



EMC Test Report

Model name:RAP-SA01+SMA-IMX6

Initiated by	Solo Chung	Originate Date	2014/1/3
Reviewed by		Revision	QD4-070 Rev.A1
Approved by	Simon Lin	Release Status	Preliminary

Drawings and specifications herein are property of Avalue and shall not be reproduced or copied or used without prior written

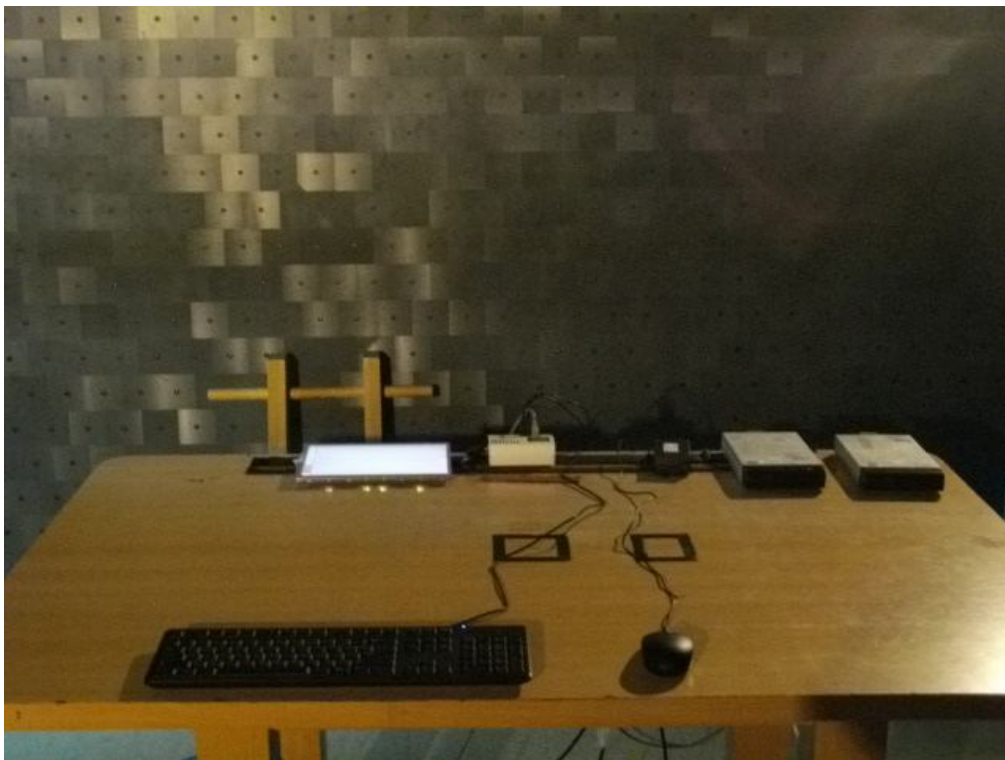
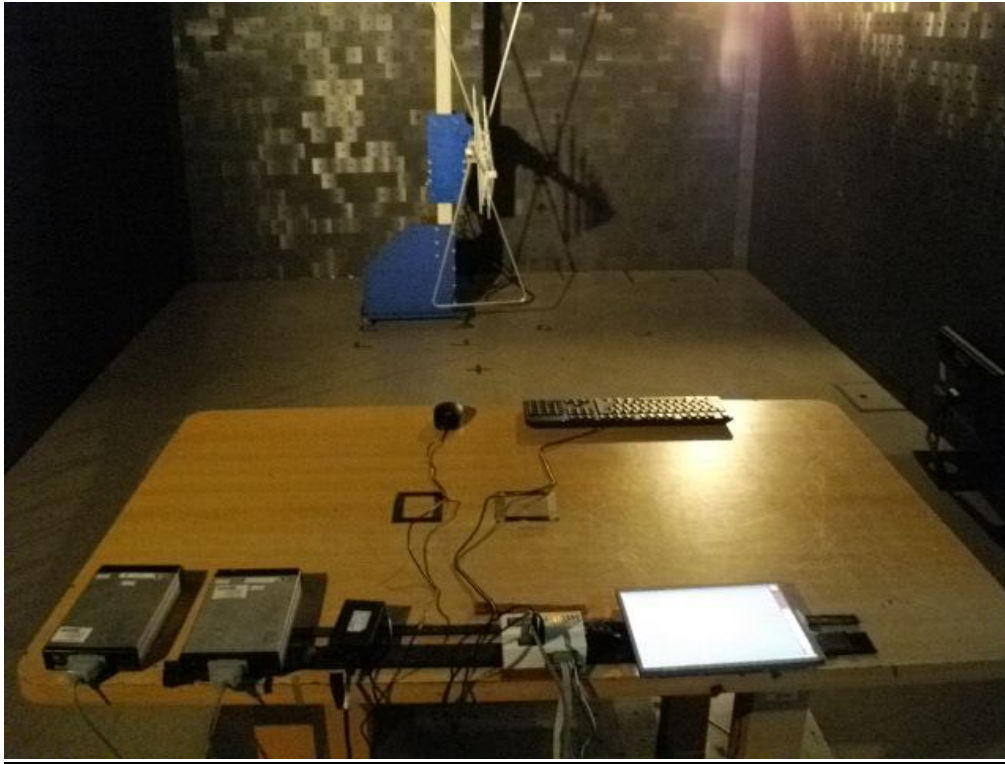
◆ Test Items :

	Standard	item	Result: Pass/Fail
<input checked="" type="checkbox"/>	EN55022	Radiation	Class B Pass
<input type="checkbox"/>		Conduction	
<input type="checkbox"/>		ISN	
<input type="checkbox"/>	EN61000-3-2	Harmonic	
<input type="checkbox"/>	EN61000-3-3	Flicker	
<input type="checkbox"/>	IEC61000-4-2	ESD	
<input type="checkbox"/>	IEC61000-4-3	RS	
<input type="checkbox"/>	IEC61000-4-4	EFT	
<input type="checkbox"/>	IEC61000-4-5	Surge	
<input type="checkbox"/>	IEC61000-4-6	CS	
<input type="checkbox"/>	IEC61000-4-8	MS	
<input type="checkbox"/>	IEC61000-4-11	Dip, Drop	

◆ Test configure:

	Unit	Brand	Model	Notes
1	M/B	Avalue	RAP-SA01 (上板為 SMA-IMX6 Ver A01)	Ver A01
2	CPU			
3	RAM			
4	HDD			
5	Panel	CMO	G121X1-L03	C1
6	Inverter			
7	Adaptor	FSP	FSP060-DBAE1	DC 12V/5A
8	RF module			
9	Battery			

◆ Test condition:

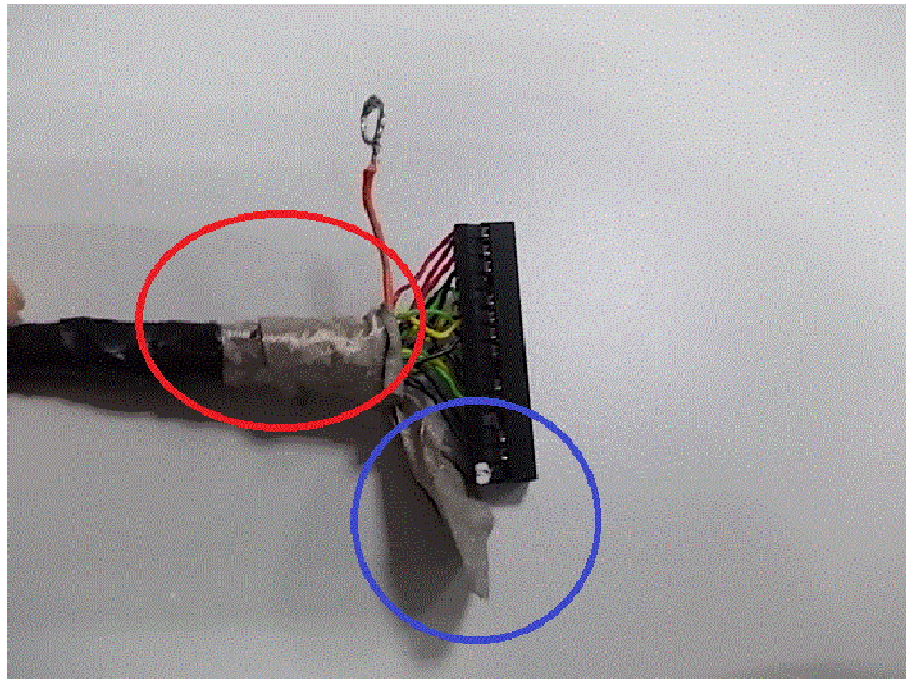


◆ **Solution:**

1. (1-1)LVDS Cable 的 SHIELDING 請增加接地線接地 , 兩端都要接地



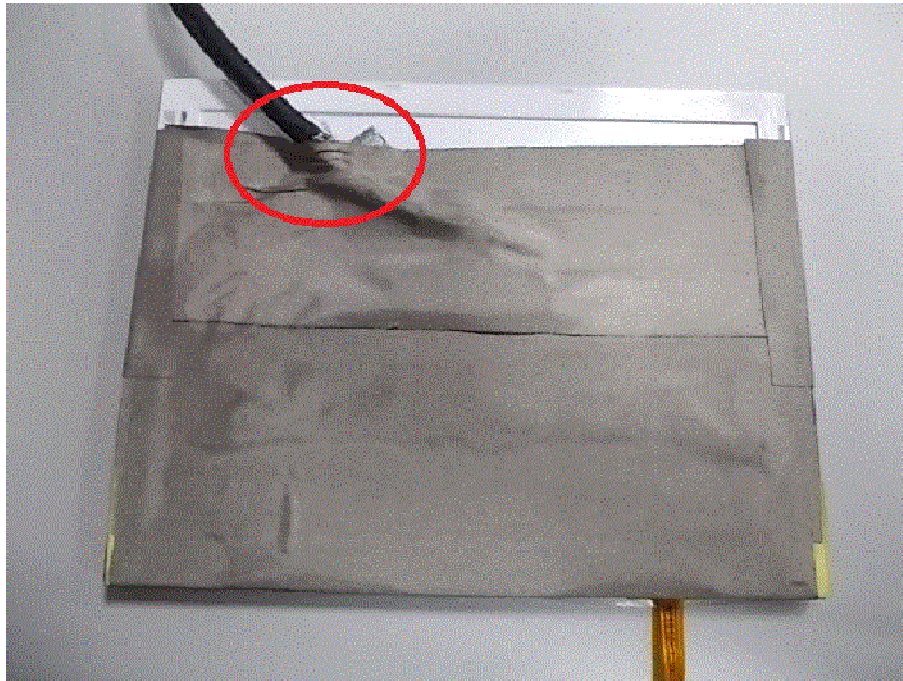
LCD CABLE PANEL 端 SHIELDING 示意圖 1



LCD CABLE SYSTEM 端 SHIELDING 示意圖 2

(藍色圈圈為導電布)

(1-2) LCD panel 須包覆導電布且須超過 Panel pcb(或者使用有完整包覆 Shielding 的 Panel)。



LCD CABLE 與 PANEL SHIELDING 搭接示意圖 1-1

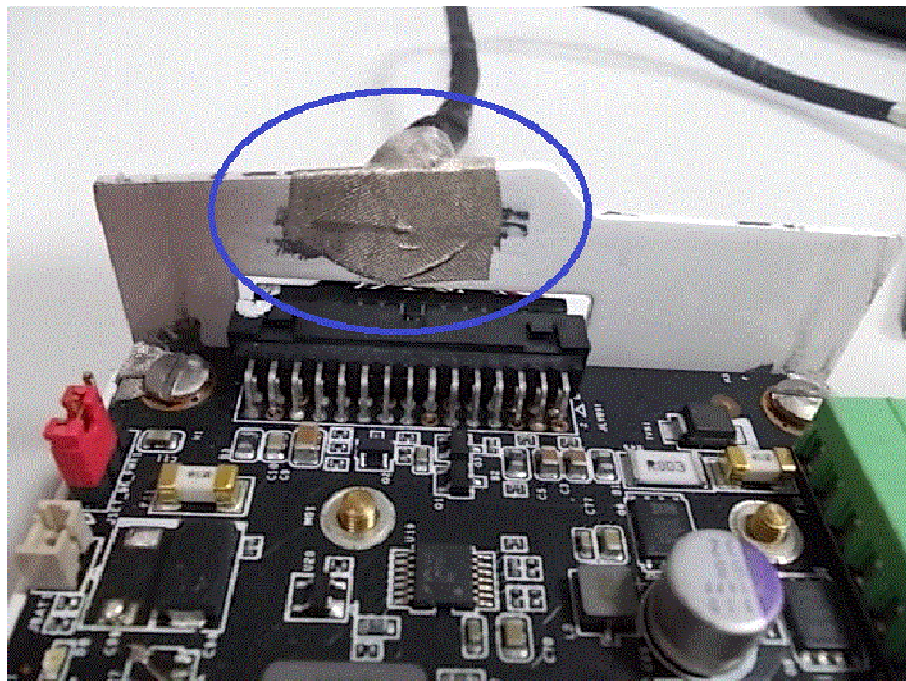


LCD CABLE 與 PANEL SHIELDING 搭接示意圖 1-2



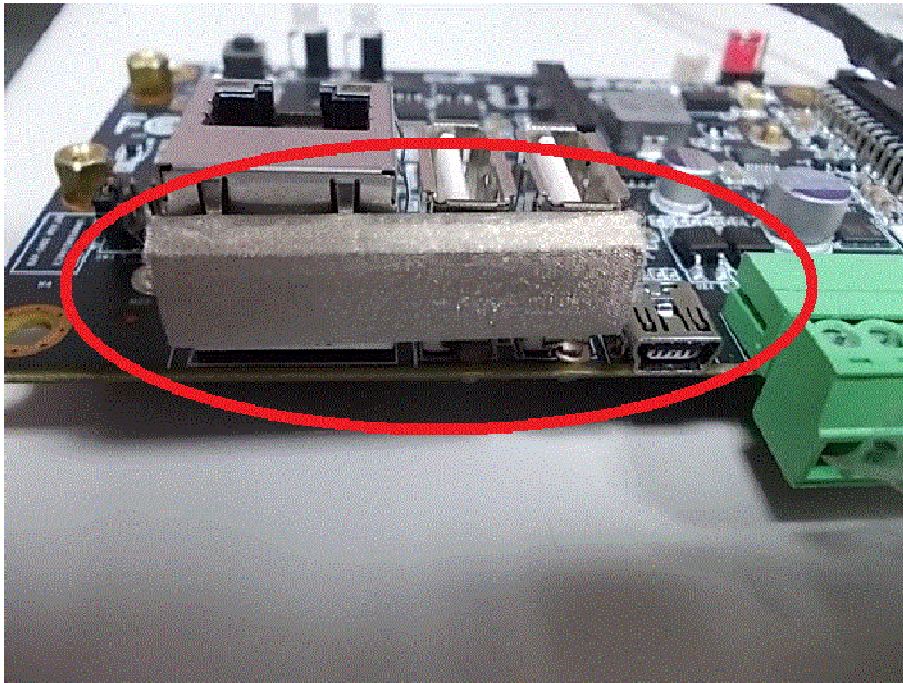
LCD CABLE 與 PANEL SHIELDING 搭接示意圖 2

(1-3) LVDS Cable 靠近 Case 端請將導電布黏貼到 CASE 上

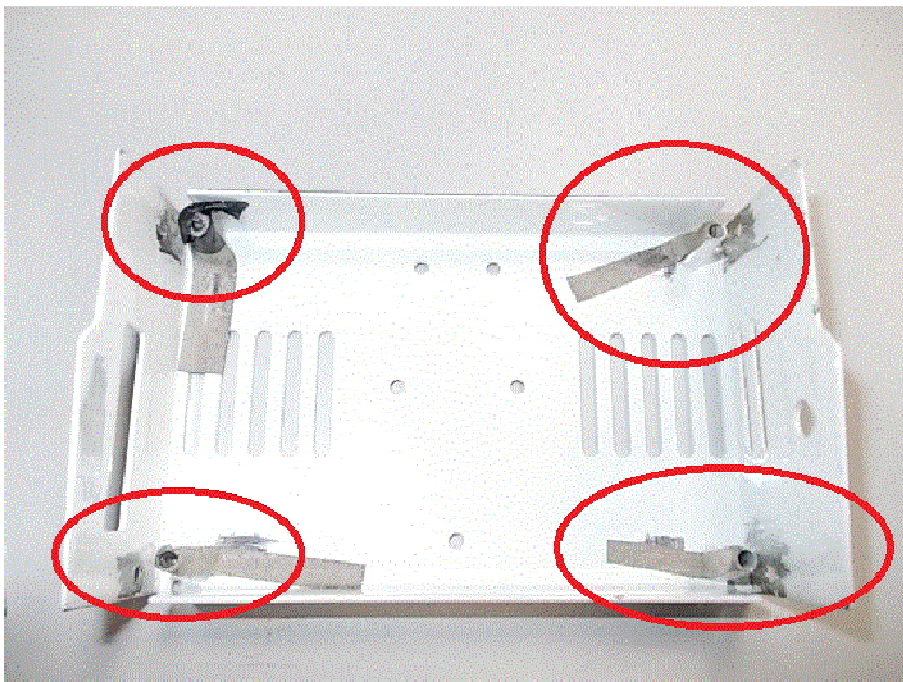


LCD PCB 需貼上導電布,且必須黏貼到 PANEL 的 SHIELDING 示意圖
(藍色圈圈為導電布搭接黏貼到機殼 SHIELDING 處)

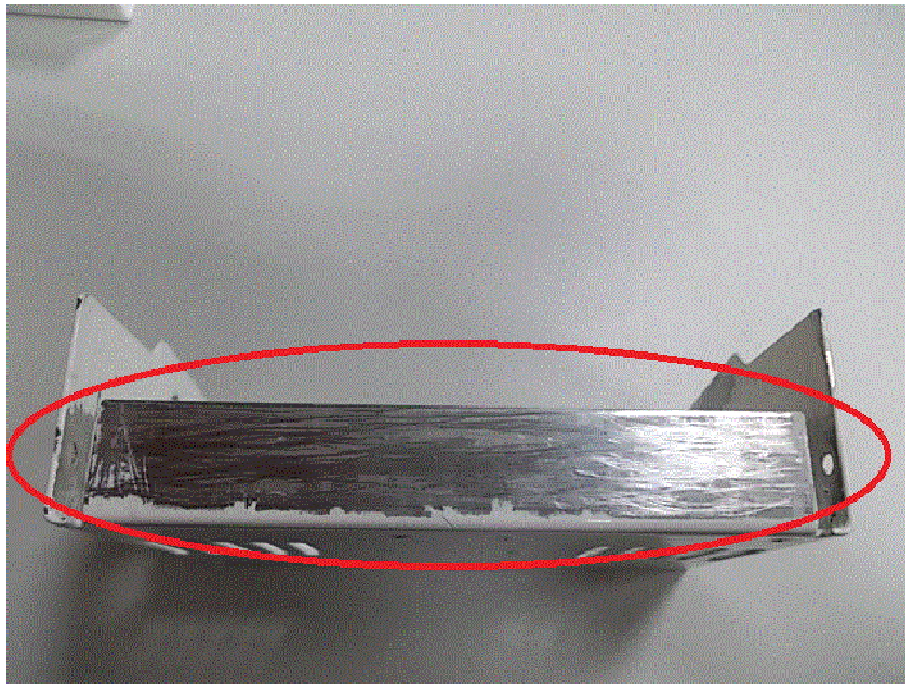
2. LAN,USB CONNECTER 請加貼 GASKET 。



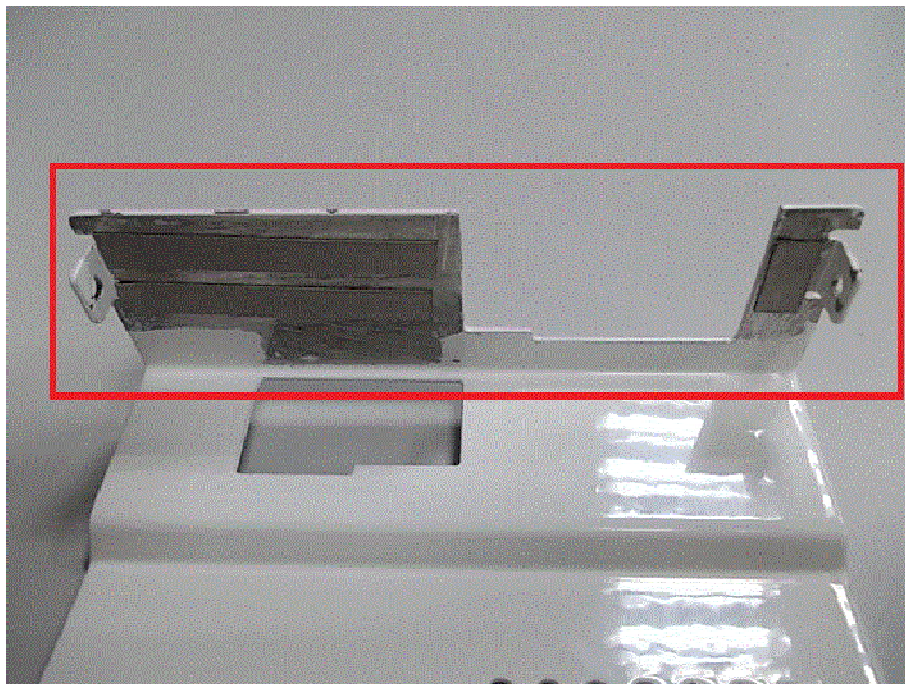
3. 請將 CASE 搭接處的外觀漆遮噴,否則會有 EMI 的 Issue(另外請注意 CASE 搭接處面與面之間是否有完整接觸)。



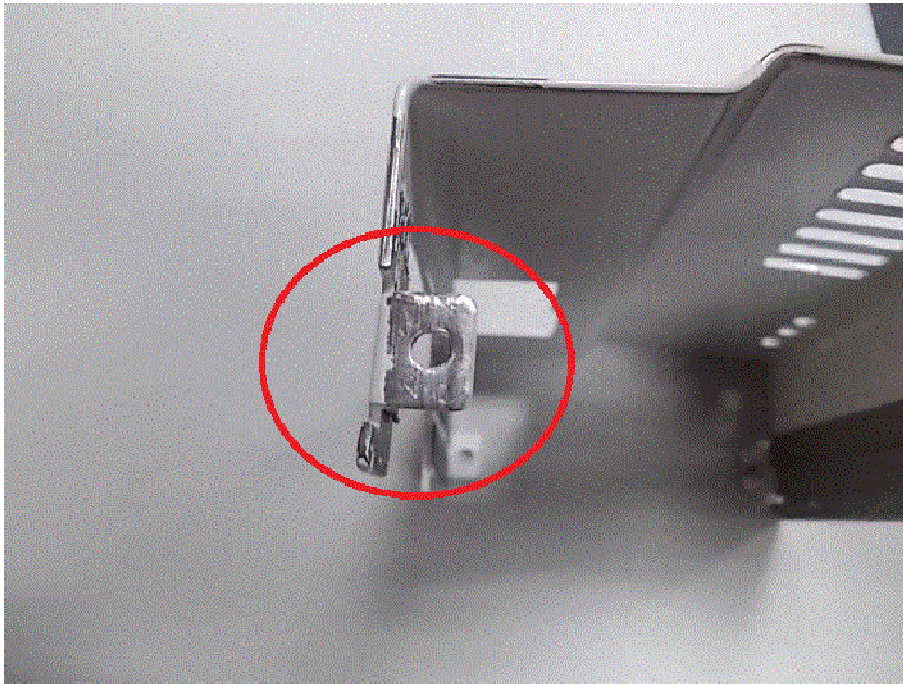
CASE 刮漆露出 SHIELDING 示意圖 1



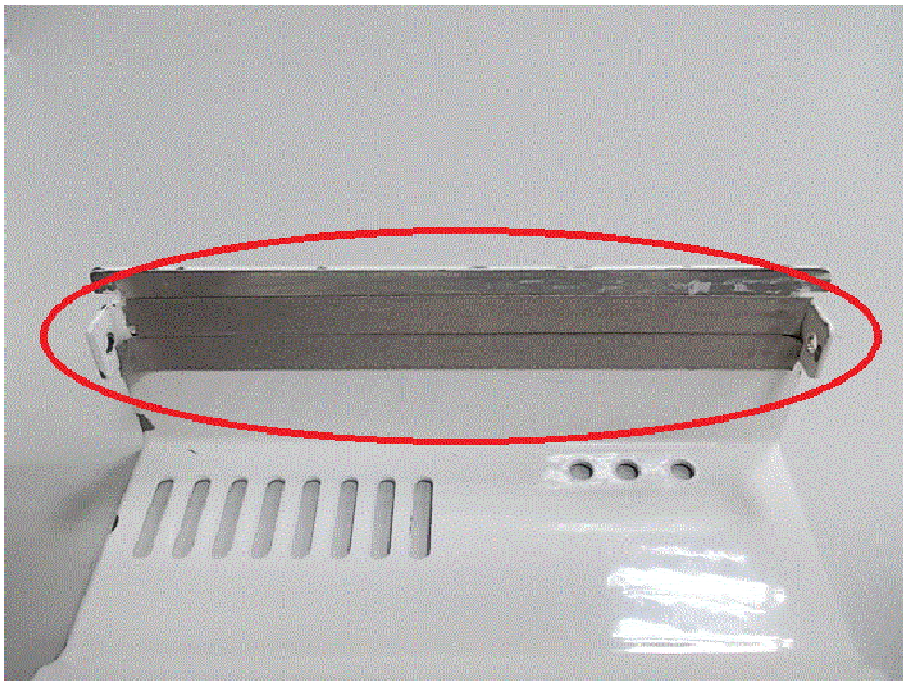
CASE 刮漆露出 SHIELDING 示意圖 2



CASE 刮漆露出 SHIELDING 示意圖 3

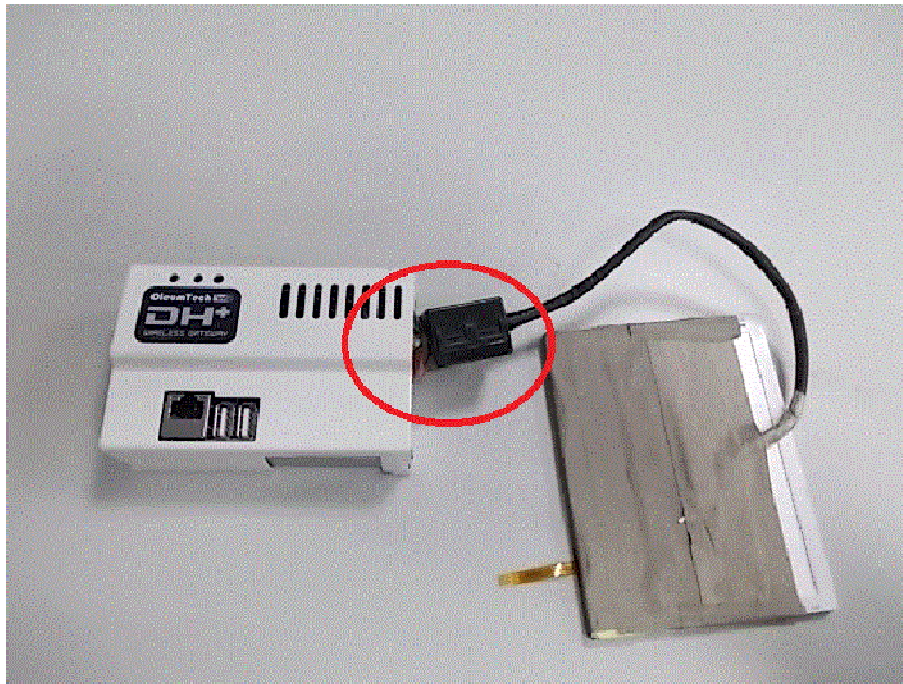


CASE 刮漆露出 SHIELDING 示意圖 4



CASE 刮漆露出 SHIELDING 示意圖 5

4. LCD CABLE 須加上夾 **CORE** ,且靠近機殼。

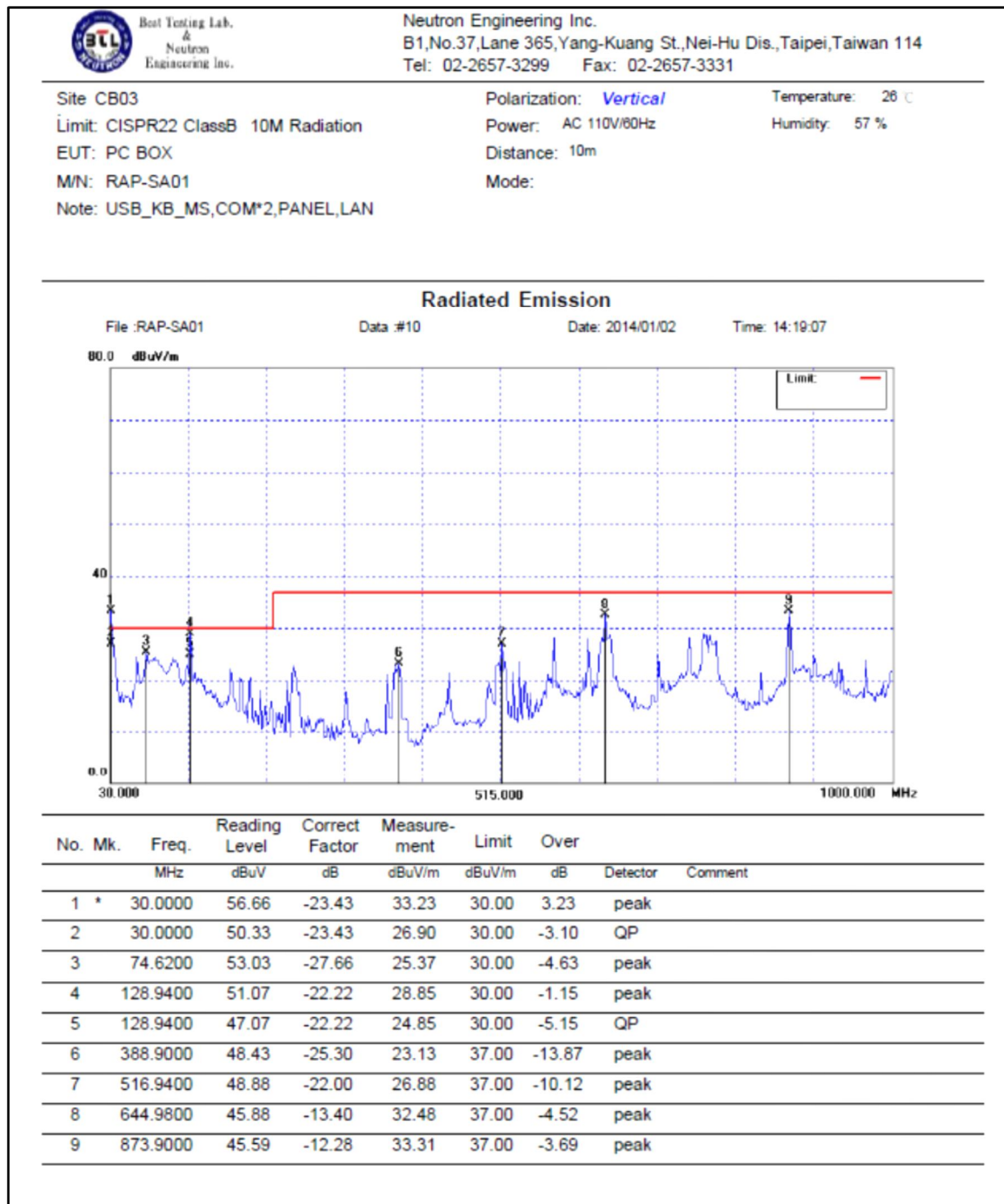


夾 **CORE** 示意圖 1



夾 **CORE** 示意圖 2

◆ Test Data:





Best Testing Lab.
&
Neutron
Engineering Inc.

Neutron Engineering Inc.

B1, No. 37, Lane 365, Yang-Kuang St., Nei-Hu Dis., Taipei, Taiwan 114
Tel: 02-2657-3299 Fax: 02-2657-3331

Site CB03

Limit: CISPR22 ClassB 10M Radiation

EUT: PC BOX

M/N: RAP-SA01

Note: USB_KB_MS, COM*2, PANEL, LAN

Polarization: **Horizontal**

Temperature: 26 °C

Power: AC 110V/60Hz

Humidity: 57 %

Distance: 10m

Mode:

Radiated Emission

File :RAP-SA01

Data #11

Date: 2014/01/02

Time: 14:21:18



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		128.9400	57.98	-31.35	26.63	30.00	-3.37	peak	
2		256.9800	55.71	-30.19	25.52	37.00	-11.48	peak	
3		450.9800	43.20	-17.03	26.17	37.00	-10.83	peak	
4		516.9400	54.84	-20.38	34.46	37.00	-2.54	peak	
5		516.9400	54.33	-20.38	33.95	37.00	-3.05	QP	
6	*	580.9600	46.45	-11.55	34.90	37.00	-2.10	peak	
7		580.9600	42.04	-11.55	30.49	37.00	-6.51	QP	
8		644.9800	49.15	-16.64	32.51	37.00	-4.49	peak	
9		710.9400	46.66	-13.32	33.34	37.00	-3.66	peak	