EMC TEST REPORT

Project No.	LBE20101227	**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	October 14, 2010	
EUT	**Type of device**	Class B digital devices, peripherals	
	Equipment authorization	☐ Declaration of Conformity ☒ Certification ☐ Verification	
	FCC ID	**A3LSCX4833FD**	
	Kind of product	**MONO LASER MFP**	
	Model No.	**SCX-4833FD**	
		Variant Model No.	**SCX-4835FD**
	Manufacturer	**Samsung Electronics Co., Ltd.** 259, Gongdan-Dong, Gumi-City, Gyeongsangbuk-Do, Korea 730-030 **Samsung Electronics (Shandong) Digital Printing Co.Ltd** (264209) SAMSUNG ROAD HI-TECH IDZ, WEIHAI, CHINA **Weihai Shin Heung Digital Electronics Co., Ltd.** 98, Samsung Road, Weihai Hi-Tech. IDZ, Shandong Province, P.R.China **Intops : Intops (Weihai) Electronics Co., Ltd.** Keji Road-268-1 , Weihai Hi-Tech,Industries Development Zone, Shandong Province , CHINA	
Applied Standards		FCC Part 15, Subpart B / ANSI C63.4-2003	
Test Period		October 15, 2010 ~ October 30, 2010	
Issue date		November 12, 2010	

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 : Sung Jin Sim

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.

SAMSUNG

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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
☒	Conducted Disturbance (Mains Port)	FCC Part 15 Subpart B	Complied	Meets Class B Limit
☒	Radiated Disturbance		Complied	Meets Class B Limit

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2. General Information

2.1 Test facility

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

3. Test Setup configuration

3.1 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
Mono Laser MFP	SCX-4833FD	-	SAMSUNG	A3L
PC	PP18L	29359007709	DELL	DoC
Dock	PD01X	CN-0HD026-48643-83K-2197	DELL	DoC
Telephone	SP-F131	KKCTB05225	SAMSUNG	DoC
USB MOUSE	MOARUO	0740007850	Primax Electronics	DoC
Headset	MH21	-	COZY	-
USB memory	DT Mini Slim 4GB	-	Kingston	DoC

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3.2 EUT operating mode

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

Operating Mode 1	Stand-by
Operating Mode 2	USB printing (Duplex)
Operating Mode 3	Network printing (Duplex)
Operating Mode 4	1284 port printing (Duplex)
Operating Mode 5	DADF copy printing
Operating Mode 6	Scan to PC
Operating Mode 7	Scan to USB memory stick
Operating Mode 8	Fax transmission
Operating Mode 9	Fax receiving

3.3 Details of Sampling

Customer selected, single unit.

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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	1.5	No	-
LAN	2.0	No	For EUT
LAN	2.0	No	For PC
USB	1.5	Yes	From PC to Mouse
USB	1.5	Yes	From EUT to PC
IEEE 1284B Parallel	1.5	Yes	From EUT to PC
Telephone	2.0	No	From EUT to Phone
Telephone	2.0	No	For EUT
Headset	1.6	No	From PC to Headset

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3.5 EUT Description

The following features describe EUT represented by this report:

Item	Specification and Description
Processor	CHORUS3 (360 Mhz)
Standard System memory	128 MB DDR2 SDRAM
Resolution	True 600 x 600 dpi (Addressible 1 200 dpi support)
Copy Quality mode	Text : Scan 300 x 300 dpi, Print: 600 x 600 dpi (Platen, ADF) Mixed : Scan 300 x 300 dpi, Print: 600 x 600 dpi (Platen, ADF) Photo : Scan 300 x 300 dpi, Print: 600 x 600 dpi (ADF) Scan 600 x 600 dpi, Print: 1200 x 1200 dpi (Platen)
Paper Handling	Paper Tray(standard) 250 Sheets MP Tray 50sheets
Power Rating	110 ~ 127 VAC, 5 A, 50/60 Hz
Power Consumption	Power save mode : 9 Watts Printing mode: MAX. 600 Watts
Printer Language	PCL6/PS3
PC Interfaces	USB2.0, NW, FAX
OS compatibility	Windows 2000/XP (32/64 bits) /Vista (32/64 bits) /2003 Server (32/64 bits) /2008 Server(32/64 bits) /7 (32/64 bits) /2008 Server R2 Various Linux OS:Fedora Core 4, 5, 6,Fedora 7, 8, 9, 10, 11, 12, RedHat Enterprise Linux WS 4, 5, SuSE 10.0, 10.1 openSuSE 10.2, 10.3, 11.0, 11.1, 11.2 SuSE Linux Enterprise Desktop 10, 11 Debian 4.0, 5.0 Ubuntu 5.04, 5.10, 6.04, 6.10, 7.04, 7.10, 8.04, 8.10, 9.04, 9.10 Mandriva 2005LE, 2006, 2007, 2007.1 2008, 2008.1, 2009, 2009.1 Mac OS 10.3 ~ 10.6
Modes of Operation	USB Printing, ADF Scan, ADF Copy, 1 200 dpi Printing, Fax RX, Fax TX, Network Printing
Intended Class for Emissions	Class B

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3.6 Clock Frequencies

Kind of Clocks	Frequency[MHz]	Kind of Clocks	Frequency[MHz]
Main Source	12	Video	18.993
CPU Internal	360	USB Device	12
DDR2 Clock	166	CIS	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.

The EUT was measured all testing with toner cartridge.

Two different types of SMPS, Liteon, Dongyang were applied during testing.
Each SMPS was installed for testing, tested and reported.

- **Configuration 1 : Liteon SMPS was applied.**
- **Configuration 2 : Dongyang SMPS was applied.**

- Test Voltage : AC 120 V, 60 Hz

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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	3.00 dB
Radiated Disturbance (Below 1 GHz)	Horizontal	4.95 dB
	Vertical	4.99 dB
Radiated Disturbance (Above 1 GHz)	Horizontal	3.32 dB
	Vertical	3.32 dB

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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.			

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4.1.1 Test instrumentation

Test instrumentation	Model name	Manufacturer	Serial or Firmware (No./Ver.)	Calibration	
				Date	Interval (Month)
Measuring receiver	ESCI	R&S	100086	2009-11-19	12
Artificial mains network	ENV216	R&S	100117	2009-11-11	12
Artificial mains network	ESH3-Z5	R&S	831887/004	2010-07-06	12
Test software	EMC32	R&S	Ver 4.40.	N/A	N/A

4.1.2 Temperature and humidity condition

Test date	October 18, 2010	**Test engineer**	Sung Jin Sim
Test place	Shielded Room #1		

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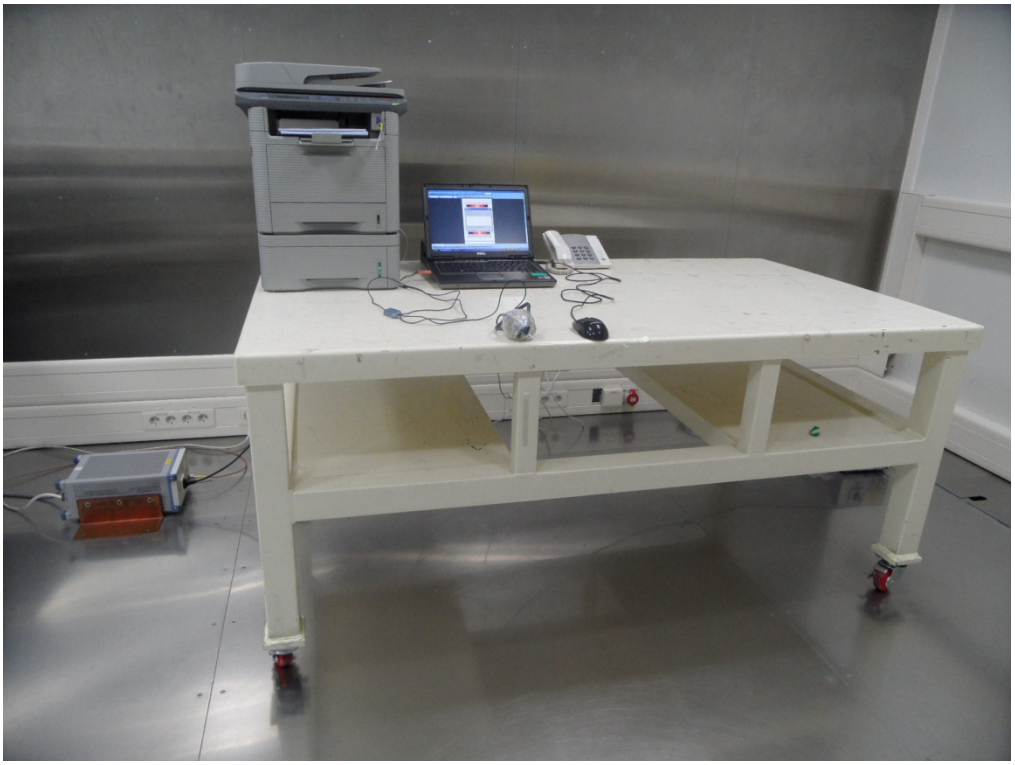
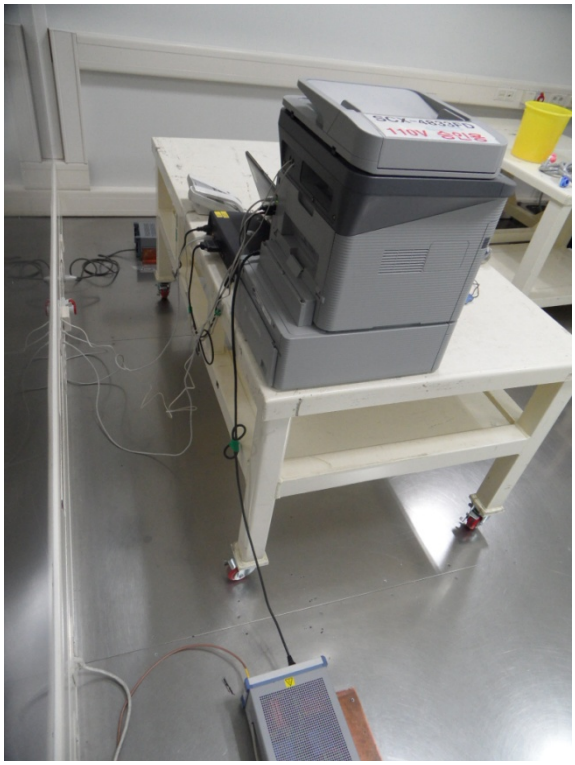
4.1.3 Photograph of Test Setup



Front



Rear

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4.1.4 Test results (mains port)

- **Configuration 1 : Stand-by Mode**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

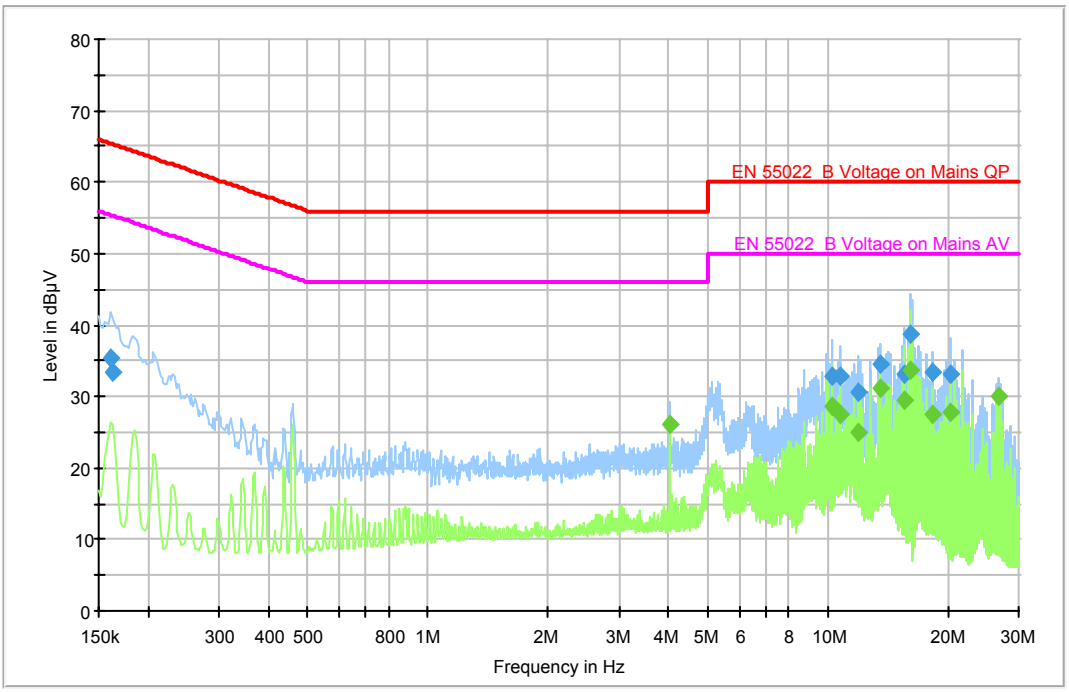
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.161	35.4	L1	9.7	30.0	65.4
0.164	33.4	L1	9.7	31.9	65.3
10.243	32.9	L1	9.8	27.1	60.0
10.794	32.7	L1	9.9	27.3	60.0
11.893	30.6	L1	9.9	29.4	60.0
13.479	34.4	L1	9.9	25.6	60.0
15.616	33.2	L1	9.9	26.8	60.0
16.169	38.6	L1	10.0	21.4	60.0
18.244	33.5	L1	10.0	26.5	60.0
20.259	33.2	L1	10.0	26.8	60.0

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
4.032	26.0	L1	9.7	20.0	46.0
10.245	28.6	L1	9.8	21.4	50.0
10.793	27.6	L1	9.9	22.4	50.0
11.894	25.1	L1	9.9	24.9	50.0
13.482	31.1	L1	9.9	18.9	50.0
15.618	29.5	L1	9.9	20.5	50.0
16.168	33.7	L1	10.0	16.3	50.0
18.243	27.4	L1	10.0	22.6	50.0
20.260	27.7	L1	10.0	22.3	50.0
26.611	30.0	N	10.2	20.0	50.0

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)

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- **Configuration 1 : USB printing Mode (Duplex)**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

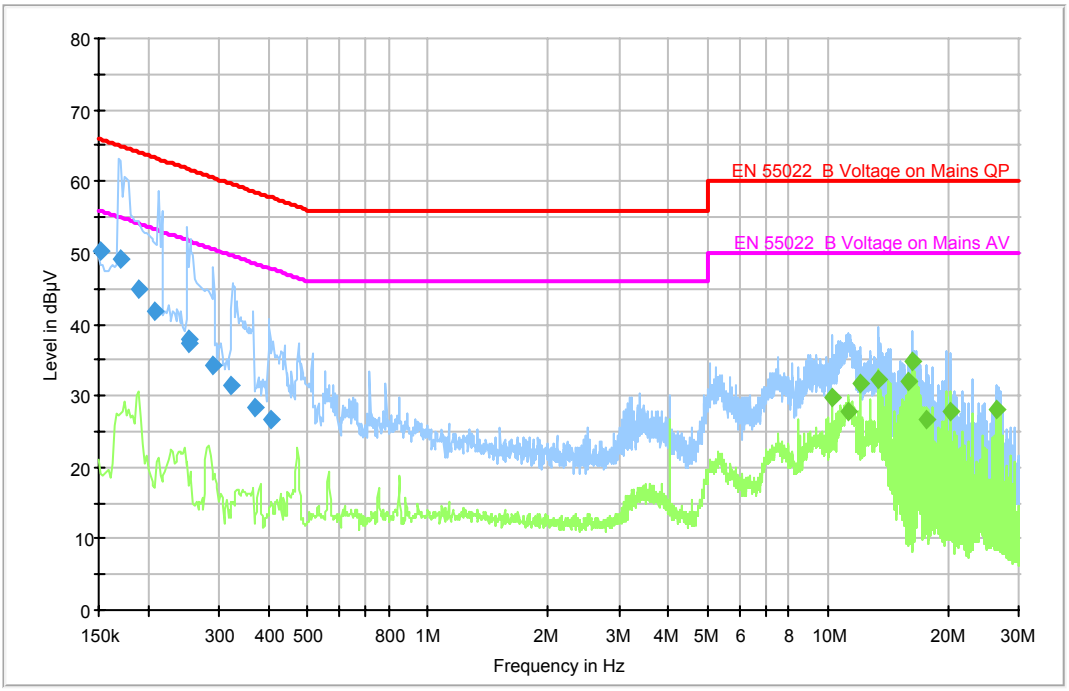
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.151	50.2	N	9.7	15.7	65.9
0.171	49.2	L1	9.7	15.7	64.9
0.189	44.9	L1	9.7	19.2	64.1
0.208	41.9	N	9.7	21.4	63.3
0.252	37.2	N	9.7	24.5	61.7
0.253	38.0	L1	9.7	23.7	61.7
0.290	34.2	L1	9.7	26.3	60.5
0.321	31.6	L1	9.7	28.1	59.7
0.370	28.5	L1	9.7	30.0	58.5
0.405	26.5	L1	9.7	31.2	57.8

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
10.246	29.8	L1	9.8	20.2	50.0
11.209	27.7	N	9.8	22.3	50.0
12.096	31.8	L1	9.9	18.2	50.0
13.420	32.3	L1	9.9	17.7	50.0
15.848	32.1	N	9.9	17.9	50.0
16.231	34.7	N	9.9	15.3	50.0
17.693	26.7	N	10.0	23.3	50.0
20.260	27.7	N	10.0	22.3	50.0
26.489	28.2	N	10.2	21.8	50.0

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)

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- **Configuration 1 : Network printing Mode (Duplex)**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

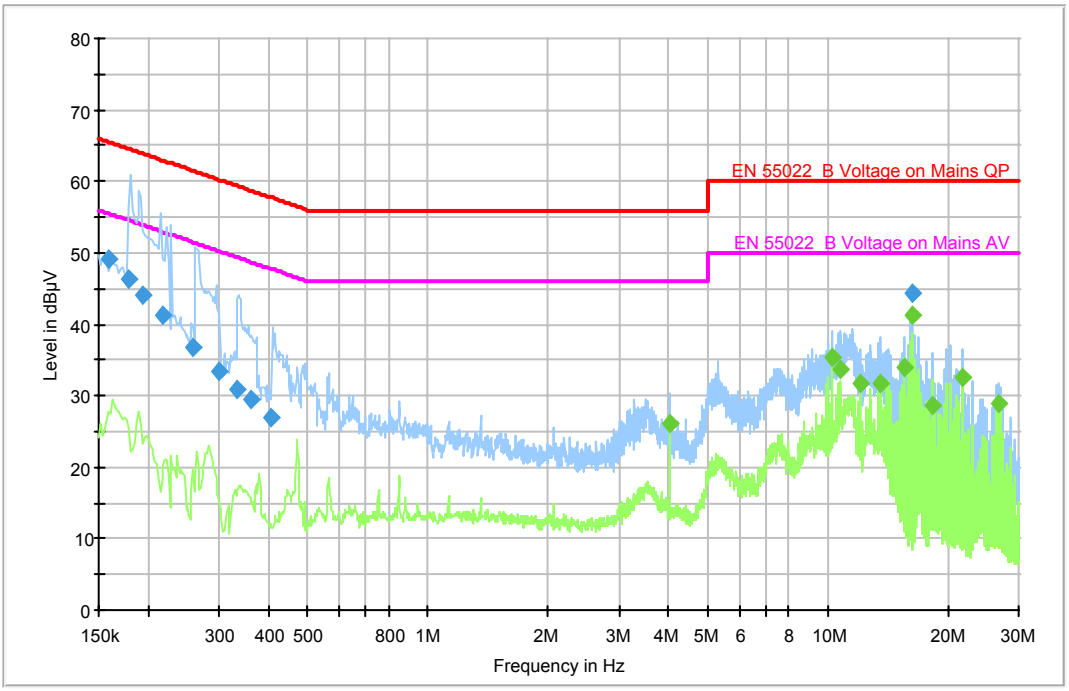
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.160	49.1	L1	9.7	16.4	65.5
0.179	46.3	L1	9.7	18.3	64.6
0.194	44.1	N	9.7	19.8	63.9
0.217	41.2	L1	9.7	21.8	63.0
0.259	36.8	L1	9.7	24.7	61.5
0.299	33.3	N	9.7	27.0	60.3
0.332	30.8	L1	9.7	28.6	59.4
0.361	29.5	L1	9.7	29.2	58.7
0.406	27.0	L1	9.7	30.7	57.7
16.229	44.3	N	9.9	15.7	60.0

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
4.032	26.1	L1	9.7	19.9	46.0
10.244	35.5	L1	9.8	14.5	50.0
10.795	33.7	N	9.8	16.3	50.0
12.097	31.8	L1	9.9	18.2	50.0
13.482	31.7	L1	9.9	18.3	50.0
15.617	33.9	N	9.9	16.1	50.0
16.230	41.4	N	9.9	8.6	50.0
18.244	28.6	L1	10.0	21.4	50.0
21.664	32.6	N	10.1	17.4	50.0
26.612	28.8	N	10.2	21.2	50.0

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)

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- **Configuration 1 : 1284 port printing Mode (Duplex)**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

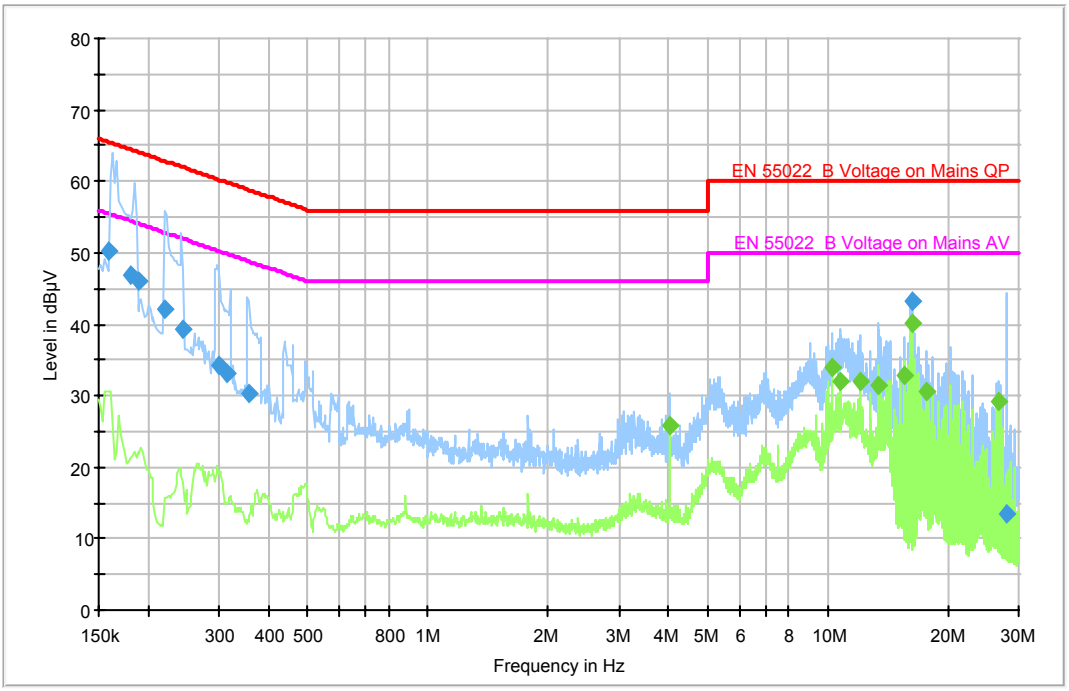
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.159	50.3	N	9.7	15.2	65.5
0.180	46.8	N	9.7	17.7	64.5
0.190	46.0	N	9.7	18.0	64.1
0.219	42.0	L1	9.7	20.9	62.9
0.245	39.4	L1	9.7	22.6	61.9
0.300	34.3	N	9.7	25.9	60.3
0.316	33.2	N	9.7	26.7	59.8
0.356	30.3	L1	9.7	28.6	58.8
16.229	43.1	N	9.9	16.9	60.0
28.000	13.5	L1	10.1	46.5	60.0

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
4.033	25.9	L1	9.7	20.1	46.0
10.245	34.0	N	9.8	16.0	50.0
10.795	32.0	N	9.8	18.0	50.0
12.097	31.9	L1	9.9	18.1	50.0
13.360	31.4	N	9.9	18.6	50.0
15.620	32.9	L1	9.9	17.1	50.0
16.230	40.0	N	9.9	10.0	50.0
17.695	30.7	N	10.0	19.3	50.0
26.611	29.1	N	10.2	20.9	50.0

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)

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- **Configuration 1 : DADF copy printing Mode**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

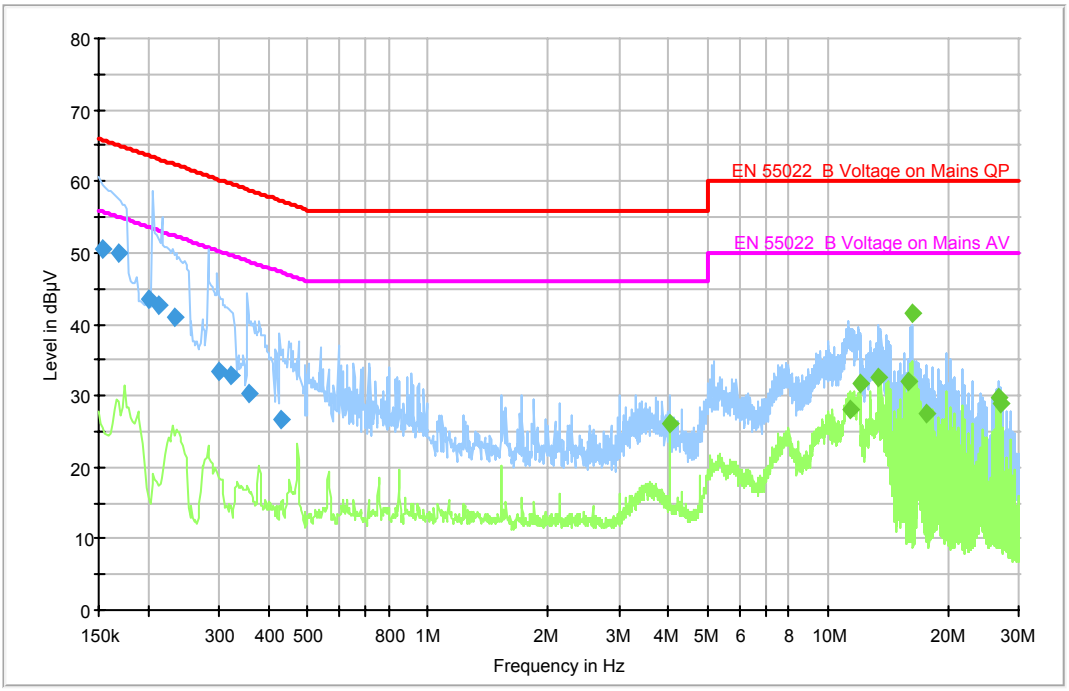
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.154	50.6	L1	9.7	15.2	65.8
0.169	50.0	L1	9.7	15.0	65.0
0.201	43.4	L1	9.7	20.2	63.6
0.212	42.7	N	9.7	20.4	63.1
0.232	40.9	L1	9.7	21.5	62.4
0.300	33.5	N	9.7	26.8	60.3
0.320	32.9	L1	9.7	26.9	59.7
0.359	30.4	L1	9.7	28.3	58.8
0.428	26.8	L1	9.7	30.5	57.3

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
4.033	26.1	N	9.7	19.9	46.0
11.318	28.1	L1	9.9	21.9	50.0
12.097	31.8	L1	9.9	18.2	50.0
13.359	32.7	N	9.9	17.3	50.0
15.847	32.1	N	9.9	17.9	50.0
16.232	41.6	N	9.9	8.4	50.0
17.694	27.6	N	10.0	22.4	50.0
26.611	29.9	N	10.2	20.1	50.0
27.161	29.0	N	10.2	21.0	50.0

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)

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- **Configuration 1 : Scan to PC Mode**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

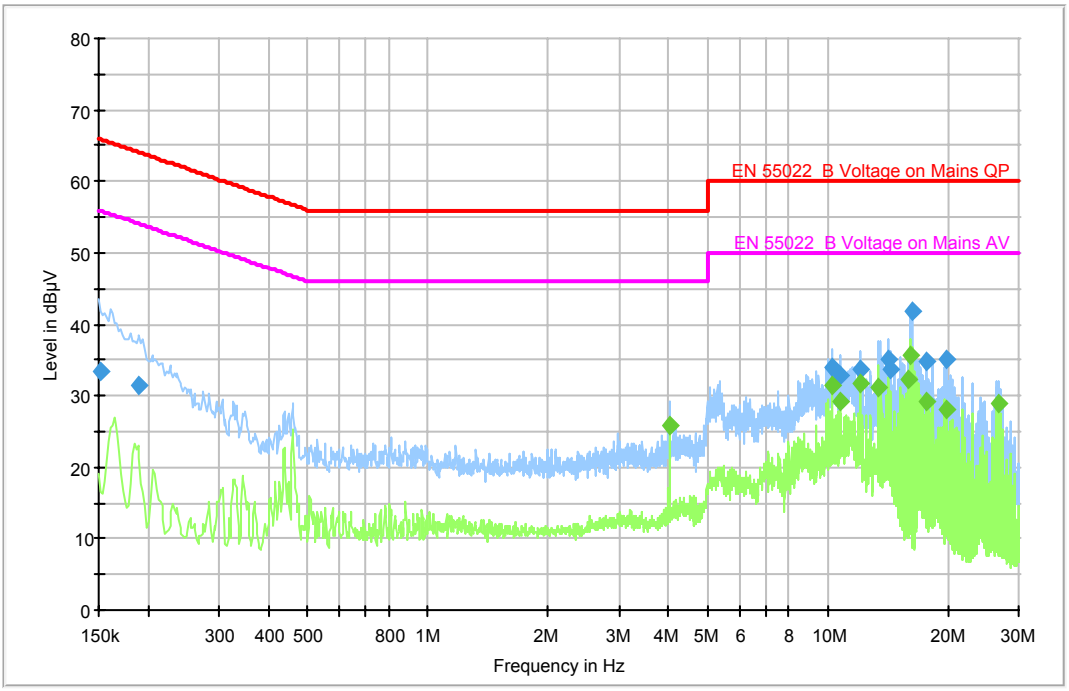
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.151	33.3	L1	9.7	32.6	65.9
0.189	31.5	L1	9.7	32.6	64.1
10.246	33.9	L1	9.8	26.1	60.0
10.794	32.9	N	9.8	27.1	60.0
12.096	33.6	N	9.9	26.4	60.0
14.152	35.0	N	9.9	25.0	60.0
14.335	33.8	N	9.9	26.2	60.0
16.230	41.8	N	9.9	18.2	60.0
17.695	34.8	N	10.0	25.2	60.0
19.711	35.2	N	10.0	24.8	60.0

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
4.033	25.9	N	9.7	20.1	46.0
10.245	31.4	L1	9.8	18.6	50.0
10.794	29.1	L1	9.9	20.9	50.0
12.097	31.6	N	9.9	18.4	50.0
13.359	31.0	L1	9.9	19.0	50.0
15.847	32.3	N	9.9	17.7	50.0
16.168	35.5	L1	10.0	14.5	50.0
17.696	29.2	N	10.0	20.8	50.0
19.708	28.1	N	10.0	21.9	50.0
26.612	28.8	N	10.2	21.2	50.0

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)

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- **Configuration 1 : Scan to USB memory stick Mode**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

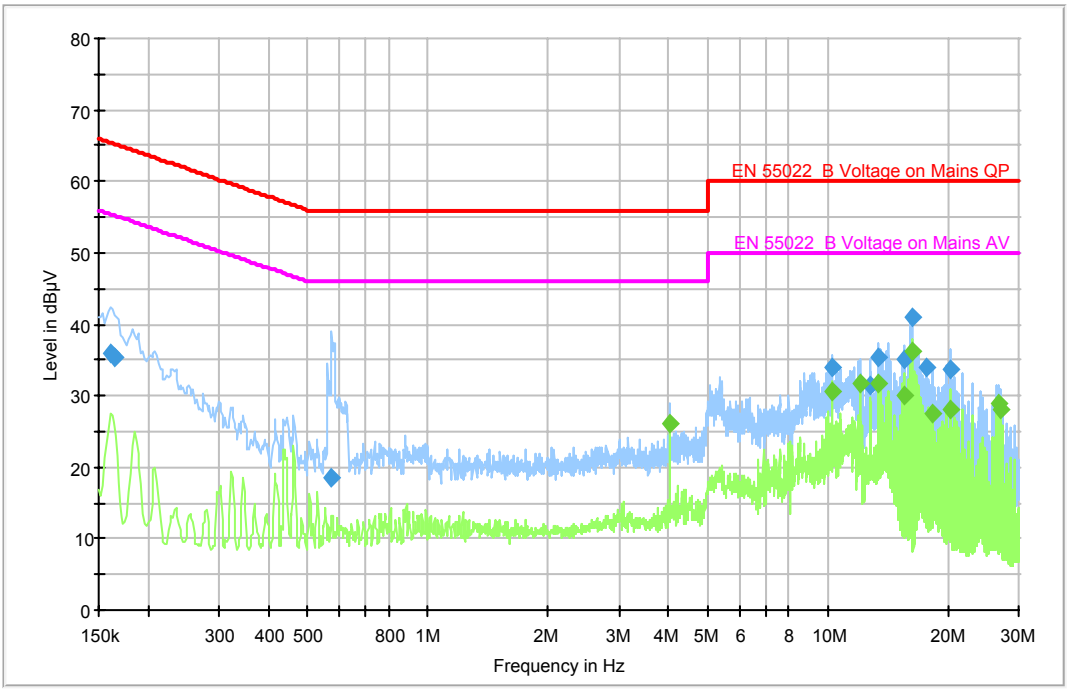
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.161	35.8	L1	9.7	29.6	65.4
0.165	35.3	L1	9.7	29.9	65.2
0.574	18.5	N	9.7	37.5	56.0
10.244	34.0	L1	9.8	26.0	60.0
12.749	31.5	L1	9.9	28.5	60.0
13.422	35.3	L1	9.9	24.7	60.0
15.618	35.0	L1	9.9	25.0	60.0
16.230	40.9	L1	10.0	19.1	60.0
17.696	34.0	L1	10.0	26.0	60.0
20.261	33.6	N	10.0	26.4	60.0

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
4.032	26.0	L1	9.7	20.0	46.0
10.244	30.5	L1	9.8	19.5	50.0
12.096	31.8	N	9.9	18.2	50.0
13.419	31.8	L1	9.9	18.2	50.0
15.618	30.1	L1	9.9	19.9	50.0
16.229	36.3	N	9.9	13.7	50.0
18.245	27.6	N	10.0	22.4	50.0
20.259	28.2	N	10.0	21.8	50.0
26.610	29.1	N	10.2	20.9	50.0
27.160	28.2	N	10.2	21.8	50.0

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)

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- **Configuration 1 : Fax transmission Mode**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

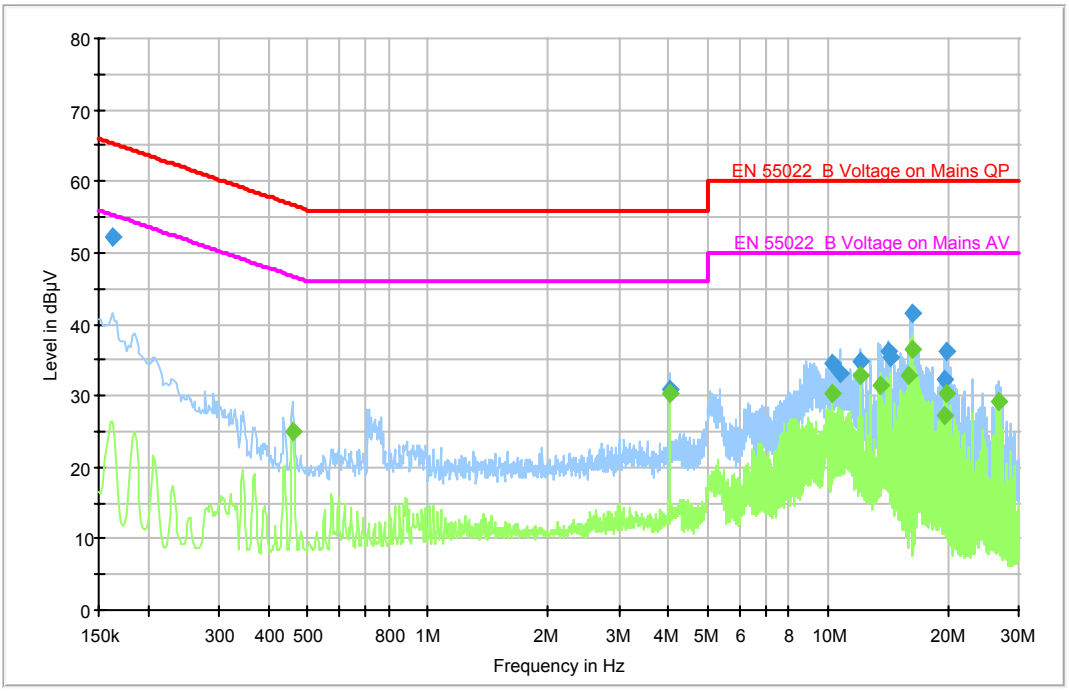
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.164	52.2	N	9.7	13.1	65.3
4.032	30.9	L1	9.7	25.1	56.0
10.244	34.4	L1	9.8	25.6	60.0
10.792	33.0	N	9.9	27.0	60.0
12.097	34.8	L1	9.9	25.2	60.0
14.152	36.1	L1	9.9	23.9	60.0
14.337	35.4	L1	9.9	24.6	60.0
16.230	41.6	N	10.0	18.4	60.0
19.588	32.3	L1	10.0	27.7	60.0
19.709	36.2	N	10.0	23.8	60.0

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.459	25.0	N	9.7	21.7	46.7
4.033	30.4	L1	9.7	15.6	46.0
10.244	30.2	L1	9.8	19.8	50.0
12.097	32.8	N	9.9	17.2	50.0
13.483	31.4	L1	9.9	18.6	50.0
15.848	32.7	L1	10.0	17.3	50.0
16.228	36.5	L1	10.0	13.5	50.0
19.588	27.2	N	10.0	22.8	50.0
19.710	30.3	L1	10.0	19.7	50.0
26.611	29.2	N	10.2	20.8	50.0

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)

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- **Configuration 1 : Fax receiving Mode**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

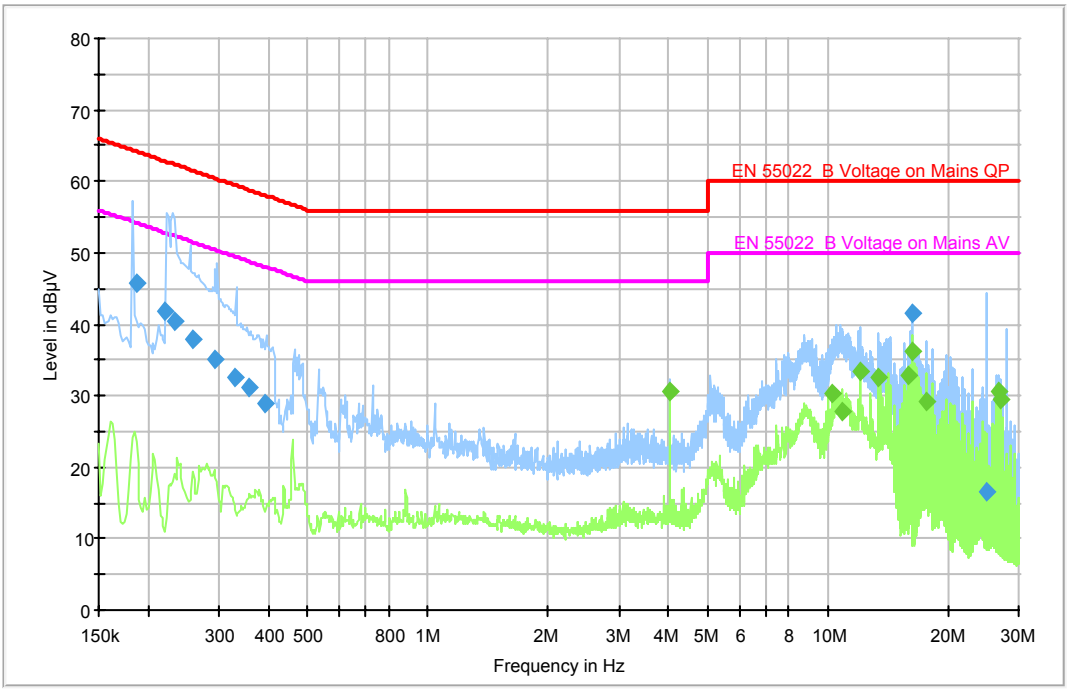
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.187	45.7	N	9.7	18.5	64.2
0.219	41.8	N	9.7	21.1	62.9
0.233	40.3	L1	9.7	22.0	62.4
0.260	37.8	L1	9.7	23.6	61.4
0.294	35.1	N	9.7	25.4	60.4
0.328	32.4	L1	9.7	27.1	59.5
0.357	31.1	N	9.7	27.7	58.8
0.391	29.0	N	9.7	29.0	58.1
16.229	41.6	L1	10.0	18.4	60.0
25.028	16.5	L1	10.1	43.5	60.0

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
4.033	30.5	L1	9.7	15.5	46.0
10.246	30.3	N	9.8	19.7	50.0
10.839	27.9	N	9.8	22.1	50.0
12.097	33.3	N	9.9	16.7	50.0
13.420	32.7	N	9.9	17.3	50.0
15.848	32.7	N	9.9	17.3	50.0
16.231	36.3	L1	10.0	13.7	50.0
17.693	29.1	N	10.0	20.9	50.0
26.611	30.6	N	10.2	19.4	50.0
27.161	29.6	N	10.2	20.4	50.0

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)

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- **Configuration 2 : Stand-by Mode**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

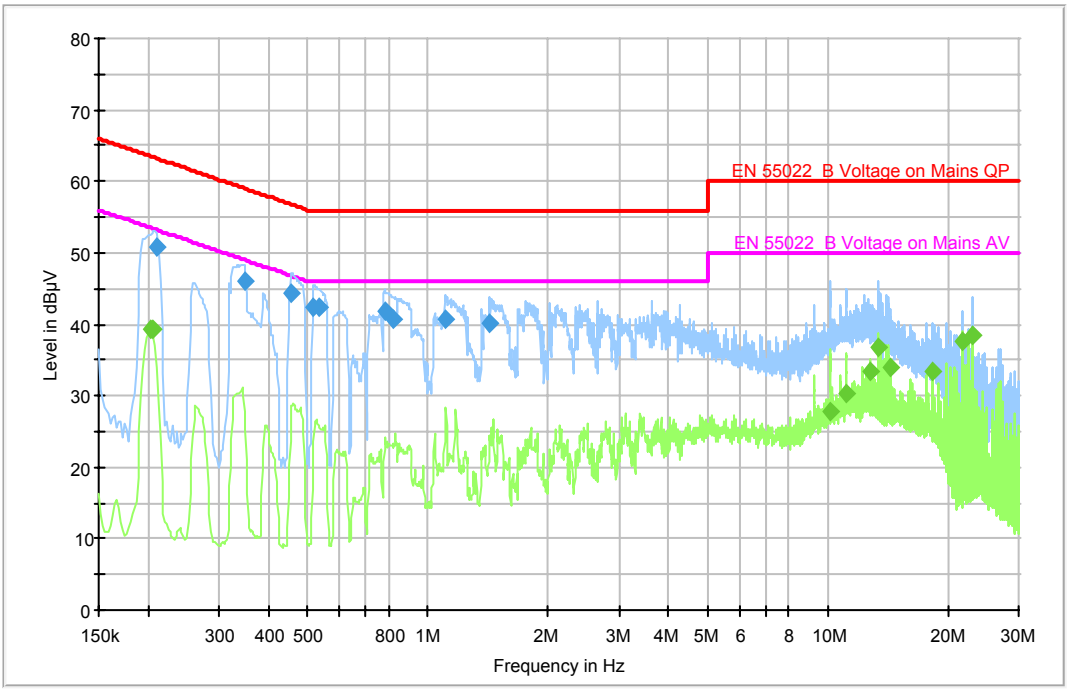
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.209	50.7	N	9.7	12.6	63.3
0.348	46.0	N	9.7	13.0	59.0
0.454	44.3	N	9.7	12.5	56.8
0.519	42.5	N	9.7	13.5	56.0
0.532	42.3	N	9.7	13.7	56.0
0.779	41.9	N	9.7	14.1	56.0
0.823	40.7	N	9.7	15.3	56.0
1.102	40.8	N	9.7	15.2	56.0
1.426	40.3	N	9.7	15.7	56.0

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.204	39.3	N	9.7	14.2	53.5
0.205	39.2	N	9.7	14.2	53.4
10.158	27.7	N	9.8	22.3	50.0
11.114	30.2	N	9.8	19.8	50.0
12.807	33.4	L1	9.9	16.6	50.0
13.358	36.8	L1	9.9	13.2	50.0
14.336	34.1	N	9.9	15.9	50.0
18.244	33.4	N	10.0	16.6	50.0
21.663	37.6	N	10.1	12.4	50.0
23.128	38.5	N	10.1	11.5	50.0

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)

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- **Configuration 2 : 1284 port printing Mode (Duplex)**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

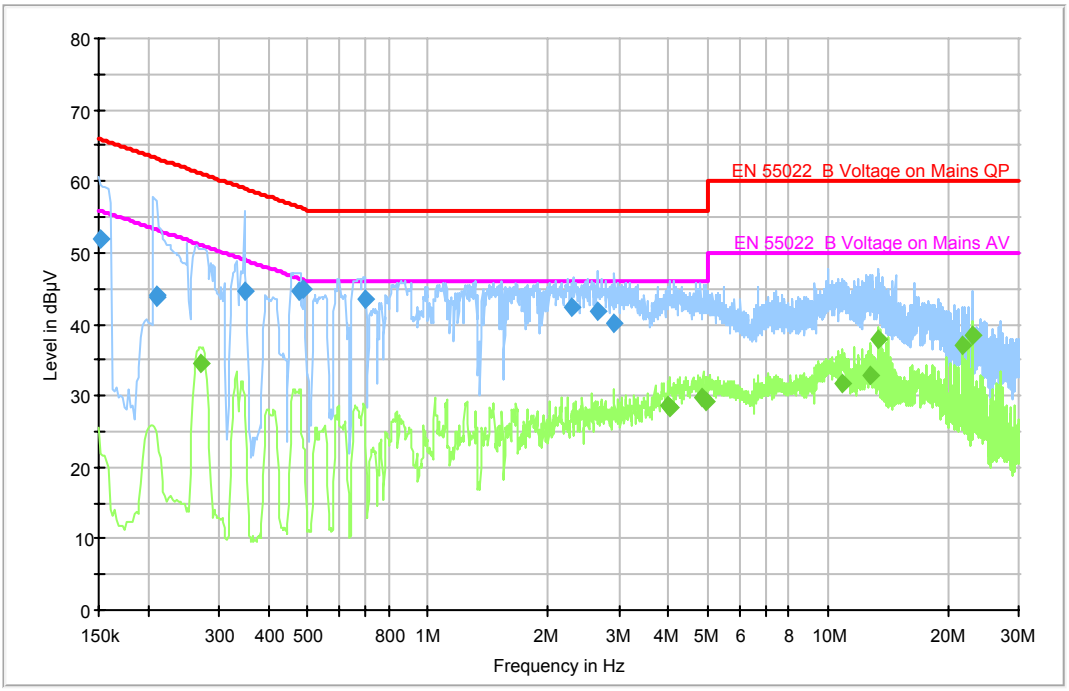
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.151	51.8	N	9.7	14.1	65.9
0.210	44.1	L1	9.7	19.1	63.2
0.211	43.9	L1	9.7	19.3	63.2
0.348	44.5	L1	9.7	14.5	59.0
0.477	44.6	N	9.7	11.8	56.4
0.487	44.9	L1	9.7	11.3	56.2
0.694	43.6	N	9.7	12.4	56.0
2.297	42.4	N	9.7	13.6	56.0
2.645	41.8	N	9.7	14.2	56.0
2.926	40.3	N	9.7	15.7	56.0

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.271	34.5	N	9.7	16.6	51.1
3.972	28.8	L1	9.7	17.2	46.0
4.045	28.4	L1	9.7	17.6	46.0
4.868	29.7	L1	9.7	16.3	46.0
4.970	29.1	L1	9.7	16.9	46.0
10.881	31.7	L1	9.9	18.3	50.0
12.709	32.8	L1	9.9	17.2	50.0
13.358	37.8	L1	9.9	12.2	50.0
21.663	37.0	N	10.1	13.0	50.0
23.128	38.5	N	10.1	11.5	50.0

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)

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- **Configuration 2 : DADF copy printing Mode**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

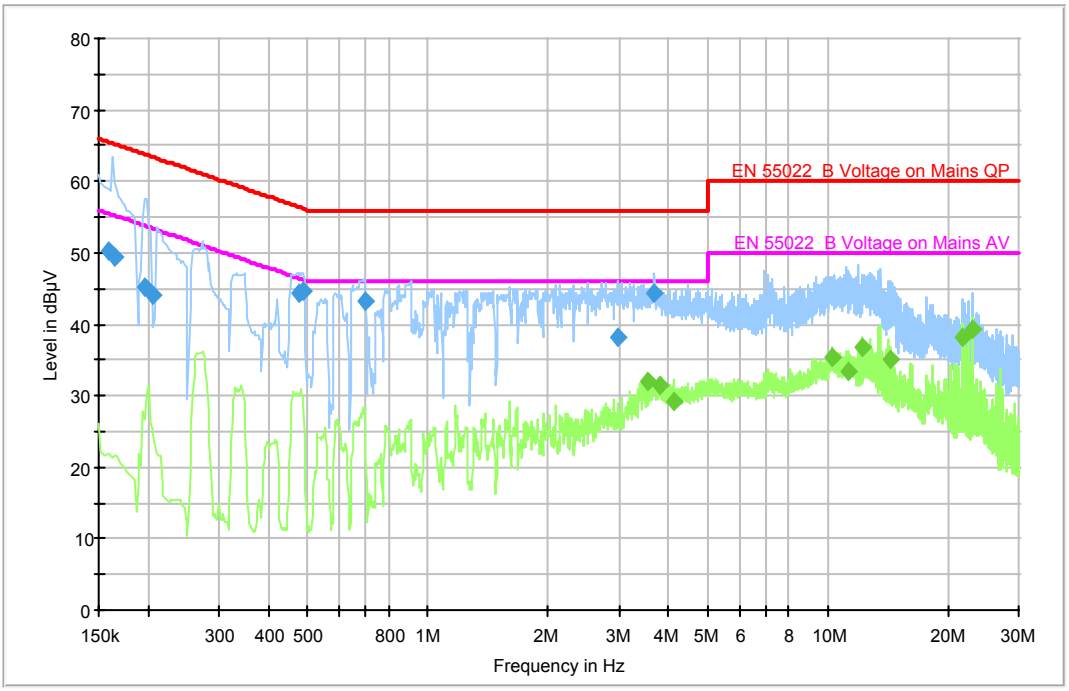
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.159	50.3	N	9.7	15.2	65.5
0.165	49.4	N	9.7	15.8	65.2
0.196	45.2	N	9.7	18.6	63.8
0.206	44.1	L1	9.7	19.3	63.4
0.479	44.4	N	9.7	11.9	56.4
0.486	44.6	L1	9.7	11.6	56.2
0.695	43.2	L1	9.7	12.8	56.0
2.991	38.2	N	9.7	17.8	56.0
3.684	44.4	N	9.7	11.6	56.0

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
3.545	32.0	N	9.7	14.0	46.0
3.821	31.5	N	9.7	14.5	46.0
4.104	29.1	L1	9.7	16.9	46.0
10.245	35.3	N	9.8	14.7	50.0
11.201	33.5	N	9.8	16.5	50.0
12.199	36.8	N	9.9	13.2	50.0
14.336	35.0	N	9.9	15.0	50.0
21.663	38.1	N	10.1	11.9	50.0
23.129	39.3	N	10.1	10.7	50.0

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)

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- **Configuration 2 : Fax transmission Mode**

Hardware Setup: Voltage with ENV 2-Line-LISN - [EMI conducted]

Subrange 1

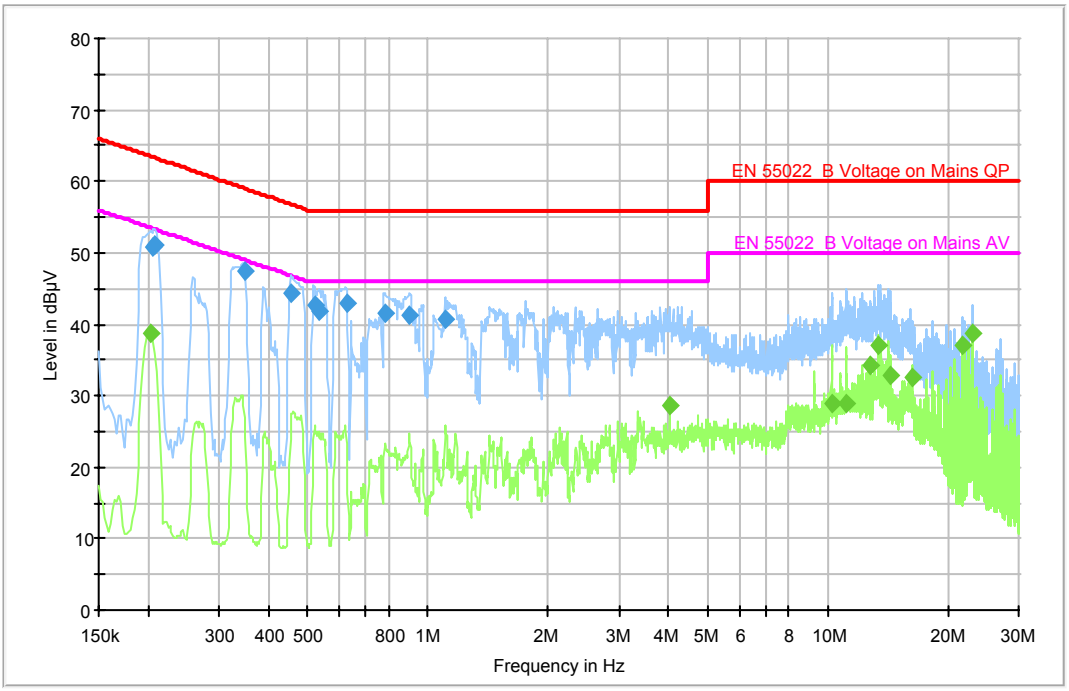
Frequency Range:	150kHz - 30MHz
Receiver:	ESCI 3
Transducer:	ENV216 / Receiver-2-Line-LISN ENV216

Scan Setup: EN55022_B_ENV 2-Line-LISN fin [EMI conducted]

Hardware Setup:	Voltage with ENV 2-Line-LISN
Level Unit:	dB μ V

Subrange	Detectors	IF Bandwidth	Meas. Time	Receiver
150kHz - 30MHz	QuasiPeak; Average	9kHz	15s	ESCI 3

Test Graph



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

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Test Results (Quasi-Peak and Average)

Quasi-peak final measurement results table

Frequency (MHz)	Quasi-Peak (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.202	38.8	N	9.7	14.8	53.5
4.033	28.7	L1	9.7	17.3	46.0
10.225	28.8	N	9.8	21.2	50.0
11.153	28.9	N	9.8	21.1	50.0
12.749	34.3	N	9.9	15.7	50.0
13.419	37.1	N	9.9	12.9	50.0
14.336	32.9	L1	9.9	17.1	50.0
16.229	32.5	L1	10.0	17.5	50.0
21.663	37.0	L1	10.1	13.0	50.0
23.129	38.7	N	10.1	11.3	50.0

Average final measurement results table

Frequency (MHz)	Average (dB μ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.206	50.9	N	9.7	12.4	63.4
0.208	51.1	N	9.7	12.2	63.3
0.348	47.4	N	9.7	11.7	59.0
0.454	44.4	N	9.7	12.5	56.8
0.522	42.5	N	9.7	13.5	56.0
0.536	41.9	N	9.7	14.1	56.0
0.625	42.9	N	9.7	13.1	56.0
0.778	41.5	N	9.7	14.5	56.0
0.896	41.2	L1	9.7	14.8	56.0
1.101	40.6	N	9.7	15.4	56.0

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)

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4.2 Radiated disturbance

Of those disturbances above (*L* - 20dB), 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(μV/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.			

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Peak measurements were made over the changeable frequency range 1GHz to 40GHz or 5th in accordance with internal maximum operating frequency at a measurement distance of 3m for the following antenna and turntable arrangements:

Antenna Height (Cm)	Antenna Polarisation	Turntable position (degrees)
100	**Horizontal, Vertical**	**Continuous**

Limits for above 1GHz radiated disturbance of ITE at a measuring distance of 3 m

Class	Limits - dB(μV/m)	
	Peak	Average
A	**80**	**60**
B	**74**	**54**
Average limit 500, 20 log 500 = 53.979 dB ≒ 54 dB		

Antenna height was adjusted to 100 cm to be parallel from EUT to antenna centre.
Measurements within 20 dB of the limit were then maximized by adjusting turntable position.
Final measurements were made using a average detector.

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

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4.2.1 Test instrumentation

Test instrumentation	Model name	Manufacturer	Serial or Firmware (No./Ver.)	Calibration	
				Date	Interval (Month)
Bi-con Antenna	CBL6112D	Schaffner	22602	2010-04-21	24
Bi-con Antenna	CBL6112D	Schaffner	22604	2010-04-21	24
Horn Antenna	R&S	HF907	100016	2009-04-27	24
EMI Receiver	ESIB-26	R&S	100288	2010-06-04	12
EMI Receiver	ESIB-26	R&S	100147	2010-08-17	12
Amplifier	310N	Agilent	185861	2010-01-28	12
Amplifier	310N	Agilent	251676	2010-01-28	12
Preamplifier	R&S	SCU_F018_G35_ ASF42_CNN(F)	10001	2010-04-19	12
Antenna Mast	MA4000	INN CO	-	N/A	N/A
Antenna Mast	MA4000	INN CO	-	N/A	N/A
Antenna Mast	MA2000	INN CO	-	N/A	N/A
Mast Controller	CO2000	INN CO	-	N/A	N/A
Test software	EP5/RE	TOYO	VER 3.1.20	N/A	N/A
RF Selector	NS4900	TOYO	-	N/A	N/A

4.2.2 Temperature and humidity condition

Test date	October 15, 2010 ~ October 28,2010	**Test engineer**	Sung Jin Sim
Test place	Semi-Anechoic Chamber		

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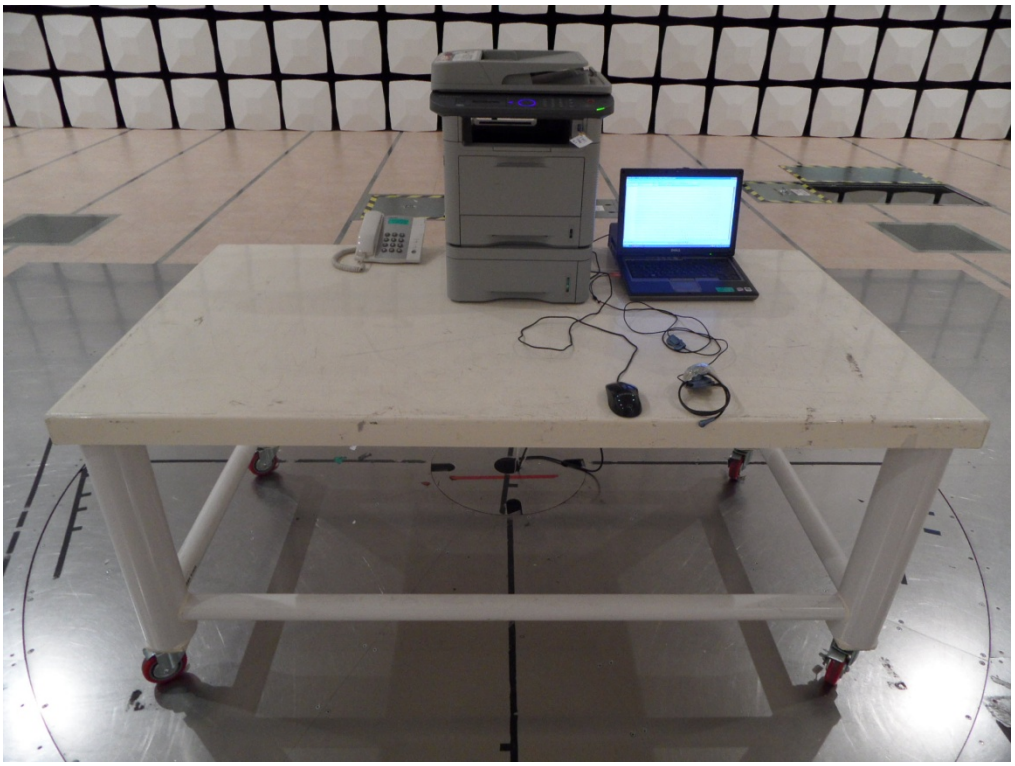
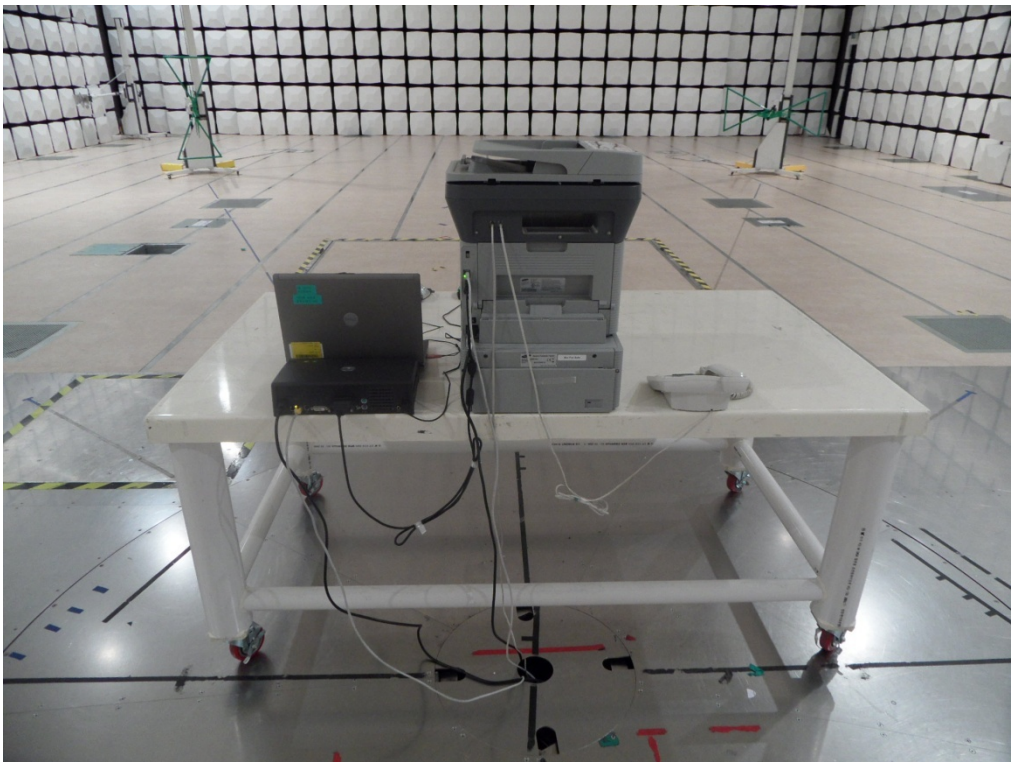
4.2.3 Photograph of Test Setup



Front



Rear

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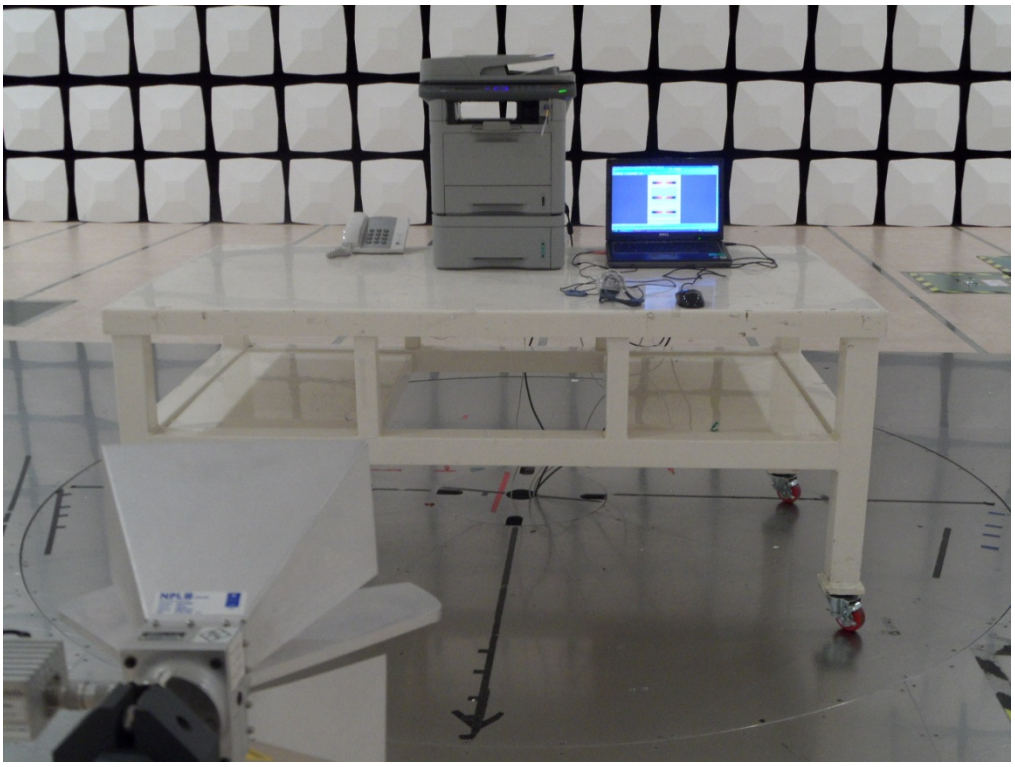
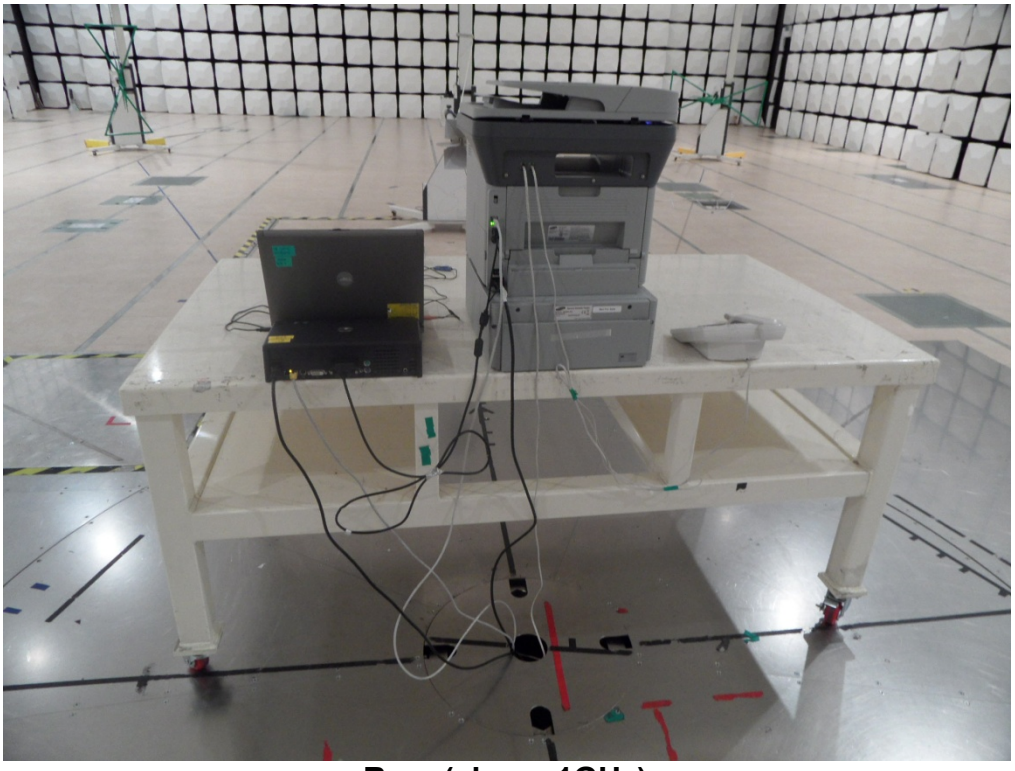


Front (above 1GHz)



Rear (above 1GHz)

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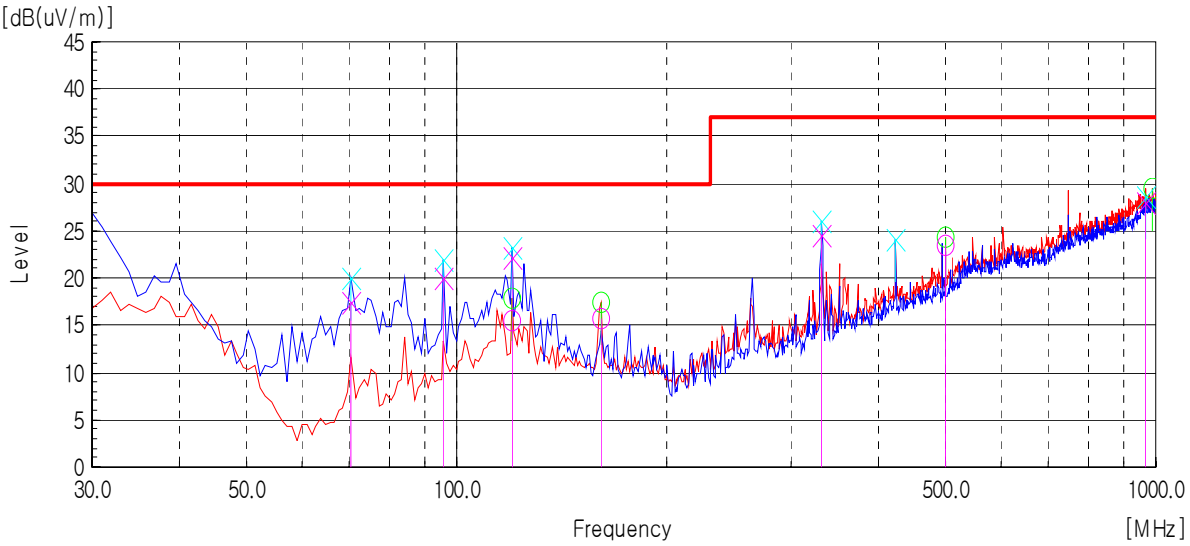
4.2.4 Test results

4.2.4.1 30 MHz to 1GHz test results

- **Configuration 1 : Stand-by mode**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
70.569	V	42.0	-24.5	17.5	30	12.5	124	16.4
95.683	V	40.1	-20.0	20.1	30	9.9	115	6.4
119.832	V	39.8	-17.6	22.2	30	7.8	101	107.3
119.832	H	33.1	-17.7	15.4	30	14.6	396	112.0
160.401	H	34.9	-19.1	15.8	30	14.2	398	39.9
332.337	V	37.8	-13.3	24.5	37	12.5	365	55.7
500.409	H	32.1	-8.6	23.5	37	13.5	127	2.7
965.772	V	28.7	-0.8	27.9	37	9.1	298	305.0

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

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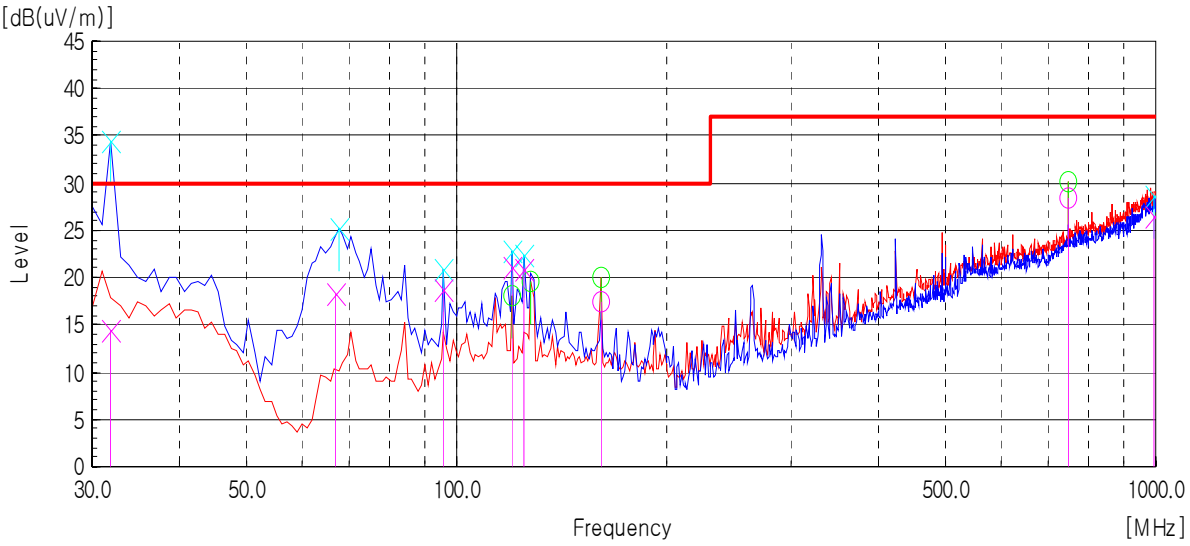
- **Configuration 1 : USB printing mode (Duplex)**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
31.932	V	26.3	-11.9	14.4	30	15.6	357	165.7
66.865	V	43.2	-24.8	18.4	30	11.6	124	94.8
95.683	V	38.8	-20.0	18.8	30	11.2	103	355.3
119.832	V	38.8	-17.6	21.2	30	8.8	112	55.8
124.661	V	38.5	-17.6	20.9	30	9.1	197	163.5
160.401	H	36.6	-19.1	17.5	30	12.5	228	0.3
749.643	H	32.8	-4.3	28.5	37	8.5	116	281.4
994.132	V	26.9	-0.4	26.5	37	10.5	105	359.6

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

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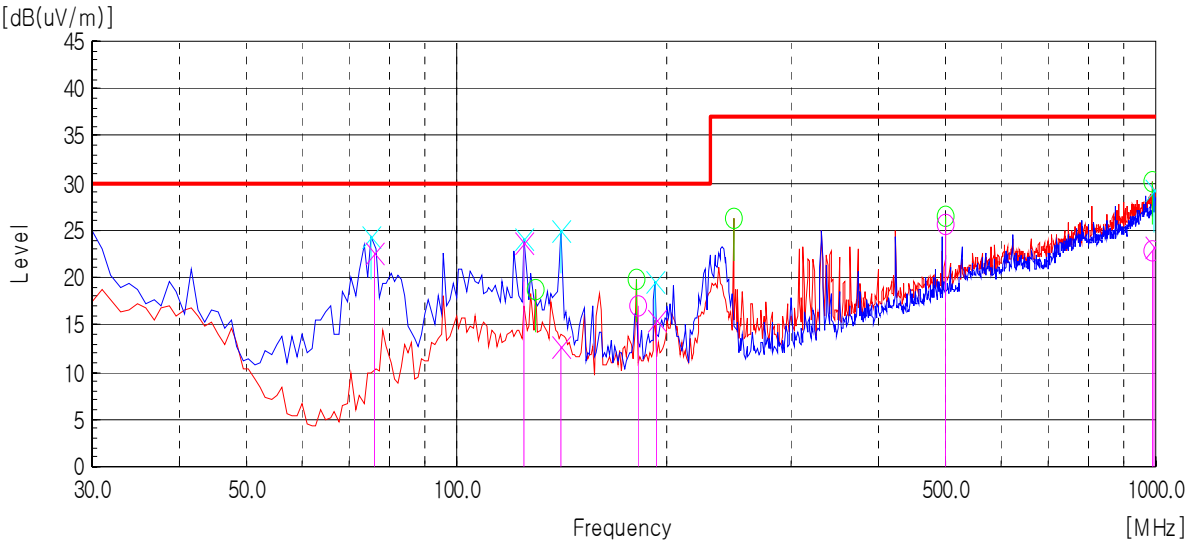
- **Configuration 1 : Network printing mode (Duplex)**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
75.965	V	46.5	-23.9	22.6	30	7.4	398	58.9
124.783	V	41.3	-17.6	23.7	30	6.3	221	0.3
141.082	V	30.8	-18.2	12.6	30	17.4	103	0.6
181.685	H	36.7	-19.6	17.1	30	12.9	219	51.1
192.568	V	35.0	-19.6	15.4	30	14.6	108	0.6
500.409	H	34.3	-8.6	25.7	37	11.3	103	10.4
988.265	H	23.6	-0.8	22.8	37	14.2	387	227.3
996.088	V	23.6	-0.4	23.2	37	13.8	326	4.5

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

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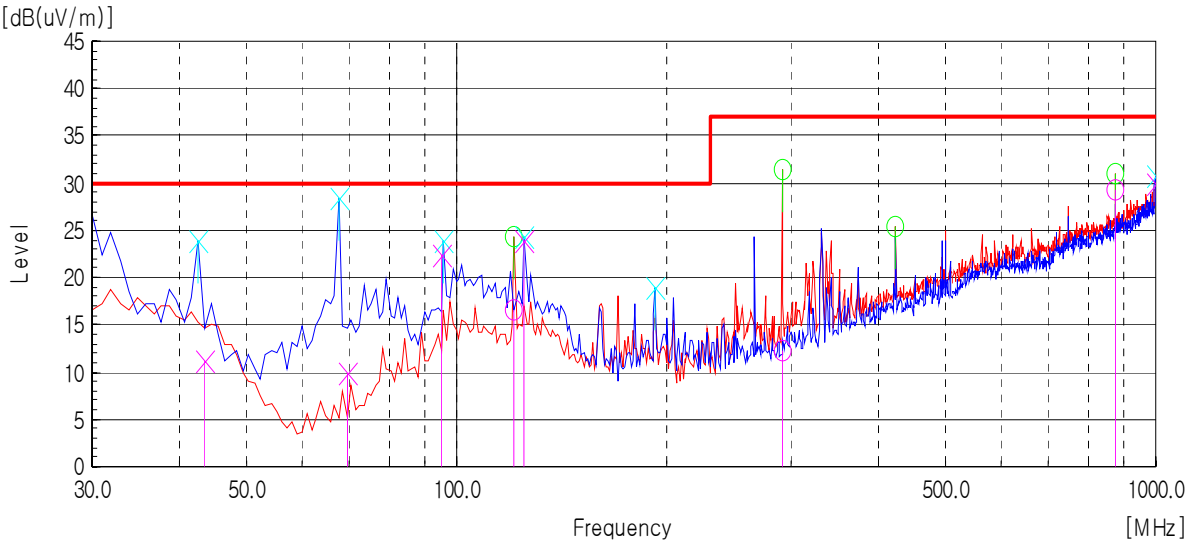
- **Configuration 1 : 1284 port printing mode (Duplex)**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
43.557	V	31.4	-20.3	11.1	30	18.9	345	165.2
69.705	V	34.4	-24.6	9.8	30	20.2	398	59.9
95.125	V	42.5	-20.1	22.4	30	7.6	101	324.1
120.798	H	34.3	-17.7	16.6	30	13.4	395	237.3
124.783	V	41.5	-17.6	23.9	30	6.1	112	351.6
291.768	H	27.4	-15.2	12.2	37	24.8	298	0.3
874.579	H	31.9	-2.7	29.2	37	7.8	101	281.5
998.044	V	30.2	-0.3	29.9	37	7.1	120	70.7

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

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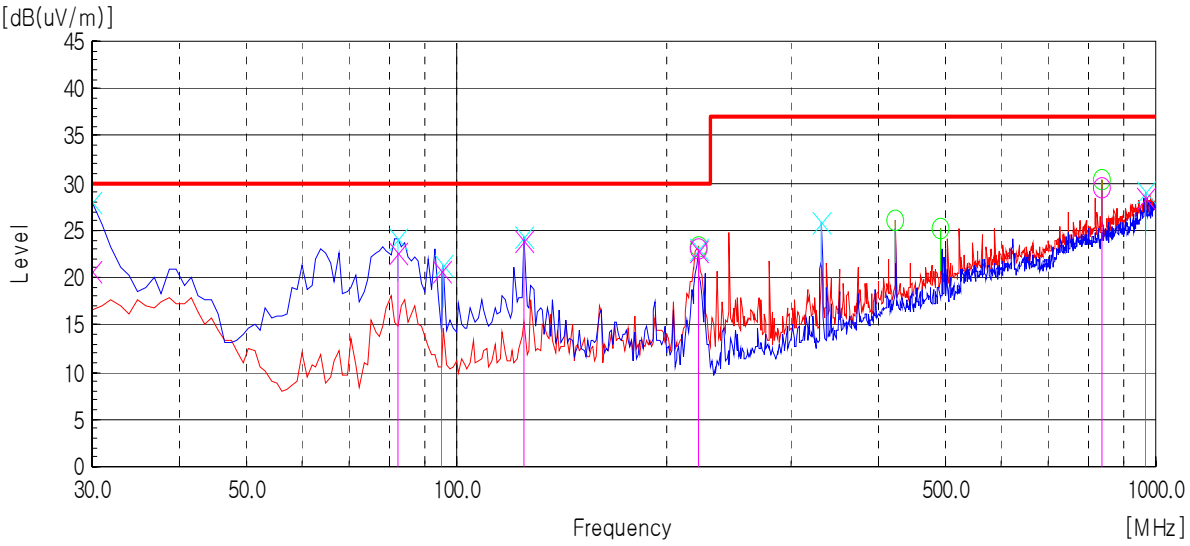
- **Configuration 1 : DADF copy printing mode**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
30.000	V	30.6	-10.0	20.6	30	9.4	102	277.8
82.197	V	45.6	-23.0	22.6	30	7.4	124	0.4
95.048	V	40.8	-20.2	20.6	30	9.4	152	359.0
124.783	V	41.5	-17.6	23.9	30	6.1	113	4.7
221.078	V	41.6	-18.8	22.8	30	7.2	105	281.8
221.956	H	42.1	-19.0	23.1	30	6.9	398	263.0
837.015	H	32.9	-3.4	29.5	37	7.5	108	352.0
967.245	V	29.3	-0.8	28.5	37	8.5	298	355.3

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

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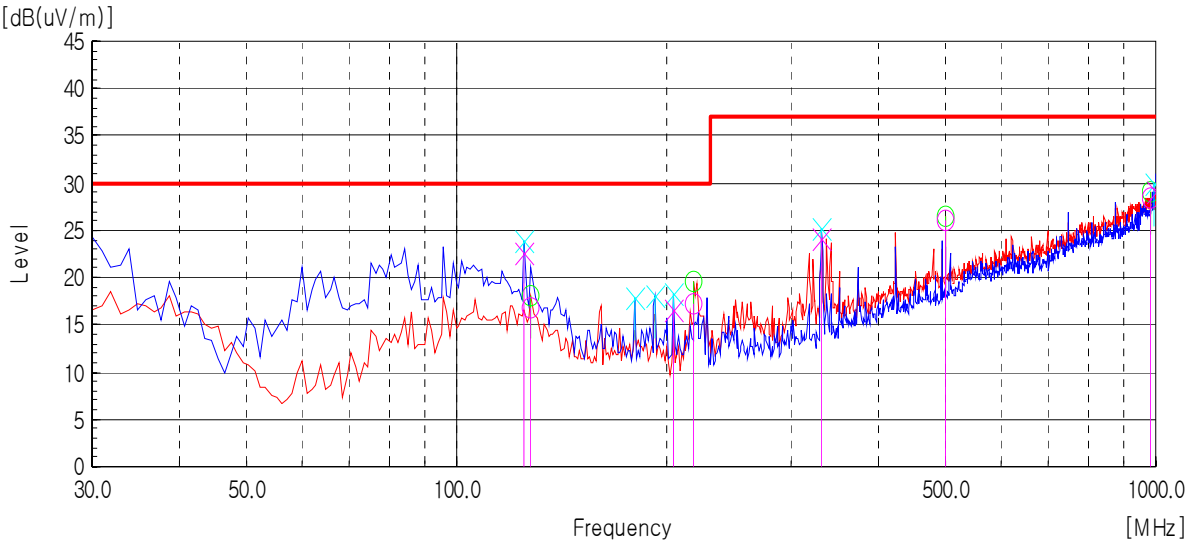
- **Configuration 1 : Scan to PC mode**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
124.781	V	40.1	-17.6	22.5	30	7.5	112	333.6
127.249	H	34.5	-17.7	16.8	30	13.2	399	4.1
203.597	V	35.9	-19.4	16.5	30	13.5	105	4.5
218.015	H	36.5	-19.3	17.2	30	12.8	297	238.1
332.397	V	37.5	-13.3	24.2	37	12.8	379	88.3
500.128	H	34.6	-8.6	26.0	37	11	178	68.6
983.006	H	29.3	-0.8	28.5	37	8.5	397	27.0
997.248	V	29.4	-0.3	29.1	37	7.9	119	77.4

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

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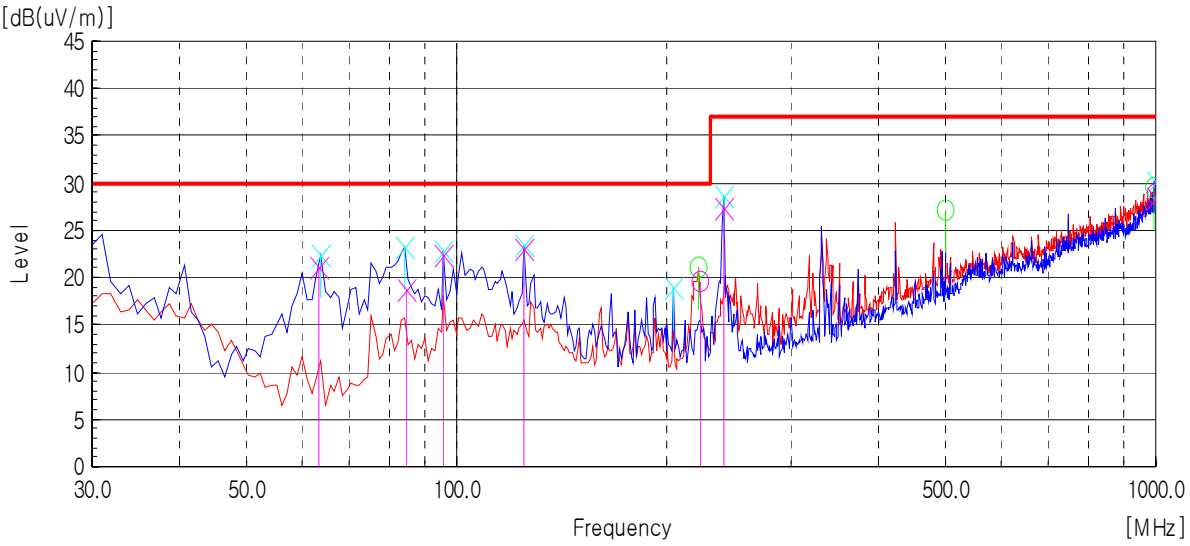
- **Configuration 1 : Scan to USB memory stick mode**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
63.502	V	46.0	-24.9	21.1	30	8.9	112	333.2
84.689	V	41.3	-22.5	18.8	30	11.2	105	52.5
95.358	V	42.5	-20.1	22.4	30	7.6	116	359.6
124.783	V	40.6	-17.6	23.0	30	7.0	249	324.7
222.594	H	38.7	-19.0	19.7	30	10.3	396	261.4
240.258	V	44.5	-17.1	27.4	37	9.6	400	36.0
997.357	H	29.5	-0.6	28.9	37	8.1	387	352.1
998.159	V	28.8	-0.3	28.5	37	8.5	106	58.8

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

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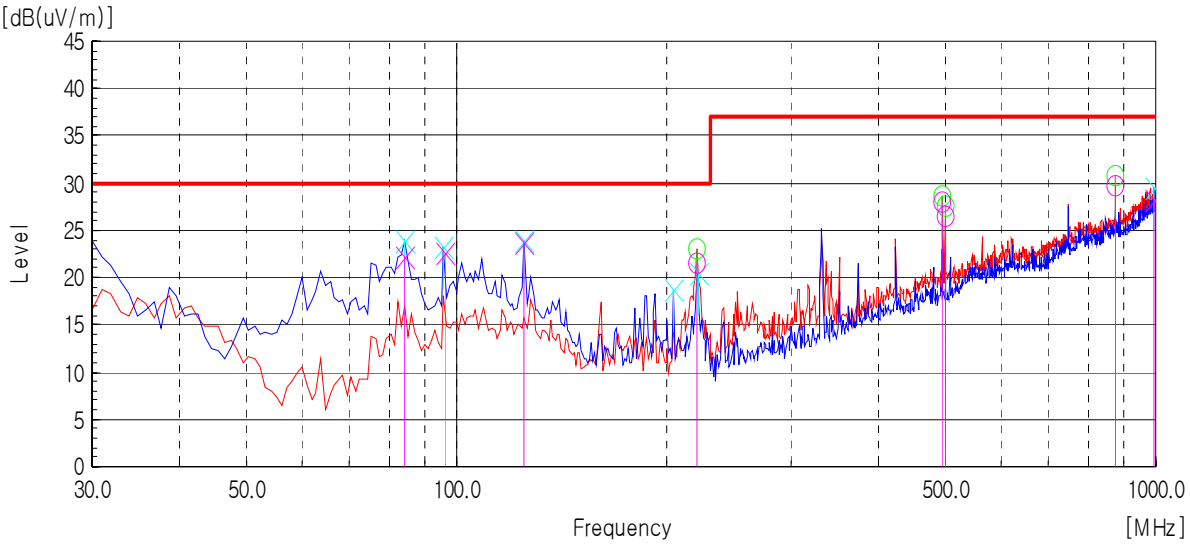
- **Configuration 1 : Fax transmission mode**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
84.241	V	44.8	-22.6	22.2	30	7.8	115	301.6
95.759	V	42.5	-20.0	22.5	30	7.5	102	301.6
124.781	V	41.2	-17.6	23.6	30	6.4	287	351.6
220.547	H	40.6	-19.1	21.5	30	8.5	381	244.7
495.678	H	36.6	-8.7	27.9	37	9.1	109	299.6
500.221	H	35.0	-8.6	26.4	37	10.6	110	69.2
874.513	H	32.5	-2.7	29.8	37	7.2	248	237.4
997.065	V	28.4	-0.3	28.1	37	8.9	101	39.8

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

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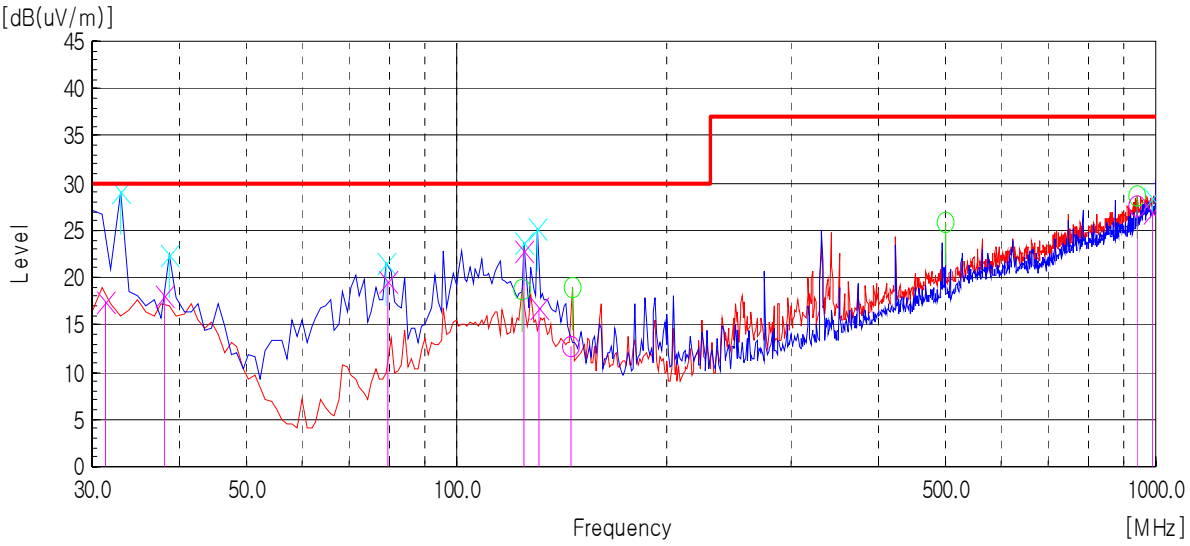
- **Configuration 1 : Fax receiving mode**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
31.415	V	28.8	-11.4	17.4	30	12.6	112	182.2
38.014	V	35.2	-17.2	18.0	30	12.0	267	148.2
79.579	V	43.0	-23.4	19.6	30	10.4	132	193.3
124.781	V	40.4	-17.6	22.8	30	7.2	106	281.0
131.058	V	34.5	-17.7	16.8	30	13.2	114	281.0
145.278	H	30.9	-18.3	12.6	30	17.4	367	104.5
943.279	H	28.6	-1.0	27.6	37	9.4	397	60.9
988.265	V	27.5	-0.6	26.9	37	10.1	400	41.2

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

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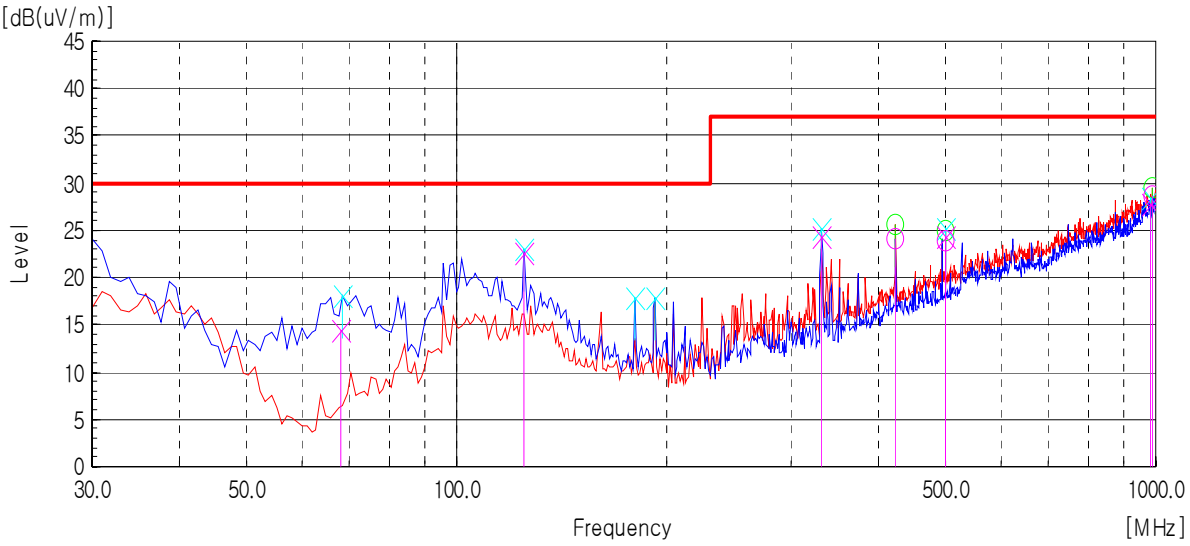
- **Configuration 2 : Stand-by mode**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
68.158	V	39.2	-24.7	14.5	30	15.5	104	327.5
124.783	V	40.3	-17.6	22.7	30	7.3	108	358.9
332.985	V	37.7	-13.3	24.4	37	12.6	387	77.4
423.258	H	34.2	-10.0	24.2	37	12.8	115	64.7
500.204	V	33.0	-8.7	24.3	37	12.7	265	17.4
500.578	H	32.6	-8.6	24.0	37	13.0	248	4.1
983.375	V	28.5	-0.7	27.8	37	9.2	367	8.0
988.265	H	29.4	-0.8	28.6	37	8.4	395	264.4

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

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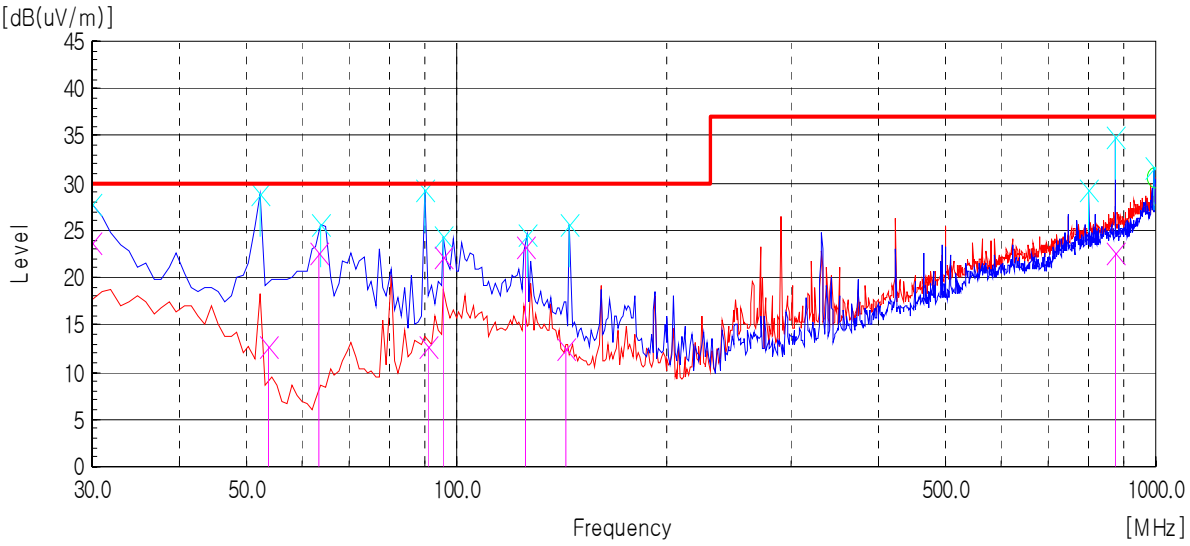
- **Configuration 2 : 1284 port printing mode (Duplex)**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
30.000	V	33.6	-10.0	23.6	30	6.4	108	261.2
53.564	V	37.0	-24.2	12.8	30	17.2	110	342.6
63.248	V	47.4	-24.9	22.5	30	7.5	102	254.3
90.798	V	33.8	-21.1	12.7	30	17.3	126	10.2
95.275	V	42.2	-20.1	22.1	30	7.9	116	288.8
125.002	V	40.9	-17.6	23.3	30	6.7	115	355.3
143.280	V	30.9	-18.3	12.6	30	17.4	349	44.4
874.973	V	25.5	-2.9	22.6	37	14.4	150	72.2

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

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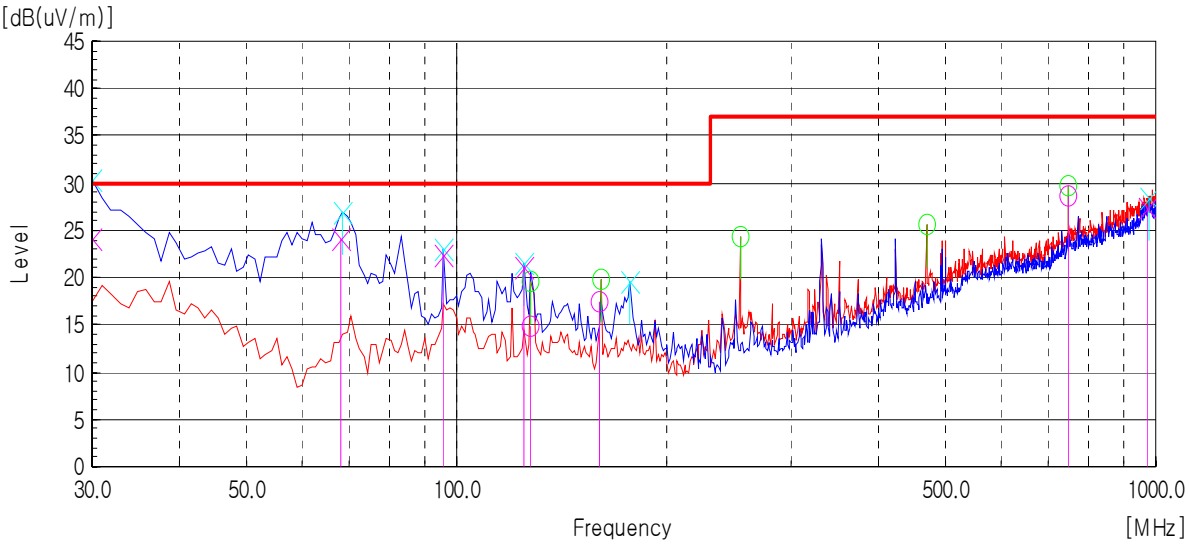
- **Configuration 2 : DADF copy printing mode**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
30.000	V	34.2	-10.0	24.2	30	5.8	102	335.8
67.976	V	48.8	-24.7	24.1	30	5.9	212	42.3
95.268	V	42.5	-20.1	22.4	30	7.6	101	4.8
124.784	V	38.7	-17.6	21.1	30	8.9	106	318.1
127.649	H	32.5	-17.7	14.8	30	15.2	398	4.5
160.226	H	36.6	-19.1	17.5	30	12.5	346	69.0
749.495	H	32.9	-4.3	28.6	37	8.4	108	237.1
975.159	V	28.2	-0.8	27.4	37	9.6	232	355.3

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

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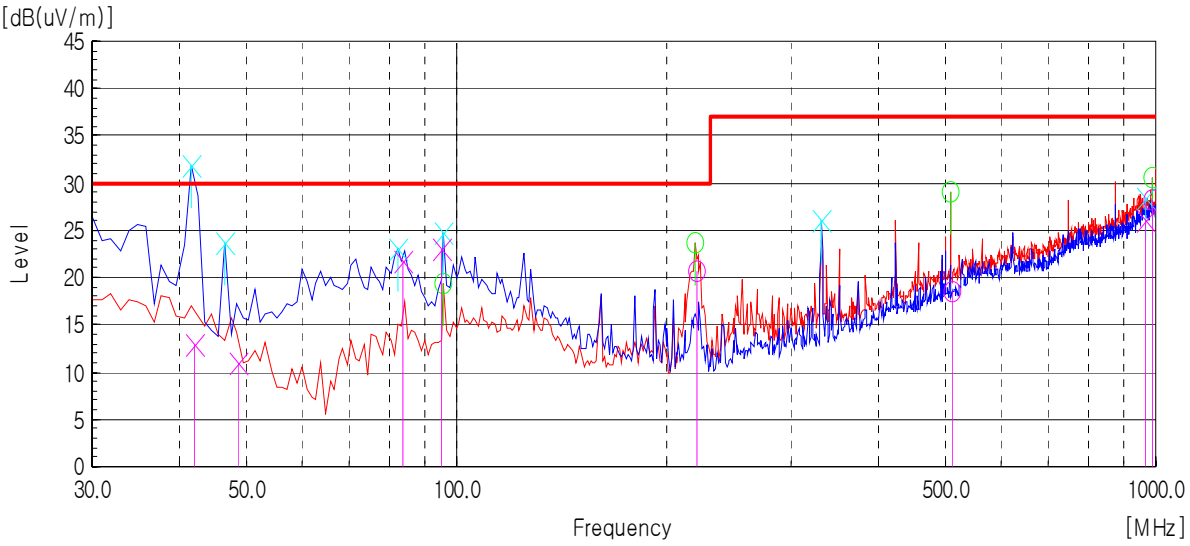
- **Configuration 2 : Fax transmission mode**

Test Graph and Results



Frequency [MHz]	Pol.	Reading QP [dB(μV)]	Factor [dB(1/m)]	Level QP [dB(μV /m)]	Limit [dB(μV /m)]	Margin QP [dB]	Height [cm]	Angle [deg]
42.127	V	32.5	-19.6	12.9	30	17.1	105	165.6
48.444	V	33.4	-22.5	10.9	30	19.1	395	165.6
83.489	V	44.5	-22.7	21.8	30	8.2	107	236.2
95.148	V	43.2	-20.1	23.1	30	6.9	127	254.0
220.158	H	39.8	-19.1	20.7	30	9.3	367	238.2
510.489	H	27.1	-8.5	18.6	37	18.4	148	272.4
966.750	V	26.9	-0.8	26.1	37	10.9	329	0.3
987.287	H	29.1	-0.8	28.3	37	8.7	116	245.8

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

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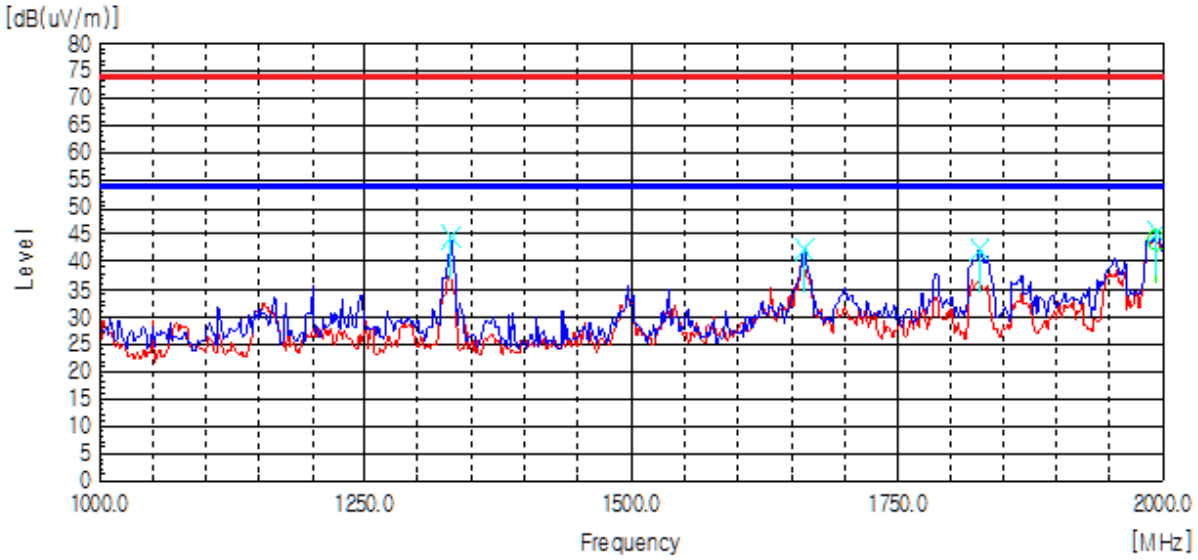
4.2.4.2 1 GHz to 2 GHz test results

- **Configuration 1 : Stand-by Mode**

Test Results



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]
1330.661	V	57.2	-12.6	44.6	74	29.4	100	189.7
1661.323	V	51.9	-9.5	42.4	74	31.6	100	15.5
1827.655	V	50.7	-8.2	42.5	74	31.5	100	126.7
1993.988	V	52.4	-6.8	45.6	74	28.4	100	142.5
1993.988	H	50.9	-6.8	44.1	74	29.9	100	105.3

Note1) Representative operating modes were selected by customer and 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)

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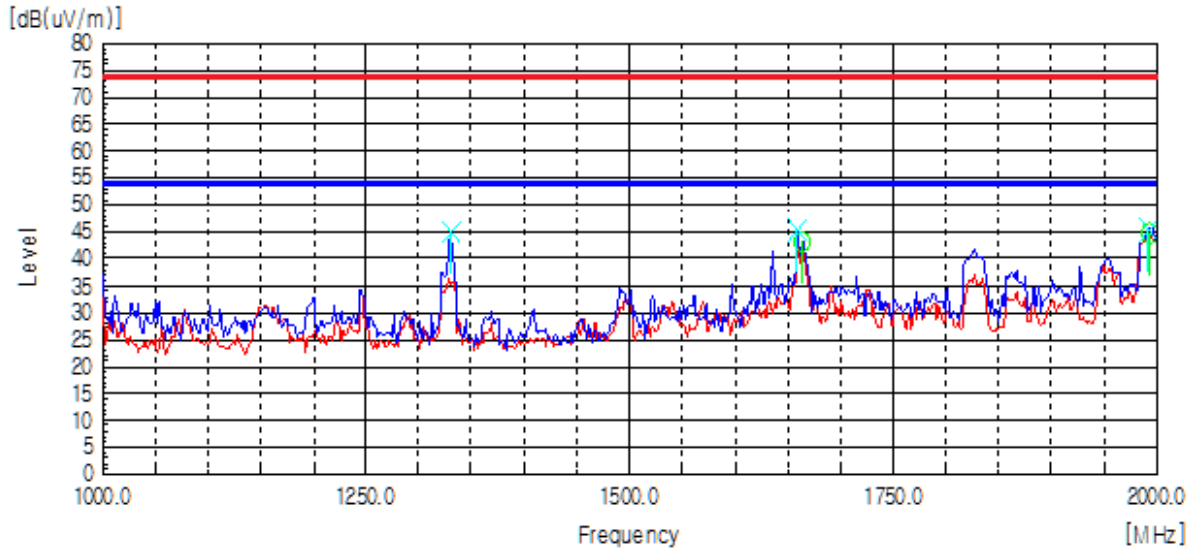
- **Configuration 1 : USB printing Mode (Duplex)**

Test Results



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]
1330.661	V	57.8	-12.6	45.2	74	28.8	100	350.1
1659.319	V	55.3	-9.6	45.7	74	28.3	100	63.7
1663.327	H	52.8	-9.5	43.3	74	30.7	100	352.4
1991.984	V	52.5	-6.8	45.7	74	28.3	100	144.5
1993.988	H	51.4	-6.8	44.6	74	29.4	100	100.8

Note1) Representative operating modes were selected by customer and 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)

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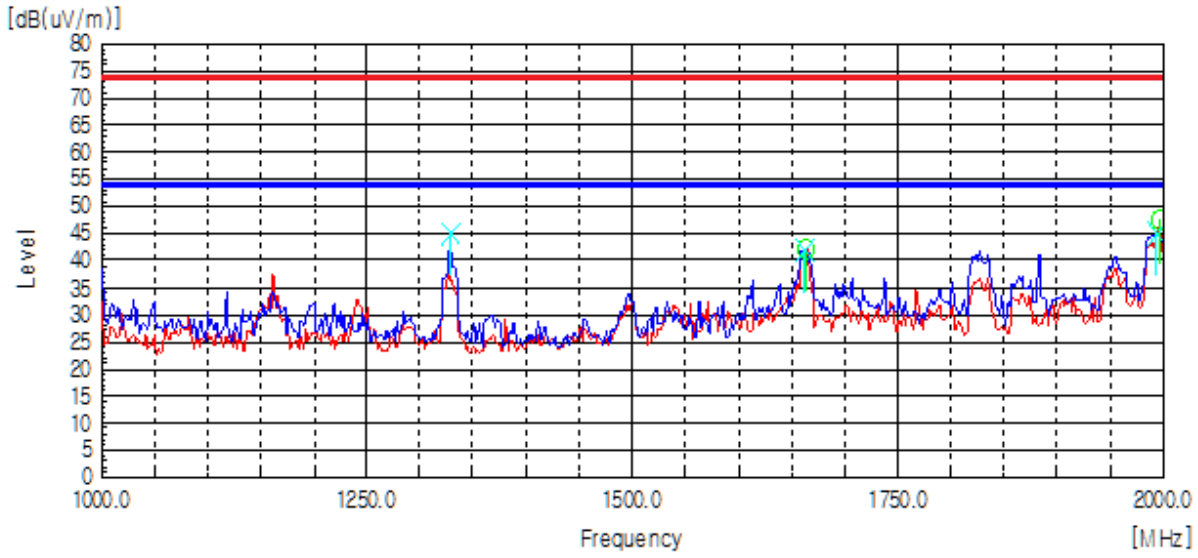
- **Configuration 1 : Network printing Mode (Duplex)**

Test Results



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]
1328.657	V	57.7	-12.6	45.1	74	28.9	100	349.4
1661.323	V	51.6	-9.5	42.1	74	31.9	100	4.4
1663.327	H	51.6	-9.5	42.1	74	31.9	100	352.3
1993.988	V	52.0	-6.8	45.2	74	28.8	100	143.4
1995.992	H	54.3	-6.8	47.5	74	26.5	100	37.3

Note1) Representative operating modes were selected by customer and 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)

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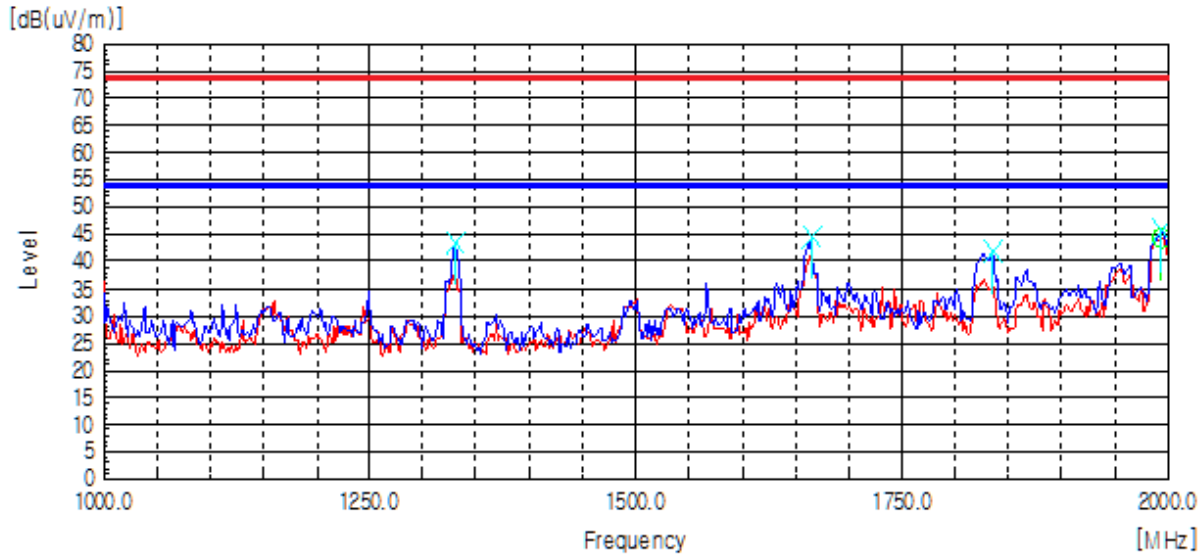
- **Configuration 1 : 1284 port printing Mode (Duplex)**

Test Results



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]
1330.661	V	56.4	-12.6	43.8	74	30.2	100	295.2
1665.331	V	54.1	-9.5	44.6	74	29.4	100	15.8
1835.671	V	50.2	-8.1	42.1	74	31.9	100	79.9
1993.988	V	52.6	-6.8	45.8	74	28.2	100	48.2
1993.988	H	51.1	-6.8	44.3	74	29.7	100	159

Note1) Representative operating modes were selected by customer and 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)

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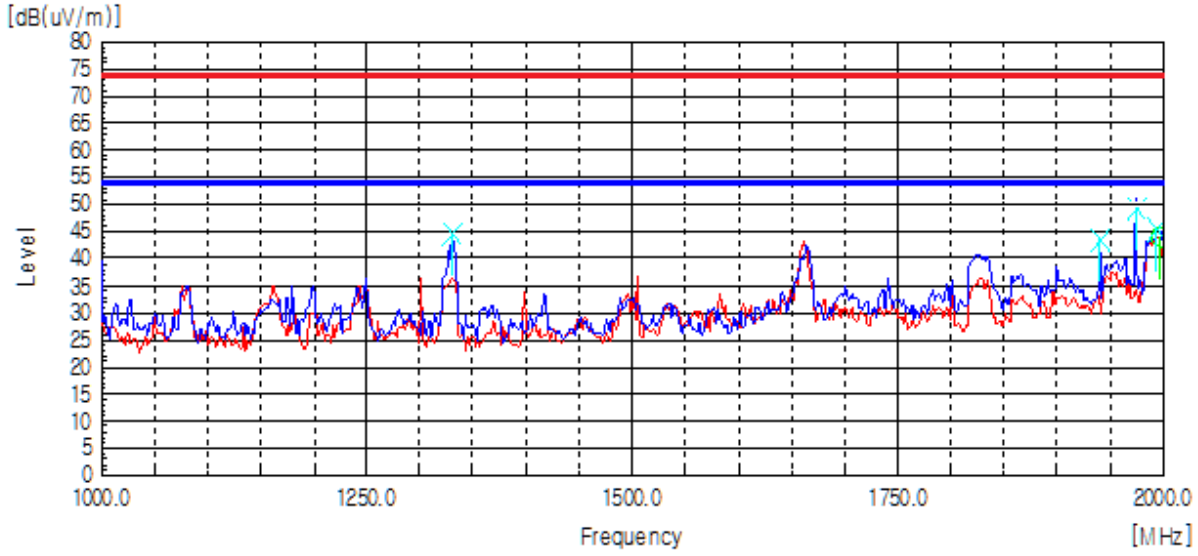
- **Configuration 1 : DADF copy printing Mode**

Test Results



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]
1330.661	V	57.5	-12.6	44.9	74	29.1	100	347.7
1939.880	V	50.8	-7.2	43.6	74	30.4	100	333.0
1973.948	V	56.5	-7.0	49.5	74	24.5	100	94.7
1993.988	V	52.2	-6.8	45.4	74	28.6	100	94.7
1995.992	H	50.8	-6.8	44.0	74	30.0	100	105.8

Note1) Representative operating modes were selected by customer and 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)

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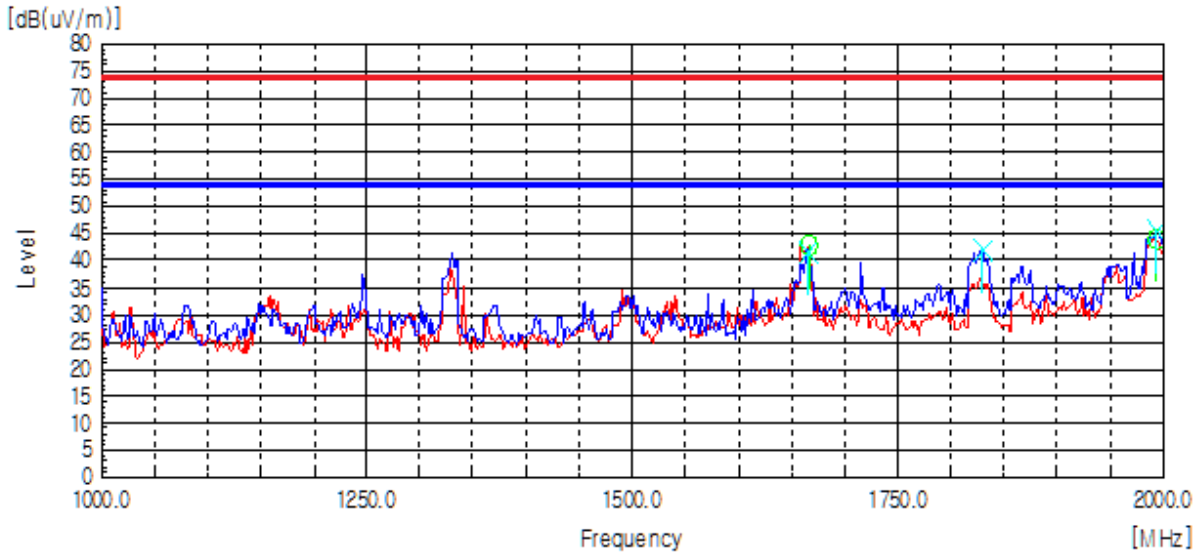
- **Configuration 1 : Scan to PC Mode**

Test Results



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]
1665.331	V	51.4	-9.5	41.9	74	32.1	100	47.3
1667.335	H	52.5	-9.5	43.0	74	31.0	100	74.3
1829.659	V	50.3	-8.2	42.1	74	31.9	100	126.1
1993.988	V	52.2	-6.8	45.4	74	28.6	100	94.6
1993.988	H	50.7	-6.8	43.9	74	30.1	100	42.7

Note1) Representative operating modes were selected by customer and 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)

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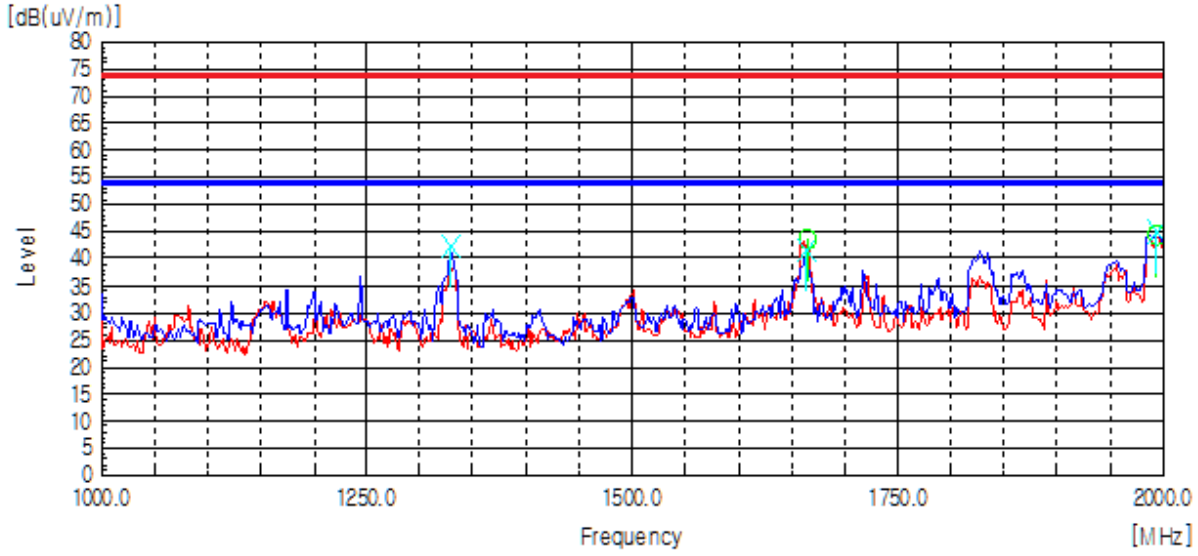
- **Configuration 1 : Scan to USB memory stick Mode**

Test Results



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]
1328.657	V	55.0	-12.6	42.4	74	31.6	100	191.0
1663.327	V	51.1	-9.5	41.6	74	32.4	100	63.9
1665.331	H	53.3	-9.5	43.8	74	30.2	100	352.4
1993.988	V	51.9	-6.8	45.1	74	28.9	100	143.7
1993.988	H	51.2	-6.8	44.4	74	29.6	100	105.8

Note1) Representative operating modes were selected by customer and 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)

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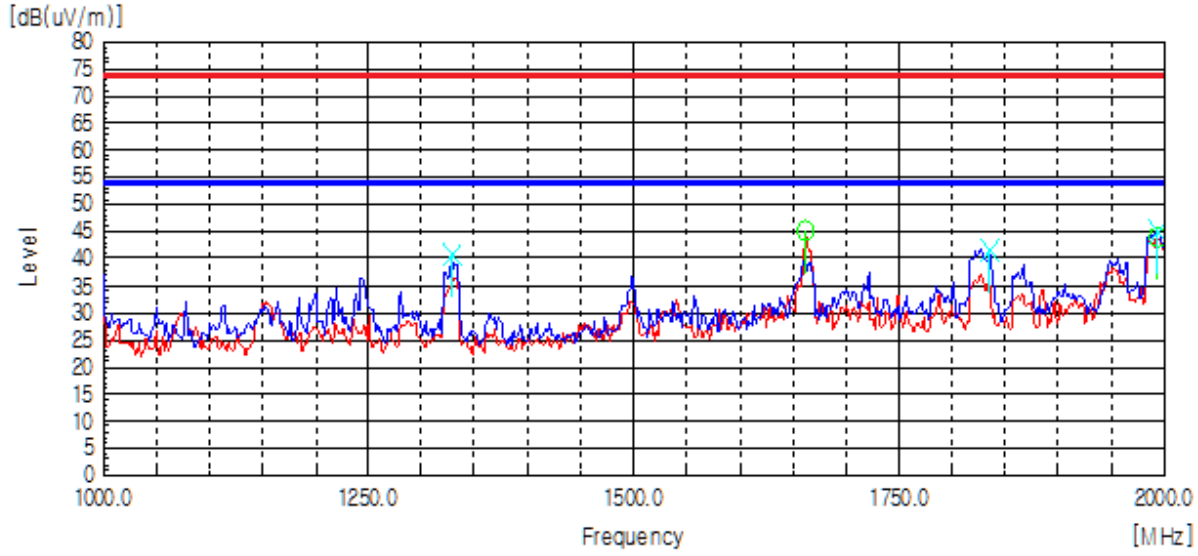
- **Configuration 1 : Fax transmission Mode**

Test Results



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]
1328.657	V	53.7	-12.6	41.1	74	32.9	100	189.6
1661.323	H	54.8	-9.5	45.3	74	28.7	100	352.4
1835.671	V	49.9	-8.1	41.8	74	32.2	100	126.5
1993.988	V	52.1	-6.8	45.3	74	28.7	100	95.0
1993.988	H	51.0	-6.8	44.2	74	29.8	100	90.1

Note1) Representative operating modes were selected by customer and 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)

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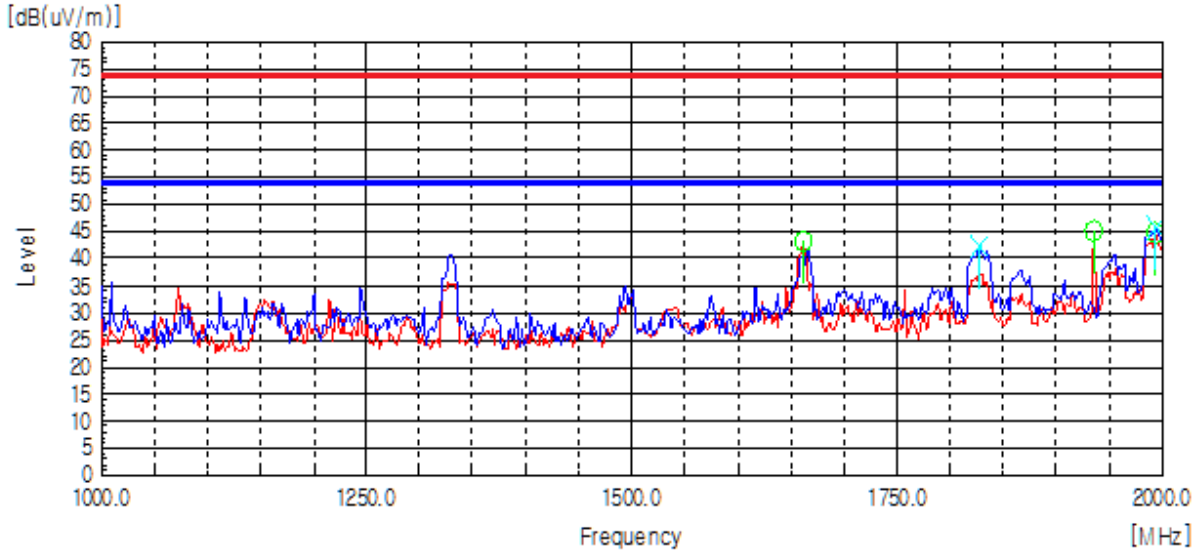
- **Configuration 1 : Fax receiving Mode**

Test Results



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]
1661.323	H	52.6	-9.5	43.1	74	30.9	100	343.9
1827.655	V	50.5	-8.2	42.3	74	31.7	100	131.2
1935.872	H	52.4	-7.3	45.1	74	28.9	100	103.8
1993.988	V	52.9	-6.8	46.1	74	27.9	100	4.9
1993.988	H	51.4	-6.8	44.6	74	29.4	100	103.8

Note1) Representative operating modes were selected by customer and 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)

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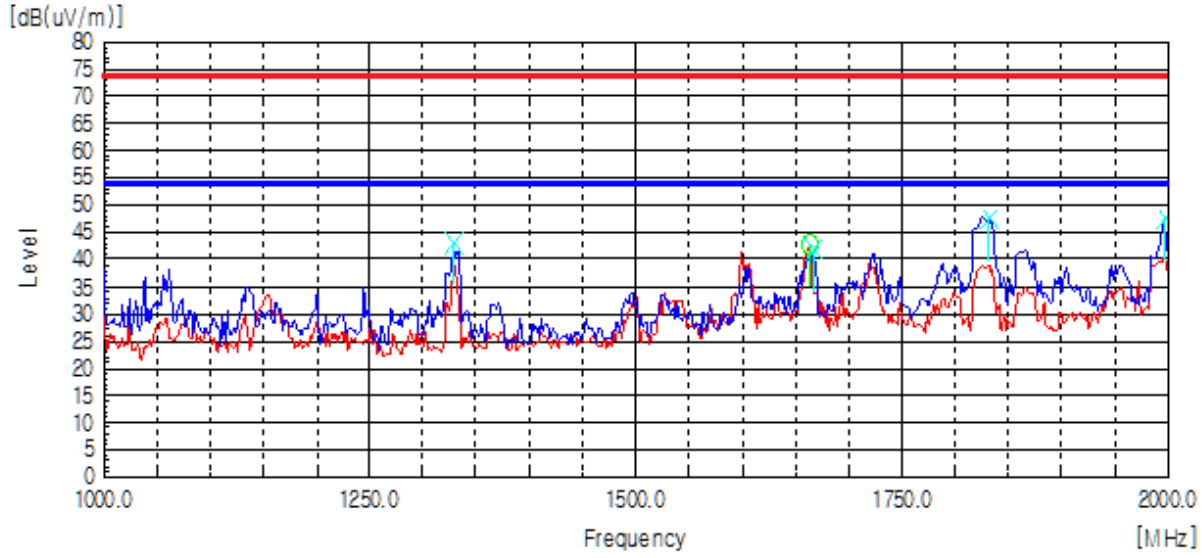
- **Configuration 2 : Stand-by Mode**

Test Results



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]
1328.657	V	55.7	-12.6	43.1	74	30.9	100	358.1
1663.327	H	52.3	-9.5	42.8	74	31.2	100	355.7
1667.335	V	51.8	-9.5	42.3	74	31.7	100	15.8
1831.663	V	56.1	-8.1	48.0	74	26.0	100	94.5
1995.992	V	54.6	-6.8	47.8	74	26.2	100	0.3

Note1) Representative operating modes were selected by customer and 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)

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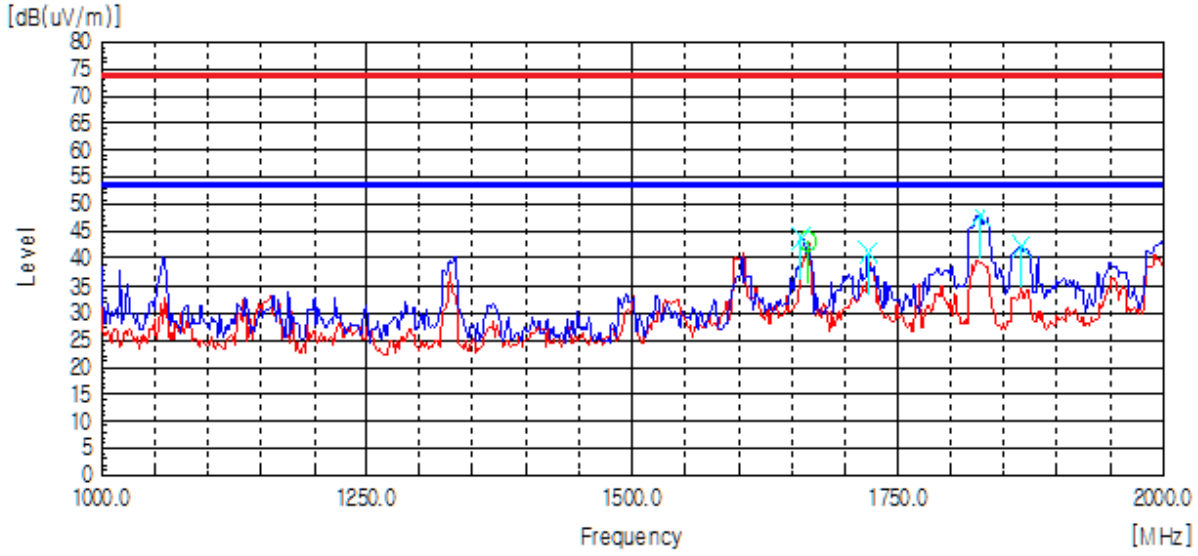
- **Configuration 2 : 1284 port printing Mode (Duplex)**

Test Results



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]
1659.319	V	53.8	-9.6	44.2	74	29.8	100	47.2
1665.331	H	52.8	-9.5	43.3	74	30.7	100	355.5
1721.443	V	50.5	-9.0	41.5	74	32.5	100	0.3
1827.655	V	56.4	-8.2	48.2	74	25.8	100	94.4
1865.732	V	50.3	-7.9	42.4	74	31.6	100	94.4
1659.319	V	53.8	-9.6	44.2	74	29.8	100	47.2

Note1) Representative operating modes were selected by customer and 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)

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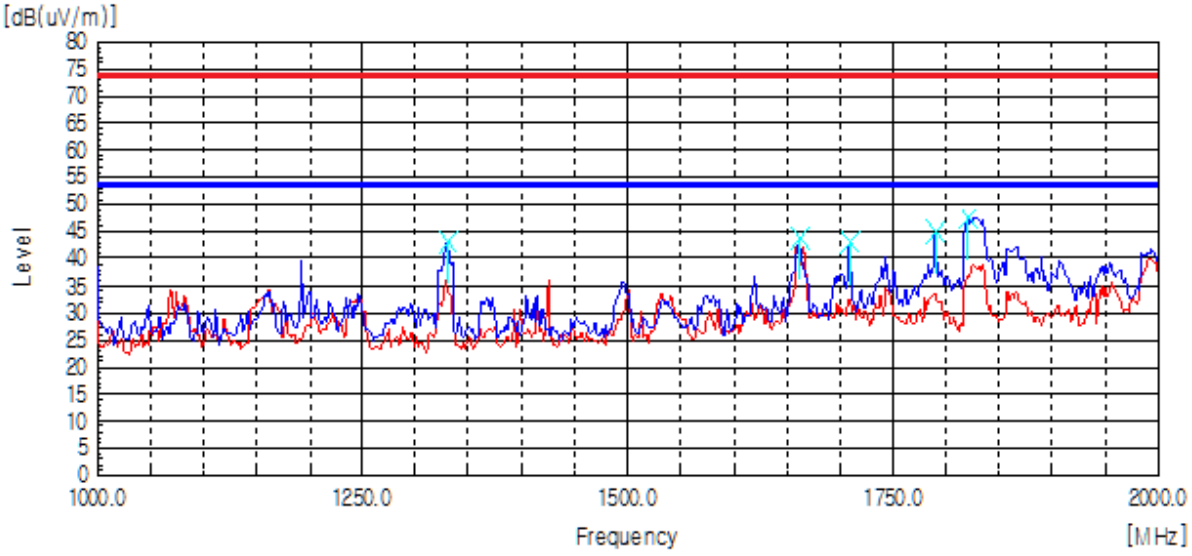
- **Configuration 2 : DADF printing Mode**

Test Results



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]
1330.661	V	55.9	-12.6	43.3	74	30.7	100	189.5
1661.323	V	53.5	-9.5	44.0	74	30.0	100	110.7
1709.419	V	52.5	-9.1	43.4	74	30.6	100	221.0
1789.579	V	53.8	-8.5	45.3	74	28.7	100	62.4
1819.639	V	56.0	-8.2	47.8	74	26.2	100	94.9

Note1) Representative operating modes were selected by customer and 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)

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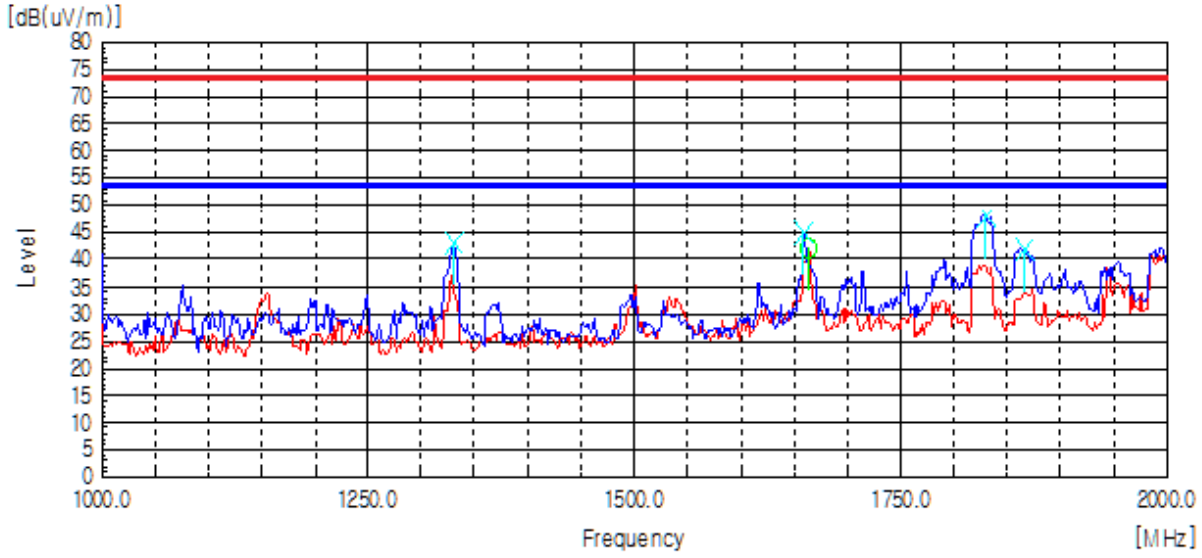
- **Configuration 2 : Fax transmission Mode**

Test Results



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]
1330.661	V	55.8	-12.6	43.2	74	30.8	100	190.0
1659.319	V	54.7	-9.6	45.1	74	28.9	100	63.0
1663.327	H	51.7	-9.5	42.2	74	31.8	100	328.9
1829.659	V	56.6	-8.2	48.4	74	25.6	100	94.5
1865.732	V	50.0	-7.9	42.1	74	31.9	100	94.5

Note1) Representative operating modes were selected by customer and 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)

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Appendix – EUT photography

Front View

Rear View & Label location

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Left View

Right View

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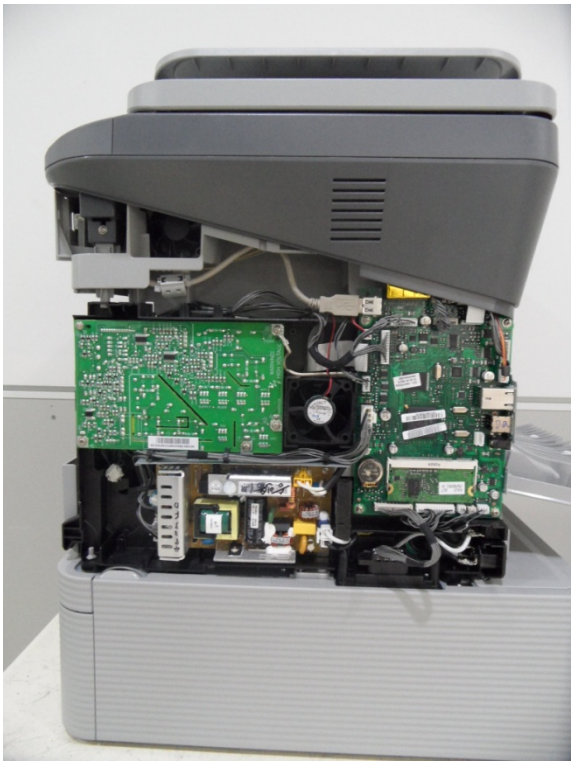
Front inside View



Left inside View

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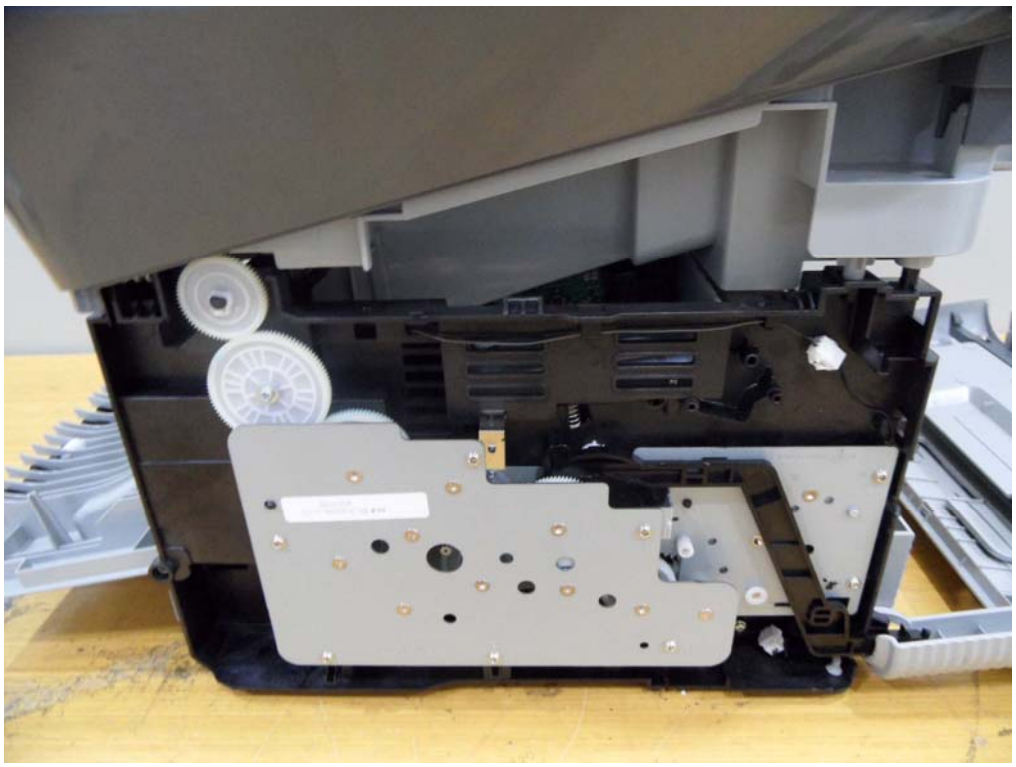

Right inside View

Label

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