

# UID 二代/UID Gen2

## BLE Antenna test report



天線類型: Printed antenna

Antenna Type: Printed antenna

天線廠牌/型號: FOXCONN/M-ANT-T99I690T00B

Antenna Brand/Model: FOXCONN/M-ANT-T99I690T00B

製造廠商: FOXCONN

Manufacturer: FOXCONN

製造廠商地址:廣西壯族自治區南寧市江南區同樂大道51號富士康科技園

Manufacturer Address: No.51,Tongle Road Foxconn Technology Park,Jiangnan District,Nanning,Guangxi,China

# Requirements of Antenna Design

## Antenna Configuration

RF Function	Number of ANT	Frequency Band	Remark
BLE	1	2400-2500 MHz	PIFA Antenna

## Antenna Performance Target

Test Item	Specification	Remark
Peak gain	>1dBi ,	
Efficiency	>45%	
Return Loss	<-10	

# Antenna Placement

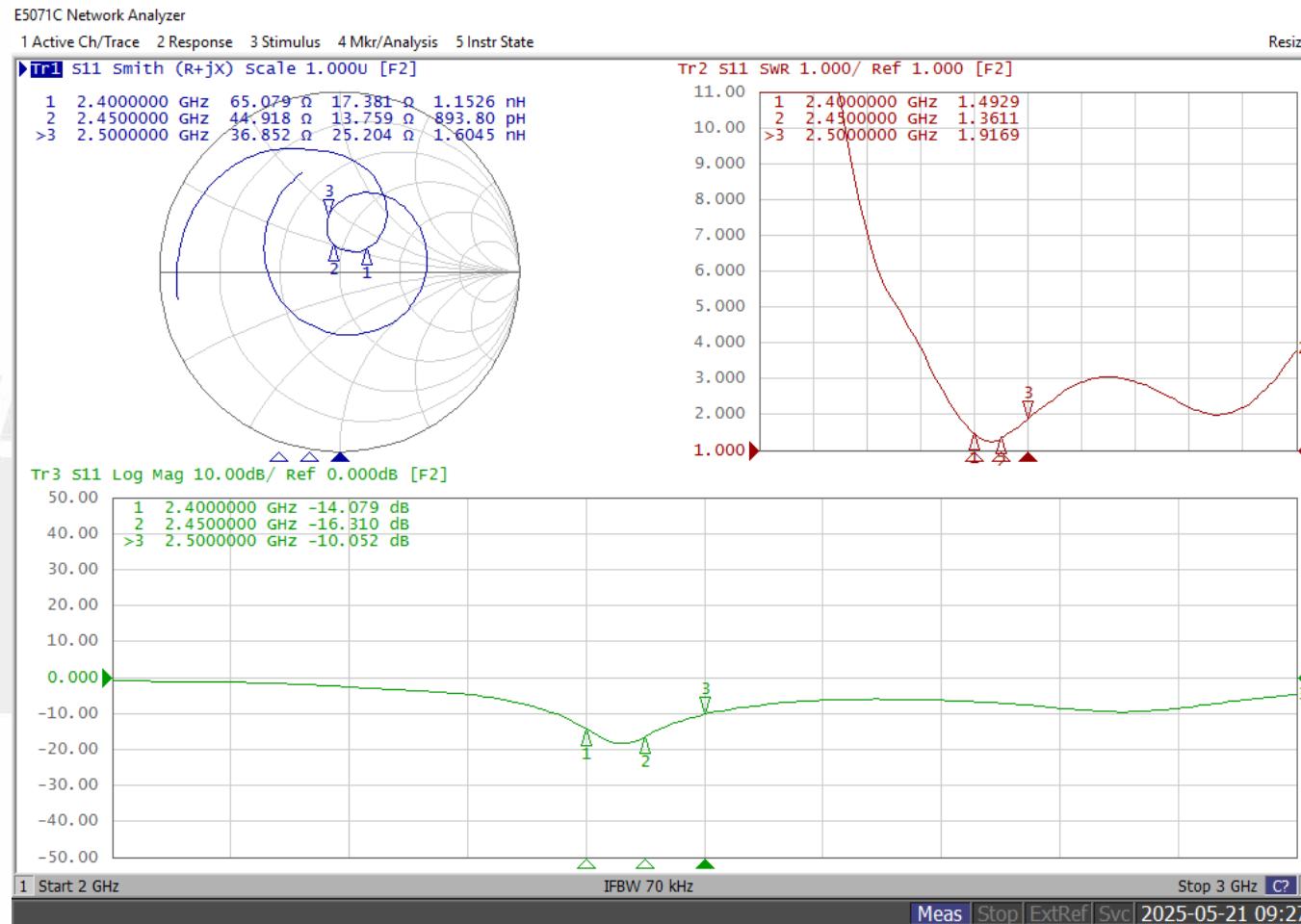
## Requirements of Measurement

Antenna	Frequency(MHz)	PCB Size
BLE	2400~2500	10*10*1.2 mm



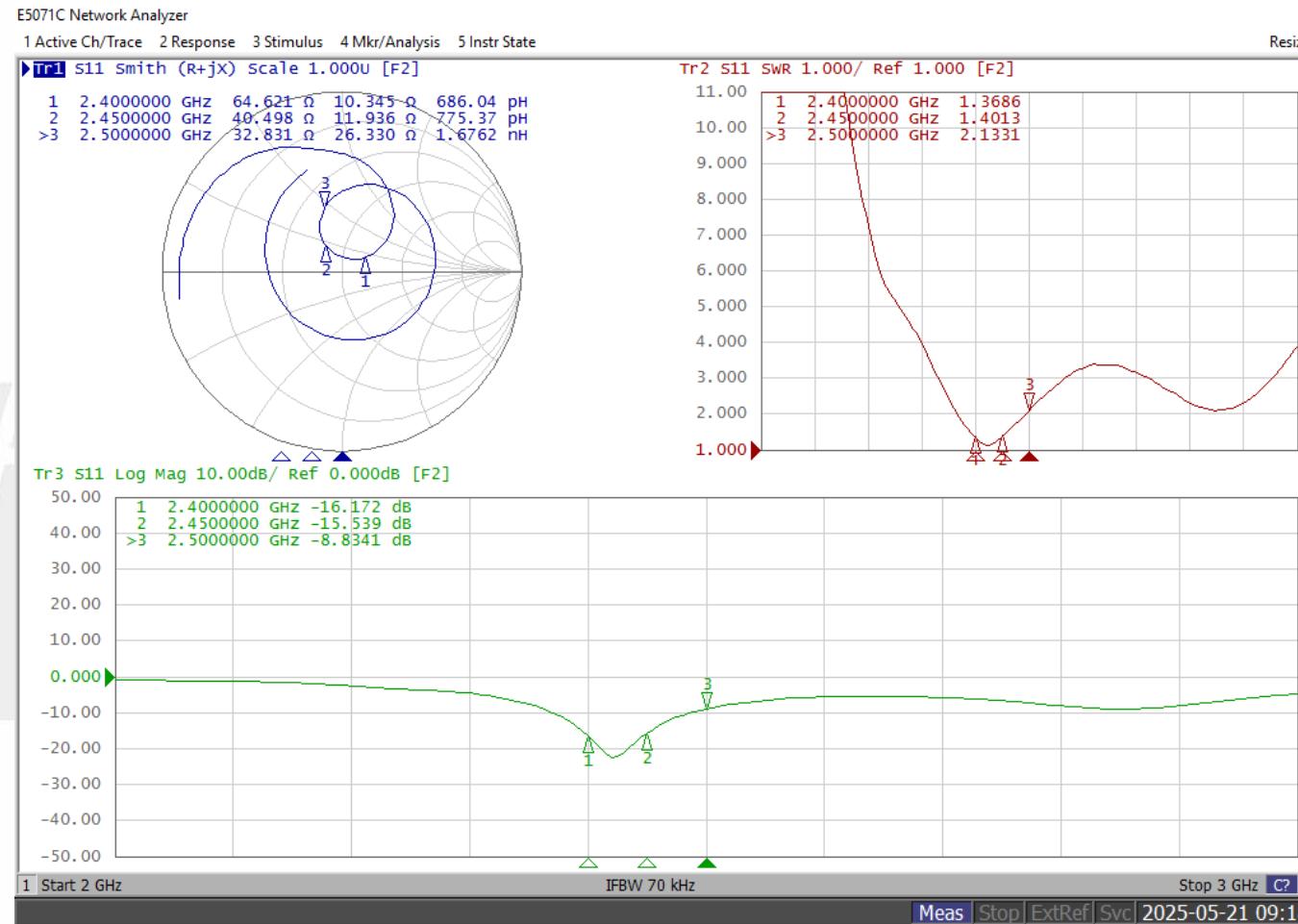
Foxconn Industrial Internet  
富士康工业互联网

# BLE 1# Antenna S-Parameter & Return Loss



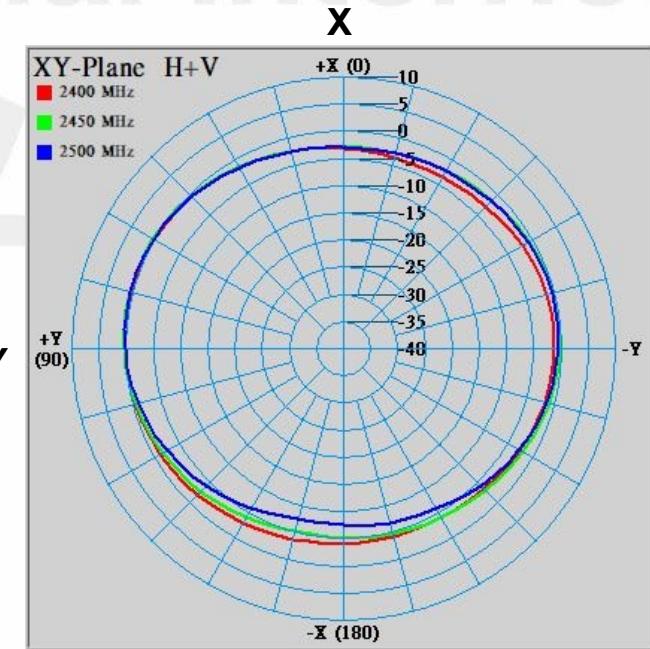
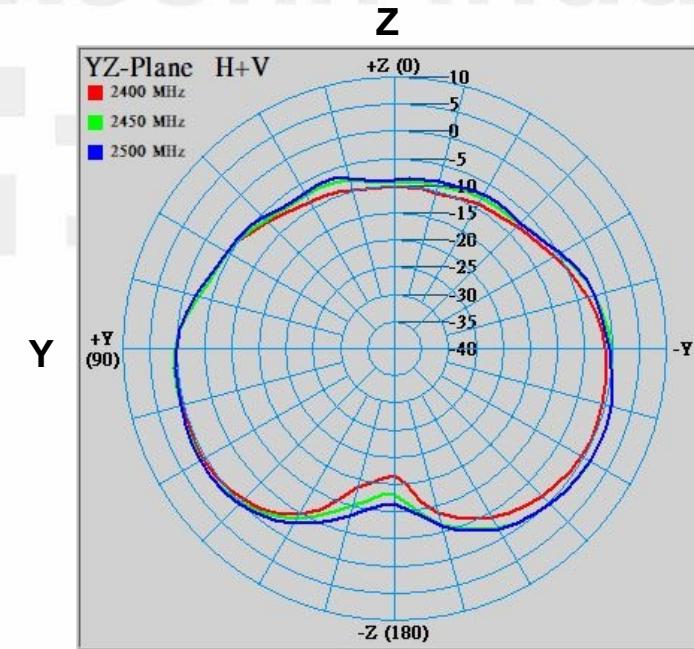
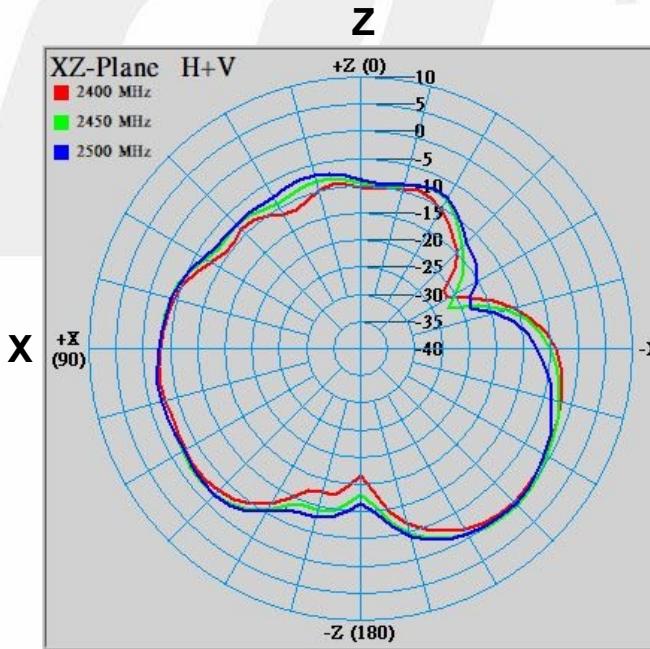
Antenna	2.4GHz	2.45GHz	2.5GHz
BLE(dB)	-14.0	-16.3	-10.1

# BLE 2# Antenna S-Parameter & Return Loss

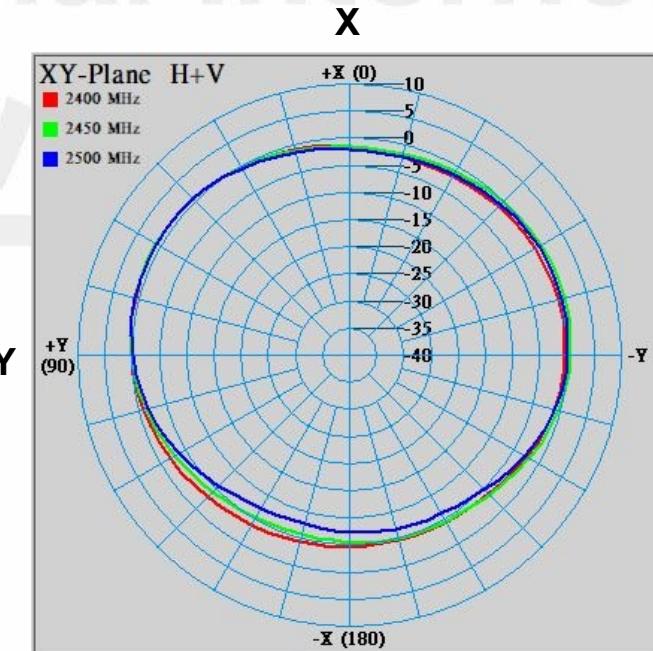
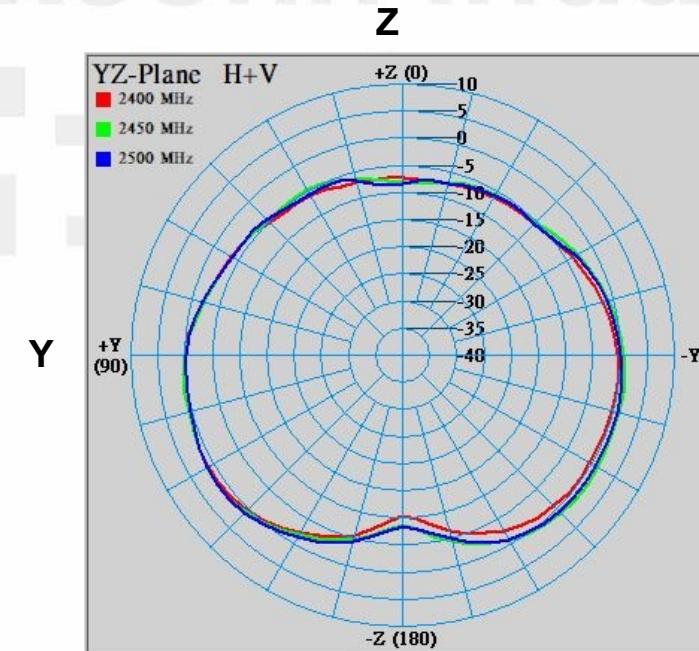
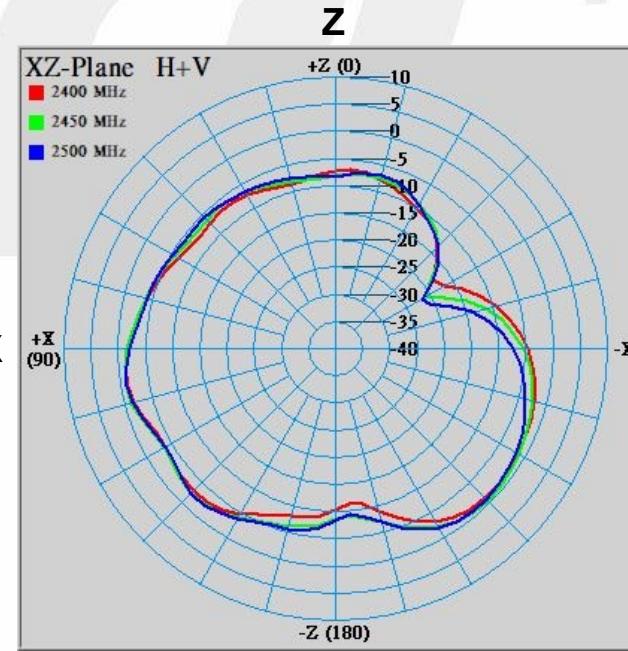


Antenna	2.4GHz	2.45GHz	2.5GHz
BLE(dB)	-16.1	-15.5	-8.8

# BLE 1# Antenna Radiation Patterns

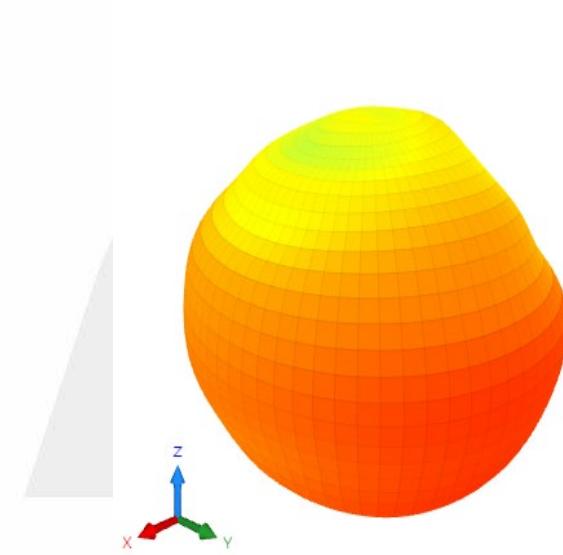


# BLE 2# Antenna Radiation Patterns

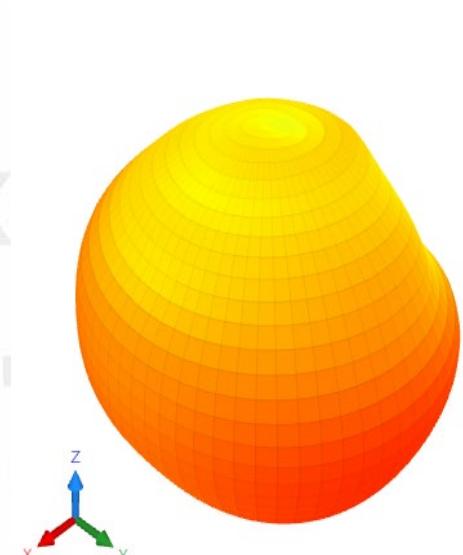


# BLE 1# Antenna 3D Radiation Patterns

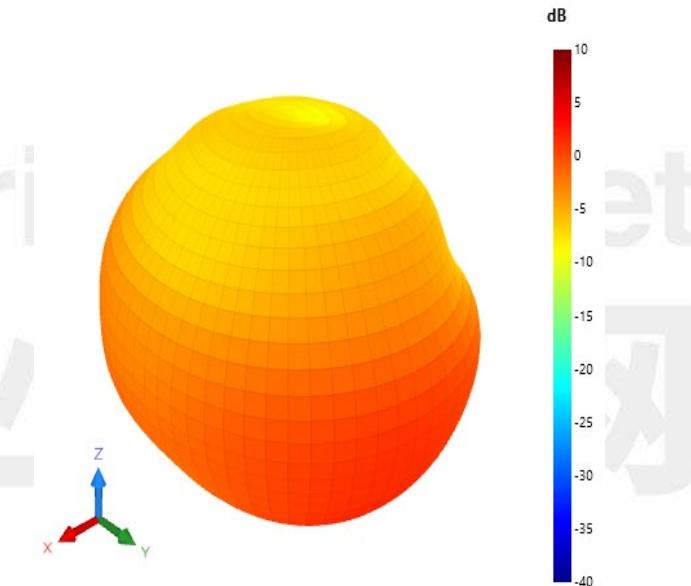
**2.4 GHz**



**2.45 GHz**



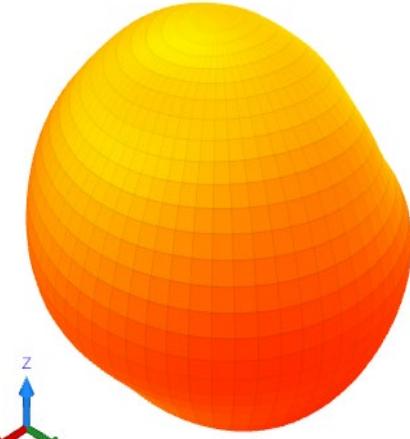
**2.5 GHz**



# BLE 2# Antenna 3D Radiation Patterns

**2.4 GHz**

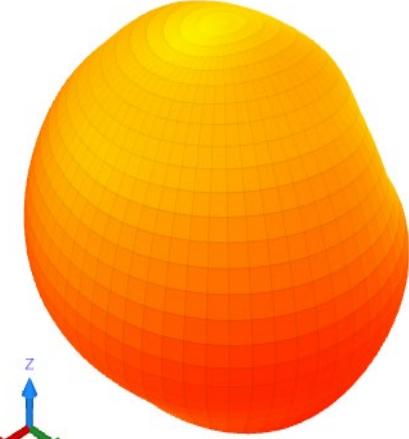
dB



10
5
0
-5
-10
-15
-20
-25
-30
-35
-40

**2.45 GHz**

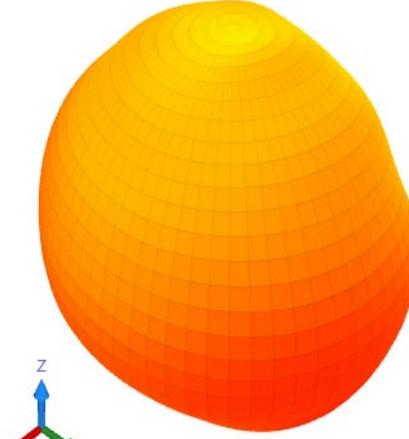
dB



10
5
0
-5
-10
-15
-20
-25
-30
-35
-40

**2.5 GHz**

dB



10
5
0
-5
-10
-15
-20
-25
-30
-35
-40

# Results Summary (Peak Gain , Efficiency)

## Peak gain & Efficiency – BLE 1#

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	1.45	46%
2450	1.68	56%
2500	1.57	55%

## Peak gain & Efficiency – BLE 2#

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	1.54	52%
2450	1.98	59%
2500	2.05	55%