

APPROVAL SHEET

FPC ANTENNA

2.4/5.x GHz Working Frequency

Halogens Free Product

P/N: RFFPA281345IMLB302

Customer :

Customer 's Part No. :

Approval No. :

Issue Date :

*Contents in this sheet are subject to change without prior notice.

Version	Date	Description	Author
V01	2021 Apr.	New Release	SHLEE

ELECTRICAL CHARACTERISTICS

Item	Specification
Working Frequency Range	2.4 ~ 2.5 / 5.15 ~ 5.85 GHz(Note-1)
Return Loss	-10 dB(Max)
Gain(peak)	3.06 dBi@2.4~2.5 GHz 3.33 dBi@5.15~5.85 GHz
VSWR	< 2.0
Impedance	50 Ohm Nominal
Radiation	Omni-directional
Polarization	Linear Vertical
Operation Temperature	-20℃ ~ +65℃

*Note 1. Central Frequency should be defined after customers' application approval.

MATERIAL TABLE

Items	Description
Antenna	FPC 0.5oz
Double Tape	3M467
Cable	Ø1.13 Cable (Black)
Connector	IPEX Compatible(Gold)

ORDERING RULE

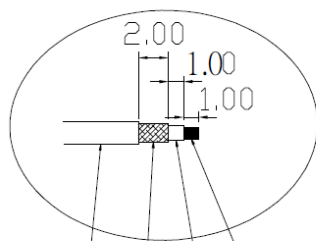
RF	FPA	2813	45	I	M	L	B	3	02
Type Code	Product Code	PCB Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
Walsin RF Device	FPC Antenna	Per 2 digits of length, width e.g.: 2813 Length 28mm, Width 13mm	2 digits for cable length e.g.: 45 Length 45cm	A: N C: MCX D: IPEX III E: IPEX IV F: IPEX A13 H: Hirose I: IPEX M: MMCX S: SMA T: TNC U: MURATA N: None	A: Reverse Female B: Reverse Male F: Female M: Male N: None	0: 0GHz 3: 3GHz 5: 5GHz 6: 6GHz A: 2.4GHz ISM band B: GSM 900/1800 dual band G: GPS band L: 2.4/5.2/5.8 GHz tri-band N: NFC T: LTE band W: WCDMA band	B: MP T: During Test X: Pile Run	0: None 1: Ø 0.81 2: Ø 1.32 3: Ø 1.13 4: Low Loss Ø 1.13 5: Ø 0.5 6: RG316 7: Ø 1.37 8: RG178 9: Low Loss Ø 1.37	01~99 series number

Dimensions

ELECTRICAL

Frequency:
2.4~2.5 / 5.15~5.85 GHz

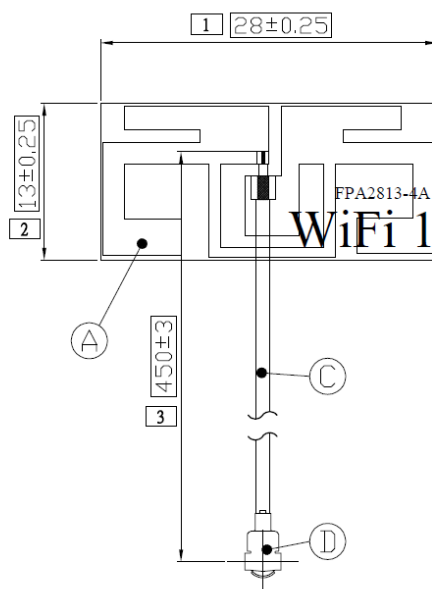
No.	DESCRIPTION	MAT'L	Color	Q'TY
A	Body	FPC (0.5oz) (Single Layer)	Black	1
B	Double Tape	3M 467	—	1
C	(Coaxial Cable $\phi 1.13$)	—	Black	1
D	IPEX Compatible(2130800037)	—	Gold	1



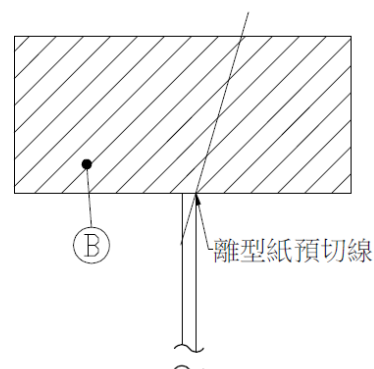
D C B A

A - center conductor
B - Dielectric
C - Outer conductor
D - Jacket

(Front View)



(Back View)



IPEX方向:
100mm : $\pm 90^\circ$
200mm : $\pm 135^\circ$
200mm以上不管控

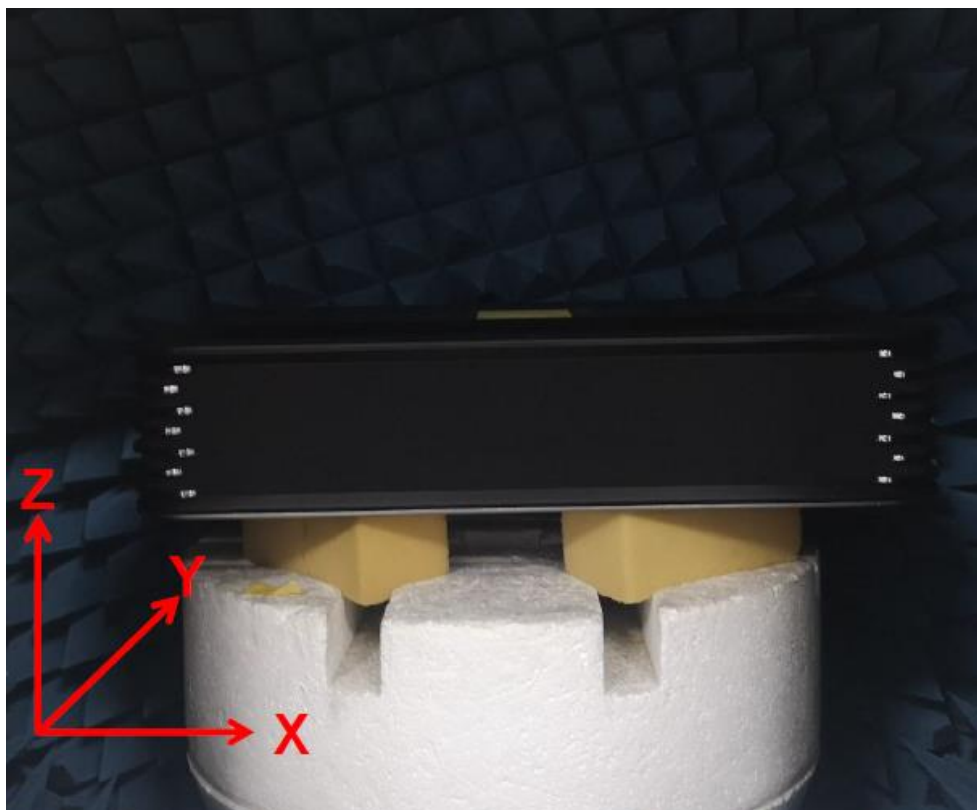
※標記□記號者, 為重點檢驗尺寸

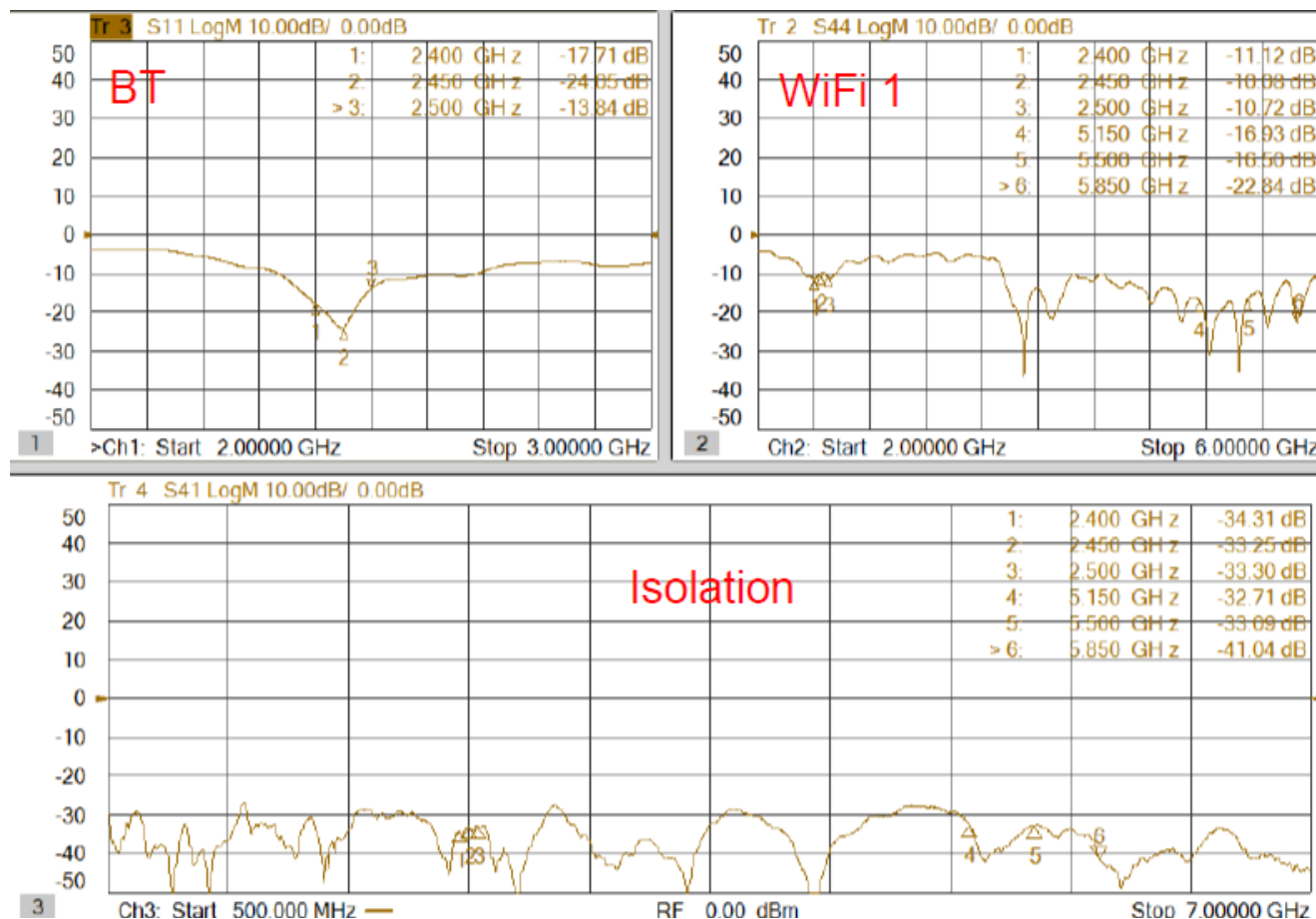
		設計 DR.	SHLEE	2021.03.29	品名	版本 REV.
		核准 APP.	MARCO		ARTICLE	A
		容許公差 TOLERANCE			RFFPA281345IMLB302	
		6以下.....±0.2			單位 UNIT	比例 SCALE
		6以上~30.....±0.5			mm	****
		30以上~120.....±0.8			張數 SHEET	1
		120以上~315.....±1.2				
		315以上~1000.....±2.0				
		1000以上~2000.....±3.0				

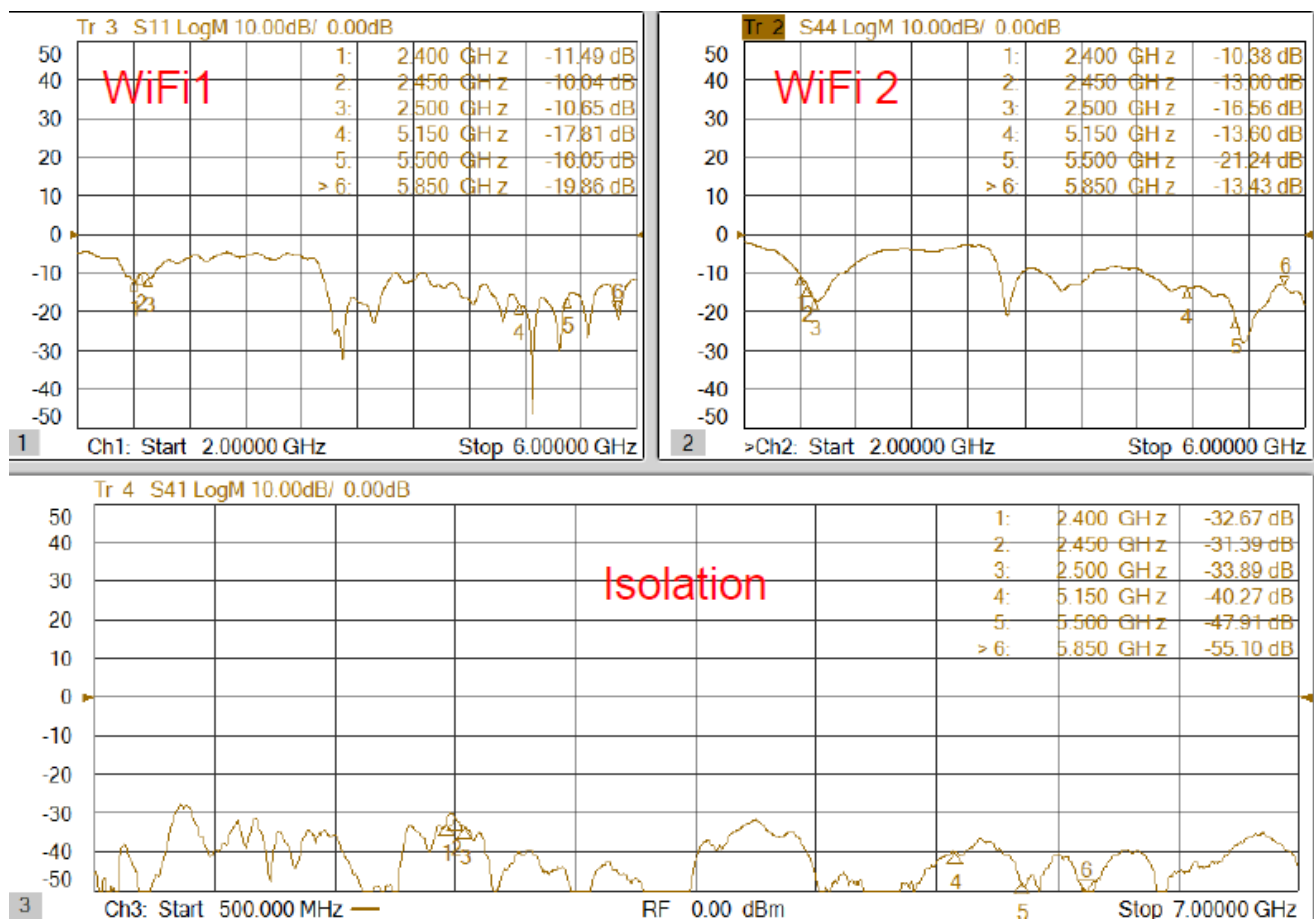
PSA 華新科技股份有限公司
WALSIN TECHNOLOGY CORPORATION

Test Report

■ Experimental Setup



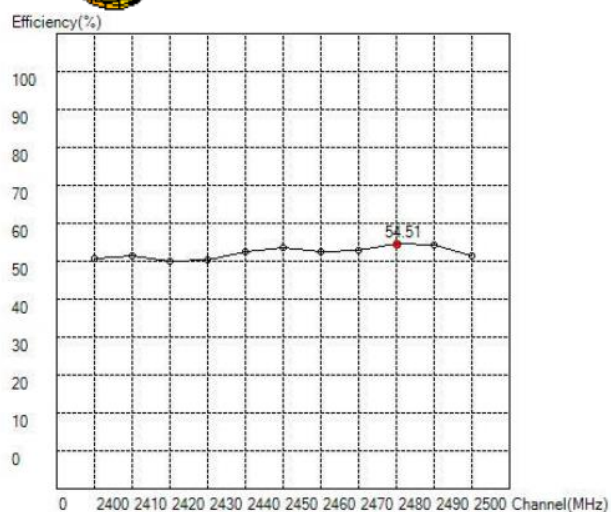
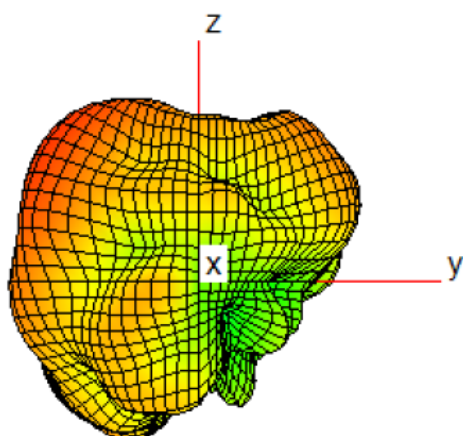
ELECTRICAL CHARACTERISTICS**Return Loss & Isolation****WiFi 1**



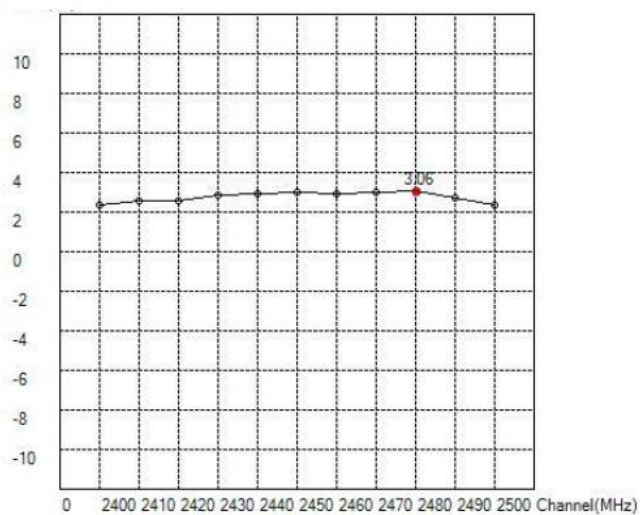
Antenna Efficiency & Peak Gain

2400~2500 MHz

2450 MHz



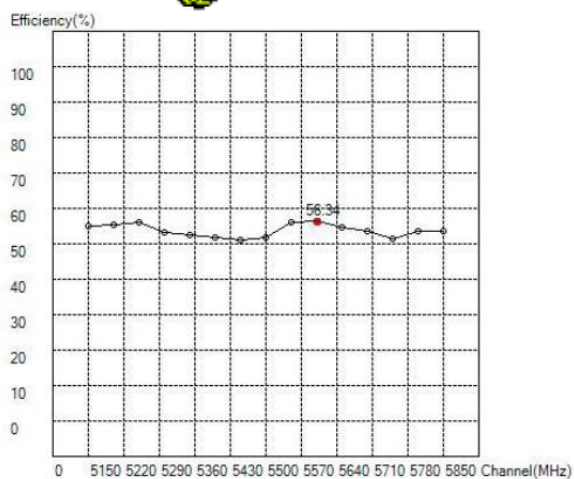
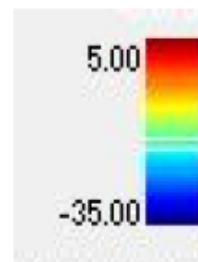
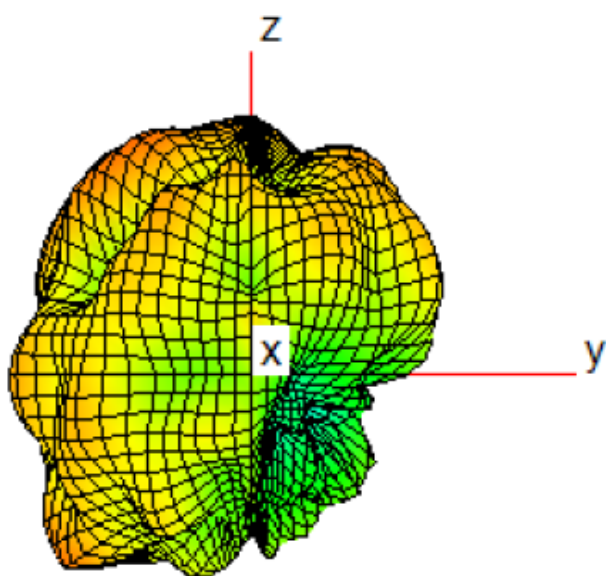
Maximum Efficiency at 2480MHz : 54.51 %
Gain (dBi)



Maximum Peak Gain at 2480MHz : 3.06 dBi

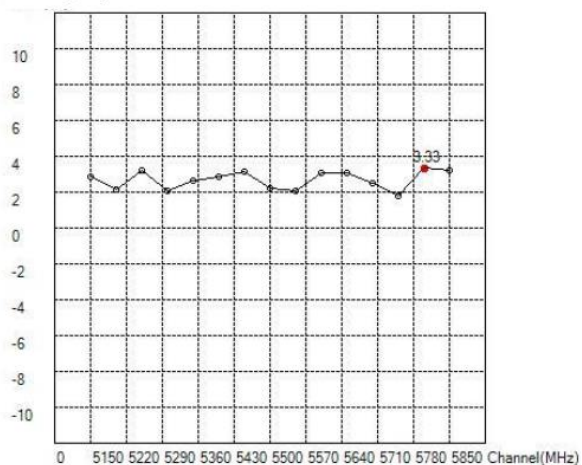
5150~5850 MHz

5500 MHz



Maximum Efficiency at 5600MHz : 56.34 %

Gain (dBi)



Maximum Peak Gain at 5800MHz : 3.33dBi