

商品電磁相容型式試驗報告

產品名稱

多功能印表機(MULTI FUNCTION PRINTER)

報告申請者

台灣愛普生科技股份有限公司

製造商

Seiko Epson Corporation

銘牌標示及主要特性

EPSON, (1)C762C (2)L6580,
AC 100-240V, 50-60Hz

商標或廠牌

EPSON

型式(號)

(1)C762C (2)L6580

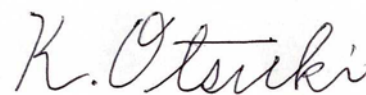
該產品樣品試驗
依據之試驗標準

CNS 13438 (C6357) 乙類; 95.06.01 完整版

試驗結果

合 格

SEIKO EPSON CORPORATION (SL2-IN-E-6024)



日期

2020. 04. 02

簽章

(Kazuya Otsuki)

EMC TEST REPORT

Applicant : EPSON TAIWAN
TECHNOLOGY & TRADING LTD.

Type of Equipment : MULTI FUNCTION PRINTER

Trade Name : EPSON

Model Number : (1) C762C, (2) L6580

Test Report Number : E-103-190871

In accordance with : CNS13438 (2006) / Class B

Test Result : Complied

The test result of this report is effective for the equipment under test itself and test configuration described on the report.

This test report shall not be reproduced except in full, without the written approval of the laboratory.

TEST CERTIFICATION

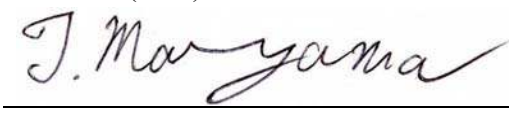
Applicant information

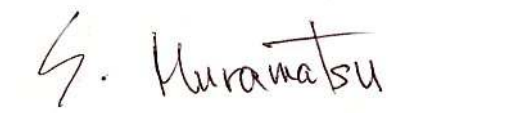
Company : EPSON TAIWAN TECHNOLOGY & TRADING LTD.
Address : 15F., No.100, Songren Rd., Sinyi Dist., Taipei City, 11073 Taiwan
Phone : +886 2 8786 6688 Fax : +886-2-8786 6600

Test laboratory

Company : SEIKO EPSON CORPORATION SEIKO EPSON EMC Testing Gr
Location : 80, Harashinden, Hirooka, Shiojiri-shi, Nagano 399-0785 Japan
Phone : +81-246-52-5094 Fax : +81-246-53-5834

BSMI Recognition number : SL2-IN-E-6024
Receipt date of sample : March 3, 2020
Test started : March 7, 2020
Test completed : March 10, 2020
Purpose of test : Compliance with standards
Test specification(s) : CNS13438(2006)

Tested by : 
Tomoya Maruyama

Report checked by : 
Suguru Muramatsu

Report approved by : 
Kazuya Otsuki
iNARTE Certified Engineer EMC-002652-NE

Report issue date : April 1, 2020

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1. CONCLUSIONS AND REFERENCE STANDARDS / NORMATIVE REFERENCES

The multi function printer, brand EPSON, model C762C complies with the following standards.

These tests were carried out with test procedures drawn by our laboratory based on the following standards.

The detailed description of the test results can be found in section 4. EMC measurement.

1.1 Emission tests

Test item	Standard (Limit)	Worst data	Limit value	Result
Conducted disturbance emission at main terminals (150 kHz - 30 MHz)	CNS13438 (2006)	58.9 dB μ V (QP) (0.15225 MHz, Mode 5)	65.9 dB μ V	Complied
Conducted disturbance emission at telecommunication ports (150 kHz - 30 MHz)	CNS13438 (2006)	55.5 dB μ V (AVE) (0.50773 MHz, Mode 2)	64.0 dB μ V	Complied
Radiated disturbance emission (30 MHz - 1 GHz)	CNS13438 (2006)	23.2 dB μ V/m (QP) (38.146 MHz, Mode 1)	30.0 dB μ V/m	Complied
Radiated disturbance emission (1 GHz - 6 GHz)	CNS13438 (2006)	59.0 dB μ V/m (PK) (2556.991 MHz, Mode 1)	70.0 dB μ V/m	Complied

Note : This data represents the highest emission level of this test.

1.2 Measurement uncertainties

Measurement uncertainties are shown as below.

Conducted disturbance emission at mains terminals	2.5 dB	(EMI shielded room II)
Conducted disturbance emission at telecommunication ports	4.3 dB	(EMI shielded room II)
Radiated disturbance emission (d = 10m)	4.8 dB	(10 m semi-anechoic chamber III)
Radiated disturbance emission (1 GHz - 6 GHz)	4.6 dB	(3 m semi-anechoic chamber II)

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95%.

1.3 Deviations from, additions to or exclusions from the standard

There are no deviations from, additions to or exclusions from the standard.

1.4 Information provided from the customer

The information in chapter 3 and chapter 4 is offered from the customer.

2. MEASUREMENT PROCEDURES

2.1 Conducted disturbance emission

2.1.1 AC power port

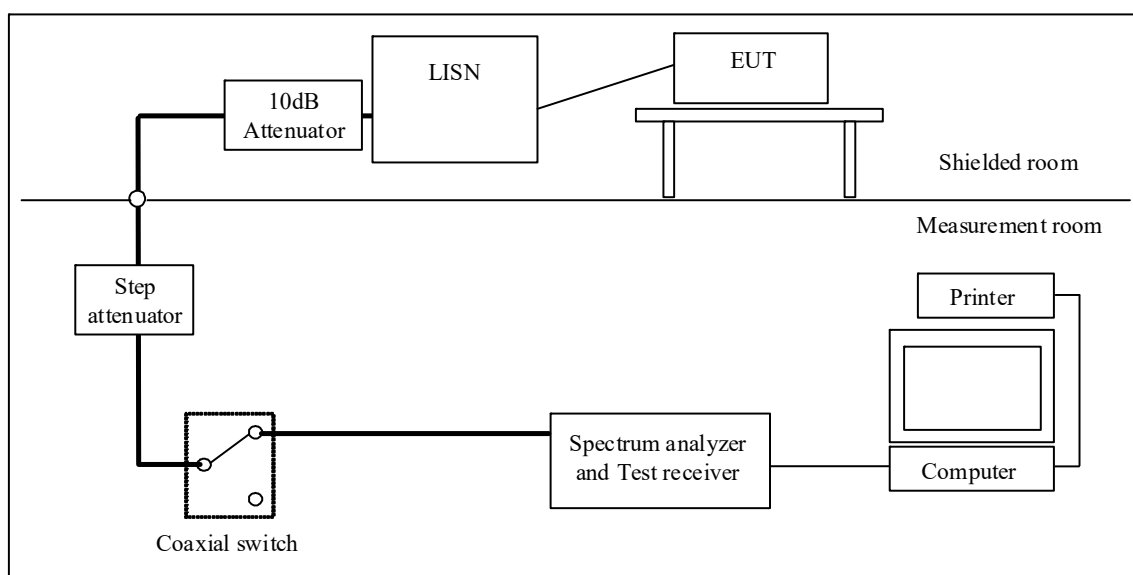
This measurement is performed to all N (Neutral) and L (Live)-phase AC cable lines.

As the preliminary measurement, confirm the noise spectrum from 150 kHz to 30 MHz by the spectrum analyzer.

Select at least 6 low margin points against the QP Limit.

As the final measurement, measure the maximum noise level of the selected points in detail by the test receiver.

In the receiver measurement, measure the maximum noise level using the QP detector (IF bandwidth: 9 kHz) and the Average detector (IF bandwidth: 9 kHz).



2.1.2 Telecommunication port

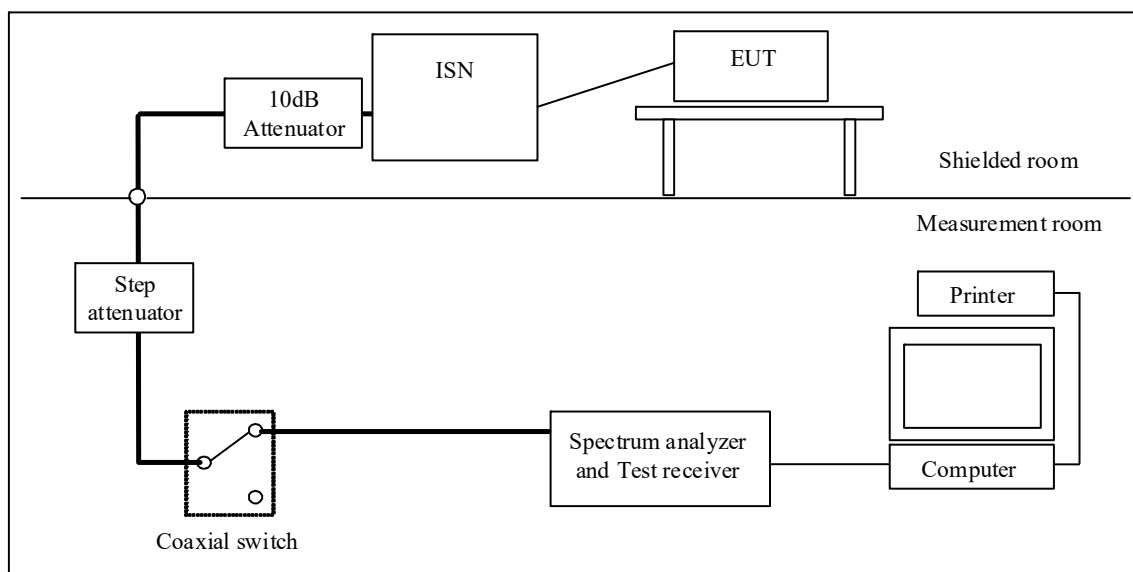
This measurement is performed to telecommunication cable.

As the preliminary measurement, confirm the noise spectrum from 150 kHz to 30 MHz by the spectrum analyzer.

Select at least 6 low margin points against the QP Limit.

As the final measurement, measure the maximum noise level of the selected points in detail by the test receiver.

In the receiver measurement, measure the maximum noise level using the QP detector (IF bandwidth: 9 kHz) and the Average detector (IF bandwidth: 9 kHz).



2.2 Radiated disturbance emission

2.2.1 Below 1 GHz

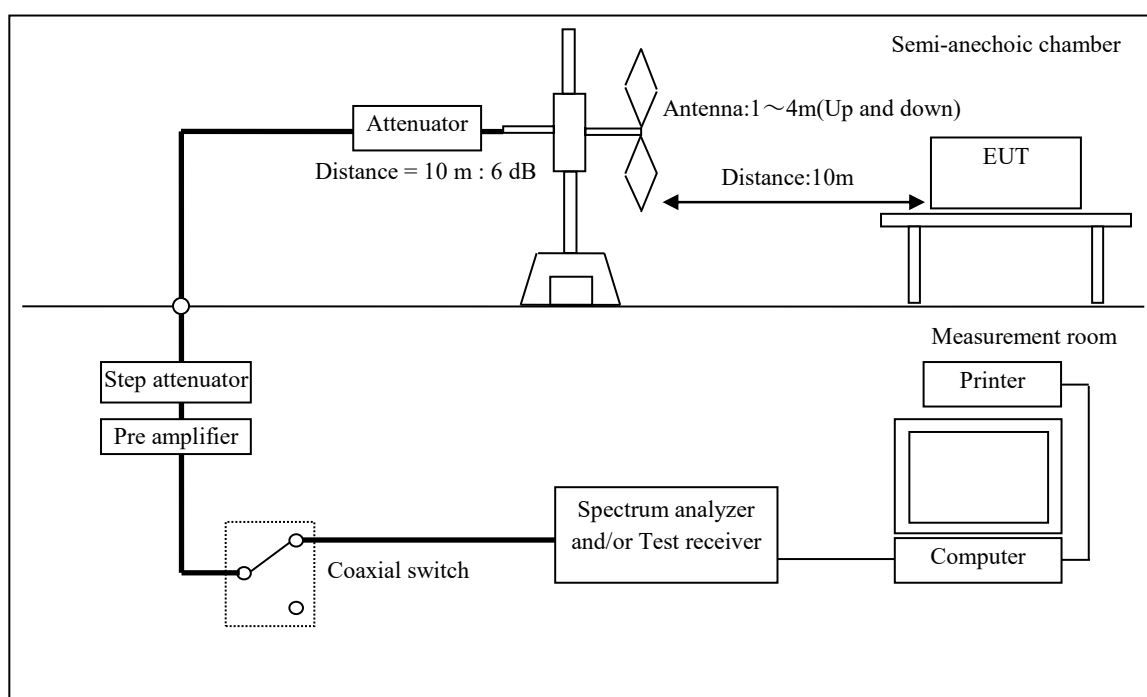
As the preliminary measurement, confirm the noise spectrum below 1 GHz by the spectrum analyzer of operation mode 1 - 8.

(At this time fixing the antenna height, scan all directions (360°) of the EUT and confirm the maximum noise level. Perform this operation against horizontal and vertical polarized waves.)

Select at least 6 low margin points against the QP Limit of worst Pre-scan result. Worst pre-scan result is mode 1.

As the final measurement, measure the maximum noise level of the selected points in detail, using the QP detector (IF bandwidth: 120 kHz) of the test receiver.

(At this time scanning the antenna height between 1 m and 4 m and all directions (360°) of the EUT and changing the placement of the interface cables, search and measure the maximum points of the noise level.)



2.2.2 Above 1 GHz

As the preliminary measurement, confirm the noise spectrum above 1 GHz by the spectrum analyzer of operation mode 1 - 8.

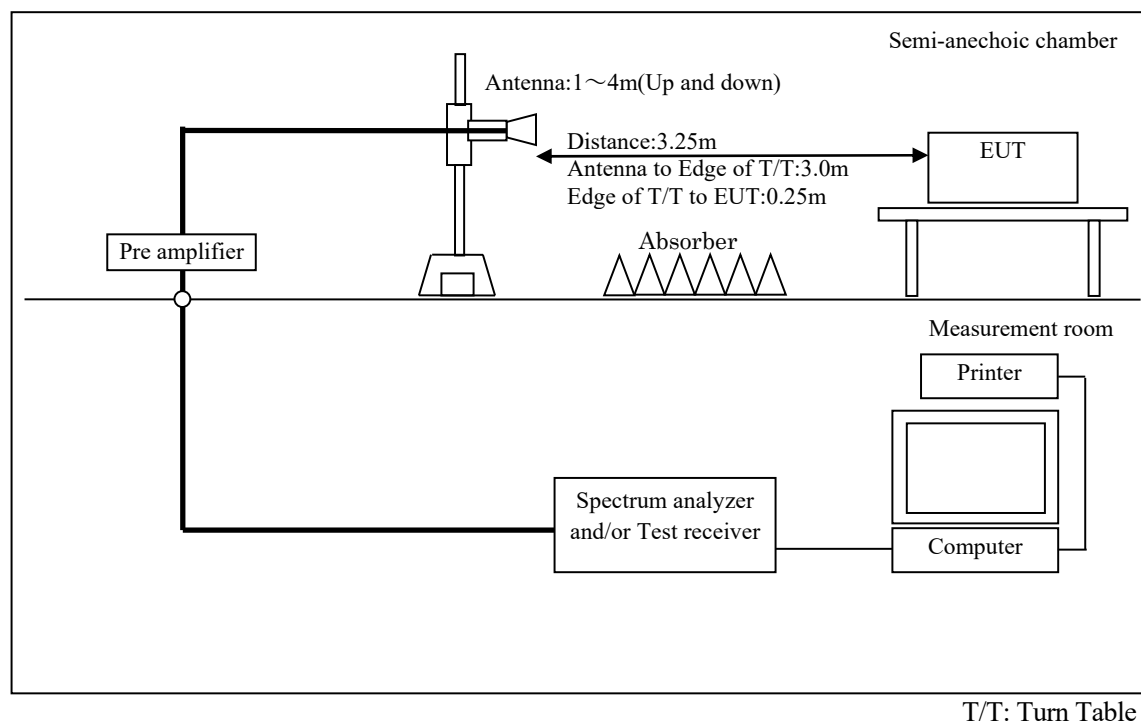
(At this time fixing the antenna height, scan all directions (360°) of the EUT and confirm the maximum noise level. Perform this operation against horizontal and vertical polarized waves.)

Select at least 6 low margin points against the Average Limit. Worst pre-scan result is mode 1.

As the final measurement, measure the maximum noise level of the selected points in detail, using the Peak detector (IF bandwidth: 1 MHz) and the Average detector (IF bandwidth: 1 MHz) of the spectrum analyzer or the test receiver.

(At this time scanning the antenna height from 1 m to 4 m and all directions (360°) of the EUT Changing the placement of the interface cables, search and measure the maximum points of the noise level.

As the peak measurement, judge the measurement values against the Peak Limit (Average Limit + 20 dB).



T/T: Turn Table

3. DETAILED DESCRIPTION OF TEST ITEM

3.1 Equipment under test (EUT)

Kind of equipment : Multi function printer

Test condition : Table top

Manufacturer : SEIKO EPSON CORPORATION

Trade name : EPSON

Model number : C762C

Marketing Model name : L6580

Serial number : HRE9000003

Rated voltage : AC 100 V - 240 V ; 50 Hz - 60 Hz

Rated current : 0.7 A - 0.4 A

Testing Condition AC 110 V ; 60 Hz

Port(s) : USB x 2 (front x 1 / rear x 1)
Network (100 BASE-TX / 10 BASE-T)
Telephone x 2
WiFi module (IEEE 802.11b/g/n/ac)
Bluetooth

Maximum used : 5825 MHz
frequency

The condition of the EUT : Pre-production sample

Remarks : This laboratory has not made any modification to the EUT.
(1) C762C is the model for control in Seiko Epson Corporation
and L6580 is the marketing model in Taiwan.

(2) The EUT has a BT +WiFi combo module as follows:

Model name	Brand Name
J26H005	EPSON

NCC certification No. "CCAI19LP1470T5"

(3) The EUT has a FAX board as follows.

	Model	Manufacturer
FAX board	CG31 IF	SEIKO EPSON CORPORATION

3.2 Auxiliary equipment (AE)

AE	Name	Model (Serial number)	Manufacturer	BSMI ID	Remark
1	Personal computer	HSTNC-059P-SF (JPA220HPJB)	Hewlett-Packard Company	R33001	Microsoft Windows 7
2	LCD monitor	L1506 (CNK6071JJY)	Hewlett-Packard Company	R33001	-
3	Keyboard	KB-0316 (BAUEF0KGAZQ01V)	Hewlett-Packard Company	R33001	-
4	Mouse	M-S69 (F6AB70SMSQ00JBC)	Hewlett-Packard Company	R41126	-
5	Black Ink supply unit	T07M1 (N/A)	SEIKO EPSON CORPORATION	-	-
6	Cyan Ink supply unit	T07M2 (N/A)	SEIKO EPSON CORPORATION	-	-
7	Magenta Ink supply unit	T07M3 (N/A)	SEIKO EPSON CORPORATION	-	-
8	Yellow Ink supply unit	T07M4 (N/A)	SEIKO EPSON CORPORATION	-	-
9	Telephone	FC755A1 (98Z)	Fujitsu Limited	-	-
10	Ethernet hub	SH1508ATD (130725)	FUJITSU LIMITED	-	For conducted disturbance emission test
		EHB-UG2A08-S (73L309702236A)	ELECOM CO.,LTD.	-	For radiated disturbance emission test (MHz)
		LSW2-GT-5NSR (16484264608959)	BUFFALO INC.	-	For radiated disturbance emission test (GHz)
11	Ink Maintenance Box	C9345 (N/A)	SEIKO EPSON CORPORATION	-	-
12	Pseudo-exchange	ND4T-EXCH (A1518023-C)	How inc.	-	-
13	Multi function printer	C531B (ULZY013927)	SEIKO EPSON CORPORATION	R33126	-
14	Wireless Broadband Router	PA-WG1200HP (12115X3415991E0)	NEC Platforms, Ltd.	-	-
15	AC adapter	AL1-002242-001 (C0470804)	NEC Platforms, Ltd.	-	-
16	Notebook PC	4540s (2CE2520417)	Hewlett-Packard Company	R33001	Microsoft Windows 7
17	AC adapter	PPP009L-E (WCNXA0C5R3SL6Z)	Hewlett-Packard Company	R33275	-
18	USB Flash Memory	USM32SA1 (N/A)	Sony Corporation	D33021	-
19	USB 2.0 card Reader/Writer	USB2-6inRW (N/A)	I-O DATA DEVICE, INC.	-	-
20	Compact Flash Memory Card	SDCFB (N/A)	SANDISK CORPORATION	-	-

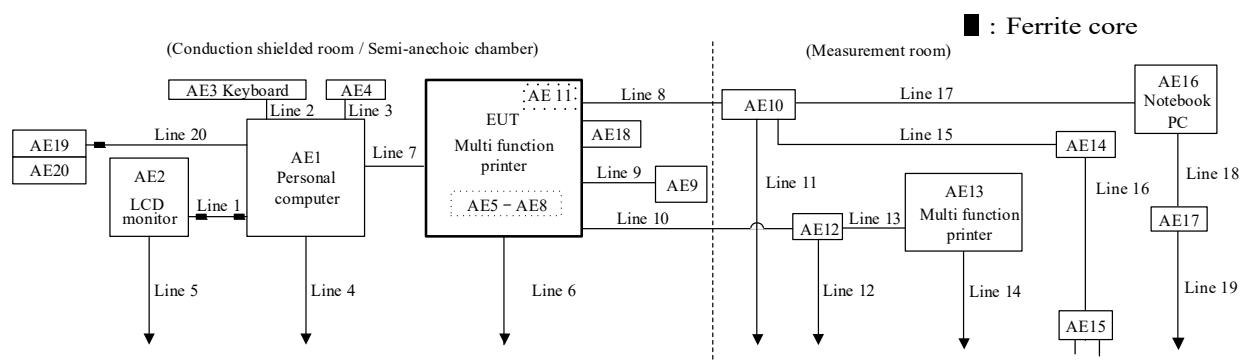
3.3 Relevant signal and power lines

Line	Name	Length	Shield	Remarks
1	RGB I/F cable	1.8 m	Yes	Metal connector Ferrite core x 2
2	Keyboard I/F cable	1.8 m	Yes	Metal connector
3	Mouse I/F cable	1.8 m	Yes	Metal connector
4	Computer AC cable	1.8 m	No	-
5	Monitor AC cable	1.8 m	No	-
6	EUT AC cable	1.8 m	No	-
7	USB I/F cable	1.8 m	Yes	Metal connector
8	Network I/F cable	2.0 m ^{*1}	Yes	Metal connector
		0.9 m ^{*2}		
9	Telephone line	1.8 m	No	-
10	Telephone line	2.0 m ^{*1}	No	-
		0.9 m ^{*2}		
11	Hub AC cable	2.0 m	No	For conducted disturbance emission test
		1.8 m	No	For radiated disturbance emission test
12	Pseudo-exchange AC cable	2.0 m	No	-
13	Telephone line	2.0 m	No	-
14	Multi function printer AC cable	1.8 m	No	-
15	Network I/F cable	0.5 m	No	-
16	AC adapter DC cable	1.8 m	No	-
17	Network I/F cable	1.5 m	Yes	Metal connector
18	AC adapter DC cable	1.8 m	No	-
19	AC adapter AC cable	1.8 m	No	-
20	USB I/F cable	1.0 m	Yes	Metal connector Ferrite core x 1

*1 From EUT to metal ground plane for radiated disturbance emission test.

*2 From EUT to ISN for conducted disturbance emission test.

3.4 Connection of cables



Note:

The equipment numbers and cable numbers in the above diagram, such as AE1 or Line 1, correspond to the equipment and cables in section 3.2, and 3.3.

For power-supply condition of the test facilities, the protective earthing and the neutral line are connected according to the normal terms of use.

4. OPERATING CONDITIONS

The EUT was operated continuously during the test under following conditions.

4.1 Operation modes

Mode 1: USB print and USB Flash Memory R/W

The test system repeats the following operations at the same time.

- 1: The EUT feeds A4 paper from the 1st Cassette and prints 'H' pattern data transferred from the Personal computer (AE1) via USB I/F (Line 7).
- 2: The Personal computer (AE1) reads and writes the data to the USB Flash Memory (AE18) inserted in the EUT via USB I/F (Line 7), and checks the read/write data.
- 3: The LCD monitor (AE2) displays the 'H' pattern data and the check result.

Mode 2: Network ADF scan and USB Flash Memory R/W

The test system repeats the following operations at the same time.

- 1: The EUT scans 'H' pattern A4 sheets by using ADF (Automatic document feeder) and transfers the scanned data to the Notebook PC (AE16) via Network I/F (Line 8 and 17) and the Ethernet hub (AE10).
- 2: The Notebook PC (AE16) reads and writes the data to the USB Flash Memory (AE18) inserted in the EUT via Network I/F (Line 8 and Line 17) and Ethernet Hub (AE10), and checks the read/write data.
- 3: The Notebook PC (AE16) displays the scanned data and read /write data.

Mode 3 - 4: Bluetooth + Wireless LAN Flatbed scan and USB Flash Memory R/W

The test system repeats the following operations at the same time.

- 1: The EUT scans 'H' pattern A4 sheets on the flatbed and transfers the scanned data to the Notebook PC (AE16) by Wireless LAN.
- 2: The Notebook PC (AE16) reads and writes the data to the USB Flash Memory (AE18) inserted in the EUT by Wireless LAN, and checks the read/write data.
- 3: The Notebook PC (AE16) displays the scanned data and read /write data.

*The Wireless Broadband Router (AE14) receives the data transferred from the EUT by Wireless LAN, and transfers to the Notebook PC (AE16) via the Network I/F (Line 15 and Line 17) and Ethernet Hub (AE10).

**Frequency used for Wireless LAN mode:

Mode	Frequency
3	2.4 GHz band
4	5 GHz band

Mode 5: ADF copy

The EUT scans 'H' pattern A4 sheets on both sides by using ADF (Automatic document feeder), and feeds A4 papers from the 2nd Cassette and prints the scanned data on both sides of A4 papers.

Mode 6: FAX transmission

The EUT transfers ITU-T Test chart scanned by ADF to the Multi function printer (AE13) via Telephone lines (Line 10 and 13) and the Pseudo-exchange (AE12), and the Multi function printer (AE13) prints the transferred data.

Mode 7 : FAX reception

The EUT receives ITU-T Test chart transferred from the Multi function printer (AE13) via Telephone lines (Line 10 and 13) and the Pseudo-exchange (AE12), and prints the transferred data.

Mode 8 : Stand by

The EUT stays on stand-by.

Note: The transfer rate of USB I/F (USB2.0) is 480 Mbps.

The transfer rate of Network I/F (100 Base-Tx) is 100 Mbps.

The transfer rate of Telephone line is 33600 bps.

The transfer rate of Wireless LAN (IEEE 802.11ac) is 433 Mbps.

Worst mode is below table: Section 5 show the worst data of radiated emission test. Other Pre-Scan data. See Appendix. A

Table: Worst result of Pre-Scan result

Radiated disturbance emission test of below 1GHz	Mode 1
Radiated disturbance emission test of above 1GHz	Mode 1

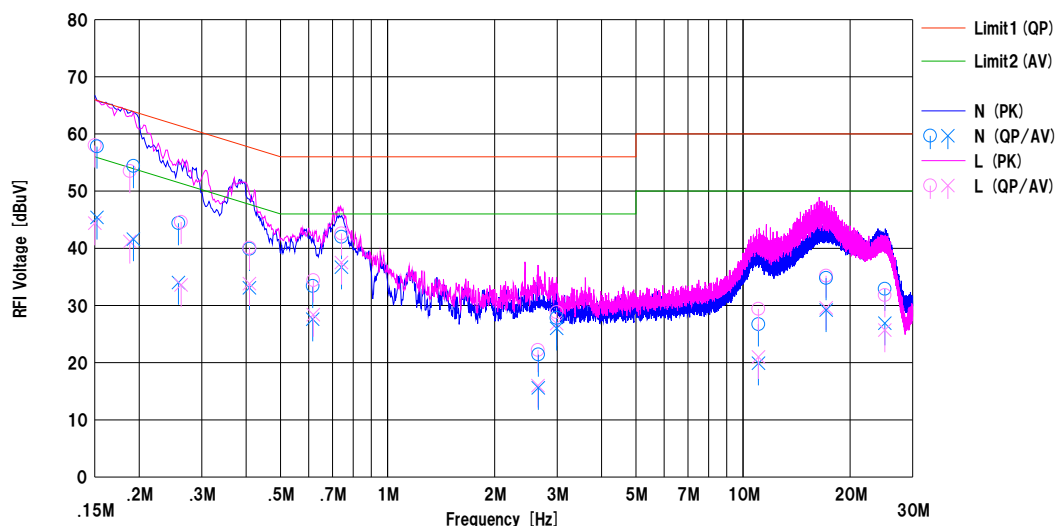
5. EMC MEASUREMENT

5.1 Conducted disturbance emission at main terminals

Operation mode	: Mode 1	Date	: Mar. 10 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: EMI shielded room II
Comment	: Main terminals	Detector	: QP, AVE
		Engineer	: T. Maruyama

Limit1 : [CNS13438] Class B (QP)

Limit2 : [CNS13438] Class B (AVE)



No.	Freq. [MHz]	Reading		Phase	C.Fac [dB]	Result		Limit		Margin	
		<QP>	<AV>			<QP>	<AV>	<QP>	<AV>	<QP>	<AV>
		[dBuV]	[dBuV]			[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]
1	0.15000	47.6	34.0	L	10.4	58.0	44.4	66.0	56.0	8.0	11.6
2	0.15225	47.4	35.0	N	10.4	57.8	45.4	65.9	55.9	8.1	10.5
3	0.18825	43.1	30.8	L	10.4	53.5	41.2	64.1	54.1	10.6	12.9
4	0.19275	44.0	31.2	N	10.4	54.4	41.6	63.9	53.9	9.5	12.3
5	0.25800	34.0	23.6	N	10.4	44.4	34.0	61.5	51.5	17.1	17.5
6	0.26250	34.2	23.2	L	10.4	44.6	33.6	61.4	51.4	16.8	17.8
7	0.40874	29.5	22.7	N	10.4	39.9	33.1	57.7	47.7	17.8	14.6
8	0.40874	29.7	23.4	L	10.4	40.1	33.8	57.7	47.7	17.6	13.9
9	0.61573	23.0	17.2	N	10.4	33.4	27.6	56.0	46.0	22.6	18.4
10	0.61798	24.0	18.0	L	10.4	34.4	28.4	56.0	46.0	21.6	17.6
11	0.74172	31.6	26.3	N	10.4	42.0	36.7	56.0	46.0	14.0	9.3
12	0.74172	32.2	27.1	L	10.4	42.6	37.5	56.0	46.0	13.4	8.5
13	2.64964	11.5	5.3	L	10.7	22.2	16.0	56.0	46.0	33.8	30.0
14	2.65414	10.7	4.9	N	10.7	21.4	15.6	56.0	46.0	34.6	30.4
15	2.98937	18.1	16.1	L	10.7	28.8	26.8	56.0	46.0	27.2	19.2
16	2.98937	17.1	15.3	N	10.7	27.8	26.0	56.0	46.0	28.2	20.0
17	11.05077	15.6	8.8	N	11.1	26.7	19.9	60.0	50.0	33.3	30.1
18	11.05077	18.3	9.9	L	11.1	29.4	21.0	60.0	50.0	30.6	29.0
19	17.13449	23.8	18.2	L	11.4	35.2	29.6	60.0	50.0	24.8	20.4
20	17.13899	23.4	17.8	N	11.4	34.8	29.2	60.0	50.0	25.2	20.8
21	25.04964	21.5	15.5	N	11.4	32.9	26.9	60.0	50.0	27.1	23.1
22	25.04964	20.4	14.3	L	11.4	31.8	25.7	60.0	50.0	28.2	24.3

Note: All other emissions in the frequency range from 0.15 MHz to 30 MHz are more than 10 dB below the limit.

Result = Reading + Correction factor

Margin = Limit - Result

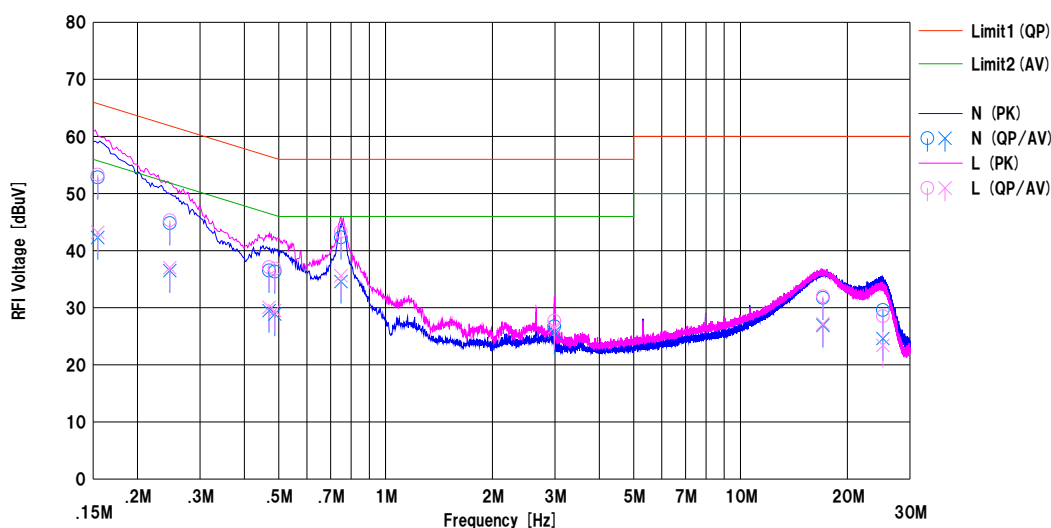
Correction factor = AMN (LISN) factor + Cable loss + Fixed attenuator loss (10 dB)

Result is rounded off to one decimal place.

Operation mode	: Mode 2	Date	: Mar. 10 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: EMI shielded room II
Comment	: Main terminals	Detector	: QP, AVE
		Engineer	: T. Maruyama

Limit1 : [CNS13438] Class B (QP)

Limit2 : [CNS13438] Class B (AVE)



No.	Freq. [MHz]	Reading		Phase	C.Fac [dB]	Result		Limit		Margin	
		<QP>	<AV>			<QP>	<AV>	<QP>	<AV>	<QP>	<AV>
		[dBuV]	[dBuV]			[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]
1	0.15450	42.4	31.9	N	10.4	52.8	42.3	65.8	55.8	13.0	13.5
2	0.15450	42.9	32.8	L	10.4	53.3	43.2	65.8	55.8	12.5	12.6
3	0.24675	34.4	26.1	N	10.4	44.8	36.5	61.9	51.9	17.1	15.4
4	0.24675	34.9	26.6	L	10.4	45.3	37.0	61.9	51.9	16.6	14.9
5	0.46949	26.1	19.1	N	10.4	36.5	29.5	56.5	46.5	20.0	17.0
6	0.46949	26.7	19.7	L	10.4	37.1	30.1	56.5	46.5	19.4	16.4
7	0.48749	25.9	18.5	N	10.4	36.3	28.9	56.2	46.2	19.9	17.3
8	0.48749	26.4	19.1	L	10.4	36.8	29.5	56.2	46.2	19.4	16.7
9	0.74847	31.9	24.2	N	10.4	42.3	34.6	56.0	46.0	13.7	11.4
10	0.74847	32.9	25.2	L	10.4	43.3	35.6	56.0	46.0	12.7	10.4
11	2.98937	16.0	15.0	N	10.7	26.7	25.7	56.0	46.0	29.3	20.3
12	2.98937	17.0	15.9	L	10.7	27.7	26.6	56.0	46.0	28.3	19.4
13	17.07600	20.3	15.5	N	11.4	31.7	26.9	60.0	50.0	28.3	23.1
14	17.07825	20.6	15.8	L	11.4	32.0	27.2	60.0	50.0	28.0	22.8
15	25.20039	18.2	13.2	N	11.4	29.6	24.6	60.0	50.0	30.4	25.4
16	25.20039	17.1	12.0	L	11.4	28.5	23.4	60.0	50.0	31.5	26.6

Note: All other emissions in the frequency range from 0.15 MHz to 30 MHz are more than 10 dB below the limit.

Result = Reading + Correction factor

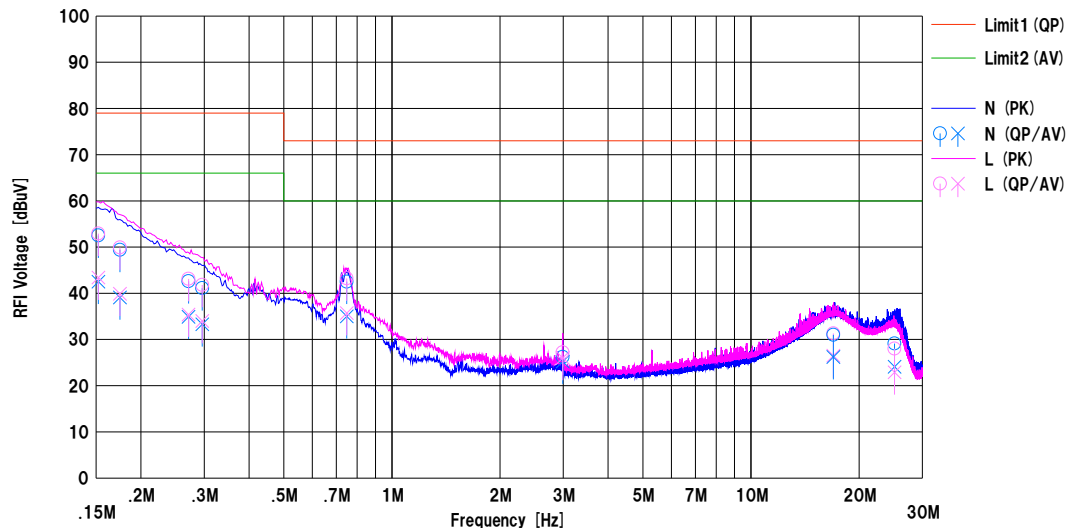
Margin = Limit - Result

Correction factor = AMN (LISN) factor + Cable loss + Fixed attenuator loss (10 dB)

Result is rounded off to one decimal place.

Operation mode	: Mode 3	Date	: Mar. 10 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: EMI shielded room II
Comment	: Main terminals	Detector	: QP, AVE
		Engineer	: T. Maruyama

Limit1 : [CNS13438] Class B (QP)
Limit2 : [CNS13438] Class B (AVE)



No.	Freq. [MHz]	Reading		Phase	C.Fac [dB]	Result		Limit		Margin	
		<QP>	<AV>			<QP>	<AV>	<QP>	<AV>	<QP>	<AV>
		[dBuV]	[dBuV]			[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]
1	0.15225	42.7	32.7	N	9.8	52.5	42.5	79.0	66.0	26.5	23.5
2	0.15225	43.1	33.6	L	9.8	52.9	43.4	79.0	66.0	26.1	22.6
3	0.17475	39.6	29.3	N	9.8	49.4	39.1	79.0	66.0	29.6	26.9
4	0.17475	40.1	30.1	L	9.8	49.9	39.9	79.0	66.0	29.1	26.1
5	0.27149	32.8	25.1	N	9.8	42.6	34.9	79.0	66.0	36.4	31.1
6	0.27149	33.3	25.6	L	9.8	43.1	35.4	79.0	66.0	35.9	30.6
7	0.29624	31.3	23.5	N	9.8	41.1	33.3	79.0	66.0	37.9	32.7
8	0.29624	32.0	24.2	L	9.8	41.8	34.0	79.0	66.0	37.2	32.0
9	0.74847	32.7	25.2	N	9.8	42.5	35.0	73.0	60.0	30.5	25.0
10	0.74847	33.4	25.9	L	9.8	43.2	35.7	73.0	60.0	29.8	24.3
11	2.98937	16.1	15.1	N	10.1	26.2	25.2	73.0	60.0	46.8	34.8
12	2.98937	17.1	15.9	L	10.1	27.2	26.0	73.0	60.0	45.8	34.0
13	16.96575	20.6	15.8	L	10.7	31.3	26.5	73.0	60.0	41.7	33.5
14	16.96800	20.3	15.5	N	10.7	31.0	26.2	73.0	60.0	42.0	33.8
15	25.11264	18.0	13.0	N	11.1	29.1	24.1	73.0	60.0	43.9	35.9
16	25.11264	16.9	11.8	L	11.1	28.0	22.9	73.0	60.0	45.0	37.1

Note: All other emissions in the frequency range from 0.15 MHz to 30 MHz are more than 10 dB below the limit.

Result = Reading + Correction factor

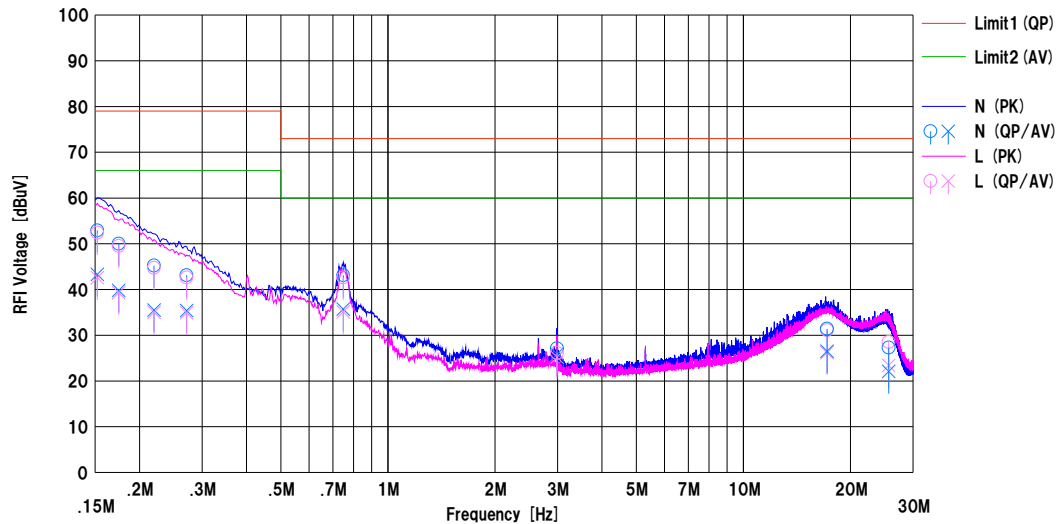
Margin = Limit - Result

Correction factor = AMN (LISN) factor + Cable loss + Fixed attenuator loss (10 dB)

Result is rounded off to one decimal place.

Operation mode : Mode 4
 Kind of equipment : Multi function printer
 Model name : C762C
 Serial number : HRE9000003
 Comment : Main terminals
 Date : Mar. 10 2020
 Temperature : 22 °C
 Humidity : 29 %
 Location : EMI shielded room II
 Detector : QP, AVE
 Engineer : T. Maruyama

Limit1 : [CNS13438] Class B (QP)
 Limit2 : [CNS13438] Class B (AVE)



No.	Freq. [MHz]	Reading		Phase	C.Fac [dB]	Result		Limit		Margin	
		<QP> [dBuV]	<AV> [dBuV]			<QP> [dBuV]	<AV> [dBuV]	<QP> [dBuV]	<AV> [dBuV]	<QP> [dB]	<AV> [dB]
1	0.15225	43.1	33.5	N	9.8	52.9	43.3	79.0	66.0	26.1	22.7
2	0.15225	42.6	32.8	L	9.8	52.4	42.6	79.0	66.0	26.6	23.4
3	0.17475	40.2	30.0	N	9.8	50.0	39.8	79.0	66.0	29.0	26.2
4	0.17475	39.7	29.5	L	9.8	49.5	39.3	79.0	66.0	29.5	26.7
5	0.21975	35.4	25.7	N	9.8	45.2	35.5	79.0	66.0	33.8	30.5
6	0.21975	34.9	25.2	L	9.8	44.7	35.0	79.0	66.0	34.3	31.0
7	0.27149	33.3	25.6	N	9.8	43.1	35.4	79.0	66.0	35.9	30.6
8	0.27149	32.8	25.1	L	9.8	42.6	34.9	79.0	66.0	36.4	31.1
9	0.74847	33.3	25.9	N	9.8	43.1	35.7	73.0	60.0	29.9	24.3
10	0.74847	32.8	25.3	L	9.8	42.6	35.1	73.0	60.0	30.4	24.9
11	2.98937	17.0	15.8	N	10.1	27.1	25.9	73.0	60.0	45.9	34.1
12	2.98937	16.0	15.1	L	10.1	26.1	25.2	73.0	60.0	46.9	34.8
13	17.19074	20.4	15.5	L	10.7	31.1	26.2	73.0	60.0	41.9	33.8
14	17.19299	20.7	15.8	N	10.7	31.4	26.5	73.0	60.0	41.6	33.5
15	25.63462	17.4	12.3	L	11.1	28.5	23.4	73.0	60.0	44.5	36.6
16	25.63912	16.2	11.0	N	11.1	27.3	22.1	73.0	60.0	45.7	37.9

Note: All other emissions in the frequency range from 0.15 MHz to 30 MHz are more than 10 dB below the limit.

Result = Reading + Correction factor

Margin = Limit - Result

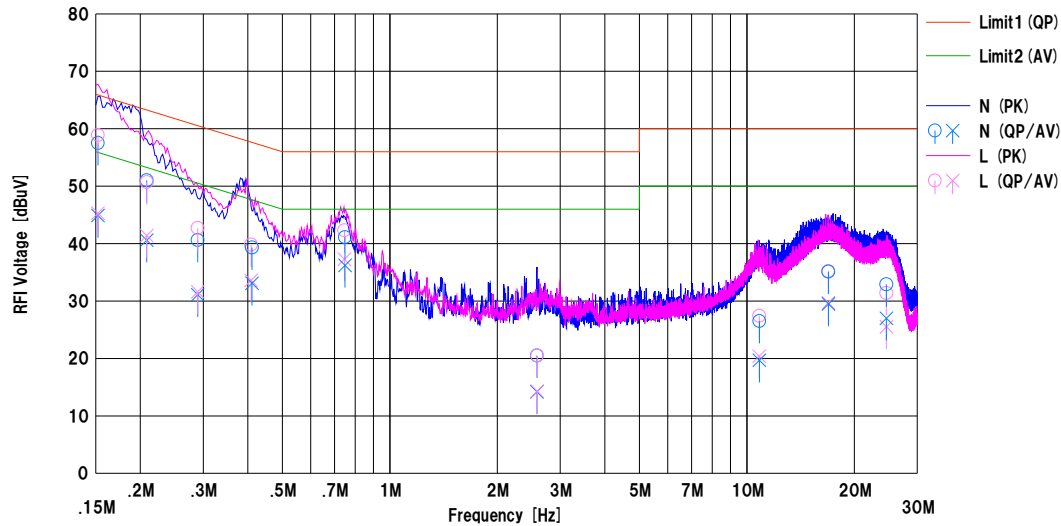
Correction factor = AMN (LISN) factor + Cable loss + Fixed attenuator loss (10 dB)

Result is rounded off to one decimal place.

Operation mode	: Mode 5	Date	: Mar. 10 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: EMI shielded room II
Comment	: Main terminals	Detector	: QP, AVE
		Engineer	: T. Maruyama

Limit1 : [CNS13438] Class B (QP)

Limit2 : [CNS13438] Class B (AVE)



No.	Freq. [MHz]	Reading		Phase	C.Fac [dB]	Result		Limit		Margin	
		<QP>	<AV>			<QP>	<AV>	<QP>	<AV>	<QP>	<AV>
		[dBuV]	[dBuV]			[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]
1	0.15225	47.1	34.5	N	10.4	57.5	44.9	65.9	55.9	8.4	11.0
2	0.15225	48.5	34.9	L	10.4	58.9	45.3	65.9	55.9	7.0	10.6
3	0.20850	40.6	30.2	N	10.4	51.0	40.6	63.3	53.3	12.3	12.7
4	0.20850	40.3	31.0	L	10.4	50.7	41.4	63.3	53.3	12.6	11.9
5	0.28949	30.2	20.7	N	10.4	40.6	31.1	60.5	50.5	19.9	19.4
6	0.28949	32.3	21.2	L	10.4	42.7	31.6	60.5	50.5	17.8	18.9
7	0.40874	29.4	23.2	L	10.4	39.8	33.6	57.7	47.7	17.9	14.1
8	0.41099	28.9	22.7	N	10.4	39.3	33.1	57.6	47.6	18.3	14.5
9	0.74622	31.9	26.9	L	10.4	42.3	37.3	56.0	46.0	13.7	8.7
10	0.74847	30.7	25.8	N	10.4	41.1	36.2	56.0	46.0	14.9	9.8
11	2.58214	9.9	3.6	N	10.6	20.5	14.2	56.0	46.0	35.5	31.8
12	2.58664	9.9	3.7	L	10.6	20.5	14.3	56.0	46.0	35.5	31.7
13	10.83477	16.3	9.3	L	11.1	27.4	20.4	60.0	50.0	32.6	29.6
14	10.83702	15.4	8.6	N	11.1	26.5	19.7	60.0	50.0	33.5	30.3
15	16.91850	23.8	18.3	L	11.4	35.2	29.7	60.0	50.0	24.8	20.3
16	16.92300	23.7	18.1	N	11.4	35.1	29.5	60.0	50.0	24.9	20.5
17	24.59516	20.0	14.1	L	11.4	31.4	25.5	60.0	50.0	28.6	24.5
18	24.59516	21.5	15.6	N	11.4	32.9	27.0	60.0	50.0	27.1	23.0

Note: All other emissions in the frequency range from 0.15 MHz to 30 MHz are more than 10 dB below the limit.

Result = Reading + Correction factor

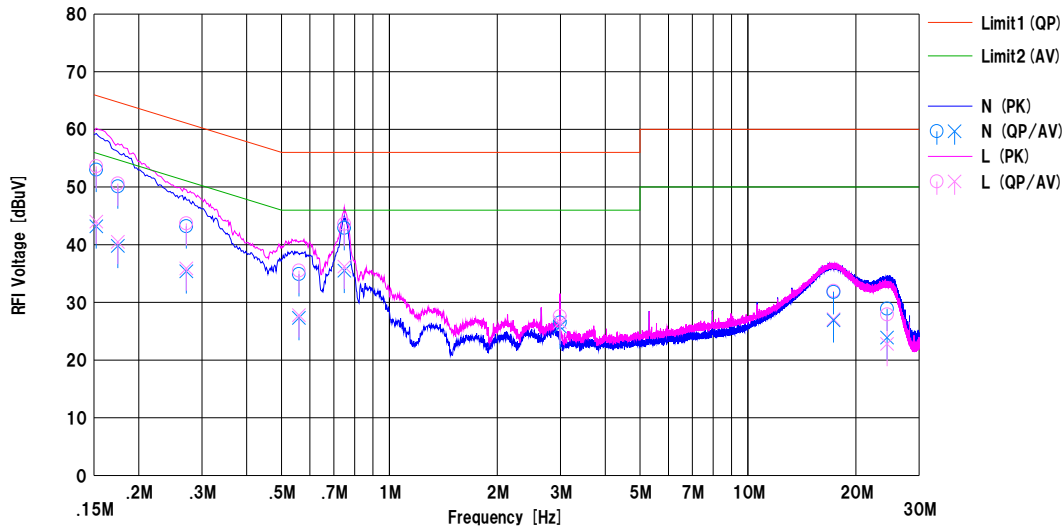
Margin = Limit - Result

Correction factor = AMN (LISN) factor + Cable loss + Fixed attenuator loss (10 dB)

Result is rounded off to one decimal place.

Operation mode	: Mode 6	Date	: Mar. 10 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: EMI shielded room II
Comment	: Main terminals	Detector	: QP, AVE
		Engineer	: T. Maruyama

Limit1 : [CNS13438] Class B (QP)
Limit2 : [CNS13438] Class B (AVE)



No.	Freq. [MHz]	Reading		Phase	C.Fac [dB]	Result		Limit		Margin	
		<QP>	<AV>			<QP>	<AV>	<QP>	<AV>	<QP>	<AV>
		[dBuV]	[dBuV]			[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]
1	0.15225	42.6	32.8	N	10.4	53.0	43.2	65.9	55.9	12.9	12.7
2	0.15225	43.2	33.6	L	10.4	53.6	44.0	65.9	55.9	12.3	11.9
3	0.17475	39.7	29.4	N	10.4	50.1	39.8	64.7	54.7	14.6	14.9
4	0.17475	40.2	30.1	L	10.4	50.6	40.5	64.7	54.7	14.1	14.2
5	0.27149	32.8	25.0	N	10.4	43.2	35.4	61.1	51.1	17.9	15.7
6	0.27149	33.3	25.5	L	10.4	43.7	35.9	61.1	51.1	17.4	15.2
7	0.55948	24.5	16.9	N	10.4	34.9	27.3	56.0	46.0	21.1	18.7
8	0.55948	25.1	17.4	L	10.4	35.5	27.8	56.0	46.0	20.5	18.2
9	0.74847	32.5	25.1	N	10.4	42.9	35.5	56.0	46.0	13.1	10.5
10	0.74847	33.2	25.8	L	10.4	43.6	36.2	56.0	46.0	12.4	9.8
11	2.98937	15.8	15.1	N	10.7	26.5	25.8	56.0	46.0	29.5	20.2
12	2.98937	16.9	15.9	L	10.7	27.6	26.6	56.0	46.0	28.4	19.4
13	17.33024	20.6	15.7	L	11.4	32.0	27.1	60.0	50.0	28.0	22.9
14	17.33474	20.4	15.5	N	11.4	31.8	26.9	60.0	50.0	28.2	23.1
15	24.44217	17.5	12.5	N	11.4	28.9	23.9	60.0	50.0	31.1	26.1
16	24.44217	16.5	11.4	L	11.4	27.9	22.8	60.0	50.0	32.1	27.2

Note: All other emissions in the frequency range from 0.15 MHz to 30 MHz are more than 10 dB below the limit.

Result = Reading + Correction factor

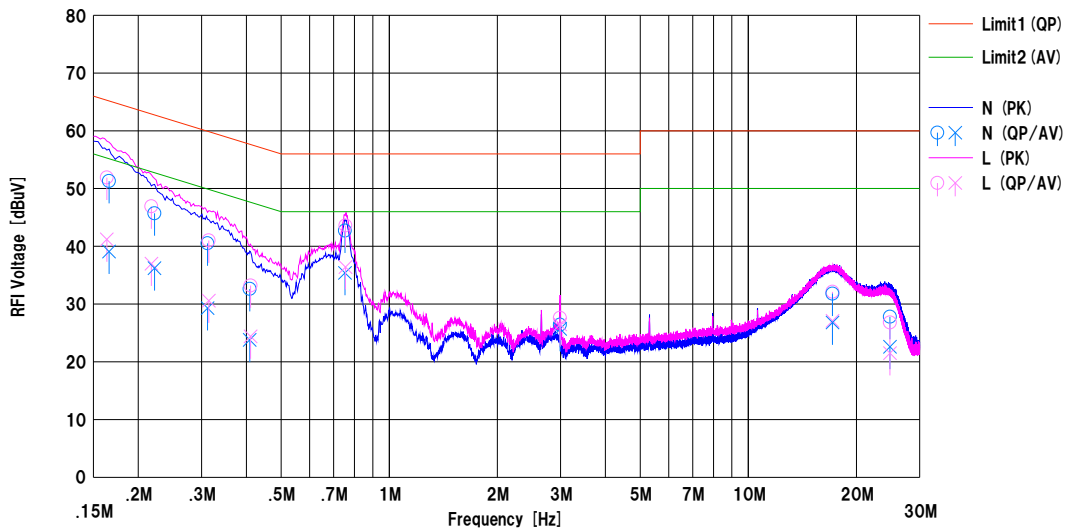
Margin = Limit - Result

Correction factor = AMN (LISN) factor + Cable loss + Fixed attenuator loss (10 dB)

Result is rounded off to one decimal place.

Operation mode	: Mode 7	Date	: Mar. 10 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: EMI shielded room II
Comment	: Main terminals	Detector	: QP, AVE
		Engineer	: T. Maruyama

Limit1 : [CNS13438] Class B (QP)
Limit2 : [CNS13438] Class B (AVE)



No.	Freq. [MHz]	Reading		Phase	C.Fac [dB]	Result		Limit		Margin	
		<QP>	<AV>			<QP>	<AV>	<QP>	<AV>	<QP>	<AV>
		[dBuV]	[dBuV]			[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]
1	0.16350	41.5	30.8	L	10.4	51.9	41.2	65.3	55.3	13.4	14.1
2	0.16575	40.9	28.7	N	10.4	51.3	39.1	65.2	55.2	13.9	16.1
3	0.21750	36.5	26.6	L	10.4	46.9	37.0	62.9	52.9	16.0	15.9
4	0.22200	35.3	25.8	N	10.4	45.7	36.2	62.7	52.7	17.0	16.5
5	0.31199	30.1	18.9	N	10.4	40.5	29.3	59.9	49.9	19.4	20.6
6	0.31424	30.6	20.2	L	10.4	41.0	30.6	59.9	49.9	18.9	19.3
7	0.40874	22.2	13.4	N	10.4	32.6	23.8	57.7	47.7	25.1	23.9
8	0.41099	22.8	14.0	L	10.4	33.2	24.4	57.6	47.6	24.4	23.2
9	0.75297	32.3	25.0	N	10.4	42.7	35.4	56.0	46.0	13.3	10.6
10	0.75522	33.2	26.0	L	10.4	43.6	36.4	56.0	46.0	12.4	9.6
11	2.98937	15.7	15.0	N	10.7	26.4	25.7	56.0	46.0	29.6	20.3
12	2.98937	16.9	15.8	L	10.7	27.6	26.5	56.0	46.0	28.4	19.5
13	17.15924	20.7	15.7	L	11.4	32.1	27.1	60.0	50.0	27.9	22.9
14	17.16149	20.4	15.4	N	11.4	31.8	26.8	60.0	50.0	28.2	23.2
15	24.80890	16.4	11.2	N	11.4	27.8	22.6	60.0	50.0	32.2	27.4
16	24.81115	15.4	10.1	L	11.4	26.8	21.5	60.0	50.0	33.2	28.5

Note: All other emissions in the frequency range from 0.15 MHz to 30 MHz are more than 10 dB below the limit.

Result = Reading + Correction factor

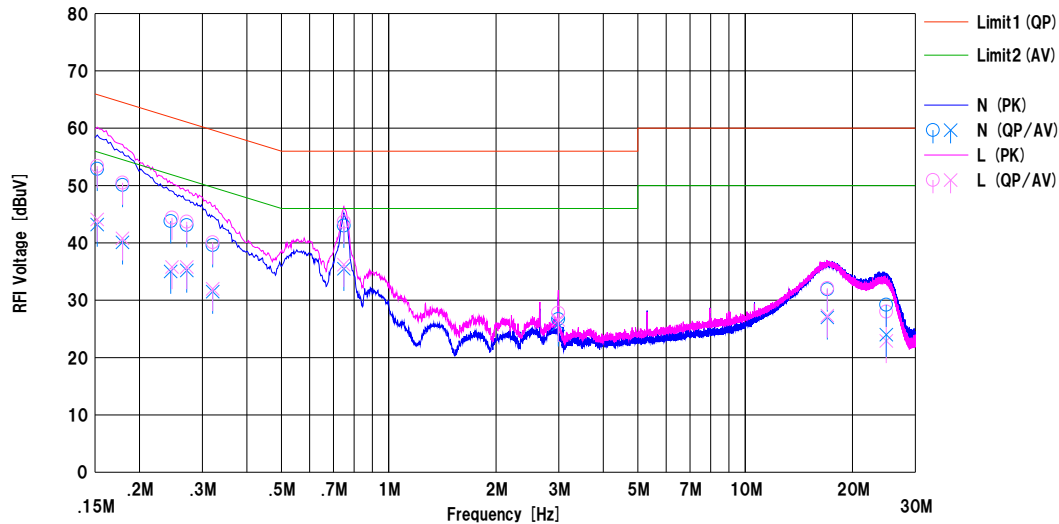
Margin = Limit - Result

Correction factor = AMN (LISN) factor + Cable loss + Fixed attenuator loss (10 dB)

Result is rounded off to one decimal place.

Operation mode	: Mode 8	Date	: Mar. 10 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: EMI shielded room II
Comment	: Main terminals	Detector	: QP, AVE
		Engineer	: T. Maruyama

Limit1 : [CNS13438] Class B (QP)
Limit2 : [CNS13438] Class B (AVE)



No.	Freq. [MHz]	Reading		Phase	C.Fac [dB]	Result		Limit		Margin	
		<QP>	<AV>			<QP>	<AV>	<QP>	<AV>	<QP>	<AV>
		[dBuV]	[dBuV]			[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]
1	0.15225	42.5	32.8	N	10.4	52.9	43.2	65.9	55.9	13.0	12.7
2	0.15225	43.0	33.7	L	10.4	53.4	44.1	65.9	55.9	12.5	11.8
3	0.17925	39.7	29.7	N	10.4	50.1	40.1	64.5	54.5	14.4	14.4
4	0.17925	40.1	30.4	L	10.4	50.5	40.8	64.5	54.5	14.0	13.7
5	0.24450	33.4	24.6	N	10.4	43.8	35.0	61.9	51.9	18.1	16.9
6	0.24675	34.0	25.4	L	10.4	44.4	35.8	61.9	51.9	17.5	16.1
7	0.27149	32.7	24.8	N	10.4	43.1	35.2	61.1	51.1	18.0	15.9
8	0.27149	33.3	25.4	L	10.4	43.7	35.8	61.1	51.1	17.4	15.3
9	0.32099	29.2	21.1	N	10.4	39.6	31.5	59.7	49.7	20.1	18.2
10	0.32099	29.7	21.6	L	10.4	40.1	32.0	59.7	49.7	19.6	17.7
11	0.74847	32.6	25.1	N	10.4	43.0	35.5	56.0	46.0	13.0	10.5
12	0.74847	33.3	25.8	L	10.4	43.7	36.2	56.0	46.0	12.3	9.8
13	2.98937	16.0	15.1	N	10.7	26.7	25.8	56.0	46.0	29.3	20.2
14	2.98937	17.1	15.9	L	10.7	27.8	26.6	56.0	46.0	28.2	19.4
15	16.99500	20.5	15.6	N	11.4	31.9	27.0	60.0	50.0	28.1	23.0
16	16.99725	20.7	15.9	L	11.4	32.1	27.3	60.0	50.0	27.9	22.7
17	24.88315	16.6	11.5	L	11.4	28.0	22.9	60.0	50.0	32.0	27.1
18	24.88540	17.8	12.6	N	11.4	29.2	24.0	60.0	50.0	30.8	26.0

Note: All other emissions in the frequency range from 0.15 MHz to 30 MHz are more than 10 dB below the limit.

Result = Reading + Correction factor

Margin = Limit - Result

Correction factor = AMN (LISN) factor + Cable loss + Fixed attenuator loss (10 dB)

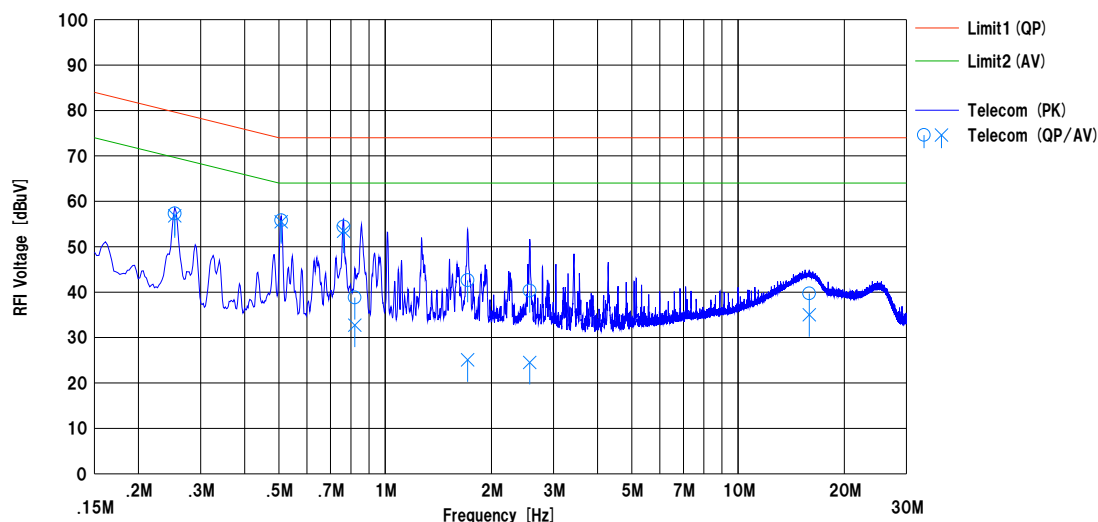
Result is rounded off to one decimal place.

5.2 Conducted disturbance emission at telecommunication ports

Operation mode	: Mode 2	Date	: Mar. 10 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: EMI shielded room II
Comment	: Network 10 Mbps	Detector	: QP, AVE
		Engineer	: T. Maruyama

Limit1 : [CNS13438] Class B (QP)

Limit2 : [CNS13438] Class B (AVE)



No.	Freq. [MHz]	Reading		Phase	C.Fac [dB]	Result		Limit		Margin	
		<QP> [dBuV]	<AV> [dBuV]			<QP> [dBuV]	<AV> [dBuV]	<QP> [dBuV]	<AV> [dBuV]	<QP> [dB]	<AV> [dB]
1	0.25350	37.6	37.1	Telecom	19.7	57.3	56.8	79.6	69.6	22.3	12.8
2	0.50773	36.1	35.8	Telecom	19.7	55.8	55.5	74.0	64.0	18.2	8.5
3	0.76197	34.7	33.7	Telecom	19.7	54.4	53.4	74.0	64.0	19.6	10.6
4	0.82047	19.1	13.0	Telecom	19.7	38.8	32.7	74.0	64.0	35.2	31.3
5	1.71368	22.8	5.3	Telecom	19.8	42.6	25.1	74.0	64.0	31.4	38.9
6	2.56864	20.4	4.6	Telecom	19.9	40.3	24.5	74.0	64.0	33.7	39.5
7	15.90605	19.3	14.6	Telecom	20.4	39.7	35.0	74.0	64.0	34.3	29.0

Note: All other emissions in the frequency range from 0.15 MHz to 30 MHz are more than 10 dB below the limit.

Result = Reading + Correction factor

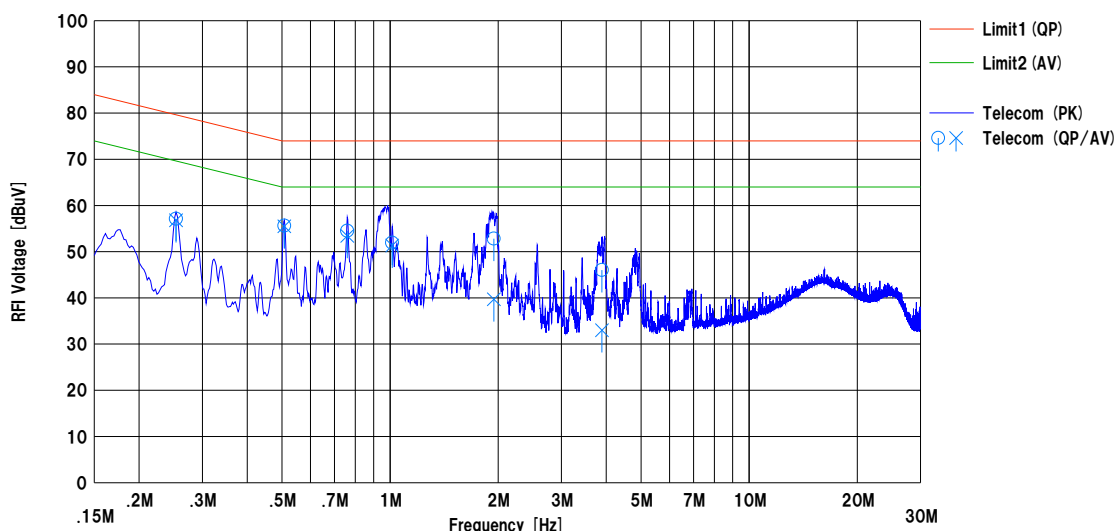
Margin = Limit - Result

Correction factor = ISN (AAN) factor + Cable loss + Fixed attenuator loss (10 dB)

Result is rounded off to one decimal place.

Operation mode	: Mode 2	Date	: Mar. 10 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: EMI shielded room II
Comment	: Network 100 Mbps	Detector	: QP, AVE
		Engineer	: T. Maruyama

Limit1 : [CNS13438] Class B (QP)
Limit2 : [CNS13438] Class B (AVE)



No.	Freq. [MHz]	Reading		Phase	C.Fac [dB]	Result		Limit		Margin	
		<QP> [dBuV]	<AV> [dBuV]			<QP> [dBuV]	<AV> [dBuV]	<QP> [dBuV]	<AV> [dBuV]	<QP> [dB]	<AV> [dB]
1	0.25350	37.4	37.1	Telecom	19.7	57.1	56.8	79.6	69.6	22.5	12.8
2	0.50773	35.9	35.8	Telecom	19.7	55.6	55.5	74.0	64.0	18.4	8.5
3	0.75972	34.8	33.7	Telecom	19.7	54.5	53.4	74.0	64.0	19.5	10.6
4	1.01396	32.1	31.5	Telecom	19.8	51.9	51.3	74.0	64.0	22.1	12.7
5	1.94542	33.0	19.9	Telecom	19.8	52.8	39.7	74.0	64.0	21.2	24.3
6	3.88933	26.1	13.1	Telecom	19.9	46.0	33.0	74.0	64.0	28.0	31.0

Note: All other emissions in the frequency range from 0.15 MHz to 30 MHz are more than 10 dB below the limit.

Result = Reading + Correction factor

Margin = Limit - Result

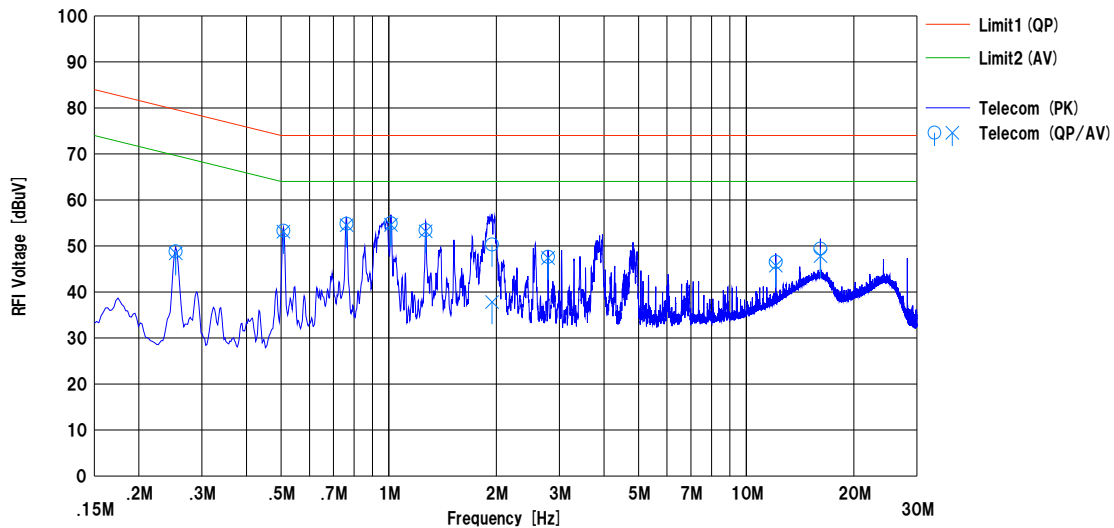
Correction factor = ISN (AAN) factor + Cable loss + Fixed attenuator loss (10 dB)

Result is rounded off to one decimal place.

Operation mode : Mode 6
 Kind of equipment : Multi function printer
 Model name : C762C
 Serial number : HRE9000003
 Comment : FAX

Date : Mar. 10 2020
 Temperature : 22 °C
 Humidity : 29 %
 Location : EMI shielded room II
 Detector : QP, AVE
 Engineer : T. Maruyama

Limit1 : [CNS13438] Class B (QP)
 Limit2 : [CNS13438] Class B (AVE)



No.	Freq. [MHz]	Reading		Phase	C.Fac [dB]	Result		Limit		Margin	
		<QP>	<AV>			<QP>	<AV>	<QP>	<AV>	<QP>	<AV>
		[dBuV]	[dBuV]			[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]
1	0.25350	29.1	28.7	Telecom	19.7	48.8	48.4	79.6	69.6	30.8	21.2
2	0.50773	33.6	33.4	Telecom	19.7	53.3	53.1	74.0	64.0	20.7	10.9
3	0.76197	35.1	34.8	Telecom	19.7	54.8	54.5	74.0	64.0	19.2	9.5
4	1.01396	35.1	34.8	Telecom	19.8	54.9	54.6	74.0	64.0	19.1	9.4
5	1.26820	33.6	33.4	Telecom	19.8	53.4	53.2	74.0	64.0	20.6	10.8
6	1.94542	30.5	18.0	Telecom	19.8	50.3	37.8	74.0	64.0	23.7	26.2
7	2.79138	27.7	27.5	Telecom	19.9	47.6	47.4	74.0	64.0	26.4	16.6
8	12.09472	26.2	25.4	Telecom	20.3	46.5	45.7	74.0	64.0	27.5	18.3
9	16.12654	29.0	27.4	Telecom	20.4	49.4	47.8	74.0	64.0	24.6	16.2

Note: All other emissions in the frequency range from 0.15 MHz to 30 MHz are more than 10 dB below the limit.

Result = Reading + Correction factor

Margin = Limit - Result

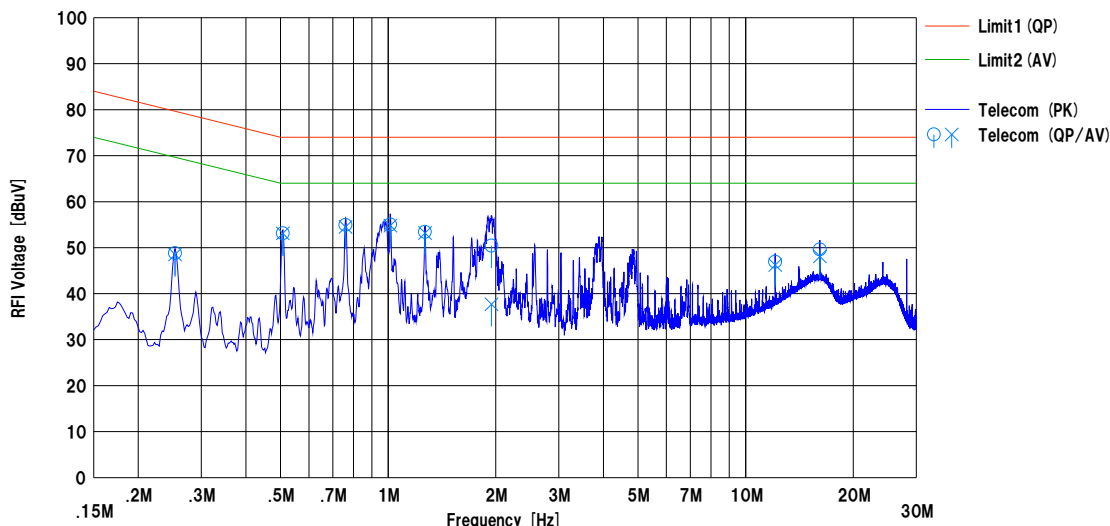
Correction factor = ISN (AAN) factor + Cable loss + Fixed attenuator loss (10 dB)

Result is rounded off to one decimal place.

Operation mode : Mode 7
 Kind of equipment : Multi function printer
 Model name : C762C
 Serial number : HRE9000003
 Comment : FAX

Date : Mar. 10 2020
 Temperature : 22 °C
 Humidity : 29 %
 Location : EMI shielded room II
 Detector : QP, AVE
 Engineer : T. Maruyama

Limit1 : [CNS13438] Class B (QP)
 Limit2 : [CNS13438] Class B (AVE)



No.	Freq. [MHz]	Reading		Phase	C.Fac [dB]	Result		Limit		Margin	
		<QP>	<AV>			<QP>	<AV>	<QP>	<AV>	<QP>	<AV>
		[dBuV]	[dBuV]			[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]
1	0.25350	29.1	28.8	Telecom	19.7	48.8	48.5	79.6	69.6	30.8	21.1
2	0.50773	33.4	33.4	Telecom	19.7	53.1	53.1	74.0	64.0	20.9	10.9
3	0.75972	35.2	34.8	Telecom	19.7	54.9	54.5	74.0	64.0	19.1	9.5
4	1.01396	35.2	35.0	Telecom	19.8	55.0	54.8	74.0	64.0	19.0	9.2
5	1.26820	33.6	33.4	Telecom	19.8	53.4	53.2	74.0	64.0	20.6	10.8
6	1.94542	30.6	17.9	Telecom	19.8	50.4	37.7	74.0	64.0	23.6	26.3
7	12.09472	26.6	25.9	Telecom	20.3	46.9	46.2	74.0	64.0	27.1	17.8
8	16.12654	29.2	27.7	Telecom	20.4	49.6	48.1	74.0	64.0	24.4	15.9

Note: All other emissions in the frequency range from 0.15 MHz to 30 MHz are more than 10 dB below the limit.

Result = Reading + Correction factor

Margin = Limit - Result

Correction factor = ISN (AAN) factor + Cable loss + Fixed attenuator loss (10 dB)

Result is rounded off to one decimal place.

5.3 Configuration photographs of conducted disturbance emission (AC power port)



Front view

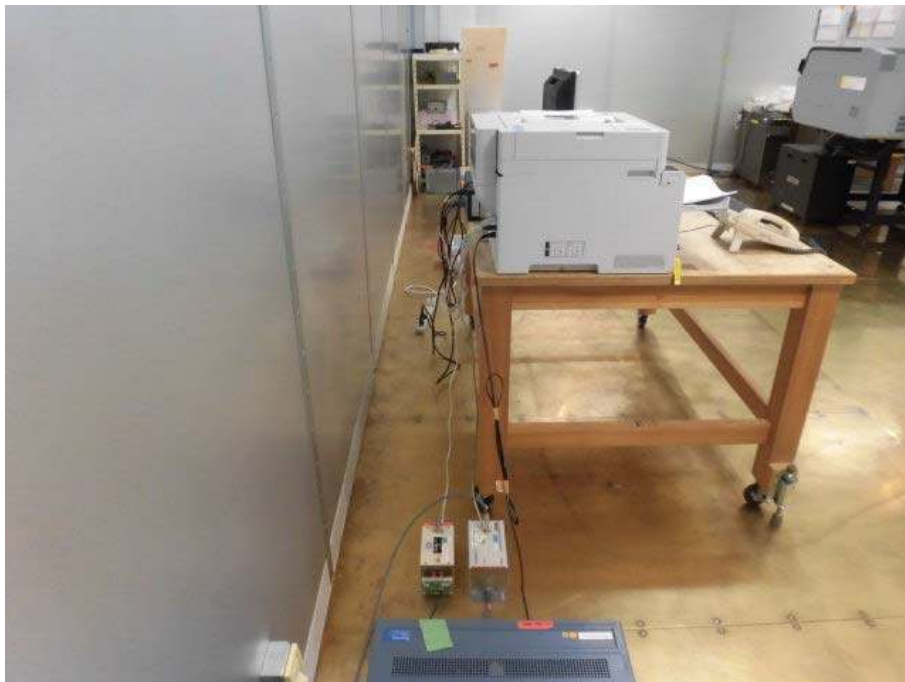


Rear view

(Network port)



Front view



Rear view

(FAX port)



Front view

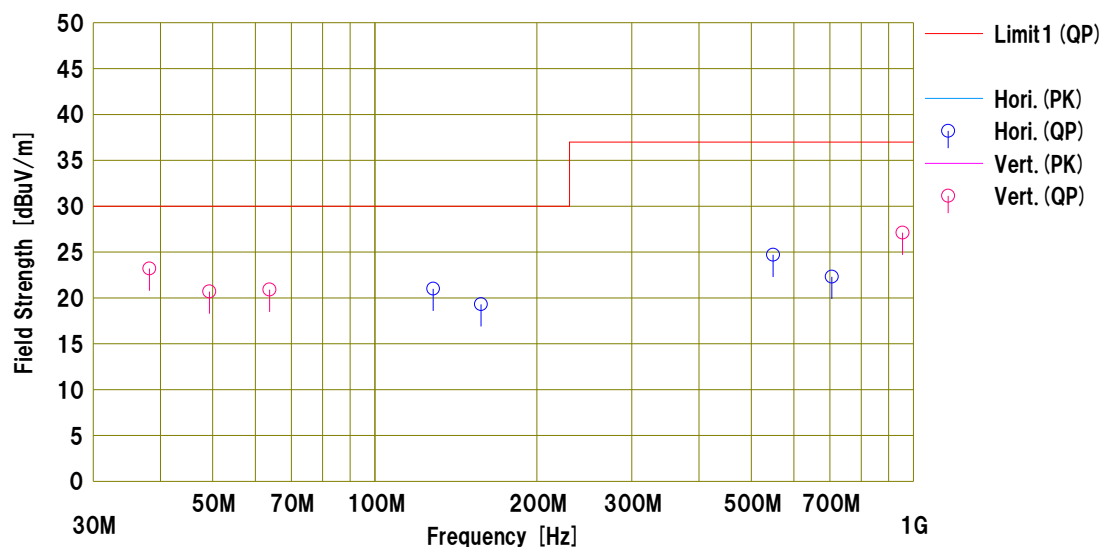


Rear view

5.4 Radiated disturbance emission

Operation mode : Mode 1
 Kind of equipment : Multi function printer
 Model name : C762C
 Serial number : HRE9000003
 Comment : Below 1GHz
 Detector : QP
 Date : Mar. 7 2020
 Temperatur : 27 °C
 Humidity : 36 %
 Location : 10 m semi-anechoic chamber III
 Distance : 10 m
 Engineer : E. Taguchi

Limit1: [CNS13438] Class B (QP)



No.	Freq.	Reading	Ant. Type	Ant.Fac	Loss	Gain	S.Fac	Result	Height	Angle	Pola.	Limit	Margin
		<QP>						<QP>				<QP>	
	[MHz]	[dBuV]						[dB/m]				[dB]	[dB]
1	38.146	33.4	BL	13.0	6.9	30.1	0.0	23.2	100.0	47.9	Vert.	30.0	6.8
2	49.298	29.9	BL	13.9	7.0	30.1	0.0	20.7	346.3	8.9	Vert.	30.0	9.3
3	63.754	31.0	BL	12.8	7.2	30.1	0.0	20.9	162.4	95.5	Vert.	30.0	9.1
4	128.358	31.8	BL	11.7	7.7	30.2	0.0	21.0	400.0	351.8	Hori.	30.0	9.0
5	157.495	28.2	BL	13.5	7.9	30.3	0.0	19.3	285.9	74.2	Hori.	30.0	10.7
6	549.047	27.9	BL	18.4	9.8	31.4	0.0	24.7	118.9	144.7	Hori.	37.0	12.3
7	705.702	22.6	BL	21.1	10.3	31.7	0.0	22.3	126.6	80.8	Hori.	37.0	14.7
8	955.091	24.1	BL	23.7	11.1	31.8	0.0	27.1	101.5	189.9	Vert	37.0	9.9

Note: All other emissions in the frequency range from 30 MHz to 1 GHz are more than 10 dB below the limit.

Result = Reading + Antenna Factor + Loss - Gain

Loss = Cable Loss + Antenna Pad Loss

Margin = Limit - Result

Result is rounded off to one decimal place.

BL = Bi-log Antenna

Operation mode	: Mode 1	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: 3 m semi-anechoic chamber II
Comment	: Above 1 GHz	Distance	: 3.5 m
Detector	: PK, AV	Engineer	: E. Taguchi

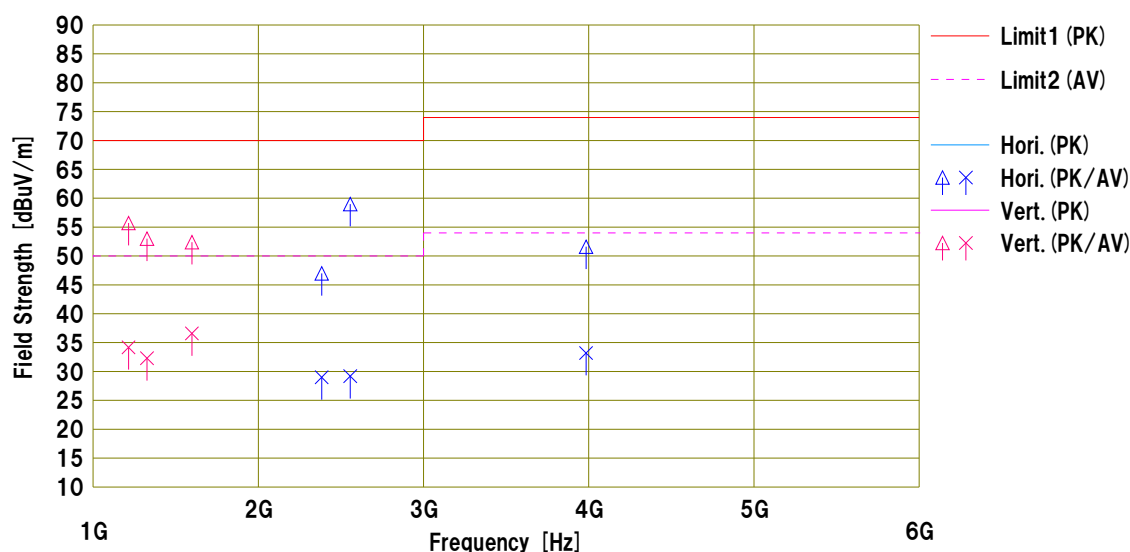
Horn antenna (EH118) minimum dimension of w

Frequency[GHz]	1	2	3	4	5	6
w[m]	5.02	3.48	2.42	2.42	2.46	2.61

w: The dimension of the line tangent to the EUT formed by 3 dB beam width at the measurement distance.

Limit1: [CNS13438] Class B (PK)

Limit2: [CNS13438] Class B (AV)



No.	Freq. [MHz]	Reading		Ant. Type	Ant.Fac [dB/m]	Loss [dB]	Gain [dB]	D.Fac [dB]	Result		Height [cm]	Angle [deg]	Pola. [H/V]	Limit		Margin	
		<PK>	<AV>						<PK>	<AV>				<PK>	<AV>	<PK>	<AV>
		[dBuV]	[dBuV]						[dBuV/m]	[dBuV/m]				[dBuV/m]	[dBuV/m]	[dB]	[dB]
1	1214.924	62.2	40.7	HN	25.2	5.8	38.2	0.7	55.7	34.2	104.9	155.8	Vert.	70.0	50.0	14.3	15.8
2	1326.945	58.6	37.9	HN	25.6	6.1	38.0	0.7	53.0	32.3	136.6	126.5	Vert.	70.0	50.0	17.0	17.7
3	1598.834	55.8	40.0	HN	26.9	6.7	37.7	0.7	52.4	36.6	113.0	23.5	Vert.	70.0	50.0	17.6	13.4
4	2384.055	47.1	29.1	HN	28.4	8.2	37.4	0.7	47.0	29.0	108.3	141.6	Hori.	70.0	50.0	23.0	21.0
5	2556.991	58.1	28.3	HN	29.1	8.5	37.4	0.7	59.0	29.2	109.8	65.1	Hori.	70.0	50.0	11.0	20.8
6	3983.999	46.2	27.8	HN	30.8	10.9	37.0	0.7	51.6	33.2	0.0	196.8	Hori.	74.0	54.0	22.4	20.8

Note: All other emissions in the frequency range from 1 GHz to 6 GHz are more than 10 dB below the limit.

Result = Reading + Antenna Factor + Loss - Gain + D. Fac

Loss = Cable Loss

D. Fac (Distance Conversion Factor) = $20 \times \log(\text{Distance} / 3)$

D. Fac is a factor to adjust a Result to the value of the distance 3 m, assuming free space propagation.

Margin = Limit - Result

Result is rounded off to one decimal place.

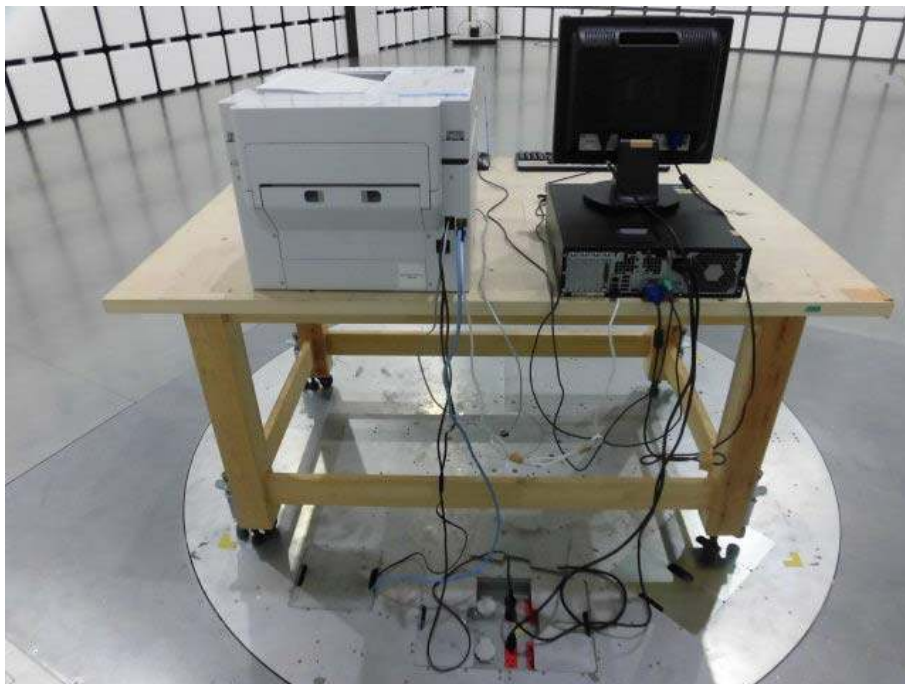
HN = Horn Antenna

5.5 Configuration photographs of radiated disturbance emission

(Below 1 GHz)



Front view

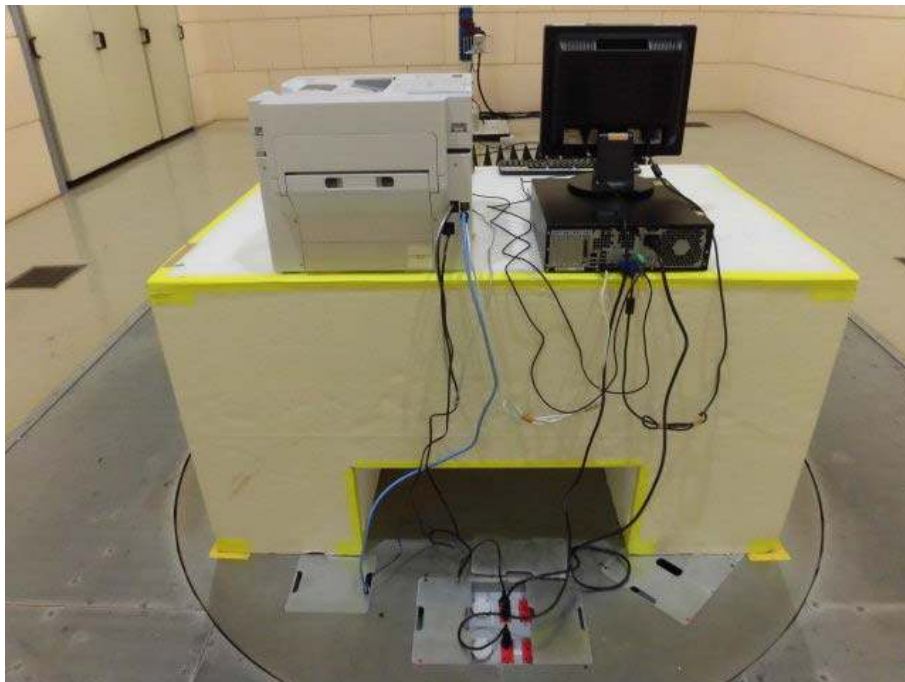


Rear view

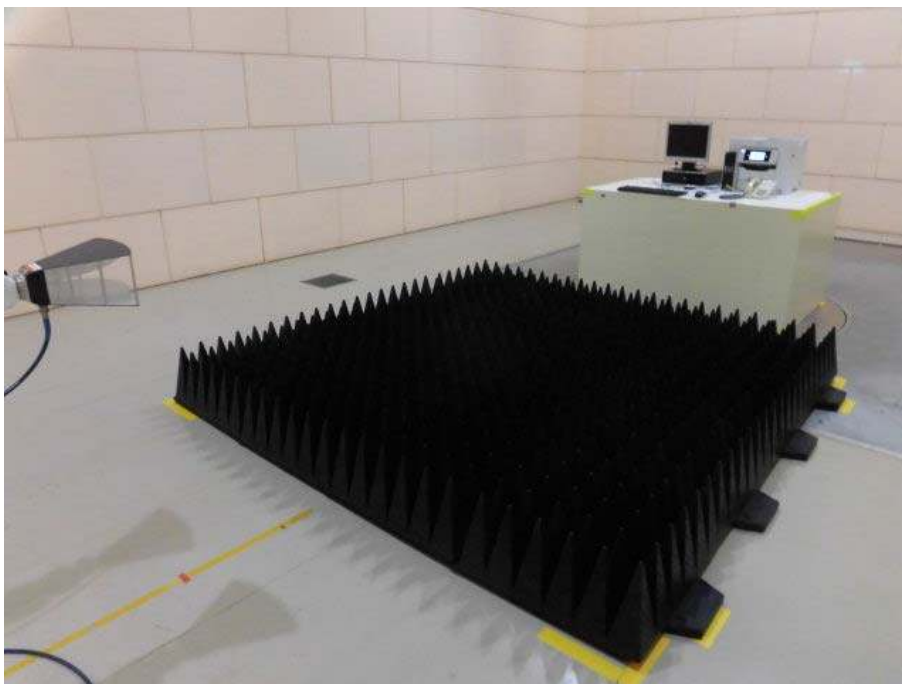
(Above 1 GHz)



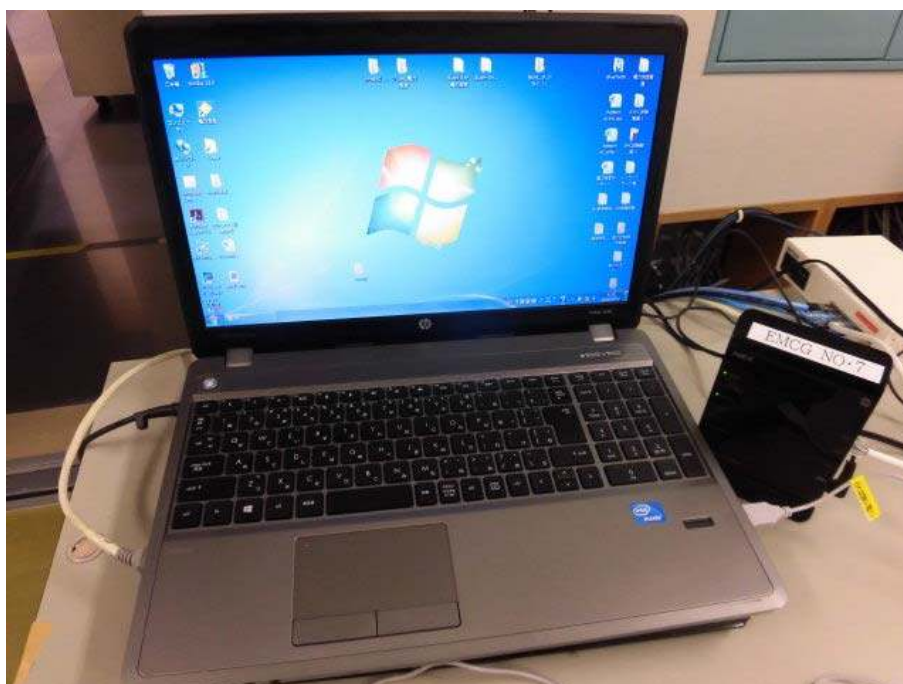
Front view



Rear view



Layout of above 1 GHz



Setup of Wireless Lan system



Setup of FAX system

6. LIST OF UTILIZED TEST EQUIPMENT

The utilized instruments are calibrated by a body that can provide traceability to a national standard.

Conducted disturbance emission

Instrument / facility	Manufacturer	Model Number	Serial Number	Last calibrated Date	Calibration Due Date
AMN(LISN)	Rohde & Schwarz	ESH2-Z5	100126	Jun. 05 2019	Jun. 30 2020
AMN(LISN)	Rohde & Schwarz	ENV216	100135	Jun. 05 2019	Jun. 30 2020
Attenuator (10dB)	Huber+Suhner	6810.01.A	-	Nov. 06 2019	Nov. 30 2020
Coaxial cable (for conduction)	-	L-401-00021	-	Nov. 06 2019	Nov. 30 2020
CON measurement software (Ver.2.6.0156)	TSJ Corporation	TEPTO-DVCE	2.6.0156	-	-
ISN	Kyoritsu Corporation	KNW-2202	8S-2852-1	Oct. 29 2019	Oct. 31 2020
ISN	TESEQ	ISN ST08	43555	Sep. 24 2019	Sep. 30 2020
Step attenuator	Hewlett-Packard	8494A	2631A10189	Nov. 06 2019	Nov. 30 2020
Terminator 50 ohm	Huber+Suhner	65 N-50-0-1	-	Aug. 21 2019	Aug. 31 2020
Terminator 50 ohm	Huber+Suhner	65 BNC-50-0-7	-	Aug. 21 2019	Aug. 31 2020
Terminator 50 ohm	Huber+Suhner	65 BNC-50-0-7	-	Aug. 21 2019	Aug. 31 2020
Test receiver	Rohde & Schwarz	ESR3	101837	Jun. 18 2019	Jun. 30 2020
Wooden table (1.0mx1.5mx0.8m)	-	1.0mx1.5mx0.8m(H)	-	-	-

Radiated disturbance emission (Below 1 GHz)**10m semi-anechoic chamber III**

Instrument / facility	Manufacturer	Model Number	Serial Number	Last calibrated Date	Calibration Due Date
10m SAC (NSA)	RIKEN ENVIRONMENTAL SYSTEM Co., Ltd.	NSA	-	Feb. 18 2020	Feb. 28 2021
Attenuator (6dB)	Agilent Technologies	8491A 006	MY39265132	Feb. 18 2020	Feb. 28 2021
Bi-Log antenna	Schwarzbeck	VULB9168	768	Jan. 20 2020	Jan. 31 2021
Coaxial cable (for d=10m)	-	L-401-00026	-	Feb. 18 2020	Feb. 28 2021
Preamplifier	Schwarzbeck	BBV9745	'99	Feb. 18 2020	Feb. 28 2021
RAD measurement software (Ver.2.6.0230)	TSJ Corporation	TEPTO-DVRE	2.6.0230	-	-
Step attenuator	Hewlett-Packard	8494A	2813A14858	Feb. 18 2020	Feb. 28 2021
Test receiver	Rohde&Schwarz	ESR7	101722	Jun. 20 2019	Jun. 30 2020
Wooden table (1.0mx1.5mx0.8m)	-	1.0mx1.5mx0.8m(H)	-	-	-

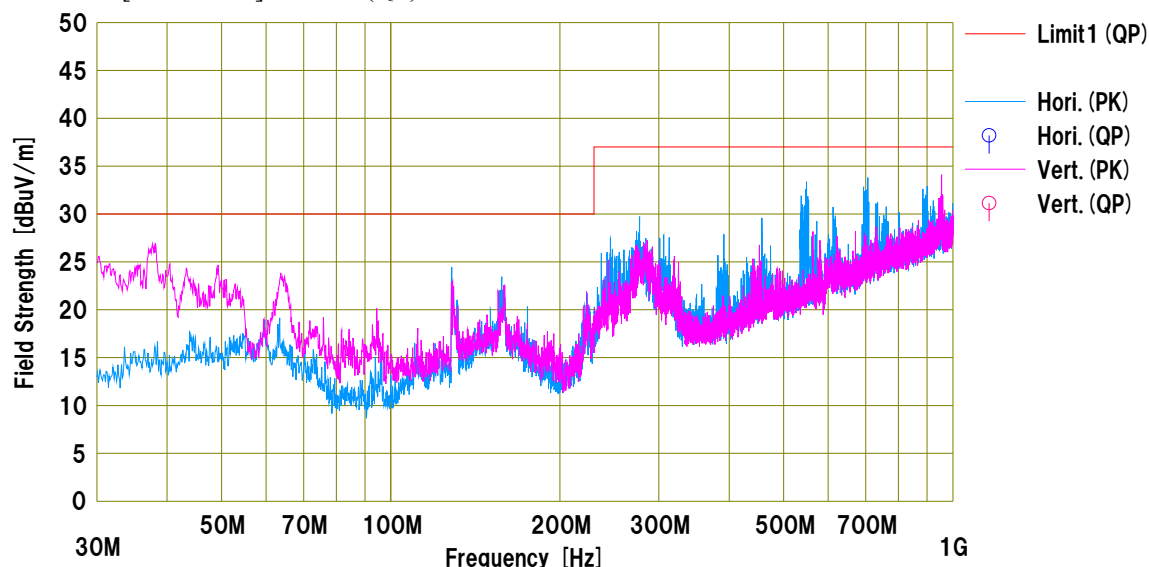
Radiated disturbance emission (Above 1 GHz)**3 m semi-anechoic chamber II**

Instrument / facility	Manufacturer	Model Number	Serial Number	Last calibrated Date	Calibration Due Date
3m SAC (SVSWR)	Akzo kashima limited	SVSWR	-	Aug. 05 2019	Aug. 31 2020
Absorber	Riken Corporation	PFP30	16 pieces	-	-
Band reject filter	Wainwright Instruments	WRCJV 2430/2470-2400/2500-30/6EE	SN1	Aug. 05 2019	Aug. 31 2020
Band reject filter	Wainwright Instruments	WRCJV12-5120-5150-5350-5380-40EE	SN1	Aug. 05 2019	Aug. 31 2020
Coaxial cable (for GHz)	-	L-401-00019	-	Aug. 05 2019	Aug. 31 2020
Horn antenna	Microwave Vision Italy s.r.l.	EH118	EH118-08	Sep. 06 2019	Sep. 30 2020
Preamplifier (for GHz)	Hewlett-Packard	8449B	3008A01274	Aug. 21 2019	Aug. 31 2020
RAD measurement software (Ver.2.6.0230)	TSJ Corporation	TEPTO-DVRE	2.6.0230	-	-
Styrofoam table (1.0mx1.5mx0.8m)	-	1.0mx1.5mx0.8m(H)	-	-	-
Test receiver	Rohde & Schwarz	ESR26	101299	Jun. 19 2019	Jun. 30 2020

Appendix A . Pre-Scan data of radiated emission test

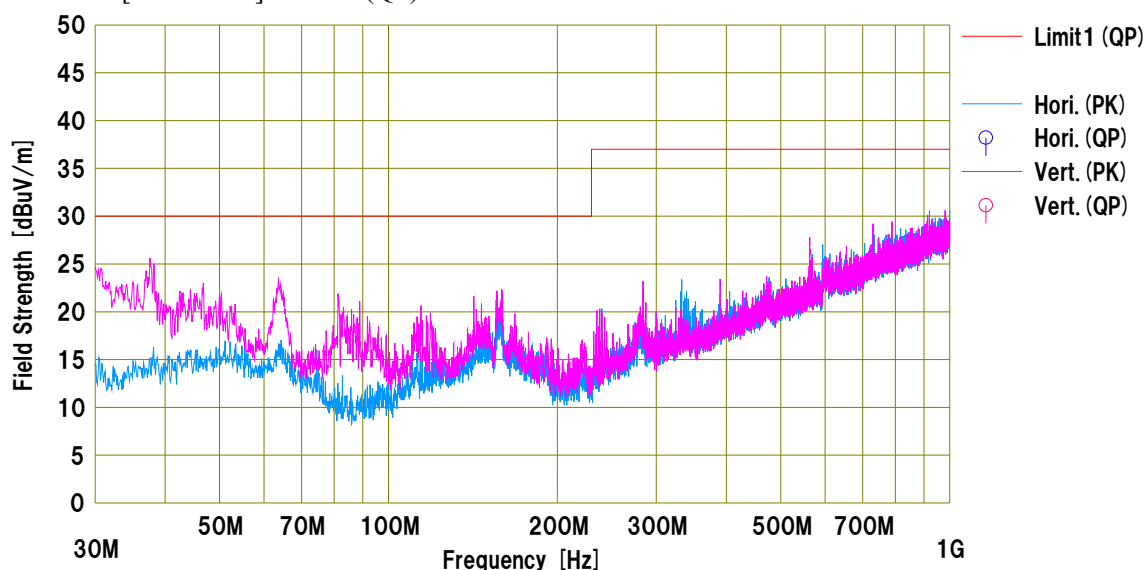
Operation mode	: Mode 1	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 27 °C
Model name	: C762C	Humidity	: 36 %
Serial number	: HRE9000003	Location	: 10 m semi-anechoic chamber III
Comment	: Below 1GHz	Distance	: 10 m
Detector	: QP	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (QP)



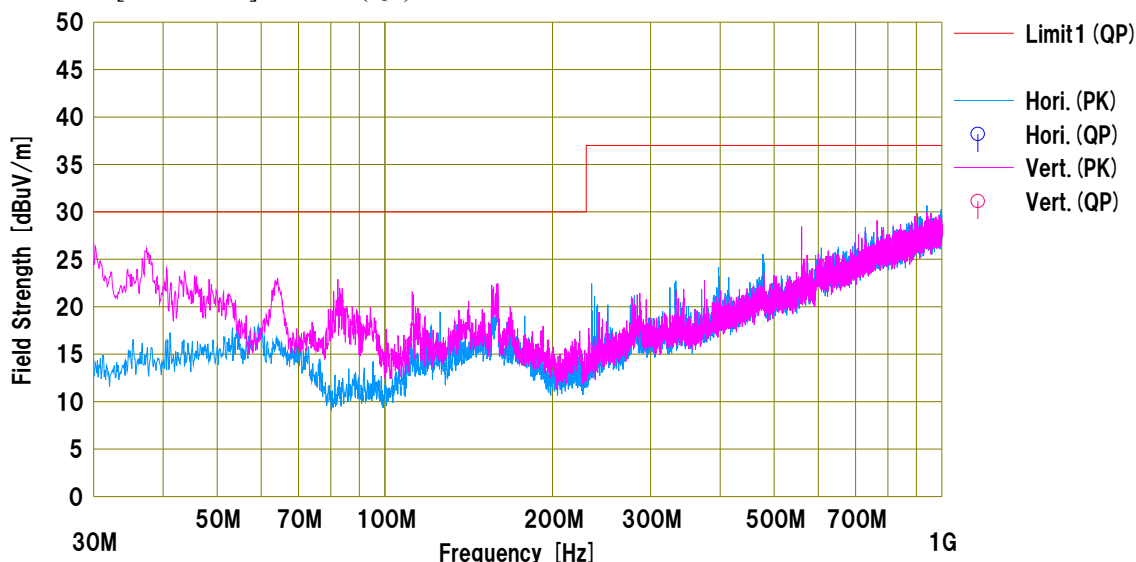
Operation mode	: Mode 2	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 27 °C
Model name	: C762C	Humidity	: 36 %
Serial number	: HRE9000003	Location	: 10 m semi-anechoic chamber III
Comment	: Below 1GHz	Distance	: 10 m
Detector	: QP	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (QP)



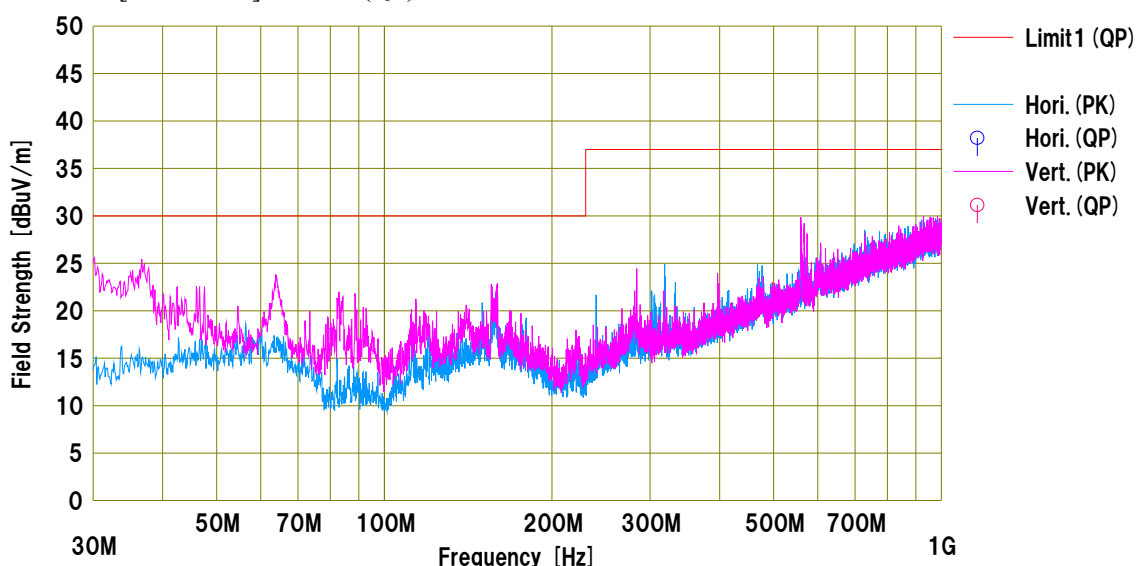
Operation mode	: Mode 3	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 27 °C
Model name	: C762C	Humidity	: 36 %
Serial number	: HRE9000003	Location	: 10 m semi-anechoic chamber III
Comment	: Below 1GHz	Distance	: 10 m
Detector	: QP	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (QP)



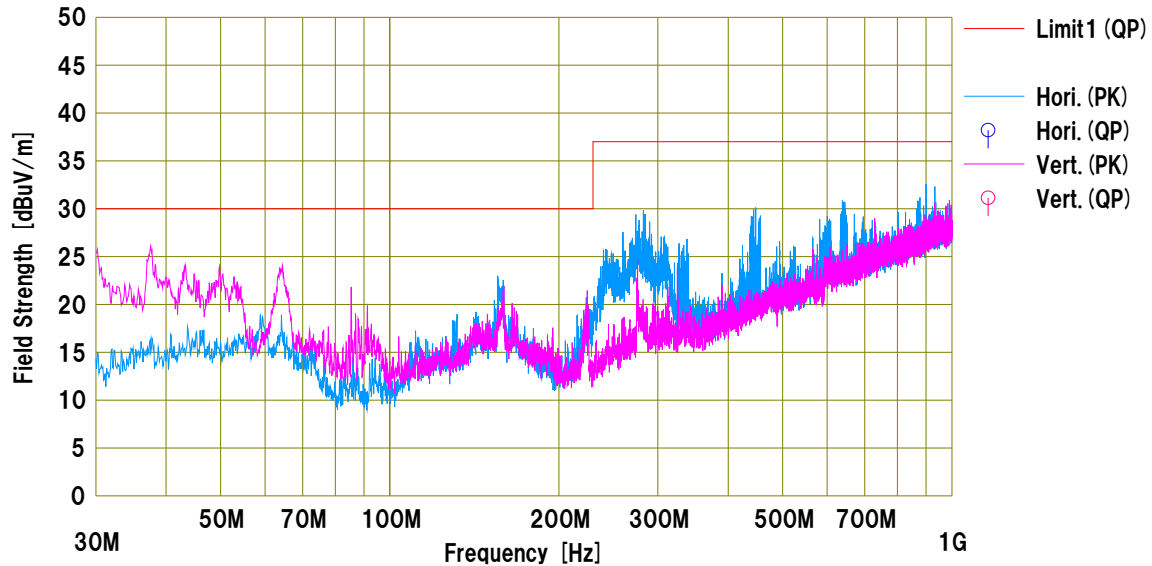
Operation mode	: Mode 4	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 27 °C
Model name	: C762C	Humidity	: 36 %
Serial number	: HRE9000003	Location	: 10 m semi-anechoic chamber III
Comment	: Below 1GHz	Distance	: 10 m
Detector	: QP	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (QP)



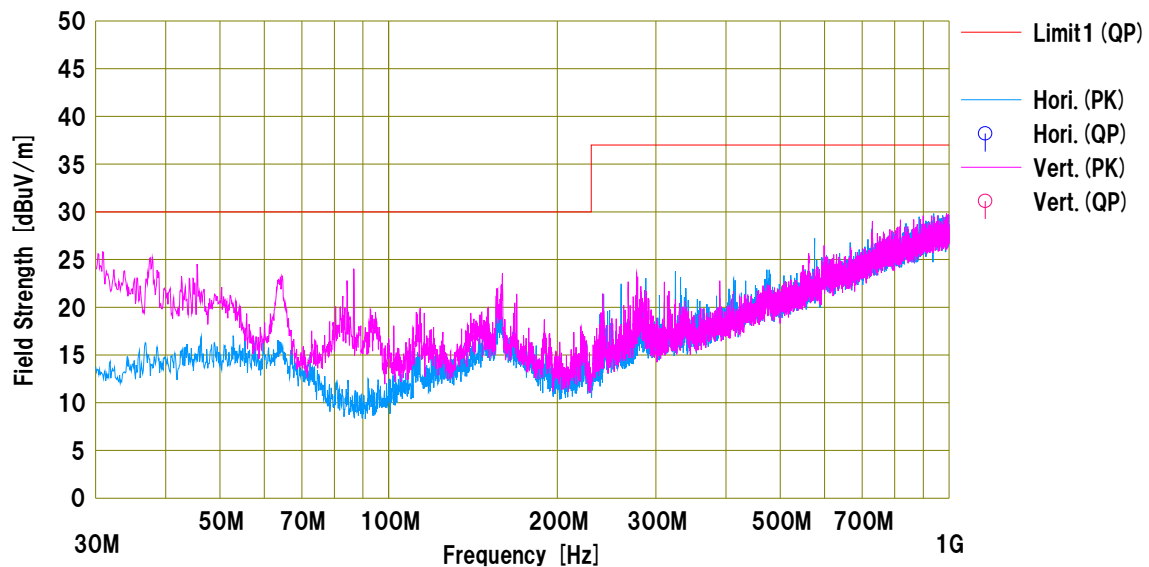
Operation mode	: Mode 5	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 27 °C
Model name	: C762C	Humidity	: 36 %
Serial number	: HRE9000003	Location	: 10 m semi-anechoic chamber III
Comment	: Below 1GHz	Distance	: 10 m
Detector	: QP	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (QP)



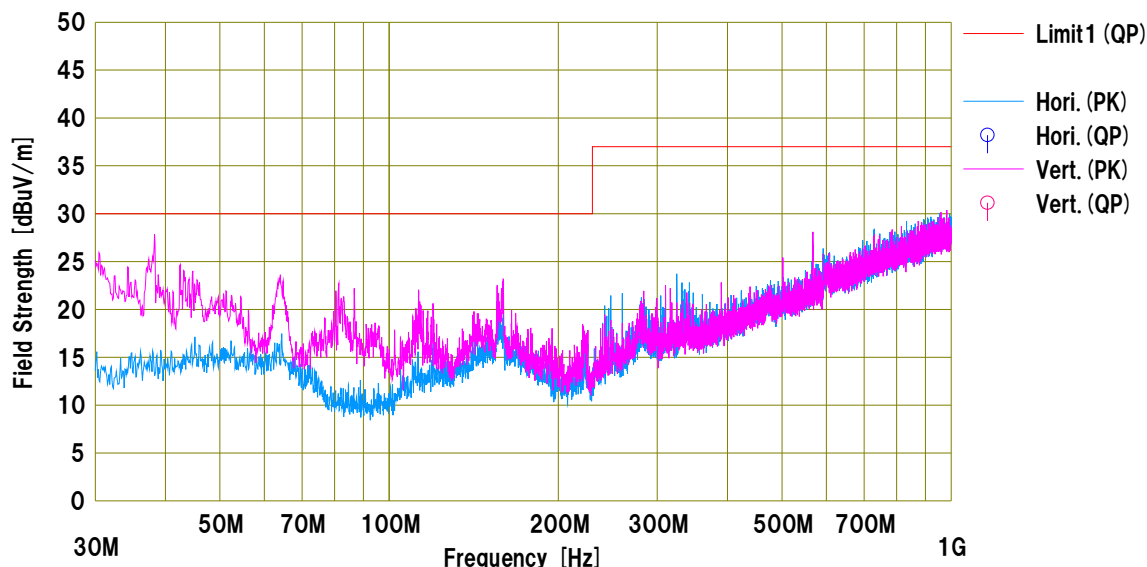
Operation mode	: Mode 6	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 27 °C
Model name	: C762C	Humidity	: 36 %
Serial number	: HRE9000003	Location	: 10 m semi-anechoic chamber III
Comment	: Below 1GHz	Distance	: 10 m
Detector	: QP	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (QP)



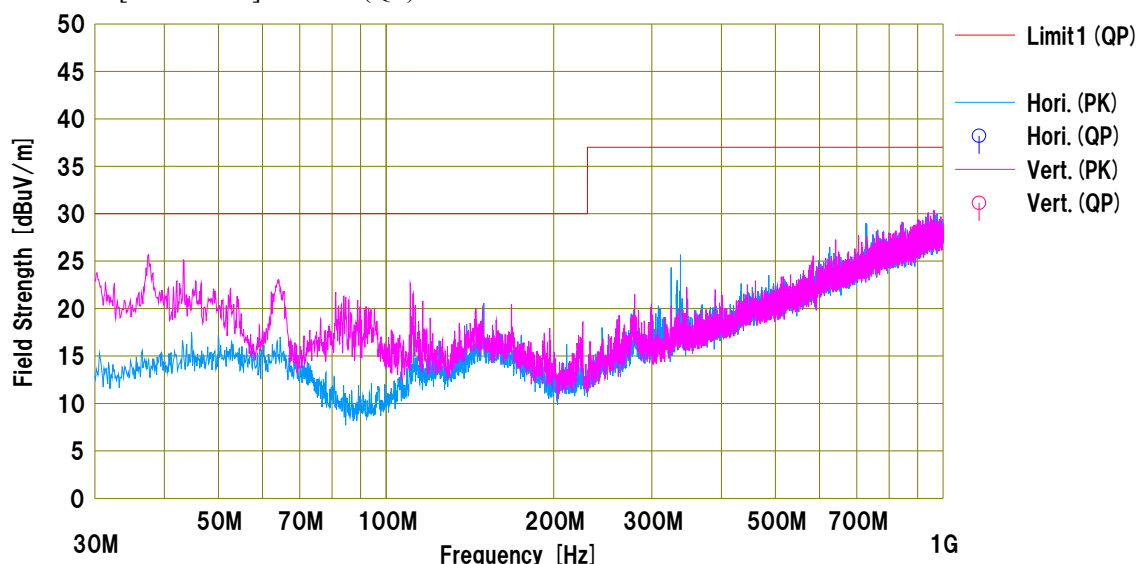
Operation mode	: Mode 7	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 27 °C
Model name	: C762C	Humidity	: 36 %
Serial number	: HRE9000003	Location	: 10 m semi-anechoic chamber III
Comment	: Below 1GHz	Distance	: 10 m
Detector	: QP	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (QP)



Operation mode	: Mode 8	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 27 °C
Model name	: C762C	Humidity	: 36 %
Serial number	: HRE9000003	Location	: 10 m semi-anechoic chamber III
Comment	: Below 1GHz	Distance	: 10 m
Detector	: QP	Engineer	: E. Taguchi

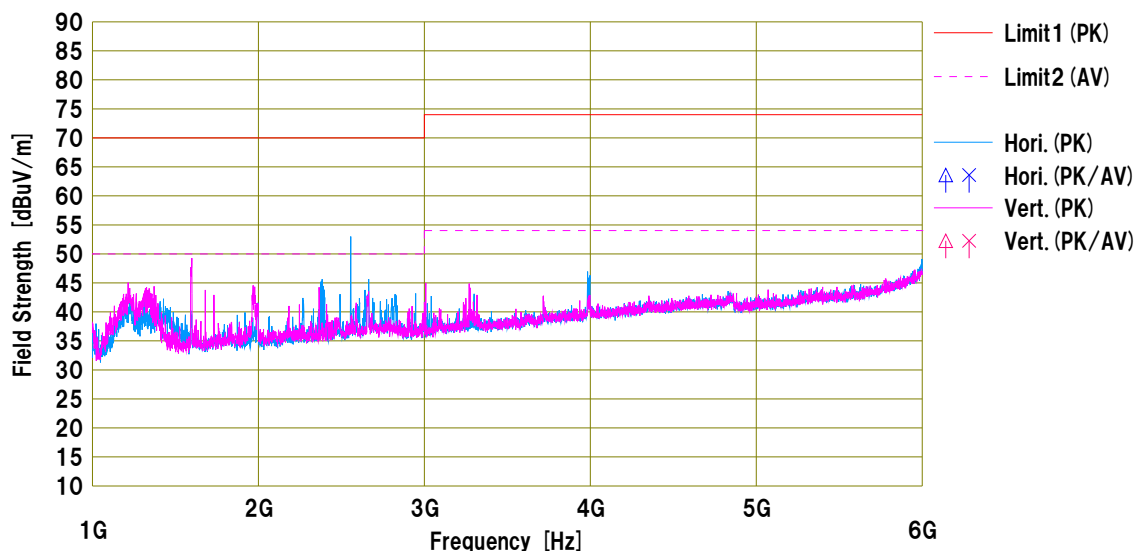
Limit1: [CNS13438] Class B (QP)



Operation mode	: Mode 1	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: 3 m semi-anechoic chamber II
Comment	: Above 1 GHz	Distance	: 3.25 m
Detector	: PK, AV	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (PK)

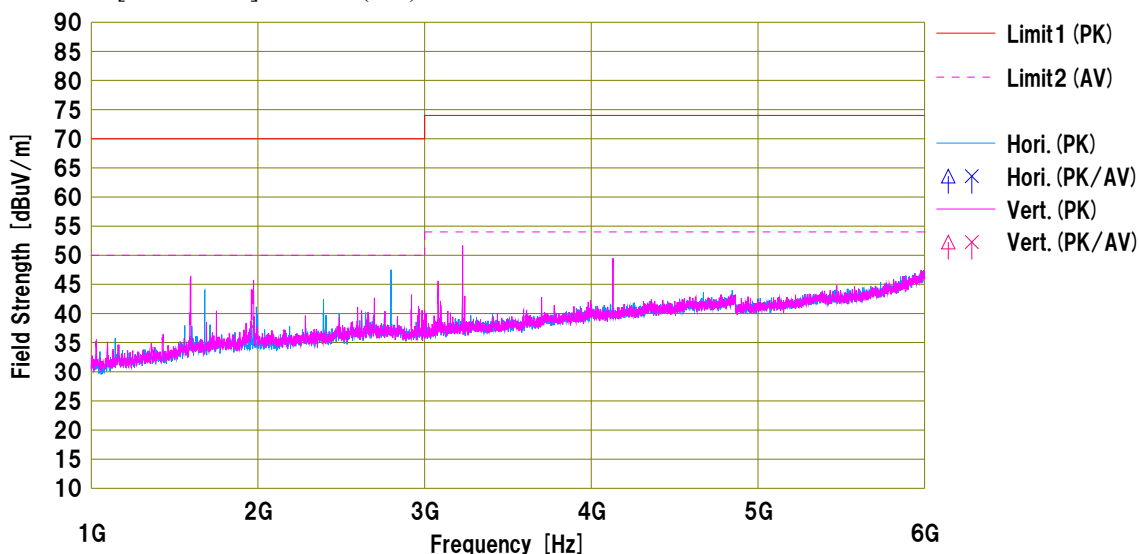
Limit2: [CNS13438] Class B (AV)



Operation mode	: Mode 2	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: 3 m semi-anechoic chamber II
Comment	: Above 1 GHz	Distance	: 3.25 m
Detector	: PK, AV	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (PK)

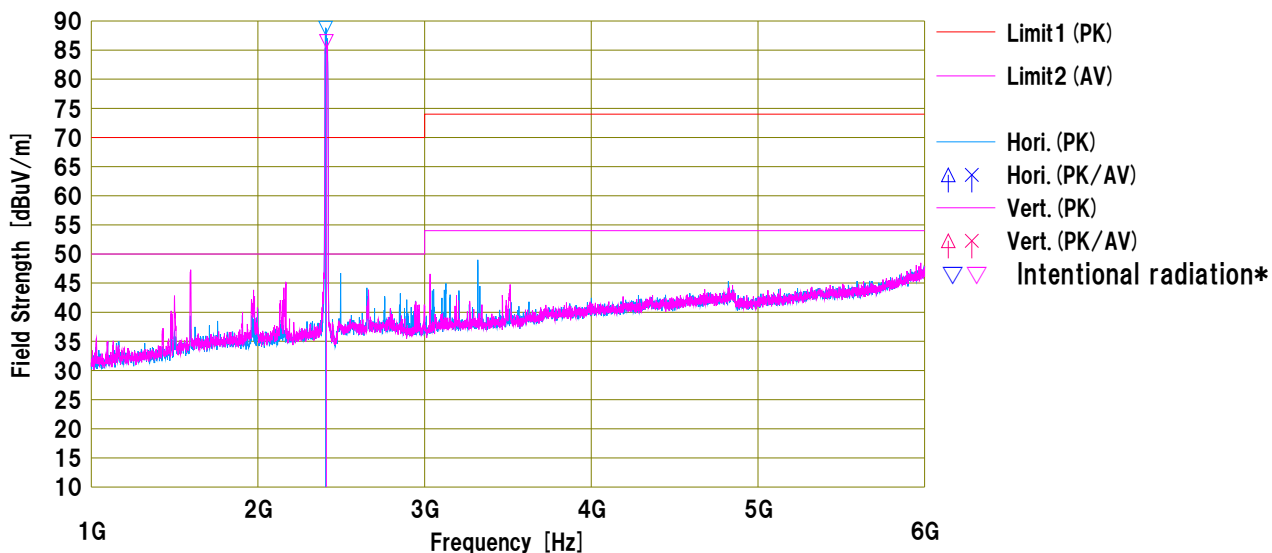
Limit2: [CNS13438] Class B (AV)



Operation mode	: Mode 3	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: 3 m semi-anechoic chamber II
Comment	: Above 1 GHz	Distance	: 3.25 m
Detector	: PK, AV	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (PK)

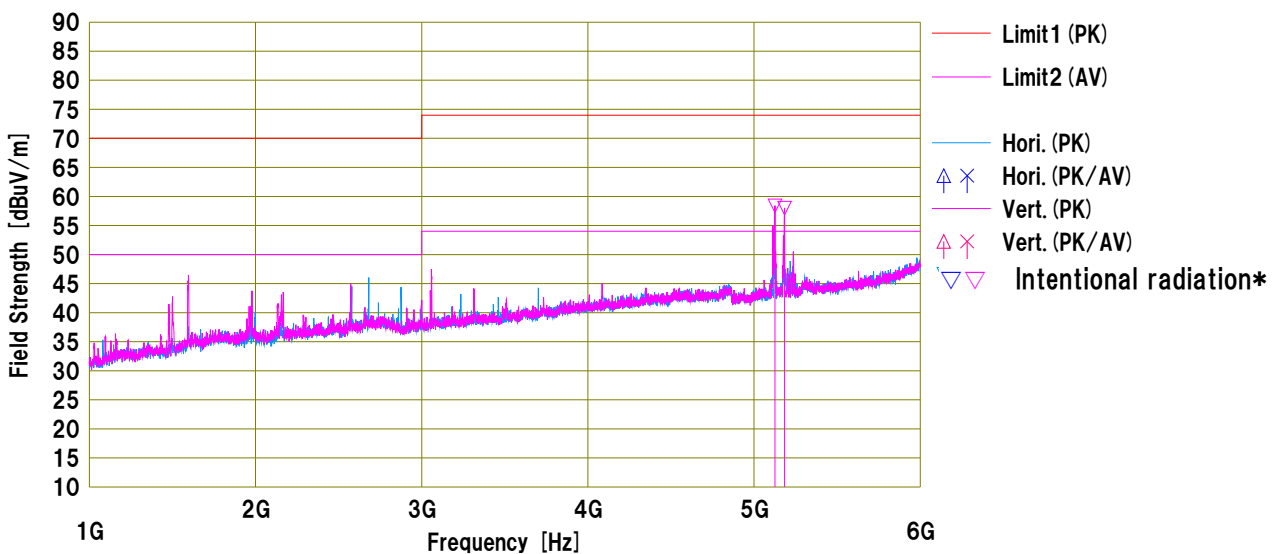
Limit2: [CNS13438] Class B (AV)



Operation mode	: Mode 4	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: 3 m semi-anechoic chamber II
Comment	: Above 1 GHz	Distance	: 3.25 m
Detector	: PK, AV	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (PK)

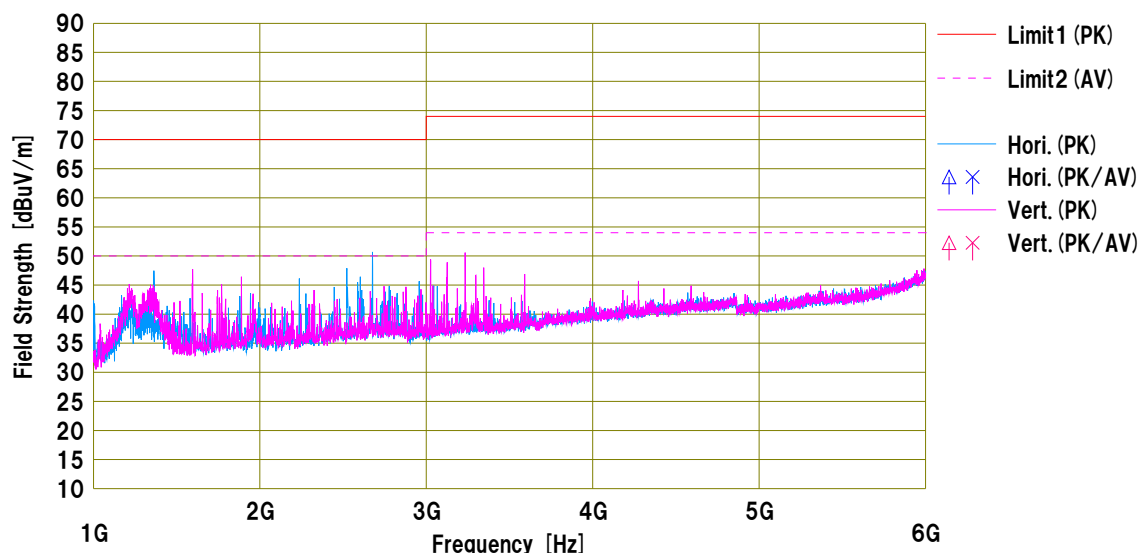
Limit2: [CNS13438] Class B (AV)



Operation mode	: Mode 5	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: 3 m semi-anechoic chamber II
Comment	: Above 1 GHz	Distance	: 3.25 m
Detector	: PK, AV	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (PK)

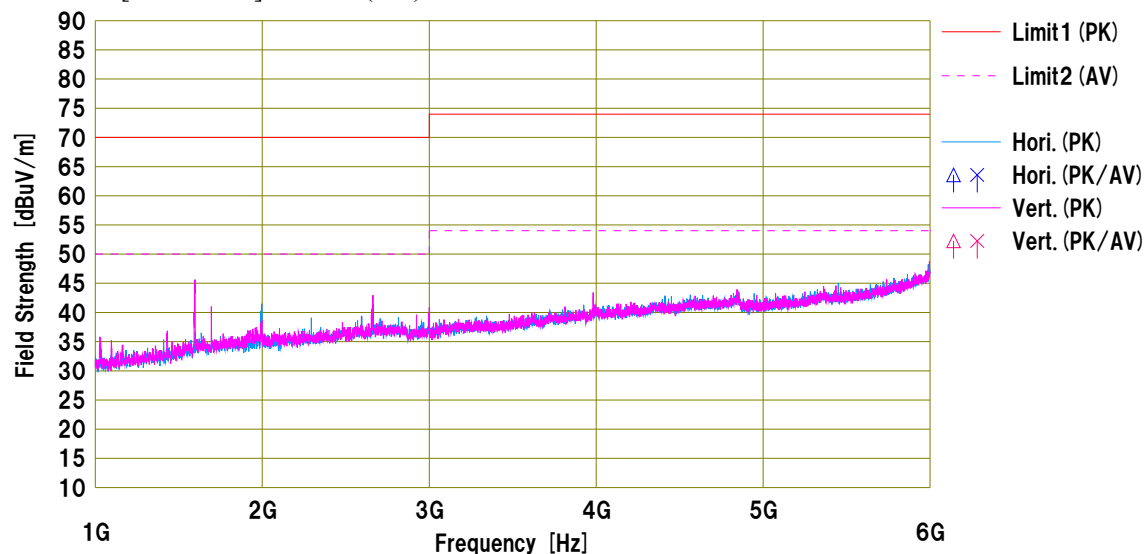
Limit2: [CNS13438] Class B (AV)



Operation mode	: Mode 6	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: 3 m semi-anechoic chamber II
Comment	: Above 1 GHz	Distance	: 3.25 m
Detector	: PK, AV	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (PK)

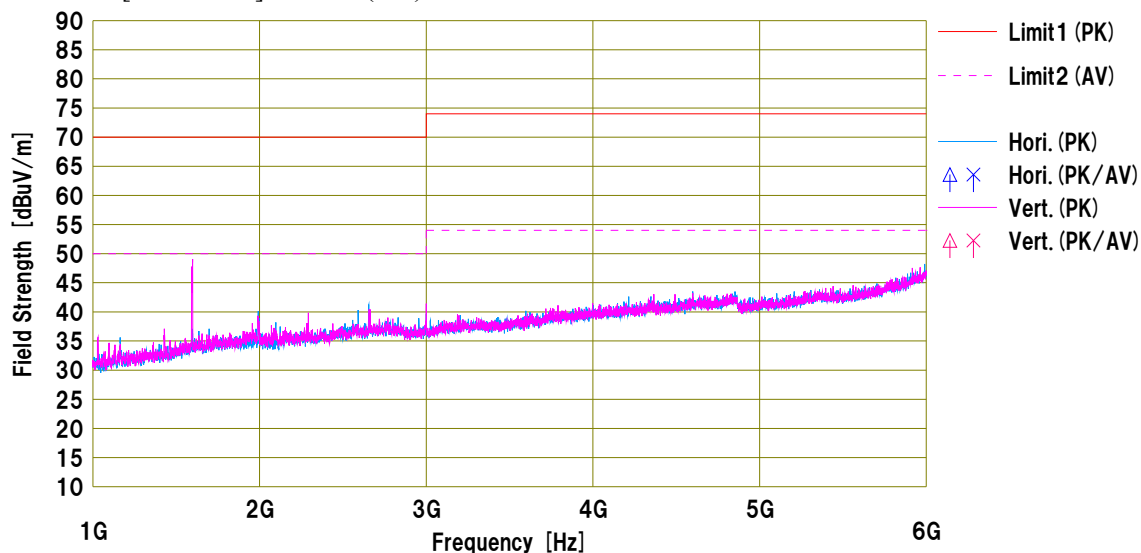
Limit2: [CNS13438] Class B (AV)



Operation mode	: Mode 7	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: 3 m semi-anechoic chamber II
Comment	: Above 1 GHz	Distance	: 3.25 m
Detector	: PK, AV	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (PK)

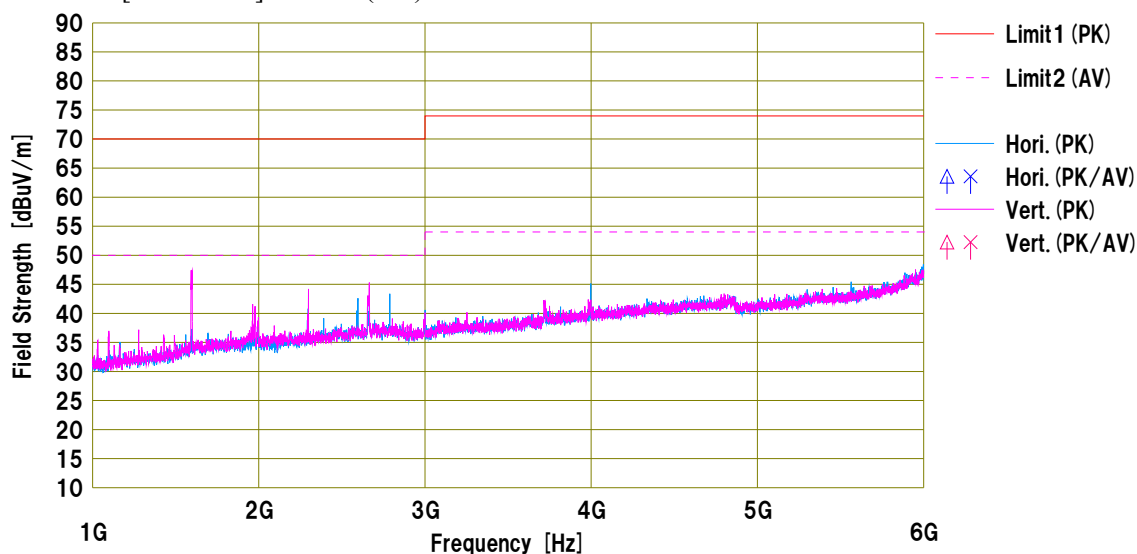
Limit2: [CNS13438] Class B (AV)



Operation mode	: Mode 8	Date	: Mar. 7 2020
Kind of equipment	: Multi function printer	Temperature	: 22 °C
Model name	: C762C	Humidity	: 29 %
Serial number	: HRE9000003	Location	: 3 m semi-anechoic chamber II
Comment	: Above 1 GHz	Distance	: 3.25 m
Detector	: PK, AV	Engineer	: E. Taguchi

Limit1: [CNS13438] Class B (PK)

Limit2: [CNS13438] Class B (AV)



Appendix B. Revision history

Revision	Test report No.	Date	Page revised	Contents
Original	E-103-190871	Apr. 1, 2020	-	-

-The end of this test report-