Product Spec.

Customer Name	Tymphany		
Project Name	FS1 MK2		
Customer P/N			
TE P/N	2195501-2		
Description	WLAN		
DWG. Version		Doc. Version	A
Green Part			

ME engineer	RD engineer	RD Supervisor	RD Manager
Allen Hu	Raymond Wang		

Customer engineer Approval

Manufacturer : TE Connectivity
Address : 1050 Westlakes Drive, Berwyn, PA 19312, United States

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1. Outline Drawing

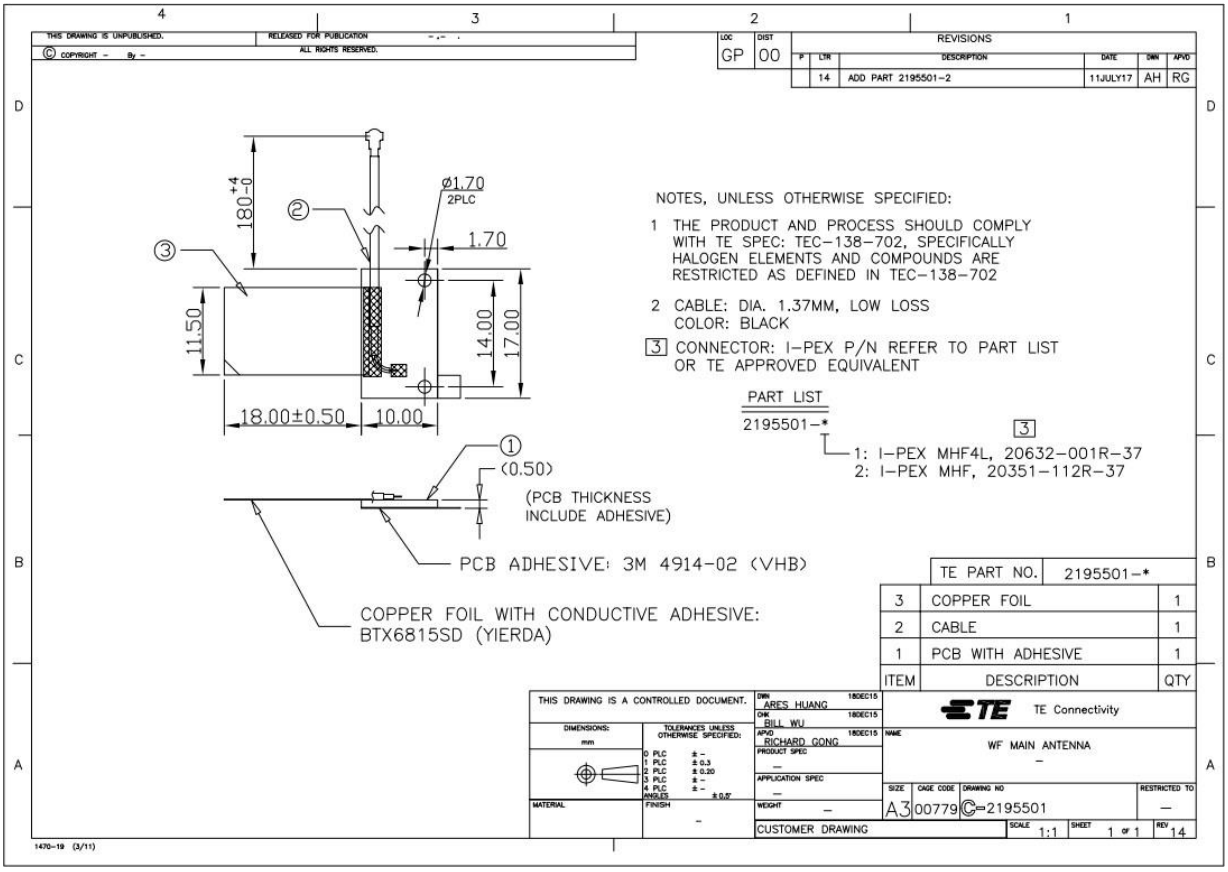
2. Antenna Photo

3. Antenna Related Data

4. Antenna Testing Conditions

5. Test Result

1. Outline Drawing(TE)



3. Antenna Related Data.

Antenna Type

WLAN : PCB

Frequency Range:

WLAN : 2400~2500MHz & 5150 ~ 5875MHz

Cable Color:

WLAN : Black

Cable Type :

WLAN : Φ1.13mm

VSWR:

2400~2500MHz ≦ 3

5150~5875MHz ≦ 4

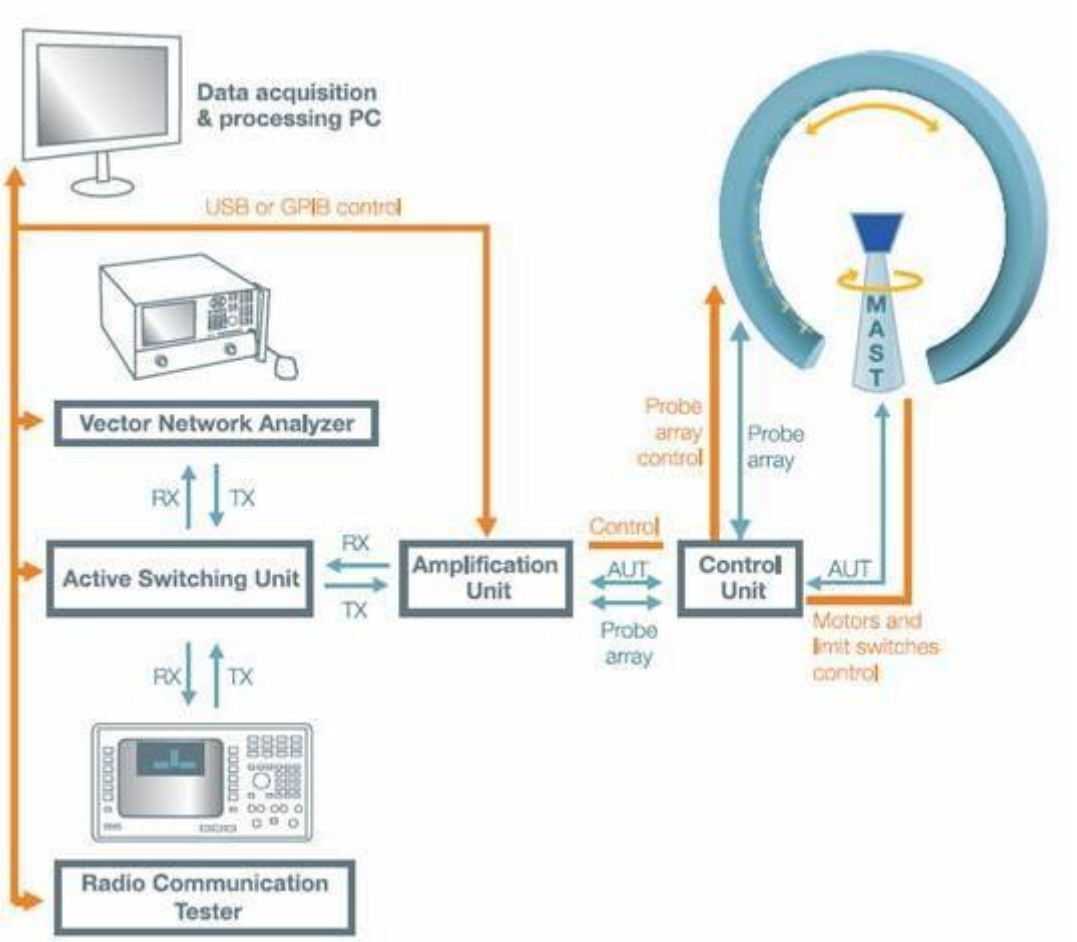
Average Gain :

≧ -5.0 dBi @ 2400~2500MHz

≧ -6.5 dBi @ 5150~5875MHz

4. Antenna Testing Conditions

Test Configuration(3D):



(Testing by 3D anechoic chamber)

Support Equipment			
No.	Equipment	Brand Name	Model Name
1	Chamber	Satimo	StarLab
2	Network Analyzer	Agilent	E5071C

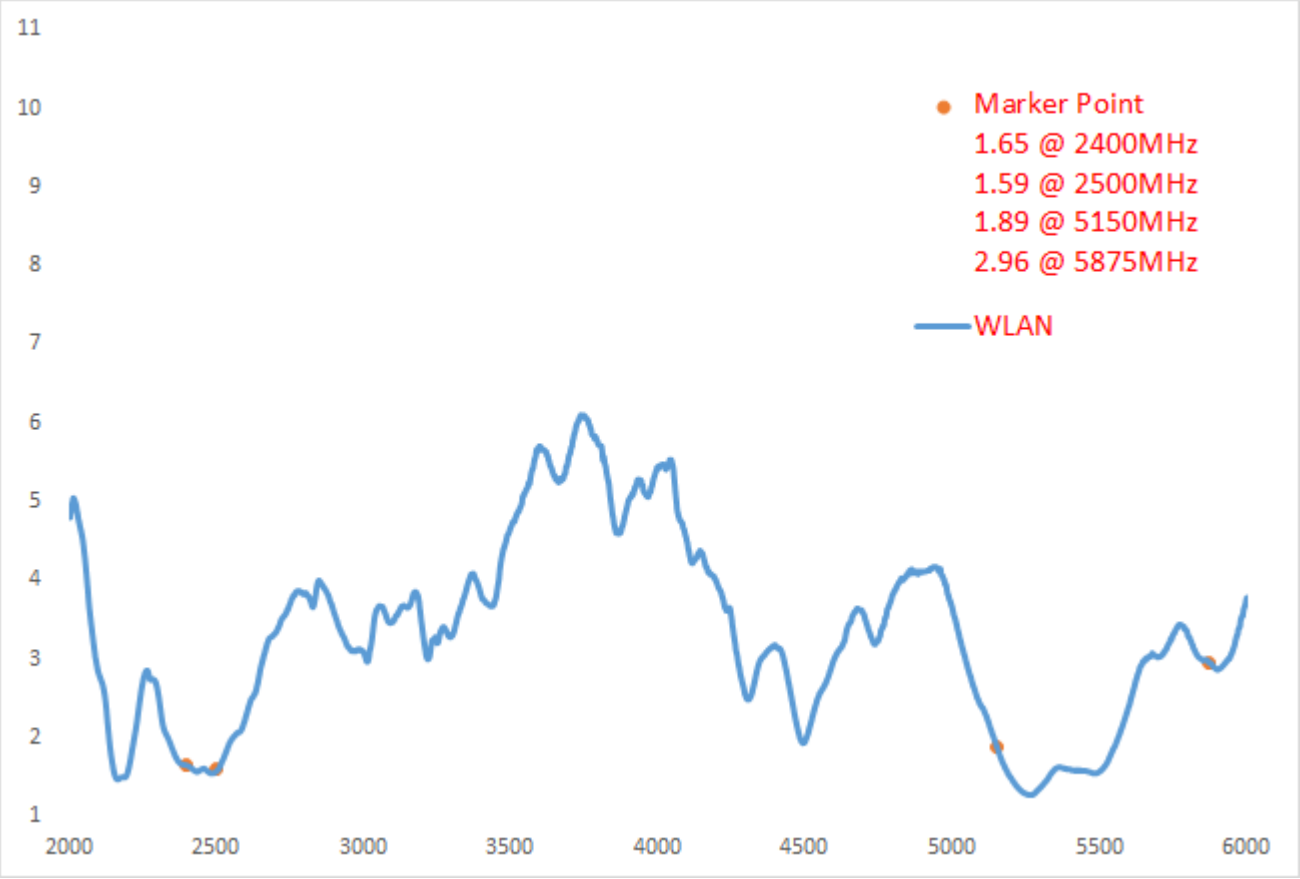
Test Lab			
ADD： 3F, No. 45, Dongsing Road, Taipei 11070, Taiwan R.O.C.			
TEL： 886-2-2171-5349			
Test Information			
Condition	Engineer	Environment	Date
Raidated	Raymond Wang	22~24℃ / 55~70%	16/Jul./2018

5. Test Result.

5.1 VSWR

WLAN

Frequency (MHz)	2400	2500	5150	5875
WLAN	1.65	1.59	1.89	2.96



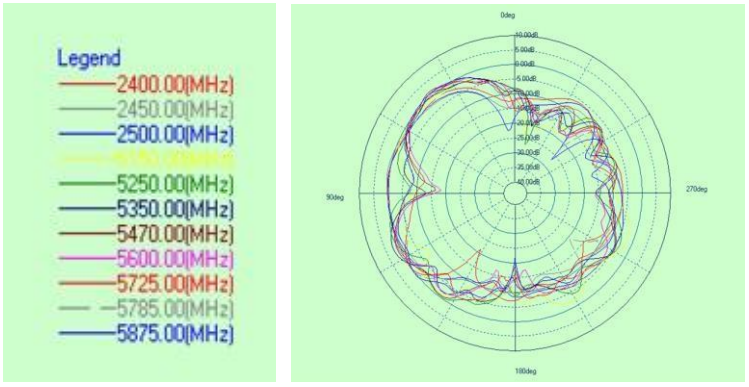
5.2 Gain value (Testing by 3D anechoic chamber)

WLAN

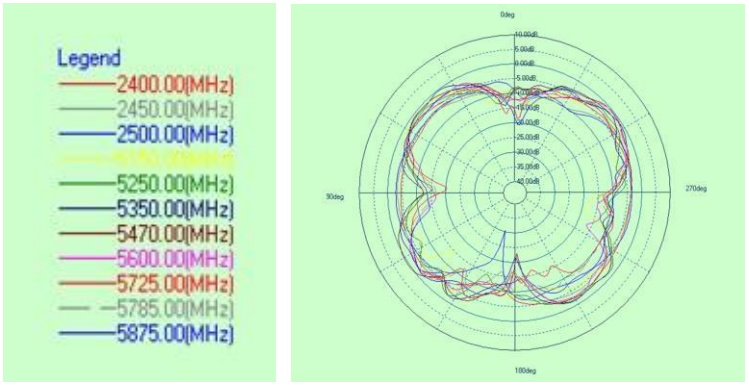
Antenna	WLAN				
Frequency	Gain	Efficiency	Peak Gain		
	3D	3D	Phi 0	Phi 90	Theta 90
(MHz)	(dBi)	(%)	(dBi)	(dBi)	(dBi)
2400	-3.70	42.7%	-0.11	-2.46	-0.08
2450	-3.79	41.8%	0.47	-2.97	0.22
2500	-3.50	44.7%	0.14	-2.85	0.30
4900	-6.84	20.7%	-1.41	-3.88	-6.42
5000	-6.18	24.1%	-0.09	-2.88	-6.69
5100	-5.26	29.8%	-0.74	-1.12	-8.39
5150	-4.62	34.5%	-0.74	-0.83	-6.81
5250	-4.01	39.7%	0.54	-1.79	-4.25
5350	-3.65	43.1%	1.88	-0.81	-4.38
5470	-3.72	42.5%	1.21	0.21	-6.00
5725	-5.37	29.1%	-0.04	-1.95	-4.94
5785	-5.45	28.5%	0.14	-1.86	-5.18
5875	-5.13	30.7%	0.89	-1.56	-5.96

6.3 Gain Pattern (Testing by 3D anechoic chamber)

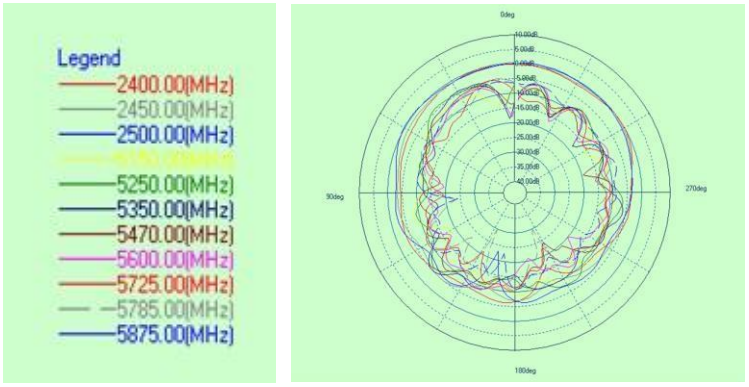
WLAN



Phi 0



Phi 90



Theta90