



Product Spec.

Customer Name	Tymphany		
Project Name	FS1 MK2		
Customer P/N			
TE P/N	2195505-2		
Description	WLAN		
DWG. Version		Doc. Version	A
Green Part			

ME engineer	RD engineer	RD Supervisor	RD Manager
			

Customer engineer Approval

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



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LOC GP 00

REVISONS
DATE DIM APO
11JULY17 AH RG

1 THE PRODUCT AND PROCESS SHOULD COMPLY WITH TE SPEC: TEC-138-702, SPECIFICALLY HALOGEN ELEMENTS AND COMPOUNDS ARE RESTRICTED AS DEFINED IN TEC-138-702

2 CABLE: DIA. 1.37MM, LOW LOSS COLOR: WHITE

3 CONNECTOR: I-PEX P/N REFER TO PART LIST OR TE APPROVED EQUIVALENT

PART LIST
2195505-*
1: I-PEX MHF4L, 20632-001R-37
2: I-PEX MHF, 20351-112R-37

TE PART NO. 2195505-*
3 COPPER FOIL
2 CABLE
1 WF2 PCB WITH ADHESIVE
ITEM DESCRIPTION QTY

180Dec15
180Dec15
180Dec15
NAME
WF AUX ANTENNA
SIZE CAGE CODE DRAWING NO
A3 00779 C=2195505
RESTRICTED TO
CUSTOMER DRAWING SCALE 1:1 SHEET 1 of 1 REV 14

1470-19 (2/11)



3. Antenna Related Data.

Antenna Type

WLAN : PCB

Frequency Range:

WLAN : 2400~2500MHz & 5150 ~ 5875MHz

Cable Color:

WLAN : White

Cable Type :

WLAN : Φ 1.13mm

VSWR:

2400~2500MHz ≤ 3

5150~5875MHz ≤ 4

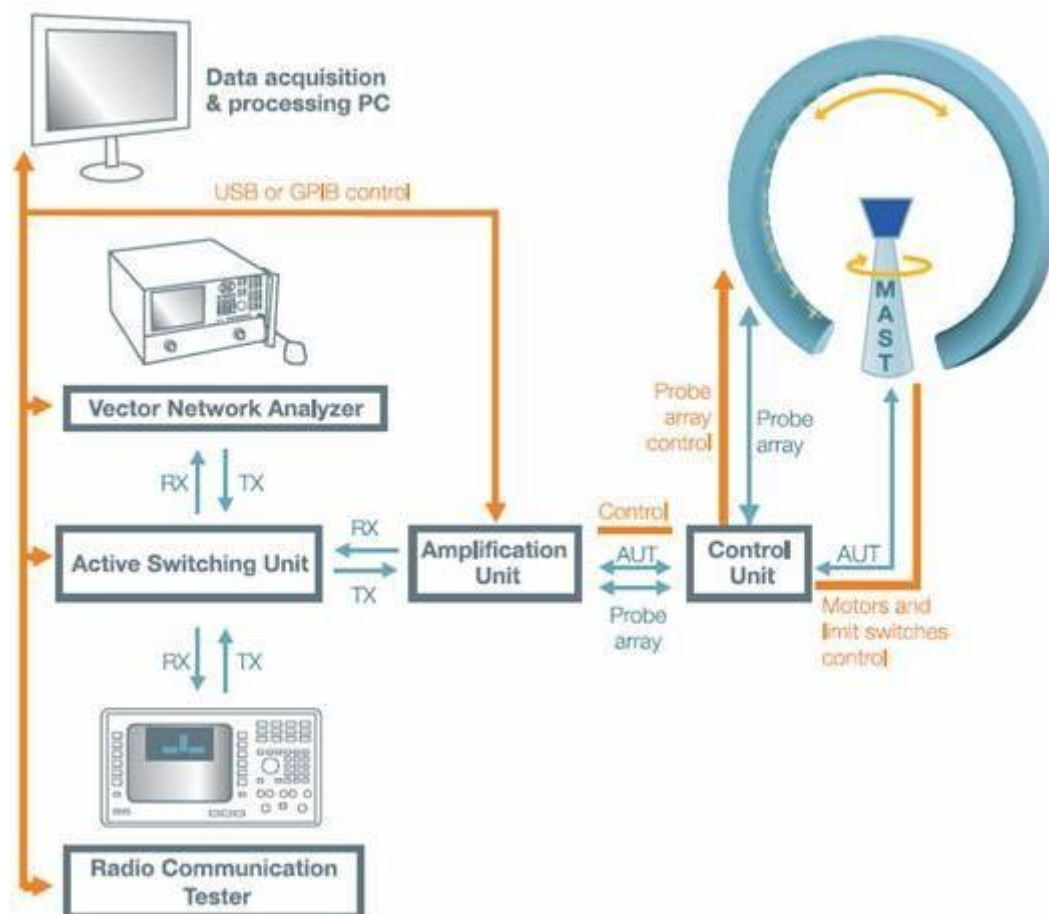
Average Gain :

≥ -6.0 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°C / 55~70%	16/Jul./2018

5. Test Result.

5.1 VSWR

WLAN

Frequency (MHz)	2400	2500	5150	5875
WLAN	1.59	1.69	1.84	2.84



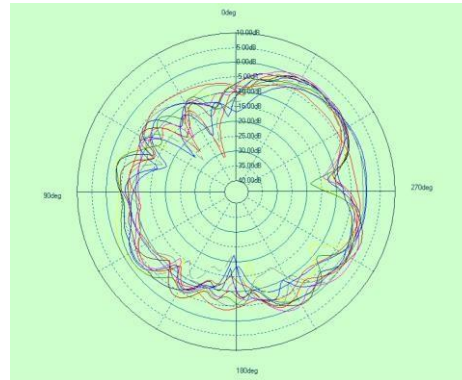
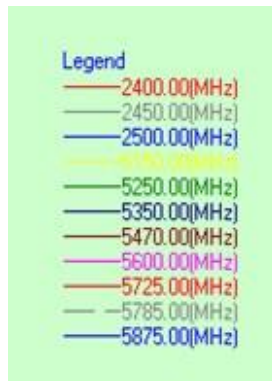
5.2 Gain value (Testing by 3D anechoic chamber)

WLAN

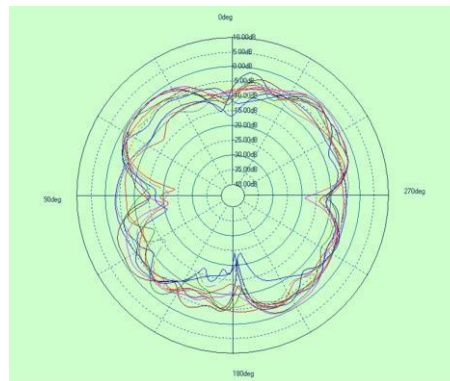
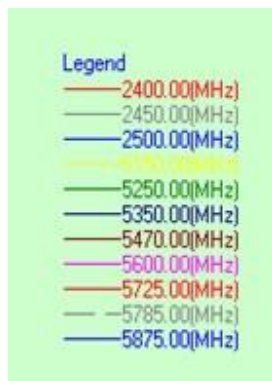
Antenna	WLAN				
Frequency	Gain	Efficiency	Peak Gain		
	3D	3D	Phi 0	Phi 90	Theta 90
(MHz)	(dBi)	(%)	(dBi)	(dBi)	(dBi)
2400	-4.83	32.9%	-1.52	-3.60	-2.64
2450	-4.16	38.4%	-0.14	-3.36	-0.48
2500	-4.37	36.6%	0.77	-3.43	0.36
4900	-6.56	22.1%	-2.53	-1.84	-5.30
5000	-5.15	30.5%	0.06	-1.65	-2.40
5100	-5.46	28.4%	0.17	-2.83	-2.71
5150	-5.49	28.2%	-0.16	-3.65	-4.30
5250	-5.16	30.5%	-1.30	-0.67	-4.73
5350	-3.99	39.9%	0.04	-1.25	-4.74
5470	-3.61	43.5%	0.96	-0.69	-2.95
5725	-5.00	31.6%	0.00	-1.43	-2.90
5785	-5.21	30.1%	-0.58	-2.29	-5.20
5875	-5.36	29.1%	-0.35	-1.43	-5.08

6.3 Gain Pattern (Testing by 3D anechoic chamber)

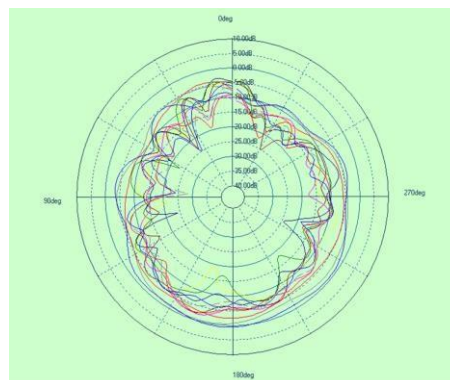
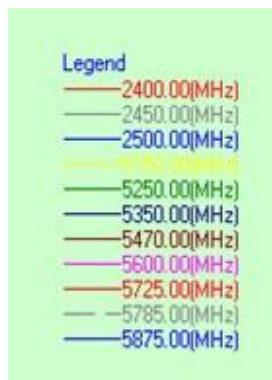
WLAN



Phi 0



Phi 90



Theta 90