

TESTING CERTIFICATE

EMC Compliance Ltd.

65, Sinwon-ro, Yeongtong-gu,
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443-390, Korea
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Certificate No.: EMC-CE-4714

Page(1) / (46) Pages



1. Applicant

Name: Samsung Techwin Co., Ltd.
Address: 84, Jeongdong-ro, Seongsan-gu, Changwon-si,
Gyeongsangnam-do, Korea
Date of Receipt: March 04, 2014

2. Manufacturer

Name#1: Samsung Techwin Co., Ltd.
Name#2: TIANJIN SAMSUNG TECHWIN
OPTO-ELECTRONIC CO., LTD

3. Use of Report:

Completed report

4. Test Sample:

Digital Video Recorder, SRD-1656DP

5. Date of Test:

March 17 ~ 19, 2013

6. Test method used:

AS/NZS CISPR 22:2009+A1:2010, Class A

7. Testing Environment:

Temperature: $(21.1 \pm 0.8) ^\circ\text{C}$,
Relative Humidity: $(25.55 \pm 4.25) \% \text{ R.H.}$

8. Test Results:

Refer to page 12 ~ page 24
(Measurement uncertainty: Refer to page 6)

This result shown in this report refer only to the sample(s) tested unless otherwise stated.

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EMC Compliance Laboratory.

Affirmation	Tested by  Name: PARK, GUN-SU	Technical Manager  Name: YEOM, HAN-SEOK
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The above test certificate is the accredited test results by Korea Laboratory Accreditation Scheme, which signed the ILAC-MRA.

2014. 03. 21

EMC Compliance Ltd.

Accredited by KOLAS, Republic of KOREA



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1. Applicant information

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2. Laboratory information

Address

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Telephone Number: 82 31 336 9919

Facsimile Number: 82 505 299 8311

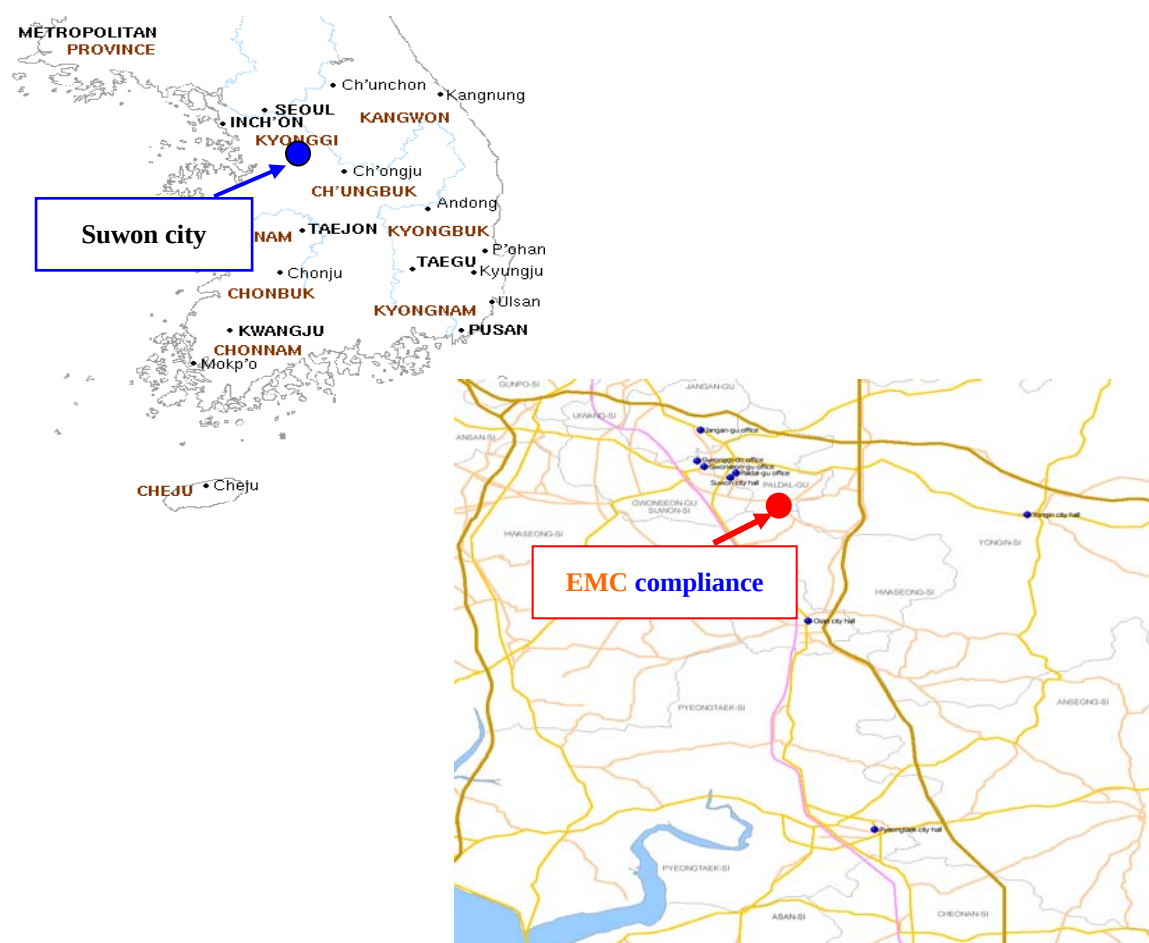
FCC CAB.: KR0040

VCCI Registration No. : R-3327, G-198, C-3706, T-1849

Industry Canada Registration No.: 8035A

KOLAS NO.: 231

SITE MAP



3. Test system configuration

3.1 Operation environment

	Temperature	Humidity	Pressure
Chamber(10 m)	: 20.3 °C	29.8 % R.H.	-
Shielded room(CE)	: 21.9 °C	21.3 % R.H.	-

Test site

These testing items were performed following locations;

Test item	Test site
Conducted Emission	Shielded Room
Radiated Emission	10 m Chamber

3.2 Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC.

The factors contributing to uncertainties are test receiver, cable loss, antenna factor calibration, Antenna directivity, antenna factor variation with height, antenna phase center variation, antenna frequency interpolation, measurement distance variation, site imperfection, mismatch, and system repeatability. Based on CISPR 16-4-2, the measurement uncertainty level with a 95 % confidence level was applied.

Conducted emission measurement (C.L: Approx 95 %, k = 2)		
Shielded Room (CE#1)	9 kHz ~ 150 kHz	± 3.82 dB
	150 kHz ~ 30 MHz	± 3.43 dB
Shielded Room (CE#2)	9 kHz ~ 150 kHz	± 3.82 dB
	150 kHz ~ 30 MHz	± 3.43 dB
Shielded Room (CE#3)	9 kHz ~ 150 kHz	± 4.00 dB
	150 kHz ~ 30 MHz	± 3.63 dB
Radiated Emission measurement (C.L: Approx 95 %, k = 2)		
10 m Chamber (#F4)	30 MHz ~ 300 MHz	3 m: + 4.56 dB, - 4.58 dB 10 m: + 4.56 dB, - 4.56 dB
	300 MHz ~ 1 000 MHz	3 m: + 4.84 dB, - 4.85 dB 10 m: + 4.71 dB, - 4.72 dB
	1 GHz ~ 6 GHz	3 m: + 6.19 dB, - 6.20 dB
10 m Chamber (#F2)	30 MHz ~ 300 MHz	3 m: + 4.86 dB, - 4.88 dB 10 m: + 4.86 dB, - 4.86 dB
	300 MHz ~ 1 000 MHz	3 m: + 4.98 dB, - 4.99 dB 10 m: + 4.85 dB, - 4.87 dB
	1 GHz ~ 6 GHz	3 m: + 6.19 dB, - 6.20 dB

4. Description of E.U.T.

4.1 General information

SRD-1656D		
Video	Inputs	16 composite video 0.5~1 Vpp, 75 ohm automatic termination
	Resolution	1280x480 NTSC, 1280x576 PAL / 720x480 NTSC, 720x576 PAL
Live	Frame rate	480fps NTSC, 400fps PAL
	Resolution	1280x480 NTSC, 1280x576 PAL, 704x480 NTSC, 704x576 PAL
	Multi Screen display	1/4/7/9/13/16/16A/PIP/Sequence
Performance		
Operating System	Embedded	Linux
Recording	Compression	H.264
	Record Rate	NTSC: Up to 120fps @ 1280x480 / PAL: Up to 100fps @ 1280x576
		NTSC: Up to 120fps @ 704x480 / PAL: Up to 100fps @ 704x576
		NTSC: Up to 240fps @ 704x240 / PAL: Up to 200fps @ 704x288
		NTSC: Up to 480fps @ 352x240 / PAL: Up to 400fps @ 352x288
	Mode	NTSC: Manual, Schedule (Continuous/Event), Event(Pre/Post), Time lapse (1~30 fps)
	Event	PAL: Manual, Schedule (Continuous/Event), Event(Pre/Post), Time lapse (1~25 fps)
	Overwrite modes	Video Loss, Motion(Level 1~10), Alarm, Tampering(Level 1~3)
	Pre-alarm	Continuous
	Post-alarm	Up to 30 sec (5,10,20,30 Sec)
	Search mode	Up to 6 hour (5,10,20,30 sec,1,3,5,10,20 min,1,2,3,4,5,6 hour)
Search & Playback	Search mode	Date/Time, Event, Back up, Pos, Motion (* All Search Included Preview Function)
	Playback function	Fast Forward/Backward (x2,x4,x8,x16,x32,x64) * Backward Play with I-frame Only, Slow Forward/Backward (x1/2,x1/4,x1/8) * Backward Play with I-frame Only Step Forward/Backward
Network (IPv4)	Transmission speed	Option 1) 1280H/4CIF/2CIF/CIF(120/120/240/480fps NTSC, 100/100/200/400fps PAL)
	Bandwidth	Option 2) 4CIF/2CIF/CIF(120/240/480fps NTSC, 100/200/400fps PAL)
	Bandwidth control	Up to 32Mbps
	Stream	Selectable
	Remote users Maximum	H.264(4CIF/2CIF/CIF Selectable)
	Protocol support	Search(3)/Live Unicast(10)/Live Multicast(20)
	Monitoring	TCP/IP, DHCP, PPPoE, SMTP, RTP, HTTP, DDNS, RTSP, SNMP
Smart phone	Platform	Smart viewer, Web viewer, SSM(CMS)
	Protocol support	Android, iOS
	Remote users Maximum	RTP, RTSP, HTTP, CGI, HTTPS
Storage	Internal HDD	Live(4), Search(1)
	External (e-SATA Interface)	Up to 4 SATA HDDs
	DVD Writer (Back-up)	Up to 2 expansion bay (* Model: SVS-5R/5E)
	USB (Back-up)	YES
	File Format (Back-up)	2 USB Ports
Security	Password Protection	BU(DVR Player), EXE(Include Player), AVI
	Data Authentication	1 Admin, 10 Group, 10 User per 1 Group
Interface		
Monitors	VGA	Watermark
	HDMI	1 VGA (1280x720, 1280x1024, 1920x1080)
	Main Composite	1 HDMI (1280x720, 1280x1024, 1920x1080)
	Spot(Composite)	N/A
	Loop Outputs	Digital Spot (2CH) * Included OSD On Screen, Multi mode Support(1CH)
Audio	Inputs/Output	16CH
	Compression	16CH line in (Built in 4CH, Option : Audio Extension Cable)/ 1CH line out
	Sampling rate	G.711
Alarm	Inputs/Outputs	8KHz
	Remote notification	Terminal 16 Inputs (NO/NC) / Terminal 4 relay Outputs (NO/NC), Rating : 30V DC/2A, 250V AC/0.25A
Connections	Ethernet	Notification via e-mail
	Serial interface	1 RJ45 10/100/1000 Base-T
	USB	RS-232/RS-485(Full Duplex) for PTZ, Samsung System Keyboard
	e-SATA	USB 2.0, 2 ports
	Application Support	2 External SATA ports
	Protocol support	Mouse, Remote Controller
General		
Electrical	Input Voltage/Current	Samsung-E/Samsung-T/Pelco-D/Pelco-p/Panasonic/ Phillips/ AD/ DIAMOND/ ERNA/ KALATEL/ VCL
	Power consumption	PTZ Control via Coaxial Cable (Samsung CCVC, Pelco-C (Coaxitron))
Environmental	Operating Temperature/Humidity	100 to 240 VAC ±10%; 50/60 Hz, Autoranging
Mechanical	Dimension (W x H x D)	Max. 60 W (with 1x HDD)
	Weight (With hard disks)	+0°C to +40°C (+32°F to +104°F) / 20% to 85% RH
	Rack mount kit	W440 x H88 x D384.8(17.32" x 3.46" x 15.15")
Language		6.81 kg (15.01 lb)
		2 EA
Language		
English, French, German, Spanish, Italian, Russian, Polish, Czech, Turkish, Netherlands Portuguese, Swedish, Danish, Rumania, Serbia, Croatia, Hungary, Greek, Finnish, Norwegian, Korean, Japanese, Chinese(Traditional), Thai, Taiwanese(25 Language)		

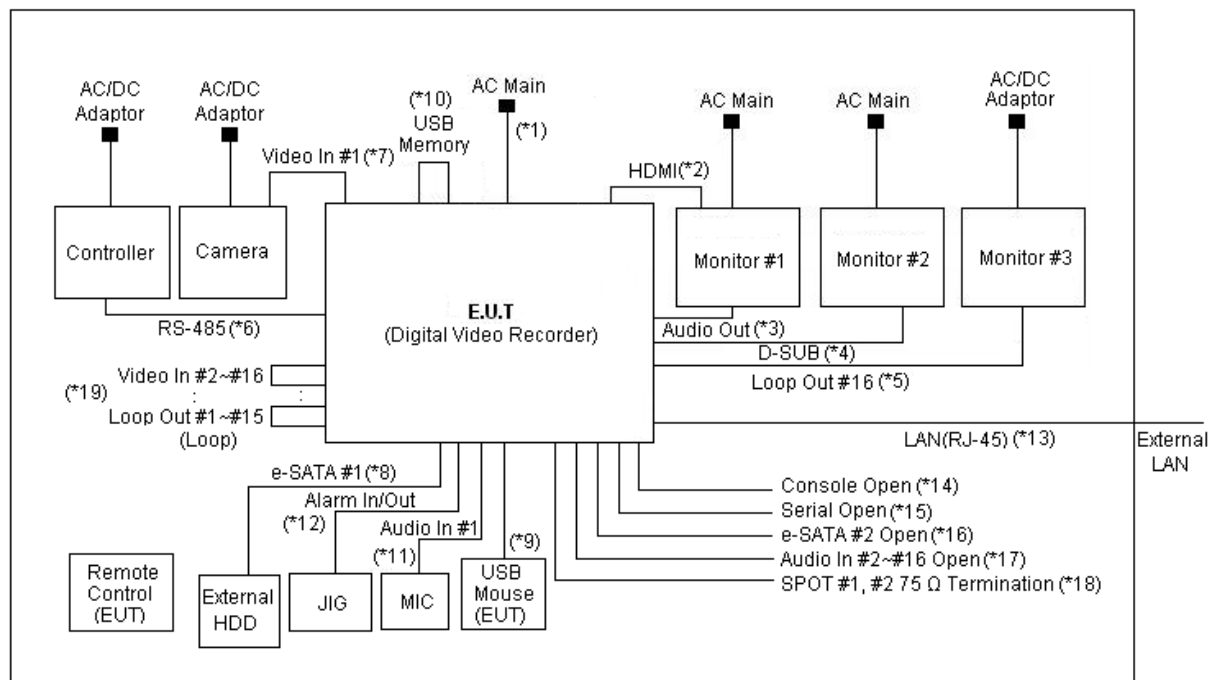
4.2 Product description

Type of product	Digital Video Recorder
Model name (Basic)	SRD-1656DP
Model name (Variant)	-
Difference	-
Trade name	-
Serial no	Engineering Sample
Testing voltage	240 V , 50 Hz
Product rating	100 - 240 V , 50/60 Hz
Internal clock frequency	Above 108 MHz
Note	-

4.3 Auxiliary equipments

Type	Model / Part #	Serial number	Manufacturer
Monitor #1	PM24KO	ZQ9XH1HBA01776V	SAMSUNG
Monitor #2	LT24B350	ZWP0HMCD10771M	SAMSUNG
Monitor #3	SMT-2231P	YDQ03VDBB02500H	SAMSUNG
Controller	SCC-1000	EW089028913	SAMSUNG
Camera	SCB-6000	C6PW6V3B80115Y	SAMSUNG
External HDD	SP10	-	-
USB Memory(8GB)	JFV33	-	TRANSCEND
MIC	-	-	-
JIG	-	-	-

4.4 Test configuration



Note	Start		End		Cable	
*	Name	I/O port	Name	I/O port	Length (m)	Spec.
1	EUT (Digital Video Recorder)	Power	AC Main	Power	1.5	Non-Shield
2		HDMI	Monitor #1	HDMI	1.0	Shield
3		Audio Out	Monitor #1	Audio In	3.0	Shield
4		D-SUB	Monitor #2	D-SUB	1.5	Shield
5		Loop Out #16	Monitor #3	Loop In	3.0	Shield
6		RS-485	Controller	RS-485	3.0	Non-Shield
7		Video In #1	Camera	Video Out	3.0	Shield
8		e-SATA #1	External HDD	e-SATA #1	1.0	Non-Shield
9		USB	USB Mouse (EUT)	USB	1.0	Shield
10		USB	USB Memory	USB	Direct	-
11		Audio In #1	MIC	Audio Out	3.0	Shield
12		Alarm In/Out	JIG	Alarm In/Out	3.0	Non-Shield
13		LAN(RJ-45)	External LAN	LAN(RJ-45)	3.0	Non-Shield
14		Console	Open	-	1.0	Non-Shield
15		Serial	Open	-	1.0	Shield
16		e-SATA #2	Open	-	0.5	Non-Shield
17		Audio In #2~#16	Open	-	3.0	Shield
18		SPOT #1, #2	75 Ω Termination	-	3.0	Shield
19		Video In #2~#16	Loop	Loop Out #1~#15	1.0	Shield

4.5 Operating conditions

The EUT was configured as normal intended use.

Test mode	Normal operating
1	Monitoring test.
	Ping test.
	Alarm In/Out test.
	Audio In/Out test.
	Controller Test.

5. Summary of test results

5.1 Summary of EMI emission test results

Applied	Test items	Test method	Result
☒	Conducted Emission	AS/NZS CISPR 22:2009+A1:2010, Class A	12 Page ~ 18 Page
☒	Radiated Emission	AS/NZS CISPR 22:2009+A1:2010, Class A	19 Page ~ 24 Page

6. Test results

6.1 Conducted Emission

Test specification	AS/NZS CISPR 22:2009+A1:2010, Class A		
Testing voltage	240 V, 50 Hz		
Test facility	Shielded room (CE#1)		
Date	2014. 03. 19		
Temperature (°C)	21.9 °C	Humidity (% R.H.)	21.3 % R.H.
Remarks	Complied		

6.1.1 Limits of conducted emission measurement

☒ AC main

Frequency MHz	Class A $\text{dB}\mu\text{V}$		Class B $\text{dB}\mu\text{V}$	
	Quasi-peak	Average	Quasi-peak	Average
0.15 ~ 0.5	79	66	66 ~ 56 *	56 ~ 46*
0.5 ~ 5	73	60	56	46
5 ~ 30	73	60	60	50

*The limit decreases linearly with the logarithm of frequency.

☒ Telecommunication

Frequency MHz	Class A Voltage Limits $\text{dB}\mu\text{V}$		Current Limits $\text{dB}\mu\text{A}$	
	Quasi-Peak	Average	Quasi-Peak	Average
0.15 ~ 0.5	97 to 87	84 to 74	53 to 43	40 to 30
0.5 ~ 30	87	74	43	30
Frequency MHz	Class B Limits $\text{dB}\mu\text{V}$		Current Limits $\text{dB}\mu\text{A}$	
	Quasi-Peak	Average	Quasi-Peak	Average
0.15 ~ 0.5	84 to 74	74 to 64	40 to 30	30 to 20
0.5 ~ 30	74	64	30	20

* The limits decrease linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz

* The current and voltage disturbance limits are derived for use with an impedance stabilization Network (ISN) which presents a common mode (asymmetric mode) impedance of 150 Ω to the telecommunication port under test (conversion factor is $20 \log_{10} 150/I = 44 \text{ dB}$).

6.1.2 Measurement procedure

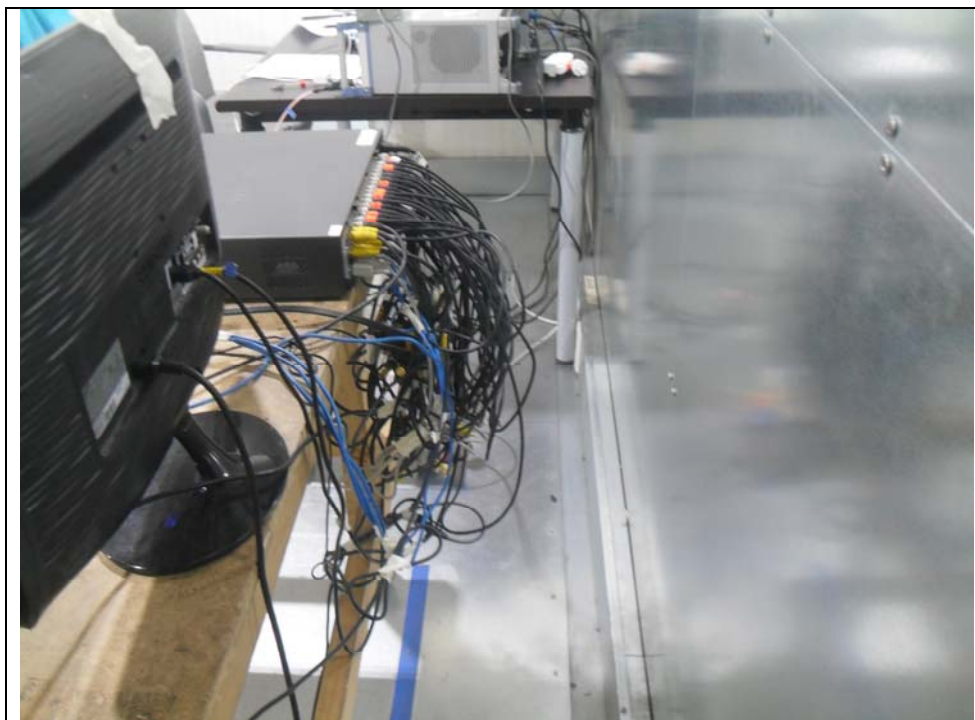
The measurements were performed in a shielded room. EUT was setup as shown in photograph and placed on a non-metallic table height of 0.8 m above the reference ground plane. The rear of table was located 0.4 m to the vertical conducted plane. EUT was power through the LISN, which was bonded to the ground plane. The LISN power was filtered. Each EUT power lead, except ground (safety) lead was individually connected through a LISN to input power source. EUT signal cables that hung closer than 0.4 m to the Horizontal metal ground 0.3 m ~ 0.4 m long. The power cord was bundles in the center. All peripheral equipment was powered from a sub LISN. The LISN and ISN were positioned 0.8 m from the EUT. Peak and Average detection were used in preliminary testing and Quasi-peak and Average detections were used at final measurement. Both lines of power cord, hot and neutral, were measured.

6.1.3 Used equipments

Equipment	Model	Serial No.	Makers	Next Cal. Date	Used
Test Receiver	ESCI7	100732	R&S	2015.01.27	☐
Test Receiver	ESCI	100001	R&S	2014.07.25	☒
Test Receiver	ESCI	100710	R&S	2014.10.28	☐
LISN	ENV216	101358	R&S	2014.10.04	☒
LISN	ESH3-Z5	100267	R&S	2014.07.08	☒
8-WIRE ISN	NTFM 8158 CAT5	CAT5-8158-0028	SCHWARZBECK	2014.04.13	☒
8-WIRE ISN	NTFM 8158 CAT3	CAT3-8158-0020	SCHWARZBECK	2014.04.13	☐
ISN	ST08	24342	TESEQ	2014.06.21	☐

6.1.4 Photographs of test setup

* AC Main

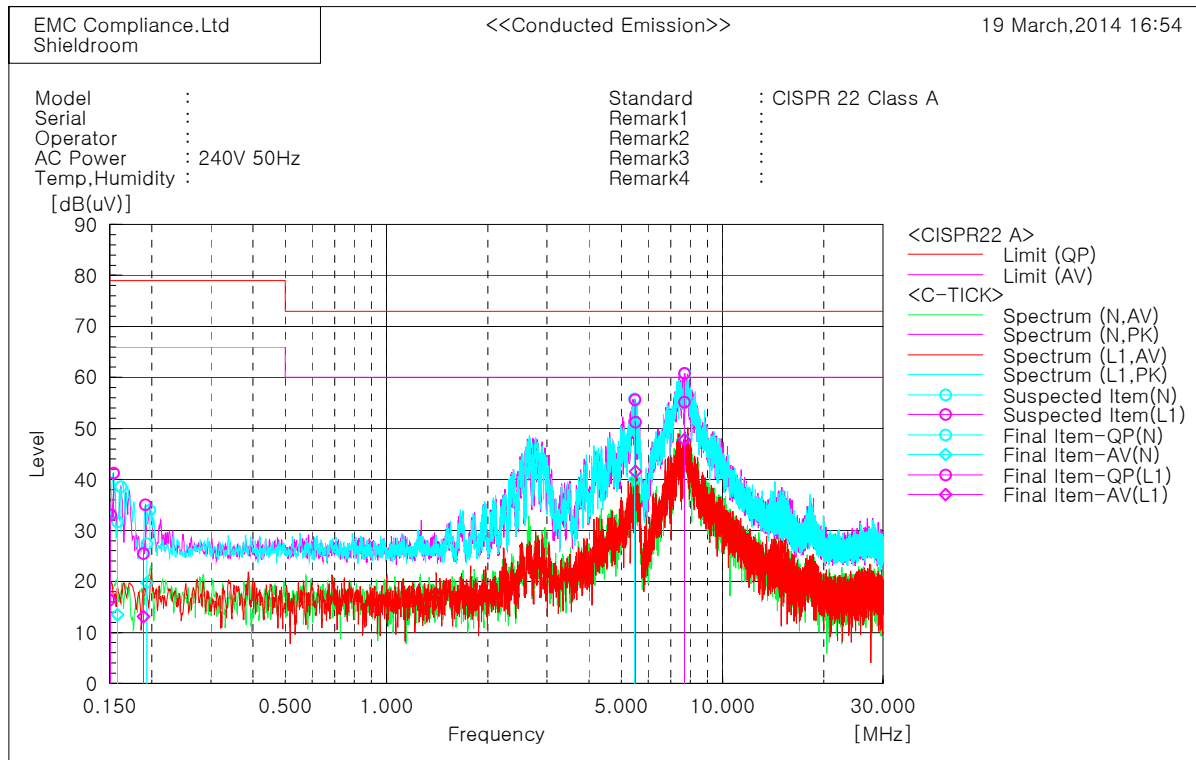


* Telecommunication



6.1.5 Conducted emission measurement result

* AC Main (SRD-1656DP)

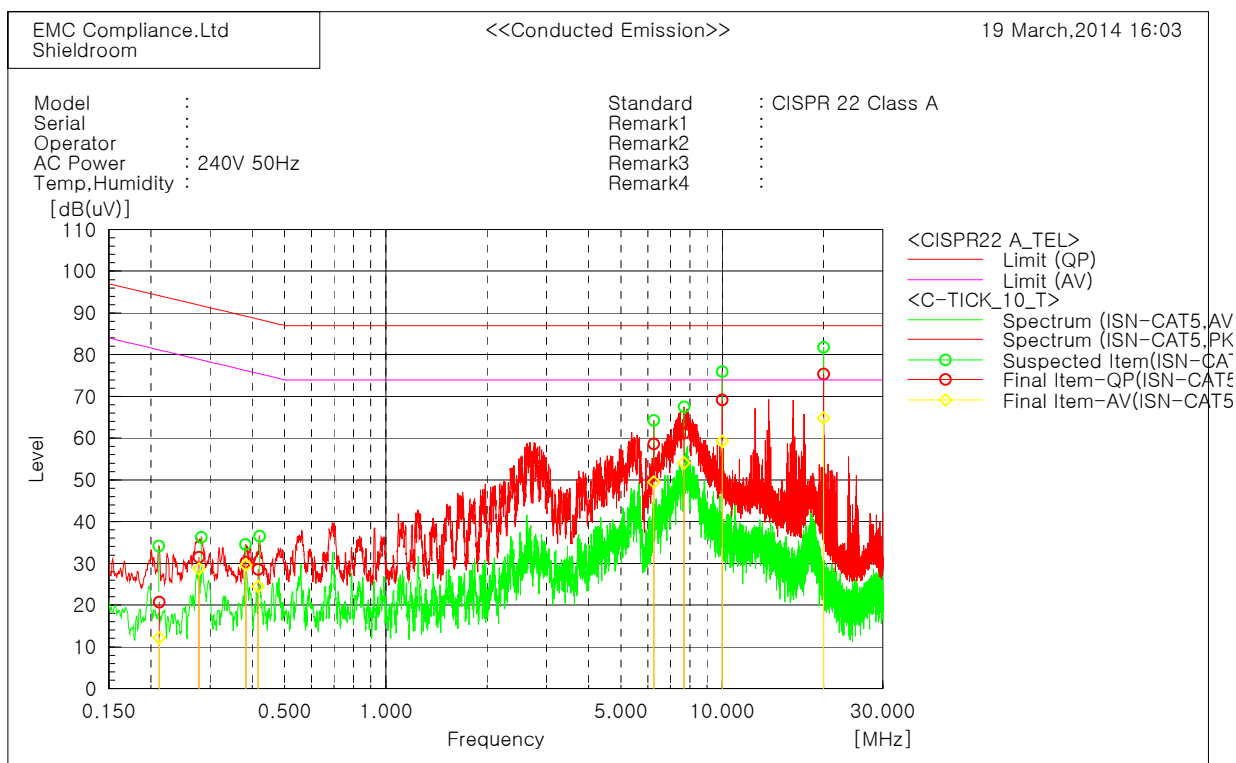


Final Result

--- N Phase ---										
No.	Frequency	Reading QP	Reading CAV	c.f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.15832	21.6	3.4	10.1	31.7	13.5	79.0	66.0	47.3	52.5
2	0.1935	17.3	9.6	10.1	27.4	19.7	79.0	66.0	51.6	46.3
3	5.47151	40.8	30.2	9.8	50.6	40.0	73.0	60.0	22.4	20.0
4	7.70736	45.3	38.1	9.8	55.1	47.9	73.0	60.0	17.9	12.1
--- L1 Phase ---										
No.	Frequency	Reading QP	Reading CAV	c.f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]
1	0.15096	22.9	6.3	10.1	33.0	16.4	79.0	66.0	46.0	49.6
2	0.18902	15.4	3.0	10.1	25.5	13.1	79.0	66.0	53.5	52.9
3	5.49704	41.4	31.7	9.8	51.2	41.5	73.0	60.0	21.8	18.5
4	7.70559	45.3	37.9	9.8	55.1	47.7	73.0	60.0	17.9	12.3

* Telecommunication port

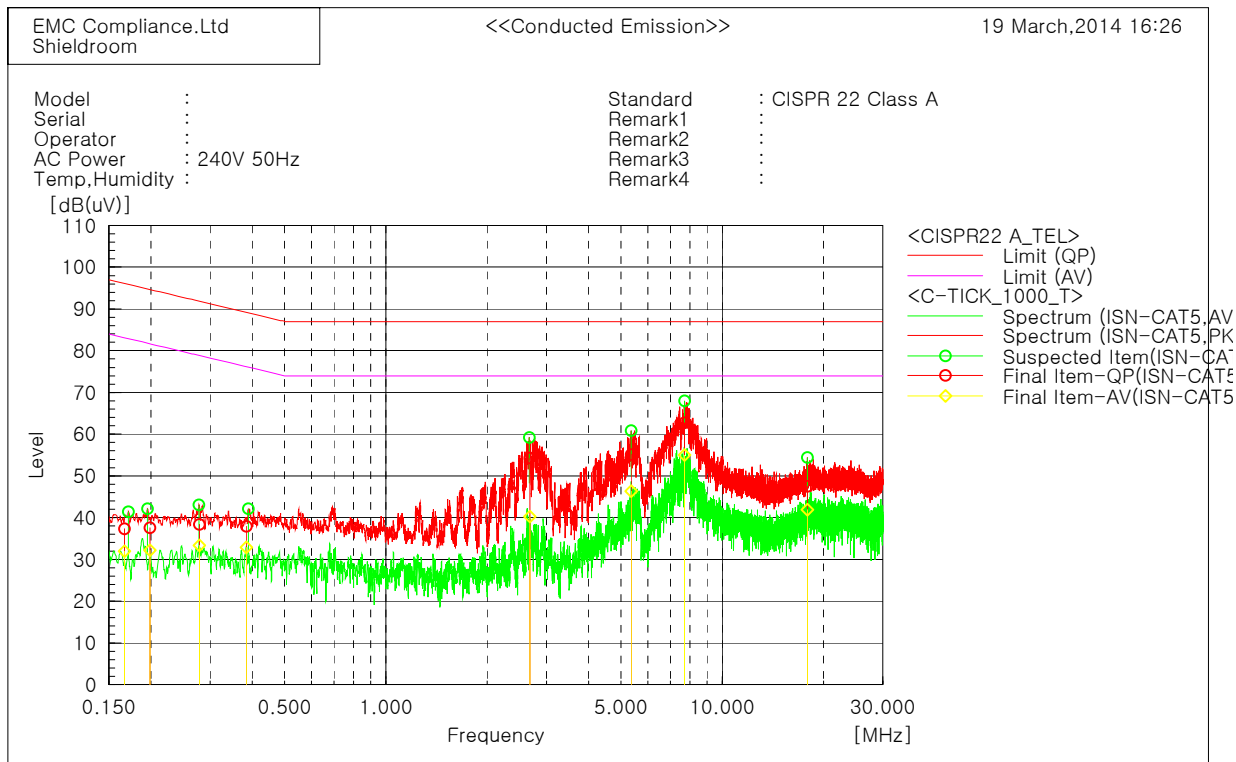
LAN Port (LCL 65 dB)_10 Mbps (SRD-1656DP)



Final Result

--- ISN-CAT5 Phase ---											
No.	Frequency	Reading QP	Reading CAV	c. f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV	
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]	
1	0.21202	10.5	1.8	10.3	20.8	12.1	94.1	81.1	73.3	69.0	
2	0.27813	21.3	18.4	10.2	31.5	28.6	91.9	78.9	60.4	50.3	
3	0.38305	20.2	19.5	10.1	30.3	29.6	89.2	76.2	58.9	46.6	
4	0.41622	18.4	14.4	10.1	28.5	24.5	88.5	75.5	60.0	51.0	
5	6.24964	49.1	39.9	9.6	58.7	49.5	87.0	74.0	28.3	24.5	
6	7.70788	51.5	44.5	9.6	61.1	54.1	87.0	74.0	25.9	19.9	
7	10.00038	59.6	49.6	9.6	69.2	59.2	87.0	74.0	17.8	14.8	
8	19.99981	65.9	55.3	9.5	75.4	64.8	87.0	74.0	11.6	9.2	

LAN Port (LCL 65 dB)_1000 Mbps (SRD-1656DP)



Final Result

--- ISN-CAT5 Phase ---											
No.	Frequency	Reading QP	Reading CAV	c. f	Result QP	Result CAV	Limit QP	Limit AV	Margin QP	Margin CAV	
	[MHz]	[dB(uV)]	[dB(uV)]	[dB]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB(uV)]	[dB]	[dB]	
1	0.16716	26.9	21.6	10.4	37.3	32.0	96.1	83.1	58.8	51.1	
2	0.19892	27.2	21.9	10.3	37.5	32.2	94.7	81.7	57.2	49.5	
3	0.27845	28.2	23.1	10.2	38.4	33.3	91.9	78.9	53.5	45.6	
4	0.38522	27.8	22.8	10.1	37.9	32.9	89.2	76.2	51.3	43.3	
5	2.67475	44.1	30.1	10.1	54.2	40.2	87.0	74.0	32.8	33.8	
6	5.35935	45.5	36.7	9.6	55.1	46.3	87.0	74.0	31.9	27.7	
7	7.73137	53.1	45.4	9.6	62.7	55.0	87.0	74.0	24.3	19.0	
8	17.91037	38.0	32.4	9.5	47.5	41.9	87.0	74.0	39.5	32.1	

6.2 Radiated Emission

Test specification	AS/NZS CISPR 22:2009+A1:2010, Class A		
Testing voltage	240 V, 50 Hz		
Test facility	10 m Chamber (#F2)		
Test distance	10 m, 3 m		
Date	2014. 03. 17		
Temperature (°C)	20.3 °C	Humidity (% R.H.)	29.8 % R.H.
Remarks	Complied		

6.2.1 Limits of radiated emission measurement

☒ Limits below 1 GHz

Frequency MHz	Class A dB μ V/m @ 10 m	Class B dB μ V/m @ 10 m
30 ~ 230	40	30
230 ~ 1 000	47	37

☒ Limits above 1 GHz

Frequency MHz	Class A @ 3 m		Class B @ 3 m	
	Average limit dB μ V/m	Peak limit dB μ V/m	Average limit dB μ V/m	Peak limit dB μ V/m
1 ~ 3	56	76	50	70
3 ~ 6	60	80	54	74

Note - The lower limit applies at the transition frequency.

6.2.2 Measurement procedure

The test was done at a 10 m chamber with a quasi-peak detector. EUT was placed on a non-metallic table height of 0.8 m above the reference ground plane. Cables were folded back and forth forming a bundle 0.3 m to 0.4 m long and were hanged at a 0.4 m height to the ground plane.

Cables connected to EUT were fixed to cause maximum emission. Test was made with the antenna positioned in both the horizontal and vertical planes of polarization. The measurement antenna was varied in height above the conducting ground plane to obtain the maximum signal strength.

6.2.3 Used equipments

Equipment	Model no.	Serial no.	Makers	Next Cal. Date	Used
Test Receiver	ESCI7	100732	R&S	2015.01.27	☒
Test Receiver	ESCI	100001	R&S	2014.07.25	☐
Test Receiver	ESCI	100710	R&S	2014.10.28	☐
Test Receiver	ESR	101078	R&S	2015.02.24	☐
Bi-Log Antenna	VULB 9168	440	SCHWARZBECK	2015.10.16	☒
Amplifier	310N	293004	SONOMA INSTRUMENT	2014.10.31	☒
3 dB Attenuator	8491B	22981	HP	2014.03.19	☒
Antenna Mast	MA4000-EP	303	Innco Systems	-	☒
Turn Table	DT2000S-1t	079	Innco Systems	-	☒
Amplifier	8449B	3008A02343	AGILENT	2014.10.31	☒
Horn ANT	3115	00086706	ETS	2014.09.05	☒
Spectrum Analyzer	FSP7	100289	R&S	2014.11.25	☐

6.2.4 Sample calculation

The field strength is calculated adding the antenna Factor, cable loss and, Antenna pad adding, subtracting the amplifier gain from the measured reading.

The sample calculation is as follow:

$$\text{Result} = \text{M.R} + \text{C.F}(\text{A.F} + \text{C.L} + 3 \text{ dB Att} - \text{A.G})$$

M.R = Meter Reading

C.F = Correction Factor

A.F = Antenna Factor

C.L = Cable Loss

A.G= Amplifier Gain

3 dB Att = 3 dB Attenuator

If M.R is 30 dB, A.F 12 dB, C.L 5 dB, 3 dB, A.G 35 dB

The result is

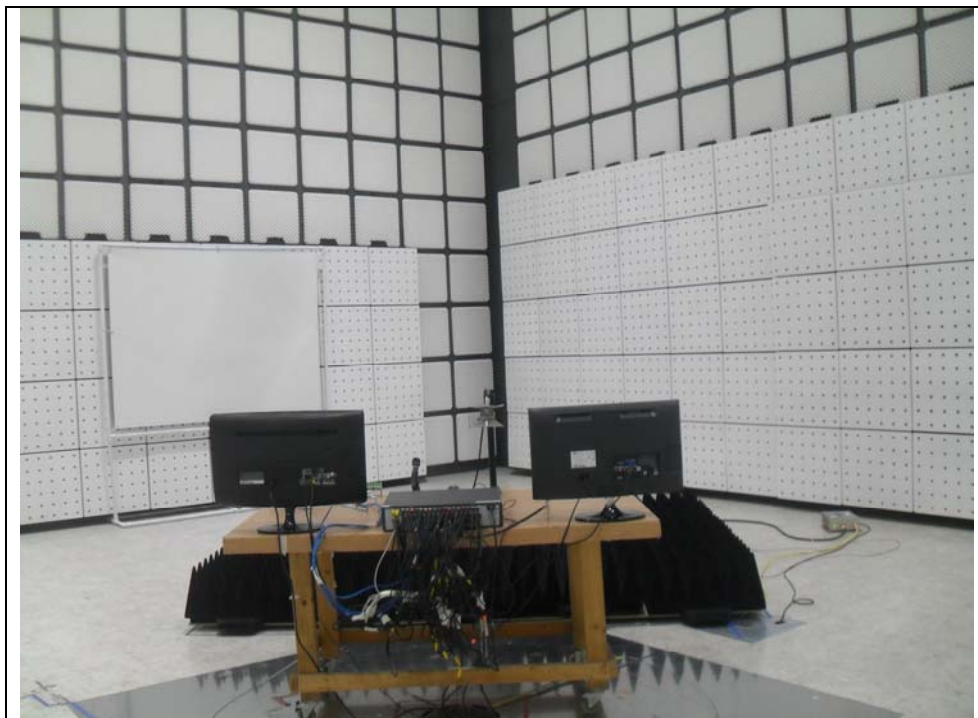
$$30 + 12 + 5 + 3 - 35 = 15 \text{ dB}\mu\text{V/m}$$

6.2.5 Photographs of test setup

* 30 MHz ~ 1 GHz



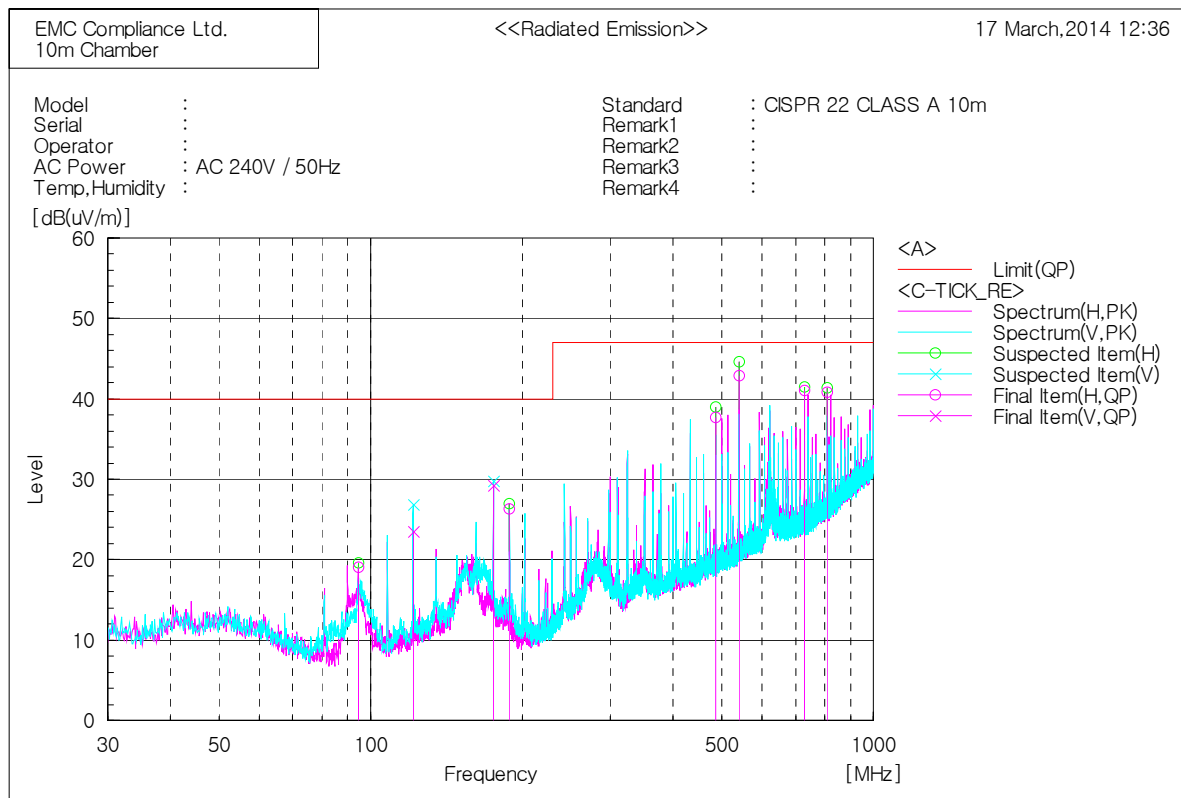
* 1 GHz ~ 6 GHz



6.2.6 Radiated emission measurement result

* Graph and Data

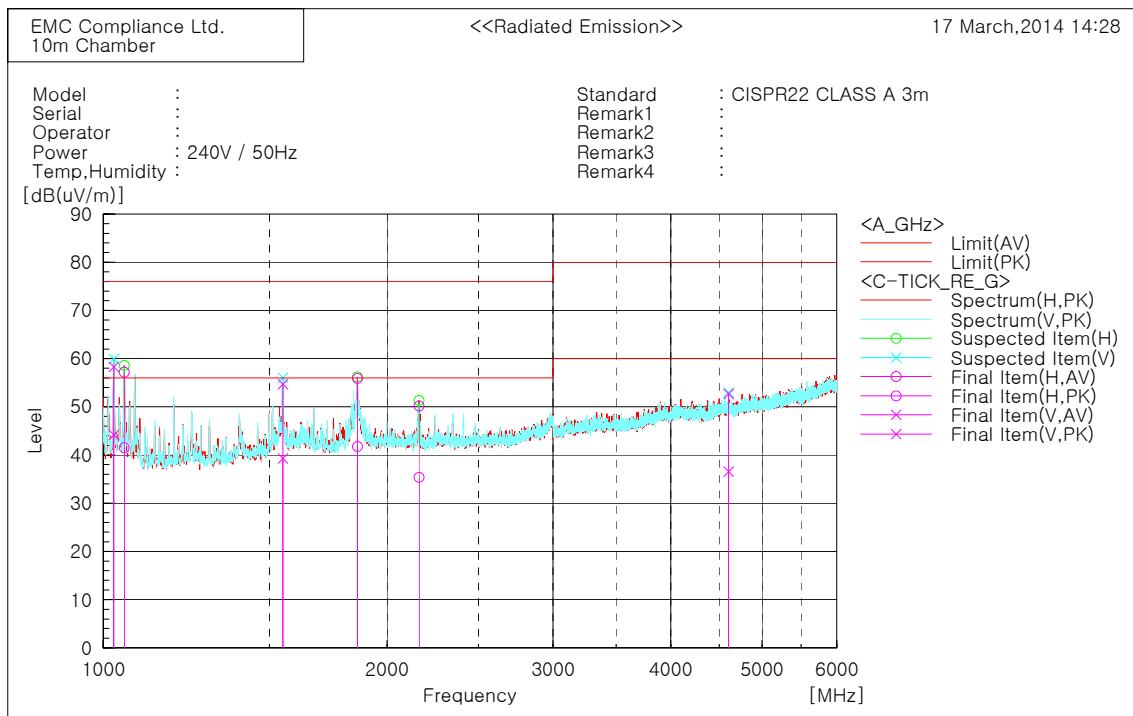
* 30 MHz ~ 1 GHz (SRD-1656DP)



Final Result

No.	Frequency [MHz]	(P)	Reading QP [dB(μV)]	c.f [dB(1/m)]	Result QP [dB(μV/m)]	Limit QP [dB(μV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
1	94.505	H	37.2	-18.1	19.1	40.0	20.9	400.0	88.5
2	121.544	V	38.7	-15.2	23.5	40.0	16.5	100.0	21.6
3	175.500	V	42.3	-13.1	29.2	40.0	10.8	100.0	300.9
4	188.959	H	40.4	-14.1	26.3	40.0	13.7	199.0	165.0
5	486.021	H	42.6	-4.9	37.7	47.0	9.3	199.0	353.6
6	539.978	H	46.3	-3.4	42.9	47.0	4.1	199.0	160.0
7	729.006	H	40.9	0.2	41.1	47.0	5.9	100.0	181.4
8	810.123	H	38.7	2.1	40.8	47.0	6.2	100.0	163.8

* 1 GHz ~ 6 GHz (SRD-1656DP)



Final Result

No.	Frequency [MHz]	(P)	Reading AV [dB(uV)]	Reading PK [dB(uV)]	c.f [dB(1/m)]	Result AV [dB(uV/m)]	Result PK [dB(uV/m)]	Limit AV [dB(uV/m)]	Limit PK [dB(uV/m)]	Margin AV [dB]	Margin PK [dB]	Height [cm]	Angle [deg]
1	1025.625	V	50.0	64.1	-5.8	44.2	58.3	56.0	76.0	11.8	17.7	100.0	117.0
2	1052.500	H	47.2	62.9	-5.7	41.5	57.2	56.0	76.0	14.5	18.8	100.0	110.0
3	1550.000	V	40.9	56.3	-1.6	39.3	54.7	56.0	76.0	16.7	21.3	100.0	184.7
4	1860.625	H	41.6	55.7	0.2	41.8	55.9	56.0	76.0	14.2	20.1	100.0	220.0
5	2161.875	H	34.6	49.4	0.8	35.4	50.2	56.0	76.0	20.6	25.8	100.0	144.6
6	4606.250	V	26.4	42.5	10.2	36.6	52.7	60.0	80.0	23.4	27.3	100.0	178.7

Front View



Rear View



Left View



Right View



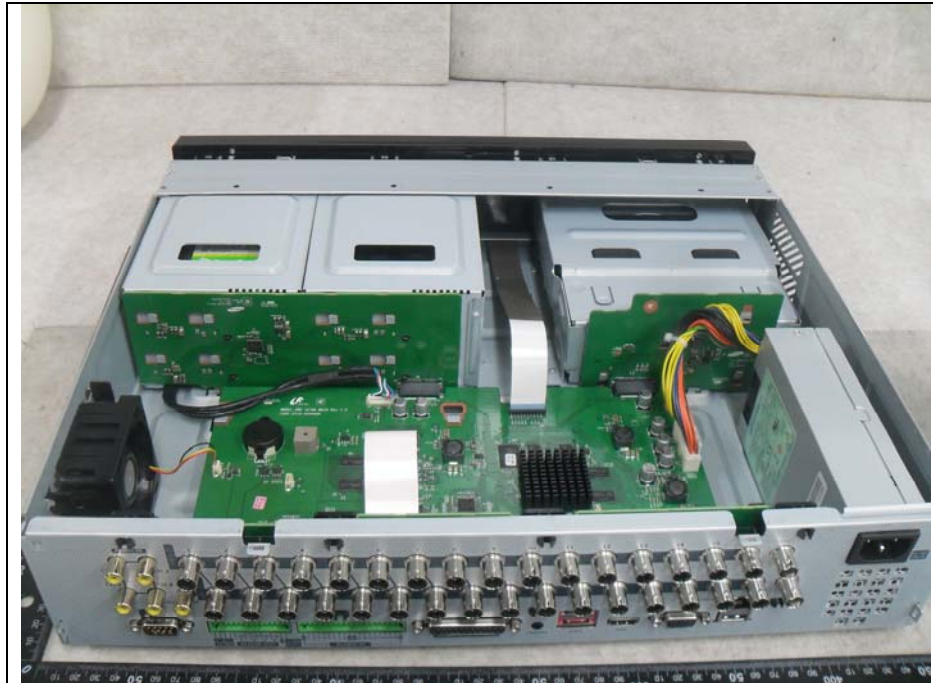
Top View



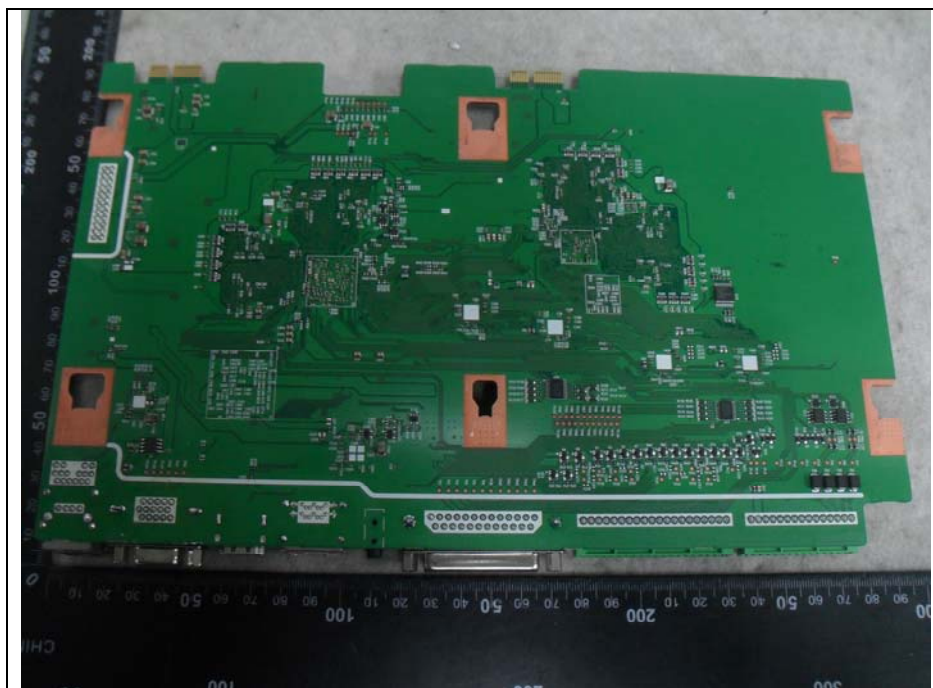
Bottom View



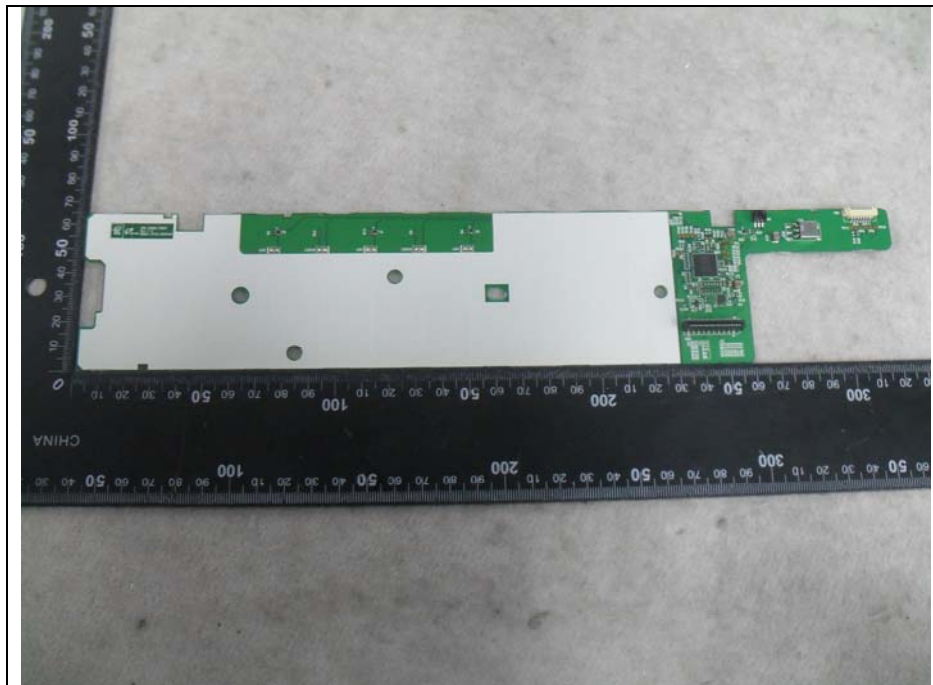
Inside



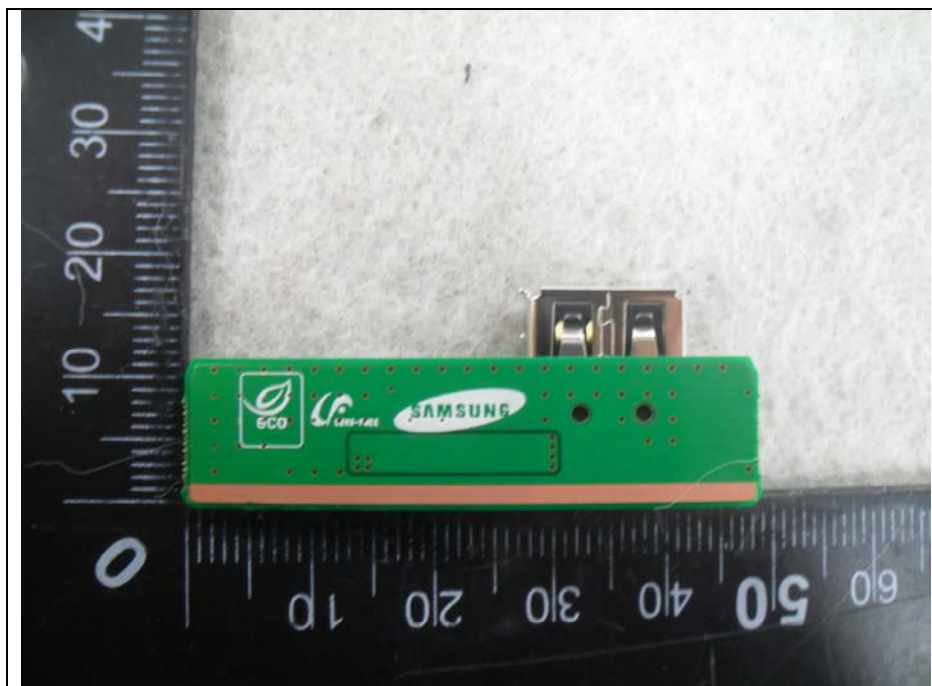
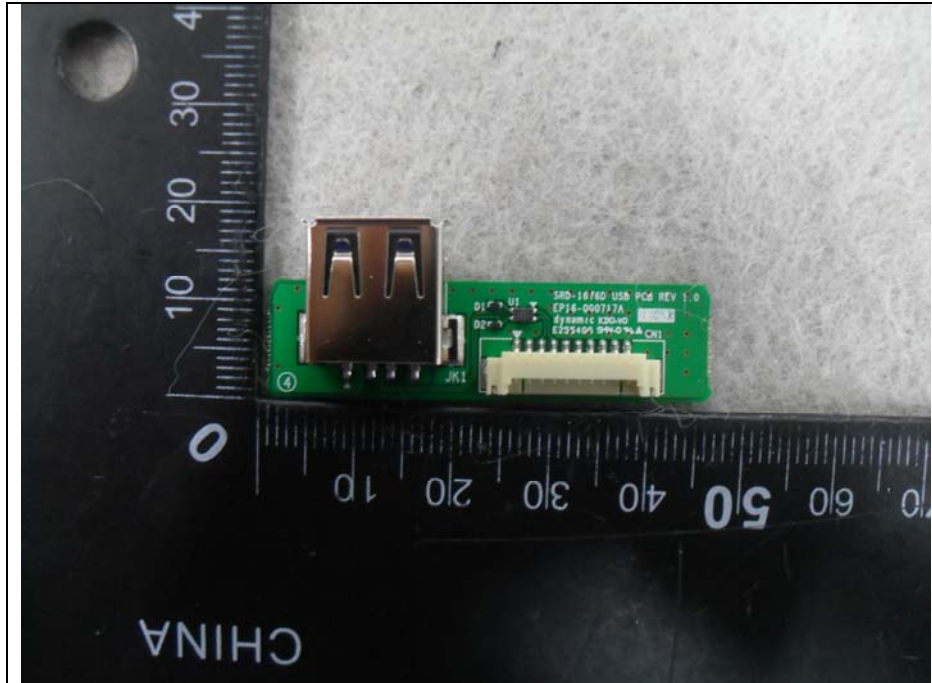
Main Board



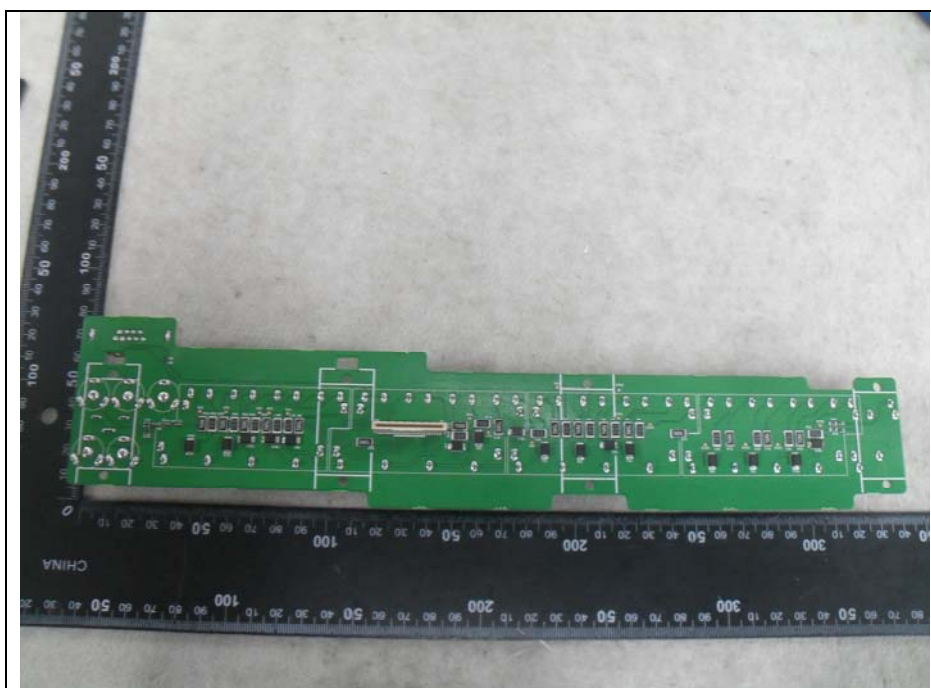
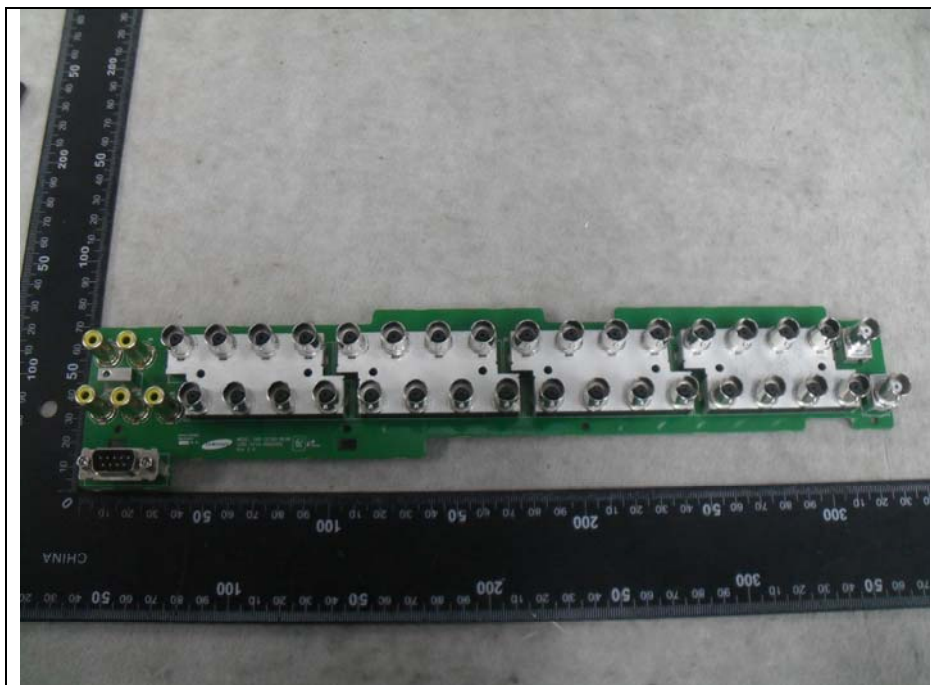
SUB Board



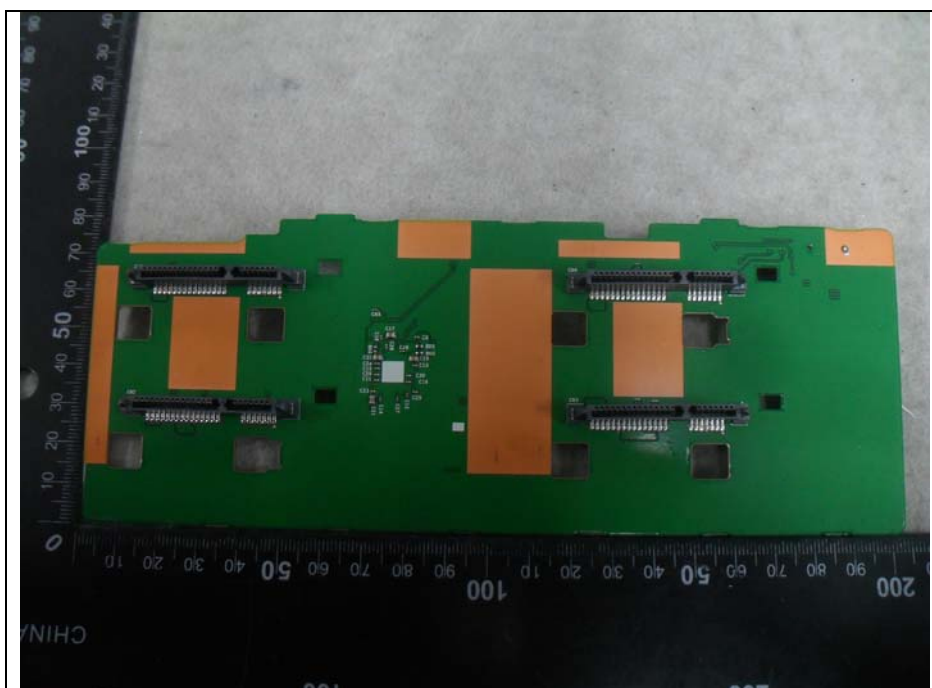
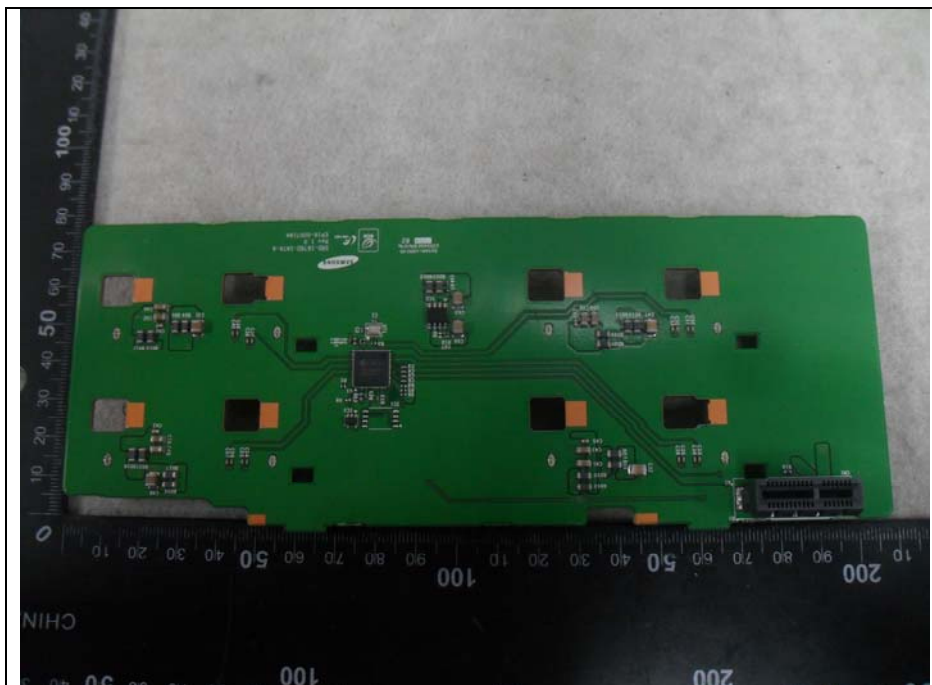
USB Board



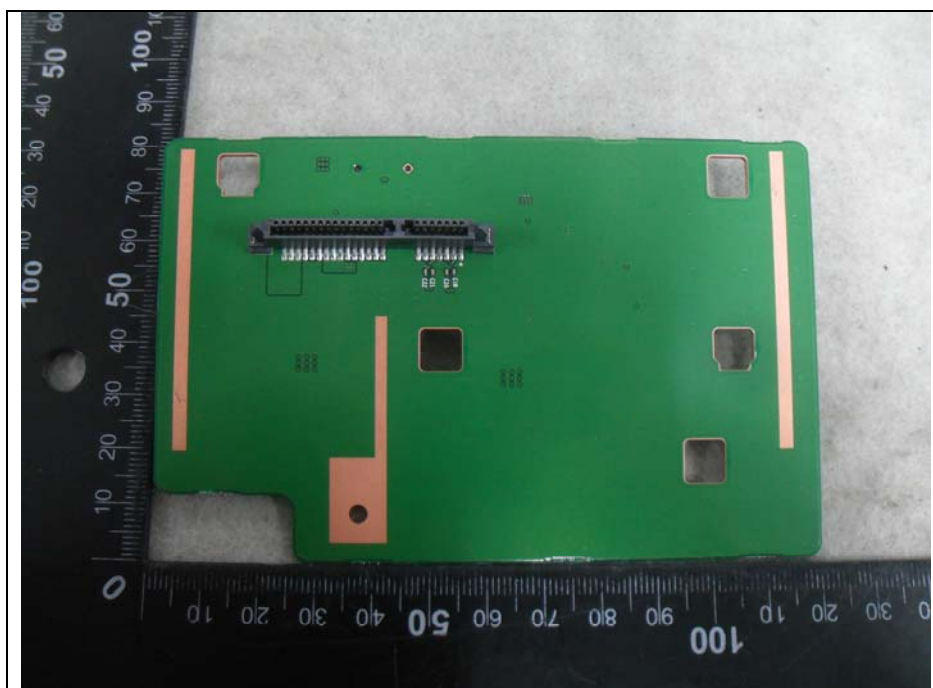
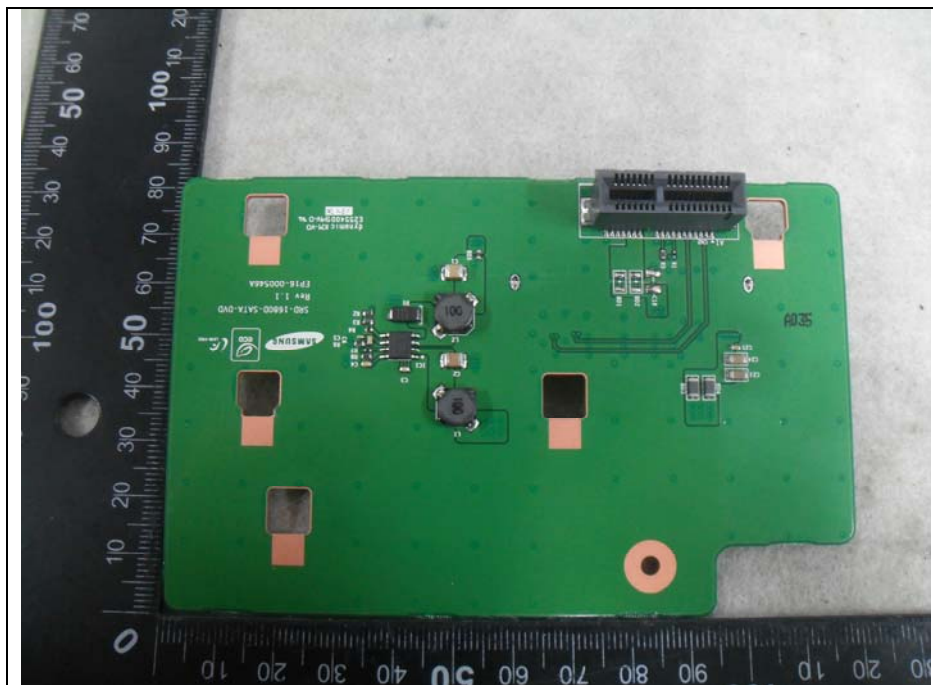
Port Board



SATA Board



SATA DVD Board

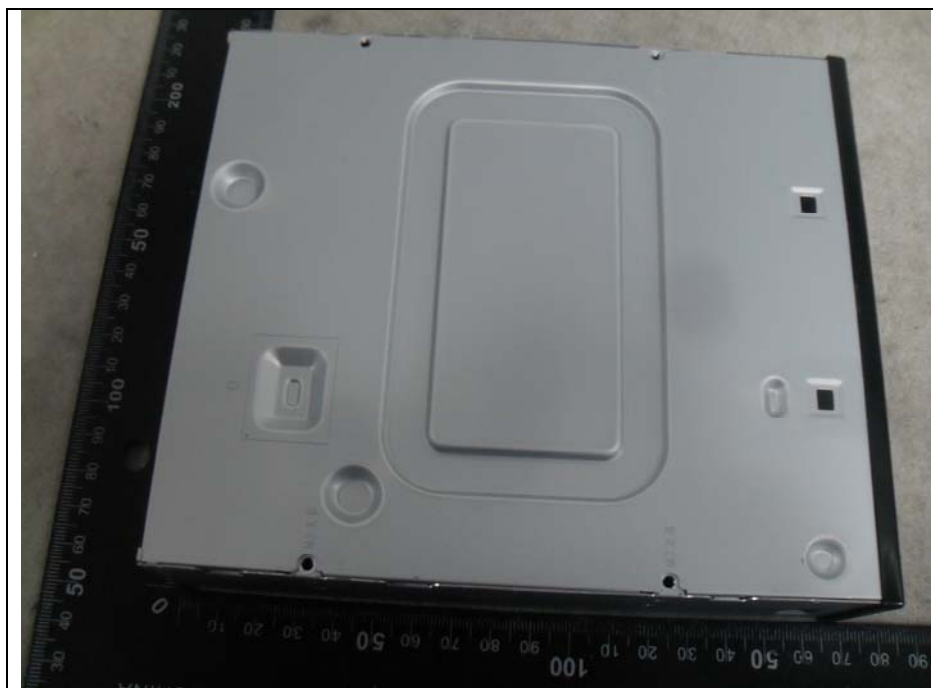


HDD (1TB)





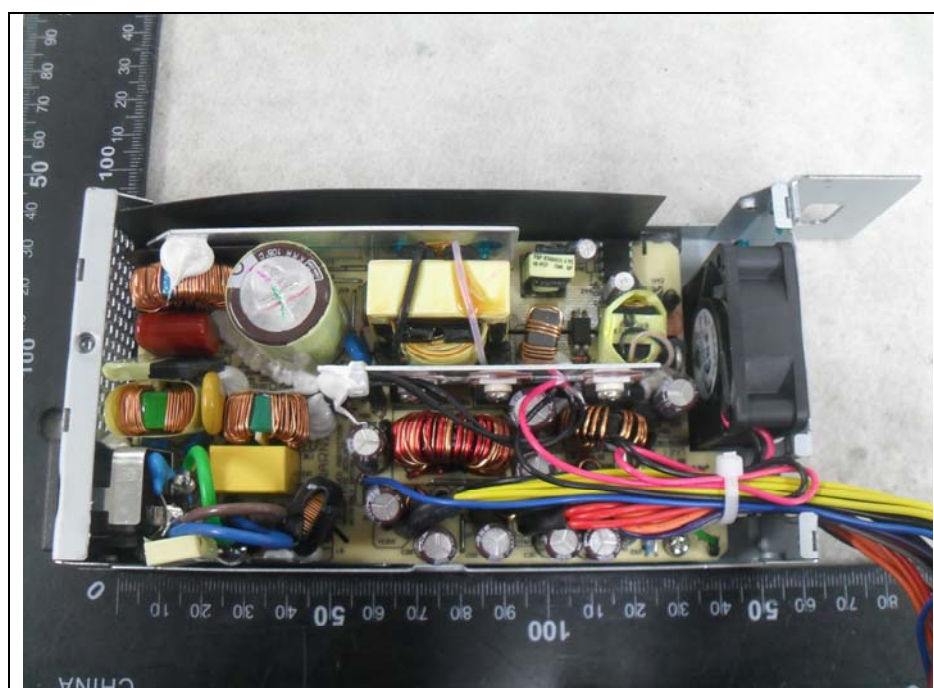
ODD

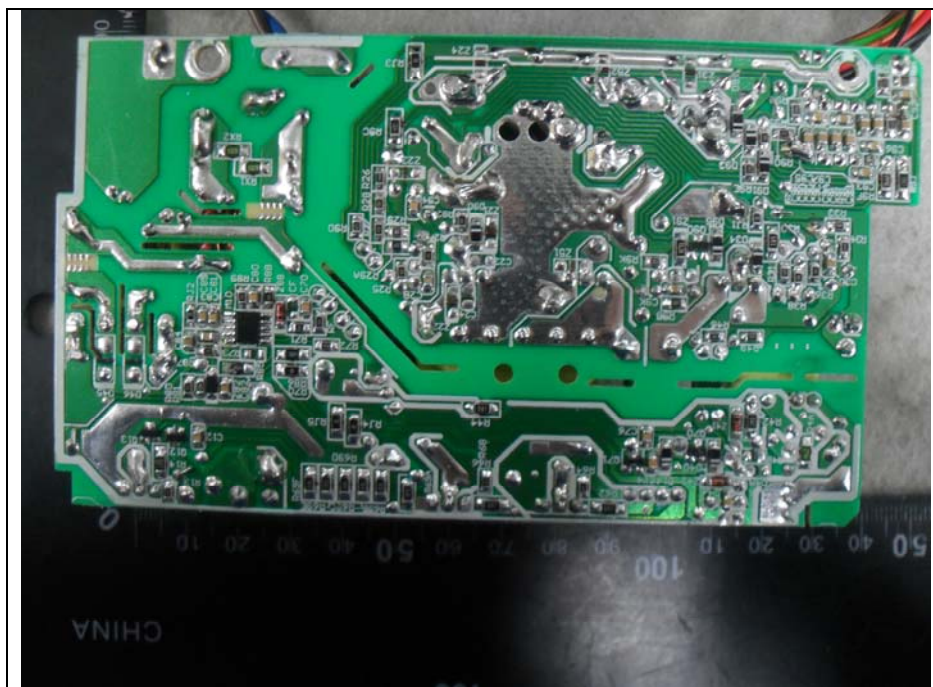
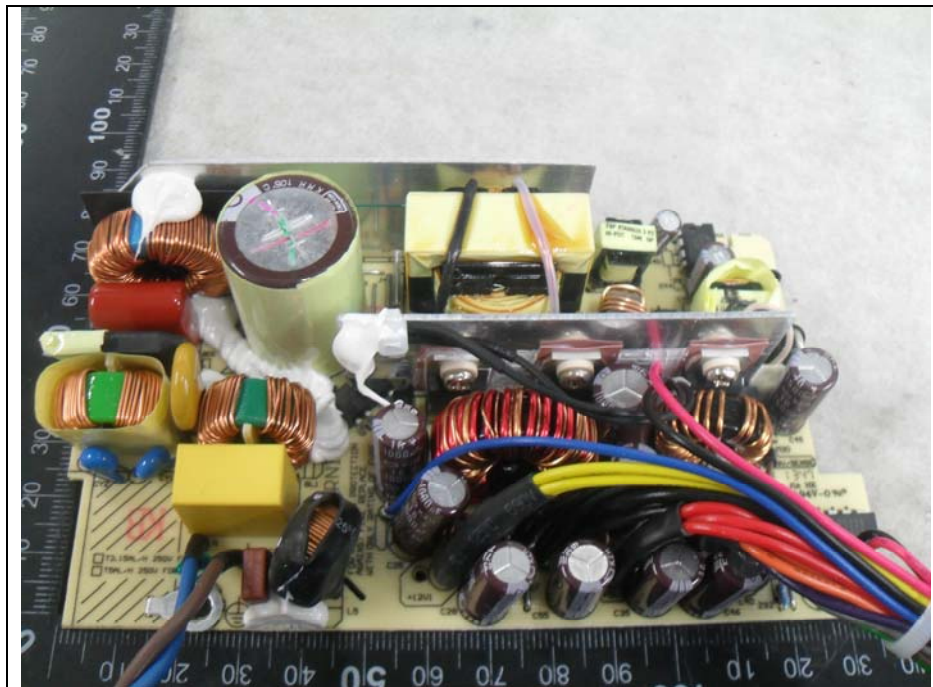




Power







USB Mouse





Remote Control



