

EMC TEST REPORT

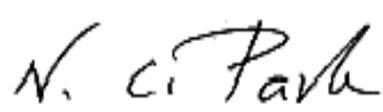
Project No.	LBE091340	Issue No.	1
Applicant	Name of organization	Samsung Electronics Co., Ltd.	
	Address	416 Maetan 3-Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do 443-742 Korea	
	Date of application	April 03, 2009	
EUT	Type of device	Class B digital devices and peripherals	
	Equipment authorization	<input type="checkbox"/> Declaration of Conformity <input checked="" type="checkbox"/> Certification <input type="checkbox"/> Verification	
	FCC ID	A3LSCX4623FN	
	Kind of product	MONO LASER PRINTER	
	Model No.	SCX-4623FN	
		Variant Model No.	SCX-4623F, SCX-4600
	Manufacturer	Samsung Electronics Co., Ltd. 259, Gongdan-Dong, Gumi-City, Gyeong-Buk, 730-030, Korea Samsung Electronics (Shandong) Digital Printing Co., Ltd. 264209, Samsung Road, Weihai Hi-Tech IDZ, Shandong Province, P.R. China Shin Heung Digital Electronics Co., Ltd. 98, Samsung Road, Weihai Hi-Tech IDZ, Shandong Province, P.R. China	
Applied Standards	FCC Part 15, Subpart B / ANSI C63.4-2003		
Test Period	April 28, 2009 ~ May ,13 2009		
Issue date	May 21, 2009		
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 : Ho Jin Choi 		Reviewed by : No Cheon Park 	
This report is the test result about the sphere accredited by KOLAS which signed the Mutual Recognition Arrangement of International Laboratory Accreditation Cooperation. 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 SEC EMC Laboratory.			
			
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1. Summary of test results

1.1 Emission

The EUT has been tested according to the following specifications:

Applied	Test type	Applied standard	Result	Remarks
<input checked="" type="checkbox"/>	Conducted Disturbance	FCC Part 15 Subpart B	Complied	Meets Class B Limit
<input checked="" type="checkbox"/>	Radiated Disturbance		Complied	Meets Class B Limit

2. General Information

2.1 Test facility

The SEC EMC Laboratory is located on Samsung Electronics Co., Ltd. at 416 Maetan 3-Dong, Yeongtong-Gu, Suwon-Si, Gyeonggi-Do, South 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 SEC EMC Laboratory is operated as testing laboratory in accordance with the requirements of ISO/IEC 17025:2005.



Project No. : LBE091340



MONO LASER MFP : SCX-4623FN

2.2 Accreditation and listing

Laboratory Qualifications		Remarks
	KOLAS(Korea Laboratory Accreditation Scheme)	Accredited : 124
	Radio Research Agency	Accredited : KR0004
	FCC(Federal Communications Commission)	Accredited : KR0004
	National Voluntary Laboratory Accreditation Program	Lab Code: 200623-0
	Norges Elektriske Materiellkontroll	Accredited : ELA 195
	VCCI (Voluntary Control Council for Interference by Information Technology Equipment)	C-2421,R-2224
	China Quality Certification Center	5-053, 5-054
	TUV Rhineland	H9354285
	GOST(GOSTSTANDART)	ROSTEST
	Elektrotechnický Zkušební Ústav	Reg. No.: 001
	IC(Industry Canada)	Assigned Code: 5871

3. Test Setup configuration

3.1 Test Peripherals

The following is a listing of the EUT and peripherals utilized during the performance of testing.

Description	Model No.	Serial No.	Manufacturer	FCC ID and/or DoC
MONO LASER MFP	SCX-4623FN	-	Samsung	A3LSCX4623FN
Notebook PC	PP18L	2718225373	DELL	DOC
AC Adapter	LA65LS1-00	CN-OYD637-71615-83C-OE60	DELL	For Notebook PC
USB Mouse	M-UAE96	LZK61923406	Logitech	DOC
Head set	Cosy	-	-	DOC
Telephone	SP-F209	-	Samsung	DOC

3.2 EUT operating mode

To achieve compliance applied standard and/or specification, the following mode(s) were considered

Operating Mode 1	Standby
Operating Mode 2	USB Printing
Operating Mode 3	Network Printing
Operating Mode 4	ADF Copy Printing
Operating Mode 5	Scan to PC (Flatbed)
Operating Mode 6	Scan to PC (ADF)
Operating Mode 7	Fax-Rx
Operating Mode 8	Fax-Tx

3.3 Details of Sampling

Customer selected, single units.

3.4 Used cable description

The EUT is configured, installed, arranged and operated in a manner consistent with typical applications. Interface cables/loads/devices are connected to at least one of each type of interface port of the EUT, and where practical, each cable shall be terminated in a device typical of actual usage. The type(s) of interconnecting cables to be used and the interface port (of the EUT) to which these were connected;

Connected cable	Length [m]	Shielded [Y/N]	Note
Power	1.8	No	For EUT
Power	1.8	No	For Note PC
USB	1.8	Yes	From Note PC to EUT
USB	1.8	Yes	From Note PC to Mouse
Head set	1.5	No	For Note PC to Head set
Ethernet	10.0	No	From EUT to HUB
TEL	10.0	No	From EUT to K/P system
TEL	2.0	No	From EUT to Telephone

3.5 EUT Description

The following features describe EUT represented by this report:

Item	Specification	Remarks
Processor	JUPITER5 (375Mhz)	-
Standard System memory	128MB DDR2 SDRAM	-
Resolution	True 600x600dpi (Addressible 1200dpi support)	-
Copy Quality mode	Text : 600x300dpi(ADF) Mixed : 600x300dpi(ADF) Photo : 600x300dpi(ADF) ,600x600dpi (Platen)	-
Paper Handling	Paper Tray(standard) 250 Sheets Bypass Tray 1 Sheets	-
Power Rating	110~127 VAC, 5A, 50/60 Hz	-
Power Consumption	Power save mode : 0.7 Watts Printing mode: MAX. 420 Watts	-
Printer Language	GDI	-
PC Interfaces	USB2.0, NW, FAX	-
OS compatibility	MS Windows 98/2000/XP/NT/Me,MAC (English only, no status monitor, web download only) Linux: Red Hat 8.0~9.0, Fedora Core 1~3, Mandrake 9.0~10.2, SuSE 8.2~9.2. Windows 2003. Netware 4.x	-
Modes of Operation	USB Printing, ADF Scan, ADF Copy, 1200dpi Printing, Fax RX, Fax TX, Network Printing	-
Intended Class for Emissions	Class B	-

3.6 Clock Frequencies

Kind of Clocks	Frequency[MHz]	Kind of Clocks	Frequency[MHz]
Main Source	12	Video	10.5
CPU Internal	375	DDR2	166
USB Device	12	CLS	4.16

3.7 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.

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

- **Testing Voltage : AC 115 V, 60 Hz**

3.8 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.)

3.8.1 Emission

Test type		Measurement uncertainty (C.L. 95 %, k = 2)
Conducted disturbance	Main terminal	3.50 dB
Radiated Disturbance	Horizontal	5.04 dB
	Vertical	5.03 dB

4. Results of individual test

4.1 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 of class A ITE

Frequency range Limits MHz	Resolution Bandwidth	Limits dB(μV)	
		Quasi-peak	Average
0,15 to 0,50	9 kHz	79	66
0,50 to 30	9 kHz	73	60

NOTE The lower limit shall apply at the transition frequency

Limits for conducted disturbance at the mains ports of class B ITE

Frequency range Limits MHz	Resolution Bandwidth	Limits dB(μV)	
		Quasi-peak	Average
0,15 to 0,50	9 kHz	66 to 56	56 to 46
0,50 to 5	9 kHz	56	46
5 to 30	9 kHz	60	50

NOTE 1 The lower limit shall apply at the transition frequency
 NOTE 2 The limit decreases linearly with the logarithm of the frequency in the range 0,15 MHz to 0,50 MHz.



4.1.1 Test instrumentation

Test instrumentation	Manufacturer	Model name	Serial or Firmware (No./Ver.)	Calibration	
				Date	Interval (Month)
Test Receiver	R&S	ESCI	100368	2008-06-11	12
Two-Line V-Network	R&S	ENV216	100456	2008-09-12	12
Two-Line V-Network	R&S	ESH3-Z5	831887/004	2008-06-18	12
Test software	EMC32	R&S	Ver 4.40.	N/A	N/A

4.1.2 Temperature and humidity condition

Test date	13/05/2009	Test engineer	Ho Jin Choi		
Climate condition	Ambient temperature	22.1 °C	Relative humidity	35 %	
	Atmospheric pressure	101.6 kPa			
Test place	Shielded Room #1				

4.1.3 Photograph of Test Setup



Front

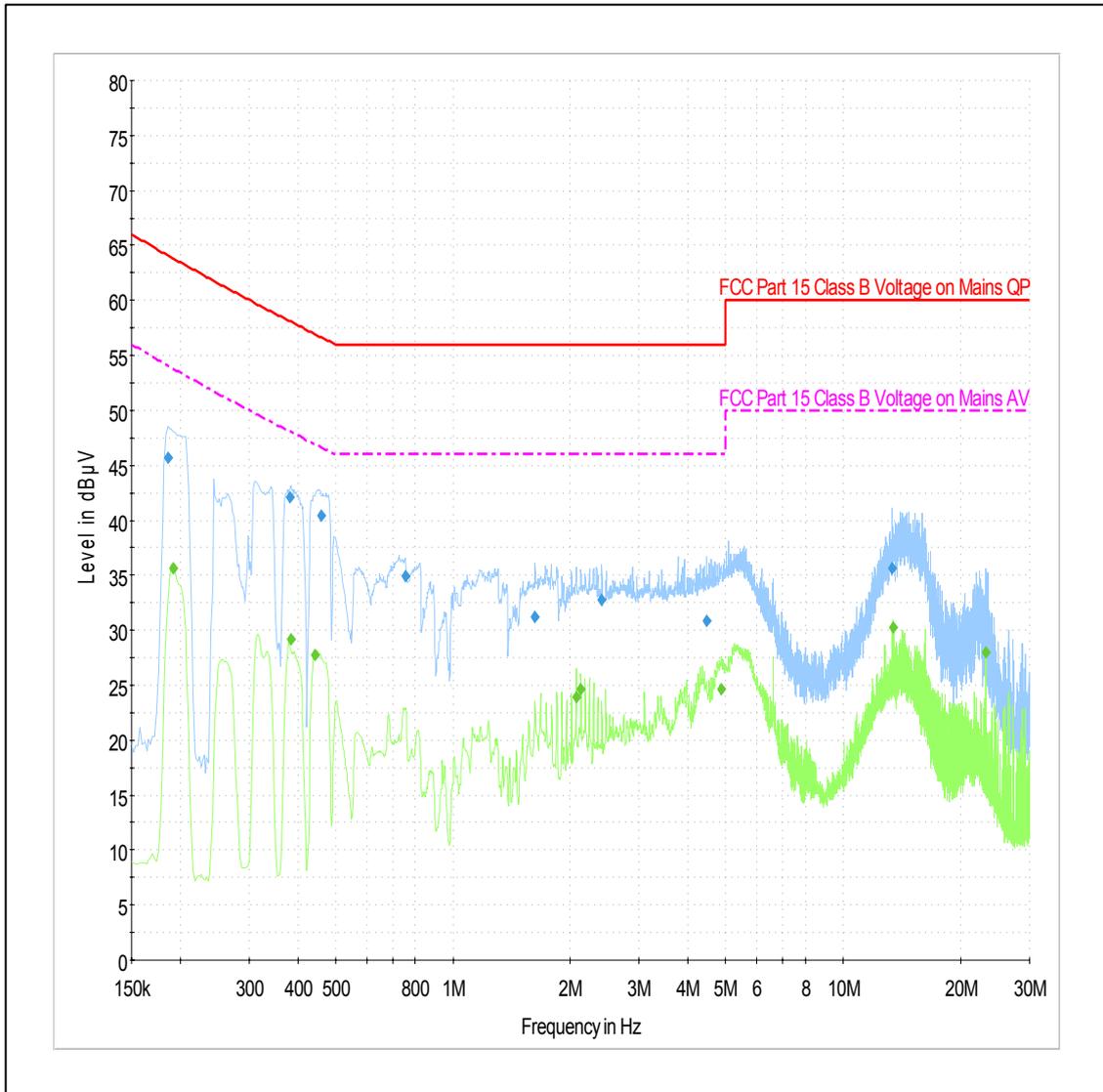


Rear

4.1.4 Test results (mains port)

- Operating Mode : Standby Mode

Test Graph



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

Test Results (Quasi-Peak and Average)

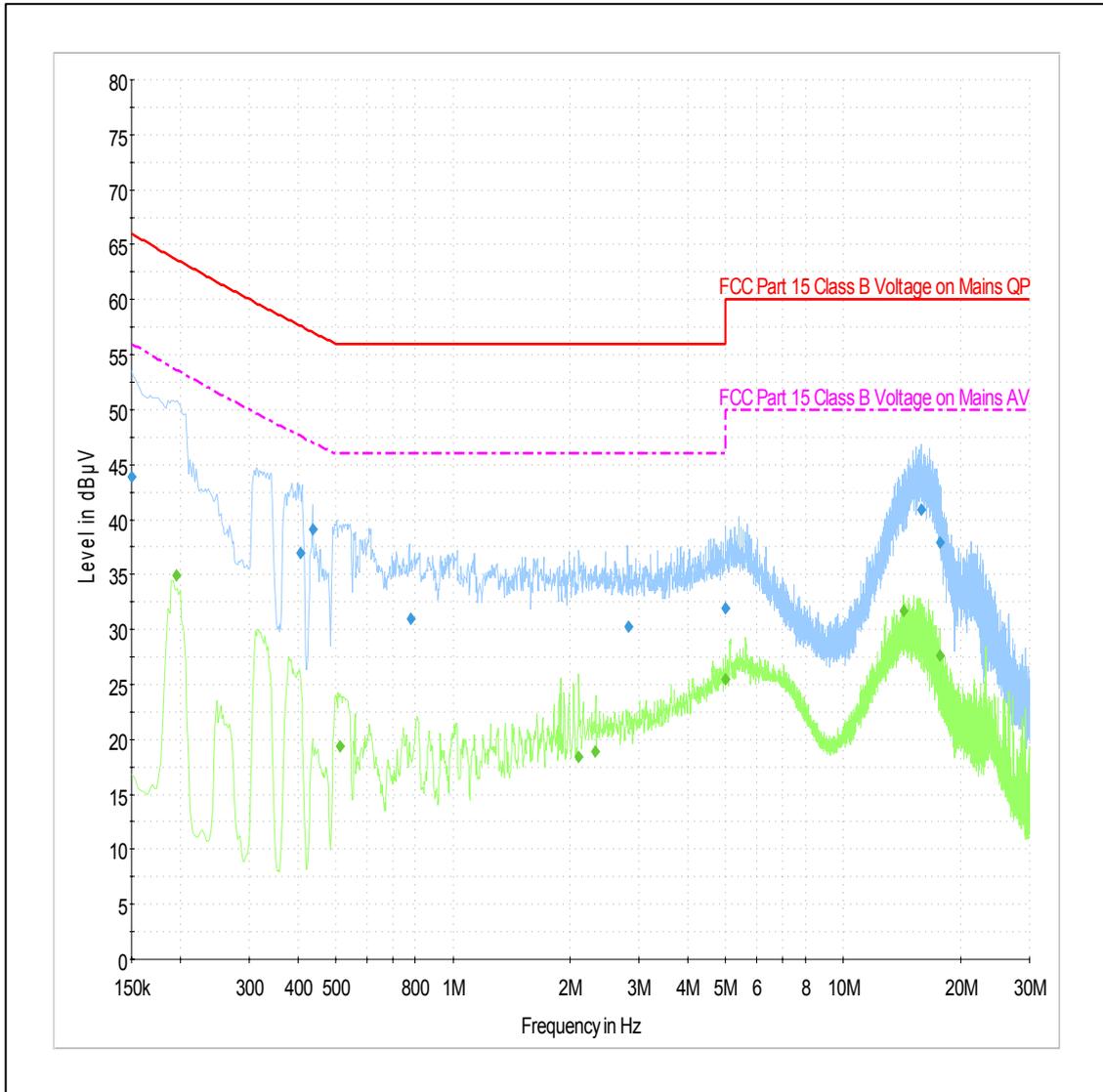
Frequency [MHz]	Quasi-Peak [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.186	45.644	9.0	N	9.6	18.5	64.1
0.382	42.133	9.0	N	9.6	16	58.1
0.461	40.428	9.0	N	9.6	16.2	56.6
0.754	34.925	9.0	L1	9.6	21.1	56
1.621	31.248	9.0	L1	9.7	24.8	56
2.4	32.728	9.0	N	9.7	23.3	56
4.469	30.887	9.0	L1	9.7	25.1	56
13.359	35.583	9.0	L1	9.9	24.4	60

Frequency [MHz]	Average [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.192	35.611	9.0	N	9.6	18.2	53.8
0.384	29.126	9.0	L1	9.6	18.9	48
0.442	27.714	9.0	N	9.6	19.2	46.9
2.067	23.951	9.0	N	9.7	22	46
2.124	24.668	9.0	N	9.7	21.3	46
4.86	24.646	9.0	L1	9.7	21.4	46
13.419	30.273	9.0	L1	9.9	19.7	50
23.129	27.922	9.0	N	10.2	22.1	50

Note) Level (Quasi-Peak and/or Average) = Meter Reading(Quasi-Peak and/or Average) +
Factor (LISN Insertion Loss + Cable Loss)
Margin = Limit – Level (Quasi-Peak and/or Average)

- Operating Mode : USB Printing

Test Graph



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

Test Results (Quasi-Peak and Average)

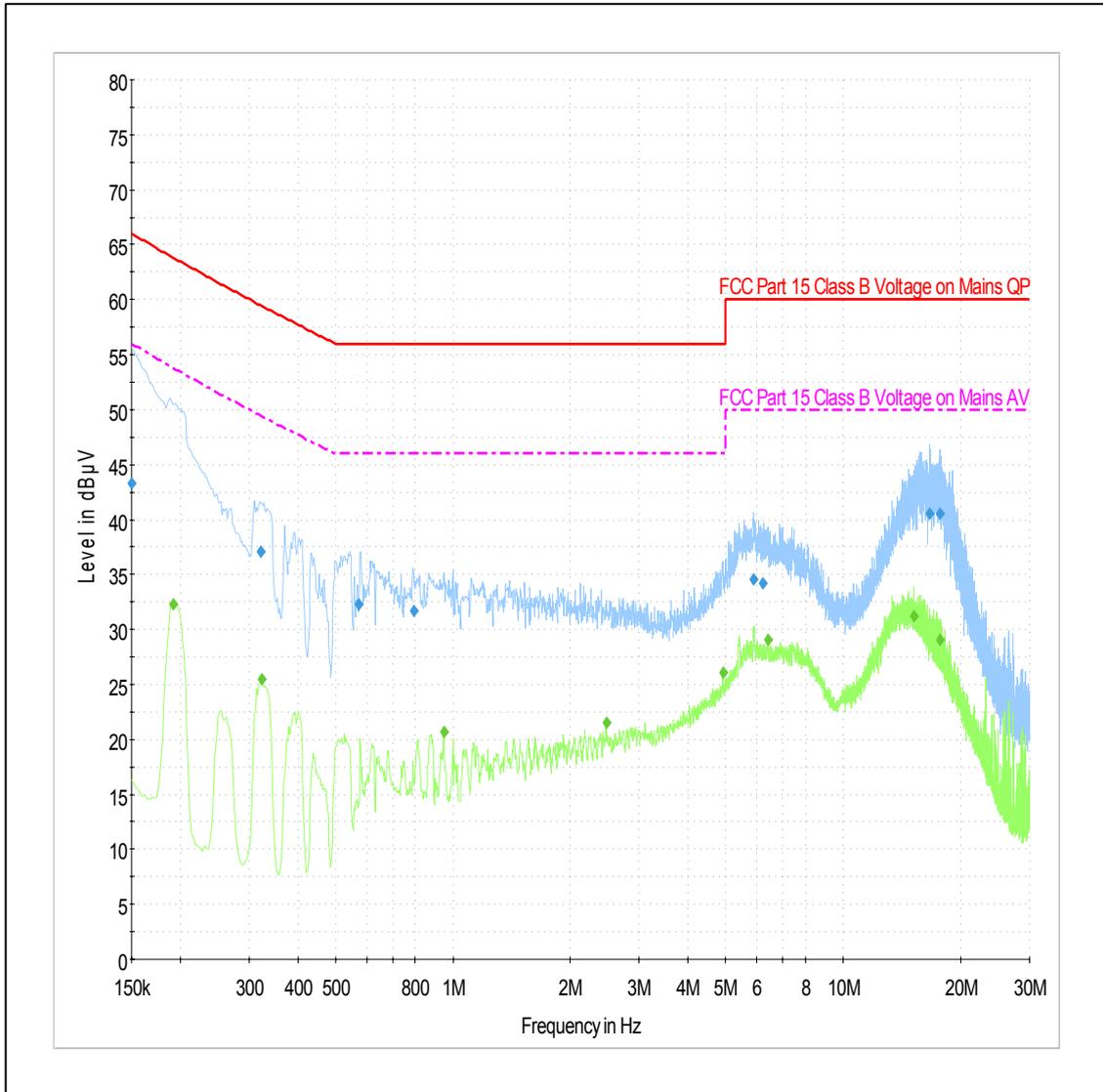
Frequency [MHz]	Quasi-Peak [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.15	43.863	9.0	N	9.6	22.1	66
0.406	36.903	9.0	N	9.6	20.7	57.6
0.438	39.05	9.0	N	9.6	18	57
0.78	30.953	9.0	L1	9.6	25	56
2.808	30.229	9.0	L1	9.7	25.8	56
5	31.891	9.0	L1	9.8	24.1	56
15.807	40.916	9.0	L1	10	19.1	60
17.707	37.851	9.0	L1	10	22.1	60

Frequency [MHz]	Average [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.196	34.887	9.0	N	9.6	18.7	53.6
0.512	19.334	9.0	L1	9.6	26.7	46
2.093	18.422	9.0	L1	9.7	27.6	46
2.314	18.856	9.0	N	9.7	27.1	46
4.985	25.452	9.0	L1	9.8	20.5	46
14.275	31.72	9.0	L1	9.9	18.3	50
17.693	27.576	9.0	L1	10	22.4	50

Note) Level (Quasi-Peak and/or Average) = Meter Reading(Quasi-Peak and/or Average) + Factor (LISN Insertion Loss + Cable Loss)
 Margin = Limit – Level (Quasi-Peak and/or Average)

- Operating Mode : Network Printing

Test Graph



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

Test Results (Quasi-Peak and Average)

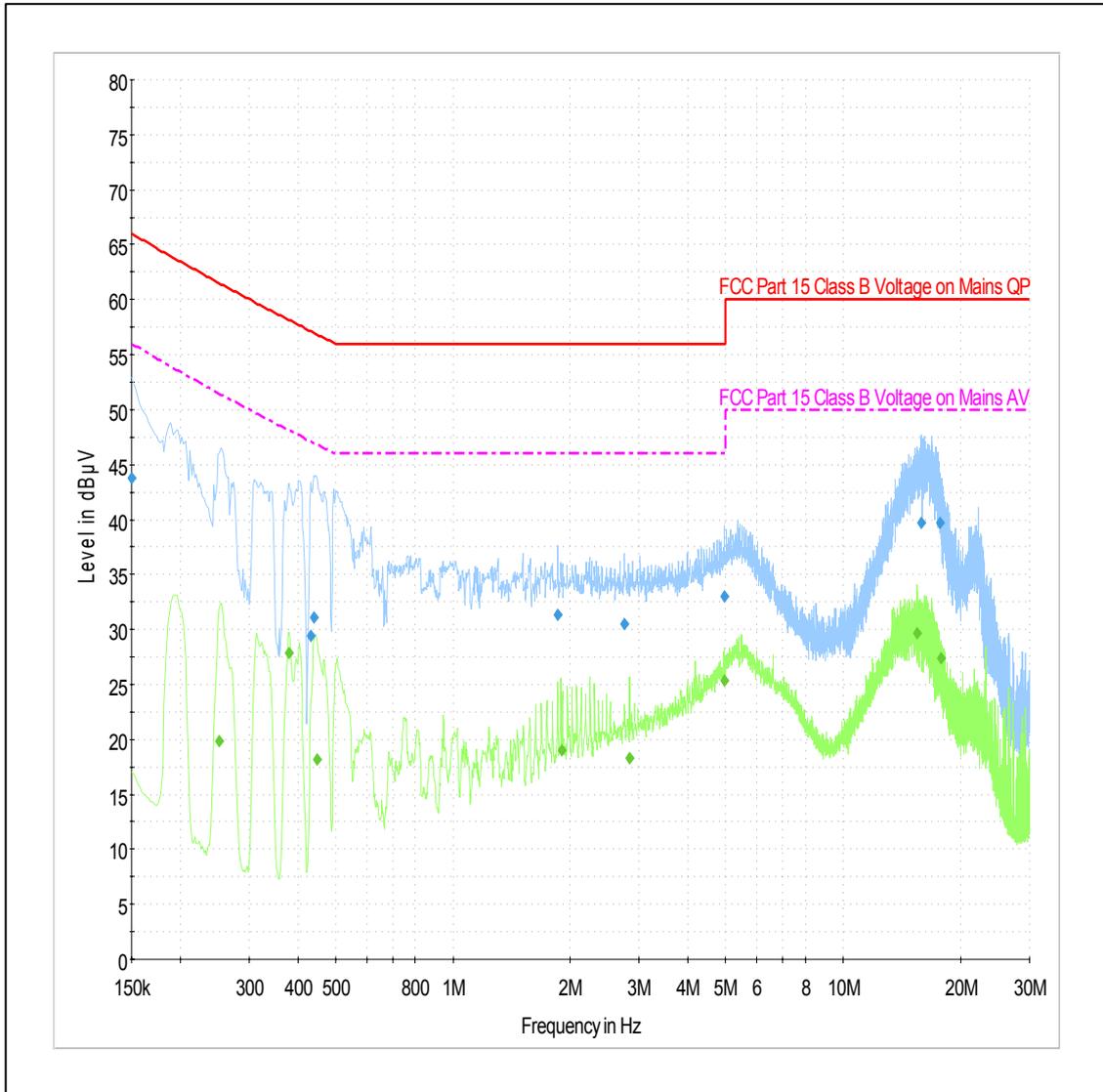
Frequency [MHz]	Quasi-Peak [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.15	43.271	9.0	L1	9.6	22.7	66
0.322	37.079	9.0	N	9.6	22.4	59.5
0.575	32.298	9.0	N	9.6	23.7	56
0.792	31.725	9.0	N	9.6	24.3	56
5.869	34.554	9.0	N	9.8	25.4	60
6.235	34.208	9.0	N	9.8	25.8	60
16.675	40.586	9.0	L1	10	19.4	60
17.722	40.587	9.0	L1	10	19.4	60

Frequency [MHz]	Average [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.192	32.251	9.0	N	9.6	21.6	53.8
0.323	25.468	9.0	N	9.6	23.9	49.4
0.949	20.682	9.0	N	9.6	25.3	46
2.47	21.563	9.0	N	9.7	24.4	46
4.915	26.061	9.0	N	9.8	19.9	46
6.432	29.031	9.0	N	9.8	21	50
15.16	31.166	9.0	L1	10	18.8	50
17.692	29.019	9.0	L1	10	21	50

Note) Level (Quasi-Peak and/or Average) = Meter Reading(Quasi-Peak and/or Average) +
Factor (LISN Insertion Loss + Cable Loss)
Margin = Limit – Level (Quasi-Peak and/or Average)

- Operating Mode : ADF Copy Printing

Test Graph



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

Test Results (Quasi-Peak and Average)

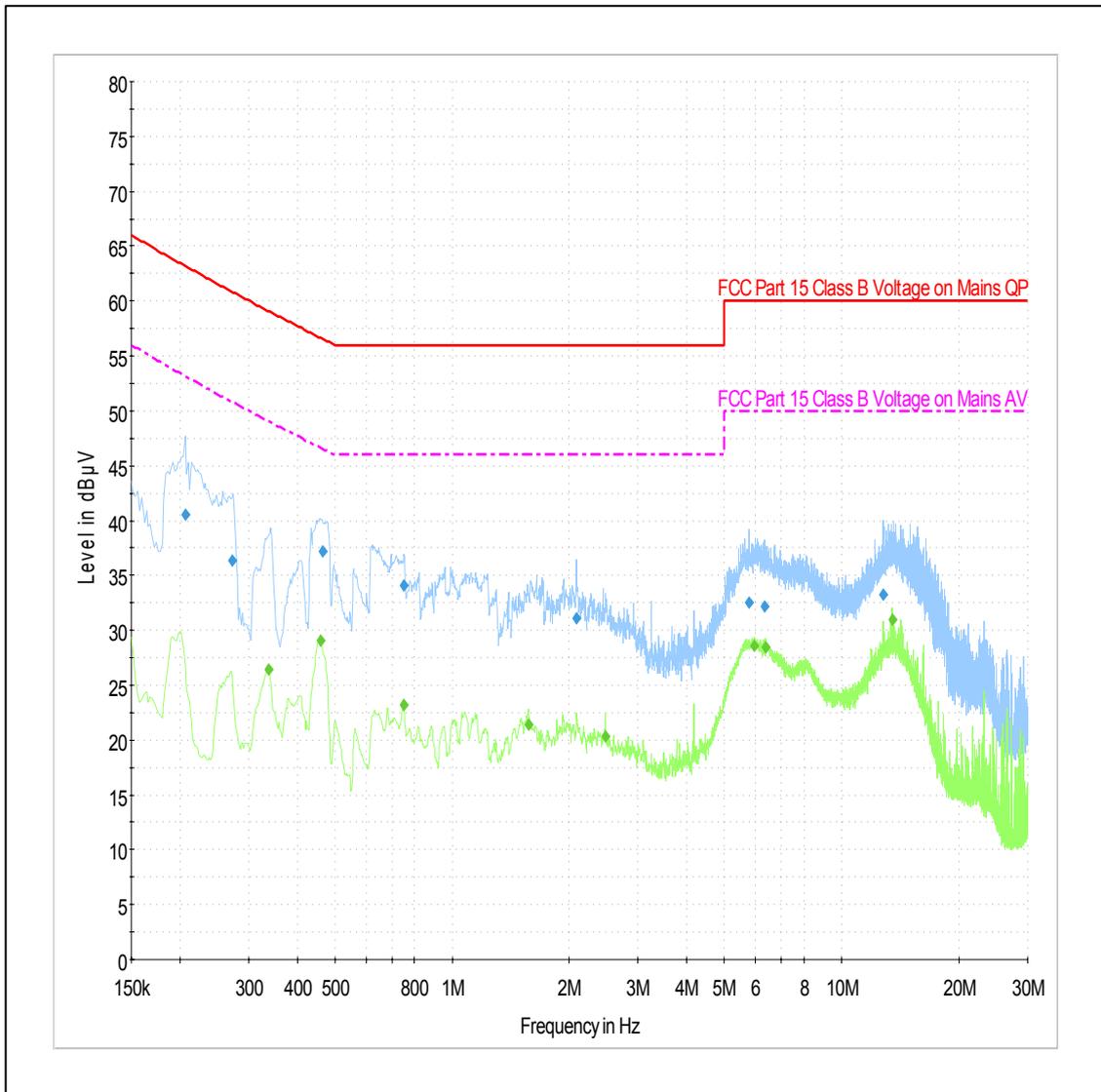
Frequency [MHz]	Quasi-Peak [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.15	43.743	9.0	L1	9.6	22.3	66
0.431	29.456	9.0	N	9.6	27.7	57.2
0.441	31.106	9.0	N	9.6	25.9	57
1.851	31.352	9.0	L1	9.7	24.6	56
2.748	30.512	9.0	L1	9.7	25.5	56
4.944	32.997	9.0	L1	9.8	23	56
15.788	39.685	9.0	L1	10	20.3	60
17.678	39.707	9.0	L1	10	20.3	60

Frequency [MHz]	Average [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.252	19.818	9.0	N	9.6	31.6	51.5
0.381	27.904	9.0	N	9.6	20.2	48.1
0.449	18.226	9.0	N	9.6	28.6	46.8
1.896	18.994	9.0	L1	9.7	27	46
2.825	18.321	9.0	N	9.7	27.7	46
4.956	25.341	9.0	L1	9.8	20.7	46
15.483	29.694	9.0	L1	10	20.3	50
17.755	27.407	9.0	L1	10	22.6	50

Note) Level (Quasi-Peak and/or Average) = Meter Reading(Quasi-Peak and/or Average) +
Factor (LISN Insertion Loss + Cable Loss)
Margin = Limit – Level (Quasi-Peak and/or Average)

- Operating Mode : Scan to PC (Flatbed)

Test Graph



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

Test Results (Quasi-Peak and Average)

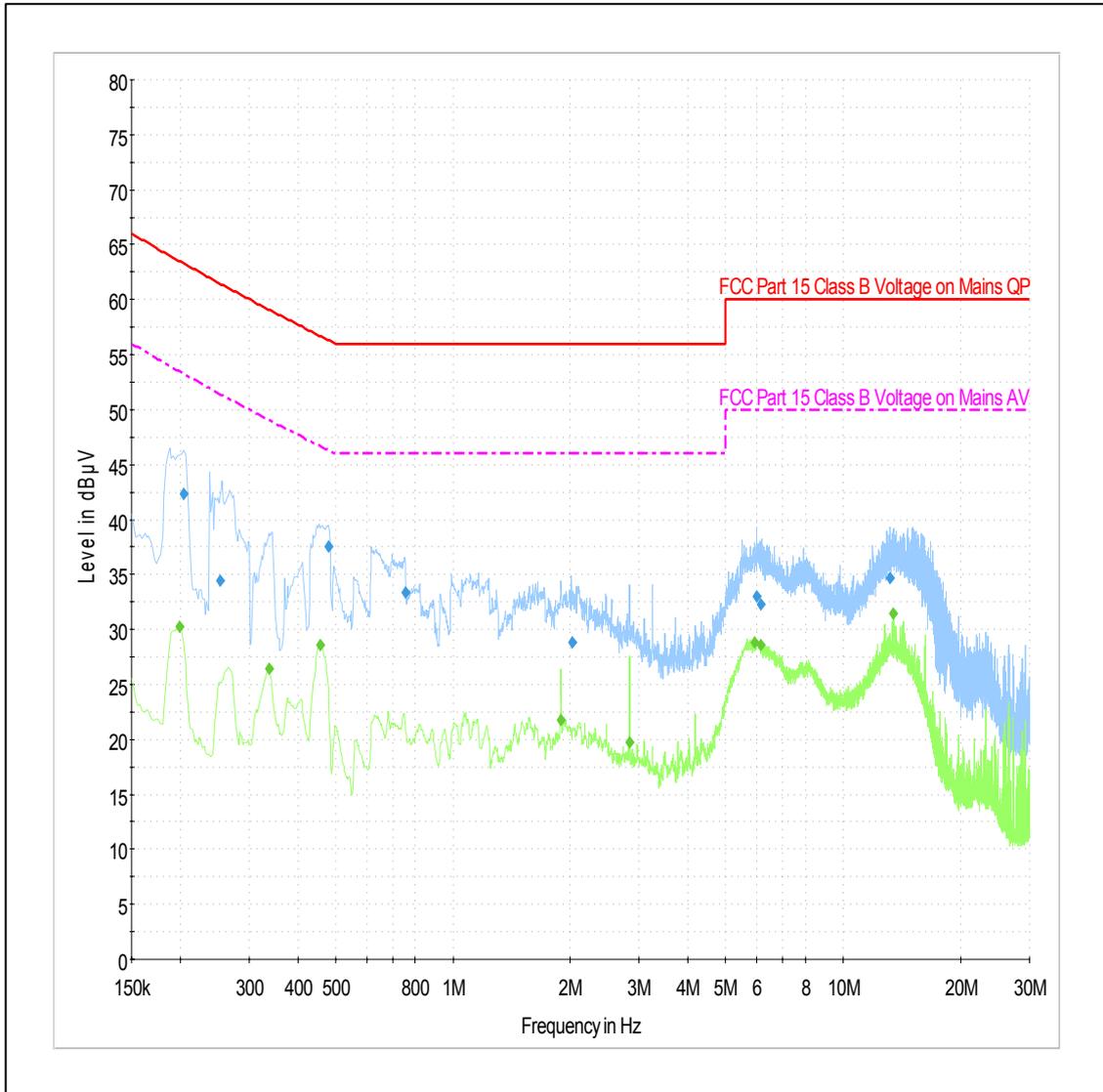
Frequency [MHz]	Quasi-Peak [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.207	40.54	9.0	N	9.6	22.6	63.2
0.272	36.386	9.0	N	9.6	24.5	60.9
0.464	37.143	9.0	N	9.6	19.4	56.6
0.753	34.1	9.0	N	9.6	21.9	56
2.087	31.032	9.0	N	9.7	25	56
5.776	32.58	9.0	N	9.8	27.4	60
6.339	32.207	9.0	N	9.8	27.8	60
12.791	33.252	9.0	N	10	26.7	60

Frequency [MHz]	Average [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.338	26.426	9.0	N	9.6	22.6	49.1
0.459	29.03	9.0	N	9.6	17.6	46.7
0.75	23.252	9.0	N	9.6	22.7	46
1.573	21.374	9.0	N	9.7	24.6	46
2.475	20.306	9.0	N	9.7	25.7	46
5.962	28.597	9.0	N	9.8	21.4	50
6.367	28.463	9.0	N	9.8	21.5	50
13.481	30.947	9.0	L1	9.9	19.1	50

Note) Level (Quasi-Peak and/or Average) = Meter Reading(Quasi-Peak and/or Average) +
Factor (LISN Insertion Loss + Cable Loss)
Margin = Limit – Level (Quasi-Peak and/or Average)

- Operating Mode : Scan to PC (ADF)

Test Graph



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

Test Results (Quasi-Peak and Average)

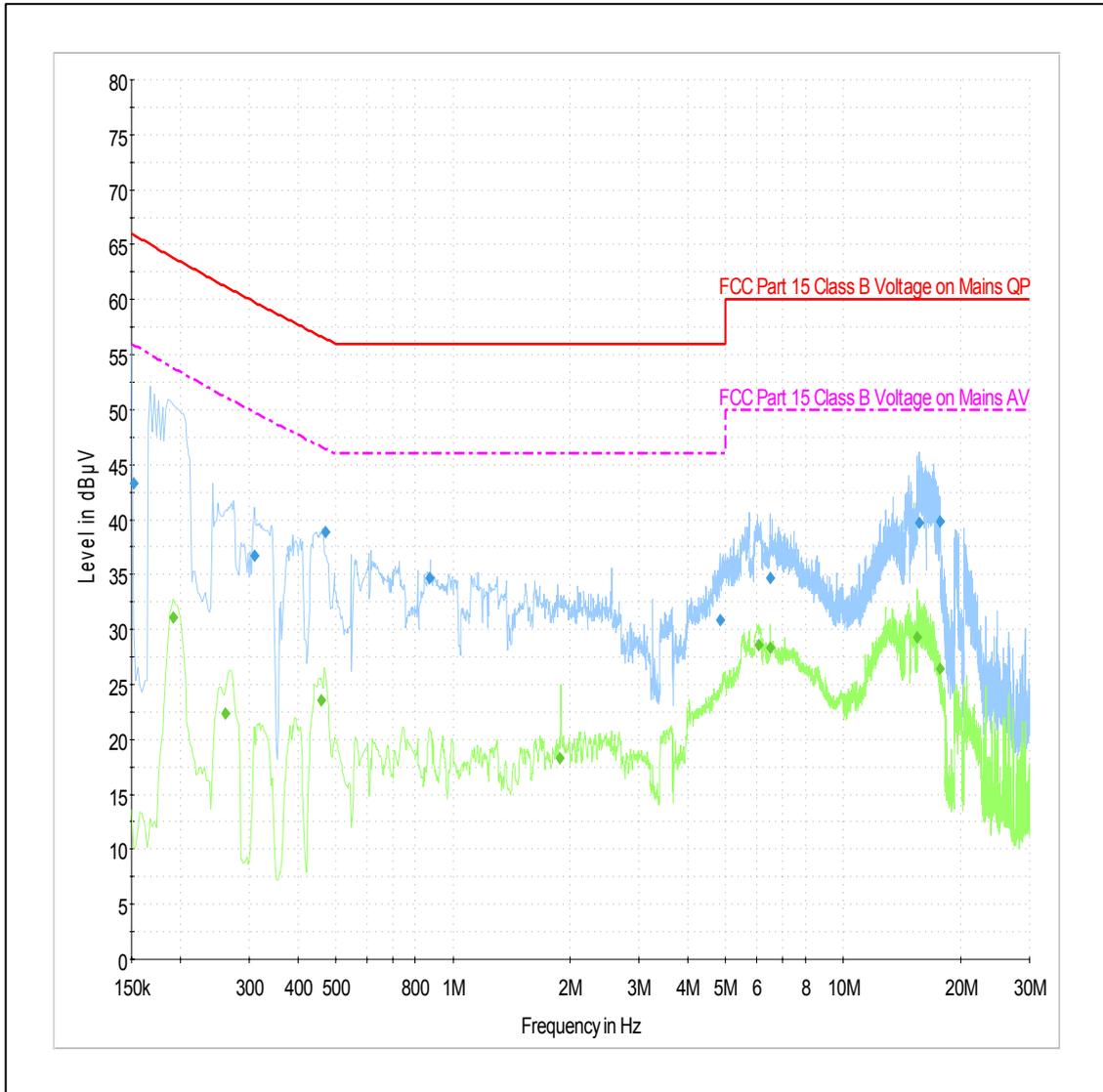
Frequency [MHz]	Quasi-Peak [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.205	42.277	9.0	N	9.6	21	63.3
0.254	34.476	9.0	L1	9.6	27	61.4
0.479	37.522	9.0	N	9.6	18.8	56.3
0.754	33.331	9.0	N	9.6	22.7	56
2.018	28.845	9.0	N	9.7	27.2	56
5.999	33.052	9.0	N	9.8	26.9	60
6.16	32.341	9.0	N	9.8	27.7	60
13.163	34.681	9.0	L1	9.9	25.3	60

Frequency [MHz]	Average [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.2	30.224	9.0	N	9.6	23.2	53.5
0.339	26.44	9.0	N	9.6	22.6	49
0.458	28.6	9.0	N	9.6	18.1	46.7
1.886	21.815	9.0	N	9.7	24.2	46
2.837	19.776	9.0	L1	9.7	26.2	46
5.934	28.837	9.0	N	9.8	21.2	50
6.14	28.546	9.0	N	9.8	21.5	50
13.419	31.422	9.0	L1	9.9	18.6	50

Note) Level (Quasi-Peak and/or Average) = Meter Reading(Quasi-Peak and/or Average) +
Factor (LISN Insertion Loss + Cable Loss)
Margin = Limit – Level (Quasi-Peak and/or Average)

- Operating Mode : Fax-Rx

Test Graph



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

Test Results (Quasi-Peak and Average)

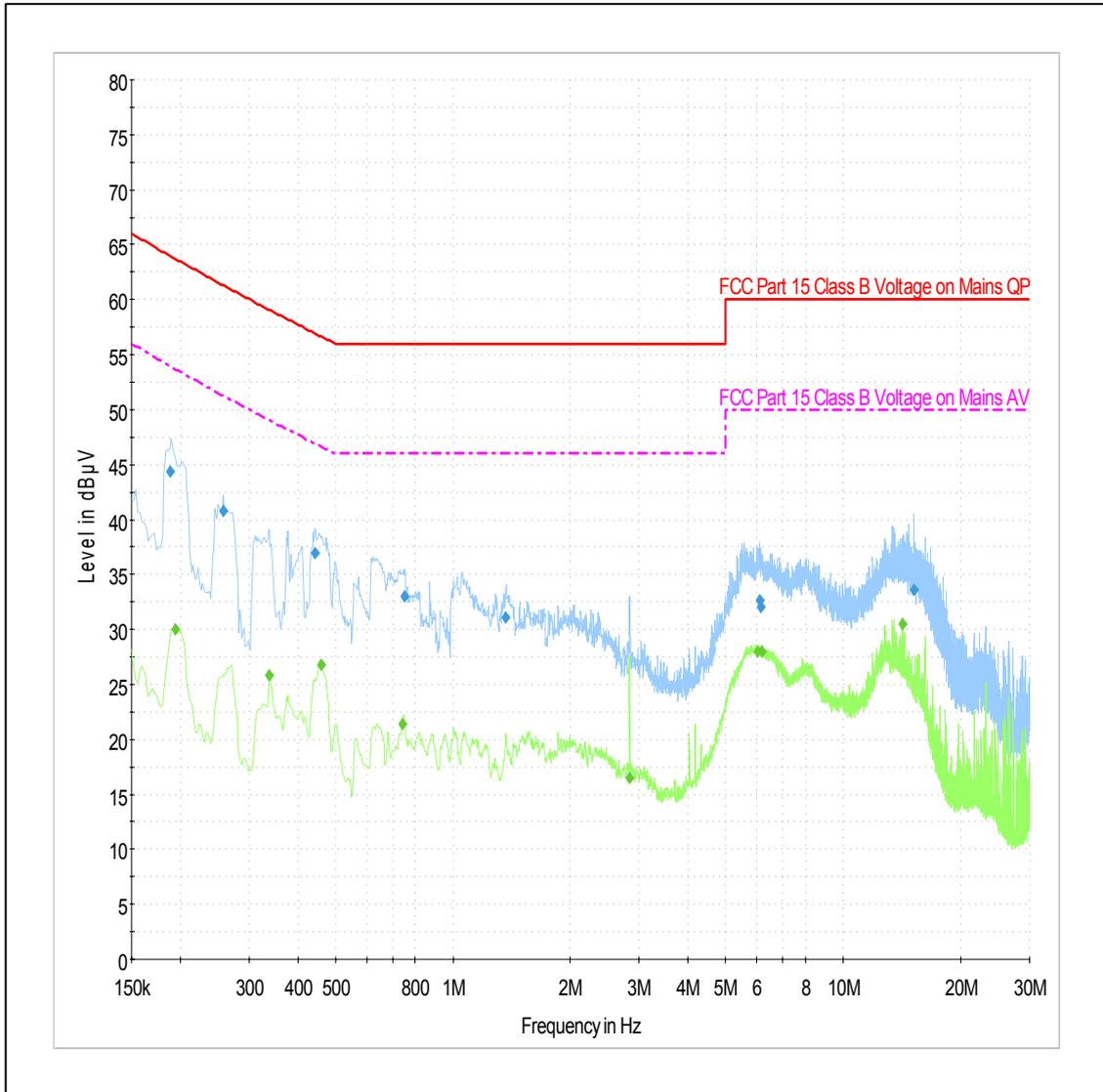
Frequency [MHz]	Quasi-Peak [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.152	43.331	9.0	L1	9.6	22.6	65.9
0.311	36.749	9.0	N	9.6	23	59.8
0.472	38.848	9.0	N	9.6	17.6	56.5
0.869	34.633	9.0	N	9.6	21.4	56
4.826	30.879	9.0	N	9.7	25.1	56
6.512	34.734	9.0	N	9.8	25.3	60
15.607	39.755	9.0	L1	10	20.2	60
17.697	39.826	9.0	L1	10	20.2	60

Frequency [MHz]	Average [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.1915	31.1	9.0	N	9.6	22.7	53.8
0.2605	22.4	9.0	N	9.6	28.8	51.2
0.4605	23.5	9.0	N	9.6	23.1	46.6
1.8805	18.3	9.0	L1	9.7	27.7	46
6.0685	28.6	9.0	N	9.8	21.4	50
6.5075	28.3	9.0	N	9.8	21.7	50
15.4525	29.3	9.0	L1	10	20.7	50
17.6935	26.5	9.0	N	10.1	23.5	50

Note) Level (Quasi-Peak and/or Average) = Meter Reading(Quasi-Peak and/or Average) +
Factor (LISN Insertion Loss + Cable Loss)
Margin = Limit – Level (Quasi-Peak and/or Average)

- Operating Mode : Fax-Tx

Test Graph



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

Test Results (Quasi-Peak and Average)

Frequency [MHz]	Quasi-Peak [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.189	44.415	9.0	N	9.6	19.6	64
0.258	40.74	9.0	N	9.6	20.6	61.3
0.444	36.932	9.0	L1	9.6	20	56.9
0.752	33.038	9.0	N	9.6	23	56
1.367	31.079	9.0	N	9.7	24.9	56
6.113	32.671	9.0	N	9.8	27.3	60
6.141	32.078	9.0	N	9.8	27.9	60
15.124	33.585	9.0	L1	10	26.4	60

Frequency [MHz]	Average [dBuV]	Bandwidth [kHz]	Line	Factor [dB]	Margin [dB]	Limit [dBuV]
0.195	30.003	9.0	N	9.6	23.7	53.7
0.338	25.852	9.0	N	9.6	23.2	49.1
0.459	26.75	9.0	N	9.6	19.9	46.7
0.744	21.393	9.0	N	9.6	24.6	46
2.84	16.461	9.0	L1	9.7	29.5	46
6.014	27.925	9.0	N	9.8	22.1	50
6.177	28.008	9.0	N	9.8	22	50
14.153	30.526	9.0	L1	9.9	19.5	50

Note) Level (Quasi-Peak and/or Average) = Meter Reading(Quasi-Peak and/or Average) +
Factor (LISN Insertion Loss + Cable Loss)
Margin = Limit – Level (Quasi-Peak and/or Average)

4.2 Radiated disturbance

Of those disturbances above ($L - 20\text{dB}$), 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.

Limits for radiated disturbance of ITE at a measuring distance of 10 m

Frequency range Limits MHz	Resolution Bandwidth	Quasi-peak Limits dB dB($\mu\text{V}/\text{m}$)	
		Class A	Class B
30 to 230	120 kHz	40	30
230 to 1000	120 kHz	47	37

NOTE 1 The lower limit shall apply at the transition frequency
NOTE 2 Additional provisions may be required for cases where interference occurs.

4.2.1 Test instrumentation

Test instrumentation	Manufacturer	Model name	Serial or Firmware (No./Ver.)	Calibration	
				Date	Interval (Month)
Bilog Antenna	Schaffner	CBL6112D	22604	2008-04-15	24
Bilog Antenna	Schaffner	CBL6112D	22602	2008-04-15	12
Test Receiver	R&S	ESIB-26	100289	2008-08-27	12
Test Receiver	R&S	ESIB-26	100287	2008-08-26	12
Amplifier	Sonoma	310N	185861	2009-01-28	12
Amplifier	Sonoma	310N	251676	2009-01-28	12
Horn Antenna	R&S	3115	100016	2008-05-26	24
Amplifier	R&S	SCU_F018_G35_ASF42	10001	2009-01-19	12
Antenna Mast	INN CO	MA4000	-	N/A	N/A
Antenna Mast	INN CO	MA4000	-	N/A	N/A
Antenna Mast	INN CO	MA2000	-	N/A	N/A
Mast Controller	INN CO	CO2000	-	N/A	N/A
Test software	TOYO	EP5/RE	VER 3.1.20	N/A	N/A
RF Selector	TOYO	NS4900	-	N/A	N/A

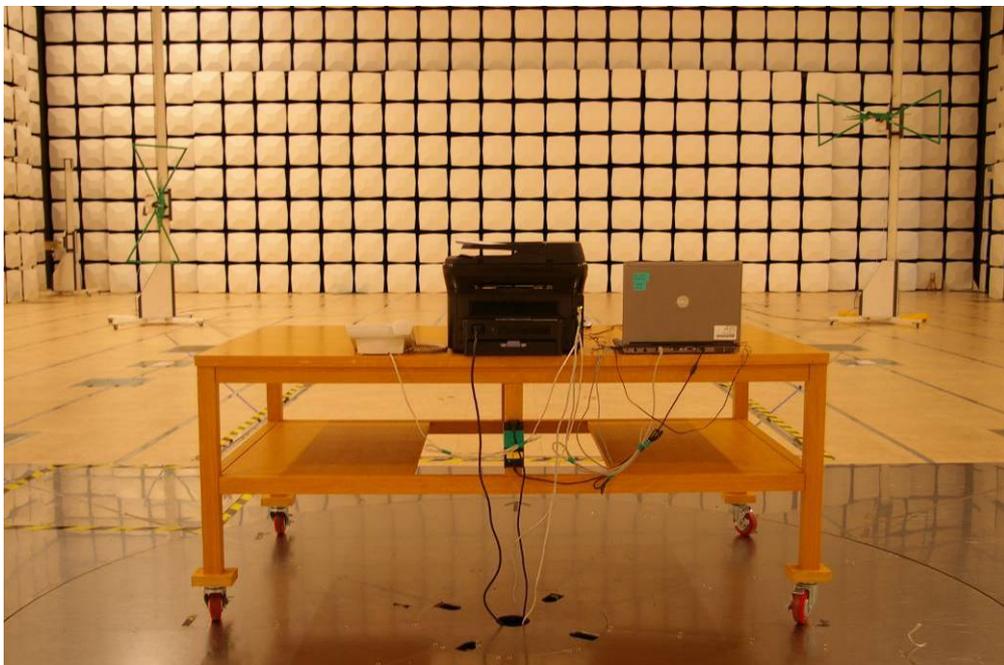
4.2.2 Temperature and humidity condition

Test date	28/04/2009 ~ 30/04/2009		Test engineer	Ho Jin Choi	
Climate condition	Ambient temperature	22.3 °C	Relative humidity	3 %	
	Atmospheric pressure	101.1 kPa			
Test place	Semi-Anechoic Chamber				

4.2.3 Photograph of Test Setup



Front



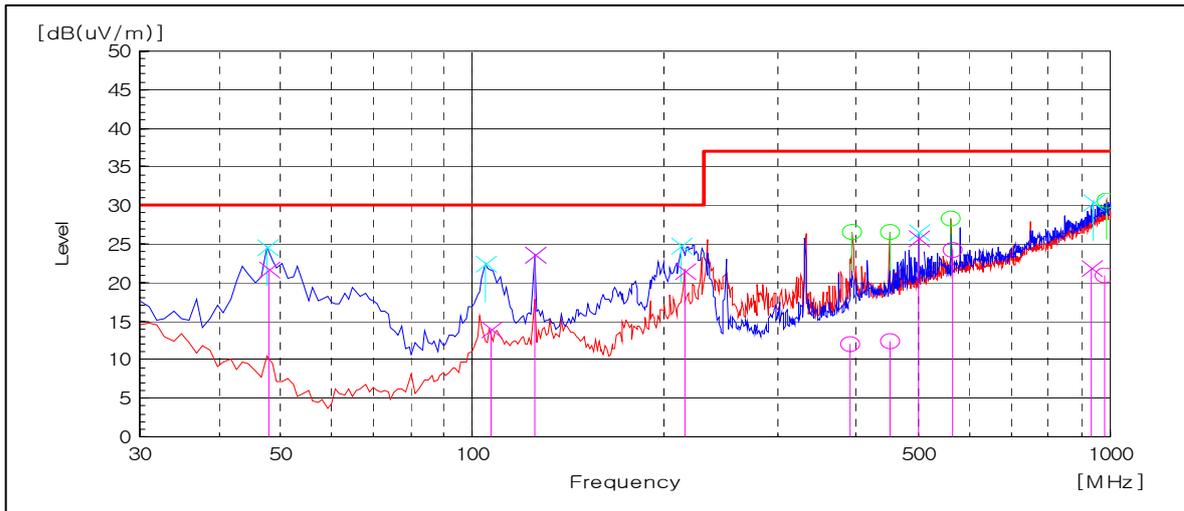
Rear

4.2.4 Test results

4.2.4.1 Below 1GHz results

- Operating Mode : Standby

Test Graph and Results



Frequency [MHz]	(P)	Reading QP [dB(uV)]	Factor [dB(1/m)]	Level QP [dB(uV/m)]	Limit [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
47.80	V	43.8	-22.1	21.7	30	8.3	234	237
106.62	V	31.9	-17.9	14	30	16	109	259
125.03	V	40.9	-17.2	23.7	30	6.3	117	23.6
214.49	V	40.9	-19.4	21.5	30	8.5	124	359.5
391.81	H	23.2	-11.2	12	37	25	203	179.6
452.55	H	22.2	-9.8	12.4	37	24.6	111	89.3
500.02	V	33.9	-8.1	25.8	37	11.2	123	187.7
564.48	H	31.4	-7.2	24.2	37	12.8	101	46.5
936.72	V	23	-1.1	21.9	37	15.1	100	279.5
982.12	H	21.4	-0.5	20.9	37	16.1	110.2	69.7

Note) Receiving antenna polarization : Horizontal and/or Vertical

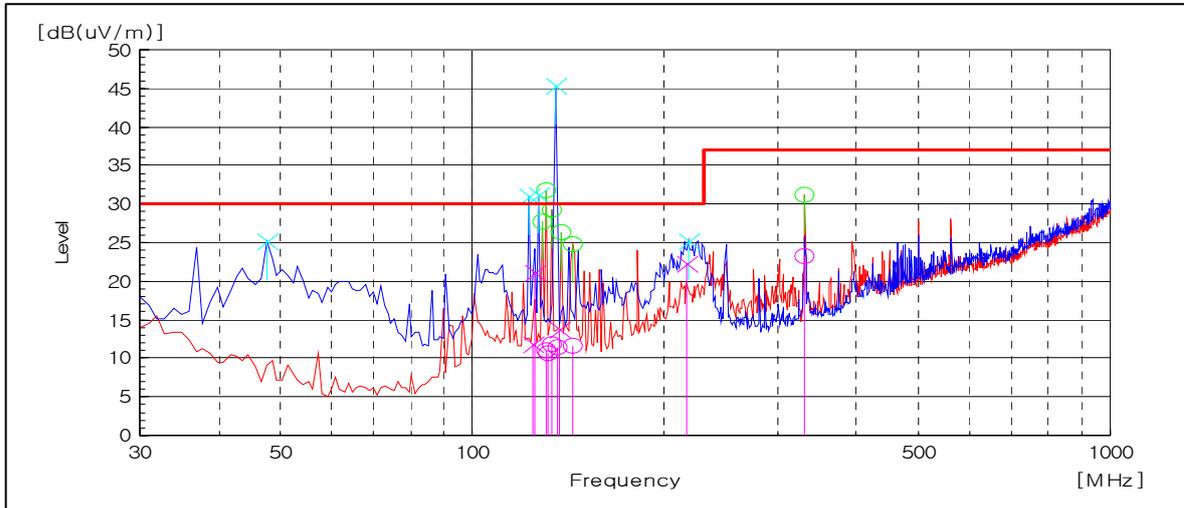
Test Distance : 10m, Antenna Height : 1 to 4 meters

Level QP(Quasi-Peak) = Reading QP + Factor(Antenna Factor + Cable Loss - Amp. Gain)

Margin QP(Quasi-Peak) = Limit – Level QP

- Operating Mode : USB Printing

Test Graph and Results



Frequency [MHz]	(P)	Reading QP [dB(uV)]	Factor [dB(1/m)]	Level QP [dB(uV/m)]	Limit [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
123.75	V	29.1	-17.2	11.9	30	18.1	143	86.2
125.01	V	38.4	-17.2	21.2	30	8.8	255	136.8
129.96	H	28.7	-17.6	11.1	30	18.9	135	3.6
131.02	H	28.3	-17.6	10.7	30	19.3	238	20.9
132.85	H	29.5	-17.6	11.9	30	18.1	260	208.6
135.92	H	29.2	-17.8	11.4	30	18.6	152	39.7
137.08	V	31.4	-17.7	13.7	30	16.3	126	268
143.06	H	30.2	-18.6	11.6	30	18.4	149	331.6
216.07	V	41.6	-19.3	22.3	30	7.7	150	339.8
332.11	H	36.6	-13.4	23.2	37	13.8	284	168

Note) Receiving antenna polarization : Horizontal and/or Vertical

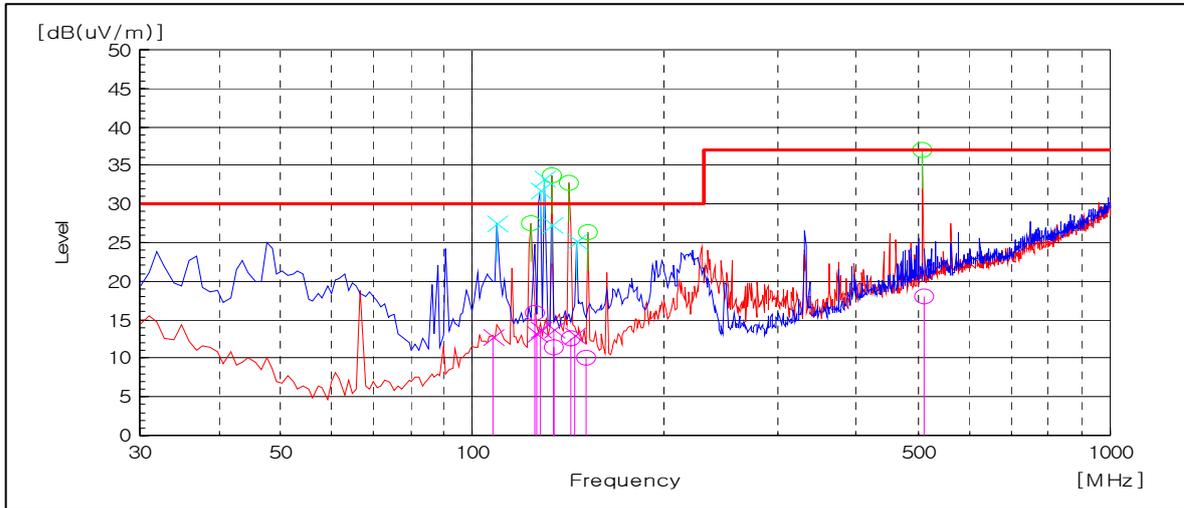
Test Distance : 10m, Antenna Height : 1 to 4 meters

Level QP(Quasi-Peak) = Reading QP + Factor(Antenna Factor + Cable Loss - Amp. Gain)

Margin QP(Quasi-Peak) = Limit – Level QP

- Operating Mode : Network Printing

Test Graph and Results



Frequency [MHz]	(P)	Reading QP [dB(uV)]	Factor [dB(1/m)]	Level QP [dB(uV/m)]	Limit [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
107.32	V	30.6	-17.8	12.8	30	17.2	236	35.9
125.00	H	33.5	-17.6	15.9	30	14.1	257	225.6
125.83	V	30.4	-17.2	13.2	30	16.8	269	86.9
127.97	V	31	-17.3	13.7	30	16.3	132	106.4
133.56	H	29.1	-17.7	11.4	30	18.6	229	278.6
134.34	V	31.2	-17.5	13.7	30	16.3	263	354.6
142.87	H	31.1	-18.5	12.6	30	17.4	284	85.1
144.73	V	31.1	-18.2	12.9	30	17.1	249	5.2
150.41	H	29.3	-19.2	10.1	30	19.9	255	8.1
509.09	H	26.4	-8.4	18	37	19	146	4.1

Note) Receiving antenna polarization : Horizontal and/or Vertical

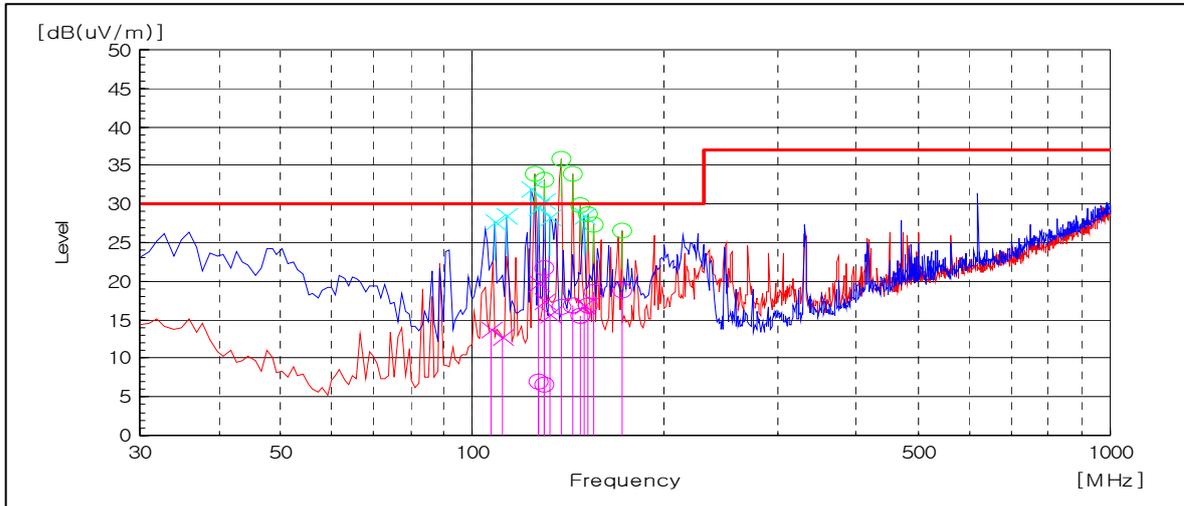
Test Distance : 10m, Antenna Height : 1 to 4 meters

Level QP(Quasi-Peak) = Reading QP + Factor(Antenna Factor + Cable Loss - Amp. Gain)

Margin QP(Quasi-Peak) = Limit – Level QP

- Operating Mode : ADF Copy Printing

Test Graph and Results



Frequency [MHz]	(P)	Reading QP [dB(uV)]	Factor [dB(1/m)]	Level QP [dB(uV/m)]	Limit [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
106.76	V	31.7	-17.9	13.8	30	16.2	251	359.6
111.22	V	30.4	-17.5	12.9	30	17.1	150	359.6
126.70	H	24.7	-17.6	7.1	30	22.9	350	359.6
129.23	H	24.1	-17.6	6.5	30	23.5	251	359.6
126.44	V	37	-17.2	19.8	30	10.2	223.3	280.4
129.49	H	39.4	-17.6	21.8	30	8.2	269	261.7
129.49	V	34.8	-17.3	17.5	30	12.5	243	172.4
132.39	V	33.1	-17.4	15.7	30	14.3	266	17.5
137.22	H	34.6	-18	16.6	30	13.4	343	80.6
143.01	H	35.4	-18.6	16.8	30	13.2	362	60.3
147.844	H	34.5	-19	15.5	30	14.5	321	33
149.776	V	35.4	-18.6	16.8	30	13.2	135	10.8
151.707	H	36.1	-19.3	16.8	30	13.2	325	16.5
154.605	H	38.1	-19.5	18.6	30	11.4	342	20.8
171.026	H	38.6	-19.8	18.8	30	11.2	235	332.1

Note) Receiving antenna polarization : Horizontal and/or Vertical

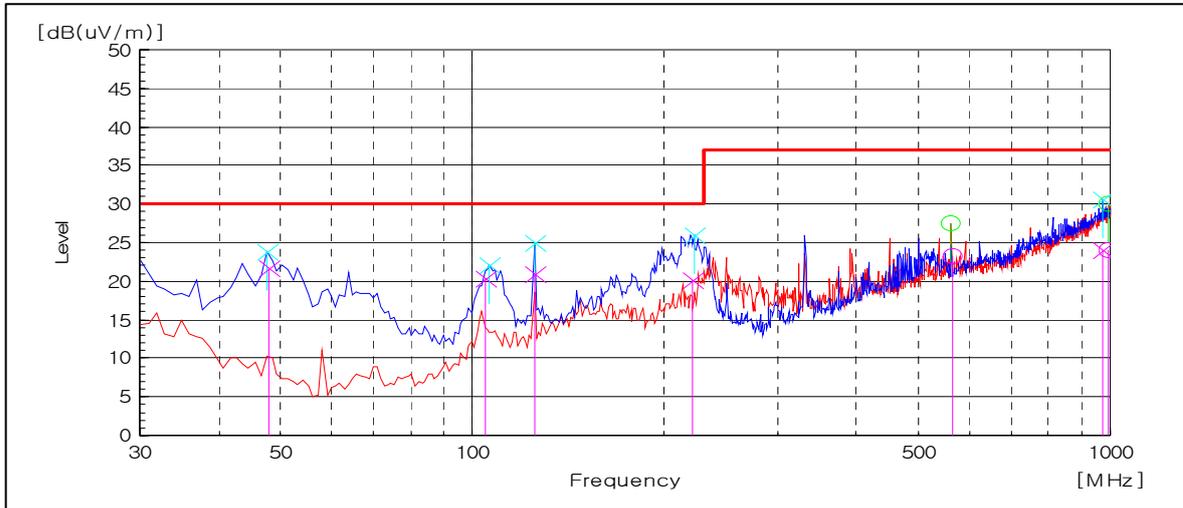
Test Distance : 10m, Antenna Height : 1 to 4 meters

Level QP(Quasi-Peak) = Reading QP + Factor(Antenna Factor + Cable Loss - Amp. Gain)

Margin QP(Quasi-Peak) = Limit – Level QP

- Operating Mode : Scan to PC(Flatbed)

Test Graph and Results



Frequency [MHz]	(P)	Reading QP [dB(uV)]	Factor [dB(1/m)]	Level QP [dB(uV/m)]	Limit [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
47.81	V	43.8	-22.1	21.7	30	8.3	151	17.5
104.68	V	38.5	-18.1	20.4	30	9.6	150	229
125.01	V	38.2	-17.2	21	30	9	246	332.8
220.69	V	39.3	-19.1	20.2	30	9.8	132	16.8
564.47	H	30.5	-7.2	23.3	37	13.7	131	33.5
973.62	V	24.5	-0.5	24	37	13	387	341.8
992.92	H	24.3	-0.3	24	37	13	145	352.7

Note) Receiving antenna polarization : Horizontal and/or Vertical

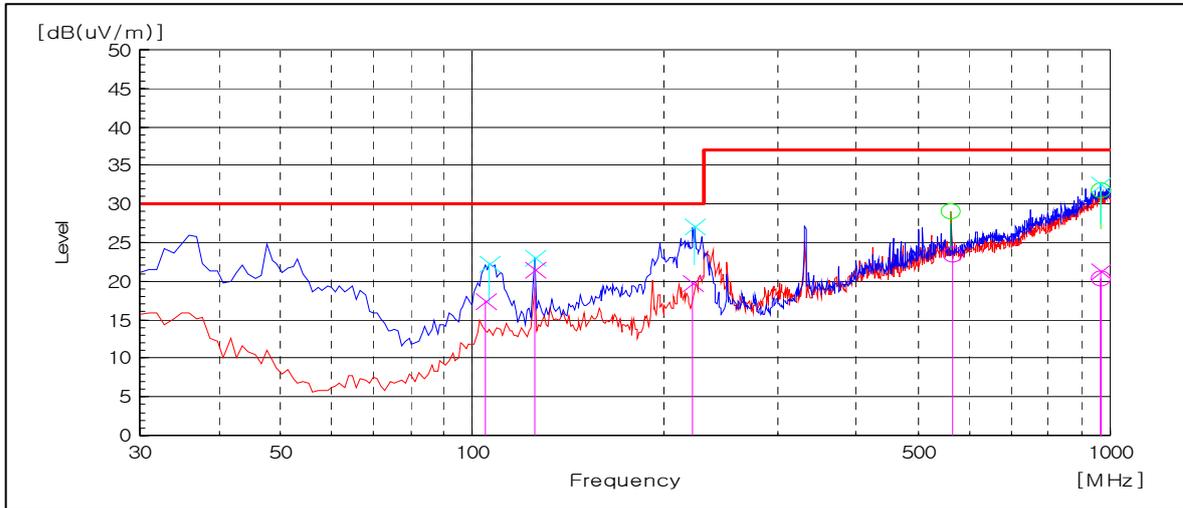
Test Distance : 10m, Antenna Height : 1 to 4 meters

Level QP(Quasi-Peak) = Reading QP + Factor(Antenna Factor + Cable Loss - Amp. Gain)

Margin QP(Quasi-Peak) = Limit – Level QP

- Operating Mode : Scan to PC(ADF)

Test Graph and Results



Frequency [MHz]	(P)	Reading QP [dB(uV)]	Factor [dB(1/m)]	Level QP [dB(uV/m)]	Limit [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
51.043	V	44.1	-23.3	20.8	30	9.2	150	237.9
125.014	V	37.9	-17.2	20.7	30	9.3	150	79
239.911	V	36.4	-17.6	18.8	37	18.2	150	37.6
500.008	H	29.9	-8.7	21.2	37	15.8	151	340.6
966.627	V	21.6	-0.7	20.9	37	16.1	249	31.8
987.282	H	21.5	-0.4	21.1	37	15.9	358	278.2

Note) Receiving antenna polarization : Horizontal and/or Vertical

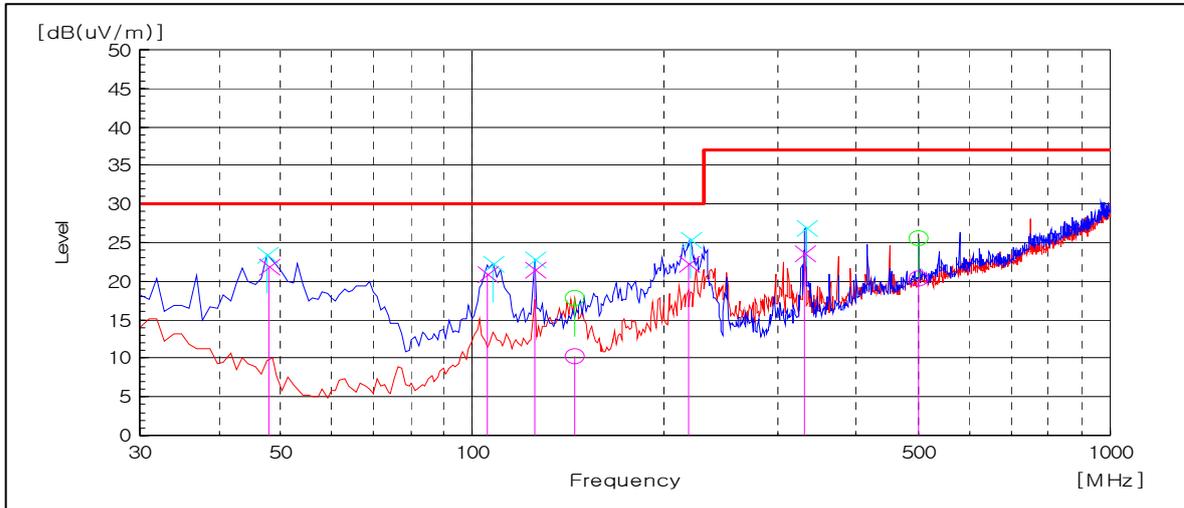
Test Distance : 10m, Antenna Height : 1 to 4 meters

Level QP(Quasi-Peak) = Reading QP + Factor(Antenna Factor + Cable Loss - Amp. Gain)

Margin QP(Quasi-Peak) = Limit – Level QP

- Operating Mode : Fax-Rx

Test Graph and Results



Frequency [MHz]	(P)	Reading QP [dB(uV)]	Factor [dB(1/m)]	Level QP [dB(uV/m)]	Limit [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
47.79	V	44	-22.1	21.9	30	8.1	350	253.8
105.26	V	38.9	-18	20.9	30	9.1	152	239.6
125.01	V	38.7	-17.2	21.5	30	8.5	152	116.2
144.29	H	29	-18.7	10.3	30	19.7	247	316.1
218.48	V	41.4	-19.2	22.2	30	7.8	152	345
331.88	V	36.6	-12.9	23.7	37	13.3	152	354.6
500.01	H	29.1	-8.7	20.4	37	16.6	247	157.8

Note) Receiving antenna polarization : Horizontal and/or Vertical

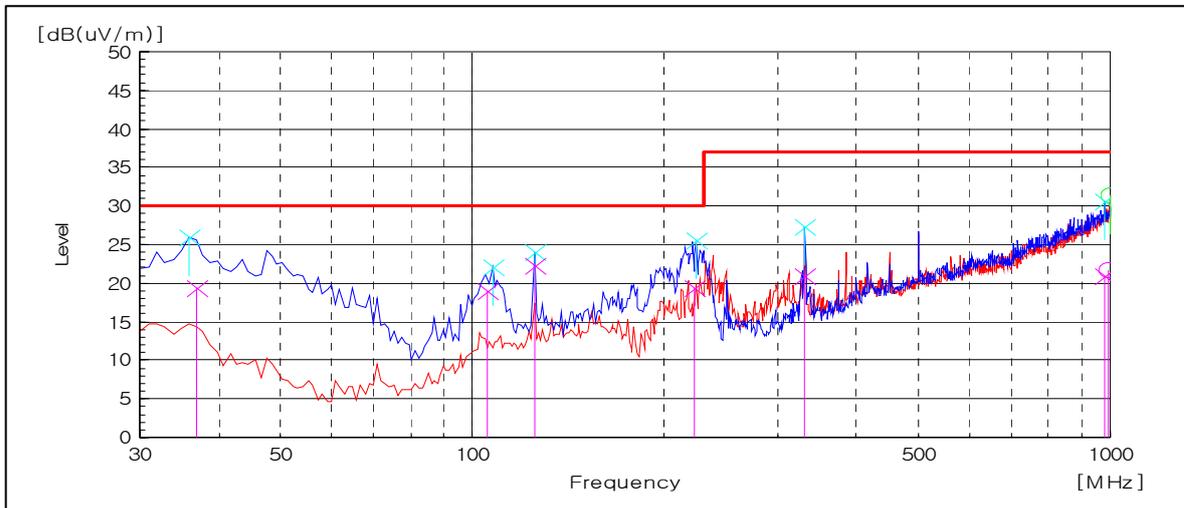
Test Distance : 10m, Antenna Height : 1 to 4 meters

Level QP(Quasi-Peak) = Reading QP + Factor(Antenna Factor + Cable Loss - Amp. Gain)

Margin QP(Quasi-Peak) = Limit – Level QP

- Operating Mode : Fax-Tx

Test Graph and Results



Frequency [MHz]	(P)	Reading QP [dB(uV)]	Factor [dB(1/m)]	Level QP [dB(uV/m)]	Limit [dB(uV/m)]	Margin QP [dB]	Height [cm]	Angle [deg]
978.37	V	21.3	-0.4	20.9	37	16.1	350	356.5
331.93	V	33.8	-12.9	20.9	37	16.1	350	237.4
222.94	V	38.4	-19	19.4	30	10.6	251	0.9
105.14	V	37.2	-18.1	19.1	30	10.9	251	227.3
36.80	V	36.2	-16.8	19.4	30	10.6	251	5
125.00	V	39.5	-17.2	22.3	30	7.7	151	359.1
996.48	H	22	-0.3	21.7	37	15.3	150	192.3

Note) Receiving antenna polarization : Horizontal and/or Vertical

Test Distance : 10m, Antenna Height : 1 to 4 meters

Level QP(Quasi-Peak) = Reading QP + Factor(Antenna Factor + Cable Loss - Amp. Gain)

Margin QP(Quasi-Peak) = Limit – Level QP

4.2. Above 1GHz results

- **Operating Mode : Stand by**

Peak Measurement

Frequency [MHz]	POL	Reading PK [dB(uV)]	Factor [dB(1/m)]	Level PK [dB(uV/m)]	Limit [dB(uV/m)]	Margin PK [dB]	Height [cm]	Angle [deg]
1328.66	V	57.7	-7.7	50	74	24	100	359.5
1595.19	V	55	-5.6	49.4	74	24.6	100	232.9
1663.33	V	51.6	-5.1	46.5	74	27.5	100	359.5
1991.98	V	51.3	-3.4	47.9	74	26.1	100	26.8

Average Measurement

Frequency [MHz]	POL	Reading AV [dB(uV)]	Factor [dB(1/m)]	Level AV [dB(uV/m)]	Limit [dB(uV/m)]	Margin AV [dB]	Height [cm]	Angle [deg]
1331.89	V	27.8	-7.7	20.1	54	33.9	100	187.8
1584.23	V	33.2	-5.6	27.6	54	26.4	100	228.6
1654.64	V	26.7	-5.2	21.5	54	32.4	100	343.5
1983.13	V	28.8	-3.5	25.3	54	28.6	100	34.6

Note1) Any emissions that do NOT exceed average limit were not tested with average detector mode.

Note2) Receiving antenna polarization : Horizontal and Vertical

Level P K(Peak) = Reading PK(Peak) + Factor(Antenna Factor + Cable Loss - Amp. Gain)

Level AV (Average) = Reading AV (Average) + Factor(Antenna Factor + Cable Loss - Amp. Gain)

Margin PK (Peak) = Limit – Level PK (Peak)

Margin AV (Average) = Limit – Level AV (Average)

- **Operating Mode : USB Printing**

Peak Measurement

Frequency [MHz]	POL	Reading PK [dB(uV)]	Factor [dB(1/m)]	Level PK [dB(uV/m)]	Limit [dB(uV/m)]	Margin PK [dB]	Height [cm]	Angle [deg]
1030.06	V	60.1	-9.7	50.4	74	23.6	100	90
1056.11	V	59.9	-9.6	50.3	74	23.7	100	26.9
1330.66	V	62.3	-7.7	54.6	74	19.4	100	185.6
1330.66	H	58.4	-7.7	50.7	74	23.3	100	94.1

Average Measurement

Frequency [MHz]	POL	Reading AV [dB(uV)]	Factor [dB(1/m)]	Level AV [dB(uV/m)]	Limit [dB(uV/m)]	Margin AV [dB]	Height [cm]	Angle [deg]
1029.57	V	36.6	-9.7	26.9	54	27.1	100	0
1059.54	V	35.4	-9.6	25.8	54	28.2	100	24.5
1329.34	V	32.6	-7.7	24.9	54	29.1	100	186.3
1339.14	H	34.6	-7.6	27	54	27.1	100	96.6

Note1) Any emissions that do NOT exceed average limit were not tested with average detector mode.

Note2) Receiving antenna polarization : Horizontal and Vertical

$$\text{Level P K(Peak)} = \text{Reading PK(Peak)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Level AV (Average)} = \text{Reading AV (Average)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Margin PK (Peak)} = \text{Limit} - \text{Level PK (Peak)}$$

$$\text{Margin AV (Average)} = \text{Limit} - \text{Level AV (Average)}$$

- **Operating Mode : Network Printing**

Peak Measurement

Frequency [MHz]	POL	Reading PK [dB(uV)]	Factor [dB(1/m)]	Level PK [dB(uV/m)]	Limit [dB(uV/m)]	Margin PK [dB]	Height [cm]	Angle [deg]
1060.12	V	58.7	-9.5	49.2	74	24.8	100	299.6
1328.66	V	54.7	-7.7	47	74	27	100	252.3
1597.19	H	52.9	-5.5	47.4	74	26.6	100	106.8
1998.00	V	51.1	-3.4	47.7	74	26.3	100	331

Average Measurement

Frequency [MHz]	POL	Reading AV [dB(uV)]	Factor [dB(1/m)]	Level AV [dB(uV/m)]	Limit [dB(uV/m)]	Margin AV [dB]	Height [cm]	Angle [deg]
1059.07	V	25.5	-9.6	15.9	54	38.1	100	266.7
1329.85	V	32.2	-7.7	24.5	54	29.5	100	191.7
1595.48	H	33	-5.6	27.4	54	26.6	100	292.2
1996.66	V	18	-3.4	14.6	54	39.4	100	225.1

Note1) Any emissions that do NOT exceed average limit were not tested with average detector mode.

Note2) Receiving antenna polarization : Horizontal and Vertical

$$\text{Level P K(Peak)} = \text{Reading PK(Peak)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Level AV (Average)} = \text{Reading AV (Average)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Margin PK (Peak)} = \text{Limit} - \text{Level PK (Peak)}$$

$$\text{Margin AV (Average)} = \text{Limit} - \text{Level AV (Average)}$$

- **Operating Mode : ADF Copy Printing**

Peak Measurement

Frequency [MHz]	POL	Reading PK [dB(uV)]	Factor [dB(1/m)]	Level PK [dB(uV/m)]	Limit [dB(uV/m)]	Margin PK [dB]	Height [cm]	Angle [deg]
1328.66	V	56.7	-7.7	49	74	25	100	355.8
1599.20	V	55.3	-5.5	49.8	74	24.2	100	281.4
1989.98	H	53.8	-3.4	50.4	74	23.6	100	126
1998.00	V	51.8	-3.4	48.4	74	25.6	100	201.5

Average Measurement

Frequency [MHz]	POL	Reading AV [dB(uV)]	Factor [dB(1/m)]	Level AV [dB(uV/m)]	Limit [dB(uV/m)]	Margin AV [dB]	Height [cm]	Angle [deg]
1312.32	V	33.1	-7.8	25.3	54	28.6	100	343.5
1614.44	V	33.2	-5.4	27.8	54	26.3	100	273.6
1964.46	H	18.8	-3.6	15.2	54	38.6	100	134.5
1983.63	V	21	-3.5	17.5	54	36.4	100	226.4

Note1) Any emissions that do NOT exceed average limit were not tested with average detector mode.

Note2) Receiving antenna polarization : Horizontal and Vertical

$$\text{Level P K(Peak)} = \text{Reading PK(Peak)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Level AV (Average)} = \text{Reading AV (Average)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Margin PK (Peak)} = \text{Limit} - \text{Level PK (Peak)}$$

$$\text{Margin AV (Average)} = \text{Limit} - \text{Level AV (Average)}$$

- **Operating Mode : Scan to PC(Flatbed)**

Peak Measurement

Frequency [MHz]	POL	Reading PK [dB(uV)]	Factor [dB(1/m)]	Level PK [dB(uV/m)]	Limit [dB(uV/m)]	Margin PK [dB]	Height [cm]	Angle [deg]
1328.66	V	57.9	-7.7	50.2	74	23.8	100	359.6
1597.19	H	55.5	-5.5	50	74	24	100	221.2
1597.19	V	54.4	-5.5	48.9	74	25.1	100	359.6
1998.00	V	51	-3.4	47.6	74	26.4	100	359.6

Average Measurement

Frequency [MHz]	POL	Reading AV [dB(uV)]	Factor [dB(1/m)]	Level AV [dB(uV/m)]	Limit [dB(uV/m)]	Margin AV [dB]	Height [cm]	Angle [deg]
1323.52	V	29.1	-7.7	21.4	54	32.6	100	337.2
1573.53	H	24.9	-5.7	19.2	54	34.6	100	215.9
1576.82	V	23.8	-5.7	18.1	54	35.7	100	0.9
1961.45	V	21.2	-3.6	17.6	54	36.2	100	342.3

Note1) Any emissions that do NOT exceed average limit were not tested with average detector mode.

Note2) Receiving antenna polarization : Horizontal and Vertical

$$\text{Level P K(Peak)} = \text{Reading PK(Peak)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Level AV (Average)} = \text{Reading AV (Average)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Margin PK (Peak)} = \text{Limit} - \text{Level PK (Peak)}$$

$$\text{Margin AV (Average)} = \text{Limit} - \text{Level AV (Average)}$$

- **Operating Mode : Scan to PC(ADF)**

Peak Measurement

Frequency [MHz]	POL	Reading PK [dB(uV)]	Factor [dB(1/m)]	Level PK [dB(uV/m)]	Limit [dB(uV/m)]	Margin PK [dB]	Height [cm]	Angle [deg]
1332.67	H	60.9	-7.7	53.2	74	20.8	100	355.7
1332.67	V	59.9	-7.7	52.2	74	21.8	100	15.2
1663.33	V	56.8	-5.1	51.7	74	22.3	100	0.3
1995.99	H	55.2	-3.4	51.8	74	22.2	100	296.9

Average Measurement

Frequency [MHz]	POL	Reading AV [dB(uV)]	Factor [dB(1/m)]	Level AV [dB(uV/m)]	Limit [dB(uV/m)]	Margin AV [dB]	Height [cm]	Angle [deg]
1329.51	H	28.3	-7.7	20.6	54	33.4	100	329.3
1330.09	V	26.4	-7.7	18.7	54	35.3	100	317.7
1995.12	H	20.9	-3.4	17.5	54	36.5	100	282.9
1661.29	V	21.2	-5.2	16	54	38	100	210.6

Note1) Any emissions that do NOT exceed average limit were not tested with average detector mode.

Note2) Receiving antenna polarization : Horizontal and Vertical

$$\text{Level P K(Peak)} = \text{Reading PK(Peak)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Level AV (Average)} = \text{Reading AV (Average)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Margin PK (Peak)} = \text{Limit} - \text{Level PK (Peak)}$$

$$\text{Margin AV (Average)} = \text{Limit} - \text{Level AV (Average)}$$

- **Operating Mode : Fax-Rx**

Peak Measurement

Frequency [MHz]	POL	Reading PK [dB(uV)]	Factor [dB(1/m)]	Level PK [dB(uV/m)]	Limit [dB(uV/m)]	Margin PK [dB]	Height [cm]	Angle [deg]
1330.66	V	57.4	-7.7	49.7	74	24.3	100	0.3
1330.66	H	56.9	-7.7	49.2	74	24.8	100	110.5
1595.19	H	52.1	-5.6	46.5	74	27.5	100	205.8
1661.32	V	56.4	-5.2	51.2	74	22.8	100	88.4

Average Measurement

Frequency [MHz]	POL	Reading AV [dB(uV)]	Factor [dB(1/m)]	Level AV [dB(uV/m)]	Limit [dB(uV/m)]	Margin AV [dB]	Height [cm]	Angle [deg]
1332.64	H	31.5	-7.7	23.8	54	30.2	100	112.4
1333.64	V	34.3	-7.6	26.7	54	27.4	100	0.9
1598.64	H	32.4	-5.5	26.9	54	27.2	100	201.2
1663.43	V	32.4	-5.1	27.3	54	26.8	100	89.6

Note1) Any emissions that do NOT exceed average limit were not tested with average detector mode.

Note2) Receiving antenna polarization : Horizontal and Vertical

$$\text{Level P K(Peak)} = \text{Reading PK(Peak)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Level AV (Average)} = \text{Reading AV (Average)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Margin PK (Peak)} = \text{Limit} - \text{Level PK (Peak)}$$

$$\text{Margin AV (Average)} = \text{Limit} - \text{Level AV (Average)}$$

- **Operating Mode : Fax-Tx**

Peak Measurement

Frequency [MHz]	POL	Reading PK [dB(uV)]	Factor [dB(1/m)]	Level PK [dB(uV/m)]	Limit [dB(uV/m)]	Margin PK [dB]	Height [cm]	Angle [deg]
1330.66	V	59.7	-7.7	52	74	22	100	153.7
1332.67	H	56.1	-7.7	48.4	74	25.6	100	109.9
1595.19	V	52.7	-5.6	47.1	74	26.9	100	43.2
1661.32	V	53.7	-5.2	48.5	74	25.5	100	59

Average Measurement

Frequency [MHz]	POL	Reading AV [dB(uV)]	Factor [dB(1/m)]	Level AV [dB(uV/m)]	Limit [dB(uV/m)]	Margin AV [dB]	Height [cm]	Angle [deg]
1329.35	V	32.6	-7.7	24.9	54	29.1	100	155.4
1331.56	H	33.6	-7.7	25.9	54	28.1	100	107.6
1597.51	V	36.2	-5.5	30.7	54	23.4	100	45.6
1662.64	V	34.2	-5.1	29.1	54	24.9	100	62

Note1) Any emissions that do NOT exceed average limit were not tested with average detector mode.

Note2) Receiving antenna polarization : Horizontal and Vertical

$$\text{Level P K(Peak)} = \text{Reading PK(Peak)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Level AV (Average)} = \text{Reading AV (Average)} + \text{Factor(Antenna Factor + Cable Loss - Amp. Gain)}$$

$$\text{Margin PK (Peak)} = \text{Limit} - \text{Level PK (Peak)}$$

$$\text{Margin AV (Average)} = \text{Limit} - \text{Level AV (Average)}$$

Appendix 1 – EUT photography



Front View



Rear View



Inside View (1)



Inside View (2)



Inside View (3)



Label Location



Project No. : LBE091340



MONO LASER MFP : SCX-4623FN

 USOC Jack Type:RJ11C Samsung Electronics Co., Ltd. Suwon, Korea, 443-742 Place: M259	Model: SCX-4623FN	FCC ID : A3LSCX4623FN
	Volts: AC 110-127V	<p>This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: i) This device may not cause harmful interference, and ii) This device must accept any interference received, including interference that may cause undesired operation. Complies with Part 68, FCC Rules. FCC Certification No.: US:A3LFA05BSCX4623FN This Class B digital apparatus complies with Canadian ICES-003 Cet appareil numérique de la classe B est Conforme à la norme NMB-003 du Canada. This product complies with 21 CFR Chapter 1, subchapter J. IC: 649E-SCX4623FN</p>
Hertz: 50/60 Hz		
Amps: 5.0A		
Ringer Equivalence: 0.5B		
Manufactured:	 51Y7	
	E149091	
	I.T.E.	
Serial No.:		Fabriqué au Korea MADE IN KOREA REV.00

Label