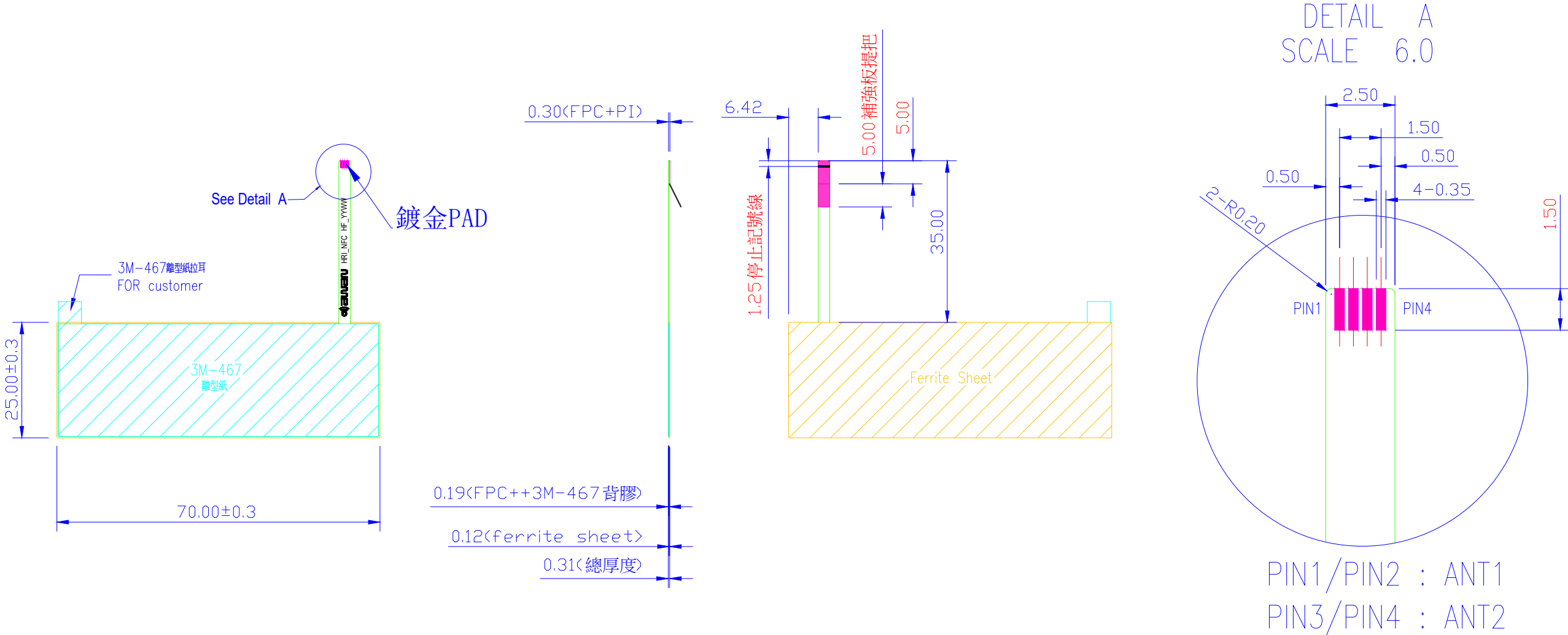


1		2		3		4		5		6		7		8	
AWAN P/N	AFF00-000097								Rev.	EC#	Description	Drawn/Date	Checked/Date	Approved/Date	
									X1		New Release	Roy 07/19/22'	Louis 07/19/22'	Louis 07/19/22'	
Customer P/N									X2		更新外尺寸&排線位置	Roy 07/28/22'	Louis 07/28/22'	Louis 07/28/22'	
									X3		移動排線位置並縮短	Roy 09/1/22'	Louis 09/1/22'	Louis 09/1/22'	
									X4		移動排線位置	Roy 09/14/22'	Louis 09/14/22'	Louis 09/14/22'	
									X5		更改Ferrite貼合面	Roy 11/15/22'	Louis 11/15/22'	Louis 11/15/22'	
		X6		修改細節結構	Roy 12/8/22'	Louis 12/8/22'	Louis 12/8/22'								



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HSF相關均質拆分及測試點選擇參考
<HSF均質物質拆分作業圖示表>

符合AWAN環境管理物質技術標準
All materials meet the AWAN's spec. Environment - related substances management technical standard.

2	HRI_NFC_Ferrite_70*25 厚度0.12		1		Ferrite Sheet		
1	HRI_NFC_FPC_69.4*59.7 雙面銅_PI 1mil_0.5oz ED有膠網		1		FPC		
Item	Name		Q'ty	Part #	Material / Finish		
Control Point		Tolerances Unless Otherwise Specified		 Title WB-HRI_NFC_ANT_HF Series AFF00 Size A3 Dwg No. x-XXXXX-XX-XX Rev. X6			
FAI: to		Drawn				Date	
Critical (Cpk & Cp) :		Roy				12/8/22'	
[X] = 0 Places		Design				Date	
Major (QC Checked) :		Roy				12/8/22'	
▼ = 0 Places		Checked				Date	
Tool Design Dimension :		Louis				12/8/22'	
T DIM = 0 Places		Approved				Date	
		Louis				12/8/22'	
Assembly DRAWING		3D File				Customer Drawing	

NFC



連騰科技股份有限公司

The Most Appropriate Antenna for Your Design!

Advanced Wireless & Antenna Inc.

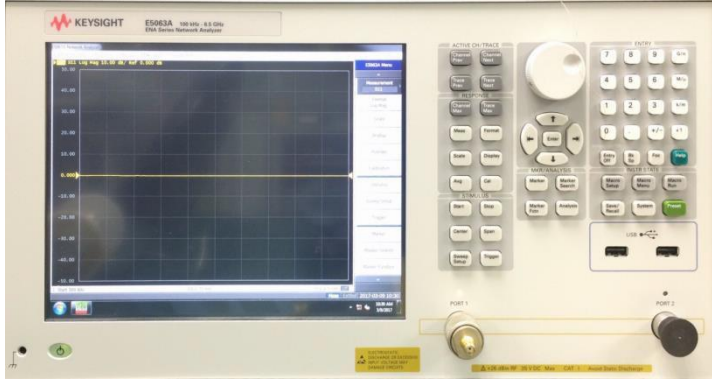
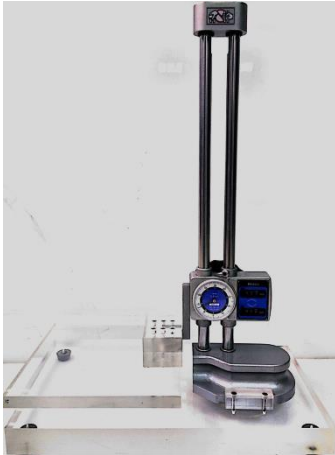
AWAN NFC TEST REPORT FOR HRI NFC

Advanced Wireless & Antenna INC.
Wireless Communications BU
2023.03.09



Index

- Test Equipment
- Test Environment
- Matching Design
- Reader Distance

Procedure	Equipment Name & Photo
Antenna Tuning	 Network Analyzer : KEYSIGHT
Reader Distance	  Altimeter Test Card

Test Environment

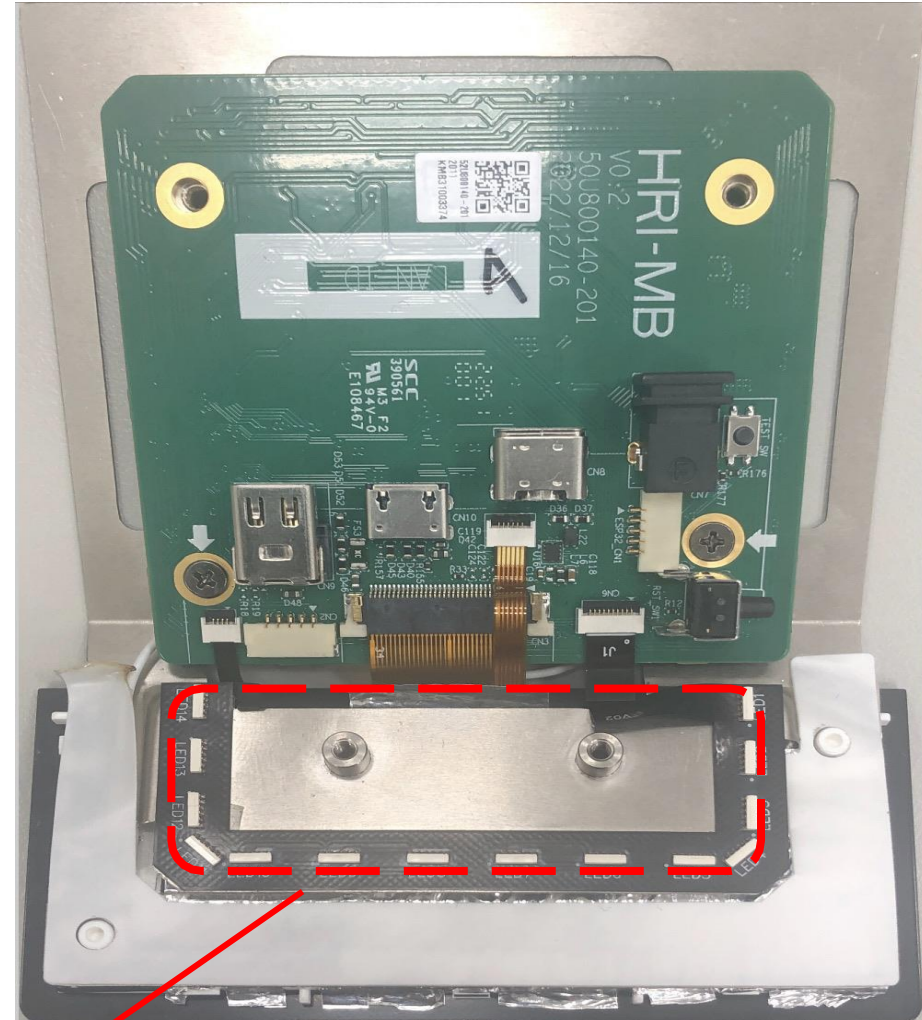
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Panel Top View :

Panel Bot View :

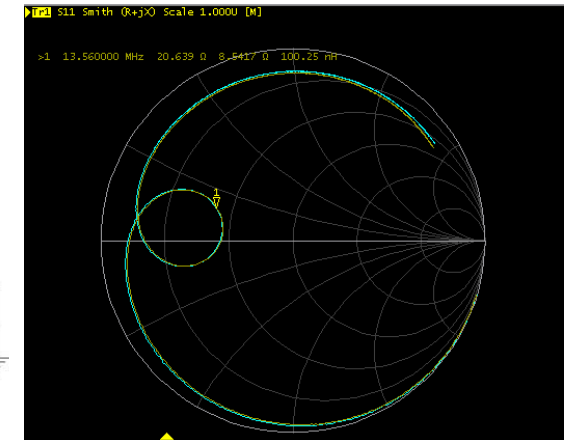
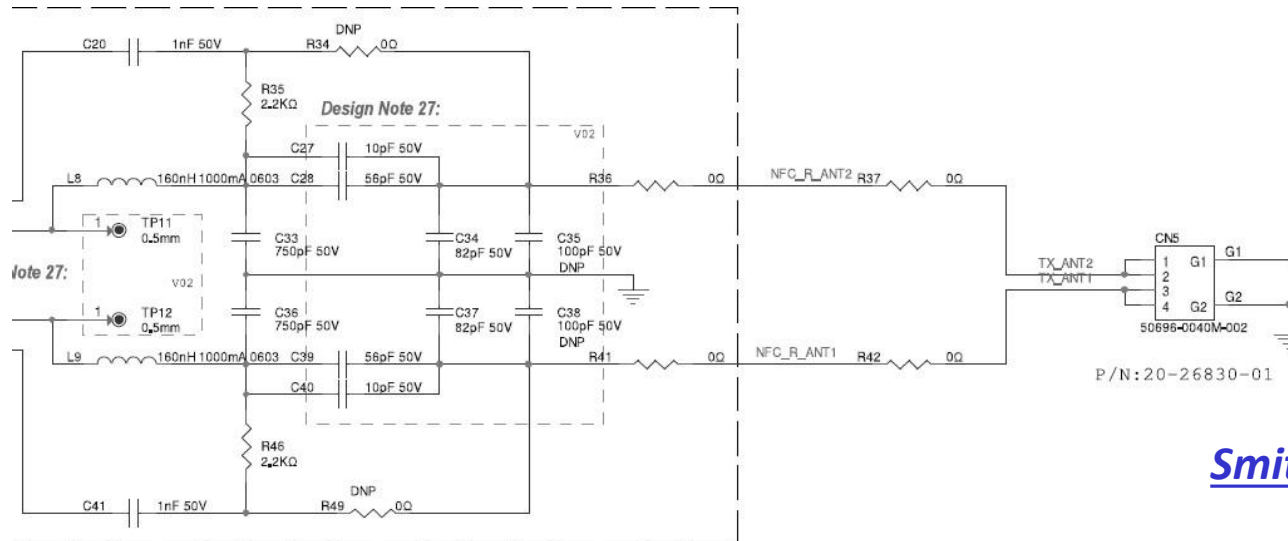


NFC Size 70 X 25 mm

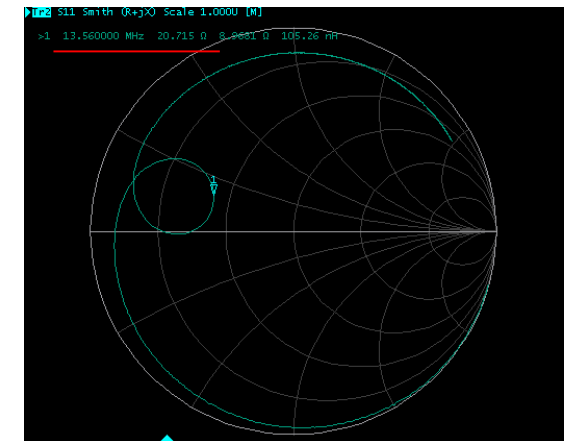
Matching Design-20.6Ω

Antenna Matching :

Smith Chart : DVT



Smith Chart : EVT



Impedance Matching

C28 、 C39	100 pF
C27 、 C40	NC
C34 、 C37	56 pF
C35 、 C38	NC

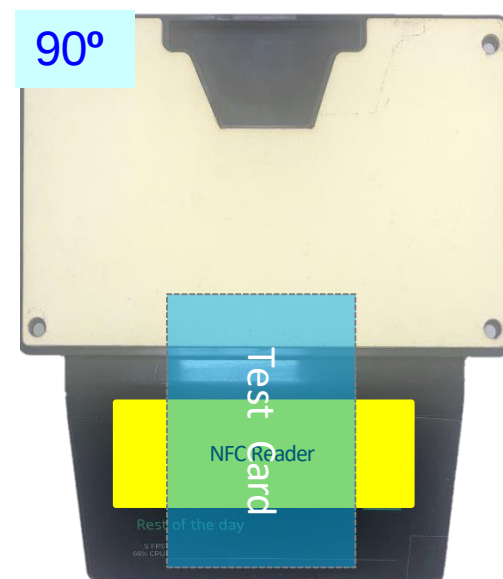
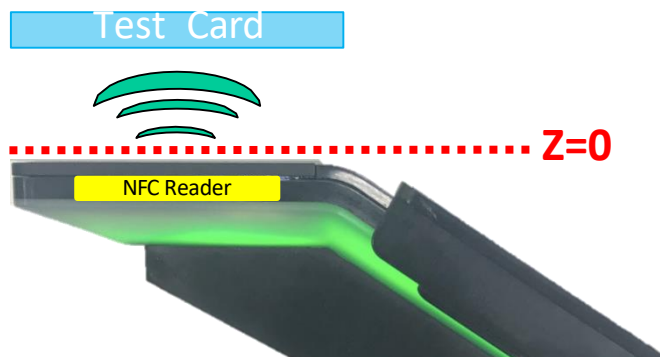
Reader Distance

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Test Environment Define:



NFC tags/Test conditions	Distance (mm)			
	Z=0mm	Z=5mm	Z=10mm	20.6Ω
	0°/90°	0°/90°	0°/90°	0°/90°
TYPE2, Mifare Classic-4K	PASS/PASS	PASS/PASS	PASS/PASS	45/45
TYPE2, Mifare Plus S-4K	PASS/PASS	PASS/PASS	PASS/PASS	30/25
TYPE3, Sony,Felica S966	PASS/PASS	PASS/PASS	PASS/PASS	30/30
TYPE4, Mifare Desfire-4K	PASS/PASS	PASS/PASS	PASS/PASS	28/23
TYPE4B, ISO14443-B	PASS/PASS	PASS/PASS	PASS/PASS	20/15
TYPE5, ICODE-NXP, ISO15693	PASS/PASS	PASS/PASS	PASS/PASS	55/55
TYPE5, ILRiSK-STM, ISO15693	PASS/PASS	PASS/PASS	PASS/PASS	55/55