

APPROVAL SHEET

(RoHS)

CUSTOMER : _____
CUSTOMER'S PART NO. : _____
DESCRIPTION : METAL STAMPING ANTENNA ASSEMBLY
PART NO. : MSA-3310-25GC4-A25
DATE : _____
AUTHORIZED BY : *Alain Chen*

	FULLY APPROVED	PARTIALLY APPROVED	REJECTED
SIGN			
SUGGESTION			

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Revisions

[illegible]

Contents

Item	Description	Page
1.	Mechanical Specification	 4
2.	Antenna Specification	 5
3.	Test Report	 6~12
4.	Pull Test Report	 13
3.	Package	 14

Mechanical Specification

RoHS COMPLIANT

Vinyl Chloride Free

MECHANICAL

Body : SUS430(鍍鎳) T=0.3mm

Double Tape: Sponge+3M 9448 33*10*total t1.0±0.3mm

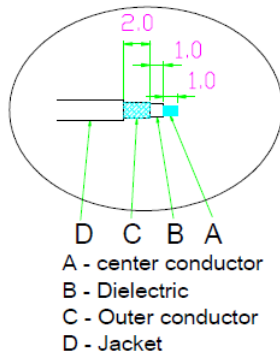
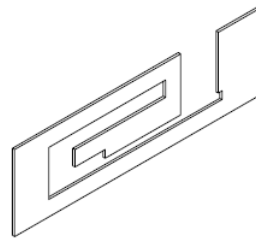
ELECTRICAL

Cable : Coaxial Cable ϕ 1.37(Black)

Connector: IPEX Compatible

Antenna Type

PIFA Antenna

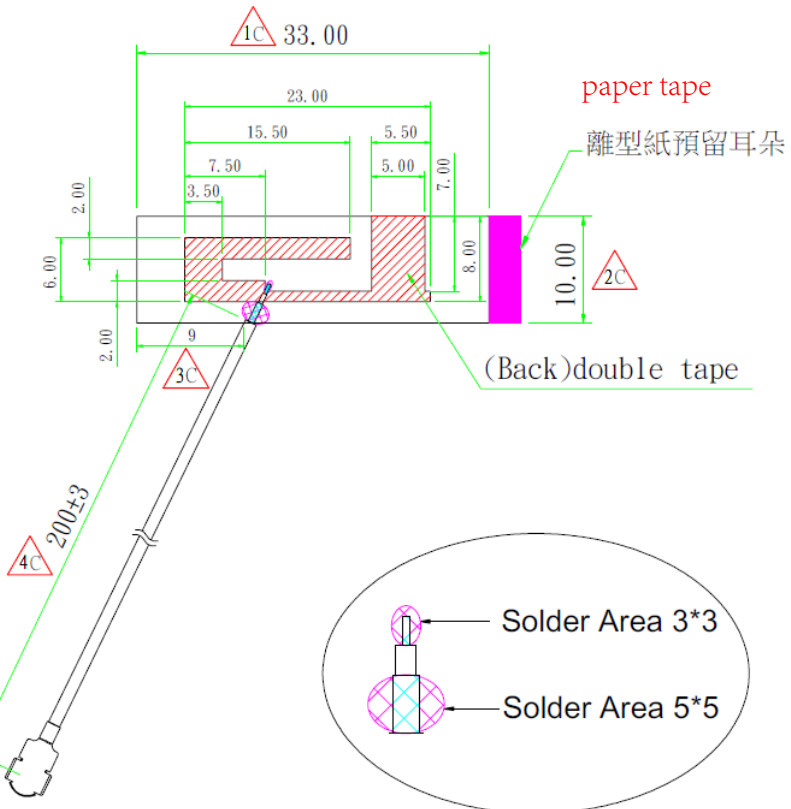


IPEX Orientation

IPEX方向管控	
單位: mm	
線長	角度
<100	±90°
100~199	±135°
≥200	不管控

Wire length

not in
control unit



QA inspection item will have C marking

※凡標記△C記號者, 為品管檢驗之尺寸

△ New Release	02/24/17	Daria
LTR	DESCRIPTION	DATE
設計 DR.	核准 APPD.	
Daria	Alvin	
2017/02/24	2017/02/24	
版本說明	REVISION NOTE	
MAGLAYERS		

容許公差	TOLERANCE
.XXX	±0.20
.XX	±0.35
.X	±0.50
X	±1.00
ANG	±5

品名	ARTICLE
MSA-3310-25GC4-A25	
單位 UNIT	比例 SCALE
mm	****
張數 SHEET	版本 REV.
1	A



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Antenna Specification

ELECTRICAL PROPERTIES

- 1.1 Frequency Range.....2.4~2.5GHz / 5.15~5.85GHz
- 1.2 Impedance.....50 Ohm Nominal
- 1.3 Return Loss.....-10dB (Max)
- 1.4 Peak Gain.....2.4GHz / 4.80 dBi
5GHz / 6.06 dBi
- 1.5 Radiation.....Omni-directional
- 1.6 Polarization.....Linear
- 1.7 Admitted Power.....1W

PHYSICAL PROPERTIES

- 2.1 Antenna Material..... SUS430 鍍鎳 T=0.3mm
- 2.2 Operating Temp..... -20°C ~ +65°C
- 2.3 Storage Temp..... -30°C ~ +75°C
- 2.4 Double Tape..... 3M 9448
- 2.5 Connector..... IPEX Compatible
- 2.6 Cable..... ϕ 1.37 (Black)



Test Report

ELECTRICAL CHARACTERISTICS

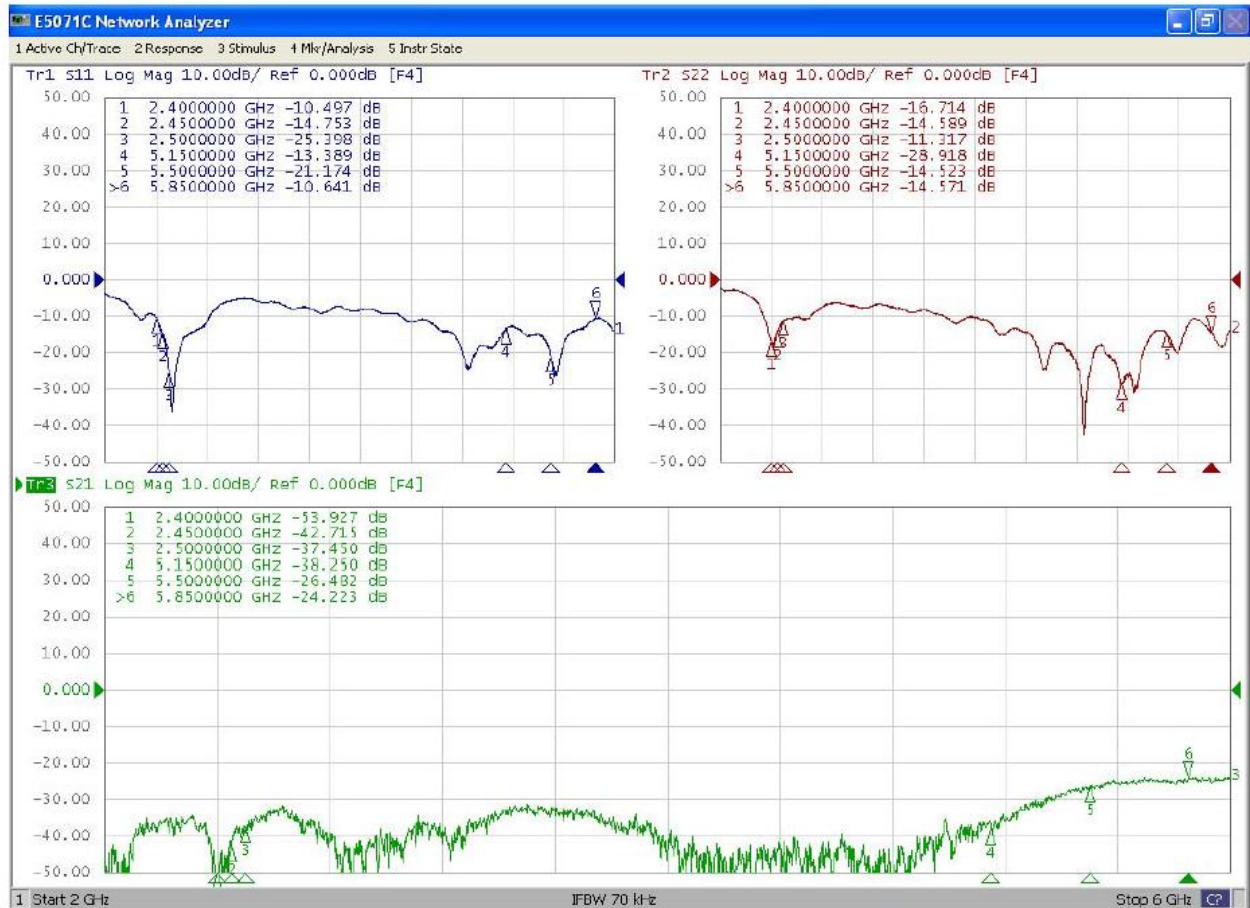
P/NO: MSA-3510-25GC4-A25

Spec: 2.4 GHz ~ 2.5GHz / 5.15 GHz ~ 5.85 GHz

S11

S11:Ant_1

S22:Ant_2

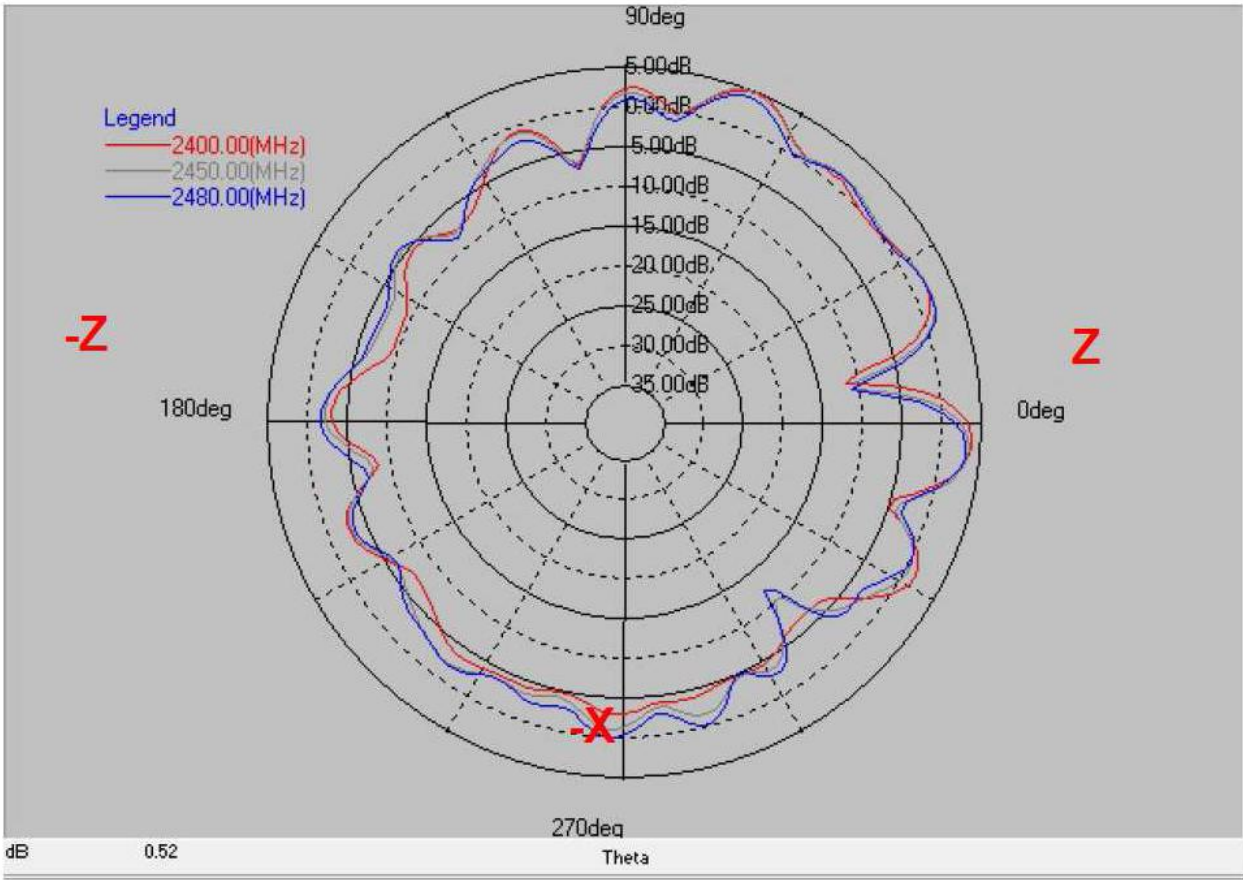


Frequency(MHz) : 2400~2500. Pattern Field : Z-X plane

File -> Save

Antenna_1 @ 2.4 GHz

X



E plane- Horizontal Cut

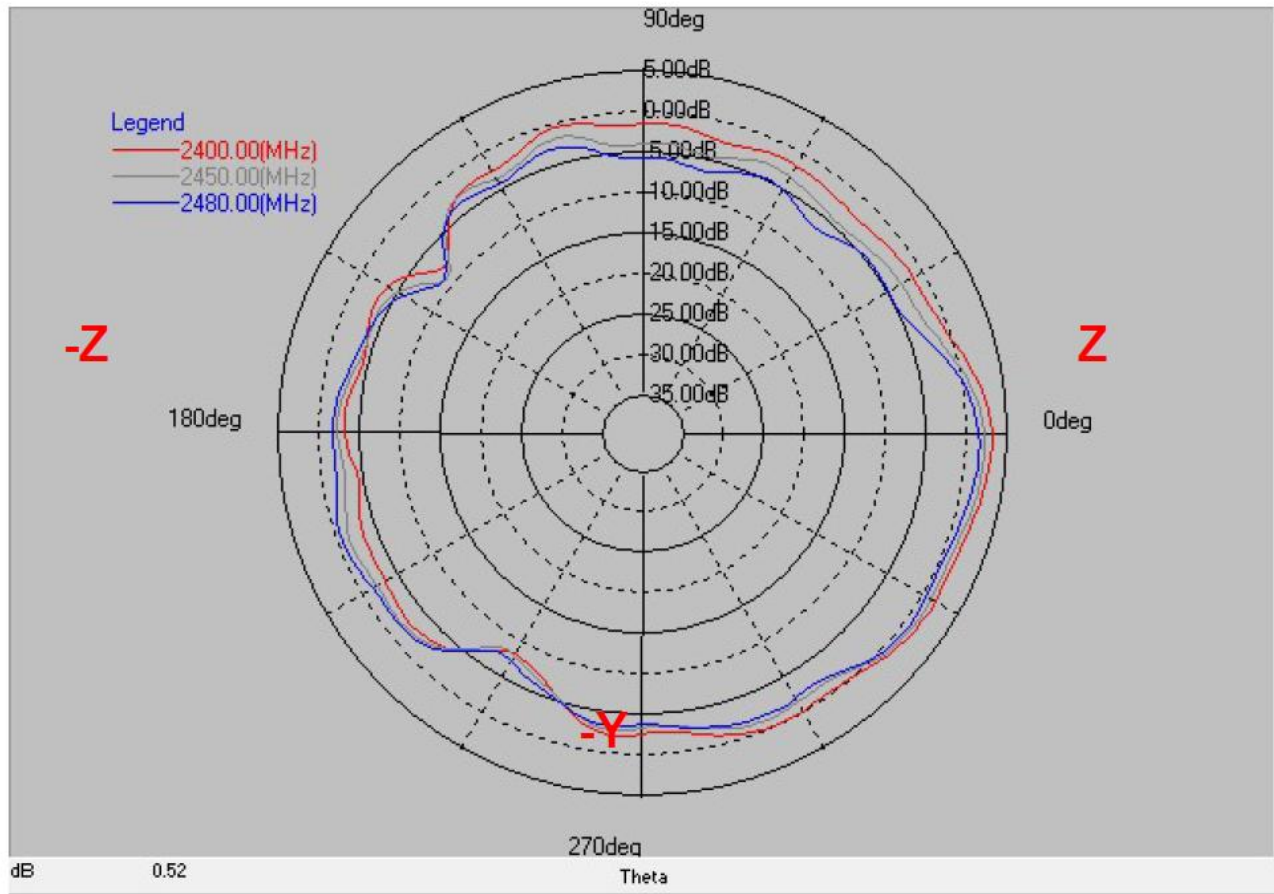
Frequency	Max value	Min value	Average
2400(MHz)	4.80 dB	-11.54 dB	-1.64 dB
2450(MHz)	4.75 dB	-10.54 dB	-1.40 dB
2480(MHz)	3.98 dB	-12.34 dB	-1.56 dB



Frequency(MHz) : 2400~2500. Pattern Field : Z-Y plane

Antenna_1 @ 2.4 GHz

Y



H plane- Horizontal Cut

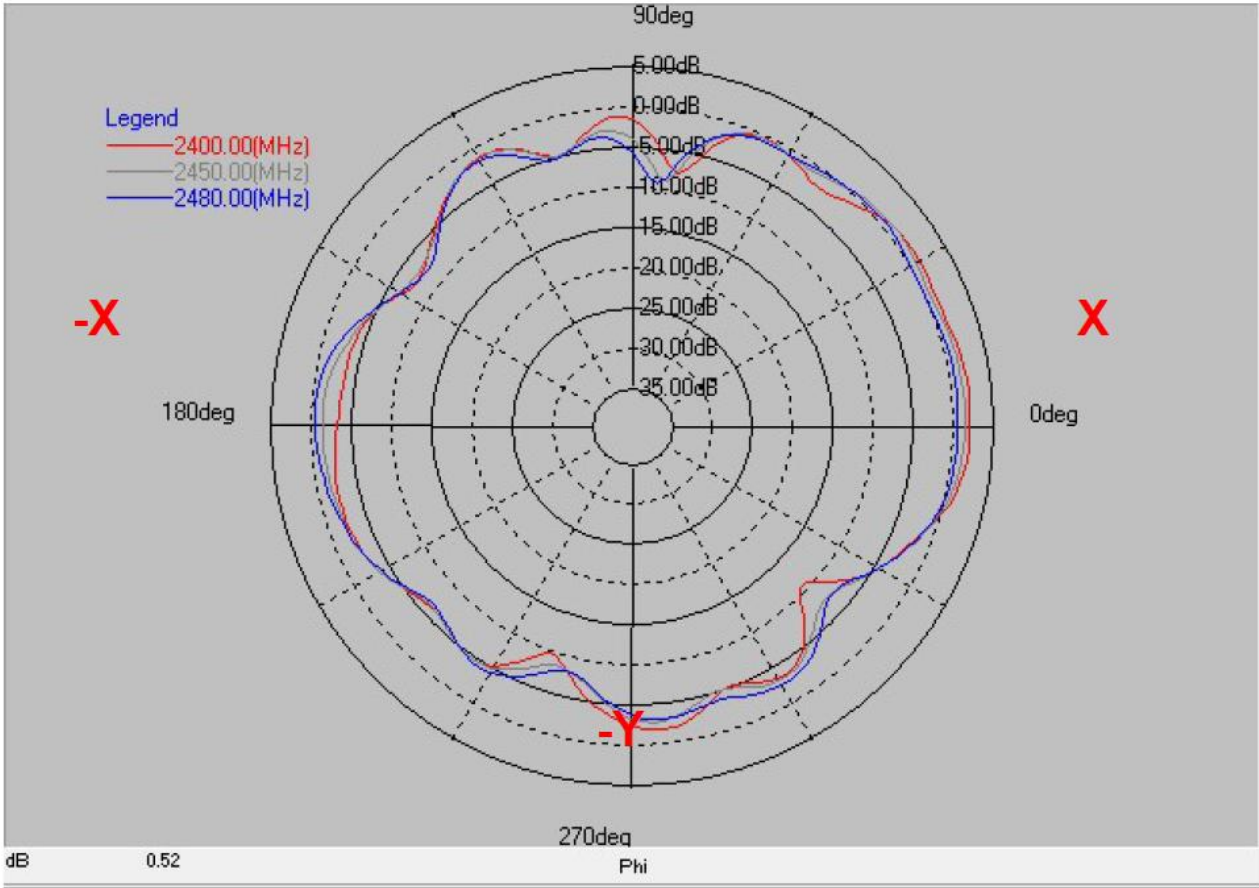
Frequency	Max value	Min value	Average
2400(MHz)	3.29 dB	-8.45 dB	-1.35 dB
2450(MHz)	2.46 dB	-9.26 dB	-2.05 dB
2480(MHz)	1.72 dB	-9.07 dB	-2.51 dB



Frequency(MHz) : 2400~2500. Pattern Field : X-Y plane

Antenna_1 @ 2.4 GHz

Y



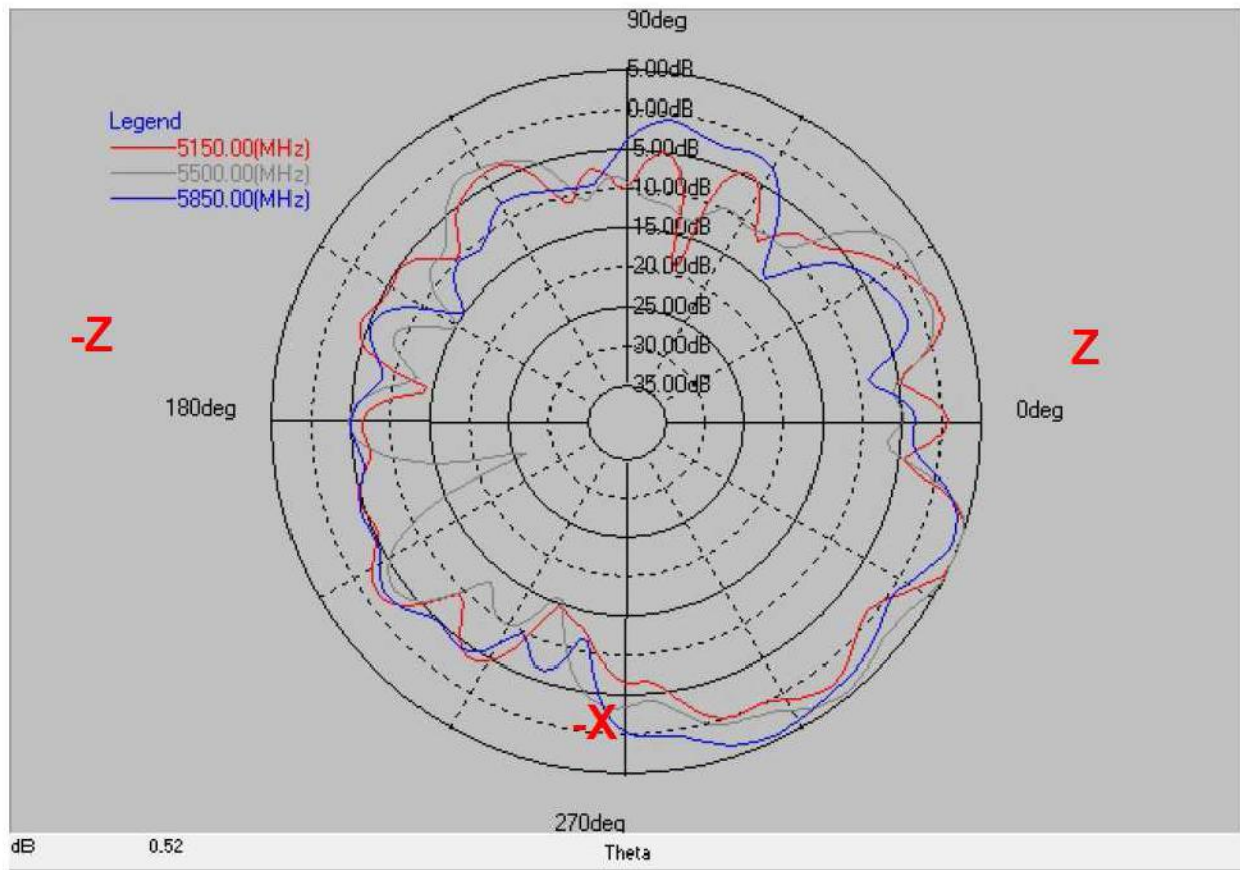
H plane- Vertical Cut

Frequency	Max value	Min value	Average
2400(MHz)	2.20 dB	-10.93 dB	-2.31 dB
2450(MHz)	1.54 dB	-9.09 dB	-2.32 dB
2480(MHz)	0.70 dB	-9.52 dB	-2.45 dB

Frequency(MHz) : 5150~5850. Pattern Field : Z-X plane

Antenna_1 @ 5 GHz

X



E plane- Horizontal Cut

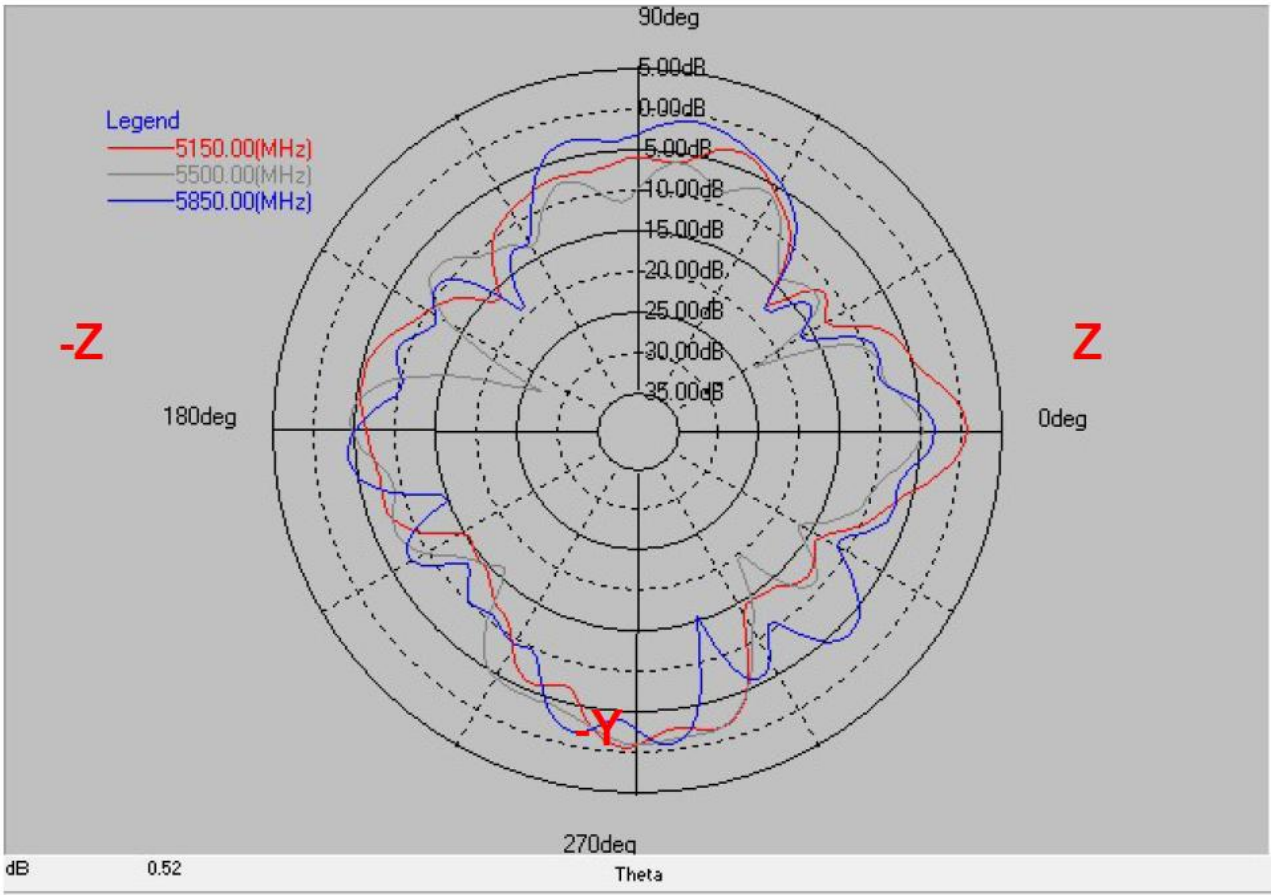
Frequency	Max value	Min value	Average
5150(MHz)	6.06 dB	-19.58 dB	-2.31 dB
5500(MHz)	5.80 dB	-26.76 dB	-1.84 dB
5850(MHz)	4.18 dB	-15.00 dB	-1.94 dB



Frequency(MHz) : 5150~5850. Pattern Field : Z-Y plane

Antenna_1 @ 5 GHz

Y



H plane- Horizontal Cut

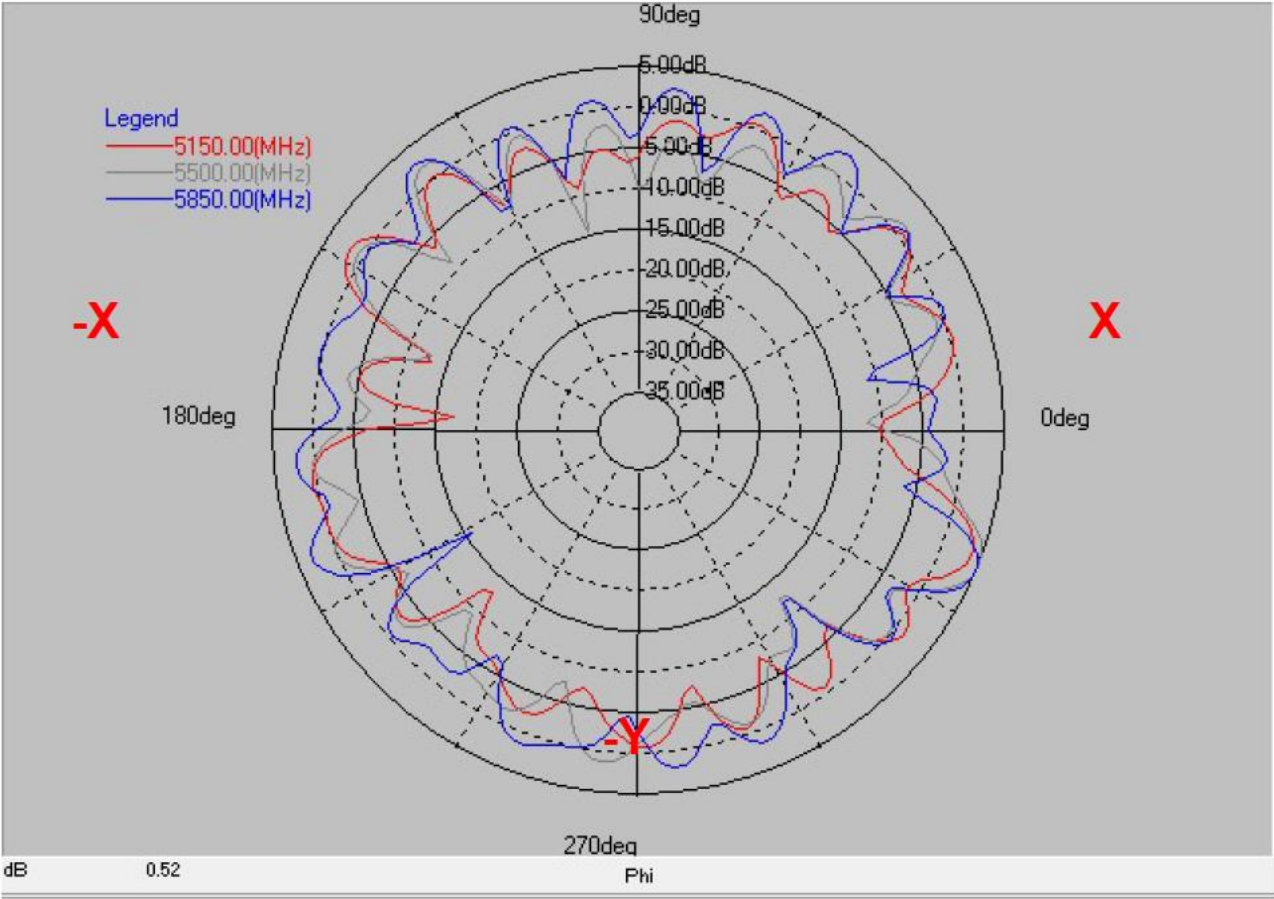
Frequency	Max value	Min value	Average
5150(MHz)	0.69 dB	-17.89 dB	-6.22 dB
5500(MHz)	-1.20 dB	-27.12 dB	-7.44 dB
5850(MHz)	-0.96 dB	-19.29 dB	-6.17 dB



Frequency(MHz) : 5150~5850. Pattern Field : X-Y plane

Antenna_1 @ 5 GHz

Y



H plane- Vertical Cut

Frequency	Max value	Min value	Average
5150(MHz)	3.91 dB	-17.21 dB	-2.32 dB
5500(MHz)	5.32 dB	-14.90 dB	-2.08 dB
5850(MHz)	5.24 dB	-15.97 dB	-0.62 dB

Pull Test Report



美磊電子科技(昆山)有限公司

實驗報告

編號

日期

頁次

P4-170224

17.02.24

1/1

核準

審核

作成

馮正林

蔣良鳳

李莉

Test name
Purpose
Equipment
Prepared
by
Date

實驗名稱: MSA-3310-25GC4-A25拉力測試 MSA-3310-25GC4-A25 pull test

實驗目的: 驗證IPEX鉗壓后其拉力是否OK to verify the IPEX connector pull test after crimp

實驗設備: 拉力測試機 Pull Tester

實驗人員: 李莉

實驗日期: 2017.2.24

實驗步驟:

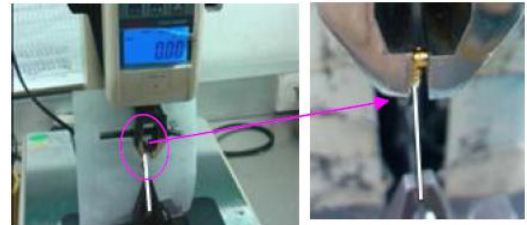
1.取10PCS鉗壓好IPEX的樣品進行拉力測試，步驟如下：

place 10pcs IPEX sample and proceed for pull test

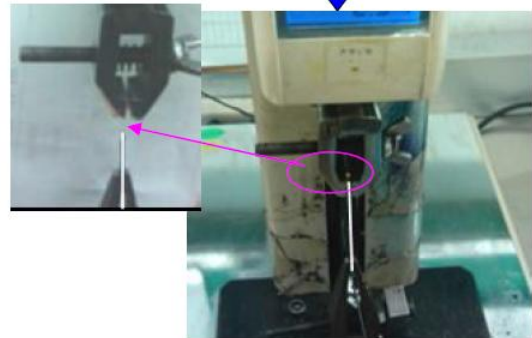


組裝IPEX后產品

Assembled IPEX product



測試結果 Test result



2. 拉力測試數據如下：

Pull test specification

Pull test data shown below

拉力測試規格：≥1Kg

test data

NO	1	2	3	4	5	6	7	8	9	10	判定
測試值	2.14	2.01	1.99	2.21	1.96	2.01	1.98	2.21	2.03	2.01	OK

實驗結論: 取10PCS產品進行拉力測試，其拉力值均在規格範圍內，判定為OK。

Summary All 10pcs pull test result are within acceptance range

FORM NO : KEGR004-A



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Package

制品規格書

品號	品名	發行編號	頁次
-----	MSA-3310-25GC4-A25		1/1

產品包裝圖示： packaging specifaition

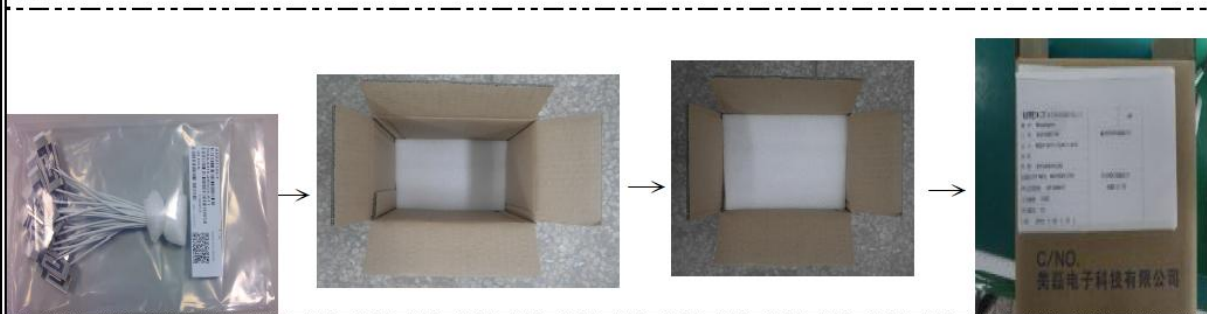
圖示一



圖示二



圖示三



產品包裝說明：

every 30pcs will cover with PE foam and put into PE bag

1. 每30PCS成品使用珍珠棉和白色膠圈將IPEX頭包扎，然後裝入PE袋中并封口，30PCS/袋。(如圖示一)
2. 將1PCS珍珠棉放入外箱底部。(如圖示二) place 1pc PE foam under the master carton
3. 將封裝好的成品放入外箱中，再將1PCS珍珠棉放入外箱頂部，每箱裝50袋，共1500PCS。(如圖示三).

Fill the master carton full and place 1pc PE foam on top and seal the master carton, each carton will have 50 bags and total is 1500pcs

注：以上圖片僅供參考

FORM NO: KEJR065-C