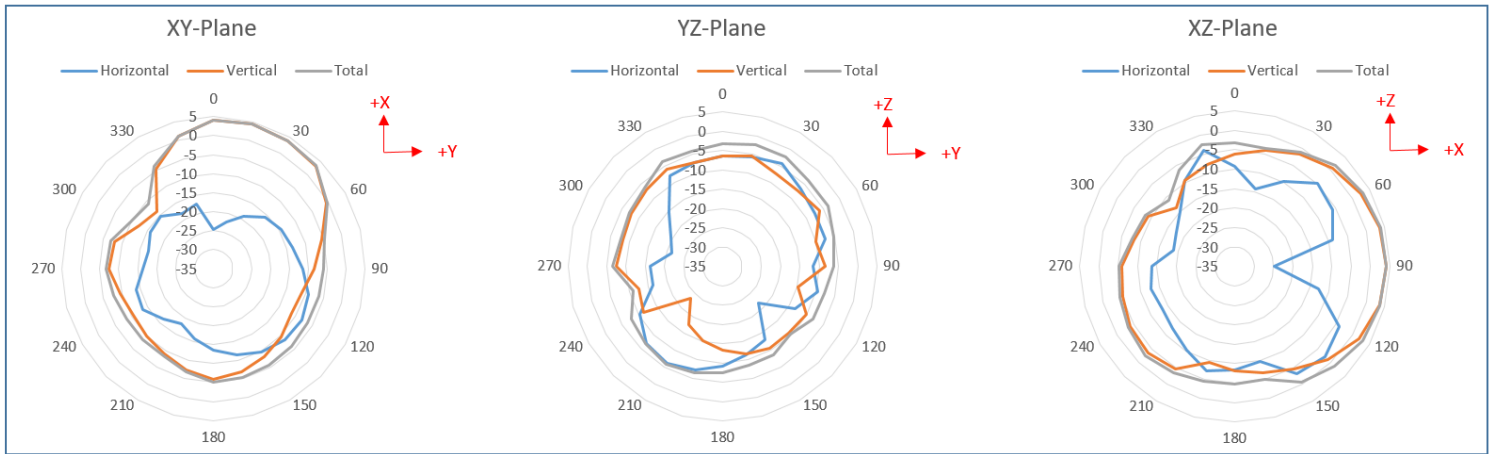
LTE antenna: 2150 MHz



Center Frequency	2150 MHz
Horizontal (dBi) peak	-3.09
Vertical (dBi) peak	-4.35

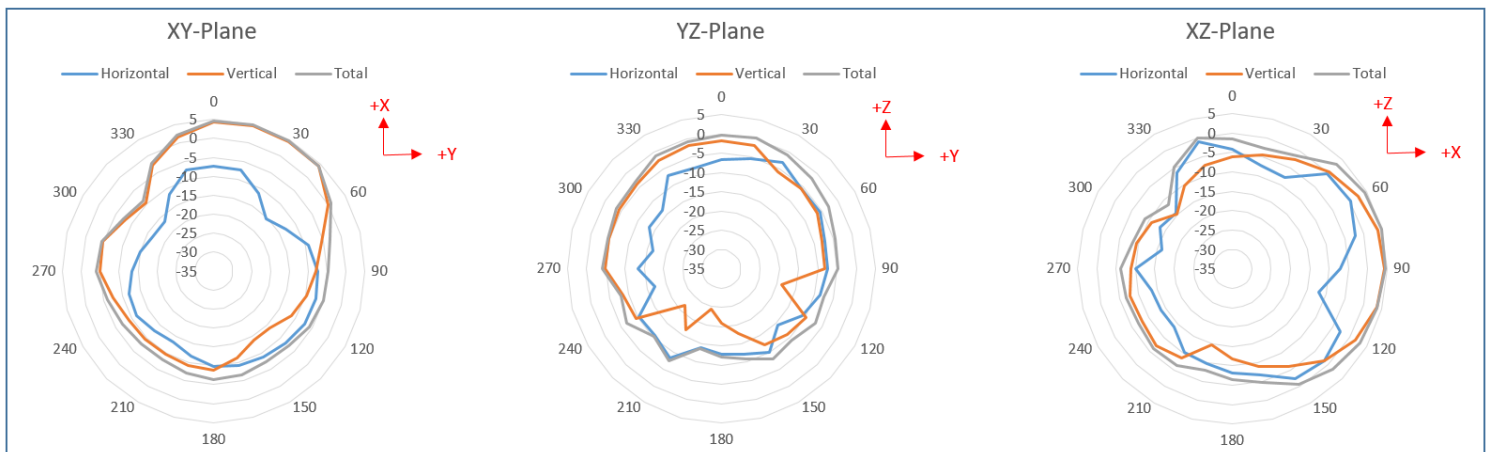
1855-1905 MHz radiation characteristic TX (B2)

LTE antenna: 1855 MHz



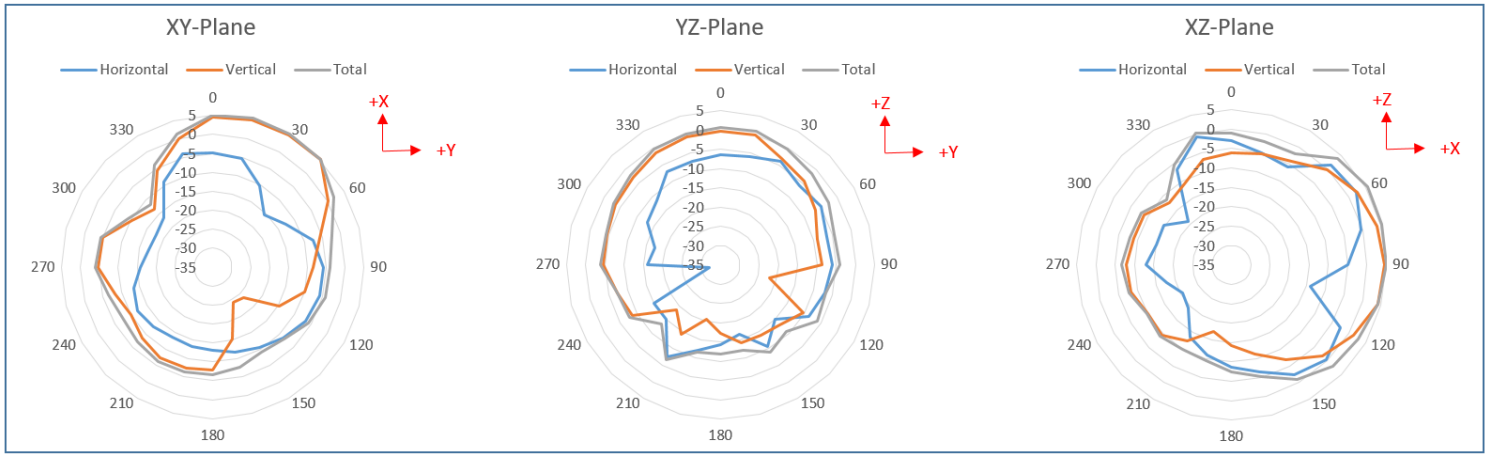
Center Frequency	1855 MHz
Horizontal (dBi) peak	-2.27
Vertical (dBi) peak	4.39

LTE antenna: 1880 MHz



Center Frequency	1880 MHz
Horizontal (dBi) peak	0.22
Vertical (dBi) peak	4.62

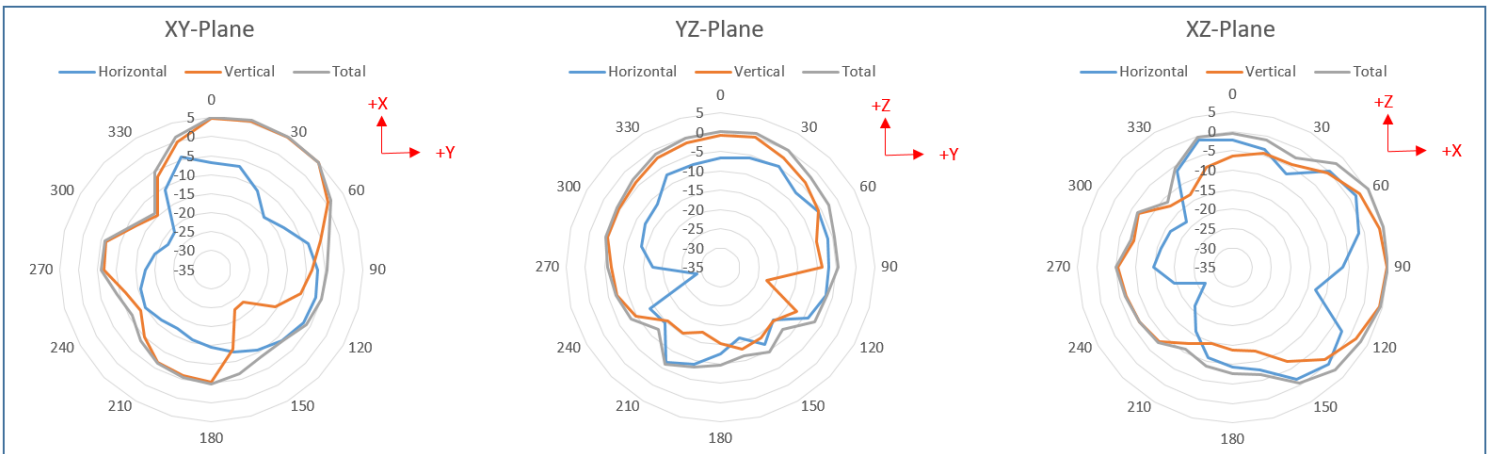
LTE antenna: 1905 MHz



Center Frequency	1905 MHz
Horizontal (dBi) peak	2.33
Vertical (dBi) peak	5.3

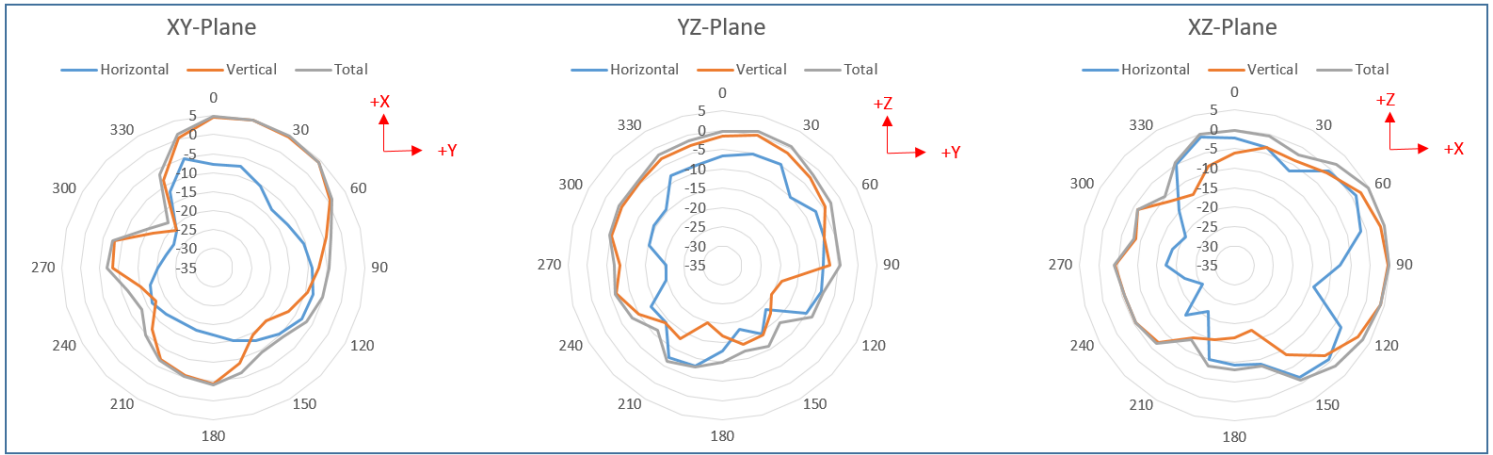
1935–1985 MHz radiation characteristic RX (Band 2)

LTE antenna: 1935 MHz



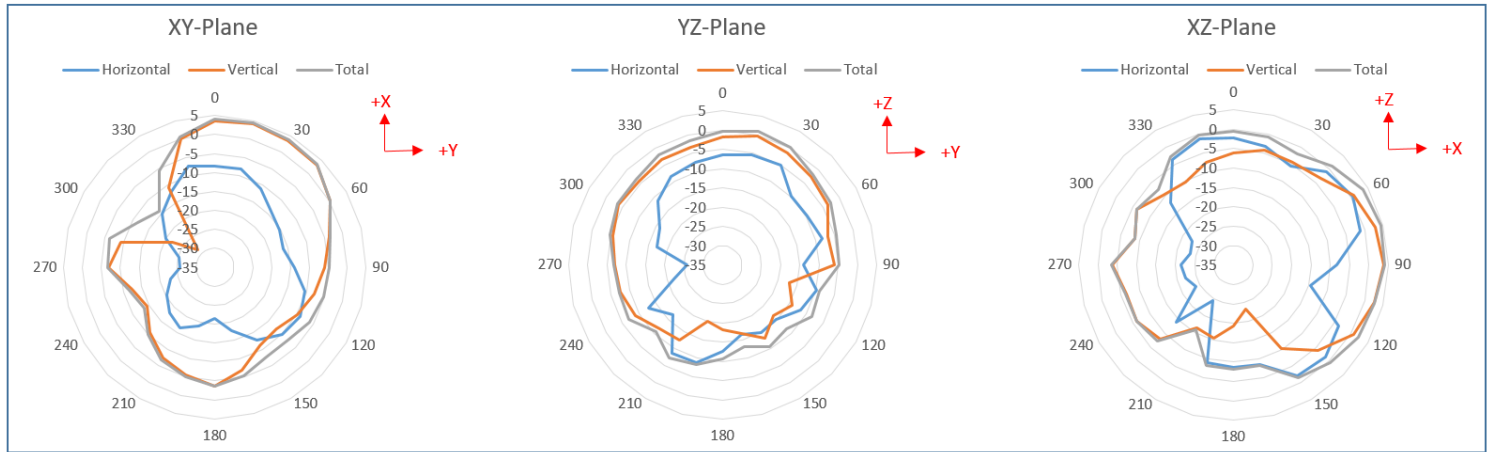
Center Frequency	1935 MHz
Horizontal (dBi) peak	1.73
Vertical (dBi) peak	5.44

LTE antenna: 1960 MHz



Center Frequency	1960 MHz
Horizontal (dBi) peak	1.05
Vertical (dBi) peak	5.1

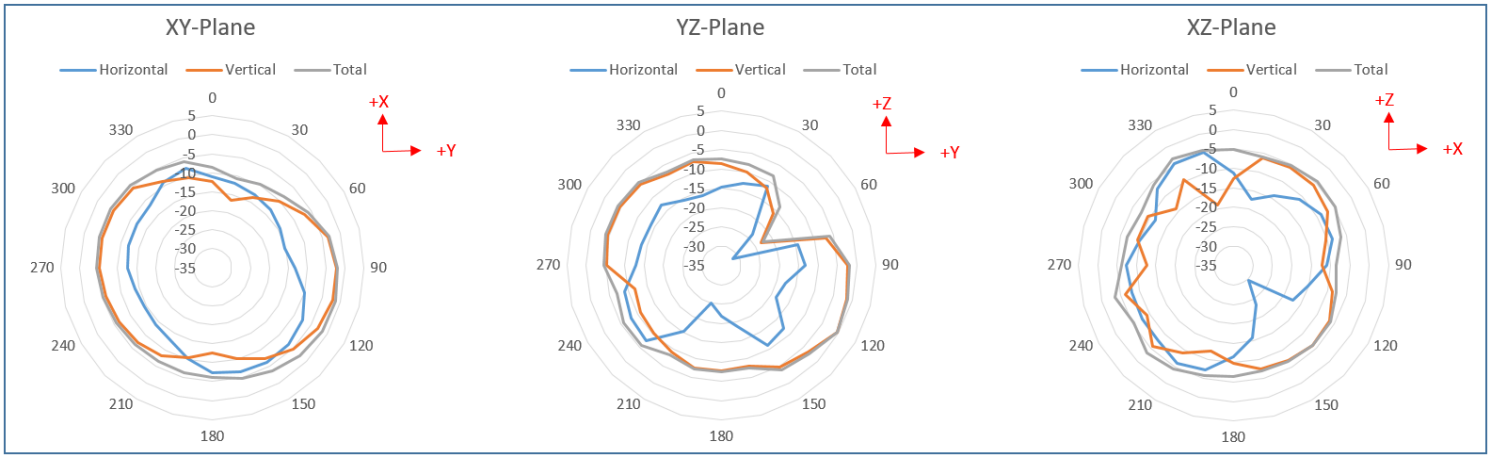
LTE antenna: 1985 MHz



Center Frequency	1985 MHz
Horizontal (dBi) peak	0.53
Vertical (dBi) peak	4.07

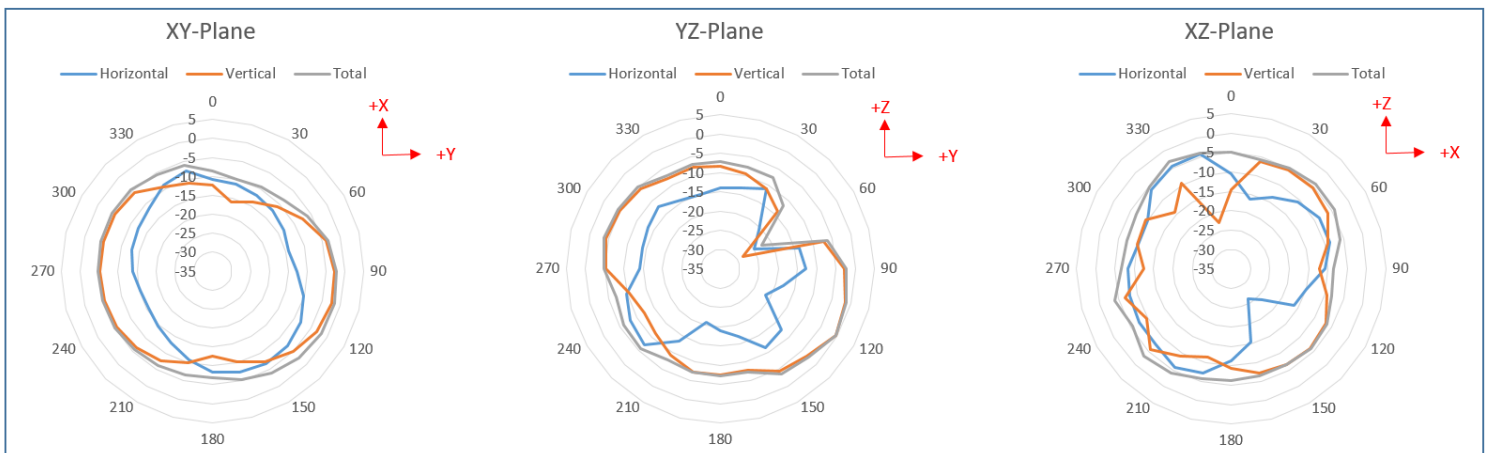
777-787 MHz radiation characteristic TX (Band 13)

LTE antenna: 777 MHz



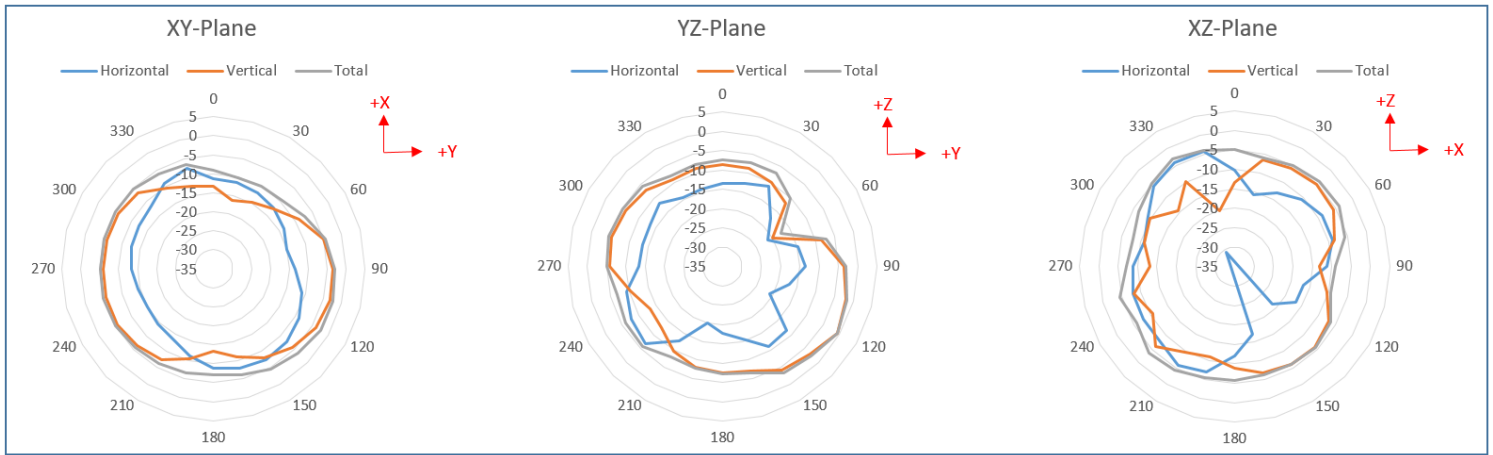
Center Frequency	777 MHz
Horizontal (dBi) peak	-4.25
Vertical (dBi) peak	0.17

LTE antenna: 782 MHz



Center Frequency	782 MHz
Horizontal (dBi) peak	-4.09
Vertical (dBi) peak	0.17

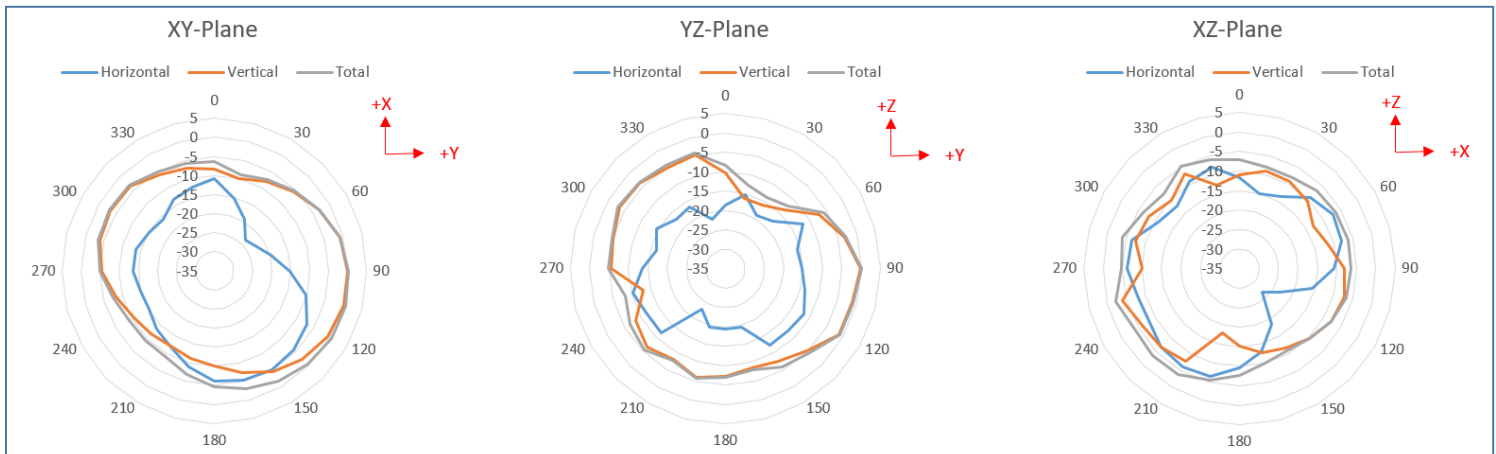
LTE antenna: 787 MHz



Center Frequency	787 MHz
Horizontal (dBi) peak	-4.17
Vertical (dBi) peak	-0.3

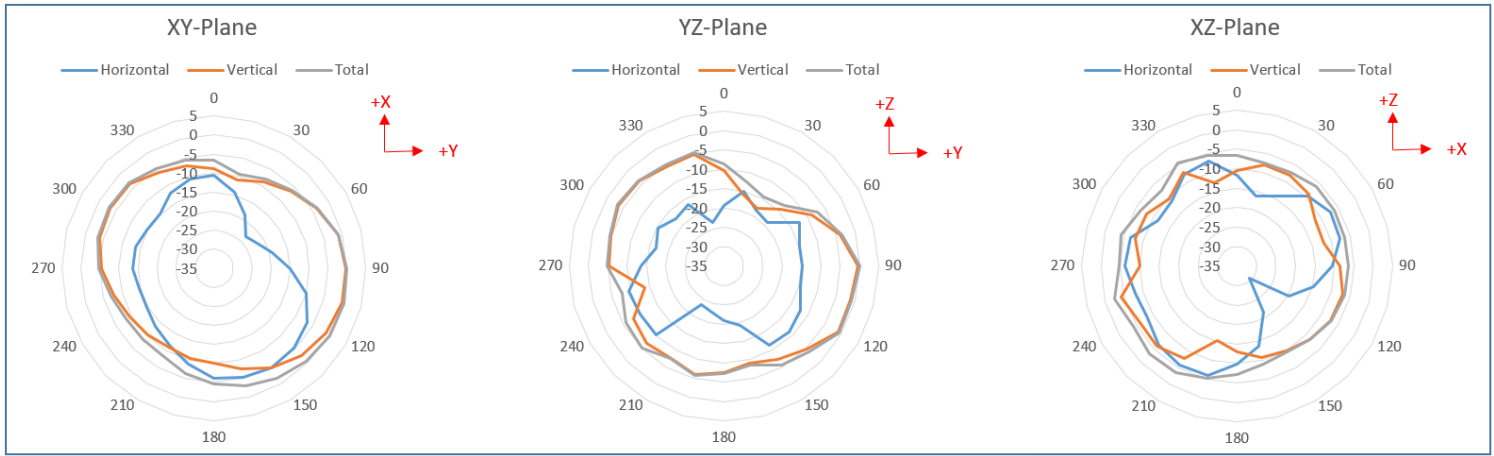
746-756 MHz radiation characteristic RX (Band 13)

LTE antenna: 746 MHz



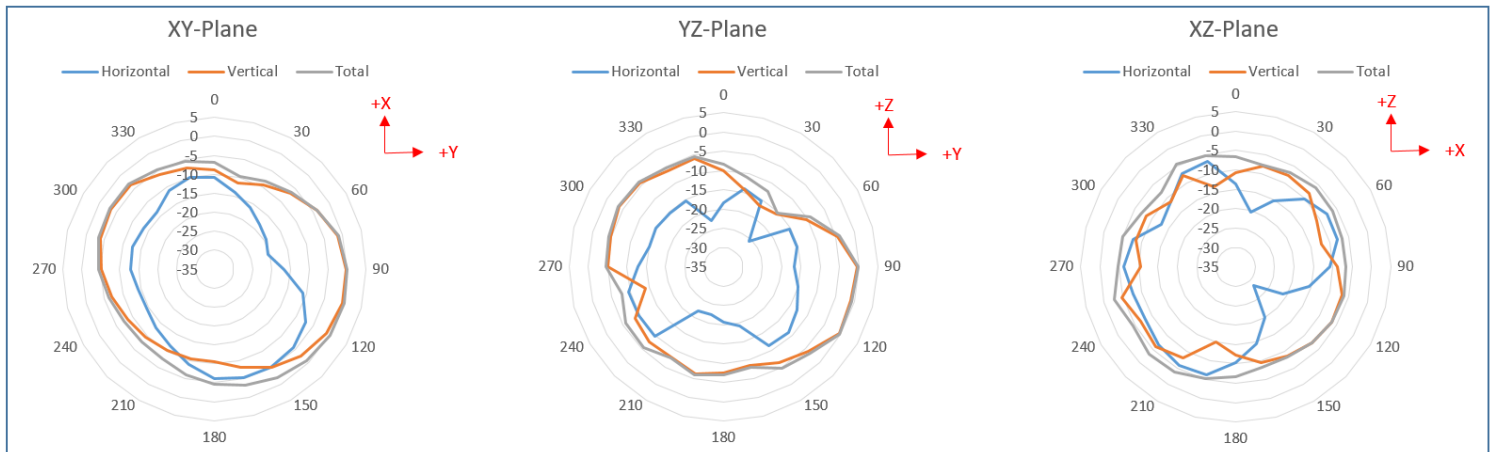
Center Frequency	746MHz
Horizontal (dBi) peak	-2.9
Vertical (dBi) peak	0.5

LTE antenna: 751 MHz



Center Frequency	751 MHz
Horizontal (dBi) peak	-2.61
Vertical (dBi) peak	0.58

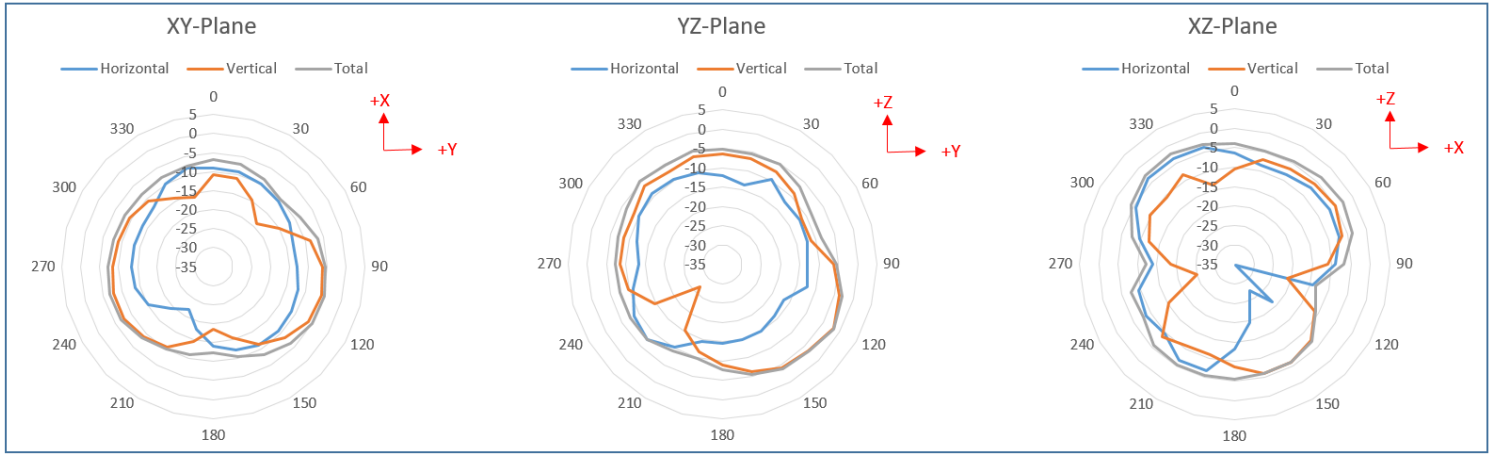
LTE antenna: 756 MHz



Center Frequency	756 MHz
Horizontal (dBi) peak	-2.9
Vertical (dBi) peak	0.69

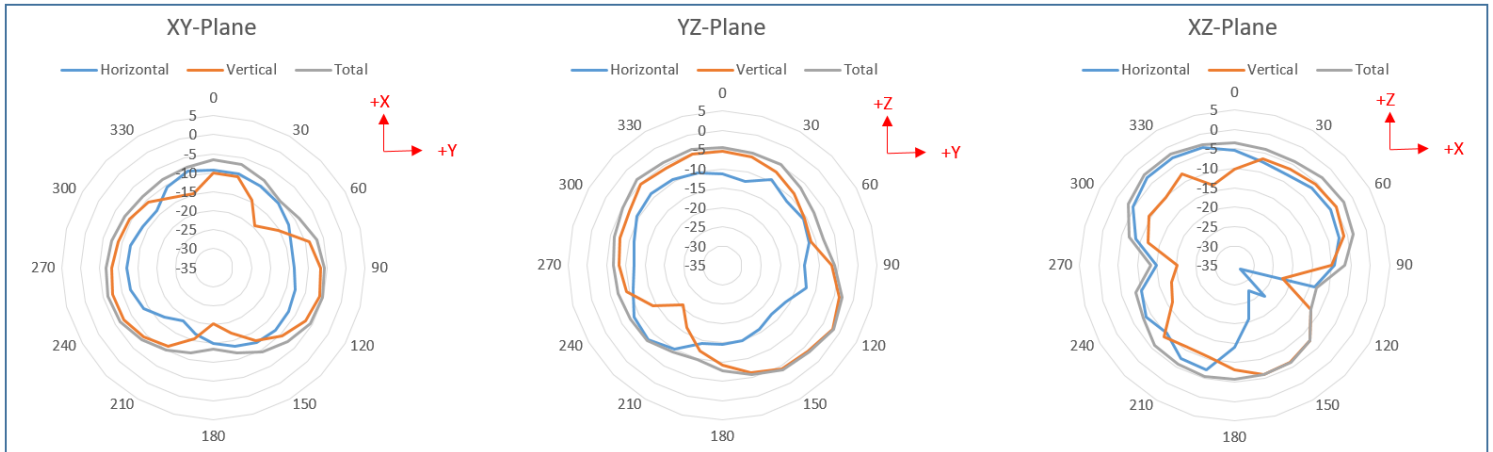
814-849 MHz radiation characteristic TX (Band 26) -can cover (Band5)

LTE antenna: 814 MHz



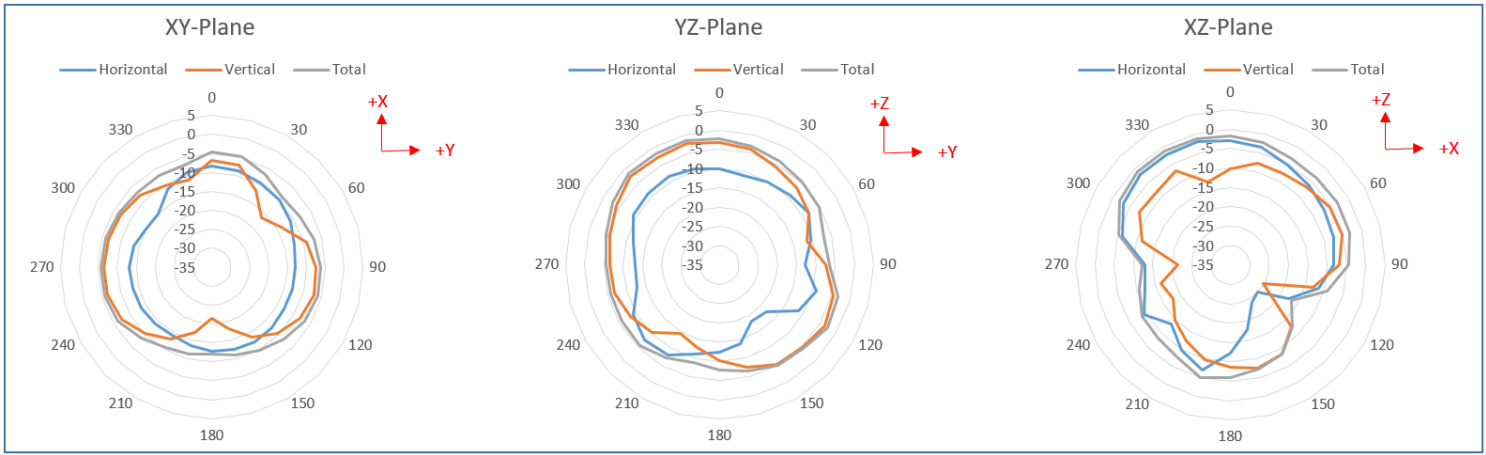
Center Frequency	814 MHz
Horizontal (dBi) peak	-3.07
Vertical (dBi) peak	-1.73

LTE antenna: 824 MHz



Center Frequency	824 MHz
Horizontal (dBi) peak	-2.75
Vertical (dBi) peak	-2.05

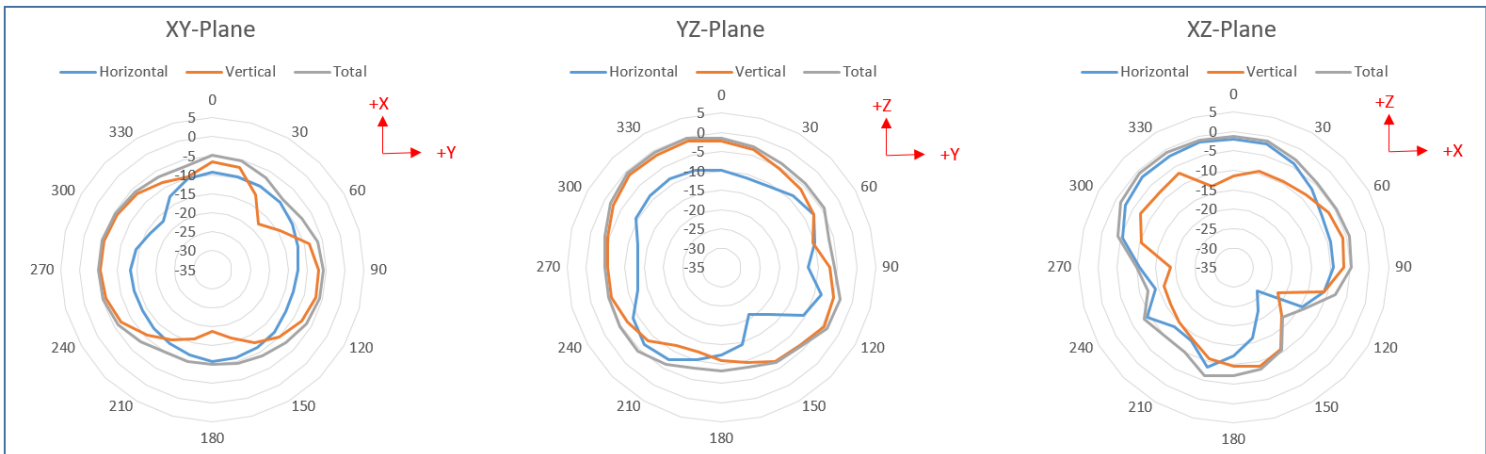
LTE antenna: 849 MHz



Center Frequency	849 MHz
Horizontal (dBi) peak	-1.86
Vertical (dBi) peak	-2.34

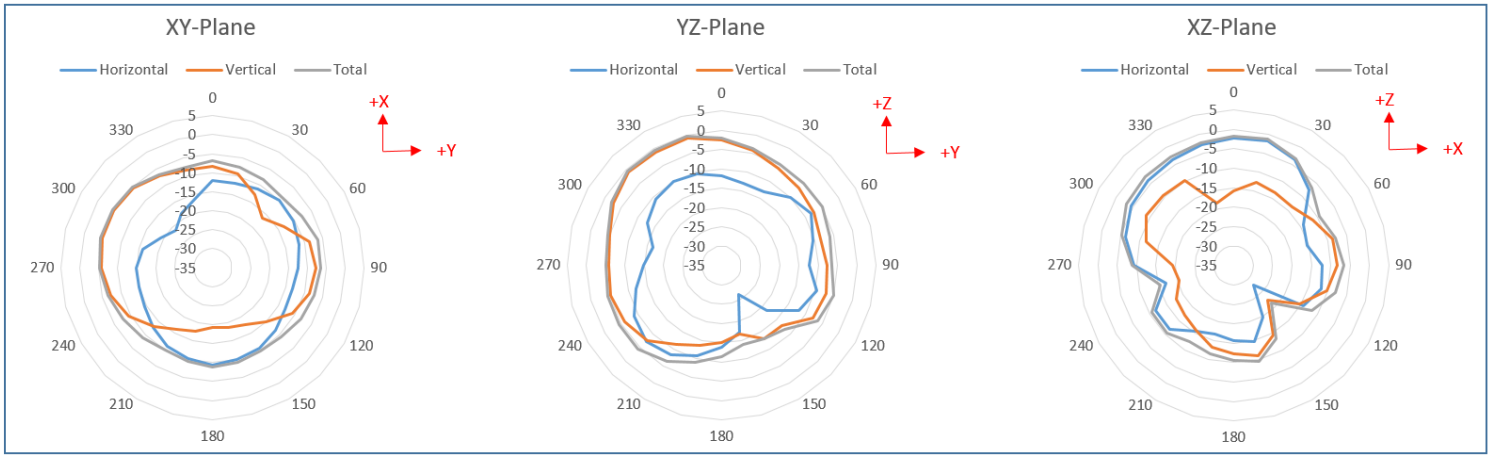
859–894 MHz radiation characteristic RX (Band 26)-can cover (Band5)

LTE antenna: 859 MHz



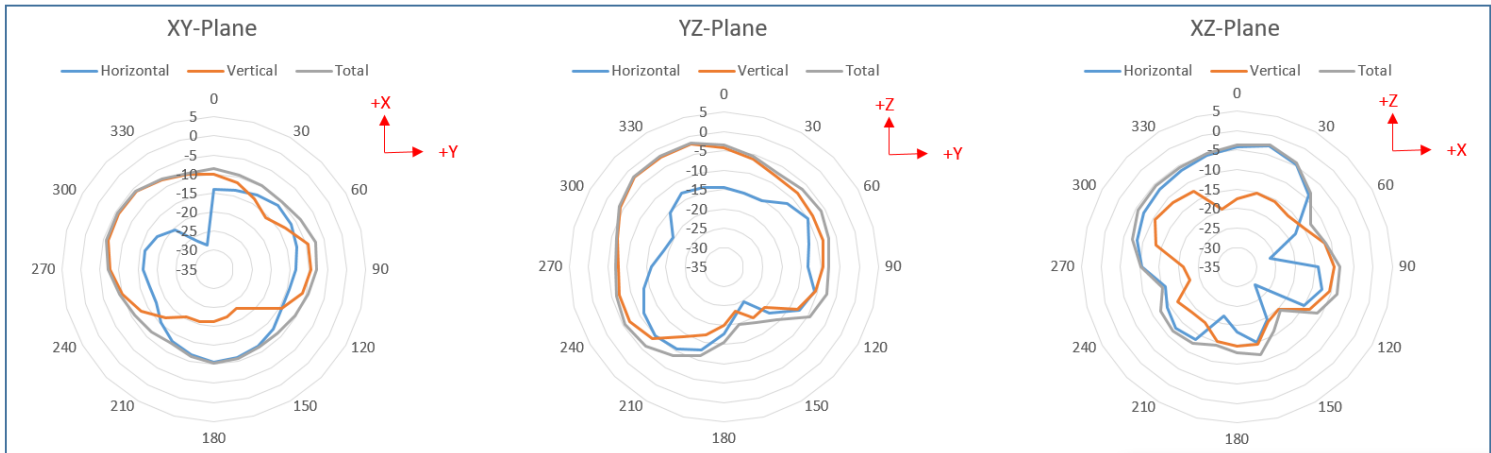
Center Frequency	859 MHz
Horizontal (dBi) peak	-1.52
Vertical (dBi) peak	-1.14

LTE antenna: 880 MHz



Center Frequency	880 MHz
Horizontal (dBi) peak	-1.75
Vertical (dBi) peak	-0.81

LTE antenna: 894 MHz



Center Frequency	894 MHz
Horizontal (dBi) peak	-2.47
Vertical (dBi) peak	-2.17

Section 4. Host Platform Information

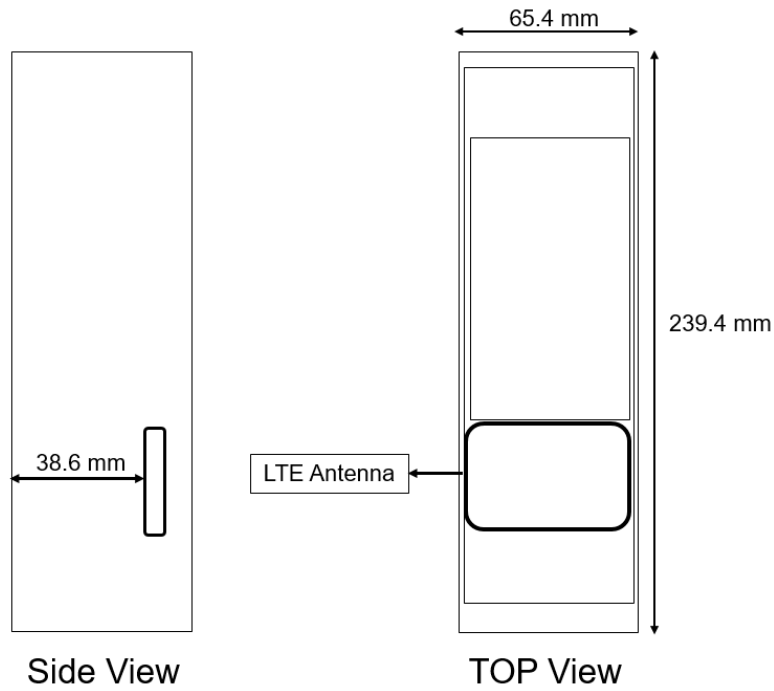
OEM / ODM Host platform: (X55) platform correlated to antenna data

Rating Label Photo:



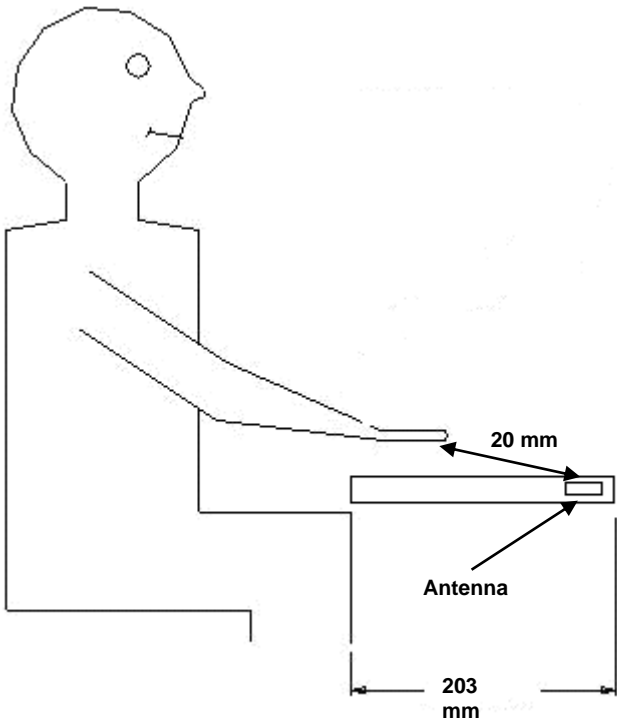
Section 5. Antenna Host Platform Location Information

Include a **dimensioned photo(s) or dimensioned drawing(s)** of Tx1, Tx2 and Tx3 antenna placements (measurements are not required for receive-only antenna). Any antenna that transmits must show dimensions to bottom of laptop. Provide a description of the materials that are used for supporting or surrounding transmit antennas; for example, non-conductive plastics vs. conductive coated plastic or metallic materials.



Section 6. Antenna dimensional information for SAR evaluation

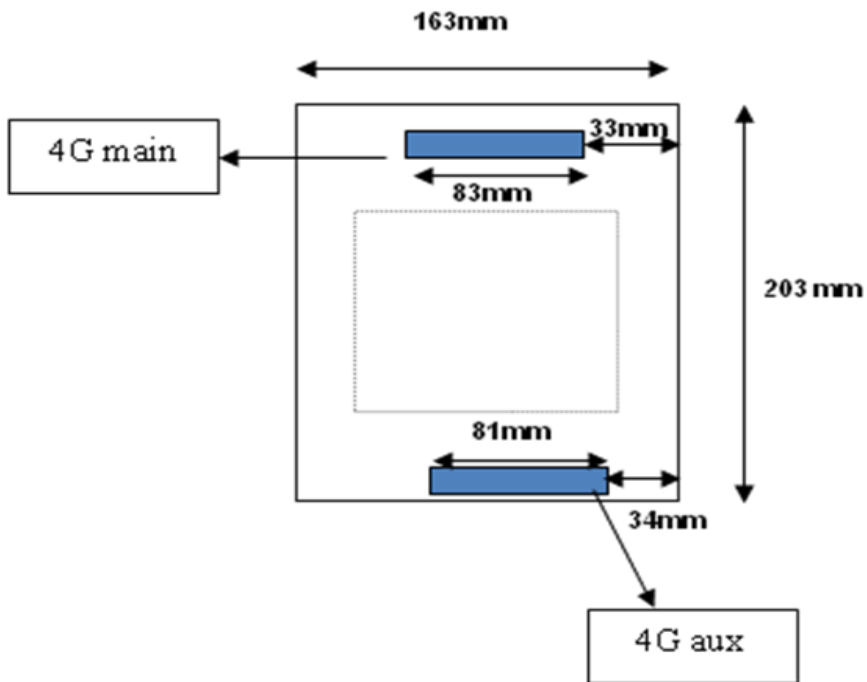
Include a **dimensioned photo(s) or dimensioned drawing(s)** showing the distance (mm) between the transmit antennas and the user (excluding hands, wrist, feet, and ankle). For notebook/laptop hosts show lapheld position (example below). For tablet hosts show all orientations including lapheld, primary & secondary portrait, primary & secondary landscape positions. Include a description of any proximity sensors or power throttling implementations that limit or exclude use of any host orientation.



Section 7. Diagram Example of Co-Location Antenna Separation

Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between all WLAN transmit antennas and other co-located radiator transmit antenna such as Bluetooth, WWAN,..

(Note: Due to the evolving rules regarding co-location, each platform will need to be reviewed on a case by case basis)



Section 8. Local representative contact information

Local representative contact information is required for regulatory support for target countries below.

	Local company name	Contact name	Phone number	FAX Number	e-Mail Address	Notes
Argentina						
Azerbaijan						
Cambodia						
Indonesia						
Israel						
Malaysia						
Philippines						
Singapore						Telecommunication Equipment Dealer License Required
South Africa						
USA, Canada						
Vietnam						