

Specification

Part No.	: LPDA.05.032111
Description	: LPDA.05 Engager External Wide Band Directional LPDA Antenna
Features	: Frequency: 600-6000MHz Peak Gain: 8dBi Dimensions: 520*630*42mm Dimensions with bracket: 520*770*95mm Cable Length: 300mm Connector: SMA(M) RoHS & Reach Compliant



1. Introduction

The LPDA.05.032111 is a wideband directional LPDA exterior antenna that operates within the 600-6000MHz frequency bands. It is an innovative and future proof solution ideal for 4G/5G and also 2G/3G networks as well as 2.4GHz and 5.8GHz Wi-Fi.

This wideband design eliminates the need to purchase different antennas for each frequency, in turn simplifying installations since the same antenna can be used for a wide array of wireless applications when wide coverage is desired.

The LPDA.05 has a 70° beam width in both orthogonal planes. The ABS external housing is robust, UV resistant and waterproof IP65 rated. For various mounting options, it is supplied with tilt and swivel wall and pole brackets. The LPDA.05 has been tested for wind resistance up to 200 km/h.

5G/4G and 2.4GHz and 5.8GHz Wi-Fi applications demand high speed data uplink and downlink and where required, two LPDA.05 antennas can be mounted in space at 90° to create a MIMO arrangement.

Cable type, length and connectors are customizable for large order volumes. Please contact your regional Taoglas Customer support Team for more information.

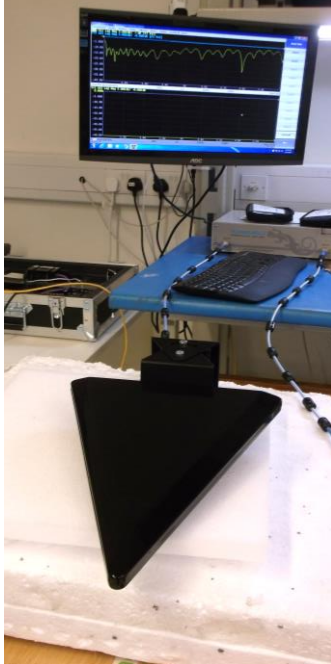
2. Specification

ELECTRICAL								
Operation Frequency (MHz)	LTE 700 LTE 800 GSM900	DCS PCS	UMTS HSPA	Wi-Fi	LTE 2300	LTE 2600	LTE 3500	Wi-Fi
	698-960	1710-1990	1755-2170	2400-2500	2305-2360	2500-2700	3400-3600	5700-5900
Return Loss (dB)	-15	-10	-10	-10		-10	-6	-6
Efficiency (%)	55	48	50	52		45	30	30
Peak Gain (dBi)	5.5	4.5	4.5	5		5	4	4
Max VSWR	1.5:1	2:1	2:1	2:1		2:1	3:1	3:1
Radiation Properties		Directional						
Polarization		Linear						
Impedance		50Ω						
Max input Power		10W						
MECHANICAL								
Dimension		520*630*42mm without Bracket 520*770*95mm with Bracket						
Material		Body: PC Coated UV Stabilized ABS Bracket: Black Powder Coated 316 Stainless						
Connector		SMA(M)						
Weight		819g with Bracket 430g without Bracket						
Cable Type		300mm RG-174						
Waterproof		IP65						
ENVIRONMENTAL								
Operation Temperature		-40°C to 85°C						
Storage Temperature		-40°C to 105°C						
Humidity		Non-condensing 65°C 95% RH						
Wind Resistance		Up to 200km/h						

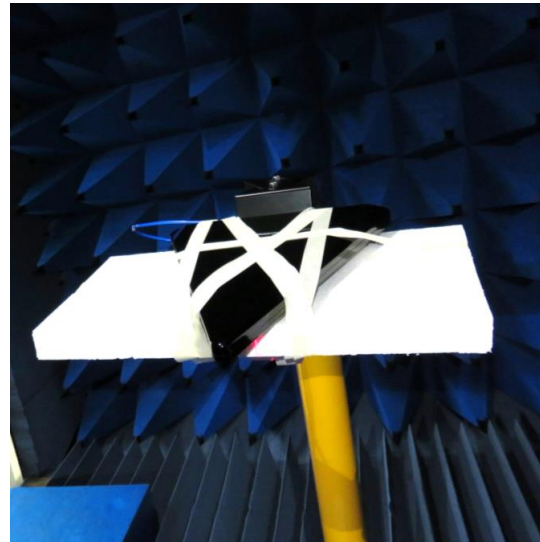
3. Antenna Characteristics

3.1 Set up

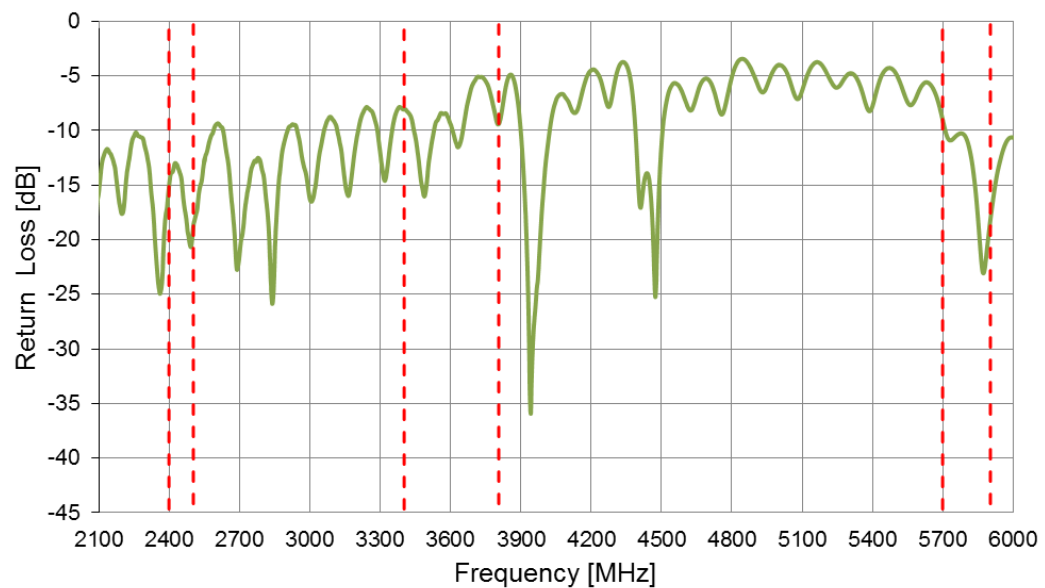
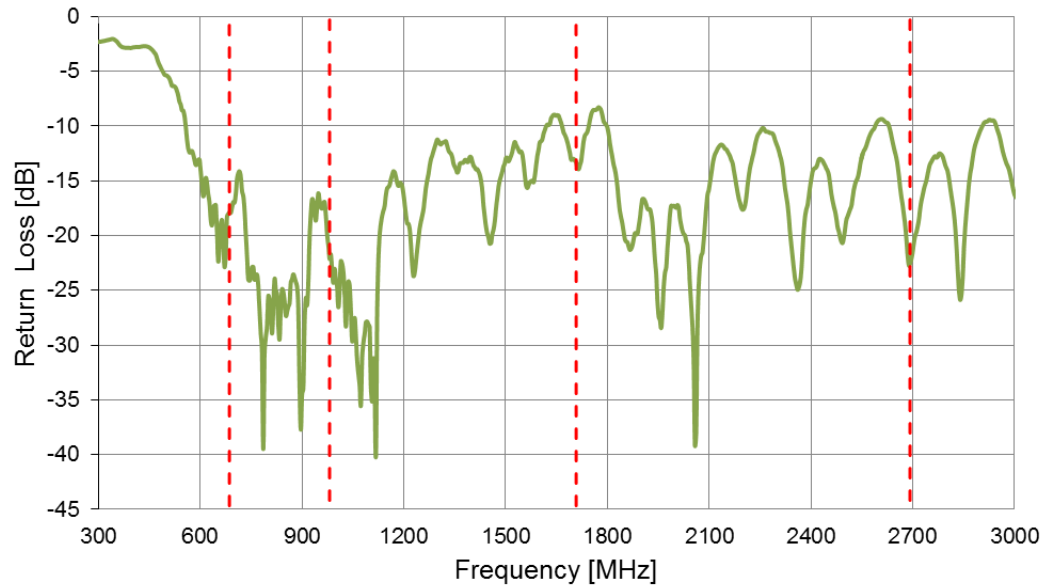
Return Loss and VSWR Measurement



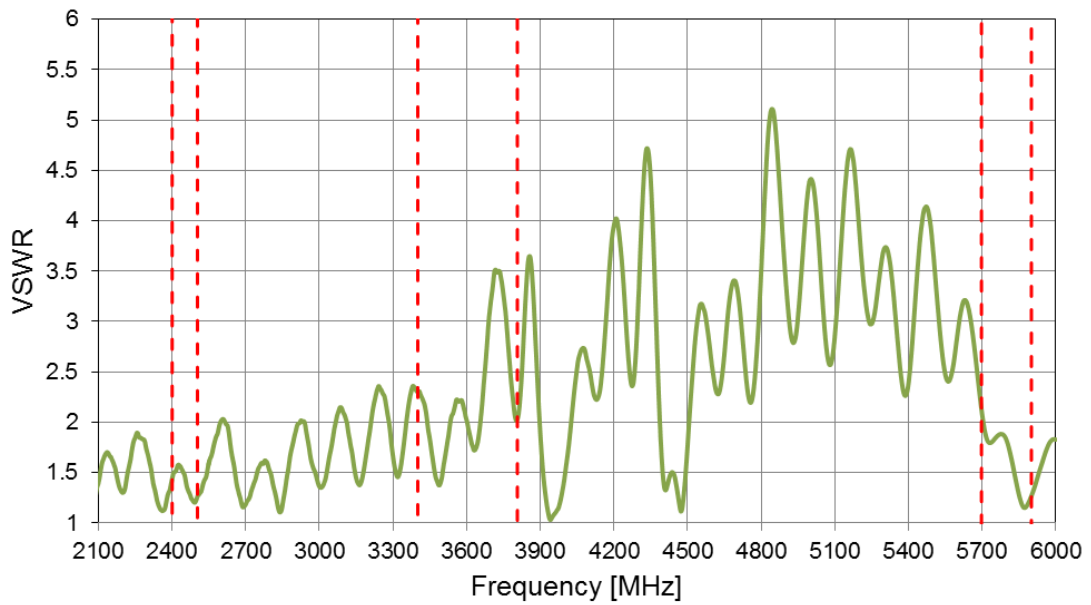
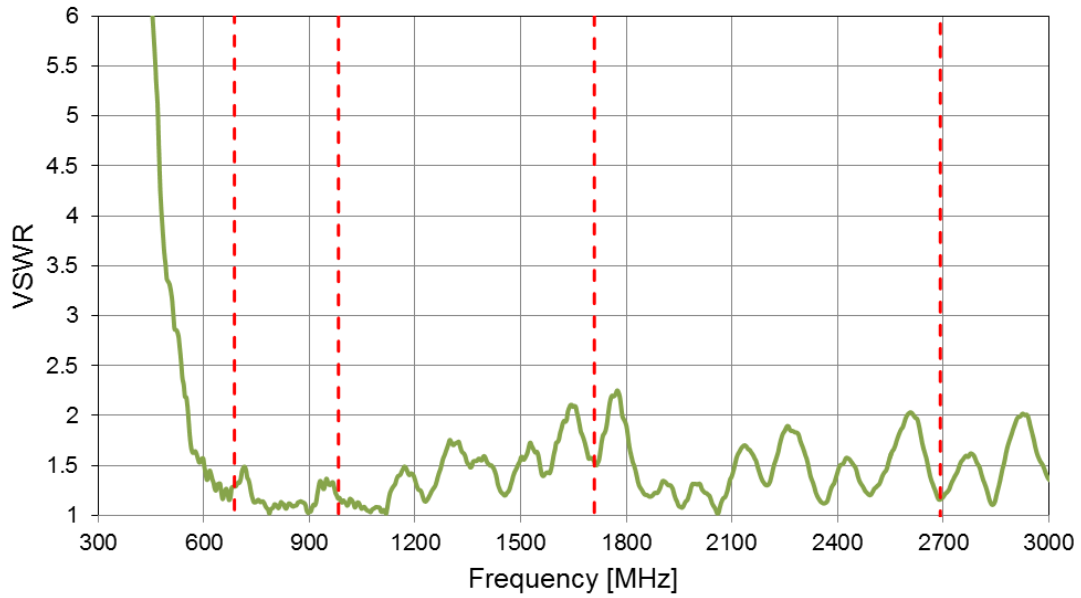
Efficiency and Gain Measurement



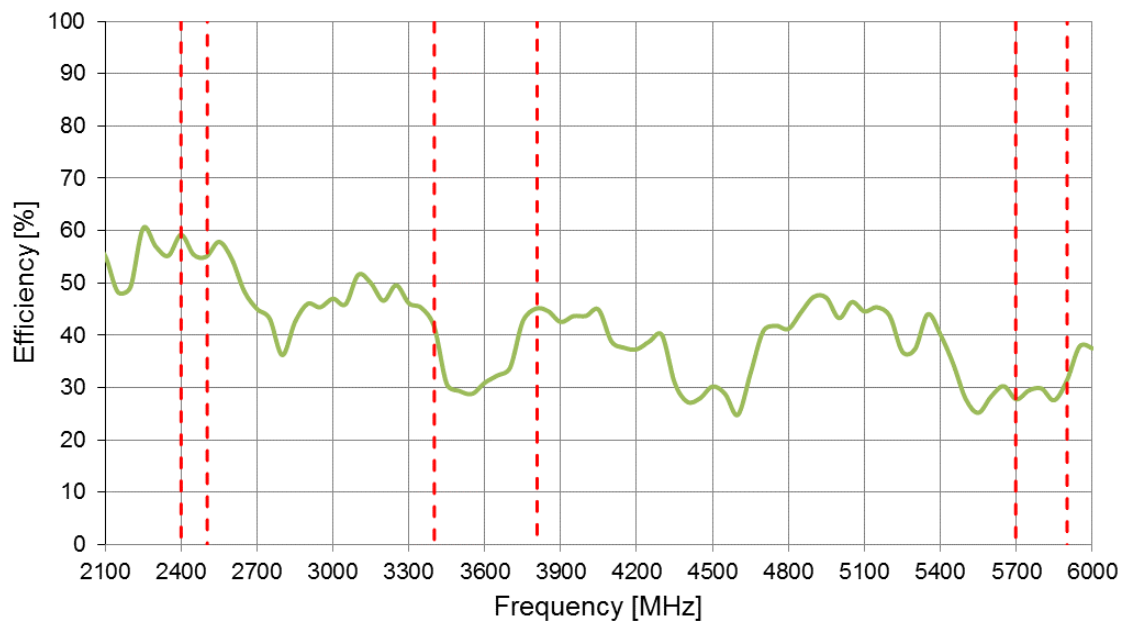
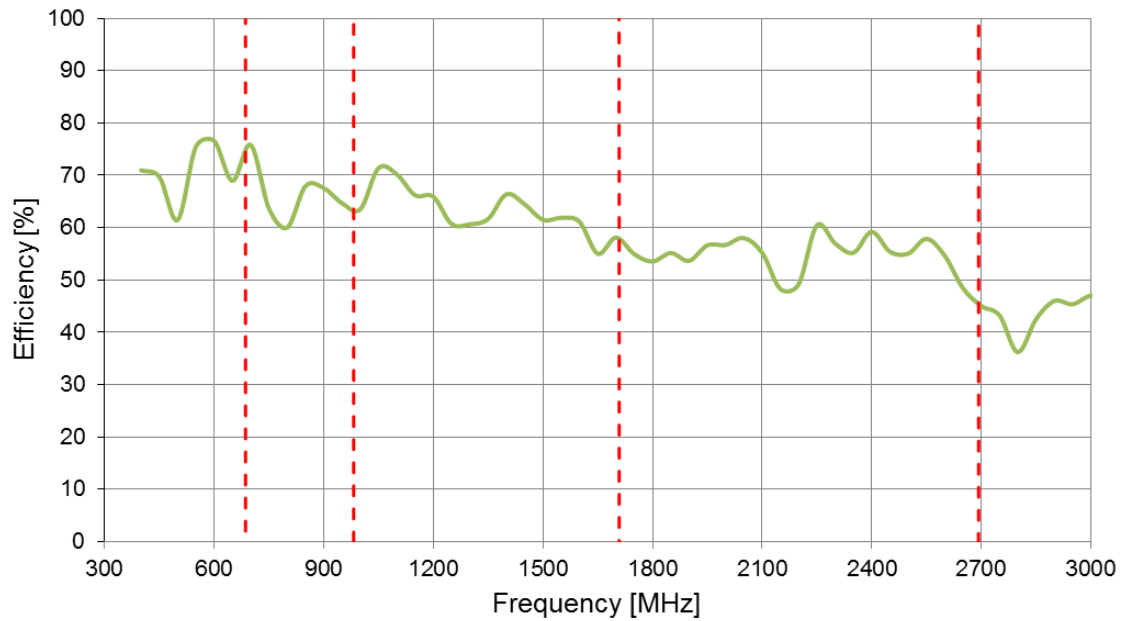
3.2 Return Loss



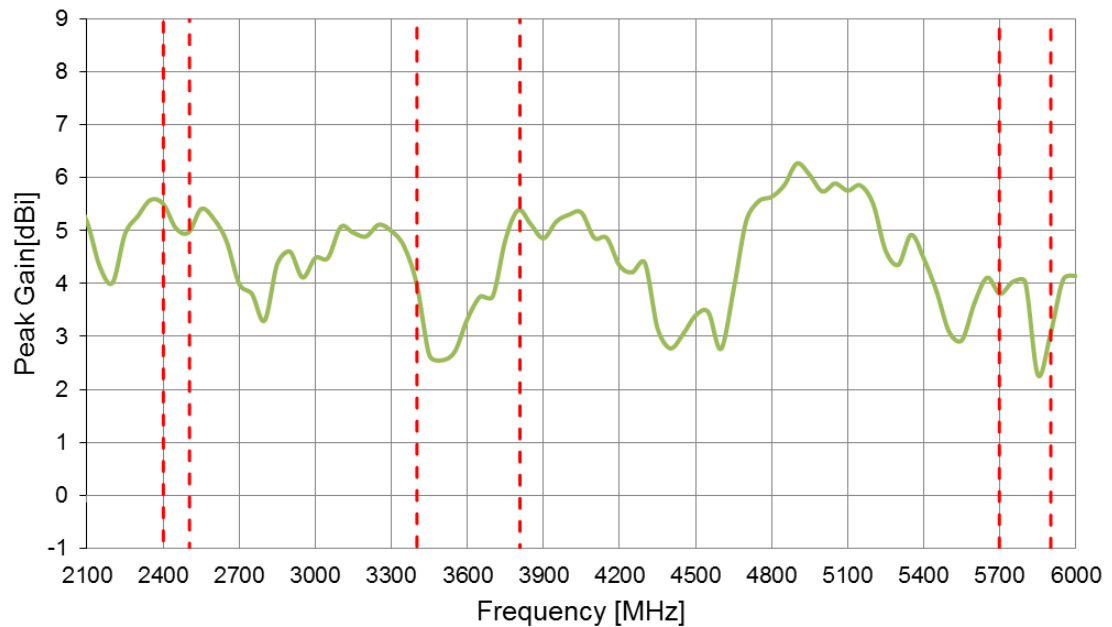
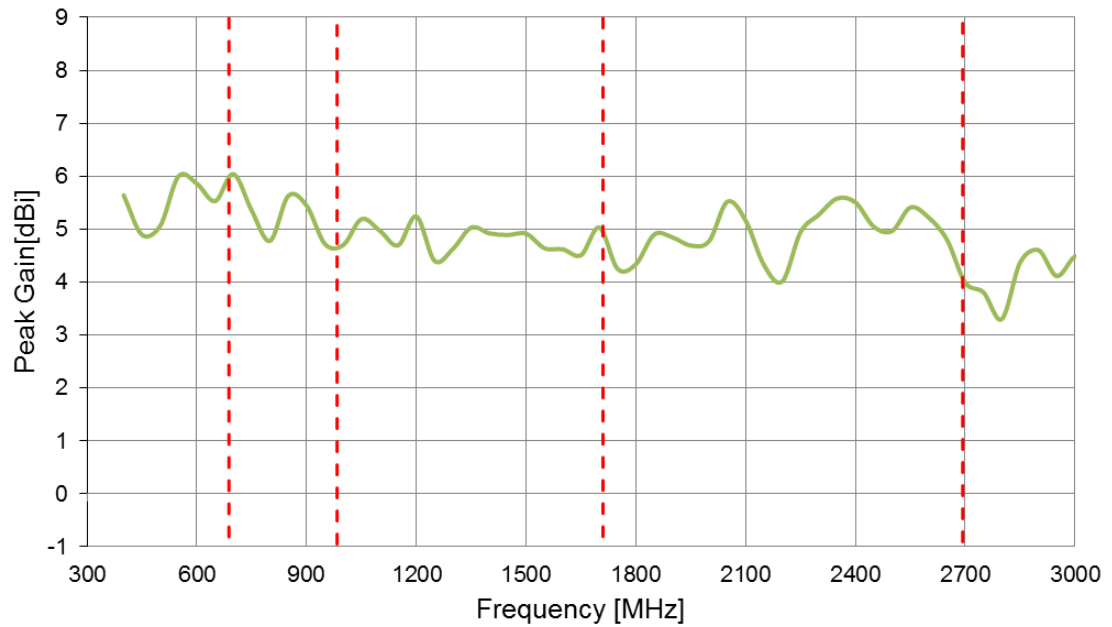
3.3 VSWR



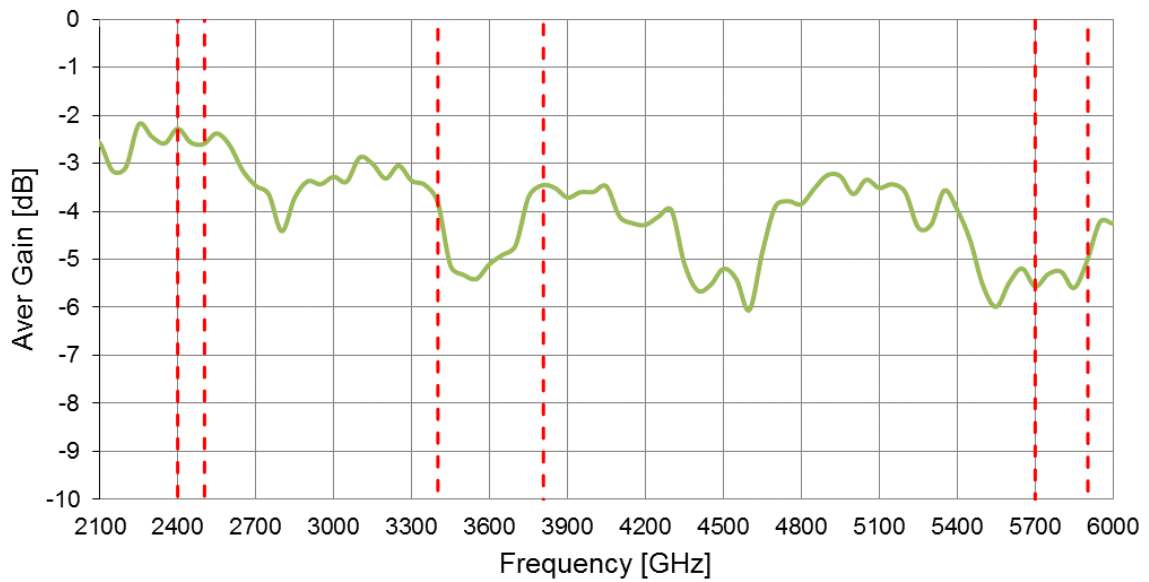
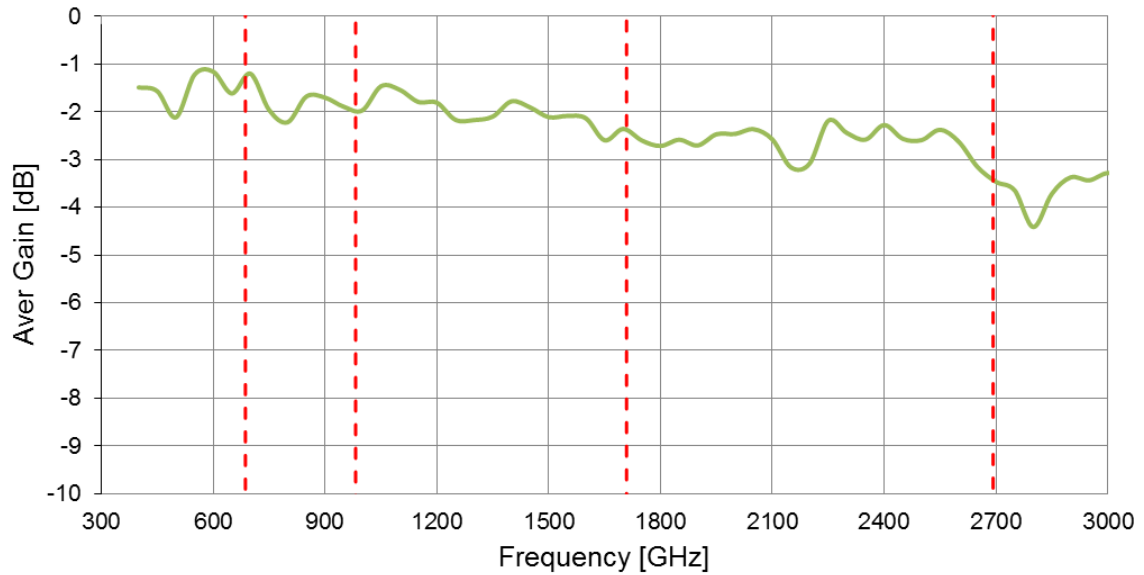
3.4 Efficiency



3.5 Peak Gain

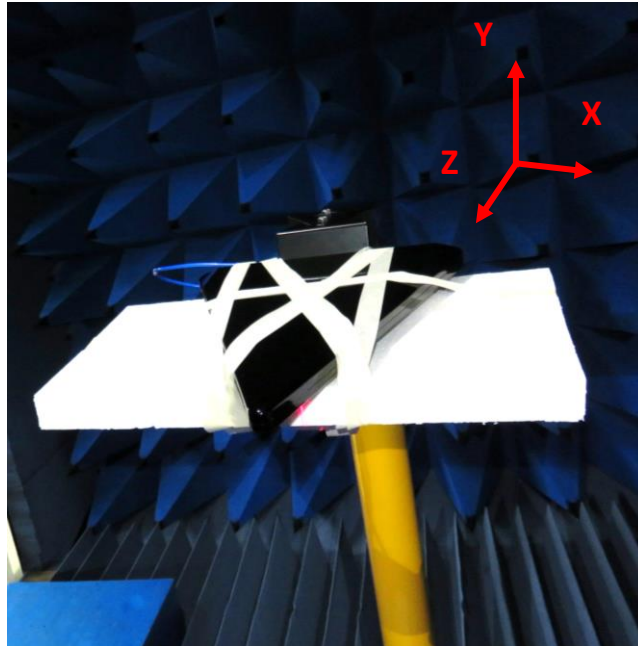


3.6 Average Gain



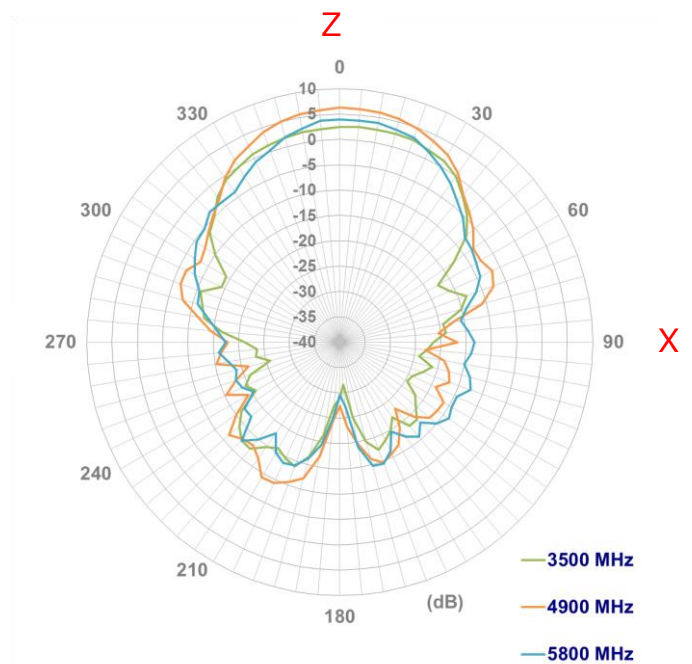
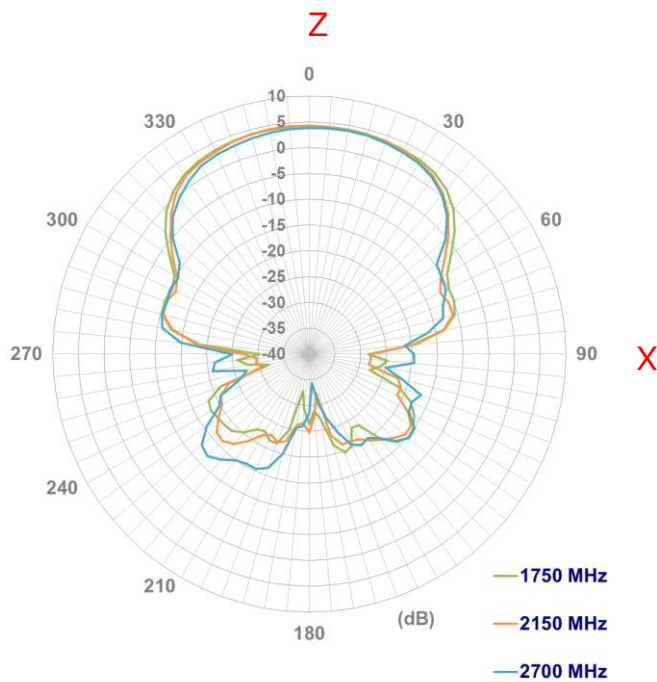
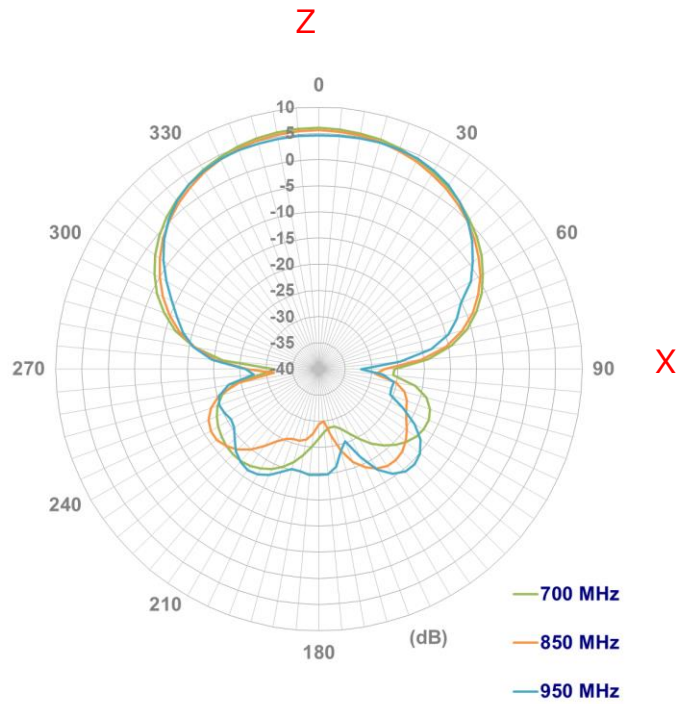
4. Antenna Radiation Pattern

4.1 Measurement Setup

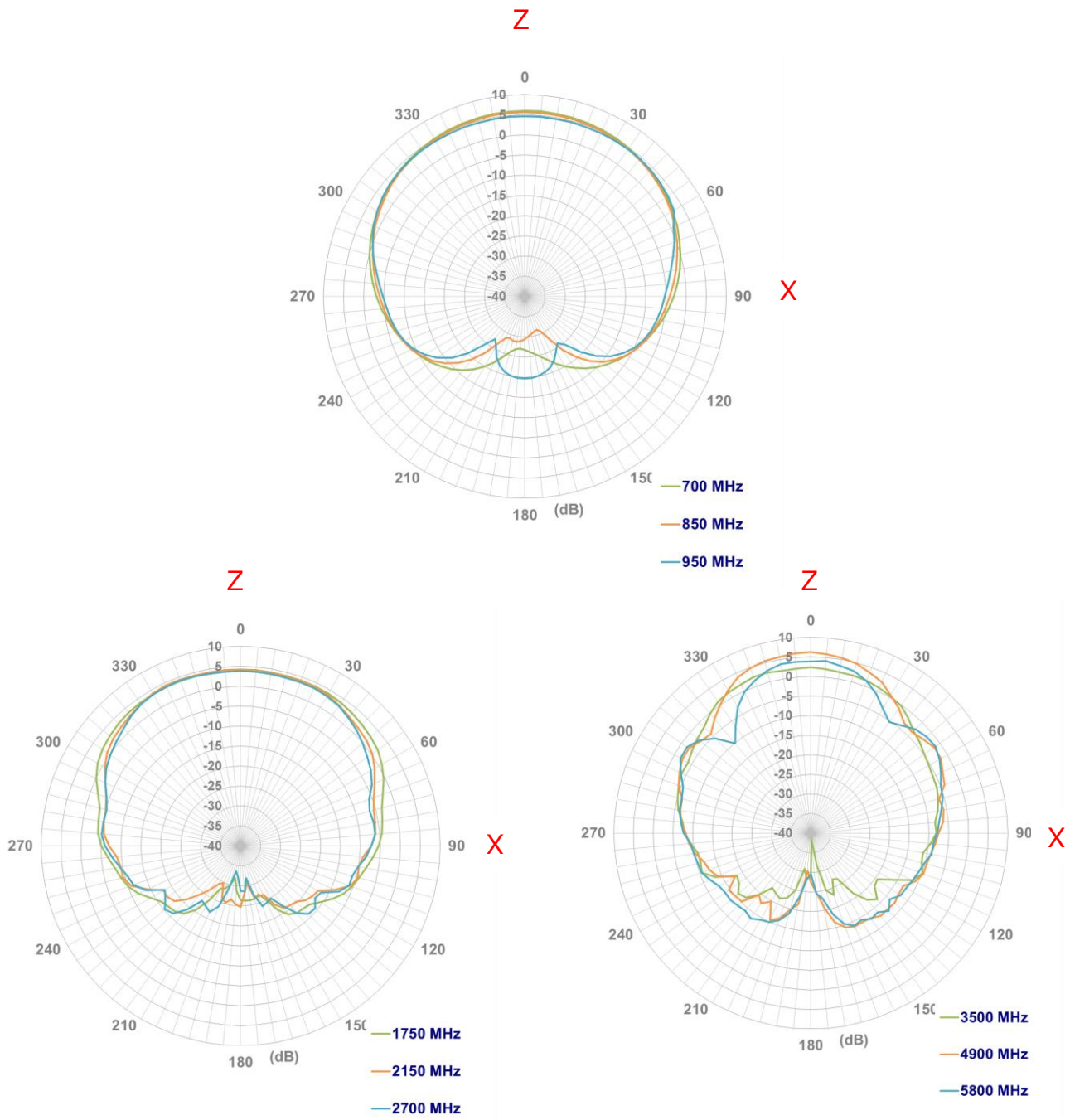


4.2 2D Radiation Pattern

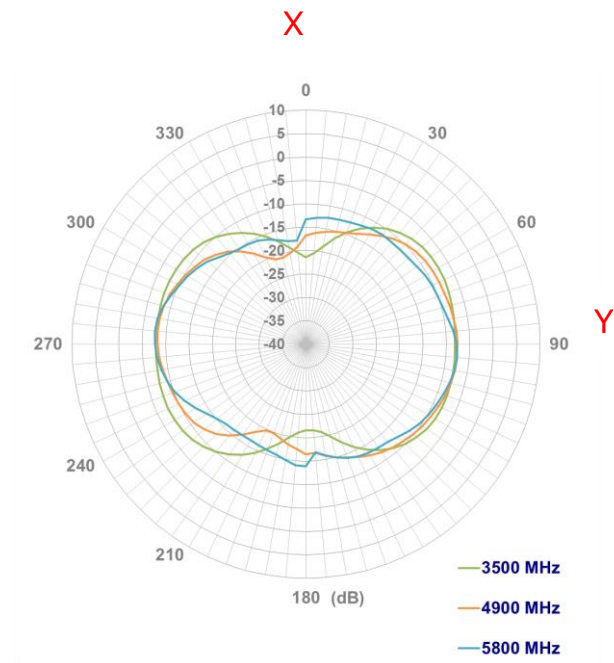
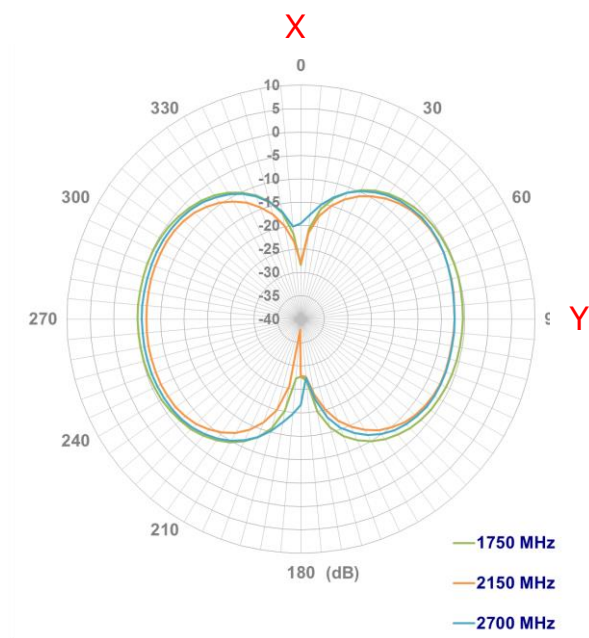
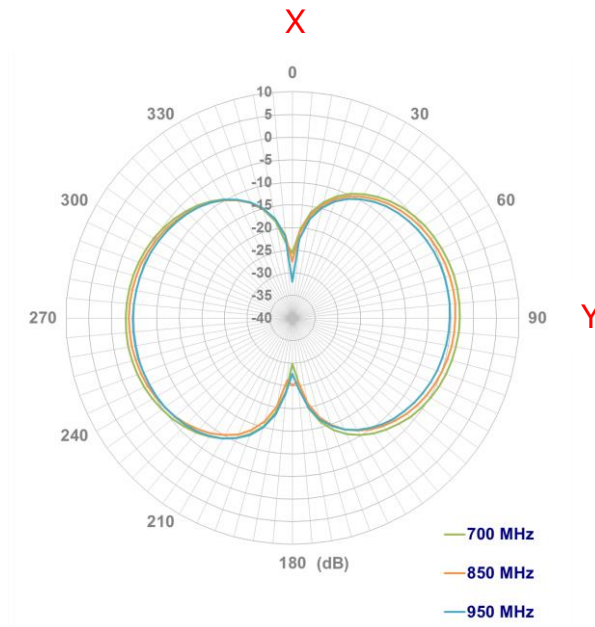
XZ Plane



YZ Plane



XZ Plane



5. Mechanical Drawing (Unit: mm)

Currently under development.

6. Packaging

Currently under development.

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