

FCC Test Report

Report No.: RFBIBJ-WTW-P22110693-3

FCC ID: HBW-VKP1

Test Model: VKP1-MYQ MC, VKP1-LM MC, VKP1-RJO MC

Received Date: Dec. 02, 2022

Test Date: Jan. 11 ~ Mar. 16, 2023

Issued Date: Mar. 16, 2023

Applicant: The Chamberlain Group Inc

Address: 300 Windsor Drive Oakbrook, IL 60523

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lin Kou Laboratories

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Test Location (1): No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City
33383, Taiwan

**FCC Registration /
Designation Number (1):** 788550 / TW0003

Test Location (2): No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

**FCC Registration /
Designation Number (2):** 281270 / TW0032



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Release Control Record

Issue No.	Description	Date Issued
RFBIBJ-WTW-P22110693-3	Original Release	Mar. 16, 2023

1 Certificate of Conformity

Product: SMART GARAGE VIDEO KEYPAD

Brand: myQ

Test Model: VKP1-MYQ MC, VKP1-LM MC, VKP1-RJO MC

Sample Status: Engineering Sample

Applicant: The Chamberlain Group Inc

Test Date: Jan. 11 ~ Mar. 16, 2023

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.231)
ANSI C63.10: 2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : Pettie Chen, **Date:** Mar. 16, 2023
Pettie Chen / Senior Specialist

Approved by : Jeremy Lin, **Date:** Mar. 16, 2023
Jeremy Lin / Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.231)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	Pass	Meet the requirement of limit. Minimum passing margin is -9.71 dB at 0.48200 MHz.
15.209 15.231(b)	Radiated Emission Test	Pass	Meet the requirement of limit. Minimum passing margin is -3.3 dB at 390.00 MHz.
15.231(c)	Emission Bandwidth Measurement	Pass	Meet the requirement of limit.
15.231(a)	De-activation	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	No antenna connector is used.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement	Frequency	Expanded Uncertainty (k=2) (\pm)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.79 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.00 dB
	30MHz ~ 200MHz	2.91 dB
	200MHz ~ 1000MHz	2.92 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	1.76 dB
	18GHz ~ 40GHz	1.77 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	SMART GARAGE VIDEO KEYPAD
Brand	myQ
Test Model	VKP1-MYQ MC, VKP1-LM MC, VKP1-RJO MC
Sample Status	Engineering Sample
Power Supply Rating	3.7Vdc (From battery)
Modulation Type	OOK
Operating Frequency	315MHz, 390MHz
Field Strength	88.8 dBuV/m
Antenna Type	Refer to Note as below
Antenna Connector	Refer to Note as below
Accessory Device	Refer to Note as below
Cable Supplied	Refer to Note as below

Note:

1. The EUT uses following accessory.

Battery		
Brand	Model	Specification
myQ	18650MH1-1S2P	Power Rating : 3.7V

2. The antenna information is listed as below.

Ant. No.	P/N	Gain (dBi)		Antenna Type	Connector Type
		315 MHz	390 MHz		
3	RFFPA451800NNUB001	-13.47	-10.61	FPC	NA

3. The EUT is not capable of simultaneous transmission.
4. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.
5. EUT is a manually operated transmitter.
6. Only radiated measurements are used to show compliance with FCC limits for fundamental and spurious emissions.

3.2 Description of Test Modes

5 channels are provided to this EUT

Code	Channel	Freq. (MHz)
Code B	28	390
Code D	29	315
	30	390
Code E	35	315
	36	390

3.2.1 Test Mode Applicability and Tested Channel Data

EUT Configure Mode	Applicable to					Description
	RE ≥ 1G	RE < 1G	PLC	EB	DT	
-	√	√	√	√	√	-

Where RE≥1G: Radiated Emission above 1GHz
 RE<1G: Radiated Emission below 1GHz
 PLC: Power Line Conducted Emission
 EB: 20dB Bandwidth measurement
 DT: Deactivation Time measurement

Note: The EUT is positioned on the z-plane only.

Radiated Emission Test (Above 1GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Channel	Tested Channel	Code
-	28	28	B
-	29, 30	29, 30	D
-	35, 36	35, 36	E

Radiated Emission Test (Below 1GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Channel	Tested Channel	Code
-	28	28	B
-	29, 30	29, 30	D
-	35, 36	35, 36	E

Power Line Conducted Emission Test:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Channel	Tested Channel	Code
-	35, 36	36	E

Emission Bandwidth Measurement:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Channel	Tested Channel	Code
-	28	28	B
-	29, 30	29, 30	D
-	35, 36	35, 36	E

Deactivation Time Measurement:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Available Channel	Tested Channel	Code
-	28	28	B
-	29, 30	29, 30	D
-	35, 36	35, 36	E

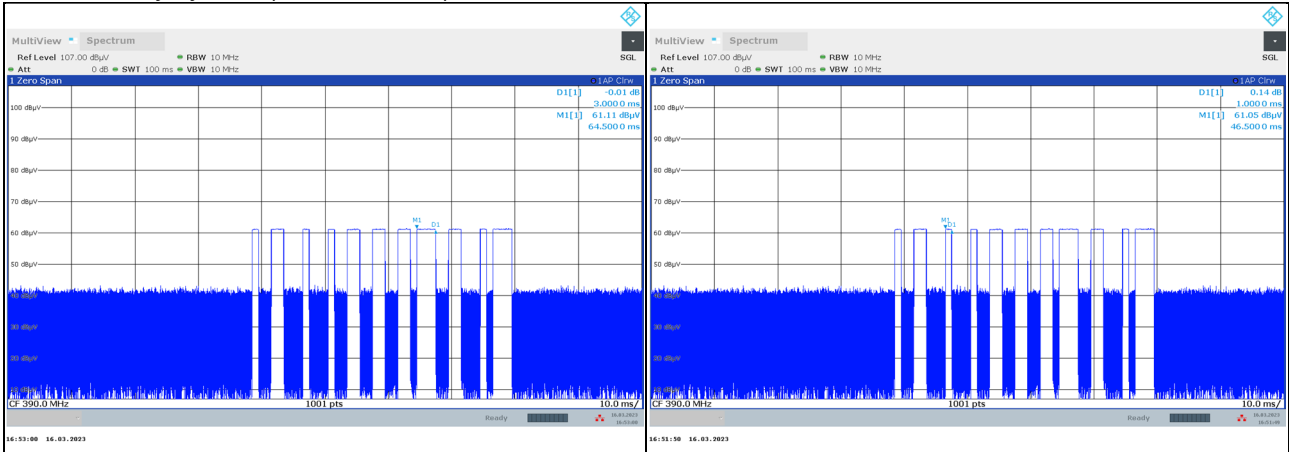
Test Condition:

Applicable to	Environmental Conditions	Input Power	Tested by
RE \geq 1G	22 deg. C, 66 % RH	120 Vac, 60 Hz	Edison Lee
RE<1G	22 deg. C, 66 % RH	120 Vac, 60 Hz	Edison Lee
PLC	25 deg. C, 75 % RH	120 Vac, 60 Hz	Greg Lin
EB/DT	22 deg. C, 66 % RH	120 Vac, 60 Hz	Edison Lee

3.3 Duty Cycle of Test Signal

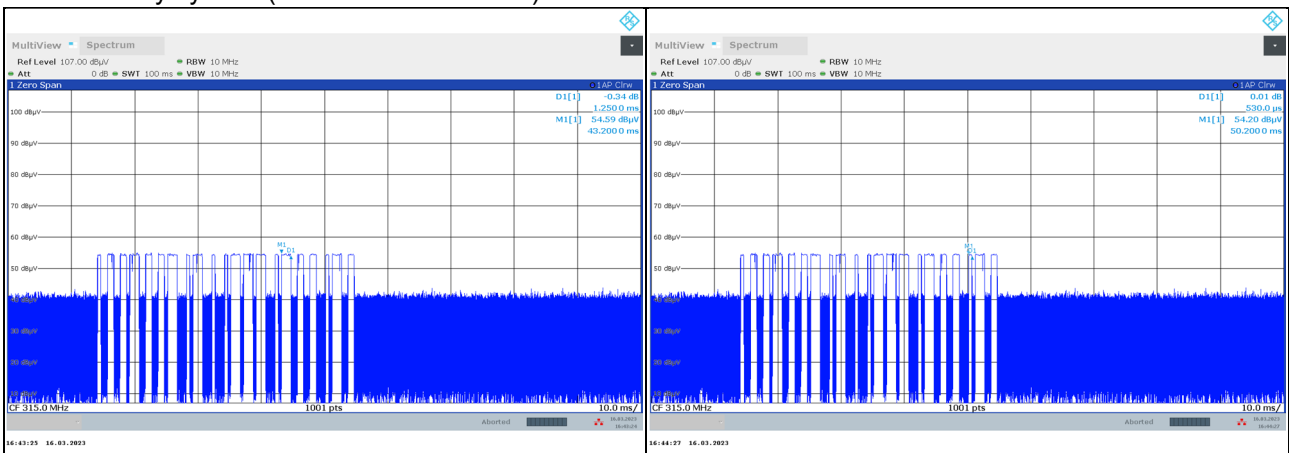
Code B:

390MHz: Duty cycle = $(3\text{ms} \cdot 7 + 1\text{ms} \cdot 4) / 100\text{ ms} \times 100\% = 25\%$

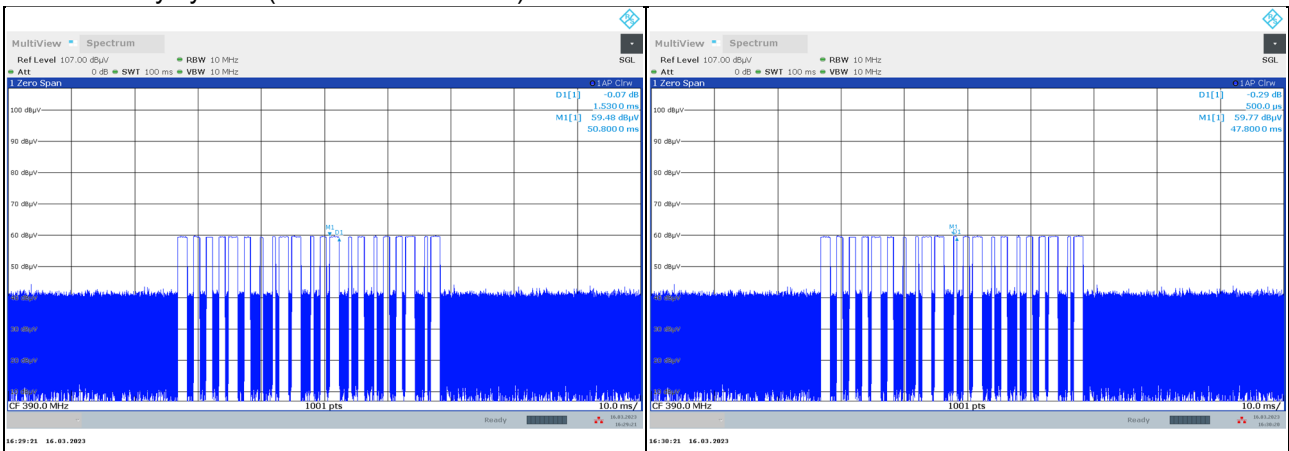


Code D:

315MHz: Duty cycle = $(1.25\text{ms} \cdot 15 + 0.53\text{ms} \cdot 6) / 100\text{ ms} \times 100\% = 26.13\%$

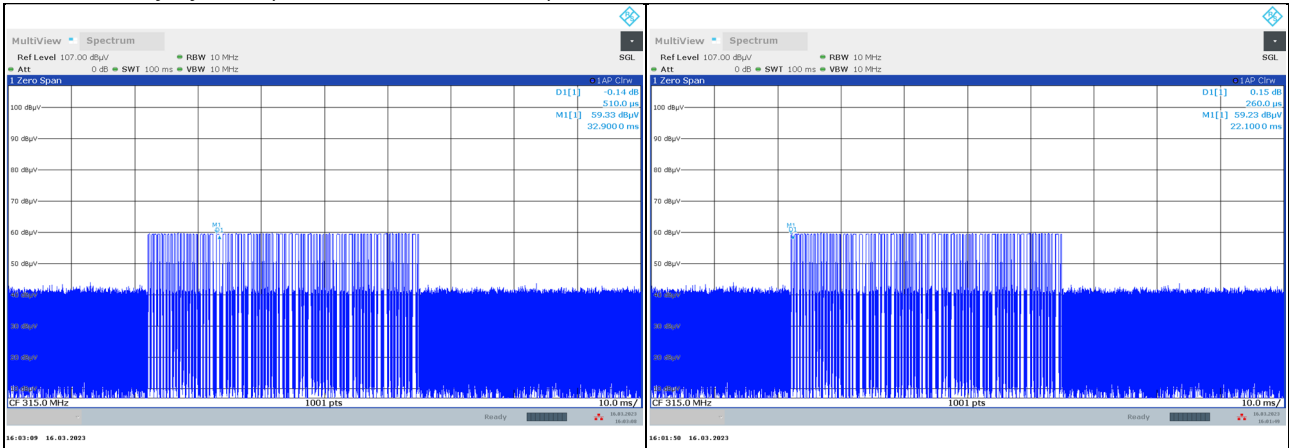


390MHz: Duty cycle = $(1.53\text{ms} \cdot 15 + 0.5\text{ms} \cdot 6) / 100\text{ ms} \times 100\% = 25.95\%$

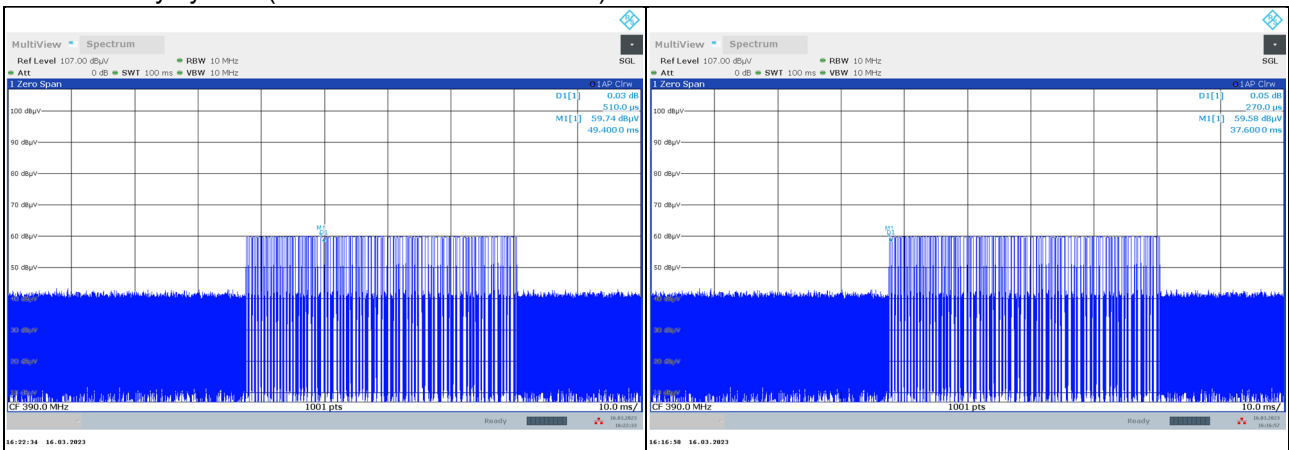


Code E:

315MHz: Duty cycle = $(0.51\text{ms} \times 15 + 0.26\text{ms} \times 57) / 100 \text{ ms} \times 100\% = 22.47\%$



390MHz: Duty cycle = $(0.51\text{ms} \times 17 + 0.27\text{ms} \times 52 / 100) / 100 \text{ ms} \times 100\% = 22.71\%$



3.4 Description of Support Units

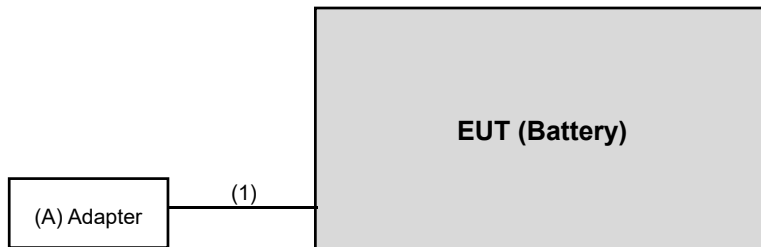
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Adapter	ASUS	AD827M	NA	NA	Provided by Lab
B	Notebook	Lenovo	L440	R9-0GFJJK	NA	Provided by Lab
C	Jig	NA	NA	NA	NA	Supplied by applicant

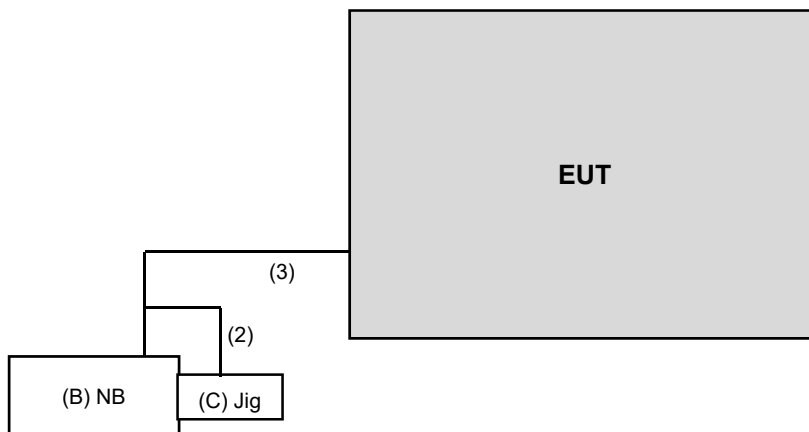
ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	USB Cable	1	1	Yes	0	Provided by Lab
2	Singal Cable	1	0.1	No	0	Supplied by applicant
3	USB Cable	1	0.1	No	0	Supplied by applicant

3.4.1 Configuration of System under Test

AC Power Conducted Emissions



Unwanted Emissions Test



3.5 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

Test standard:

FCC Part 15, Subpart C (15.231)

ANSI C63.10- 2013

All test items have been performed and recorded as per the above standards.

4 Test Types and Results

4.1 Radiated Emission Measurement

4.1.1 Limits of Radiated Emission Measurement

Fundamental Frequency (MHz)	Field Strength of Fundamental		Field Strength of Spurious	
	uV/meter	dBuV/meter	uV/meter	dBuV/meter
40.66 ~ 40.70	2250	67.04	225	48.04
70 ~ 130	1250	61.94	125	41.94
130 ~ 174	1250 ~ 3750	61.94 ~ 71.48	125 ~ 375	41.94 ~ 51.48
174 ~ 260	3750	71.48	375	51.48
260 ~ 470	3750 ~ 12500	71.48 ~ 81.94	375 ~ 1250	51.48 ~ 61.94
Above 470	12500	81.94	1250	61.94

Note:

- Where F is the frequency in MHz, the formula for calculating the maximum permitted fundamental field strengths are as follows: for the band 130-174 MHz, uV/m at 3 meters = $56.81818(F)-6136.3636$; for the band 260-470 MHz, uV/m at 3 meters = $41.6667(F)-7083.3333$. The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level.
- The above field strength limits are specified at a distance of 3meters. The tighter limits apply at the band edges.

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	$2400/F(\text{kHz})$	300
0.490 ~ 1.705	$24000/F(\text{kHz})$	30
1.705 ~ 30.0	30	30
30 ~ 88	100	3
88 ~ 216	150	3
216 ~ 960	200	3
Above 960	500	3

Note:

- The lower limit shall apply at the transition frequencies.
- Emission level (dBuV/m) = $20 \log$ Emission level (uV/m).
- For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Antenna Tower Max-Full	MFT-151SS-0.5T	N/A	N/A	N/A
Bi-log Broadband Antenna Schwarzbeck	VULB9168	9168-1213	2022/10/20	2023/10/19
Loop Antenna EMCI	EM-6879	269	2022/9/19	2023/9/18
Loop Antenna TESEQ	HLA 6121	45745	2022/7/27	2023/7/26
Pre-amplifier EMCI	EMC001340	980201	2022/9/23	2023/9/22
Pre_Amplifier EMCI	EMC330N	980782	2023/1/16	2024/1/15
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2023/1/7	2024/1/6
	EMCCFD400-NM-NM-500	201233	2023/1/16	2024/1/15
	EMCCFD400-NM-NM-3000	201235	2023/1/16	2024/1/15
	EMCCFD400-NM-NM-9000	201236	2023/1/16	2024/1/15
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Spectrum Analyzer ROHDE & SCHWARZ	FSW43	101866	2023/1/10	2024/1/9
Test Receiver ROHDE & SCHWARZ	ESR3+	102782	2022/12/12	2023/12/11
Turn Table Max-Full	MF-7802BS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208674	N/A	N/A
Spectrum Analyzer ROHDE & SCHWARZ	FSW43	101867	2022/12/30	2023/12/29

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in WM - 966 chamber 8.
3. Test Date: Feb. 20 ~ Mar. 16, 2023

4.1.3 Test Procedures

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

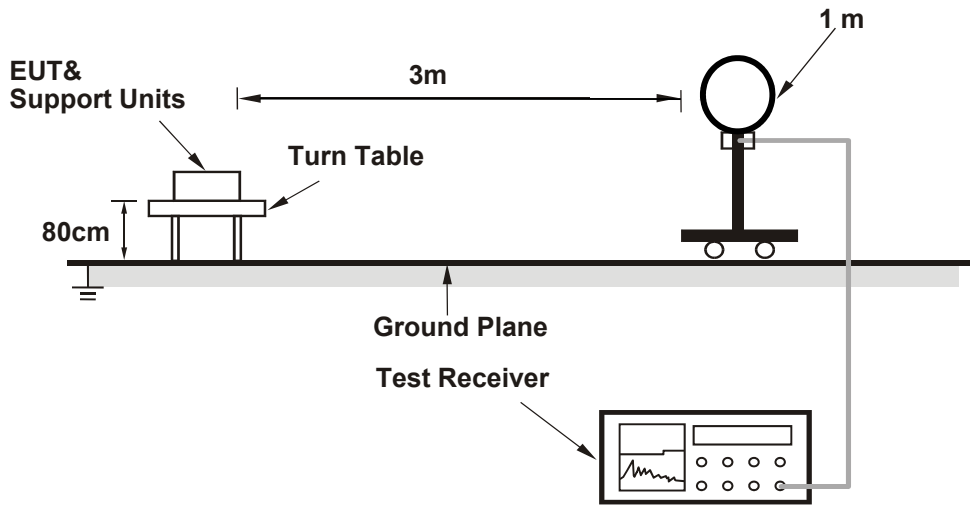
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) or Average detection (AV) and Peak detection (PK) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz. According to ANSI C63.10 section 7.5, the average value = peak value + duty cycle correction factor. The duty cycle correction factor refer to Chapter 3.3 of this report.
3. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

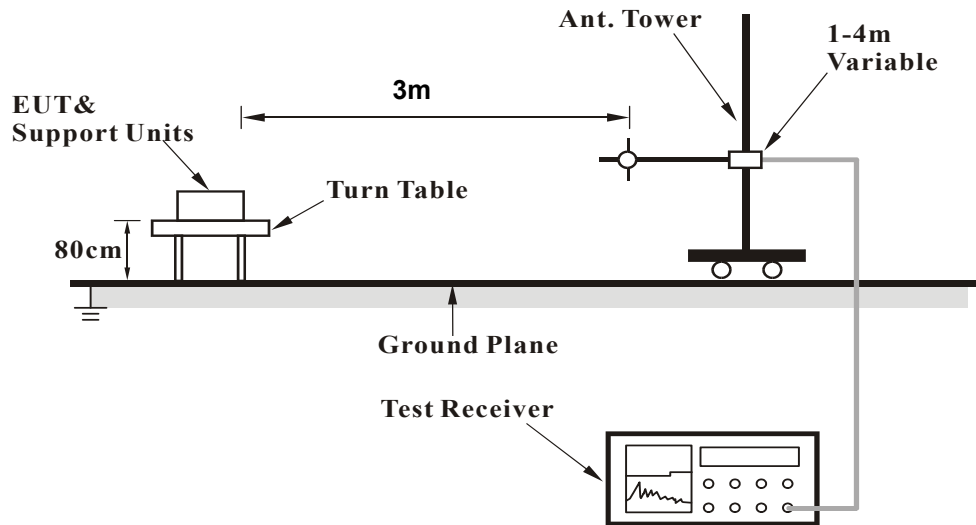
No deviation.

4.1.5 Test Set Up

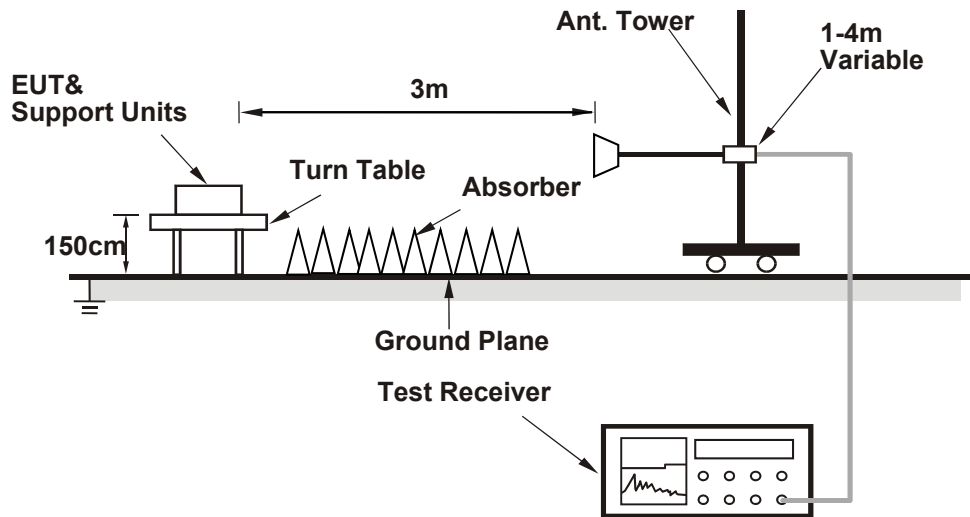
Radiated emission below 30MHz



Radiated emission 30MHz to 1GHz



Radiated emission above 1GHz



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT Operating Conditions

- a. Set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Code B

Frequency Range	390MHz
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Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	390.00	85.0 PK	99.2	-14.2	1.00 H	341	63.5	21.5
2	390.00	73.0 AV	79.2	-6.2	1.00 H	341	51.5	21.5

Remarks:

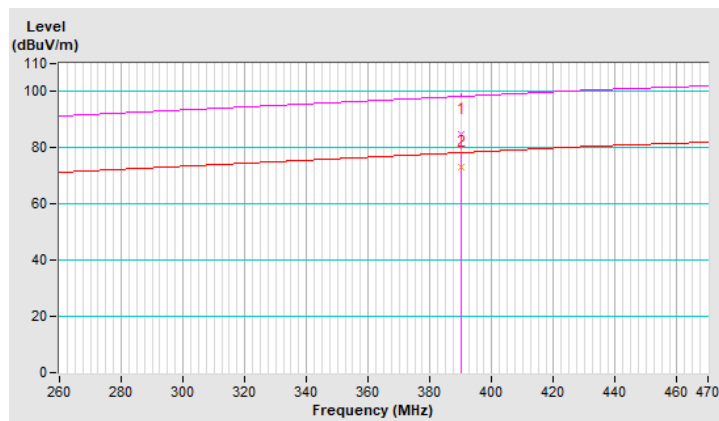
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$$20\text{Log}(\text{Duty cycle}) = 20 \log (25\text{ms}/100) = -12.0\text{dB please refer to the plotted duty}$$

(see section 3.3)



Frequency Range	390MHz
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Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	390.00	81.6 PK	99.2	-17.6	1.44 V	131	60.1	21.5
2	390.00	69.6 AV	79.2	-9.6	1.44 V	131	48.1	21.5

Remarks:

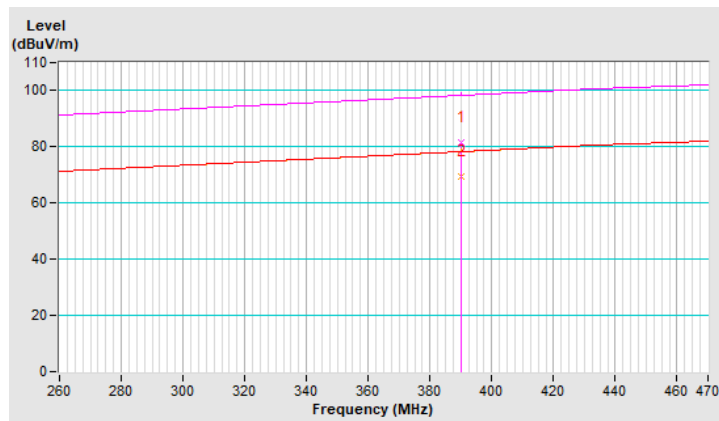
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$$20\text{Log}(\text{Duty cycle}) = 20 \log (25\text{ms}/100) = -12.0\text{dB please refer to the plotted duty}$$

(see section 3.3)



Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	780.00	39.5 PK	79.2	-39.7	1.43 H	110	42.2	-2.7
2	780.00	30.4 AV	59.2	-28.8	1.43 H	110	33.1	-2.7

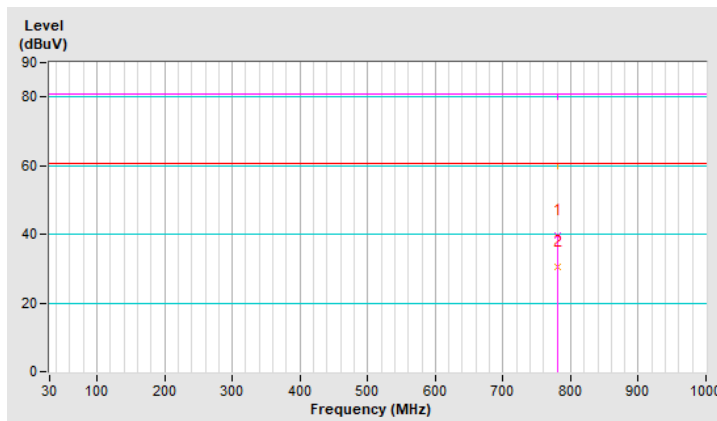
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (25\text{ms}/100) = -12.0\text{dB}$ please refer to the plotted duty (see section 3.3)



Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	780.00	40.4 PK	79.2	-38.8	1.61 V	213	43.1	-2.7
2	780.00	28.4 AV	59.2	-30.8	1.61 V	213	31.1	-2.7

Remarks:

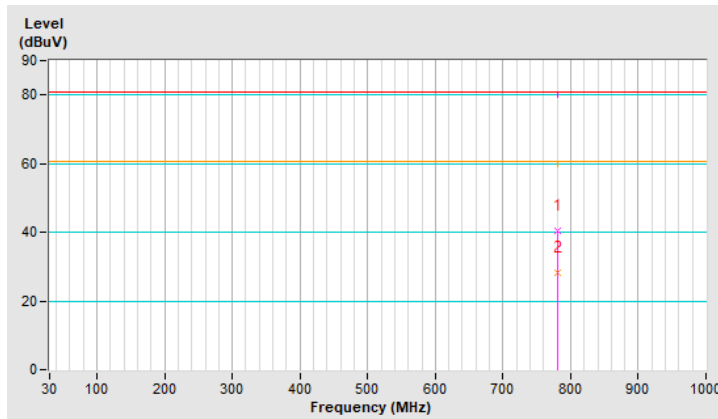
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$$20\text{Log}(\text{Duty cycle}) = 20 \log (25\text{ms}/100) = -12.0\text{dB please refer to the plotted duty}$$

(see section 3.3)



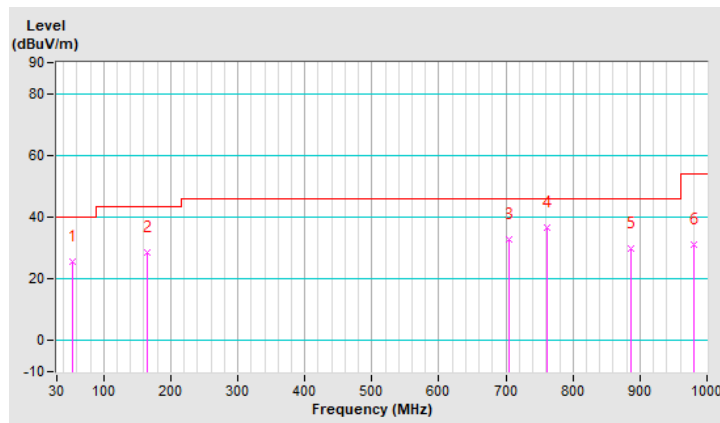
Frequency Range	30 MHz ~ 1 GHz
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Antenna Polarity & Test Distance : Horizontal at 3m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.28	25.4 QP	40.0	-14.6	1.50 H	175	38.8	-13.4
2	165.80	28.7 QP	43.5	-14.8	1.00 H	37	42.0	-13.3
3	705.12	32.9 QP	46.0	-13.1	2.00 H	220	36.9	-4.0
4	762.35	36.5 QP	46.0	-9.5	1.00 H	309	39.2	-2.7
5	887.48	30.0 QP	46.0	-16.0	1.50 H	342	31.4	-1.4
6	979.63	31.2 QP	54.0	-22.8	1.00 H	54	31.4	-0.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.



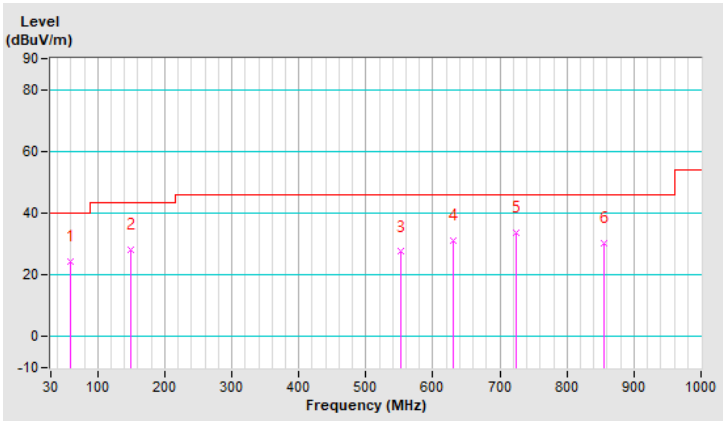
Frequency Range	30 MHz ~ 1 GHz
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Antenna Polarity & Test Distance : Vertical at 3m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	59.10	24.5 QP	40.0	-15.5	1.50 V	174	38.4	-13.9
2	149.31	28.1 QP	43.5	-15.4	1.00 V	48	41.2	-13.1
3	551.86	27.5 QP	46.0	-18.5	1.00 V	232	34.5	-7.0
4	630.43	31.1 QP	46.0	-14.9	2.00 V	164	36.2	-5.1
5	724.52	33.6 QP	46.0	-12.4	1.00 V	182	37.2	-3.6
6	855.47	30.1 QP	46.0	-15.9	1.00 V	230	32.0	-1.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.



Frequency Range	1 GHz ~ 10 GHz
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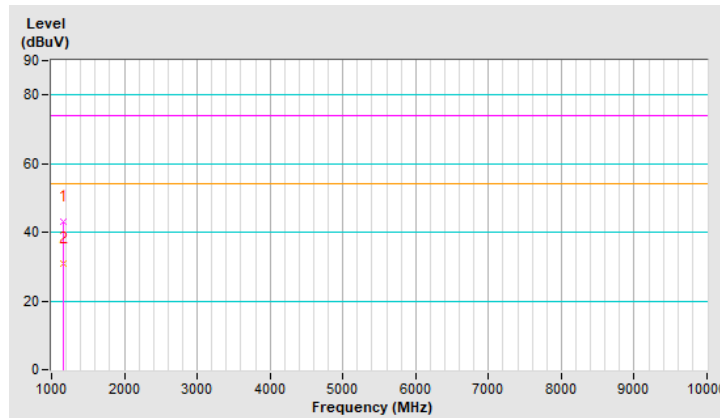
Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1170.00	43.0 PK	74.0	-31.0	3.37 H	160	50.1	-7.1
2	1170.00	31.0 AV	54.0	-23.0	3.37 H	160	38.1	-7.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (25\text{ms}/100) = -12.0\text{dB}$ please refer to the plotted duty
 (see section 3.3)



Frequency Range	1 GHz ~ 10 GHz
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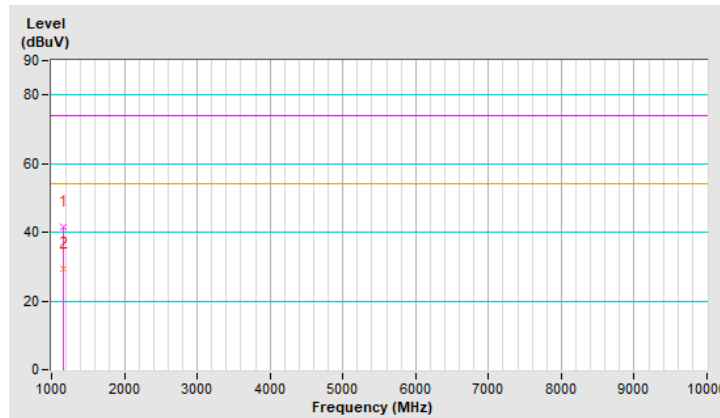
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1170.00	41.4 PK	74.0	-32.6	1.21 V	159	48.5	-7.1
2	1170.00	29.4 AV	54.0	-24.6	1.21 V	159	36.5	-7.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (25\text{ms}/100) = -12.0\text{dB}$ please refer to the plotted duty
 (see section 3.3)



Code D

Frequency Range	315MHz
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Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	315.00	84.3 PK	95.6	-11.3	1.00 H	320	64.5	19.8
2	315.00	71.1 AV	75.6	-4.5	1.00 H	320	51.3	19.8

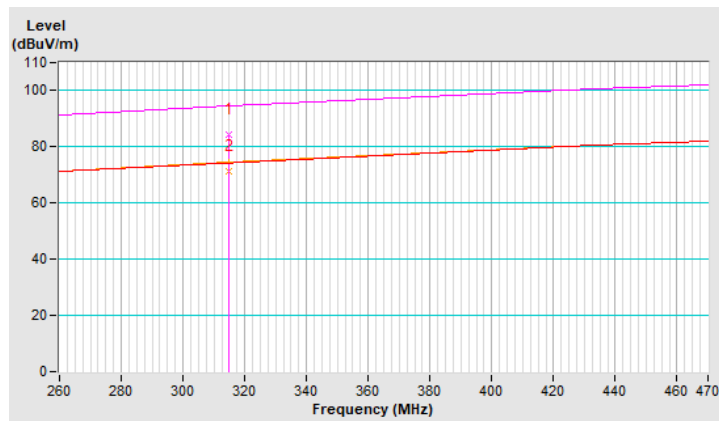
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (26.13\text{ms}/100) = -13.2\text{dB}$ please refer to the plotted duty (see section 3.3)



Frequency Range	315MHz
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Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	315.00	80.9 PK	95.6	-14.7	1.75 V	301	61.1	19.8
2	315.00	67.7 AV	75.6	-7.9	1.75 V	301	47.9	19.8

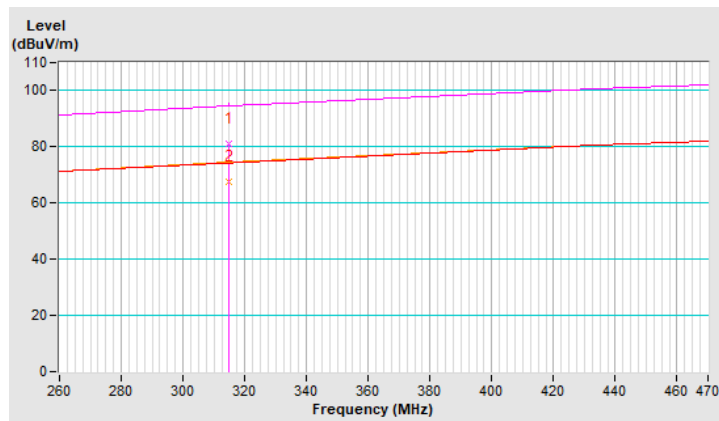
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (26.13\text{ms}/100) = -13.2\text{dB}$ please refer to the plotted duty (see section 3.3)



Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	630.00	39.5 PK	75.6	-36.1	1.54 H	236	44.6	-5.1
2	630.00	26.3 AV	55.6	-29.3	1.54 H	236	31.4	-5.1
3	945.00	41.6 PK	75.6	-34.0	1.19 H	87	42.2	-0.6
4	945.00	28.4 AV	55.6	-27.2	1.19 H	87	29.0	-0.6

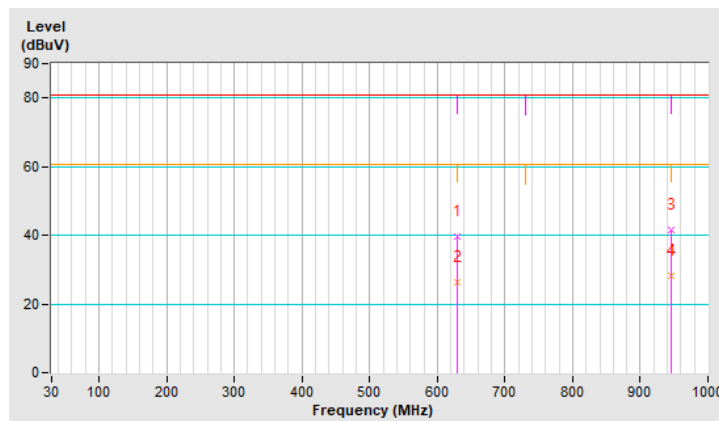
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (26.13\text{ms}/100) = -13.2\text{dB}$ please refer to the plotted duty (see section 3.3)

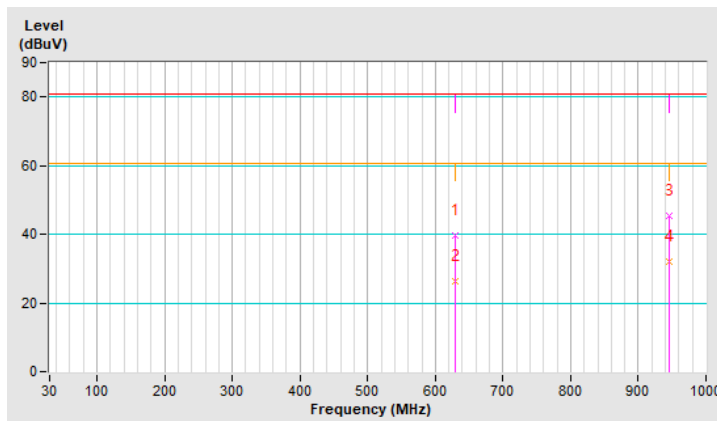


Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	630.00	39.7 PK	75.6	-35.9	1.58 V	209	44.8	-5.1
2	630.00	26.5 AV	55.6	-29.1	1.58 V	209	31.6	-5.1
3	945.00	45.3 PK	75.6	-30.3	1.13 V	257	45.9	-0.6
4	945.00	32.1 AV	55.6	-23.5	1.13 V	257	32.7	-0.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:
 The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:
 $20\text{Log}(\text{Duty cycle}) = 20 \log (26.13\text{ms}/100) = -13.2\text{dB}$ please refer to the plotted duty
 (see section 3.3)



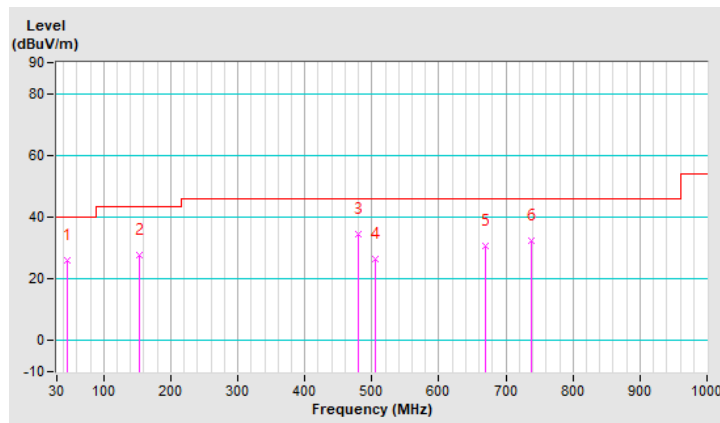
Frequency Range	30 MHz ~ 1 GHz
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Antenna Polarity & Test Distance : Horizontal at 3m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	46.49	26.1 QP	40.0	-13.9	1.00 H	56	39.3	-13.2
2	154.16	27.6 QP	43.5	-15.9	1.50 H	63	40.5	-12.9
3	480.08	34.7 QP	46.0	-11.3	1.00 H	75	42.9	-8.2
4	504.33	26.6 QP	46.0	-19.4	2.00 H	2	34.4	-7.8
5	669.23	30.6 QP	46.0	-15.4	1.00 H	239	35.3	-4.7
6	738.10	32.4 QP	46.0	-13.6	1.00 H	228	35.6	-3.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.



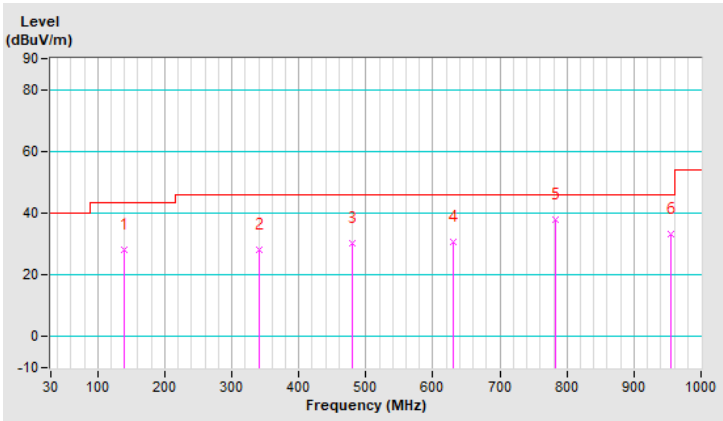
Frequency Range	30 MHz ~ 1 GHz
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Antenna Polarity & Test Distance : Vertical at 3m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	139.61	28.3 QP	43.5	-15.2	1.50 V	185	41.9	-13.6
2	341.37	28.3 QP	46.0	-17.7	1.00 V	162	40.0	-11.7
3	480.08	30.3 QP	46.0	-15.7	1.00 V	48	38.5	-8.2
4	630.43	30.8 QP	46.0	-15.2	2.00 V	74	35.9	-5.1
5	783.69	37.8 QP	46.0	-8.2	1.00 V	18	40.4	-2.6
6	955.38	33.3 QP	46.0	-12.7	1.50 V	290	33.9	-0.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.



Frequency Range	1 GHz ~ 10 GHz
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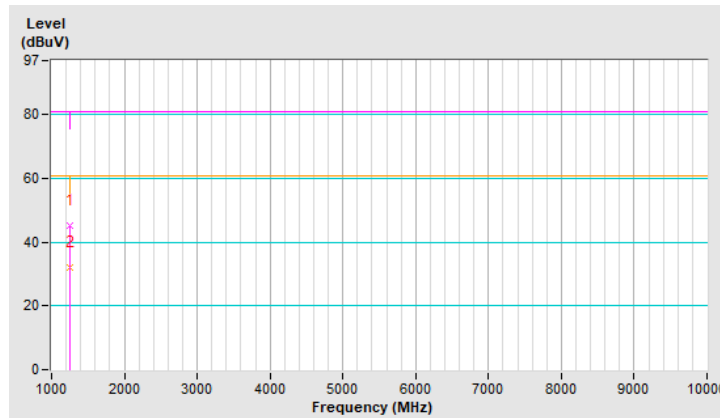
Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1260.00	45.1 PK	75.6	-30.5	1.33 H	242	51.9	-6.8
2	1260.00	31.9 AV	55.6	-23.7	1.33 H	242	38.7	-6.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (26.13\text{ms}/100) = -13.2\text{dB}$ please refer to the plotted duty
 (see section 3.3)



Frequency Range	1 GHz ~ 10 GHz
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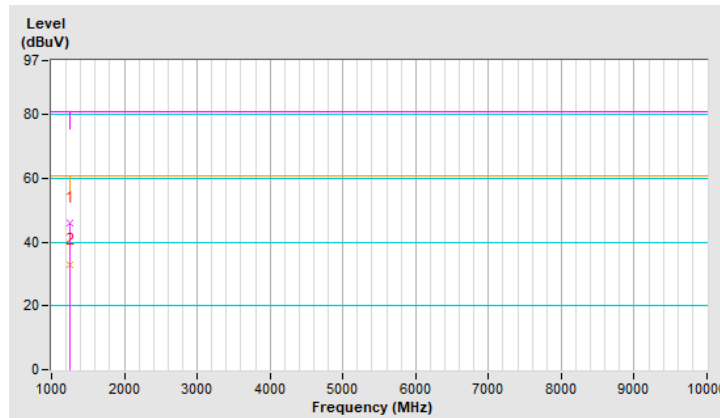
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1260.00	45.9 PK	75.6	-29.7	1.25 V	270	52.7	-6.8
2	1260.00	32.7 AV	55.6	-22.9	1.25 V	270	39.5	-6.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (26.13\text{ms}/100) = -13.2\text{dB}$ please refer to the plotted duty
 (see section 3.3)

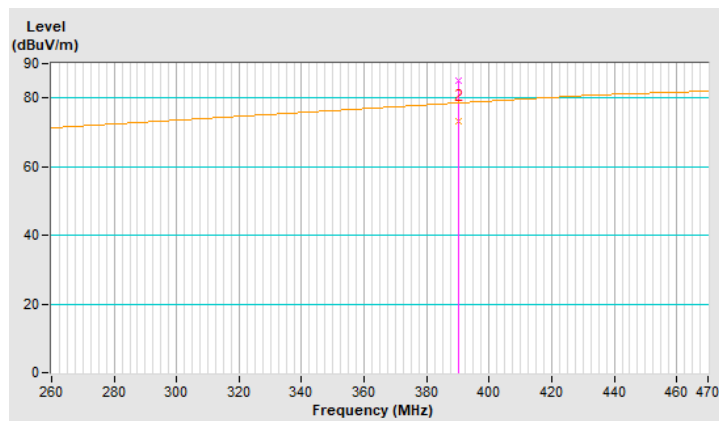


Frequency Range	390MHz
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Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	390.00	85.0 PK	99.2	-14.2	1.00 H	347	63.5	21.5
2	390.00	73.3 AV	79.2	-5.9	1.00 H	347	51.8	21.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:
 The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:
 $20\text{Log}(\text{Duty cycle}) = 20 \log (25.95\text{ms}/100) = -11.7\text{dB}$ please refer to the plotted duty
 (see section 3.3)



Frequency Range	390MHz
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Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	390.00	84.0 PK	99.2	-15.2	1.34 V	127	62.5	21.5
2	390.00	72.3 AV	79.2	-6.9	1.34 V	127	50.8	21.5

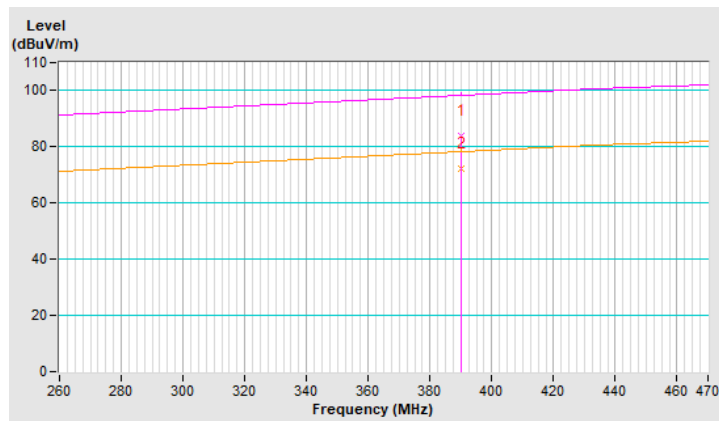
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (25.95\text{ms}/100) = -11.7\text{dB}$ please refer to the plotted duty (see section 3.3)

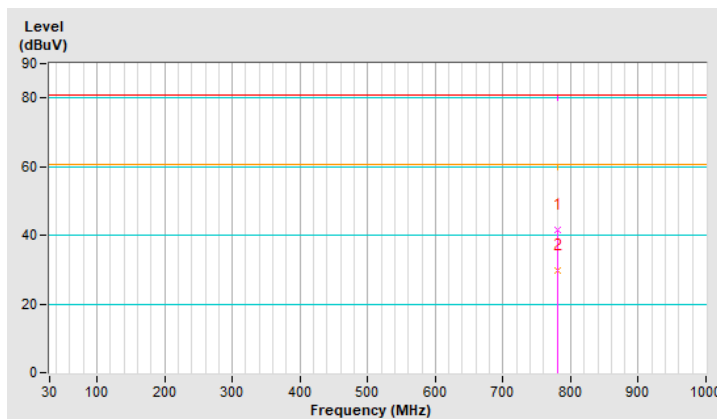


Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	780.00	41.4 PK	79.2	-37.8	1.45 H	109	44.1	-2.7
2	780.00	29.7 AV	59.2	-29.5	1.45 H	109	32.4	-2.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:
 The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:
 $20\text{Log}(\text{Duty cycle}) = 20 \log (25.95\text{ms}/100) = -11.7\text{dB}$ please refer to the plotted duty
 (see section 3.3)



Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	780.00	41.9 PK	79.2	-37.3	1.58 V	216	44.6	-2.7
2	780.00	30.2 AV	59.2	-29.0	1.58 V	216	32.9	-2.7

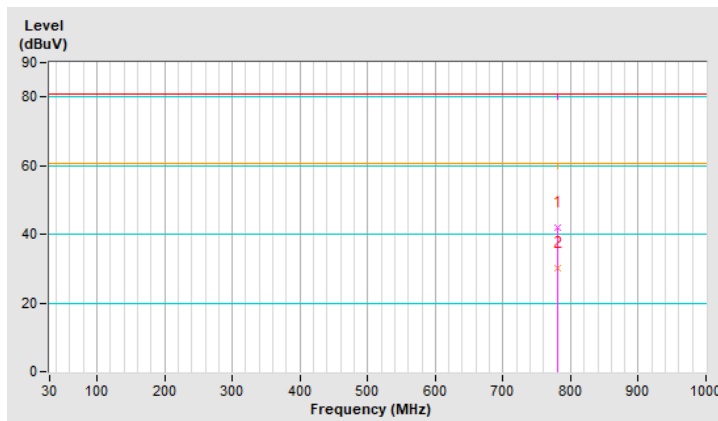
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (25.95\text{ms}/100) = -11.7\text{dB}$ please refer to the plotted duty (see section 3.3)



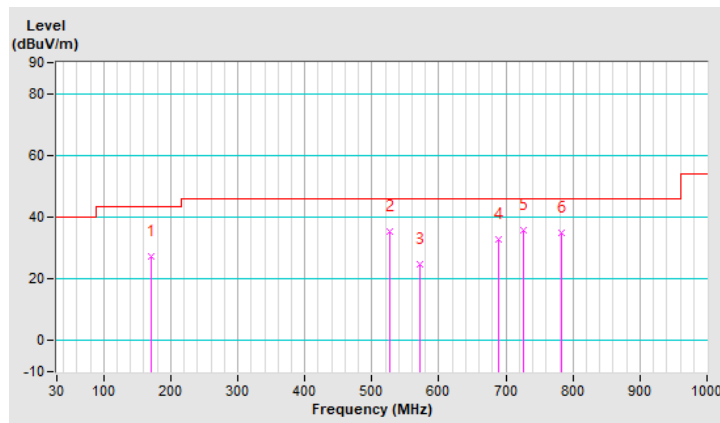
Frequency Range	30 MHz ~ 1 GHz
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Antenna Polarity & Test Distance : Horizontal at 3m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	170.65	27.1 QP	43.5	-16.4	1.50 H	242	40.6	-13.5
2	527.61	35.5 QP	46.0	-10.5	1.00 H	228	42.8	-7.3
3	571.26	24.6 QP	46.0	-21.4	1.00 H	232	31.2	-6.6
4	689.60	32.8 QP	46.0	-13.2	1.50 H	229	37.1	-4.3
5	726.46	35.7 QP	46.0	-10.3	2.00 H	214	39.3	-3.6
6	783.69	34.9 QP	46.0	-11.1	2.00 H	314	37.5	-2.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.



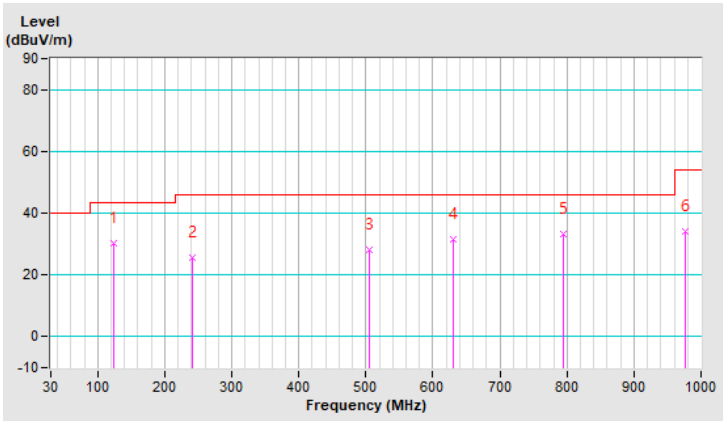
Frequency Range	30 MHz ~ 1 GHz
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Antenna Polarity & Test Distance : Vertical at 3m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	124.09	30.4 QP	43.5	-13.1	1.50 V	333	45.4	-15.0
2	241.46	25.8 QP	46.0	-20.2	1.00 V	18	40.6	-14.8
3	504.33	28.1 QP	46.0	-17.9	1.00 V	152	35.9	-7.8
4	630.43	31.6 QP	46.0	-14.4	2.00 V	114	36.7	-5.1
5	794.36	33.1 QP	46.0	-12.9	1.50 V	225	35.9	-2.8
6	975.75	34.1 QP	54.0	-19.9	1.00 V	286	34.4	-0.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.



Frequency Range	1 GHz ~ 10 GHz
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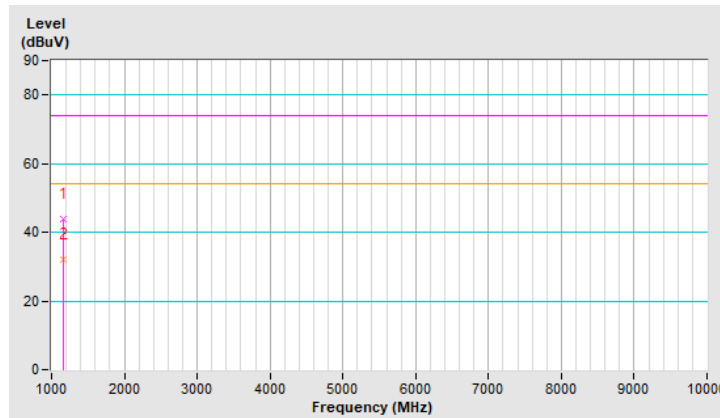
Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1170.00	43.7 PK	74.0	-30.3	3.28 H	159	50.8	-7.1
2	1170.00	32.0 AV	54.0	-22.0	3.28 H	159	39.1	-7.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (25.95\text{ms}/100) = -11.7\text{dB}$ please refer to the plotted duty
 (see section 3.3)



Frequency Range	1 GHz ~ 10 GHz
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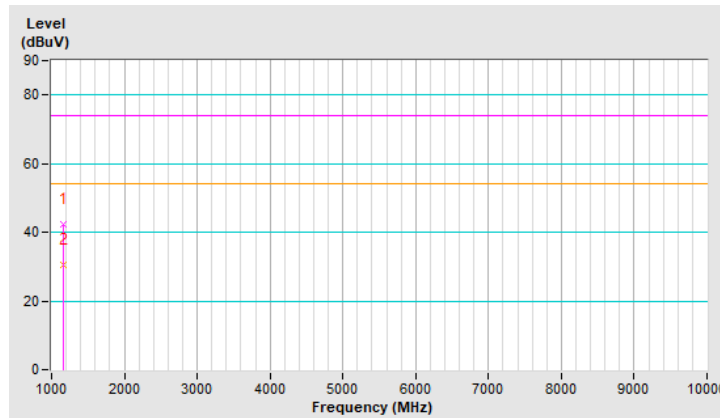
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1170.00	42.3 PK	74.0	-31.7	1.17 V	154	49.4	-7.1
2	1170.00	30.6 AV	54.0	-23.4	1.17 V	154	37.7	-7.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (25.95\text{ms}/100) = -11.7\text{dB}$ please refer to the plotted duty
 (see section 3.3)



Code E

Frequency Range	315MHz
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Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	315.00	85.1 PK	95.6	-10.5	1.00 H	318	65.3	19.8
2	315.00	72.1 AV	75.6	-3.5	1.00 H	318	52.3	19.8

Remarks:

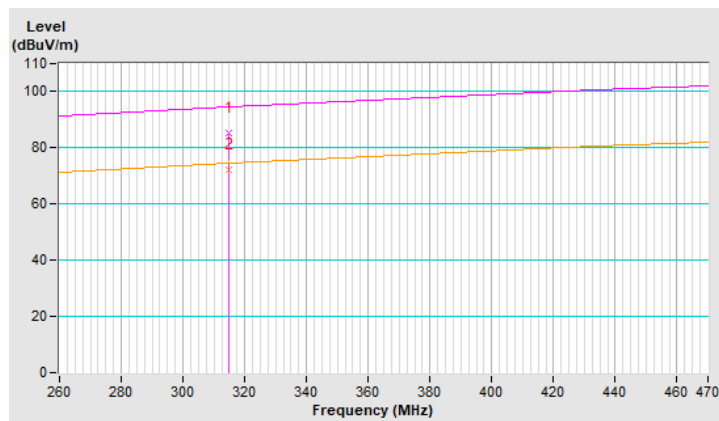
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$$20\text{Log}(\text{Duty cycle}) = 20 \log (22.47\text{ms}/100) = -13\text{dB please refer to the plotted duty}$$

(see section 3.3)



Frequency Range	315MHz
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Antenna Polarity & Test Distance : Vertical at 3m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	315.00	81.2 PK	95.6	-14.4	1.78 V	301	61.4	19.8
2	315.00	68.2 AV	75.6	-7.4	1.78 V	301	48.4	19.8

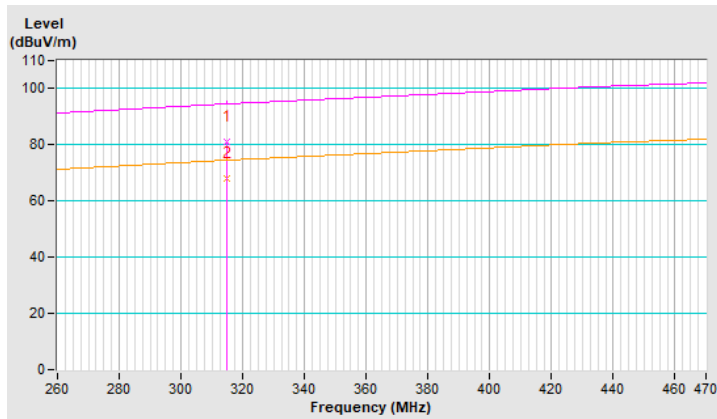
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (22.47\text{ms}/100) = -13\text{dB}$ please refer to the plotted duty (see section 3.3)



Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	630.00	40.8 PK	75.6	-34.8	1.47 H	229	45.9	-5.1
2	630.00	27.8 AV	55.6	-27.8	1.47 H	229	32.9	-5.1
3	945.00	43.1 PK	75.6	-32.5	1.21 H	82	43.7	-0.6
4	945.00	30.1 AV	55.6	-25.5	1.21 H	82	30.7	-0.6

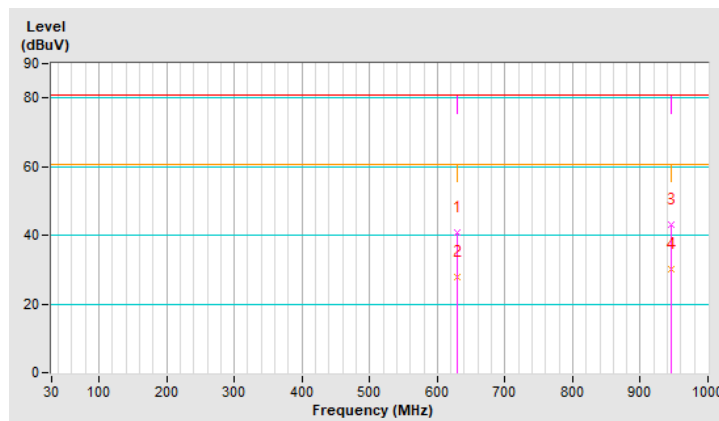
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (22.47\text{ms}/100) = -13\text{dB}$ please refer to the plotted duty (see section 3.3)



Frequency Range	30MHz ~ 1GHz
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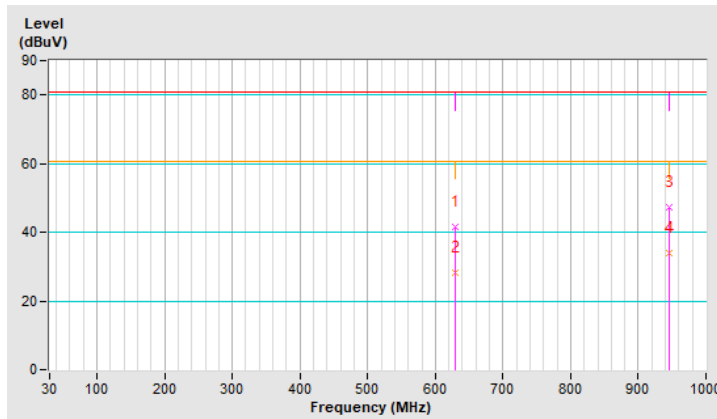
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	630.00	41.4 PK	75.6	-34.2	1.53 V	214	46.5	-5.1
2	630.00	28.4 AV	55.6	-27.2	1.53 V	214	33.5	-5.1
3	945.00	47.1 PK	75.6	-28.5	1.16 V	251	47.7	-0.6
4	945.00	34.1 AV	55.6	-21.5	1.16 V	251	34.7	-0.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (22.47\text{ms}/100) = -13\text{dB}$ please refer to the plotted duty
 (see section 3.3)



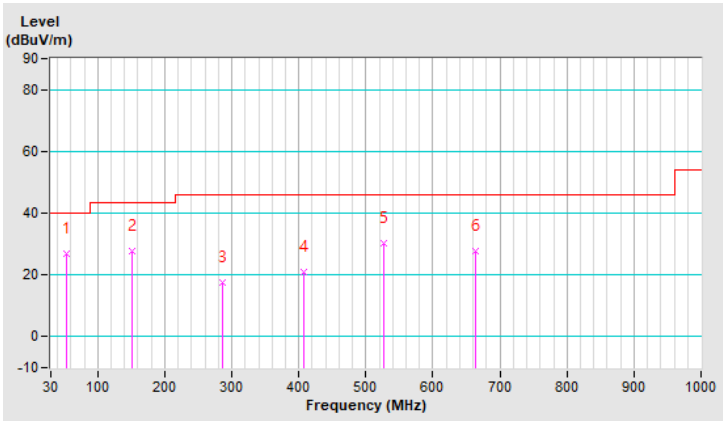
Frequency Range	30 MHz ~ 1 GHz
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Antenna Polarity & Test Distance : Horizontal at 3m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	54.25	26.7 QP	40.0	-13.3	1.00 H	18	40.3	-13.6
2	151.25	27.7 QP	43.5	-15.8	1.00 H	252	40.7	-13.0
3	286.08	17.6 QP	46.0	-28.4	1.99 H	191	30.6	-13.0
4	408.30	21.1 QP	46.0	-24.9	1.99 H	176	31.2	-10.1
5	527.61	30.1 QP	46.0	-15.9	1.49 H	193	37.4	-7.3
6	664.38	27.8 QP	46.0	-18.2	1.99 H	249	32.5	-4.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.



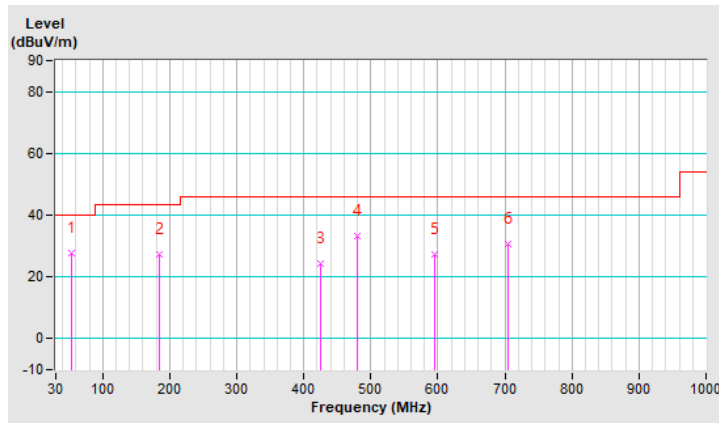
Frequency Range	30 MHz ~ 1 GHz
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Antenna Polarity & Test Distance : Vertical at 3m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	54.25	27.9 QP	40.0	-12.1	2.00 V	327	41.5	-13.6
2	185.20	27.1 QP	43.5	-16.4	1.51 V	305	42.6	-15.5
3	424.79	24.3 QP	46.0	-21.7	1.51 V	340	34.0	-9.7
4	480.08	33.2 QP	46.0	-12.8	1.51 V	265	41.4	-8.2
5	594.54	27.2 QP	46.0	-18.8	1.01 V	281	32.9	-5.7
6	705.12	30.5 QP	46.0	-15.5	1.51 V	236	34.5	-4.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.



Frequency Range	1 GHz ~ 10 GHz
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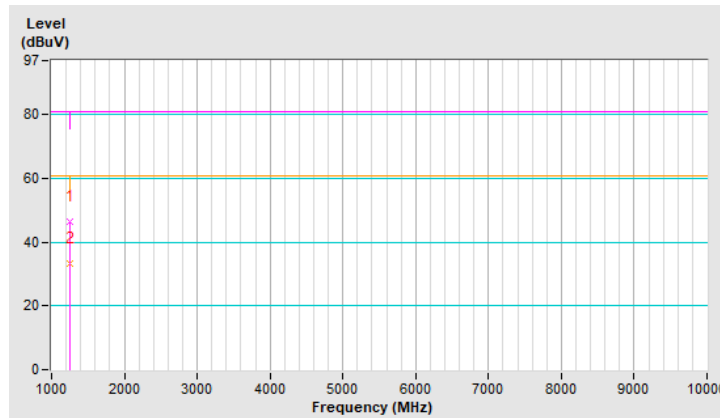
Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1260.00	46.4 PK	75.6	-29.2	1.34 H	248	53.2	-6.8
2	1260.00	33.4 AV	55.6	-22.2	1.34 H	248	40.2	-6.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (22.47\text{ms}/100) = -13\text{dB}$ please refer to the plotted duty
 (see section 3.3)



Frequency Range	1 GHz ~ 10 GHz
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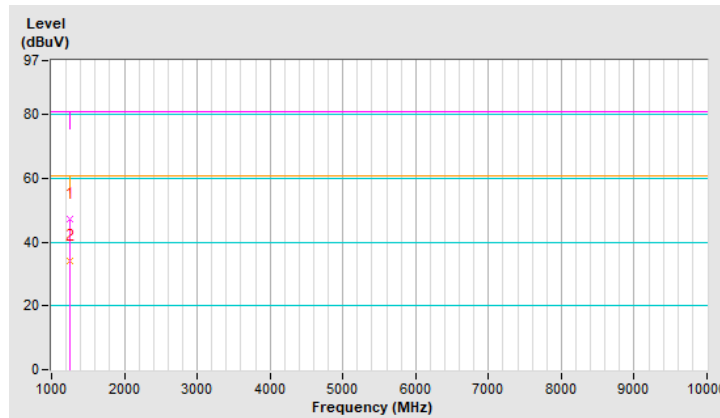
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1260.00	47.3 PK	75.6	-28.3	1.27 V	274	54.1	-6.8
2	1260.00	34.3 AV	55.6	-21.3	1.27 V	274	41.1	-6.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (22.47\text{ms}/100) = -13\text{dB}$ please refer to the plotted duty
 (see section 3.3)



Frequency Range	390MHz
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Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	390.00	88.8 PK	99.2	-10.4	1.00 H	339	67.3	21.5
2	390.00	75.9 AV	79.2	-3.3	1.00 H	339	54.4	21.5

Remarks:

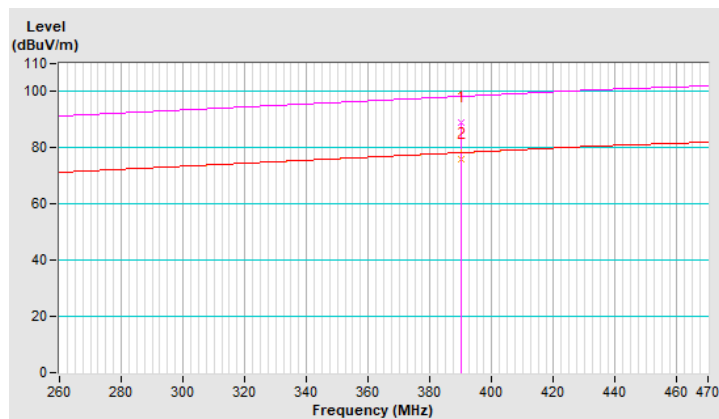
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (22.71\text{ms}/100) = -12.9\text{dB}$ please refer to the plotted duty

(see section 3.3)



Frequency Range	390MHz
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Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	390.00	86.9 PK	99.2	-12.3	1.43 V	131	65.4	21.5
2	390.00	74.0 AV	79.2	-5.2	1.43 V	131	52.5	21.5

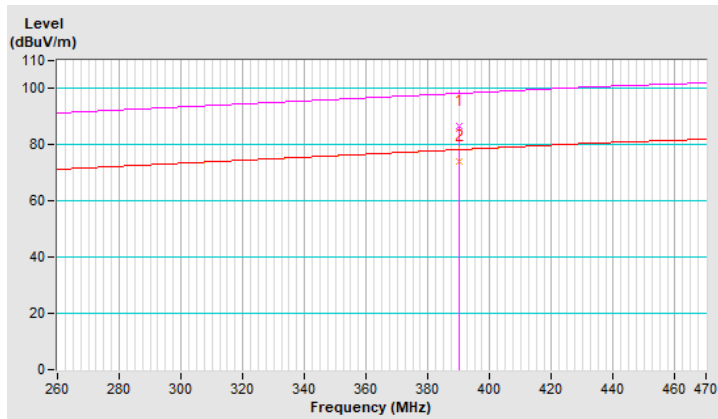
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (22.71\text{ms}/100) = -12.9\text{dB}$ please refer to the plotted duty (see section 3.3)



Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	780.00	43.3 PK	79.2	-35.9	1.42 H	113	46.0	-2.7
2	780.00	30.0 AV	59.2	-29.2	1.42 H	113	32.7	-2.7

Remarks:

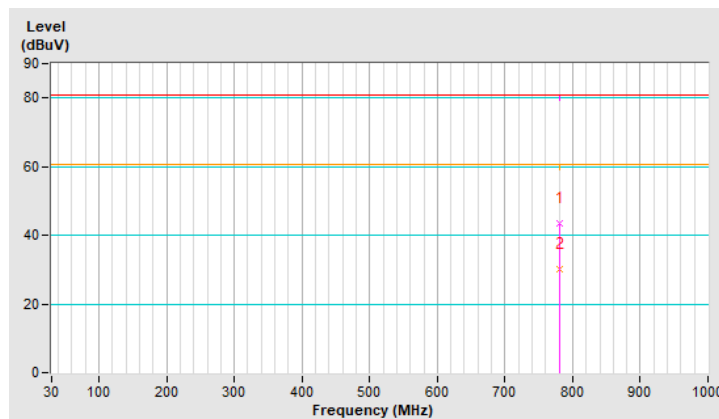
1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (22.71\text{ms}/100) = -12.9\text{dB}$ please refer to the plotted duty

(see section 3.3)



Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	780.00	43.7 PK	79.2	-35.5	1.54 V	223	46.4	-2.7
2	780.00	30.4 AV	59.2	-28.8	1.54 V	223	33.1	-2.7

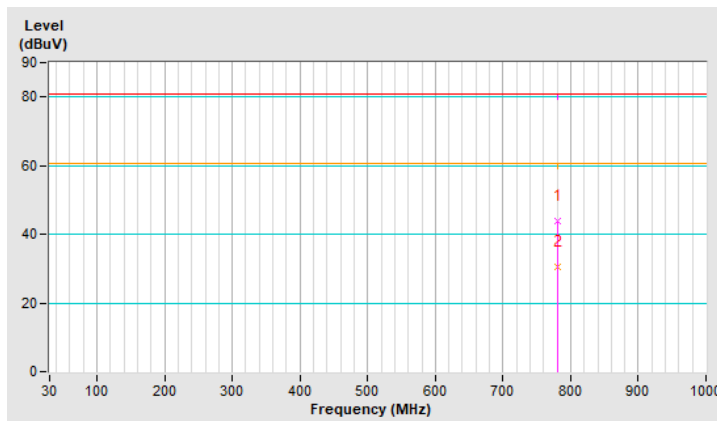
Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)

where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (22.71\text{ms}/100) = -12.9\text{dB}$ please refer to the plotted duty (see section 3.3)



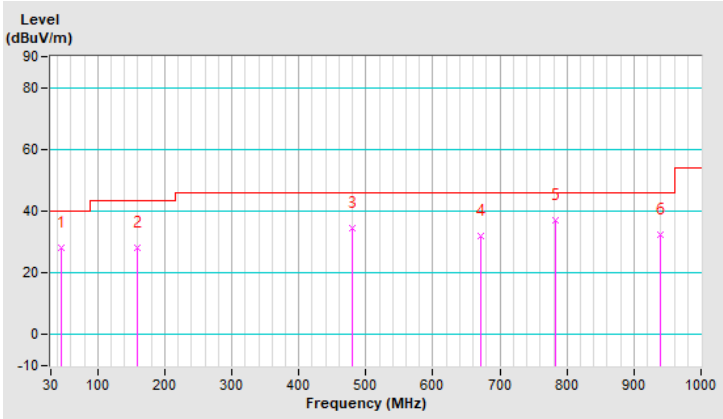
Frequency Range	30 MHz ~ 1 GHz
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Antenna Polarity & Test Distance : Horizontal at 3m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	46.49	28.0 QP	40.0	-12.0	2.00 H	313	41.2	-13.2
2	159.01	28.3 QP	43.5	-15.2	1.00 H	259	41.3	-13.0
3	480.08	34.6 QP	46.0	-11.4	1.50 H	79	42.8	-8.2
4	672.14	31.8 QP	46.0	-14.2	1.50 H	229	36.4	-4.6
5	783.69	37.2 QP	46.0	-8.8	1.00 H	230	39.8	-2.6
6	939.86	32.2 QP	46.0	-13.8	1.00 H	68	33.0	-0.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.

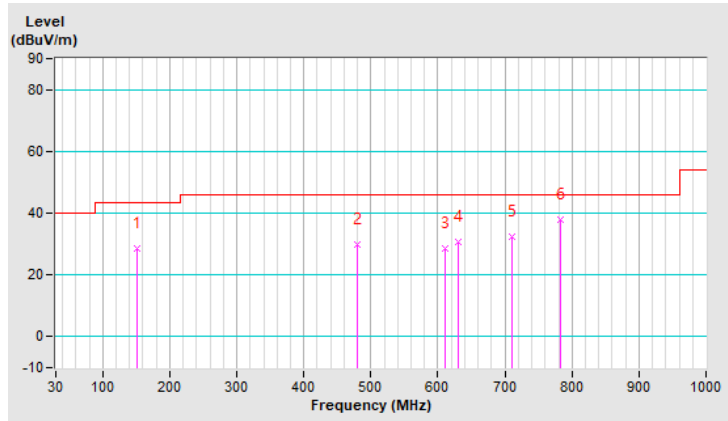


Frequency Range	30 MHz ~ 1 GHz
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Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	152.22	28.5 QP	43.5	-15.0	1.50 V	68	41.5	-13.0
2	480.08	29.9 QP	46.0	-16.1	1.00 V	158	38.1	-8.2
3	611.03	28.6 QP	46.0	-17.4	1.00 V	213	34.0	-5.4
4	630.43	30.5 QP	46.0	-15.5	2.00 V	159	35.6	-5.1
5	709.97	32.3 QP	46.0	-13.7	1.00 V	191	36.2	-3.9
6	783.69	37.8 QP	46.0	-8.2	2.00 V	4	40.4	-2.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.



Frequency Range	1 GHz ~ 10 GHz
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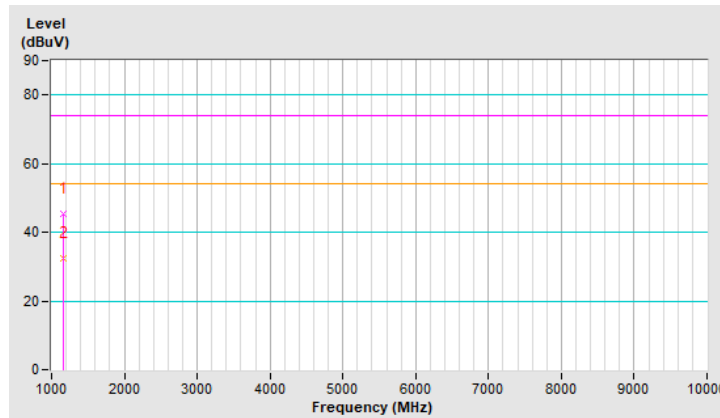
Antenna Polarity & Test Distance : Horizontal at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1170.00	45.3 PK	74.0	-28.7	3.34 H	167	52.4	-7.1
2	1170.00	32.4 AV	54.0	-21.6	3.34 H	167	39.5	-7.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (22.71\text{ms}/100) = -12.9\text{dB}$ please refer to the plotted duty
 (see section 3.3)



Frequency Range	1 GHz ~ 10 GHz
-----------------	----------------

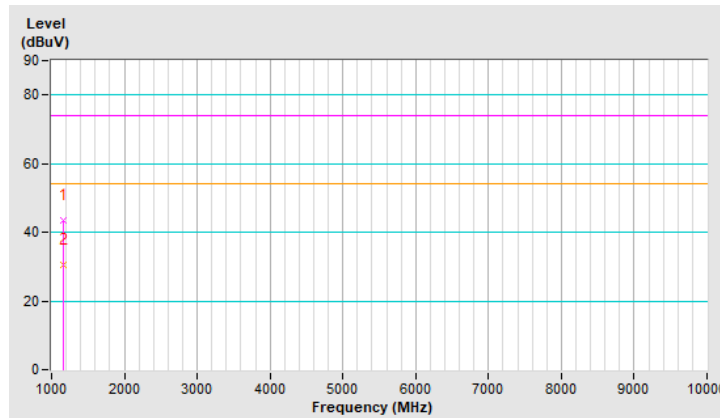
Antenna Polarity & Test Distance : Vertical at 3m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1170.00	43.5 PK	74.0	-30.5	1.14 V	157	50.6	-7.1
2	1170.00	30.6 AV	54.0	-23.4	1.14 V	157	37.7	-7.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. For Fundamental frequency and bandedge & harmonic:

The average value of fundamental frequency is: average = peak value + 20log(Duty cycle)
 where the duty factor is calculated from following formula:

$20\text{Log}(\text{Duty cycle}) = 20 \log (22.71\text{ms}/100) = -12.9\text{dB}$ please refer to the plotted duty
 (see section 3.3)



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-Peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

- Note: 1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Dec. 05, 2022	Dec. 04, 2023
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond1-01	Jan. 07, 2023	Jan. 06, 2024
LISN ROHDE & SCHWARZ (EUT)	ENV216	101826	Mar. 14, 2022	Mar. 13, 2023
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Sep. 12, 2022	Sep. 11, 2023
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in HwaYa Shielded Room 1 (Conduction 1).
 3. The VCCI Site Registration No. is C-12040.
 4. Test Date: Jan. 11, 2023

4.2.3 Test Procedures

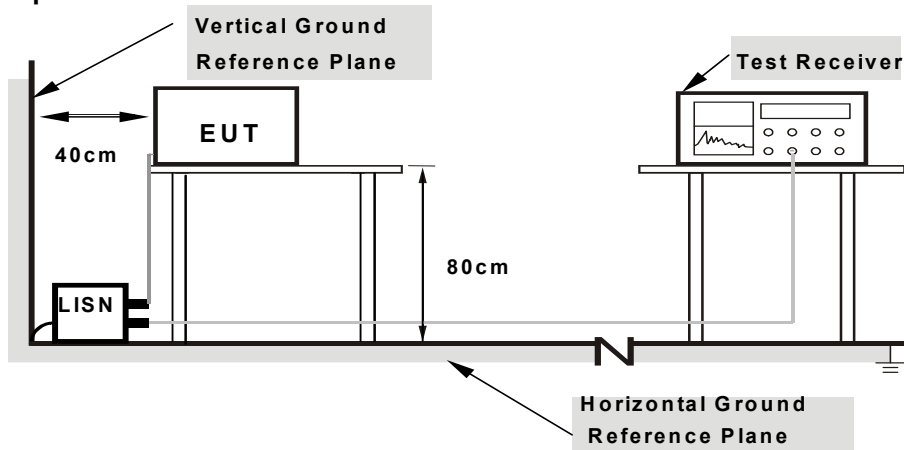
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/50 uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

Note: The resolution bandwidth and video bandwidth of test receiver is 9 kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15 MHz - 30 MHz.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



- Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes

4.2.6 EUT Operating Conditions

- Placed the EUT on the testing table.
- Set the EUT under transmission condition continuously at specific channel frequency.

4.2.7 Test Results

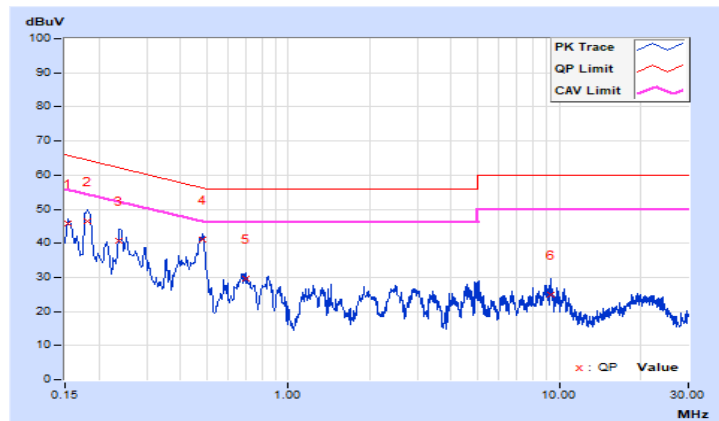
Code E

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 75%RH
Tested by	Greg Lin	Test Date	2023/1/11

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15400	9.62	36.09	27.96	45.71	37.58	65.78	55.78	-20.07	-18.20
2	0.18200	9.63	36.75	24.90	46.38	34.53	64.39	54.39	-18.01	-19.86
3	0.23800	9.65	31.09	23.15	40.74	32.80	62.17	52.17	-21.43	-19.37
4	0.48200	9.69	31.24	26.90	40.93	36.59	56.30	46.30	-15.37	-9.71
5	0.69400	9.69	19.94	12.21	29.63	21.90	56.00	46.00	-26.37	-24.10
6	9.29800	9.80	15.12	8.16	24.92	17.96	60.00	50.00	-35.08	-32.04

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

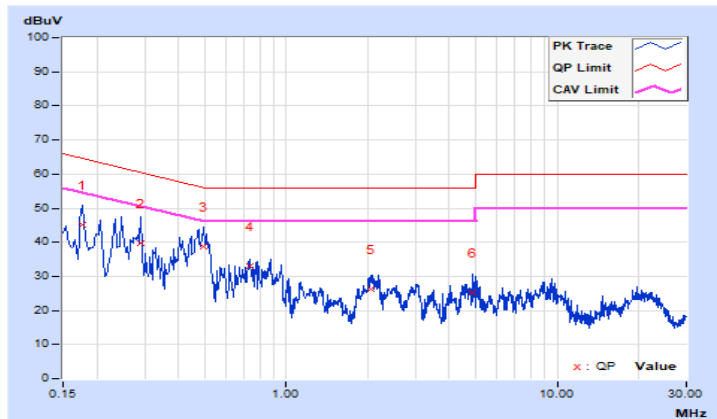


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 75%RH
Tested by	Greg Lin	Test Date	2023/1/11

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17755	9.63	35.35	22.87	44.98	32.50	64.60	54.60	-19.62	-22.10
2	0.29000	9.66	30.23	19.59	39.89	29.25	60.52	50.52	-20.63	-21.27
3	0.49800	9.69	29.05	18.78	38.74	28.47	56.03	46.03	-17.29	-17.56
4	0.73400	9.70	23.19	15.03	32.89	24.73	56.00	46.00	-23.11	-21.27
5	2.06200	9.73	16.52	7.59	26.25	17.32	56.00	46.00	-29.75	-28.68
6	4.90200	9.76	15.57	6.63	25.33	16.39	56.00	46.00	-30.67	-29.61

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



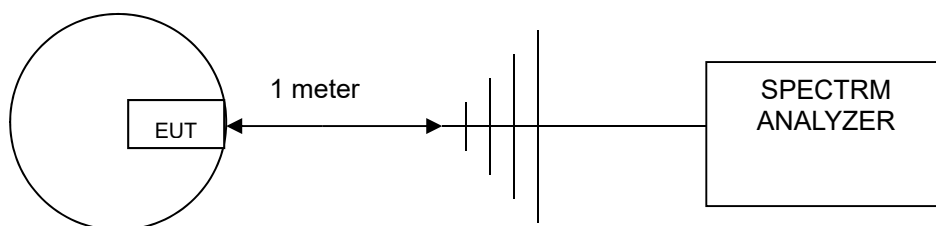
4.3 20dB Bandwidth Measurement

4.3.1 Limits of 20dB Bandwidth Measurement

The bandwidth of the emission shall be no wider than 0.25% of the center frequency for device operating above 70 MHz and below 900 MHz.

Fundamental Frequency (MHz)	Limit Of Emission Bandwidth (kHz)
315	787.5kHz
390	975kHz

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedures

- The EUT was placed on the turn table.
- The signal was coupled to the spectrum analyzer through an antenna.
- Set the resolution bandwidth to 1kHz and video bandwidth to 3kHz then select Peak function to scan the channel frequency.
- The emission bandwidth was measured and recorded.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

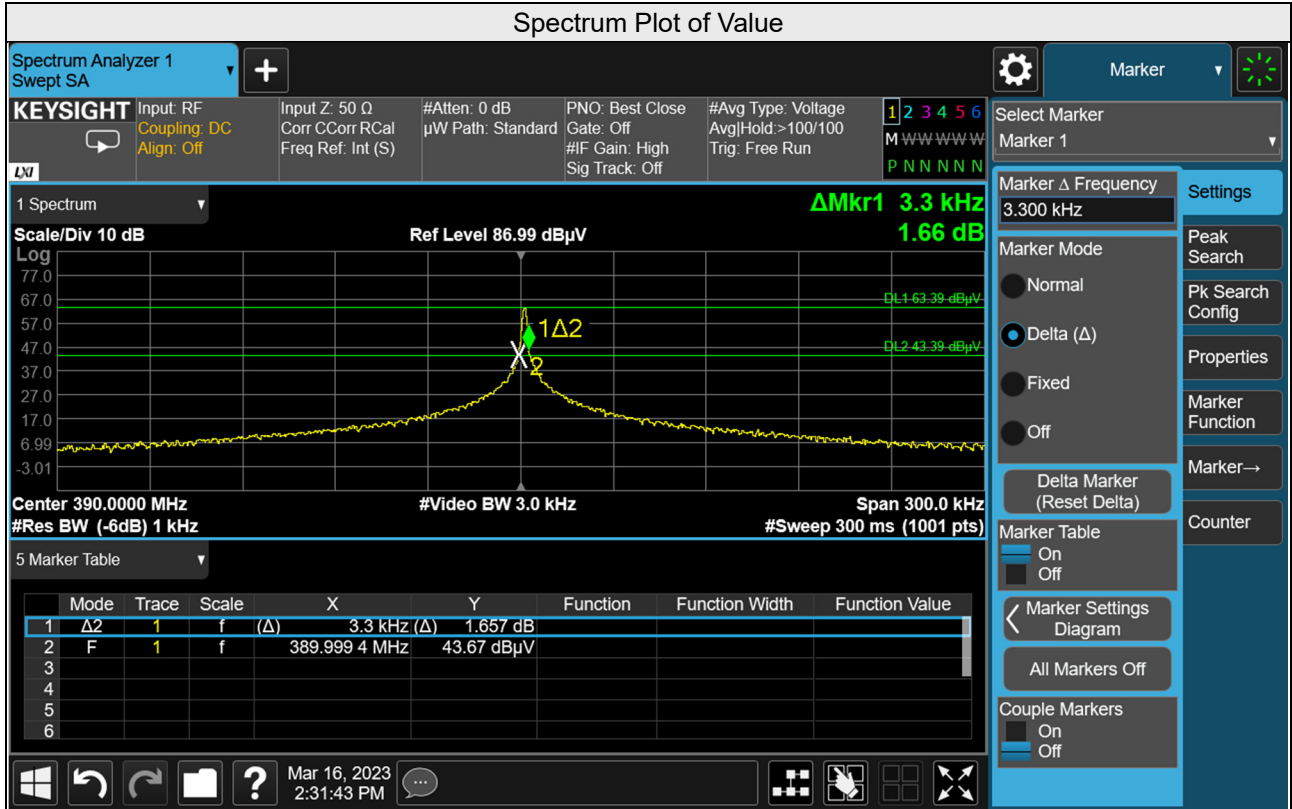
Same as Item 4.1.6.

4.3.7 Test Results

Code B

Channel	Frequency (MHz)	20dB Bandwidth (kHz)	Maximum Limit (kHz)	Pass / Fail
28	390	3.3	975	Pass

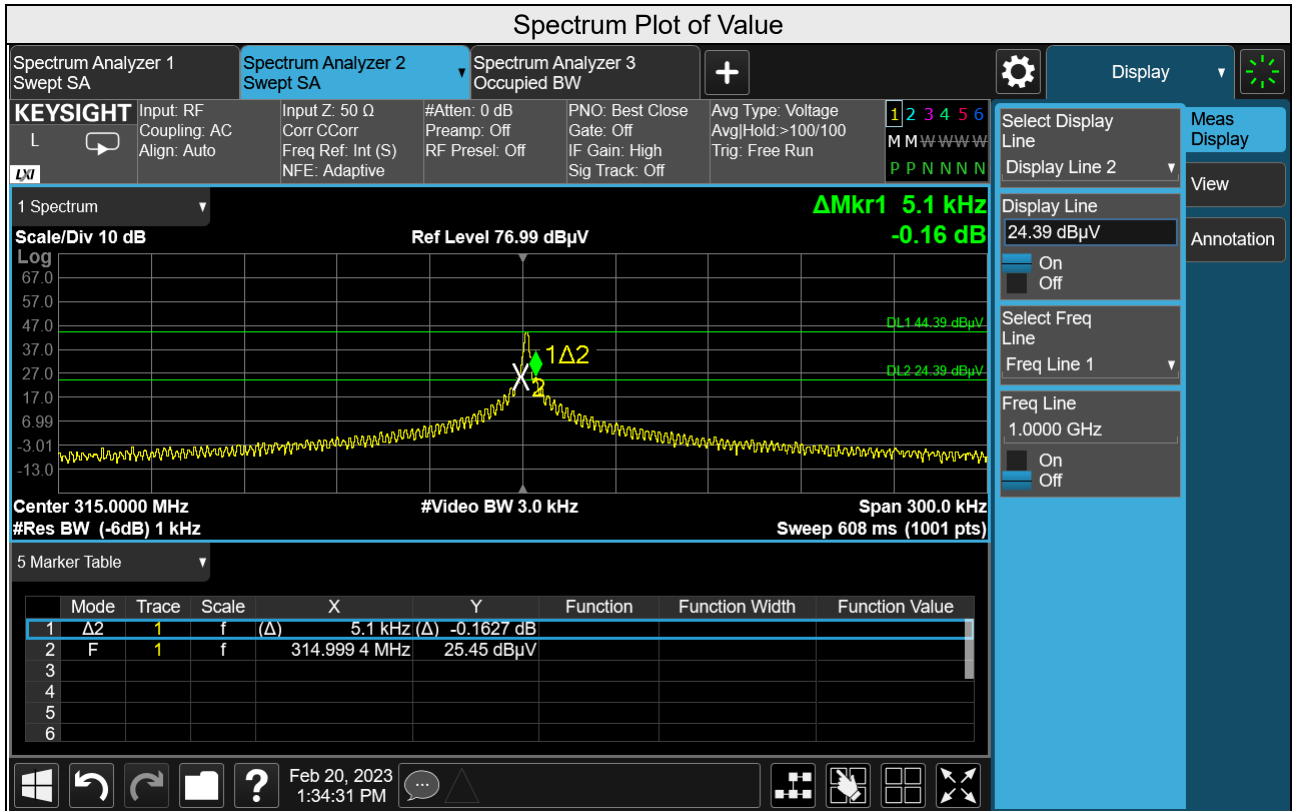
*Limit: 390MHz * 0.25% = 975kHz



Code D

Channel	Frequency (MHz)	20dB Bandwidth (kHz)	Maximum Limit (kHz)	Pass / Fail
29	315	5.1	787.5	Pass

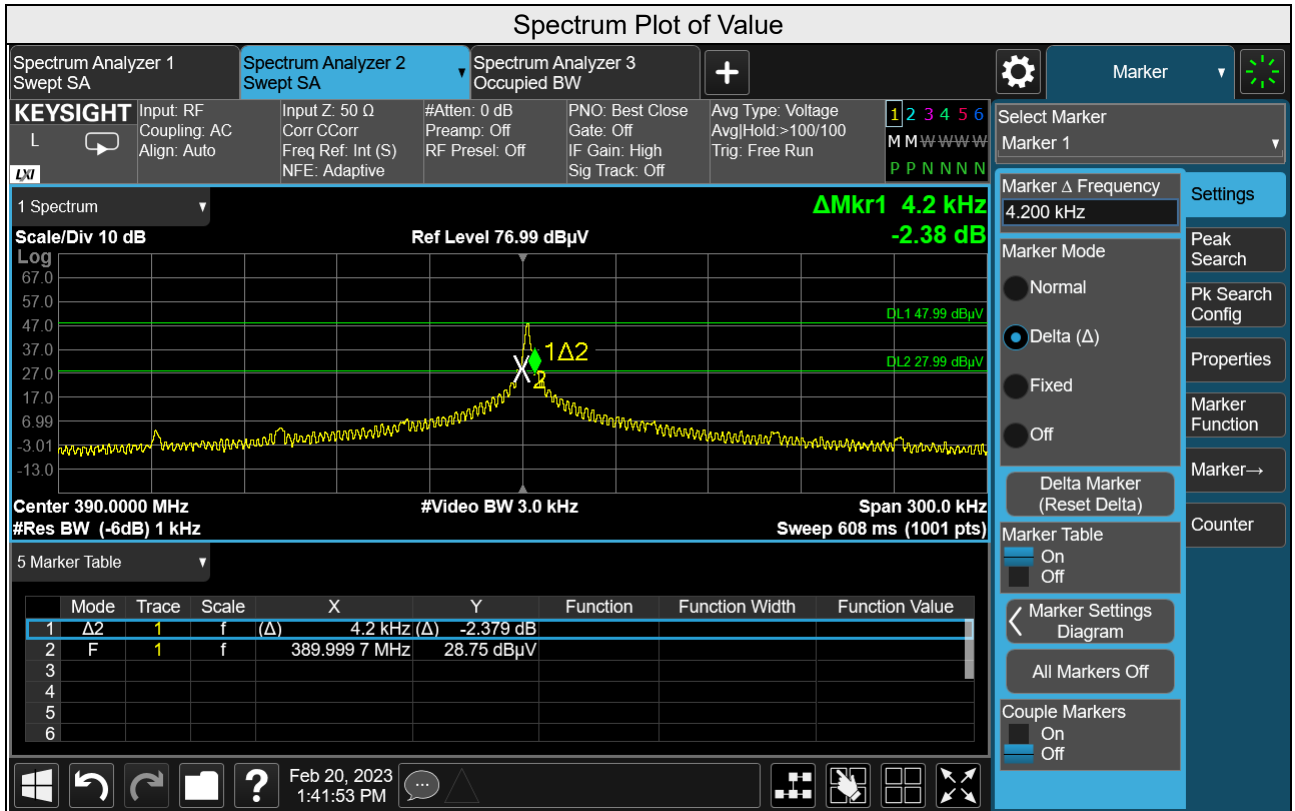
*Limit: 315MHz * 0.25% = 787.5kHz



Code D

Channel	Frequency (MHz)	20dB Bandwidth (kHz)	Maximum Limit (kHz)	Pass / Fail
30	390	4.2	975	Pass

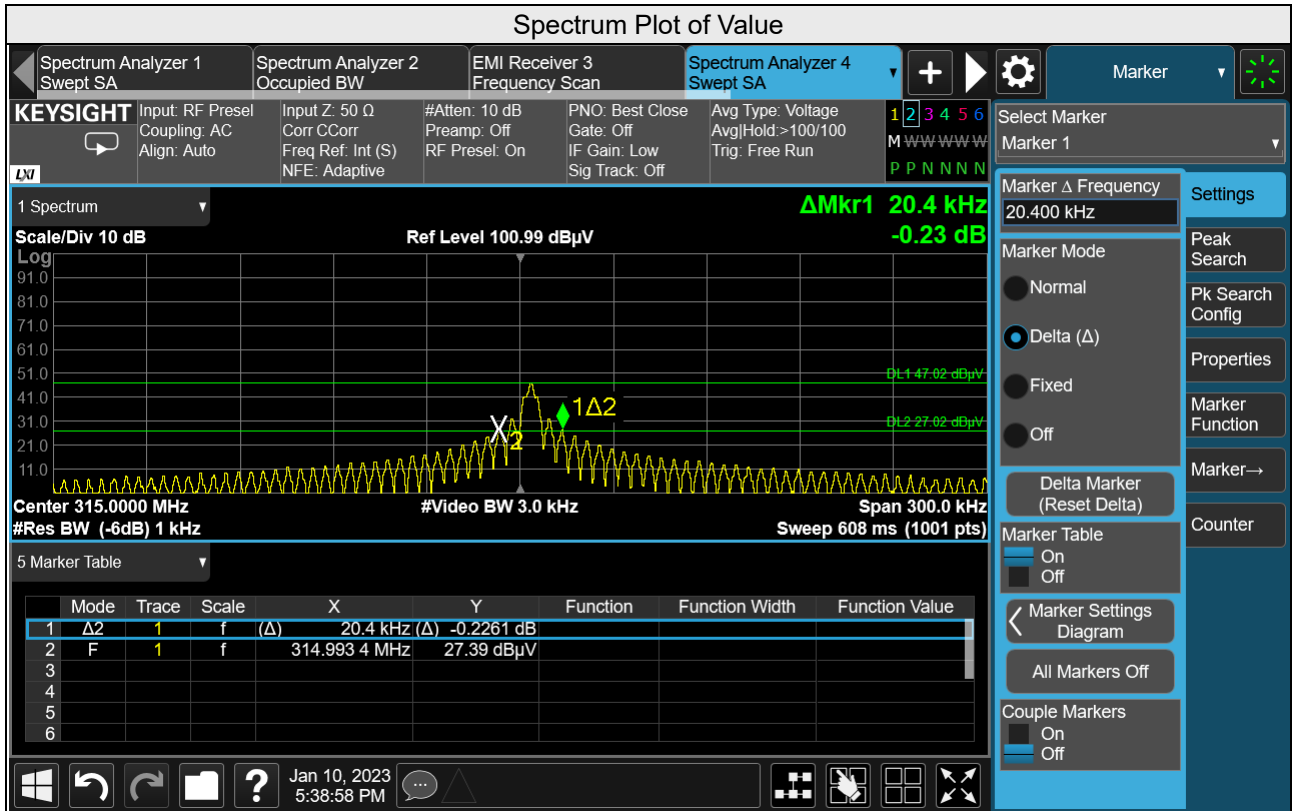
*Limit: 390MHz * 0.25% = 975kHz



Code E

Channel	Frequency (MHz)	20dB Bandwidth (kHz)	Maximum Limit (kHz)	Pass / Fail
35	315	20.4	787.5	Pass

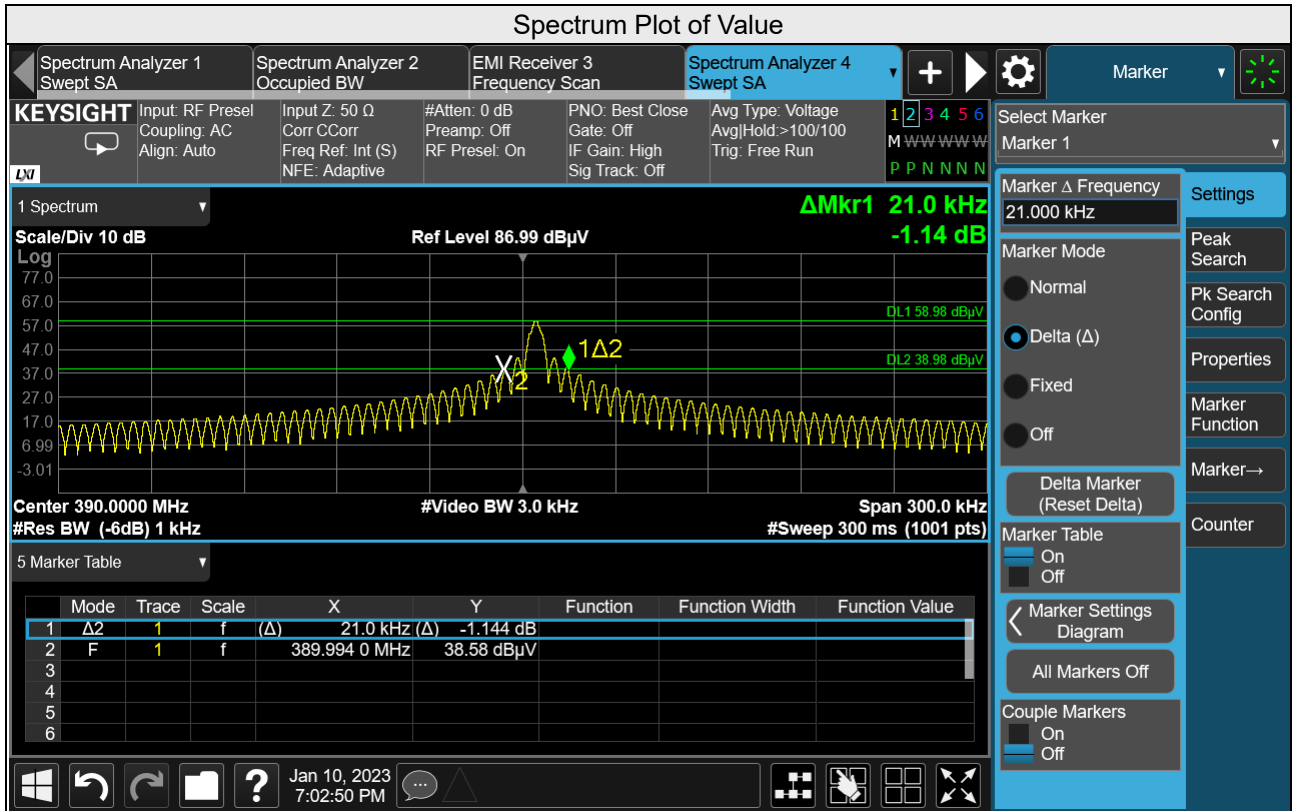
*Limit: 315MHz * 0.25% = 787.5kHz



Code E

Channel	Frequency (MHz)	20dB Bandwidth (kHz)	Maximum Limit (kHz)	Pass / Fail
36	390	21.0	975	Pass

*Limit: 390MHz * 0.25% = 975kHz

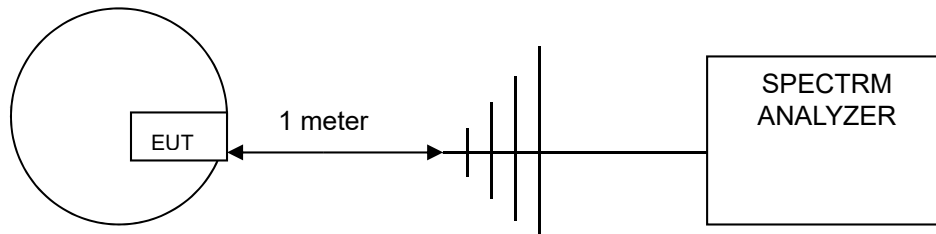


4.4 Deactivation Time Measurement

4.4.1 Limits of Deactivation Time Measurement

A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

- The EUT was placed on the turning table.
- The signal was coupled to the spectrum analyzer through an antenna.
- Set the resolution bandwidth to 1MHz and video bandwidth to 3MHz. The spectrum analyser was turned to the centre frequency of the transmitter's and the analyser's marker function was used to determine the duration of transmission.
- The transmission duration was measured and recorded.

4.4.5 Deviation from Test Standard

No deviation.

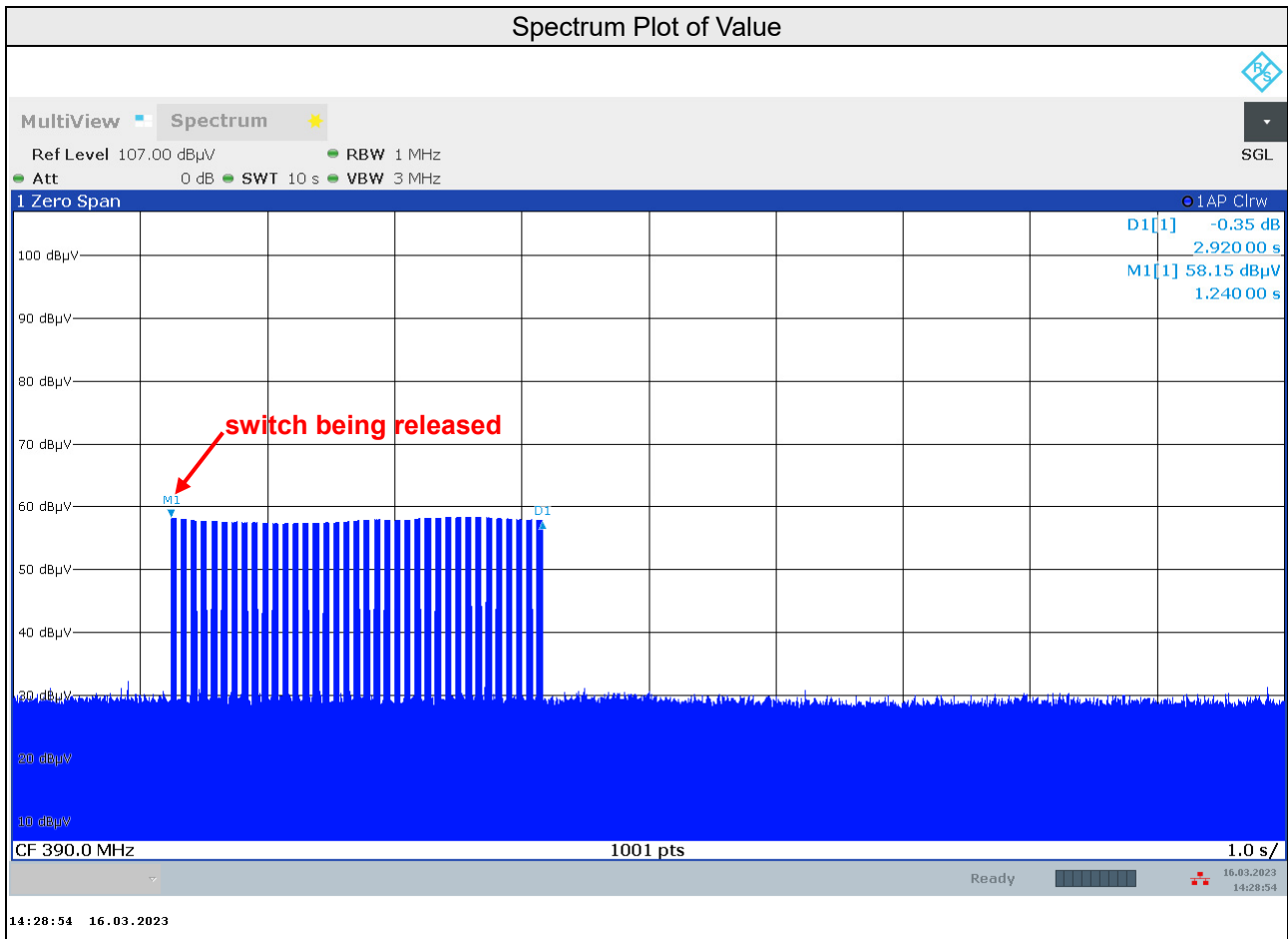
4.4.6 EUT Operating Conditions

Same as Item 4.1.6.

4.4.7 Test Results

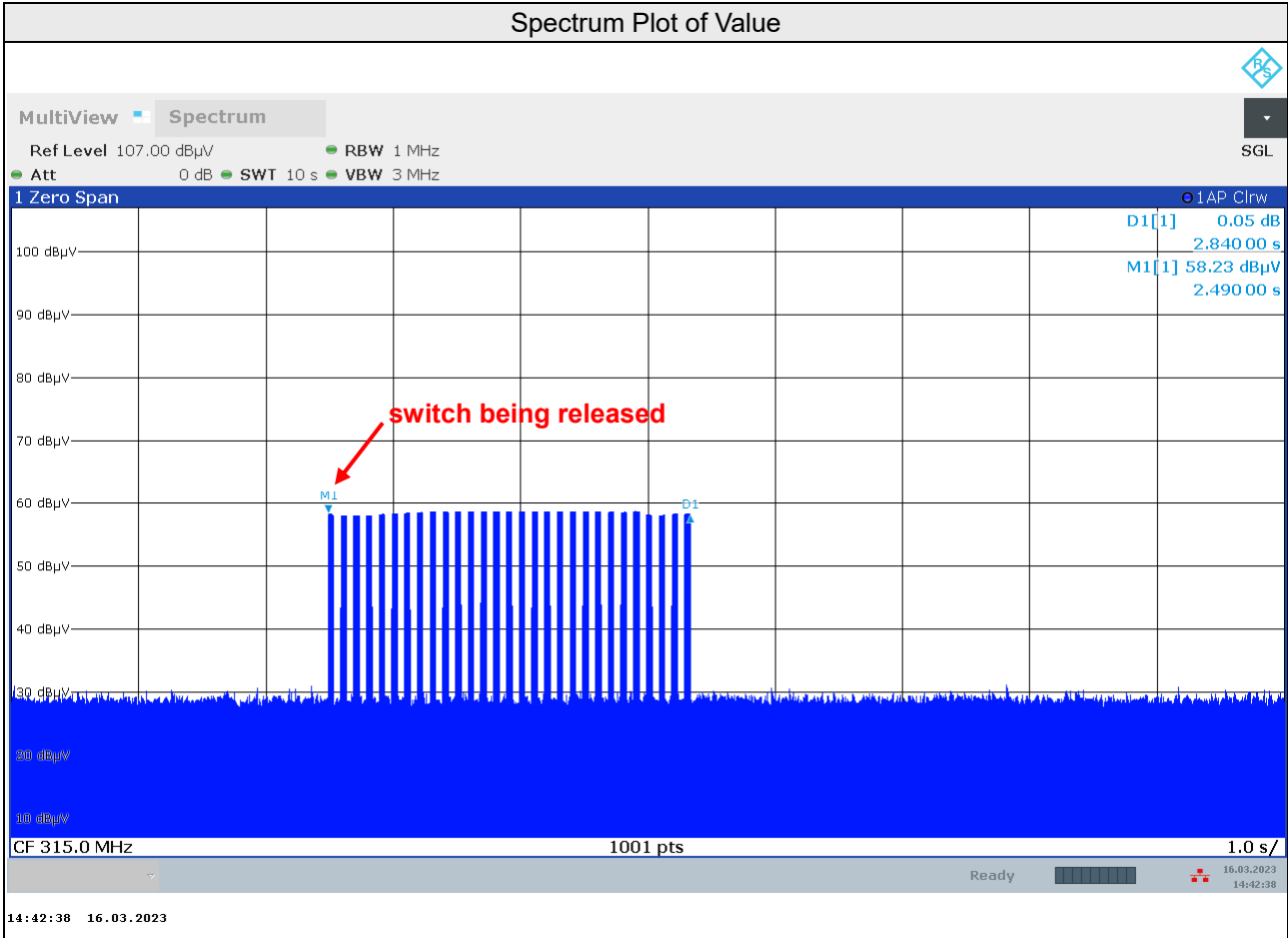
Code B

Push Button	Frequency (MHz)	Maximum Limit (Sec)	Pass/Fail
1	390	5	Pass

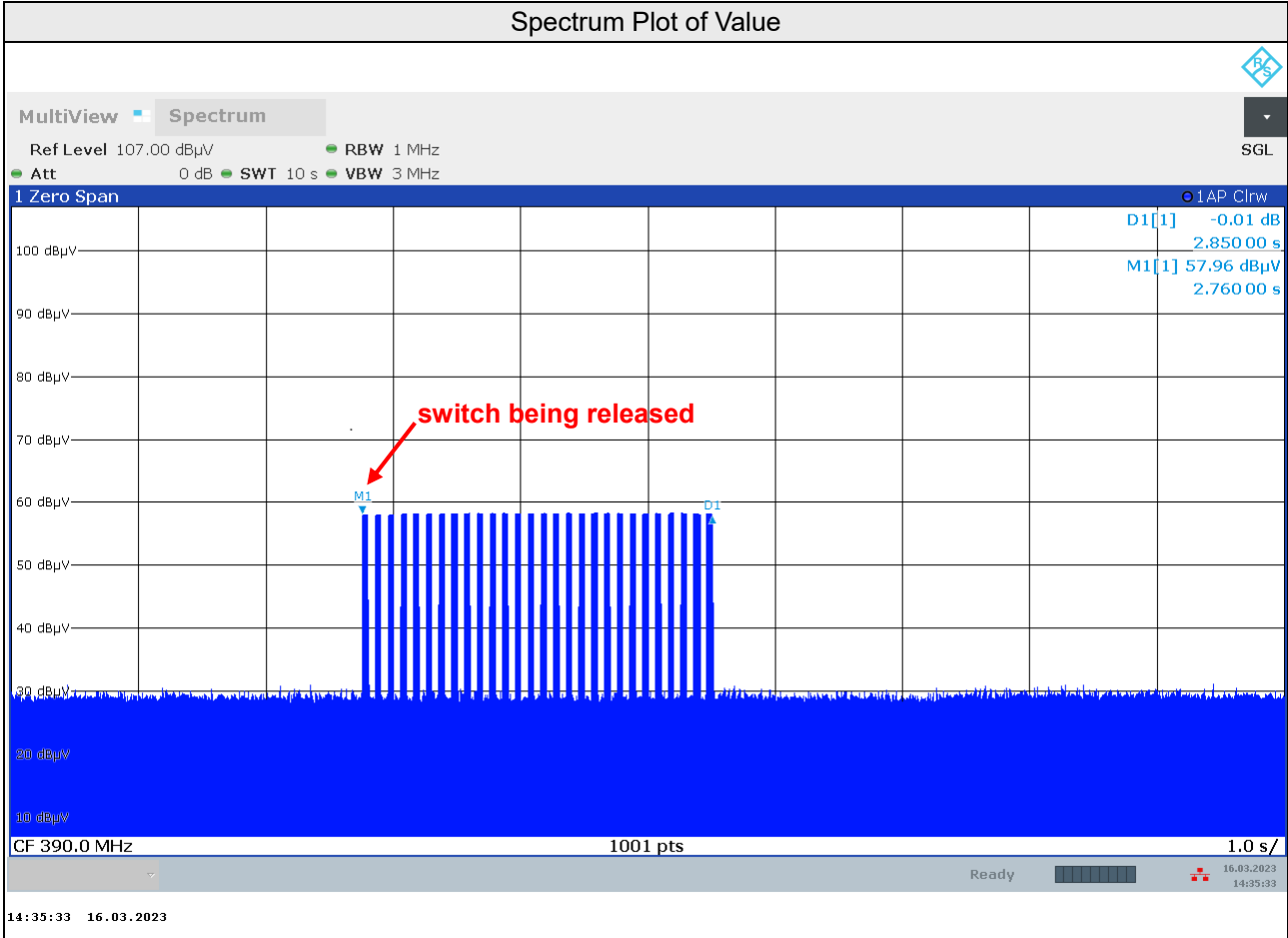


Code D

Push Button	Frequency (MHz)	Maximum Limit (Sec)	Pass/Fail
1	315	5	Pass

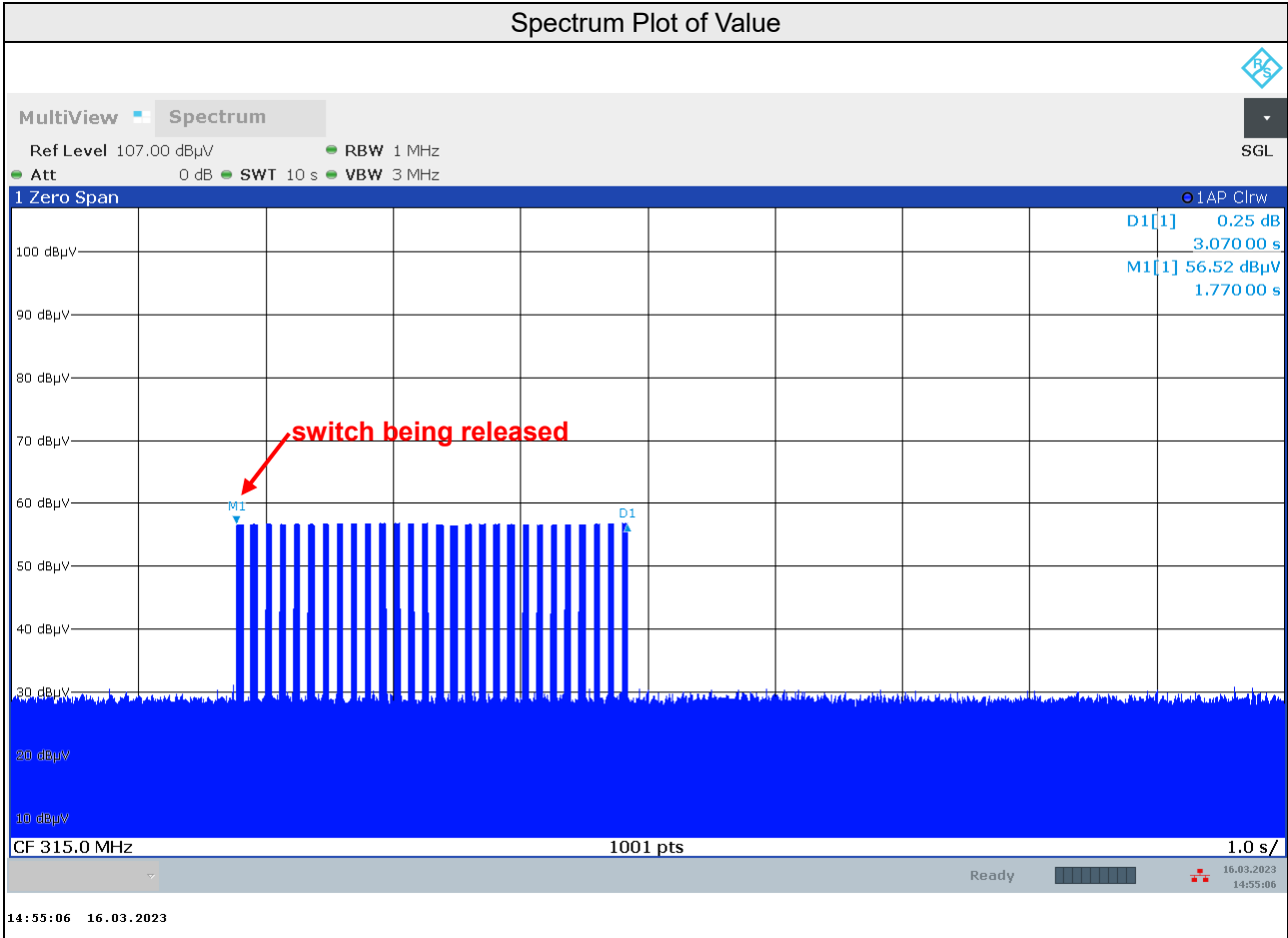


Push Button	Frequency (MHz)	Maximum Limit (Sec)	Pass/Fail
1	390	5	Pass

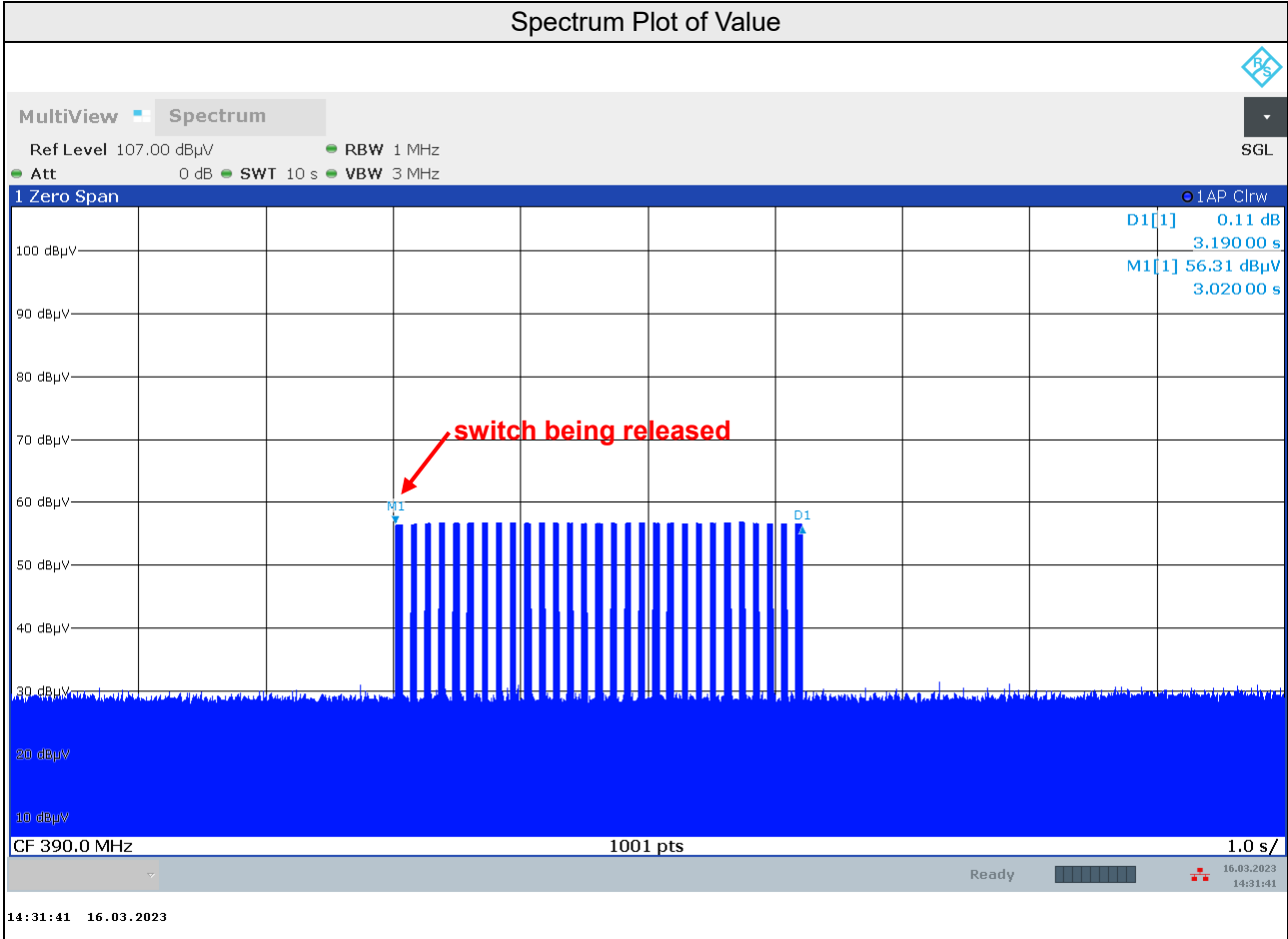


Code E

Push Button	Frequency (MHz)	Maximum Limit (Sec)	Pass/Fail
1	315	5	Pass



Push Button	Frequency (MHz)	Maximum Limit (Sec)	Pass/Fail
1	390	5	Pass



5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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The address and road map of all our labs can be found in our web site also.

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