

EMC TEST REPORT

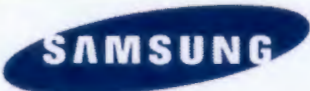
Project No.	LBE20151664	Issue No.	1
Applicant	Name of organization	Samsung Electronics Co., Ltd.	
	Address	19 Chapin Rd., Building D, Pine Brook, New Jersey, United States 07058	
	Date of application	March 17, 2015	
EUT	Kind of product	Multi Function Printer	
	Type of device	Class B personal computers and peripherals	
	Equipment authorization	☐ Declaration of Conformity ☒ Certification ☐ Verification	
	FCC ID	A3LSLC480FW	
	Model No.	Xpress C480FW	
		Variant Model No.	Xpress C480FN, Xpress C480W, Xpress C480, SL-C480FW, SL-C480FN, SL-C480W, SL-C480
	Manufacturer	Samsung Electronics Co., Ltd. (Maetan-dong) 129, Samsung-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 443-742, Korea	
Applied Standards		47 CFR Part 15, Subpart B / ANSI C63.4-2009	
		ICES-003 Issue 5	
Test Period	March 18, 2015 ~ March 24, 2015		
Issue date	April 3, 2015		
Test result : Complied The equipment under test has found to be compliant with the applied standards. (Refer to the attached test result for more detail.)			
Tested by : Young Jin Kim 		Reviewed by : Tae Young Jang 	
The test results in this report only apply to the tested sample. This report must not be reproduced, except in full, without written permission from CS & Environment Centre.			
			
Samsung Electronics Co Ltd, CS & Environment Center (Maetan dong) 129, Samsung-ro, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do 443-742, Korea			

Table of contents

1. Report information	
1.1 Revision history	- 3 page
1.2 Sample calculation	- 3 page
2. Summary of test results	
2.1 Emission	- 3 page
3. General Information	
3.1 Test facility	- 4 page
4. Test configuration	
4.1 Test configuration	- 4 page
4.2 EUT operating mode(s)	- 6 page
4.3 Details of Sampling	- 7 page
4.4 Clock Frequencies	- 7 page
4.5 EUT Description	- 8 page
4.6 Test configuration and condition	- 9 page
4.7 Measurement uncertainty	- 10 page
5. Result of individual tests	
5.1 Conducted disturbance	- 11 page
5.2 Radiated disturbance	- 22 page

Appendix – EUT photographs	- 35 page
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1. Report information

1.1 Revision history

No.	Revised detailed information
Issue 0	There are no revisions and this version is basic test report.
Issue 1	Changed Applicant address.

1.2 Sample calculation

1.2.1 Conducted disturbance (at 10 MHz)

- Limit = 60 dB μ V (Quasi-peak limit)
- Level (50 dB μ V) = Meter Reading (40.2 dB μ V) + Factor (9.8 dB = AMN factor 9.7 dB + Cable loss 0.1 dB)
- Margin (10 dB) = Limit (60 dB μ V) - Level (50 dB μ V) = 10 dB below limit

1.2.2 Radiated disturbance (at 100 MHz)

- Limit = 30 dB μ V/m at 10 m
- Level (20 dB μ V/m)
 - = Meter Reading (40 dB μ V) + Factor (- 20 dB (1/m) = antenna factor + cable loss – amplifier gain)
- Margin (10 dB) = Limit (30 dB μ V/m) - Level (20 dB μ V/m) = 10 dB below limit

2. Summary of test results

2.1 Emission

The EUT has been tested according to the following specifications:

Applied	Test type	Applied standard	Result
☒	Conducted Disturbance (Mains Port)	47 CFR Part 15 Subpart B / ANSI C63.4-2009 (☐ Class A, ☒ Class B)	Complied
☒	Radiated Disturbance		Complied

- Note : These results are deemed satisfactory evidence of compliance with ICES-003 of the Canadian Interference – Causing Equipment Regulations

3. General Information

3.1 Test facility

The CS & Environment center is located on Samsung Electronics Co., Ltd. at (Maetan dong) 129, Samsung-ro, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do 443-742 Korea. All testing are performed in Semi-anechoic chambers conforming to the site attenuation Characteristics defined by ANSI C63.4, CISPR 22, 16-1 and 16-2. and Shielded rooms.

The CS & Environment center is operated as testing laboratory in accordance with the requirements of ISO/IEC 17025:2005.

4. Test Setup configuration

4.1 Test configuration

4.1.1 Test Peripherals

The cables used for these peripherals are either permanently attached by the peripheral manufacturer or coupled with an assigned cable as defined below.

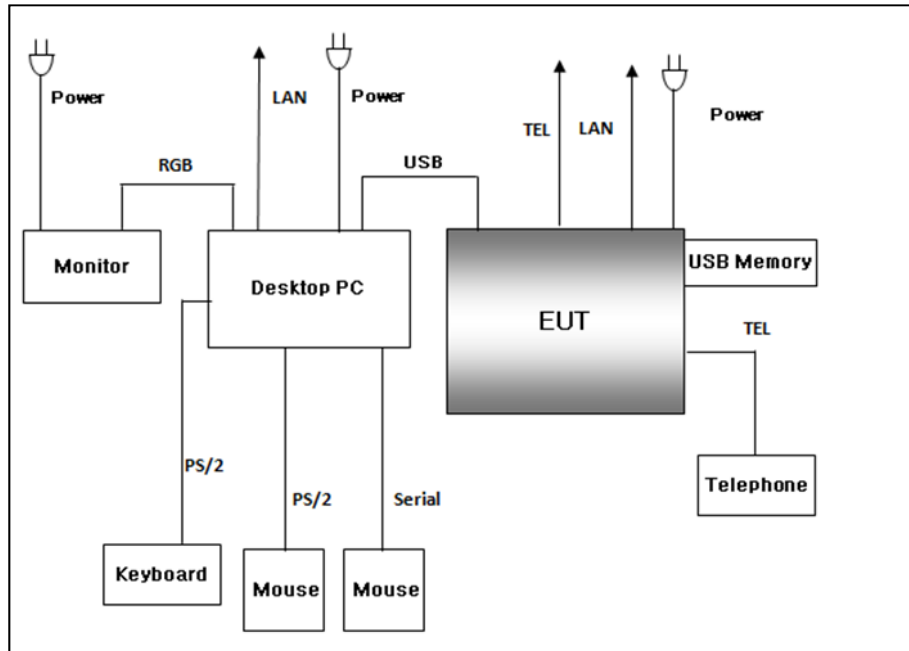
The following is a listing of the EUT and peripherals utilized during the performance of EMC test:

Description	Model No.	Serial No.	Manufacturer	Fcc ID / DoC
Multi Function Printer	Xpress C480FW	-	SAMSUNG	A3LSLC480FW
D/T PC	ZCP30	Z41698DY700026X	SAMSUNG	DoC
LCD Monitor	UE19D4000	PV421101103020F	SAMSUNG	DoC
PS/2 Keyboard	K6723	CN13BA5903224AGP53DCK0596	MONTEREY	DoC
PS/2 Mouse	M-S48a	LZA00153189	Logitech	DoC
Serial Mouse	-	-	RadioShack	DoC
Telephone	SP-F209K	KKAY413543T	SAMSUNG	-

4.1.2 Test cables

Connected cable	Length [m]	Shielded [Y/N]	Number of Ferrite Core	Note
Power	1.8	No	-	For EUT
Power	1.8	No	-	For PC
Power	1.8	No	-	For Monitor
RGB	1.8	Yes	-	From PC to Monitor
USB	1.8	Yes	-	From EUT to PC
Serial	1.8	Yes	-	From PC to Mouse
PS/2	1.8	Yes	-	From PC to Keyboard
PS/2	1.8	Yes	-	From PC to Mouse
LAN	2.0	No	-	From EUT to Local Area Network
TEL	3.0	No	-	From EUT to telephones
TEL	2.0	No	-	From EUT to keyphone system

4.1.3 Test arrangement



4.2 EUT operating mode

To achieve compliance applied standard specification, the following mode(s) were made during compliance testing:

Operating Mode 1 (Test mode)	Standby
Operating Mode 2 (Test mode)	USB Printing
Operating Mode 3 (Test mode)	ADF Copy
Operating Mode 4 (Test mode)	FAX Tx

4.3 Details of Sampling

Customer selected, single unit.

4.4 Clock Frequencies

Kind of Clocks	Frequency[MHz]	Kind of Clocks	Frequency[MHz]
Main CPU	800	UI CPU Internal	-
ETHERNET	25	DDR3	533

4.5 EUT Description

The following features describe EUT represented by this report:

Item	Specification and Description
Processor	800MHz CPU
Standard System memory	128MHz
Resolution	True 600x600dpi (Addressible 1200dpi support)
Speed	Color 4ppm/A4, Mono 18ppm/A4
Power Rating	110 VAC ~ 127 VAC, 6 A, 50/60 Hz
Power Consumption	Power Save : 1.4Watts Standby : 60Watts Printing : 290Watts
Interfaces	Hi-Speed USB 2.0, 10/100 Ethernet, Direct USB
Modes of Operation	Standby, USB Printing, Network Printing, Wi-Fi , FAX

4.6 Test configuration and condition

The system was configured for testing in typical fashion use. Cables were attached to each of the available I/O Ports. Where applicable, peripherals were attached to the I/O cables.

The mode of operation utilized for testing was selected to best simulate typical EUT use.

The EUT was connected to a remote PC through the Ethernet port with Unshielded Twisted Pair Ethernet cable.

Power source for the EUT operating was supplied by CVCF made by the Pacific Corp.

- Test Voltage : AC 120 V, 60 Hz

4.7 Measurement uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus: (According to CISPR 16-4 and UKAS Lab 34.)

4.7.1 Emission

Test type		Measurement uncertainty (C.L. 95 %, k = 2)
Conducted disturbance	Main terminal (ENV216)	± 3.16 dB
Radiated Disturbance (Below 1 GHz)	Horizontal	± 4.90 dB
	Vertical	± 4.66 dB
Radiated Disturbance (Above 1 GHz)	Horizontal	± 5.45 dB
	Vertical	± 5.43 dB

5. Results of individual test

5.1 Conducted disturbance

Both conducted lines are measured in Quasi-Peak and Average mode, including the worst-case data points for each tested configuration. The EUT measured in accordance with the methods described in standards.

Limits for conducted disturbance at the mains ports

Frequency range Limits(MHz)	Resolution Bandwidth(kHz)	Limits of Class A, dB(μV)		Limits of Class B, dB(μV)	
		Quasi-peak	Average	Quasi-peak	Average
0.15 ~ 0.50	9	79	66	66 ~ 56	56 ~ 46
0.50 ~ 5	9	73	60	56	46
5 ~ 30	9			60	50
NOTE 1 The lower limit shall apply at the transition frequency					
NOTE 2 The Class B limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.					

If the reading on the measuring receiver shows fluctuations close to the limit, the reading shall be observed for at least 15 seconds at each measurement frequency, the highest reading shall be recorded, with the exception of any brief isolated high reading (which shall be ignored).

5.1.1 Test instrumentation

Test instrumentation	Model name	Manufacturer	Serial or Firmware (No./Ver.)	Calibration	
				Date	Interval (Month)
EMI Test Receiver	ESIB-26	R&S	100291	2014-12-08	12
Two-Line V-Network	ENV216	R&S	101369	2014-11-17	12
Two-Line V-Network	ENV216	R&S	101366	2014-07-24	12
Test Software	EMC32	R&S	Ver 8.53.0	-	-

5.1.2 Temperature and humidity condition

Test date	March 24, 2015	Test engineer		Young Jin Kim	
Climate condition	Ambient temperature	23.5 ℃	Relative humidity	35 %	
	Atmospheric pressure	100. 4 kPa			
Test place	Shielded Room #8				

5.1.3 Photograph of Test Setup



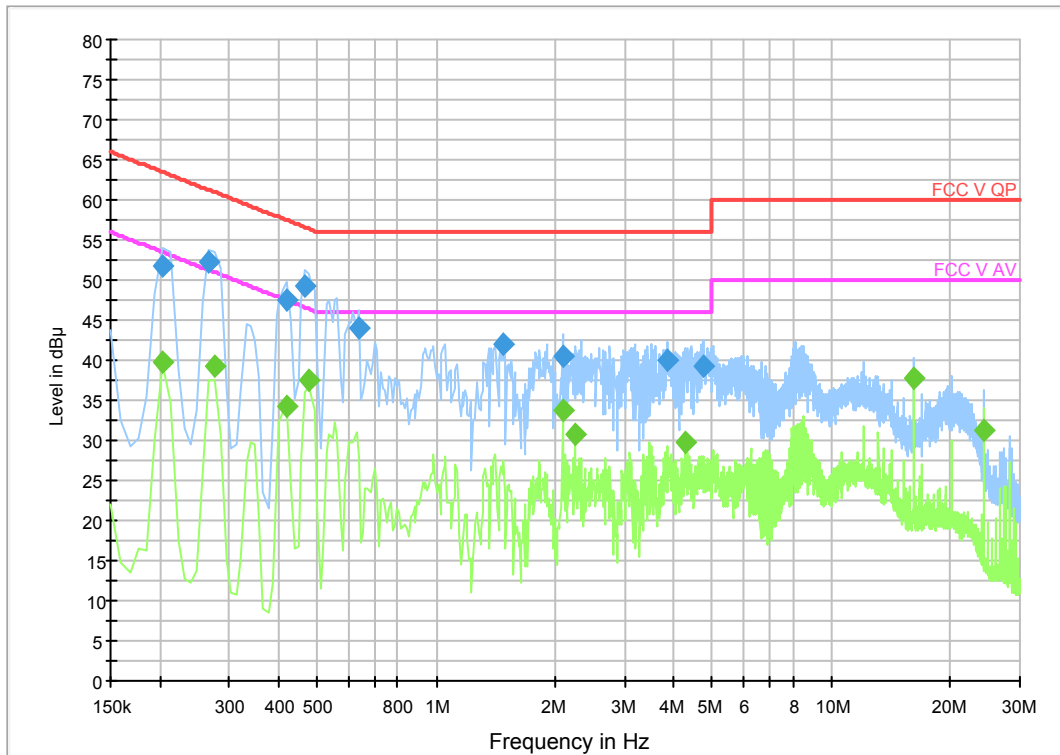
Front



Rear

5.1.4 Test results (mains port)

- Operating Mode : 1



Note1) Two graphs measured for both Live(L1) and Neutral(N) of the LISN are combined into one graph.

Test Results (Quasi-Peak and C/Average)

Quasi-peak final measurement results table

Frequency (MHz)	Level ¹⁾ Quasi-Peak (dBμV)	Line ²⁾	Factor ³⁾ (dB)	Margin ⁴⁾ (dB)	Limit (dBμV)
0.204	51.8	N	10.0	11.60	63.40
0.267	52.1	N	9.7	9.10	61.20
0.420	47.5	N	9.9	9.90	57.40
0.465	49.2	N	9.9	7.40	56.60
0.636	44.0	N	9.9	12.00	56.00
1.482	42.0	N	9.8	14.00	56.00
2.085	40.6	L1	9.7	15.40	56.00
3.849	40.0	L1	9.8	16.00	56.00
4.758	39.3	N	9.8	16.70	56.00

C/Average final measurement results table

Frequency (MHz)	Level ¹⁾ C/Average (dBμV)	Line ²⁾	Factor ³⁾ (dB)	Margin ⁴⁾ (dB)	Limit (dBμV)
0.204	39.8	N	10.0	13.60	53.40
0.276	39.2	N	9.7	11.70	50.90
0.420	34.3	L1	9.9	13.20	47.40
0.474	37.6	N	9.9	8.90	46.40
2.085	33.7	L1	9.7	12.30	46.00
2.238	30.8	N	9.7	15.20	46.00
4.254	29.8	N	9.8	16.20	46.00
16.125	37.9	N	9.9	12.10	50.00
24.189	31.2	N	10.0	18.80	50.00

Note1) Level (Quasi-Peak and/or C/Average) = Meter Reading + Factor

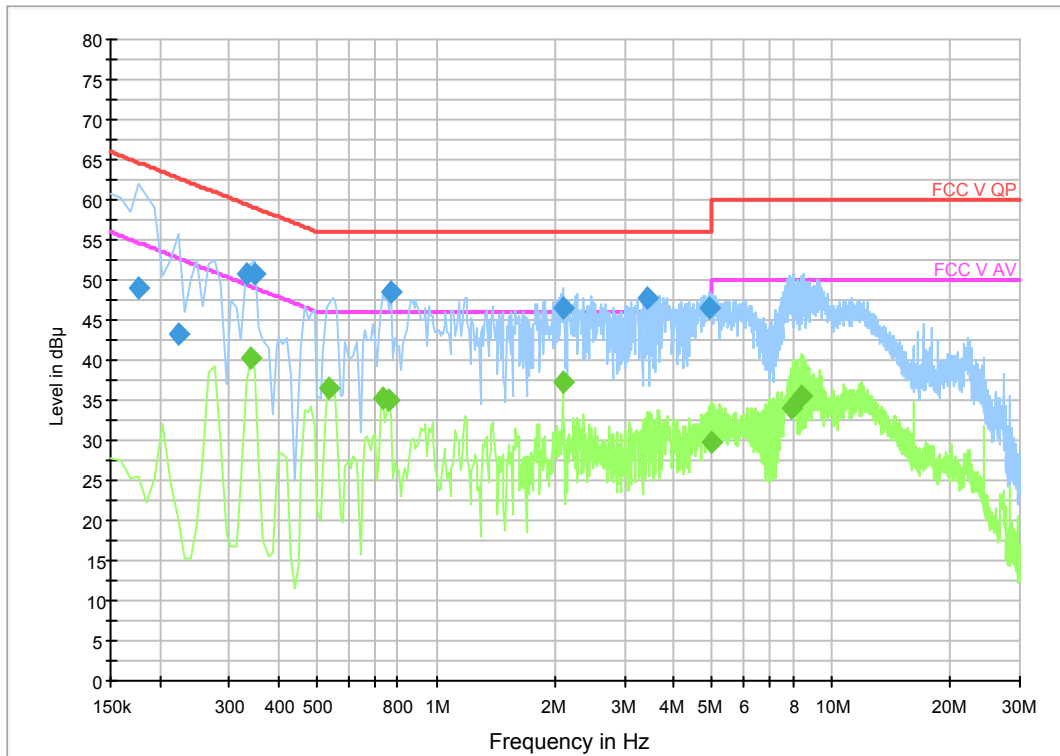
Note2) Line = Polarity of input power (Live or Neutral)

N : Abbreviation of Neutral Polarity, L1 : Abbreviation of Live Polarity,

Note3) Factor = LISN Insertion Loss + Cable Loss

Note4) Margin = Limit – Level (Quasi-Peak and/or C/Average)

Note5) C/Average = CISPR-Average

- Operating Mode : 2

Note1) Two graphs measured for both Live(L1) and Neutral(N) of the LISN are combined into one graph.

Test Results (Quasi-Peak and C/Average)

Quasi-peak final measurement results table

Frequency (MHz)	Level ¹⁾ Quasi-Peak (dBμV)	Line ²⁾	Factor ³⁾ (dB)	Margin ⁴⁾ (dB)	Limit (dBμV)
0.177	48.9	L1	9.9	15.70	64.60
0.222	43.3	L1	9.8	19.50	62.70
0.330	50.7	N	9.8	8.70	59.50
0.348	50.7	N	9.9	8.30	59.00
0.771	48.5	N	9.9	7.50	56.00
2.085	46.6	N	9.7	9.40	56.00
3.408	47.8	N	9.7	8.20	56.00
4.938	46.5	N	9.8	9.50	56.00

C/Average final measurement results table

Frequency (MHz)	Level ¹⁾ C/Average (dBμV)	Line ²⁾	Factor ³⁾ (dB)	Margin ⁴⁾ (dB)	Limit (dBμV)
0.339	40.2	N	9.8	9.10	49.20
0.537	36.6	N	9.9	9.40	46.00
0.735	35.3	N	9.9	10.70	46.00
0.762	35.0	N	9.9	11.00	46.00
2.085	37.2	N	9.7	8.80	46.00
4.992	29.8	N	9.8	16.20	46.00
7.926	34.0	N	9.8	16.00	50.00
8.412	35.5	N	9.8	14.50	50.00

Note1) Level (Quasi-Peak and/or C/Average) = Meter Reading + Factor

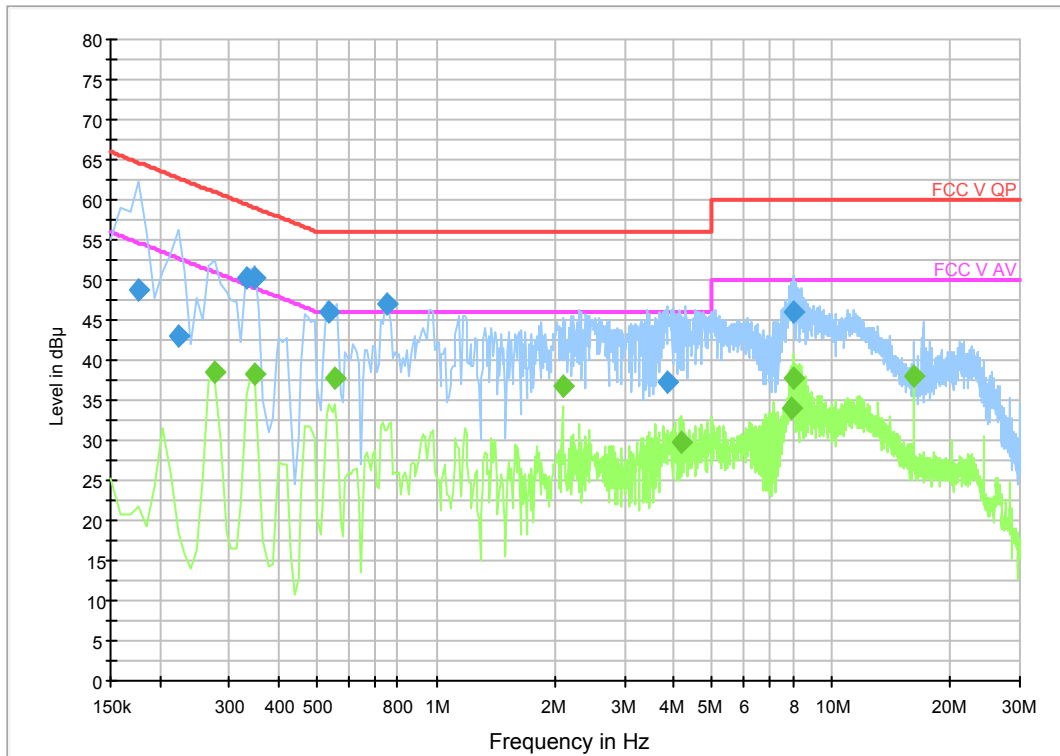
Note2) Line = Polarity of input power (Live or Neutral)

N : Abbreviation of Neutral Polarity, L1 : Abbreviation of Live Polarity,

Note3) Factor = LISN Insertion Loss + Cable Loss

Note4) Margin = Limit – Level (Quasi-Peak and/or C/Average)

Note5) C/Average = CISPR-Average

- Operating Mode : 3

Note1) Two graphs measured for both Live(L1) and Neutral(N) of the LISN are combined into one graph.

Test Results (Quasi-Peak and C/Average)

Quasi-peak final measurement results table

Frequency (MHz)	Level ¹⁾ Quasi-Peak (dBμV)	Line ²⁾	Factor ³⁾ (dB)	Margin ⁴⁾ (dB)	Limit (dBμV)
0.177	48.7	L1	9.9	16.00	64.60
0.222	43.0	L1	9.8	19.80	62.70
0.330	50.4	N	9.8	9.10	59.50
0.348	50.2	N	9.9	8.90	59.00
0.537	46.1	N	9.9	9.90	56.00
0.753	46.9	N	9.9	9.10	56.00
3.867	37.2	N	9.8	18.80	56.00
8.016	46.0	N	9.8	14.00	60.00

C/Average final measurement results table

Frequency (MHz)	Level ¹⁾ C/Average (dBμV)	Line ²⁾	Factor ³⁾ (dB)	Margin ⁴⁾ (dB)	Limit (dBμV)
0.276	38.4	N	9.7	12.50	50.90
0.348	38.2	N	9.9	10.80	49.00
0.555	37.8	N	9.9	8.20	46.00
2.085	36.7	N	9.7	9.30	46.00
4.182	29.8	N	9.8	16.20	46.00
7.962	34.0	N	9.8	16.00	50.00
8.016	37.9	N	9.8	12.10	50.00
16.125	37.9	N	9.9	12.10	50.00

Note1) Level (Quasi-Peak and/or C/Average) = Meter Reading + Factor

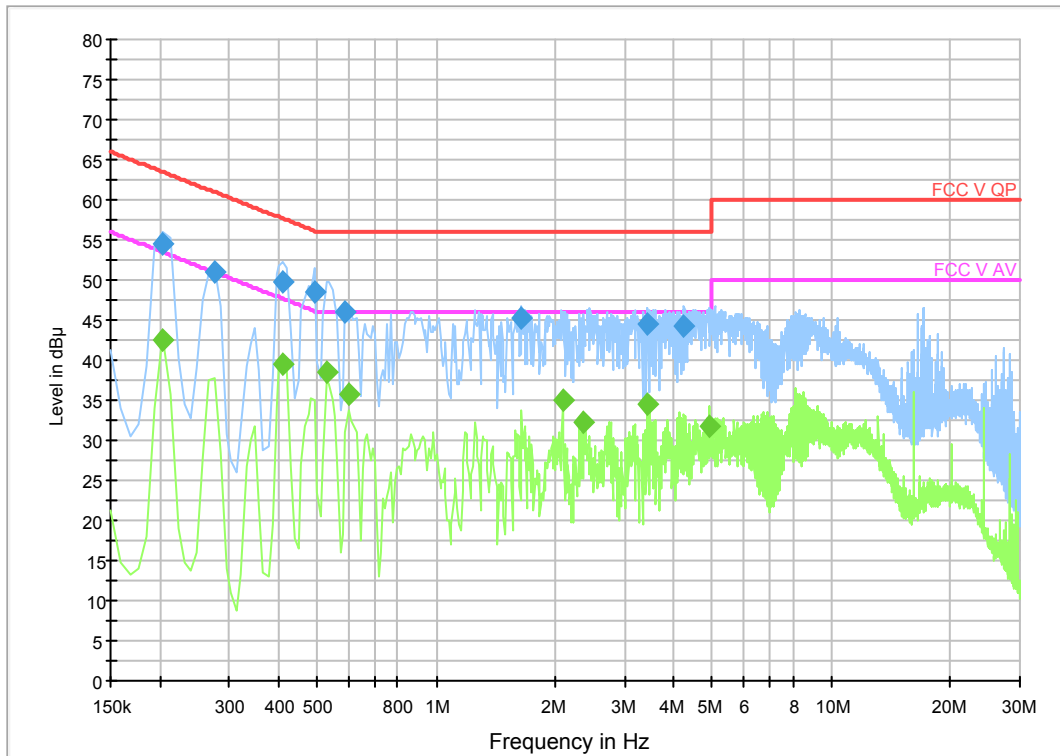
Note2) Line = Polarity of input power (Live or Neutral)

N : Abbreviation of Neutral Polarity, L1 : Abbreviation of Live Polarity,

Note3) Factor = LISN Insertion Loss + Cable Loss

Note4) Margin = Limit – Level (Quasi-Peak and/or C/Average)

Note5) C/Average = CISPR-Average

- Operating Mode : 4

Note1) Two graphs measured for both Live(L1) and Neutral(N) of the LISN are combined into one graph.

Test Results (Quasi-Peak and C/Average)

Quasi-peak final measurement results table

Frequency (MHz)	Level ¹⁾ Quasi-Peak (dBμV)	Line ²⁾	Factor ³⁾ (dB)	Margin ⁴⁾ (dB)	Limit (dBμV)
0.204	54.4	N	10.0	9.00	63.40
0.276	50.9	N	9.7	10.00	60.90
0.411	49.7	N	9.9	8.00	57.60
0.492	48.6	N	10.0	7.60	56.10
0.591	45.9	L1	9.9	10.10	56.00
1.644	45.1	N	9.8	10.90	56.00
3.417	44.5	L1	9.7	11.50	56.00
4.245	44.3	L1	9.8	11.70	56.00

C/Average final measurement results table

Frequency (MHz)	Level ¹⁾ C/Average (dBμV)	Line ²⁾	Factor ³⁾ (dB)	Margin ⁴⁾ (dB)	Limit (dBμV)
0.204	42.4	L1	10.0	11.00	53.40
0.411	39.4	N	9.9	8.20	47.60
0.528	38.4	N	9.9	7.60	46.00
0.600	35.8	N	9.9	10.20	46.00
2.085	35.0	N	9.7	11.00	46.00
2.364	32.2	L1	9.7	13.80	46.00
3.417	34.4	N	9.7	11.60	46.00
4.929	31.7	L1	9.8	14.30	46.00

Note1) Level (Quasi-Peak and/or C/Average) = Meter Reading + Factor

Note2) Line = Polarity of input power (Live or Neutral)

N : Abbreviation of Neutral Polarity, L1 : Abbreviation of Live Polarity,

Note3) Factor = LISN Insertion Loss + Cable Loss

Note4) Margin = Limit – Level (Quasi-Peak and/or C/Average)

Note5) C/Average = CISPR-Average

5.2 Radiated disturbance

Of those disturbances above ($L - 20$ dB), where L is the limit level in logarithmic units, record at least the disturbance levels and the frequencies of the six highest disturbances.

The following data lists the significant emission frequencies, measured levels, correction factors (for antenna and cables), orientation of table, polarization and height of antenna, the corrected reading, the limit, and the amount of margin. All measurements were taken utilizing quasi-peak detection unless stated otherwise.

Measurements were performed at an antenna to EUT distance of 10 meters and elevated between 1 and 4 meters. Both vertical and horizontal antenna polarizations were measured.

Below 1 GHz, peak detector function mode for prescan was used with resolution bandwidth of 120 kHz and a video bandwidth of 300 kHz and sweep method.

The sweep time for prescan set below 200 ms up and final measurement with quasi-peak detector evaluated for suspected frequencies points, which are detected from prescan measurement.

Final measurements consisted of 3 steps.

First step, frequency fine tuning to find exact disturbance frequency.

Second step, rechecking to search for maximum height and azimuth for interference from EUT

In final step, there are conducted measuring with quasi-peak detector for points which are detected from 1st step & 2nd step.

Limits of Radiated Emission

Frequency range Limits MHz	Resolution Bandwidth	Limit values dB(μ V/m)	
		Class A (a distance of 10 meters)	Class B (a distance of 3 meters)
30 to 88	120 kHz	39	40
88 to 216	120 kHz	43.5	43.5
216 to 960	120 kHz	46	46
Above 960	120 kHz	49.5	54

Peak measurements were made over the changeable frequency range 1 GHz to 6 GHz in accordance with internal maximum operating frequency at a measurement distance of 3 m for the following antenna and turntable arrangements:

Antenna Height(m)	Antenna Polarisation	Turntable position (degrees)
1.0 ~ 4.0	Horizontal, Vertical	Continuous

Limits above 1 GHz at a measurement distance of 3 m

Frequency range Limits (GHz)	Resolution Bandwidth (MHz)	Limits of Class A, dB(μ V/m)		Limits of Class B, dB(μ V/m)	
		Peak	Average	Peak	Average
1 ~ 5	1	80	60	74	54
NOTE The lower limit shall apply at the transition frequency					

Measurements within 20 dB of the limit were then maximized by adjusting turntable position. Final measurements were made using an average detector.

Results checked manually and points close to the limit line were re-measured.

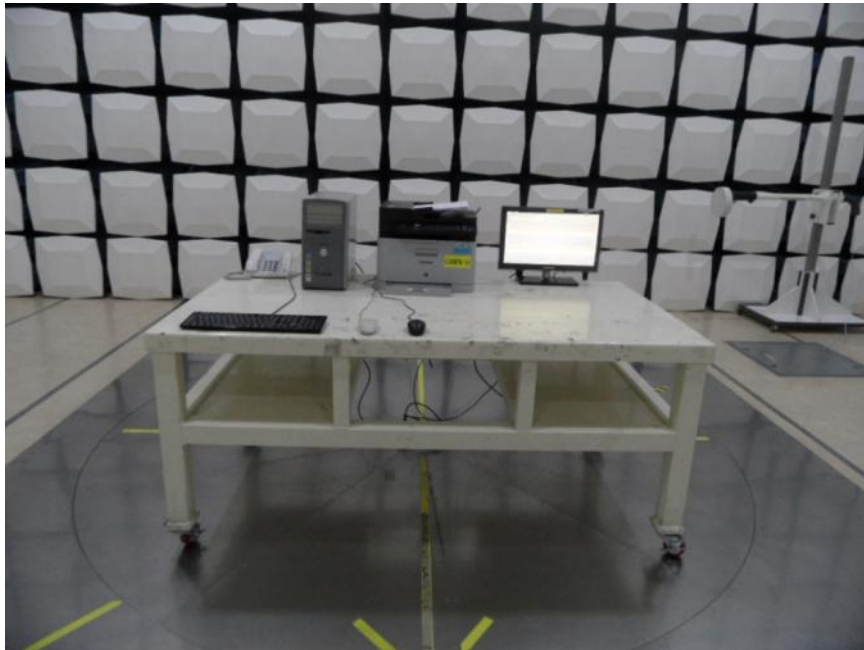
5.2.1 Test instrumentation

Test instrumentation	Model name	Manufacturer	Serial or Firmware (No./Ver.)	Calibration	
				Date	Interval (Month)
Antenna Mast	AM 4.0	Maturo	AM4.0/061/2410908	-	-
Antenna Mast	AM 4.0	Maturo	AM4.0/060/2410908	-	-
Controller	MCU	Maturo	MCU/100/2410908	-	-
Controller	HD100	HD	100/723	-	-
Preamplifier	317	SONOMA	282424	2014-11-10	12
Preamplifier	317	SONOMA	282425	2014-11-10	12
Preamplifier	ESV-Z3	R&S	815111	2014-04-10	12
BILOG Antenna	CBL6112D	TESEQ	25513	2014-10-24	24
BILOG Antenna	CBL6112B	Schaffner	2804	2014-05-14	24
Double-Ridged Waveguide Horn Antenna	HF906	R&S	100027	2013-05-31	24
EMI Test Receiver	ESU-08	R&S	100084	2014-12-12	12
EMI Test Receiver	ESU-08	R&S	100481	2014-06-02	12
EMI Test Receiver	ESIB-26	R&S	100287	2014-05-15	12
Test Software	EP5/RE	TOYO	Ver 5.70.10	-	-

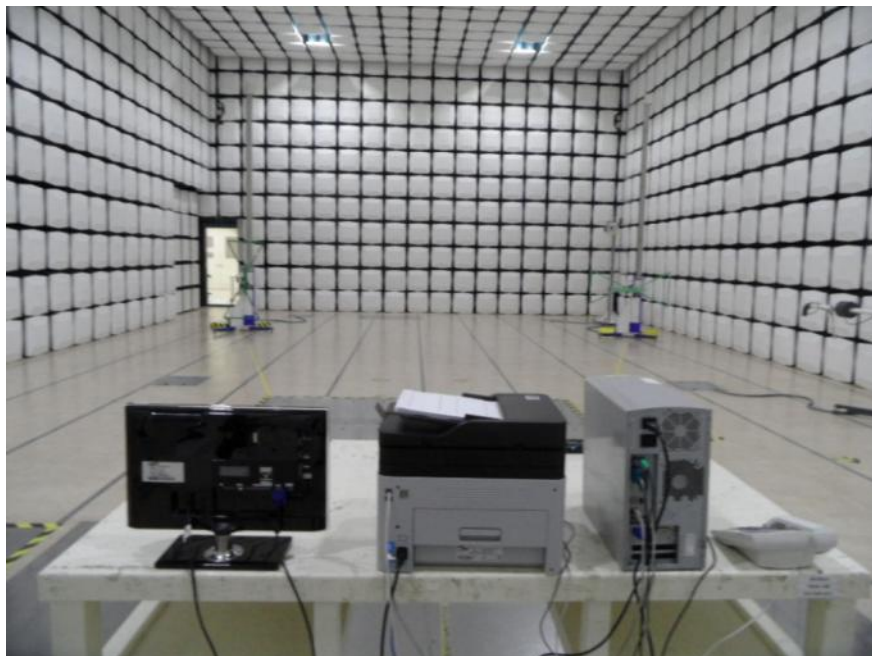
5.2.2 Temperature and humidity condition

Test date	March 18, 2015	Test engineer		Young Jin Kim	
Climate condition	Ambient temperature	23.0 °C	Relative humidity	32 %	
	Atmospheric pressure	100.8 kPa			
Test place	Semi-Anechoic Chamber (SAC4)				

5.2.3.1 Photograph of Test Setup (30 MHz ~ 1 000 MHz)

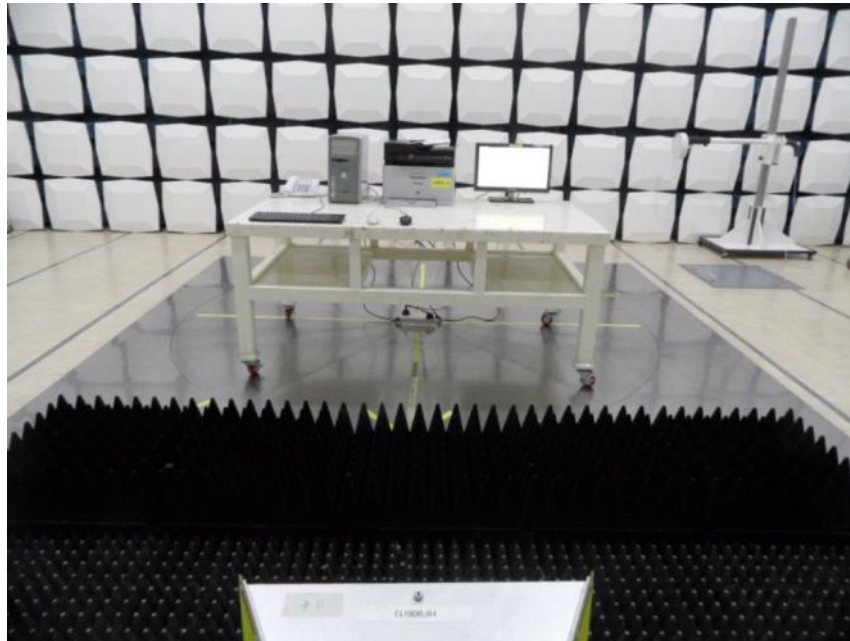


Front

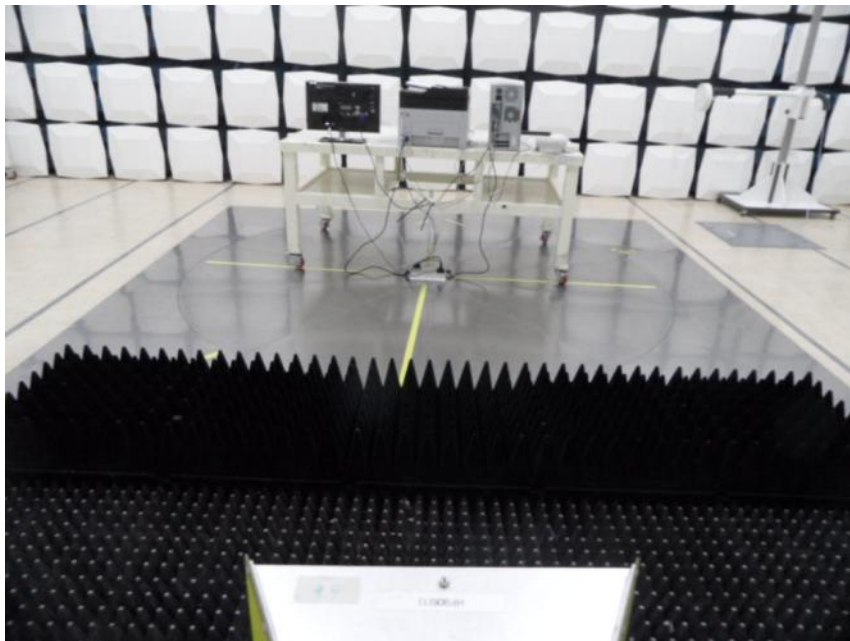


Rear

5.2.3.2 Photograph of Test Setup (Above 1 GHz)



Front

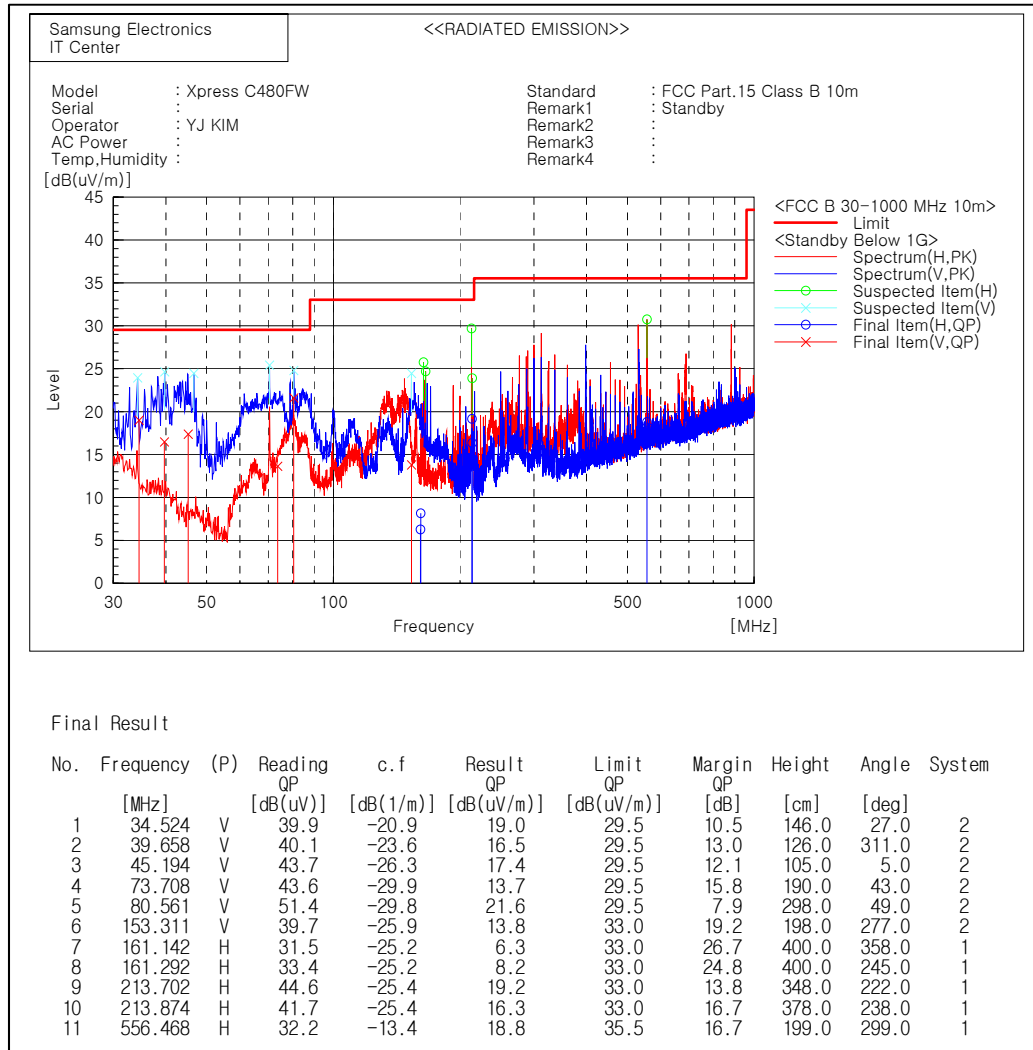


Rear

5.2.4 Test results

5.2.4.1 30 MHz ~ 1 000 MHz results

- Operating Mode : 1



Note1) (P) : Abbreviation of Antenna Polarity

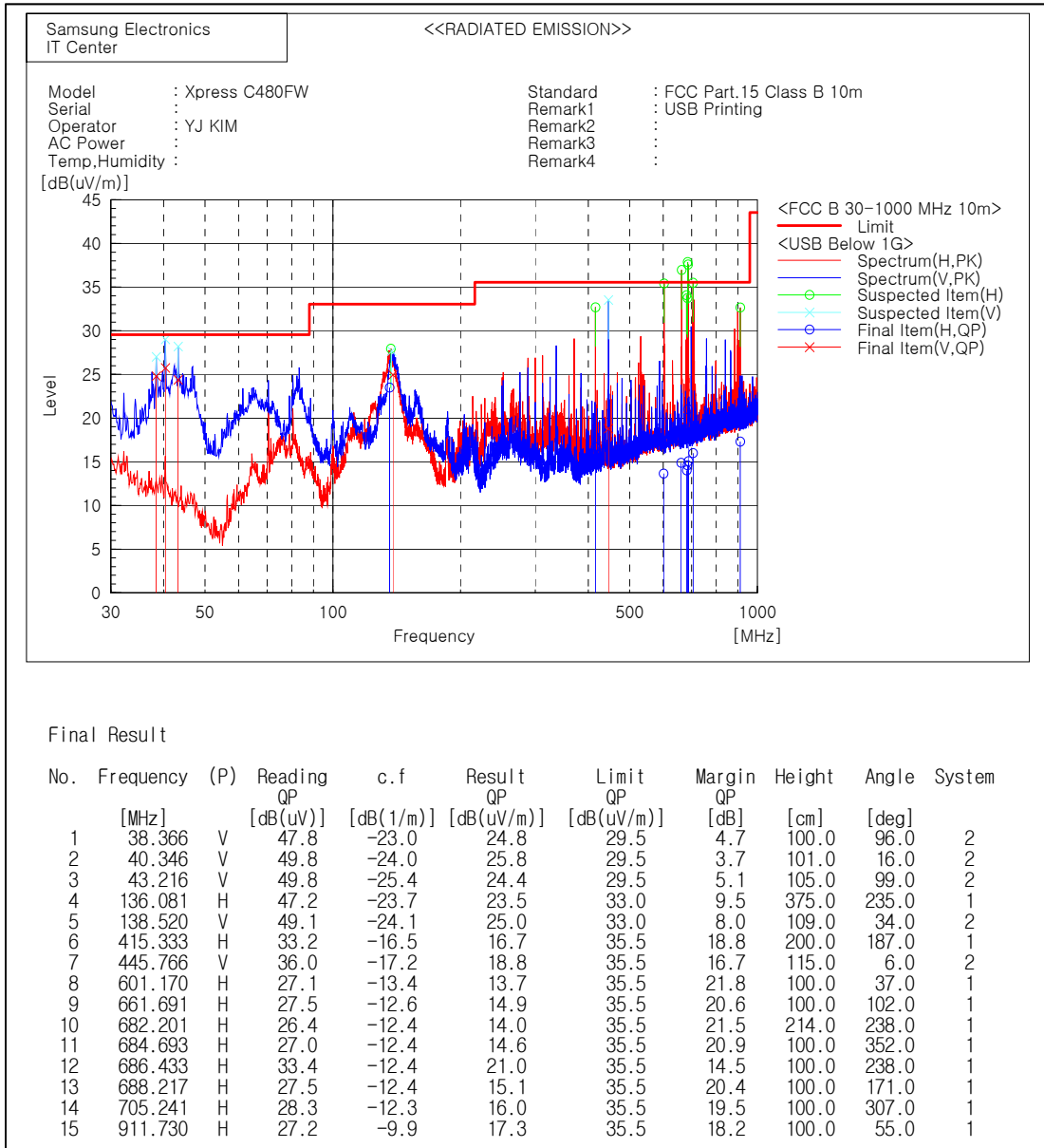
Note2) Reading QP : Received raw Quasi-peak signal

Note3) c.f = Factor = Antenna factor + Cable loss – Amplifier gain

Note4) Result QP = Level QP = Reading QP + Factor, Real signal Quasi-peak level

Note5) Margin QP = Limit – Level QP

QP : Abbreviation of Quasi-peak

- Operating Mode : 2

Note1) (P) : Abbreviation of Antenna Polarity

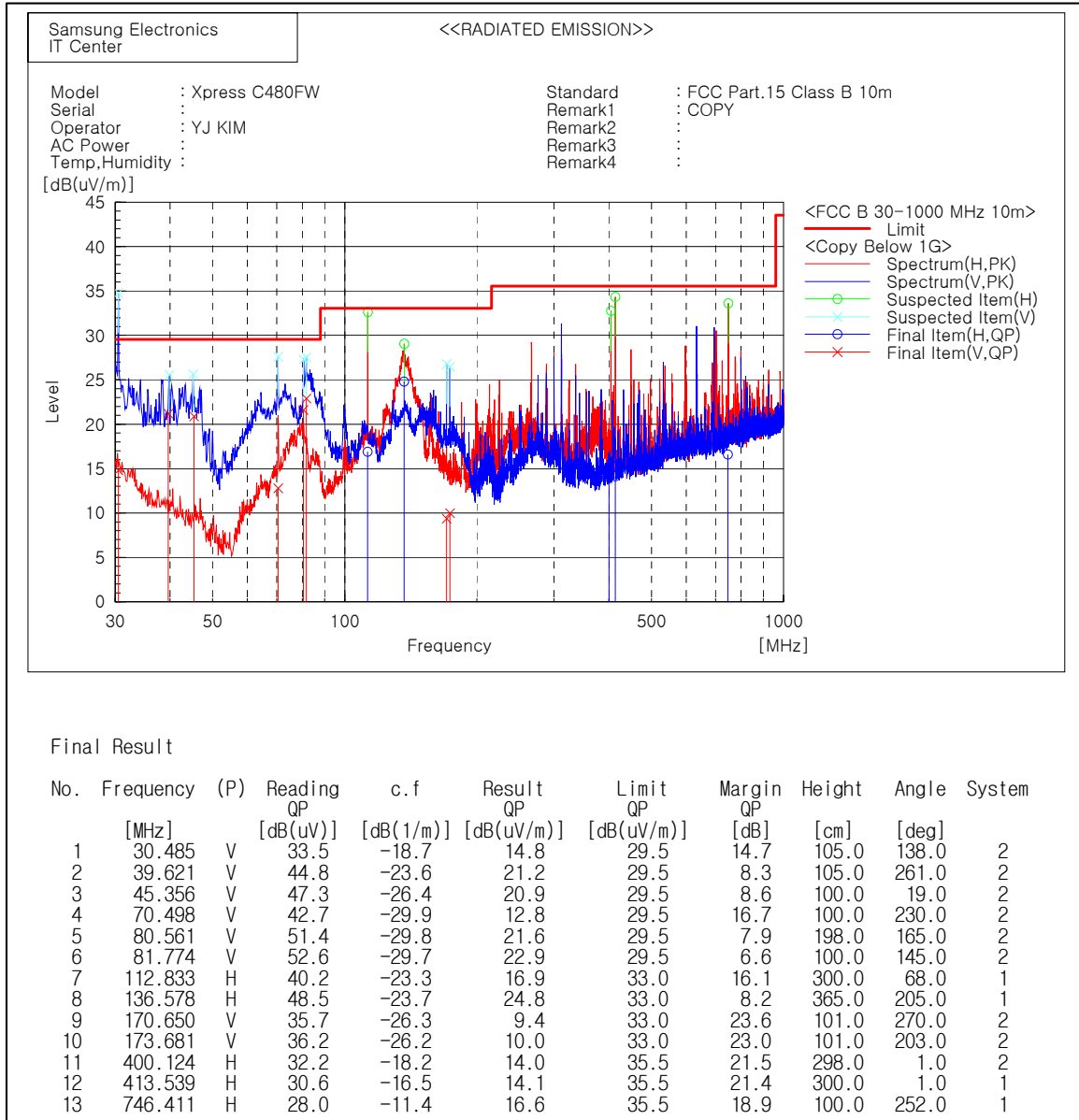
Note2) Reading QP : Received raw Quasi-peak signal

Note3) c.f = Factor = Antenna factor + Cable loss – Amplifier gain

Note4) Result QP = Level QP = Reading QP + Factor, Real signal Quasi-peak level

Note5) Margin QP = Limit – Level QP

QP : Abbreviation of Quasi-peak

- Operating Mode : 3

Note1) (P) : Abbreviation of Antenna Polarity

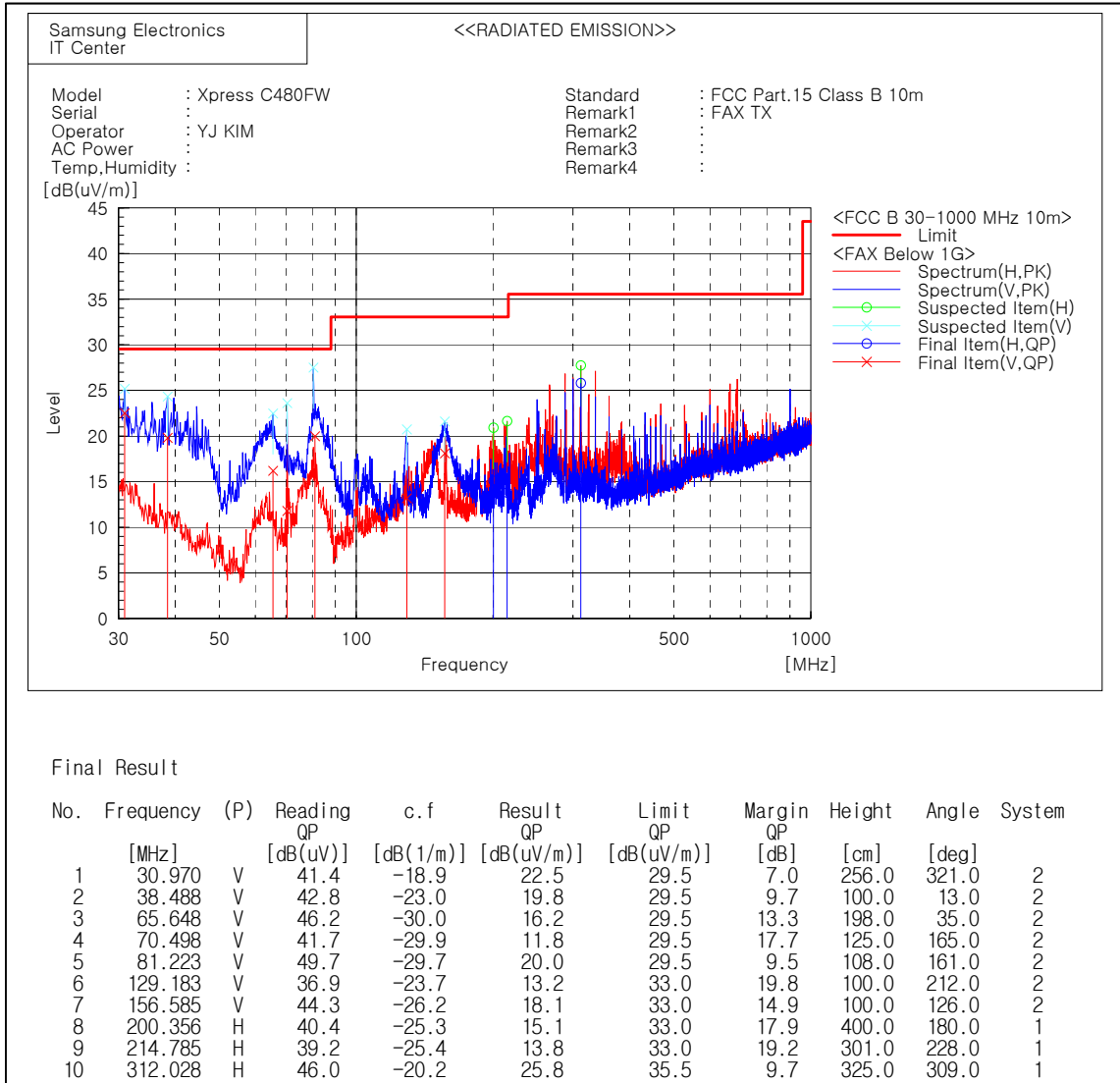
Note2) Reading QP : Received raw Quasi-peak signal

Note3) c.f = Factor = Antenna factor + Cable loss – Amplifier gain

Note4) Result QP = Level QP = Reading QP + Factor, Real signal Quasi-peak level

Note5) Margin QP = Limit – Level QP

QP : Abbreviation of Quasi-peak

- Operating Mode : 4

Note1) (P) : Abbreviation of Antenna Polarity

Note2) Reading QP : Received raw Quasi-peak signal

Note3) c.f = Factor = Antenna factor + Cable loss – Amplifier gain

Note4) Result QP = Level QP = Reading QP + Factor, Real signal Quasi-peak level

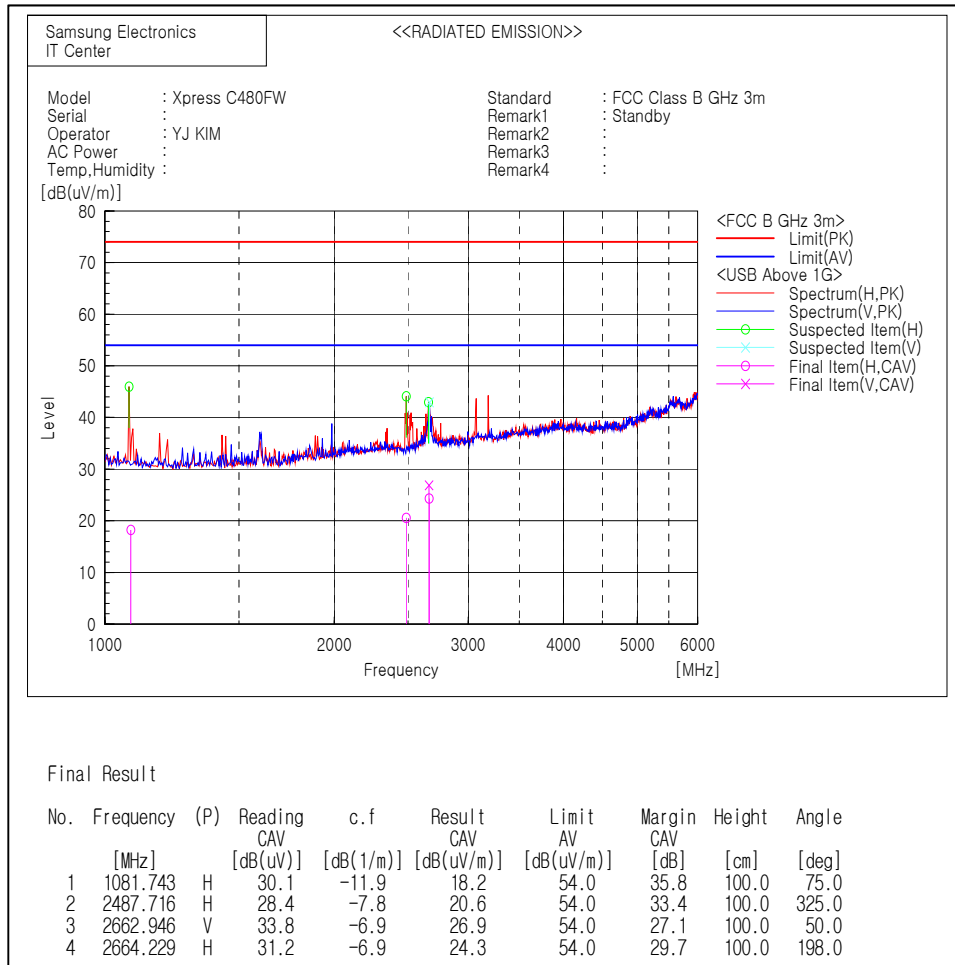
Note5) Margin QP = Limit – Level QP

QP : Abbreviation of Quasi-peak

5.2.4.2 Above 1 GHz results

- Operating Mode : 1

Test Graph and Results



Note1) Receiving antenna polarization : Horizontal and Vertical

Result PK(Peak) = Reading PK(Peak) + c.f(Antenna Factor + Cable Loss - Amp. Gain)

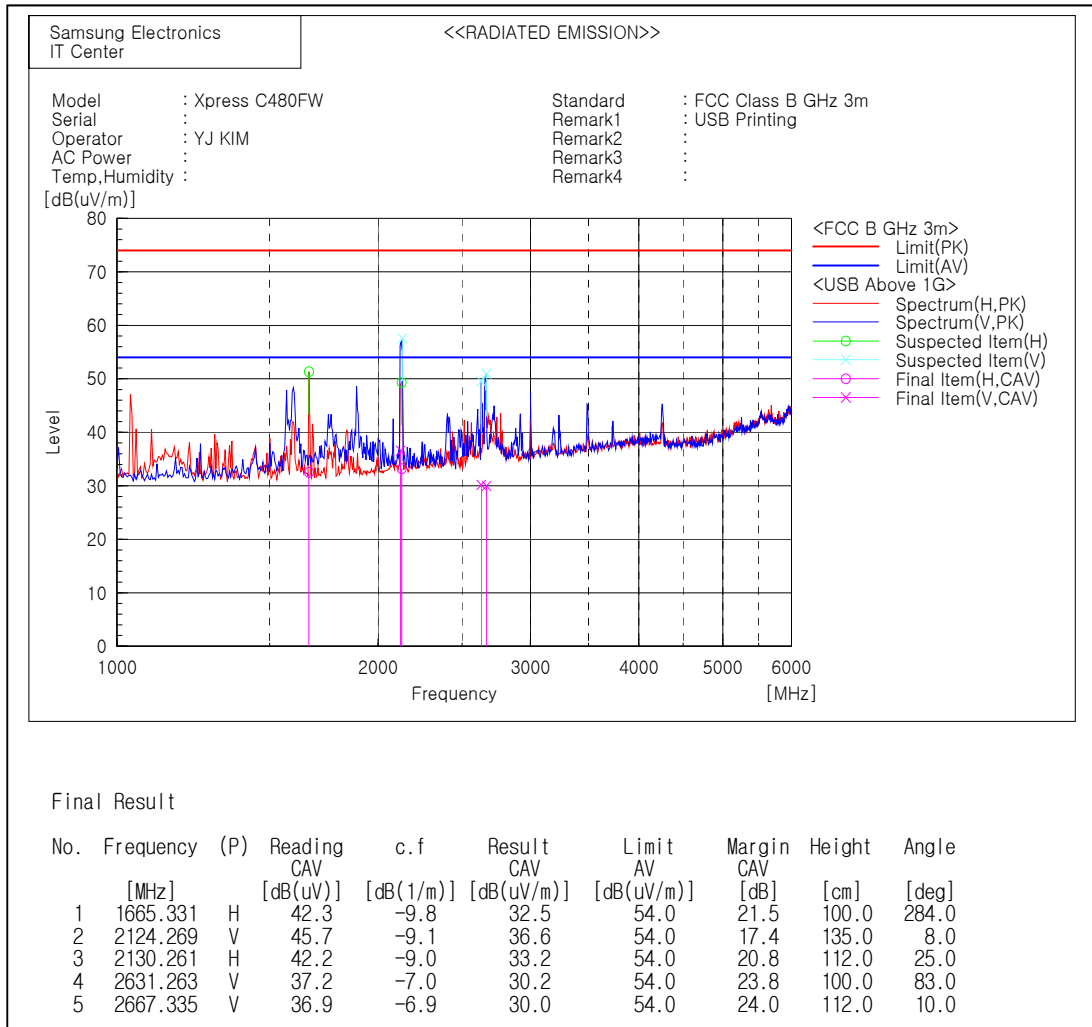
Result AV (C/Average) = Reading AV (C/Average) + c.f(Antenna Factor + Cable Loss - Amp. Gain)

Margin PK (Peak) = Limit - Result PK (Peak)

Margin AV (C/Average) = Limit - Result AV (C/Average)

Note2) c.f = Factor = Antenna factor + Cable loss - Amplifier gain

Note3) C/Average = CISPR-Average

- Operating Mode : 2**Test Graph and Results**

Note1) Receiving antenna polarization : Horizontal and Vertical

Result PK(Peak) = Reading PK(Peak) + c.f(Antenna Factor + Cable Loss - Amp. Gain)

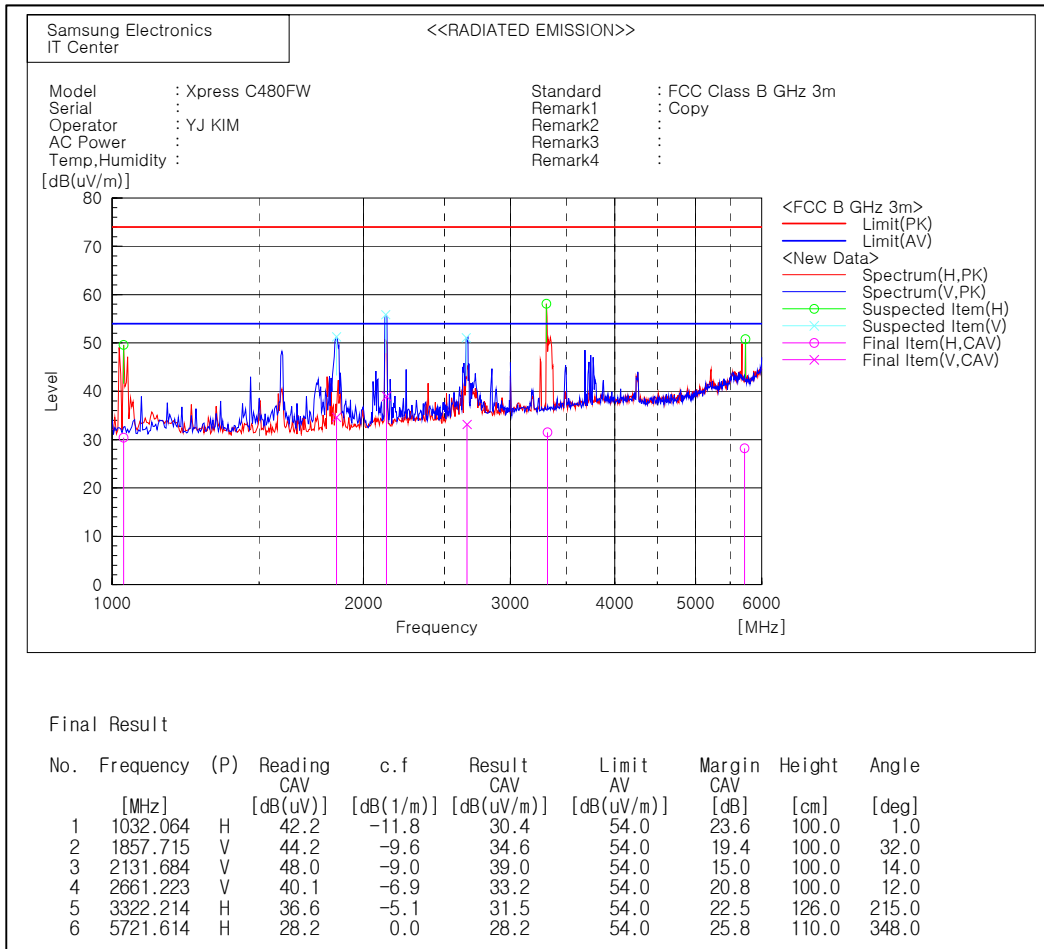
Result AV (C/Average) = Reading AV (C/Average) + c.f(Antenna Factor + Cable Loss - Amp. Gain)

Margin PK (Peak) = Limit - Result PK (Peak)

Margin AV (C/Average) = Limit - Result AV (C/Average)

Note2) c.f = Factor = Antenna factor + Cable loss - Amplifier gain

Note3) C/Average = CISPR-Average

- Operating Mode : 3**Test Graph and Results**

Note1) Receiving antenna polarization : Horizontal and Vertical

Result PK(Peak) = Reading PK(Peak) + c.f(Antenna Factor + Cable Loss - Amp. Gain)

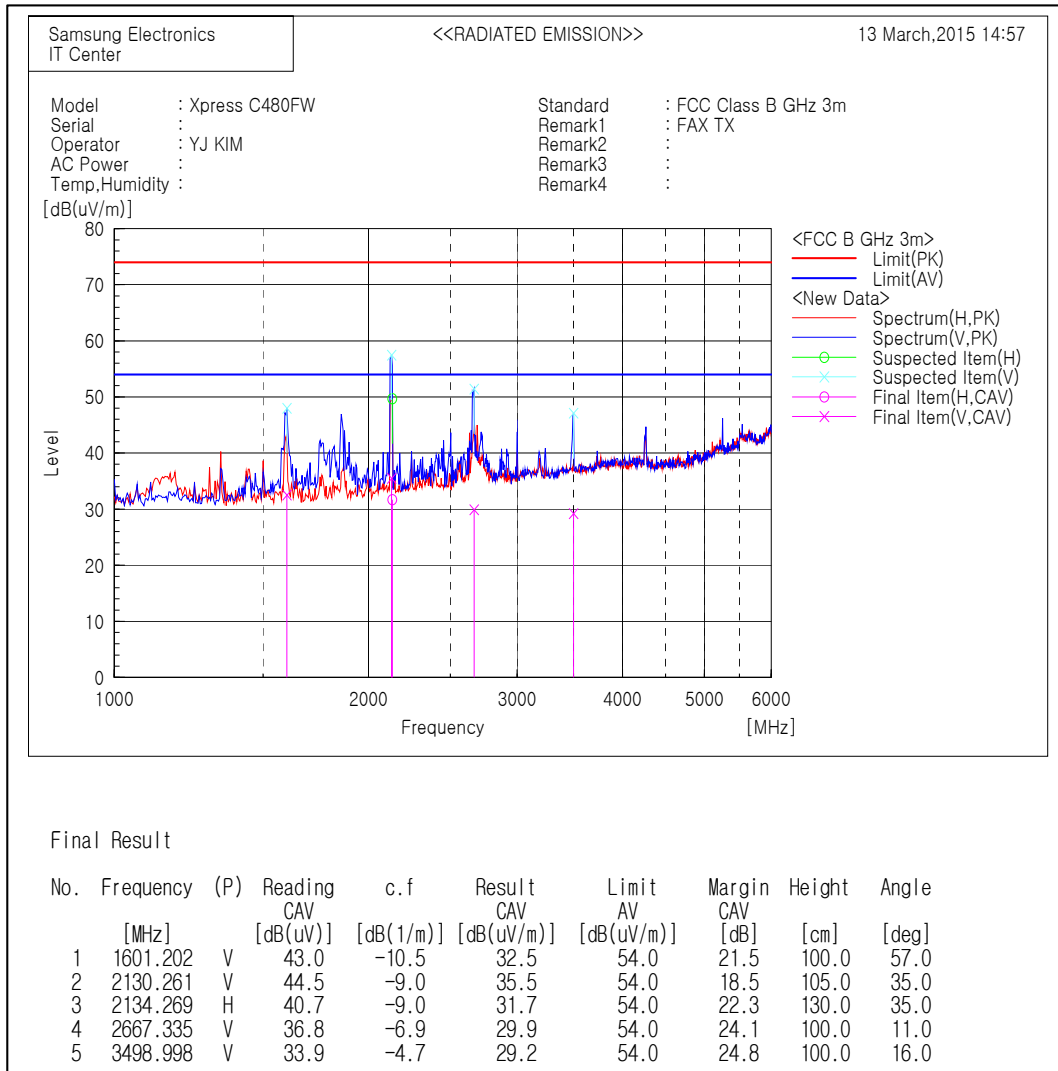
Result AV (C/Average) = Reading AV (C/Average) + c.f(Antenna Factor + Cable Loss - Amp. Gain)

Margin PK (Peak) = Limit - Result PK (Peak)

Margin AV (C/Average) = Limit - Result AV (C/Average)

Note2) c.f = Factor = Antenna factor + Cable loss - Amplifier gain

Note3) C/Average = CISPR-Average

- Operating Mode : 4**Test Graph and Results**

Note1) Receiving antenna polarization : Horizontal and Vertical

Result PK(Peak) = Reading PK(Peak) + c.f(Antenna Factor + Cable Loss - Amp. Gain)

Result AV (C/Average) = Reading AV (C/Average) + c.f(Antenna Factor + Cable Loss - Amp. Gain)

Margin PK (Peak) = Limit - Result PK (Peak)

Margin AV (C/Average) = Limit - Result AV (C/Average)

Note2) c.f = Factor = Antenna factor + Cable loss - Amplifier gain

Note3) C/Average = CISPR-Average

Appendix – EUT photography



Front View



Rear View & Label Location



Right View (Inside View)

	Model: Xpress C480FW	FCC ID : A3LSLC480FW
	Volts: AC 110-127 V	Contains FCC ID: A3LSPWB43143S
	Hertz: 50/60 Hz	This device complies with part 15 of the FCC Rules.
	Amps: 6 A	Operation is subject to the following two conditions:
	Ringer Equivalence: 0.0B	i) This device may not cause harmful interference, and
	Manufactured:	ii) This device must accept any interference received,
USOC Jack Type: RJ11C		including interference that may cause undesired operation.
Samsung Electronics Co., Ltd.		Complies with Part 68, FCC Rules.
Suwon, Korea, 443-742		US: A3LFA00BSLC480FW
Place: M264		CAN ICES-3 (B)/NMB-3(B)
	 3UU7	This product complies with 21 CFR Chapter 1, subchapter J.
	LISTED US E337632	Contains IC: 649E-SPWB43143S
	I.T.E.	IC: 649E-SLC480FW
M/C : SL-C480FW/XAA		
		
S/N :		
	MADE IN CHINA	REV. 00
	Fabriqu� en Chine	

Label