

APPROVAL SHEET

Metal Antenna

2.4/5.x GHz Working Frequency

P/N: RFMTA170900NNLB003

Customer : 四川愛聯

Customer 's Part No. :

Approval No. :

Issue Date :

Version	Date	Description	Author
V01	2025 Sep.	New Release	HWCHAN

ELECTRICAL CHARACTERISTICS

Item	Specification
Working Frequency Range	2.4 ~ 2.5 / 5.15 ~ 5.85 GHz (Note-1)
Return Loss	-10dB(Max)
Peak Gain	3.79 dBi(@2.4 ~ 2.5 GHz) 3.68 dBi(@5.15 ~ 5.85 GHz)
VSWR	< 2.0
Polarization	Linear Vertical
Admitted Power	1W
Operation Temperature	-20°C ~ +65°C

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

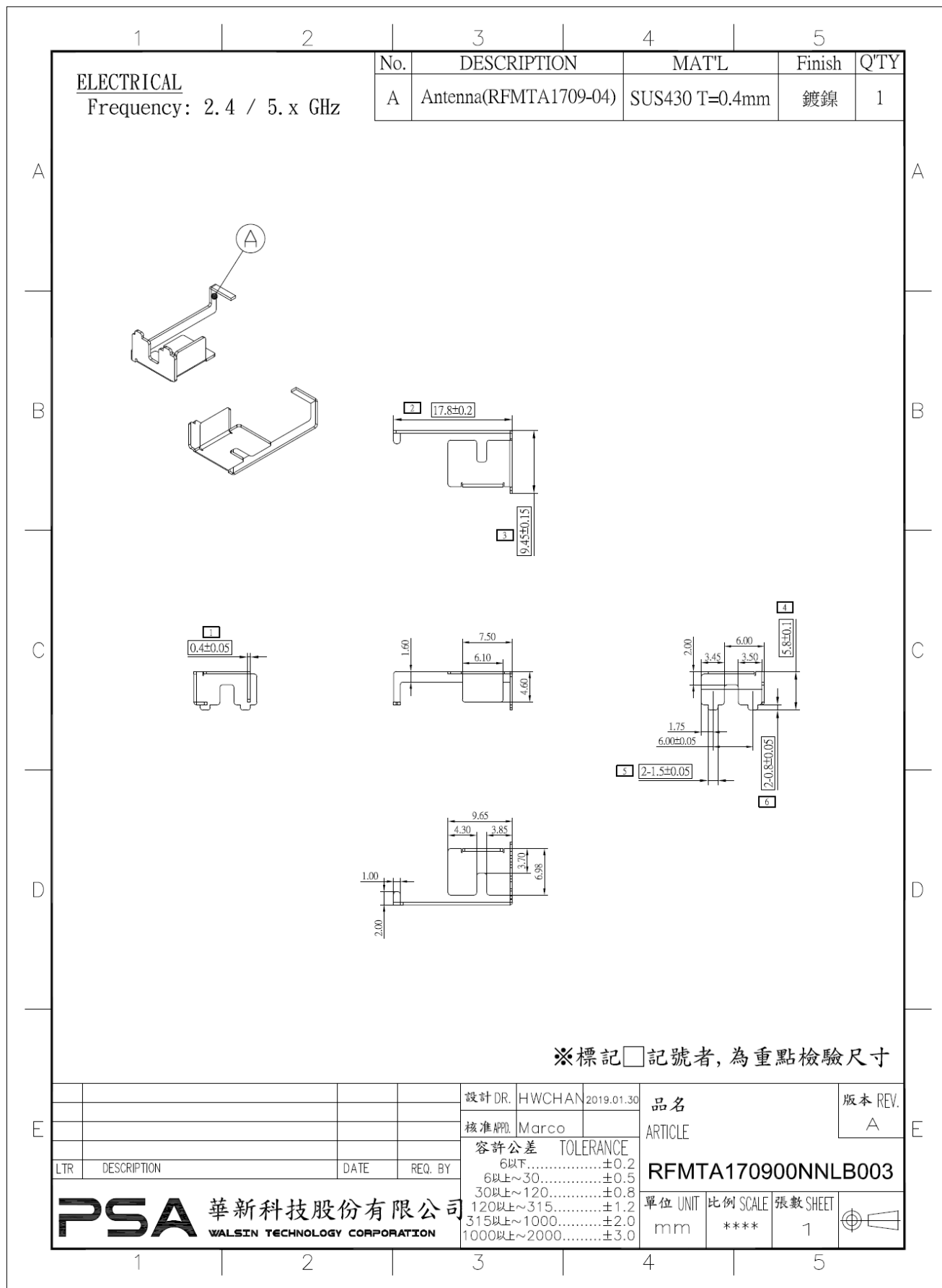
MATERIAL TABLE

Items	Description
Metal	SUS 430 T=0.4mm(鍍鎳)

ORDERING RULE

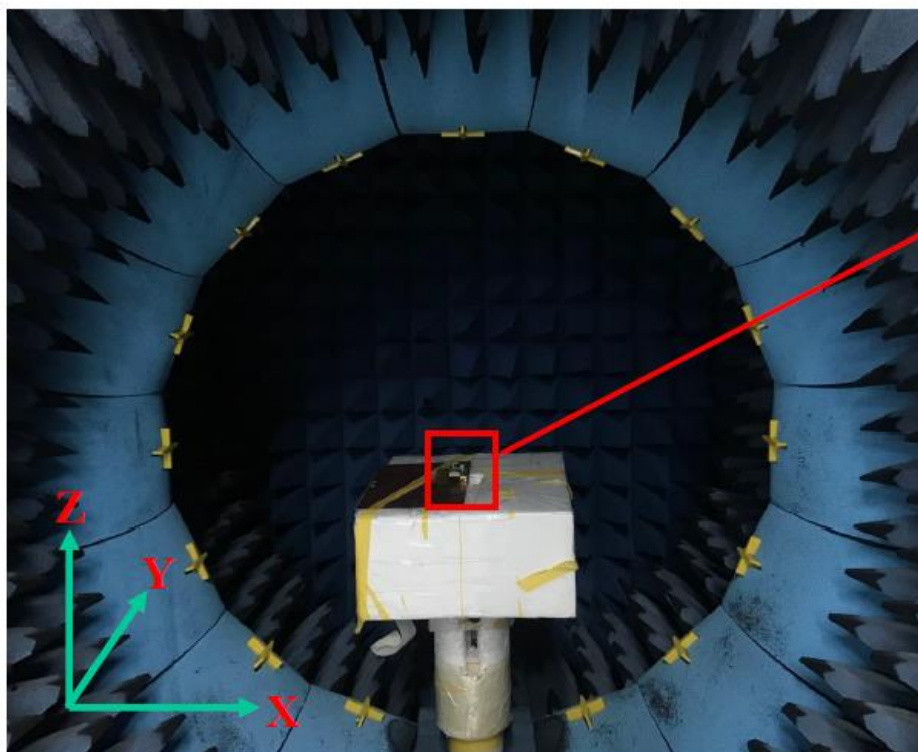
RF	MTA	1709	00	N	N	L	B	0	03
Type Code	Product Code	Metal Dimension (Unit: mm)	Cable Length (unit: cm)	Connector Brand	Type of Connector	Application	Project status	Wire Diameter	Project
Walsin RF Device	Metal Antenna	Per 2 digits of length, width e.g.:1709 Length 17.80mm, Width9.45mm	2 digits for cable length e.g.: 00 None Cable	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 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:Ø0.81 2:Ø1.32 3:Ø1.13 4:Low Loss Ø1.13 5:Ø0.5 6:RG316 7: Ø1.37 8:RG178 9:Low Loss Ø1.37	01~99 series number

DIMENSIONS

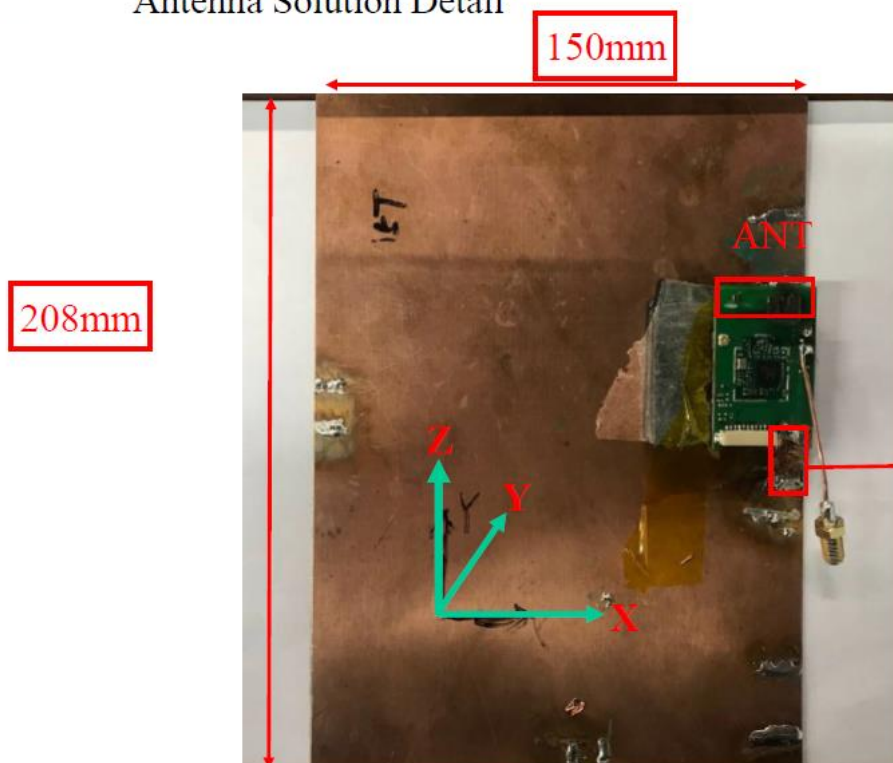


Test Report

Experimental Setup



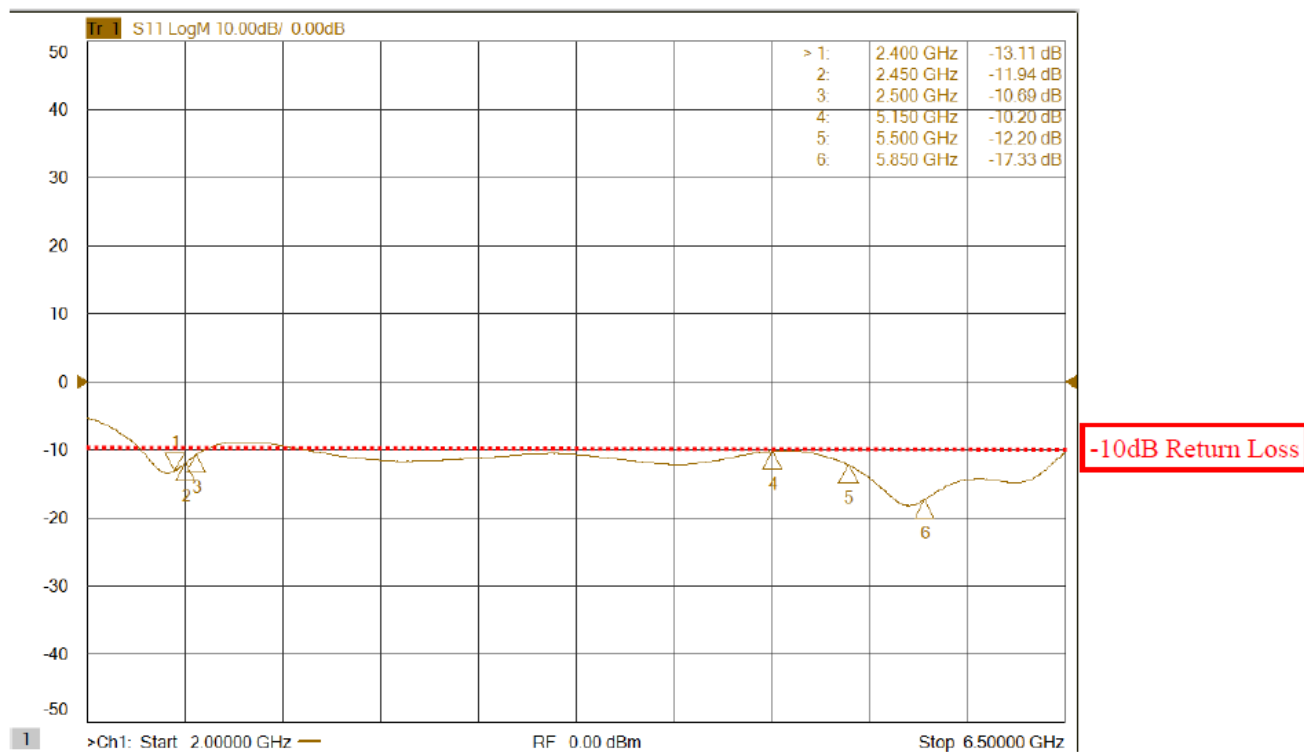
Antenna Solution Detail



模块与金属板通过金属铜箔连接, 模块距离金属板高度为10mm.

ELECTRICAL CHARACTERISTICS

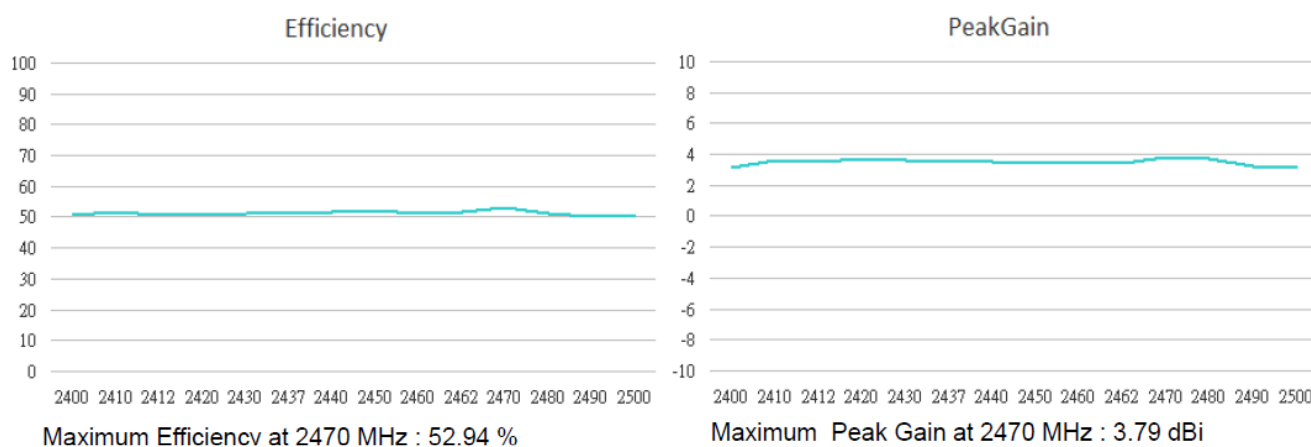
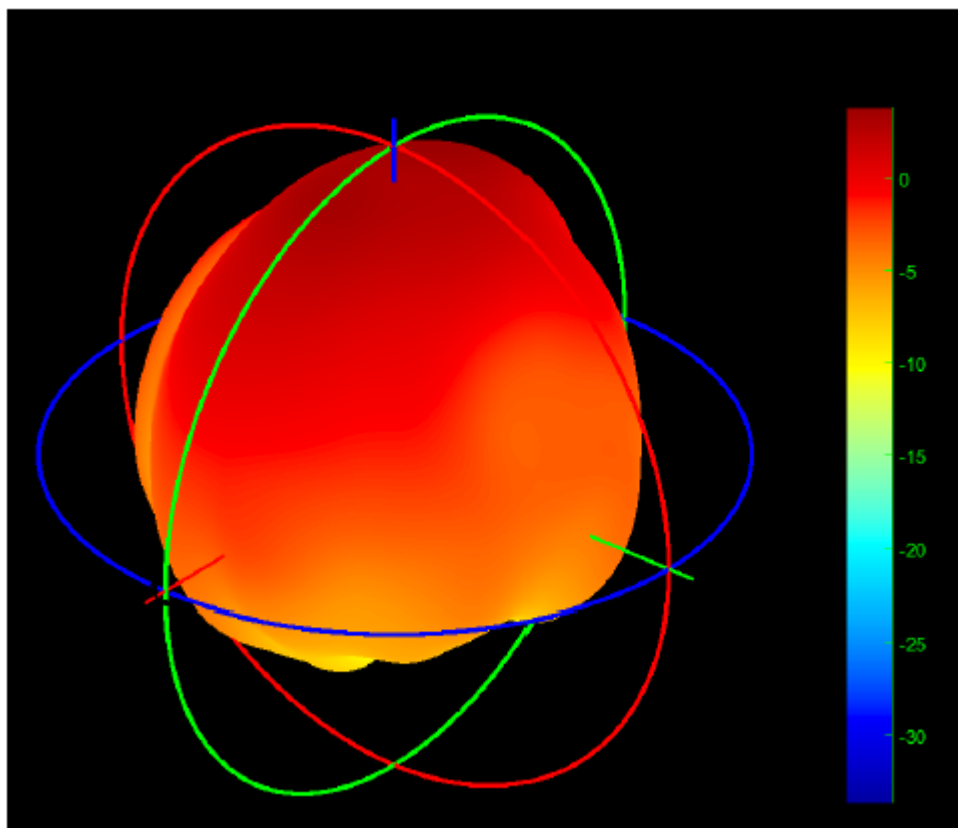
Return Loss



■ Antenna Efficiency and Peak Gain

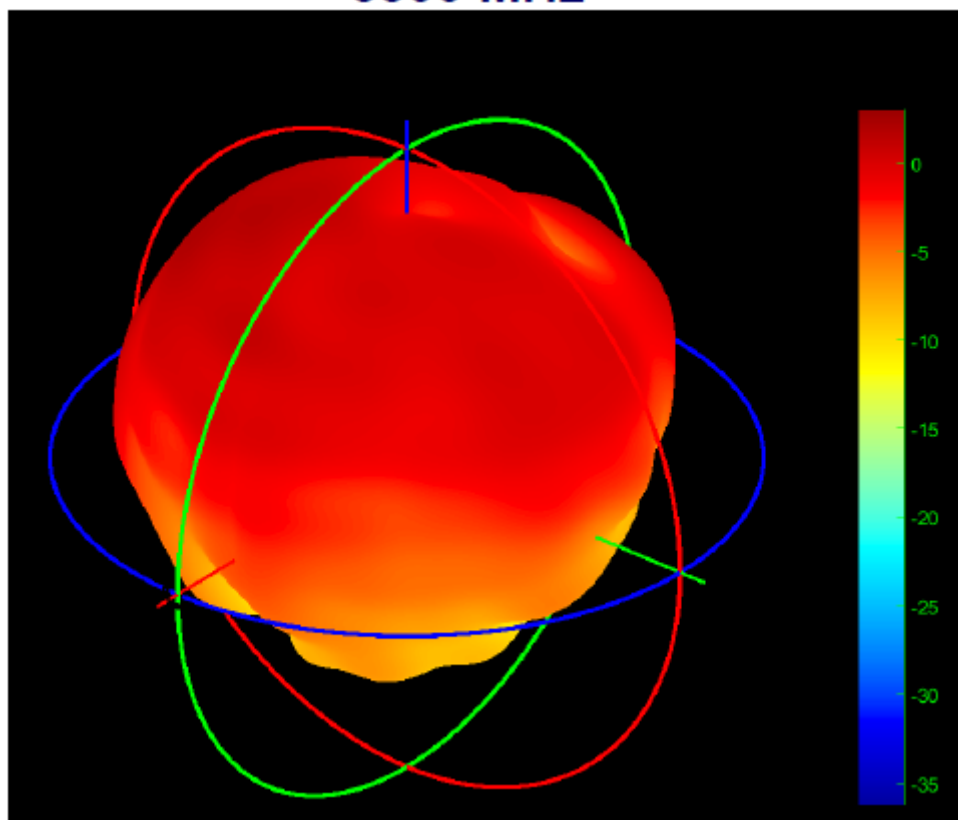
ANTENNA_2G

2450 MHz

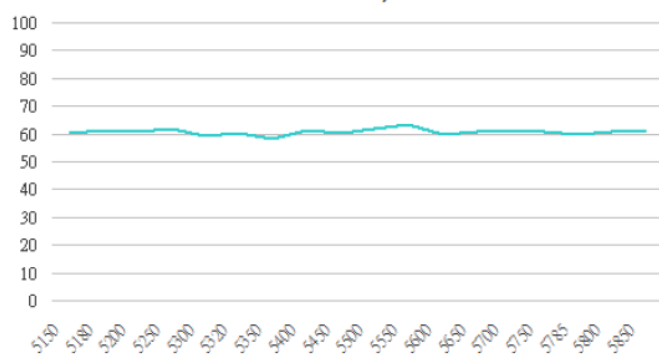


ANTENNA_5G

5500 MHz

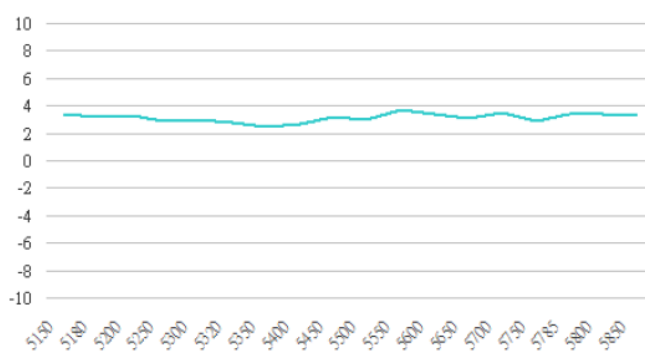


Efficiency



Maximum Efficiency at 5550 MHz : 63.53 %

PeakGain



Maximum Peak Gain at 5550 MHz : 3.68 dBi

ANTENNA_2G			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	50.91	-2.93	3.16
2410	51.68	-2.87	3.54
2412	50.84	-2.94	3.58
2420	50.86	-2.94	3.71
2430	50.95	-2.93	3.67
2437	51.22	-2.91	3.56
2440	51.87	-2.85	3.51
2450	52.41	-2.81	3.47
2460	51.56	-2.88	3.45
2462	52.34	-2.81	3.46
2470	52.94	-2.76	3.79
2480	52.13	-2.83	3.76
2490	50.25	-2.99	3.34
2500	50.35	-2.98	3.17

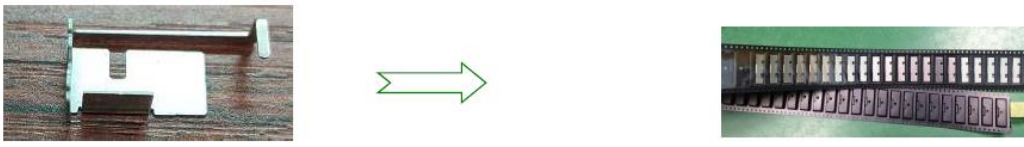
ANTENNA_5G			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	60.46	-2.19	3.41
5180	61.21	-2.13	3.24
5200	61.36	-2.12	3.16
5250	62.05	-2.07	3.05
5300	60.02	-2.22	3.02
5320	50.98	-2.93	2.91
5350	58.76	-2.31	2.64
5400	61.17	-2.13	2.81
5450	60.59	-2.18	3.47
5500	62.46	-2.04	3.37
5550	63.53	-1.97	3.68
5600	60.33	-2.19	3.59
5650	60.91	-2.15	3.51
5700	61.56	-2.11	3.61
5750	60.98	-2.15	3.35
5785	60.11	-2.21	3.49
5800	60.49	-2.18	3.62
5850	60.96	-2.15	3.54

Package

RFMTA170900NNLB003生規	頁 次： 3 之 3
	規章編號： 版次： A0版
	制修訂日期： 2020/02/13

產品包裝圖示：

圖一



單PCS產品

將單PCS產品放入載帶內,每格1PCS,PIN腳超前下

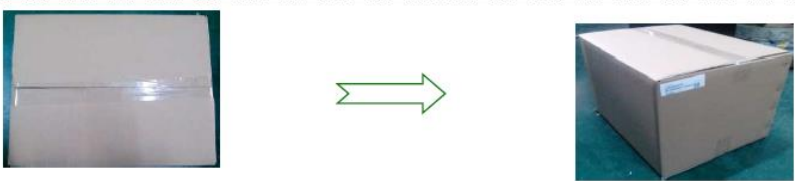
圖二



900PCS/盤

裝箱, 每箱裝6盤

圖三



封箱

貼成品標籤

產品包裝規範：

1. 將單PCS產品放入載帶內（如圖示一），載帶每格放1PCS，PIN腳超前下，不可有少裝不良。
2. 每盤包裝900PCS，載帶頭部空12PCS不裝，用自粘膜在封帶机上封上，尾部也空12PCS不裝，每1盤裝完用美紋膠將帶頭貼在盤中間（如圖示二）
3. 將裝盤好的產品放入箱中，每箱裝6盤（5400PCS）（如圖示三）
4. 在外箱側面貼成品標籤。紙箱不可有LOGO。

核准：	何耀輝	審核：	童明輝	制定：	程碧琴
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