



# XT4392 Antenna Measurements

Revised OCT 09, 2022

This user guide contains antenna measurement information about the XT4392 transmitter antennas.

Contents

1. Background .....	3
1.1 Measurement Instruments for BLE .....	3
2. Radiation patterns of Intentional radiators with enclosure in free space .....	4
2.45 GHz Antenna Specifications .....	4
4G LTE Antenna Specifications .....	6
LTE Antenna Assembly.....	<b>Error! Bookmark not defined.</b>

## 1. Background

This report presents results about Antenna performances of XT4392 device.

### 1.1 Measurement Instruments for BLE

Category	Mark	Type
Anechoic Test Site	Internal	3m with Turn Table
Spectrum analyser	Agilent	E4404B
Coaxial cable		RG214U 50 Ohm 11m
Open Boundary Quad-Ridged Horns antenna	ETS Lindgren	3164-06
Signal generator	Anritsu	MS2830A

### 1.2 Measurements Instruments for LTE

Category	Mark	Type
Anechoic Test Site	MVG	MVG MiniLAB with MVG Wave studio; full anechoic chamber, half arch of probes (12 probes dual polarization 15 degrees separation)
Spectrum analyser	R&S	CMW500

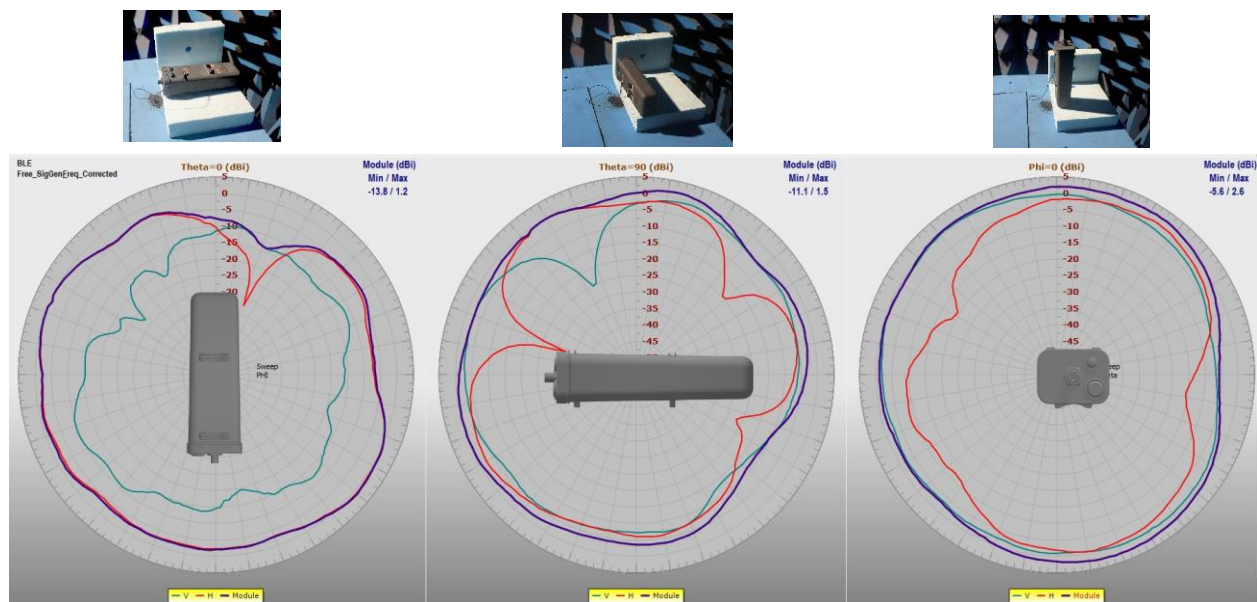
## 2. Radiation patterns of Intentional radiators with enclosure in free space

### 2.45 GHz Antenna Specifications

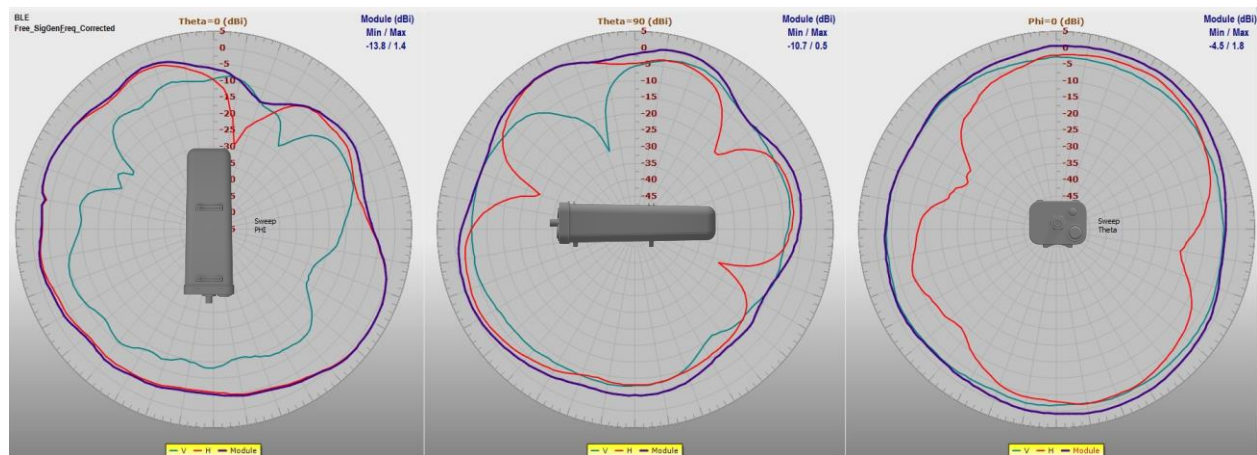
Parameter	Description
Frequency (GHz)	2.4 - 2.48
Peak Gain (dBi)	≤2.6 dBi

<sup>1</sup>Gain measured with all the Mechanical Elements with Enclosures

### 2.45GHz antenna radiation pattern at 2400MHz in free space

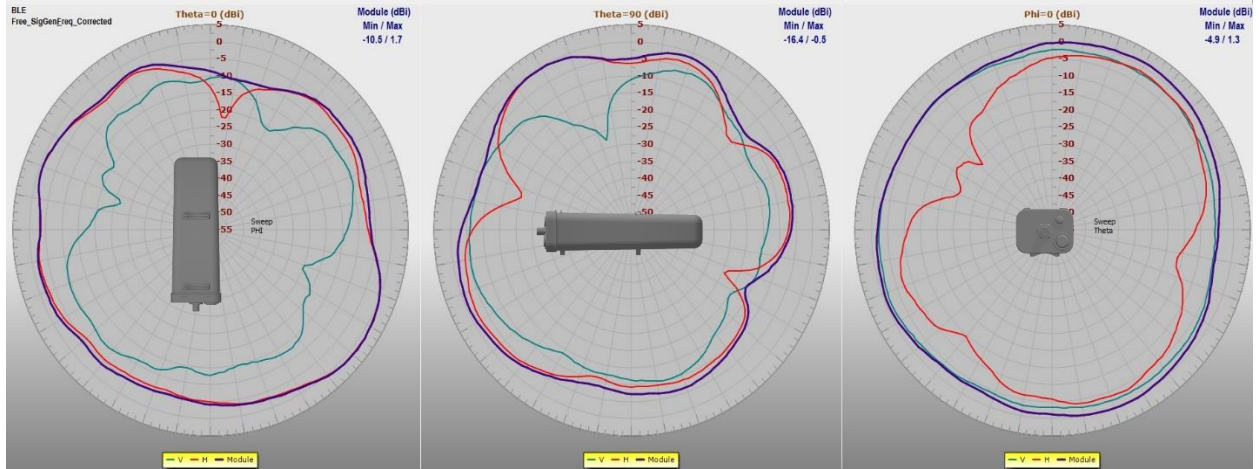


### 2.45GHz antenna radiation pattern at 2440MHz in free space



# XT4392 Antenna Measurement Report

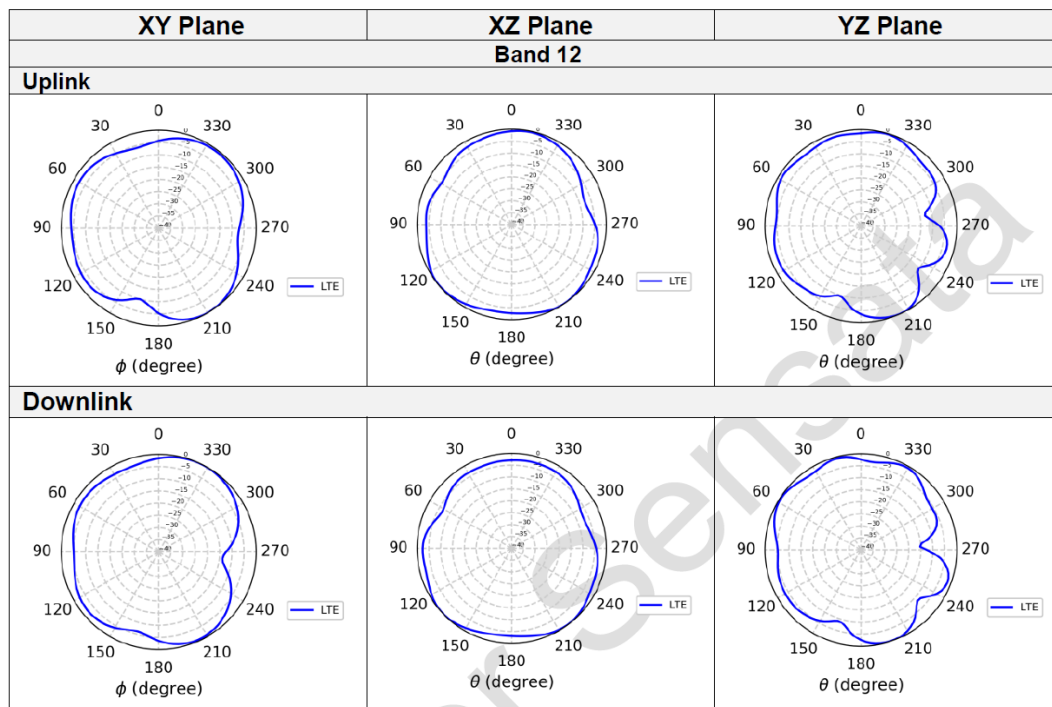
## 2.45GHz antenna radiation pattern at 2480MHz in free space



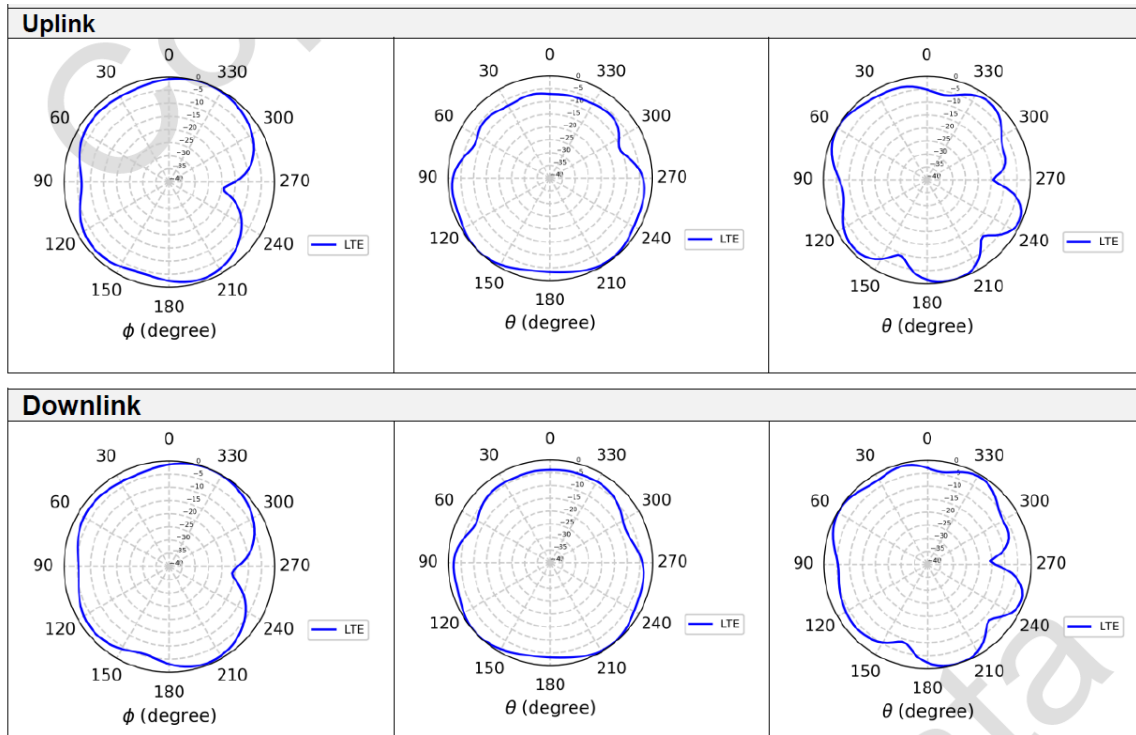
4G LTE Antenna Specifications

Specification Description	Band 12		Band 13		Band 4	
Channel	Uplink	Downlink	Uplink	Downlink	Uplink	Downlink
Frequency (MHz)	699-716	729-746	777-787	746-756	1710-1755	2110-2155
Peak Gain [dBi]	<0.75	<1.13	<1.7	<1.4	<4.7	<6.4
Specification Description	Band 20		Band 28		Band 2	
Channel	Uplink	Downlink	Uplink	Downlink	Uplink	Downlink
Frequency (MHz)	832-862	791-821	703-748	758-803	1850-1910	1930-1990
Peak Gain [dBi]	<1.4	<1.7	<1.16	<1.8	<5.4	<6

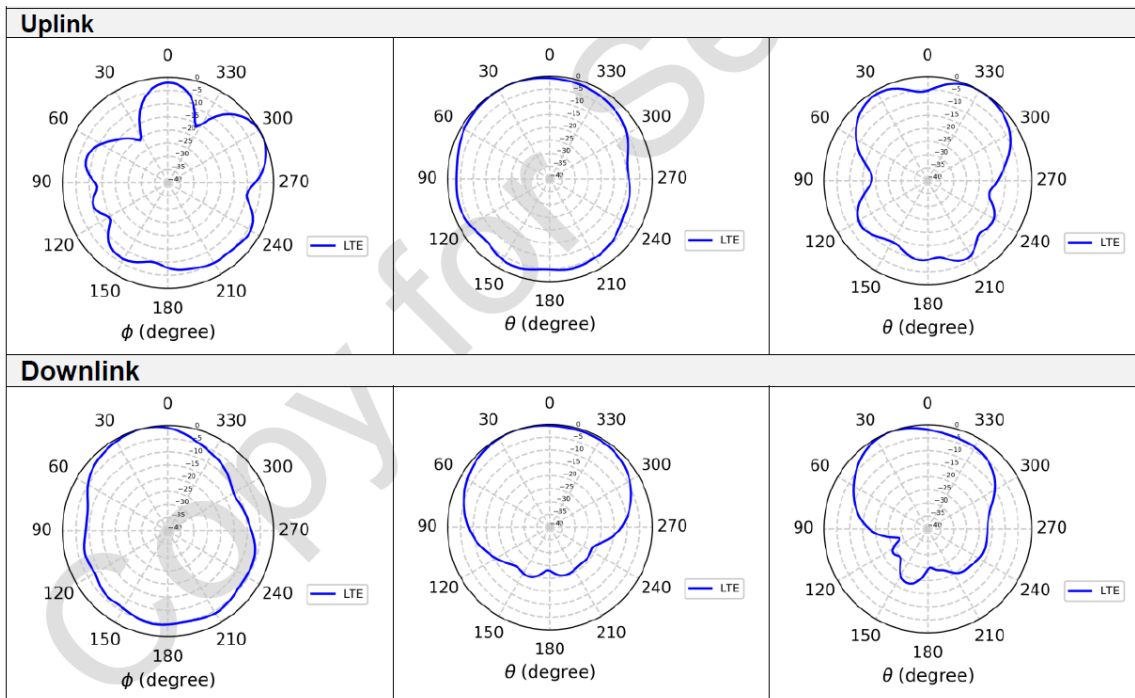
LTE antenna radiation pattern – LTE BAND #12



LTE antenna radiation pattern – LTE BAND #13

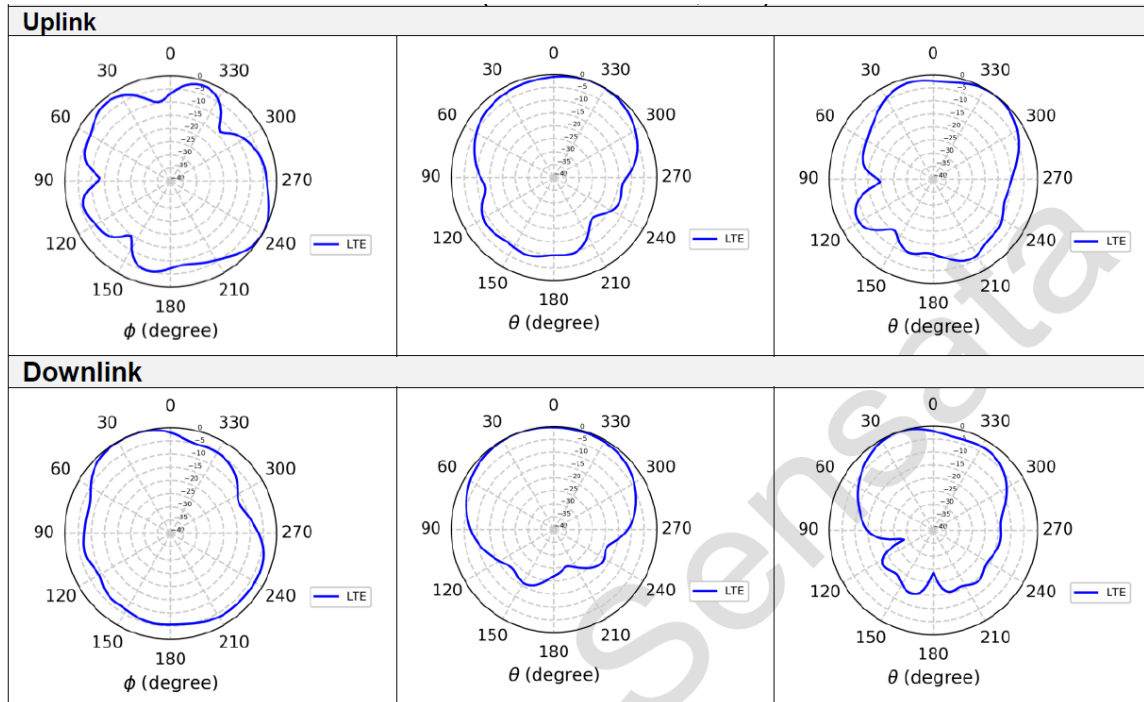


LTE antenna radiation pattern – LTE BAND #4

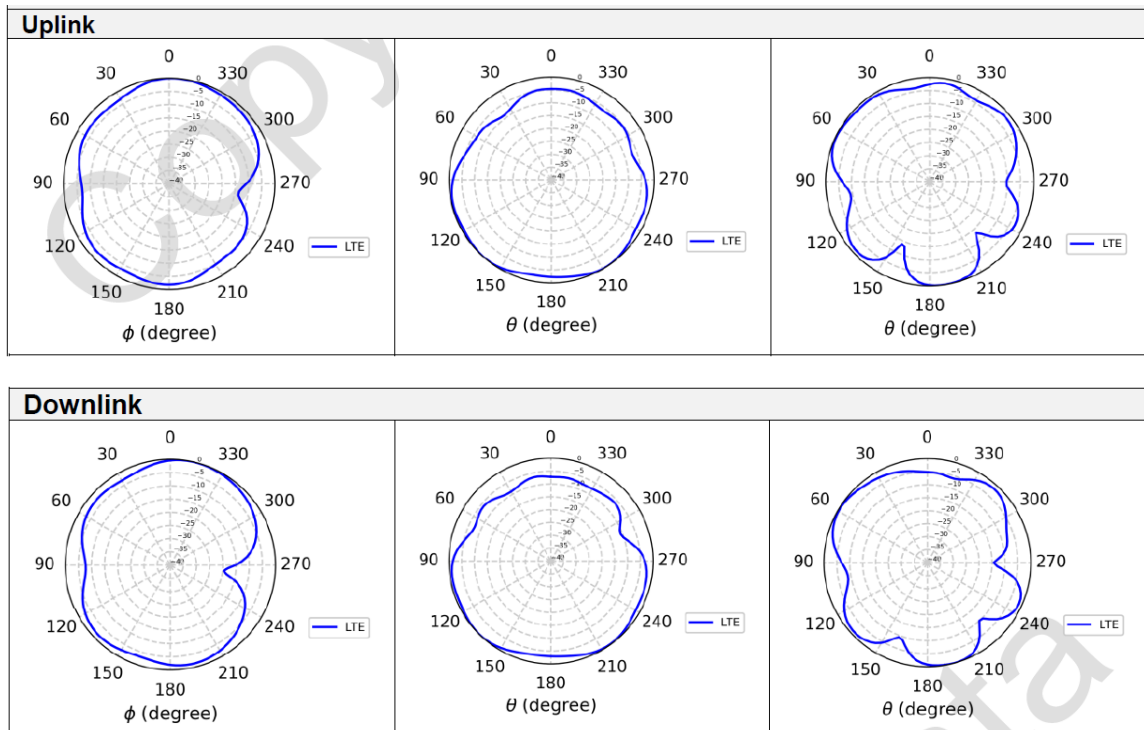




LTE antenna radiation pattern – LTE BAND #2



LTE antenna radiation pattern – LTE BAND #20





LTE antenna radiation pattern – LTE BAND #28

