

# **WIFI/BT Antenna Test Report Prepared for Trimble 【TNJ31 /32】 Project**

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### Client Information

Client	Trimble
Engineer of Client	
Project Name	TNJ31 / TNJ32
Project Stage	<input type="checkbox"/> 2D Drawing <input type="checkbox"/> PCB <input type="checkbox"/> Housing <input checked="" type="checkbox"/> CNC(EVT) <input type="checkbox"/> Soft Tooling <input type="checkbox"/> Hot Tooling(DVT) <input type="checkbox"/> PVT
Antenna Type	PIFA
Antenna Band	2450MHz
Antenna Engineer	ET

### Tuning Note

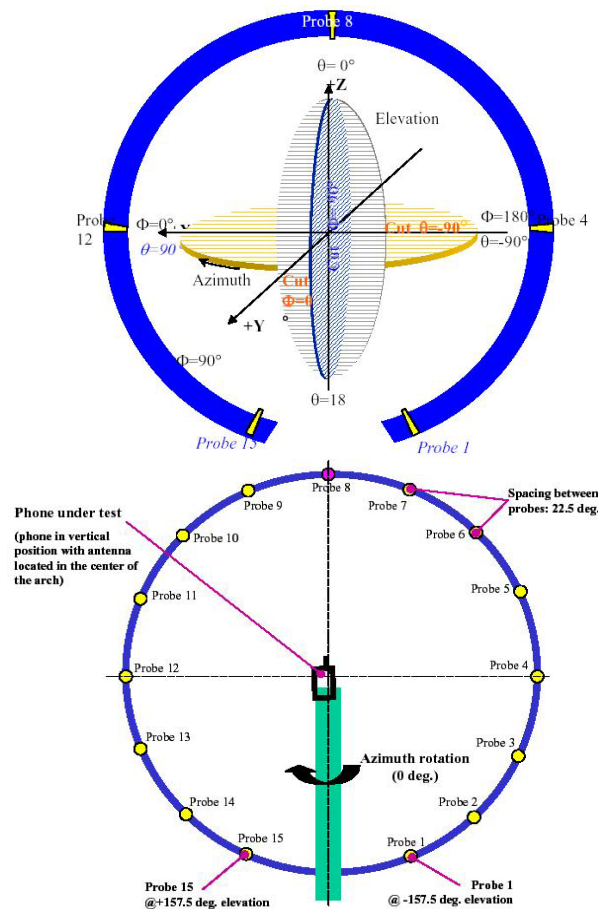
Version	Date	Revision Description	Designer
01	2011.08.02	Version 1	Wesley
02	2011.09.19	Version 2	ET
03	2011.10.31	Version 3	ET
04			
05			
06			
07			

### Antenna Info

LNA Name	Material	Dimension	Feed-In Location	PIN Length

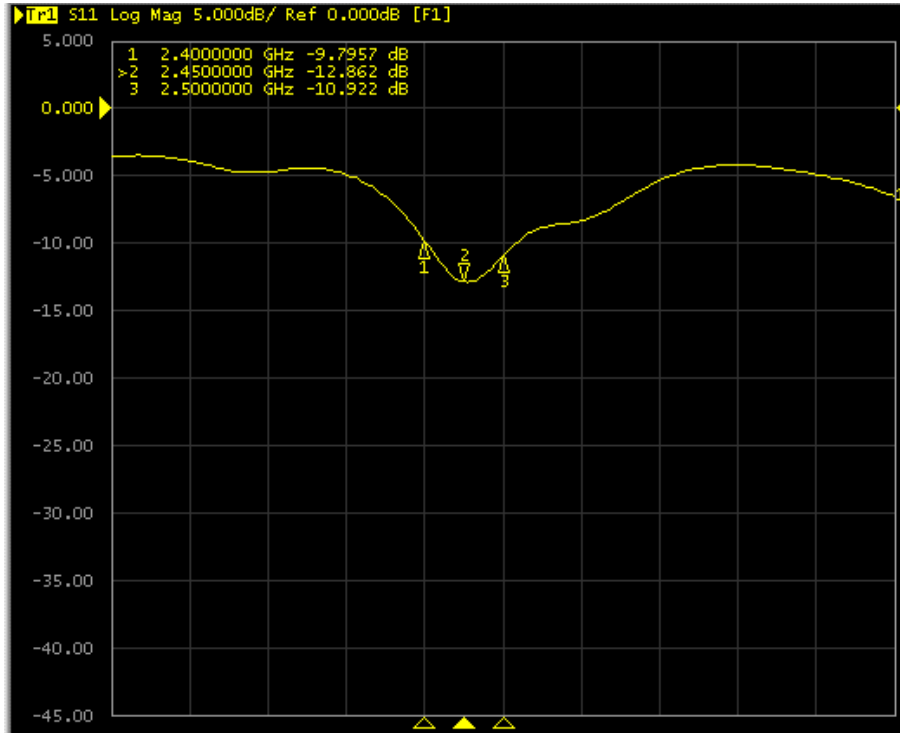
# Cirocomm Proprietary Information

1. Test content :  
WIFI Antenna In [TNJ31](#) / [TNJ32](#) housing pattern measurement
2. Test project :  
S11 Return Loss , Impedance, Antenna GAIN,  
Radiation Pattern, Efficiency, Average Gain
3. Test setting :  
Network Analyzer : Agilent E5071C  
  
Source Antenna : SATIMO  
  
Test Frequency : 2450MHz
4. Test environment :  
Room temperature : 24.3°C Humidity : 43.9%
5. Test schematic drawing of setting :

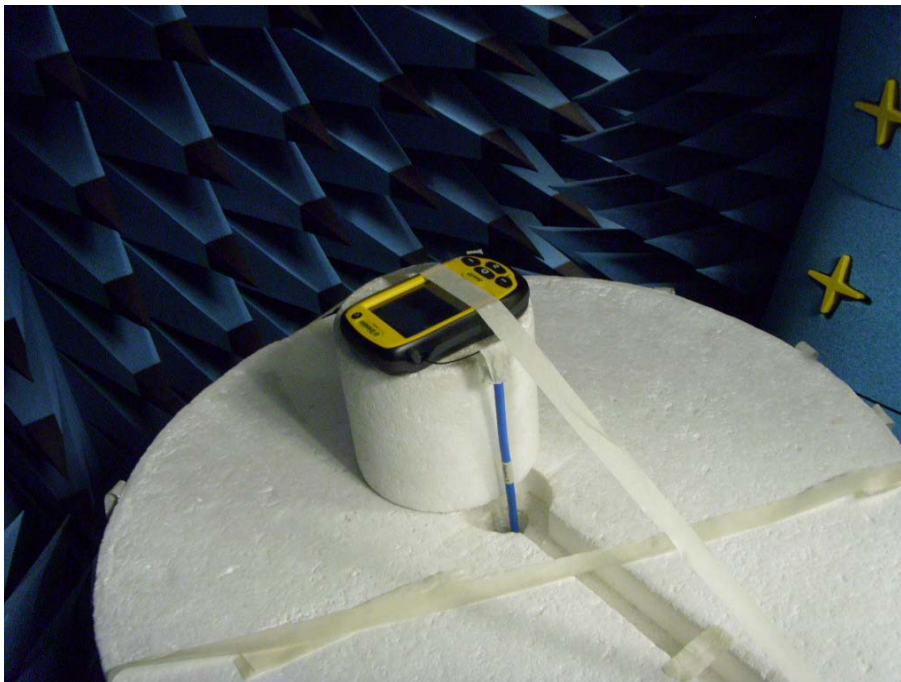


6. Test data :

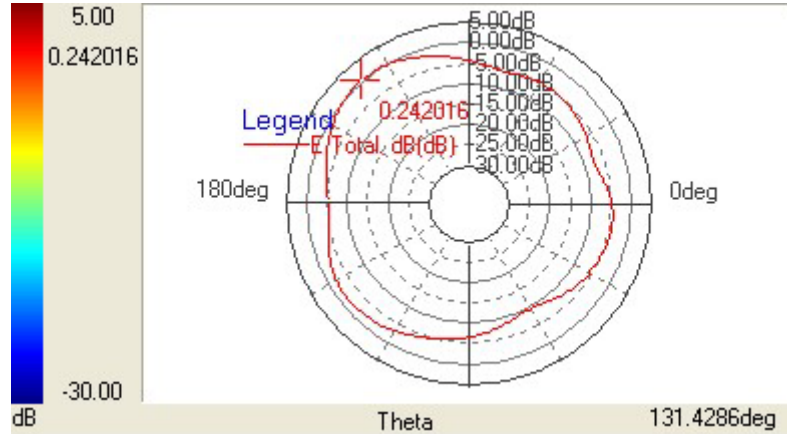
WiFi/BT Antenna In **TNJ31 / TNJ32** housing S11 Return Loss Measurement



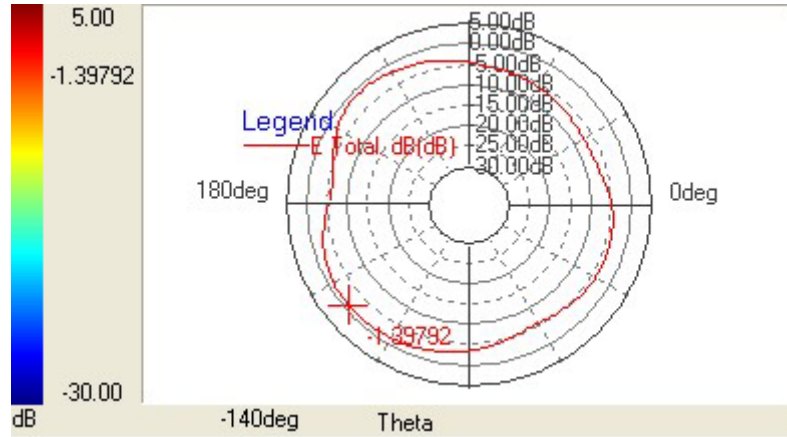
Return Loss : -12.86 dB @2450MHz



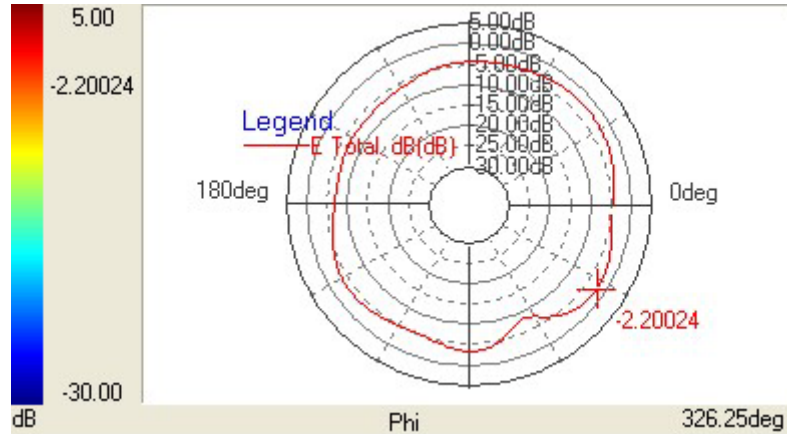
XZ-Plane 2450MHz



YZ-Plane 2450MHz

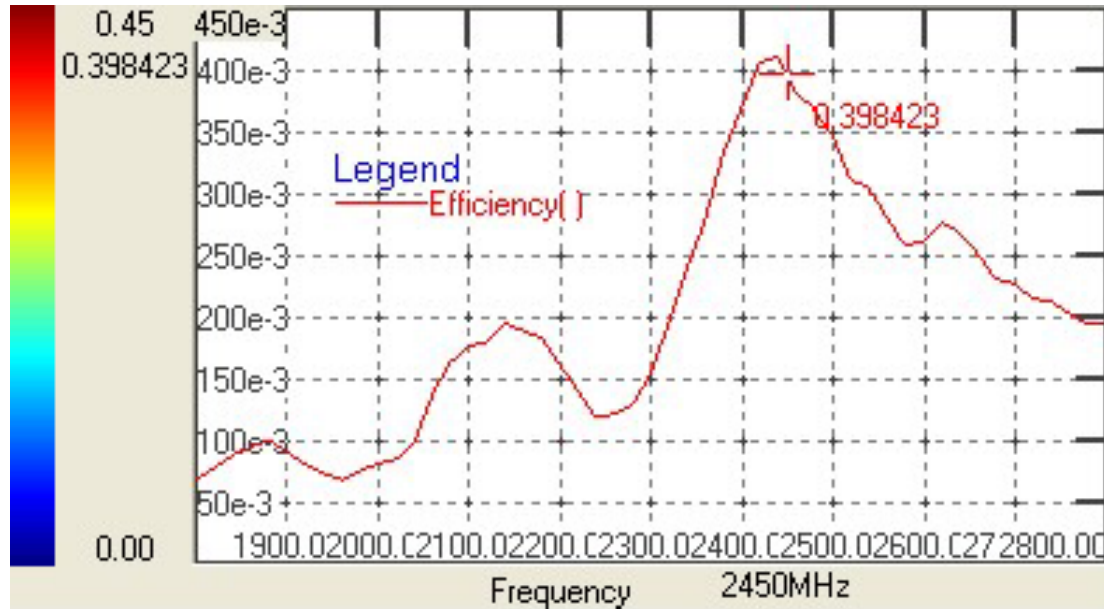


XY-Plane 2450MHz



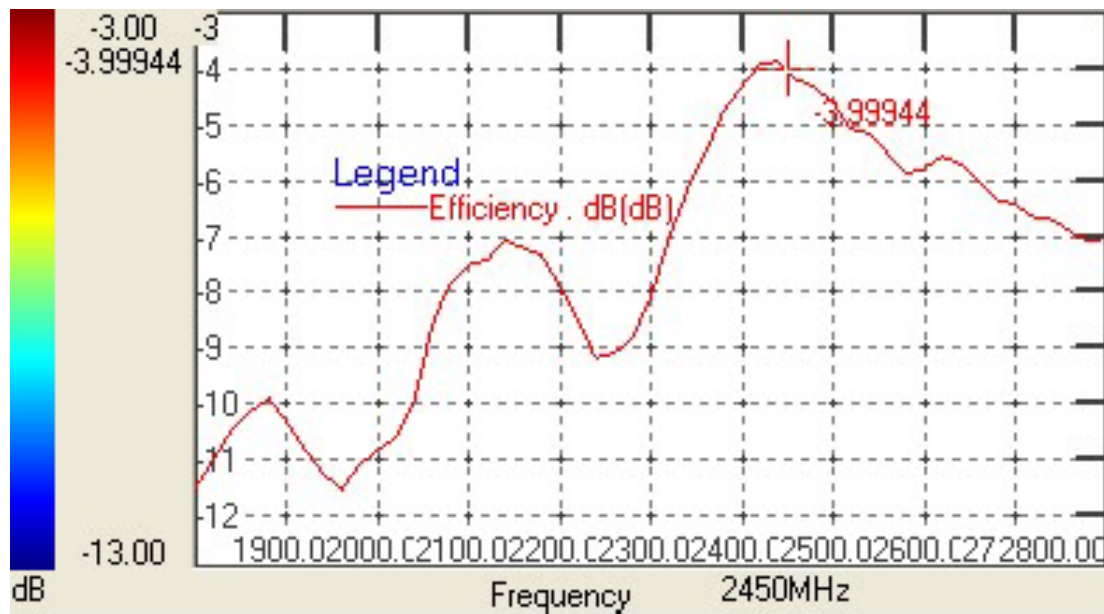
1850MHz	Peak Gain (dBi)
XZ-Plane	0.24
YZ-Plane	-1.39
XY-Plane	-2.20

Efficiency :



Efficiency : 39.84 % @2450MHz

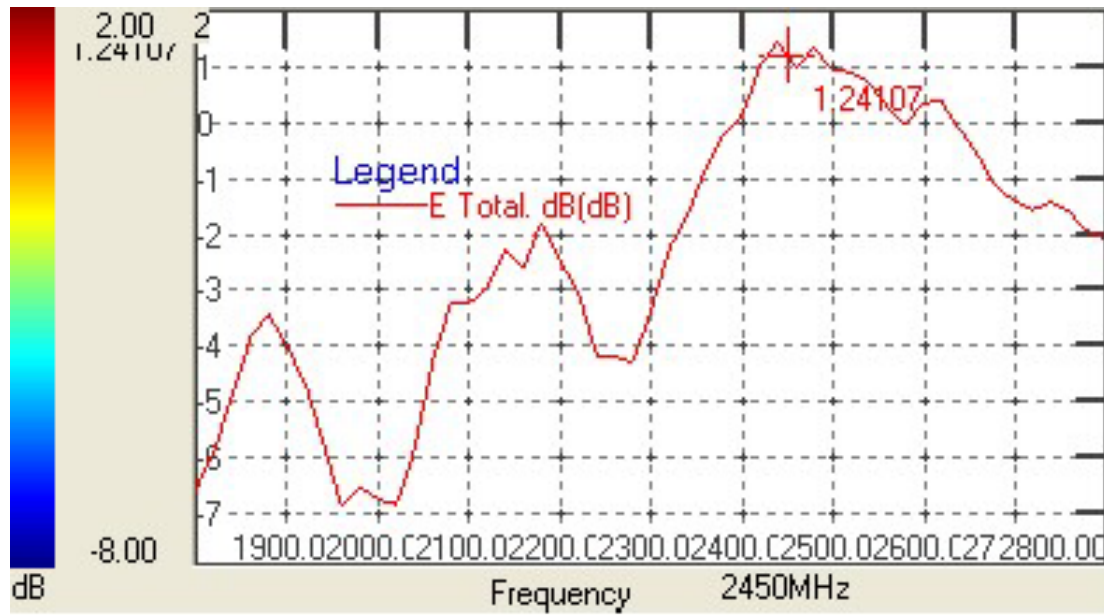
Average Gain :



Average Gain : -3.99 dBi @2450MHz

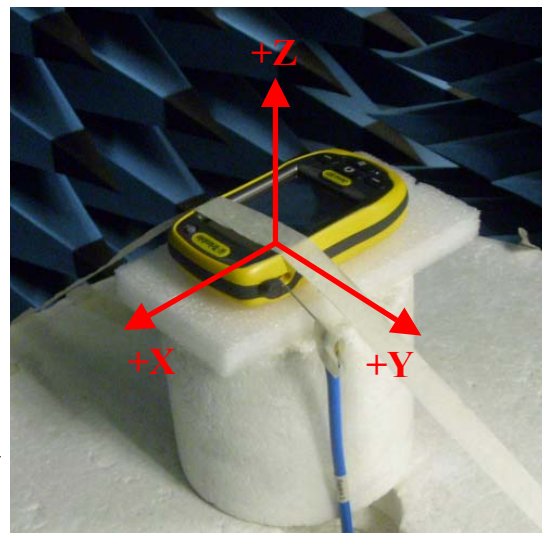
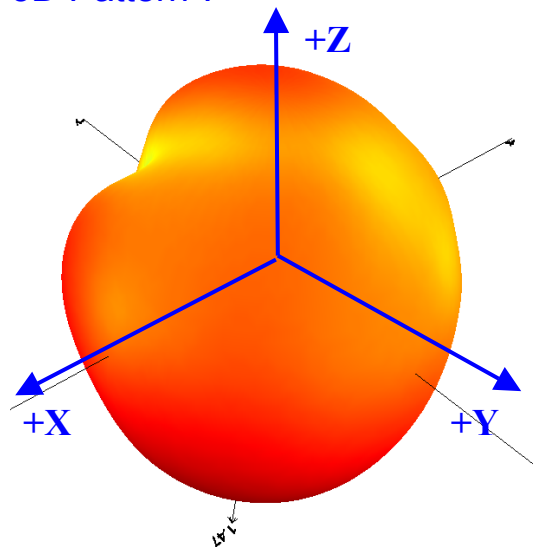


Peak Gain :

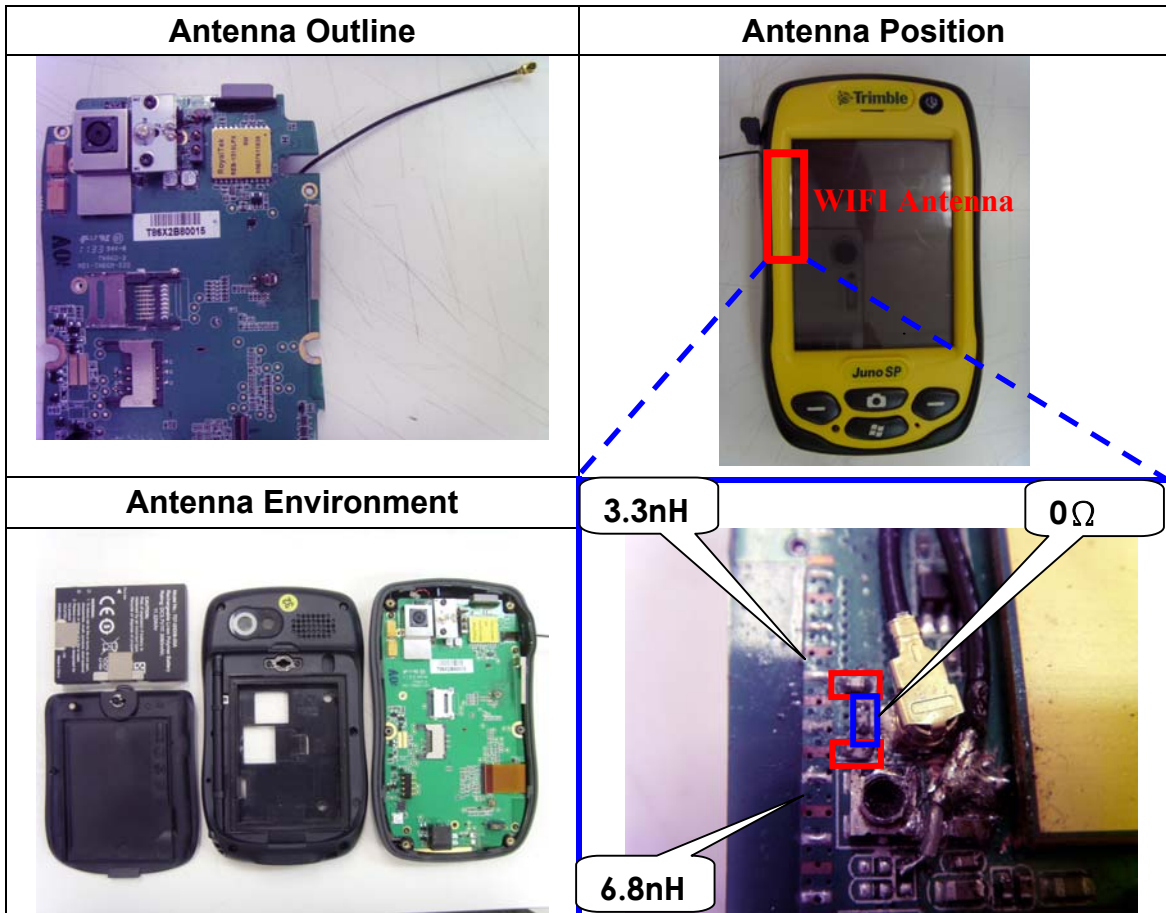


Peak Gain : 1.24 dBi @2450MHz

3D Pattern :



7. Photo :



8. Test result :

將太盟設計之 WIFI 天線，放置於客戶 TN860 整機中，經頻率及阻抗匹配後，其特性於中心頻率、Return Loss、Band Width、Antenna Gain、Efficiency 等如上述，供客戶參考評估。