FCC Test Report

Report No.:	RFBERD-WTW-P20110720A-4
FCC ID:	HD5-CT60L0N
Test Model:	CT60L0N
Received Date:	2022/2/11
Test Date:	2022/2/21 ~ 2022/3/23
Issued Date:	2022/5/12
Applicant:	Honeywell International Inc.
Address:	9680 Old Bailes Road, Fort Mill, SC 29707 USA
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
Test Location:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan
FCC Registration / Designation Number:	723255 / TW2022

Testing Laboratory
2022

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Release Control Record

Issue No.	Description	Date Issued
RFBERD-WTW-P20110720A-4	Original release.	2022/5/12

1 Certificate of Conformity

Product:	Dolphin CT60
Brand:	Honeywell
Test Model:	CT60L0N
Sample Status:	Engineering sample
Applicant:	Honeywell International Inc.
Test Date:	2022/2/21 ~ 2022/3/23
Standards:	47 CFR FCC Part 15, Subpart C (Section 15.225) 47 CFR FCC Part 15, Subpart C (Section 15.215) 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 EMC characteristics under the conditions specified in this report.

Prepared by : Cherry Chuo , **Date:** 2022/5/12

Cherry Chuo / Specialist

Approved by : , **Date:** 2022/5/12

May Chen / Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.225, 15.215)			
FCC Clause	Test Item	Result	Remarks
15.207	Conducted emission test	Pass	Meet the requirement of limit. Minimum passing margin is -9.91 dB at 0.15017 MHz.
15.225 (a)	The field strength of any emissions within the band 13.553-13.567 MHz	Pass	Meet the requirement of limit. Minimum passing margin is -74.35 dB at 13.560 MHz.
15.225 (b)	The field strength of any emissions within the bands 13.410-13.553 MHz and 13.567-13.710 MHz	Pass	Meet the requirement of limit.
15.225 (c)	The field strength of any emissions within the bands 13.110-13.410 MHz and 13.710-14.010 MHz	Pass	Meet the requirement of limit.
15.225 (d)	The field strength of any emissions appearing outside of the 13.110-14.010 MHz band	Pass	Meet the requirement of limit. Minimum passing margin is -10.4 dB at 235.42 MHz and 239.12 MHz.
15.225 (e)	The frequency tolerance	Pass	Meet the requirement of limit.
15.215 (c)	20dB Bandwidth	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) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.9 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.1 dB
	30MHz ~ 1GHz	5.4 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Dolphin CT60
Brand	Honeywell
Test Model	CT60L0N
Status of EUT	Engineering sample
HW Version	V1.1
HW P/N	DVT
SW Version	OS.05.001-HON.03.002
SW P/N	477D
Power Supply Rating	3.6Vdc or 3.85Vdc from battery, 5Vdc from USB interface
Modulation Type	ASK
Transfer Rate	Refer to Note
Operating Frequency	13.56MHz
Number of Channel	1
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Battery x1, comfort cover x1
Data Cable Supplied	USB snap-on adapter x 1 (1.25m, Shielded with two cores)

Note:

1. This is a supplementary report of Report No.: RF170908C01-4. The differences between them are as below information:
   - Add 802.11n (HT40) modulation mode.
   - Change NFC chip.
   - Add a battery.
   - Changes as listed below information.

SOM Change list	
RF Module	Underfill Modified
RF Module	LPDDR4x Layout Optimization
RF Module	Wi-Fi Layout Optimization
RF Module	SOM PAD Mask Optimization
RF Module	Change DC regulator and WLAN amplifier DC power
RF Module	BOM Change for Optimization **
RF Module	Remove un-used CLK trace WCN_CLK
RF Module	WIFI 11b Power reduction from 18+/-1.5 dB to 17.5+/-1.5 dB
RF Module	Enable WIFI 2.4G N40 by software

Carrier board Change list	
Carrier Board	Scanner change to N6703 imager
Carrier Board	Add 1F/2.7V supercap
Carrier Board	Add MAX38888 DC/DC for supercap charge/ change discharge circuit
Carrier Board	Add low battery protection circuit
Carrier Board	Change speaker and add a connector for it
Carrier Board	Change ADS1014 to ADS1015 to add supercap voltage detection
Carrier Board	AUX antenna tuner circuit change placement location
Carrier Board	Upgrade the SOM to SOM4
Carrier Board	Add a new model battery
Carrier Board	NFC Controller from NQ310 to NQ410
Carrier Board	Add the second source (OV13855 Camera, S0703VE insertion
Carrier Board	Add the second source (ESD, ADC, OPT Sensor, Translator, 6-axis sensor, Pressure sensor,Analog switch)

2. According to above conditions and the applicant requirement, all test items need to be performed. And all data were verified to meet the requirements.
3. There are WLAN, Bluetooth and NFC technology used for the EUT.
4. Simultaneously transmission condition.

Condition	Technology	
1	WLAN 2.4GHz	NFC
2	WLAN 5GHz	NFC
3	Bluetooth	NFC
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.		

5. The EUT needs to be supplied from battery, the information is as below table:

Original			
No.	Brand	Model No.	Spec.
1	Inventus	CT50-BTSC	3.6 Vdc, 4040 mAh, 14.6 Wh
Newly			
No.	Brand	Model No.	Spec.
2	Honeywell	CT50-BTSC	3.85 Vdc,4020 mAh,15.5 Wh

6. The EUT has four types according to NFC technology as following table:

Mode	Type	Modulation	Data rate
Active	A	100%, ASK	106 kbit/s
	B	10%, ASK	106 kbit/s
	F	8-30%, ASK	212 kbit/s, 424 kbit/s
	V	100%, ASK	26.48 kbit/s
Note: For AC Power Conducted Emission test, from the above types the **Type A** was selected as representative model for the test and its data was recorded in this report.			

7. The antennas provided to the EUT, please refer to the following table:

WLAN / Bluetooth Antenna Spec.				
Antenna No.	Antenna Gain include path loss (dBi)	Frequency rang (GHz)	Antenna type	Connector type
1	0.62	2.4~2.4835	PIFA	UFL
	1.14	5.15~5.25		
	1.14	5.25~5.35		
	1.14	5.47~5.725		
	1.14	5.725~5.85		
NFC Antenna Spec.				
Antenna No.	Frequency rang (MHz)	Antenna type	Connector type	
1	13~14	Loop	NA	
Note: 1. The antenna has path loss. 2.4GHz: 1dB; 5GHz: 1.7dB				

8. For the radiated emissions, the EUT was pre-tested under the following modes:

Test Mode	Description
Mode A	**Power from laptop**
Mode B	Power from adapter
Note: In original report, from the worst case was found in Mode A. Therefore only the test data of the mode was recorded in this report.	

9. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

10. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

3.2 Description of Test Modes

One channel was provided to this EUT:

Channel	Frequency (MHz)
1	13.56

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE	PLC	FS	EB	
1	√	√	√	√	Power from laptop
2	-	√	-	-	Power from adapter

Where **RE≥1G:** Radiated Emission **PLC:** Power Line Conducted Emission

FS: Frequency Stability **EB:** 20dB Bandwidth measurement

Note: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Y-plane (Below 30 MHz)** and **Z-plane (Above 30MHz)**.

Radiated 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.

Available Channel	Tested Channel	Modulation Type
1	1	ASK

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.

Available Channel	Tested Channel	Modulation Type
1	1	ASK

Frequency Stability:

☒ 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.

Available Channel	Tested Channel	Modulation Type
1	1	ASK

20dB Bandwidth:

☒ 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.

Available Channel	Tested Channel	Modulation Type
1	1	ASK

Test Condition:

Applicable to	Environmental Conditions	Input Power (System)	Tested By
RE	18~24deg. C, 64~67%RH	120Vac, 60Hz	Tom Yang, Nelson Teng
PLC	24deg. C, 67%RH	120Vac, 60Hz	Tom Yang
FS	25deg. C, 60%RH	120Vac, 60Hz	Leon Dai
EB	25deg. C, 60%RH	120Vac, 60Hz	Leon Dai

3.3 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.	Laptop	ACER	N15W8	NA	NA	Supplied by applicant
B.	Micro SD Card	Transcend	16GB	NA	NA	Provided by Lab
C.	USB Adapter	ASUS	EXA1205UA	NA	NA	Provided by Lab

Note:

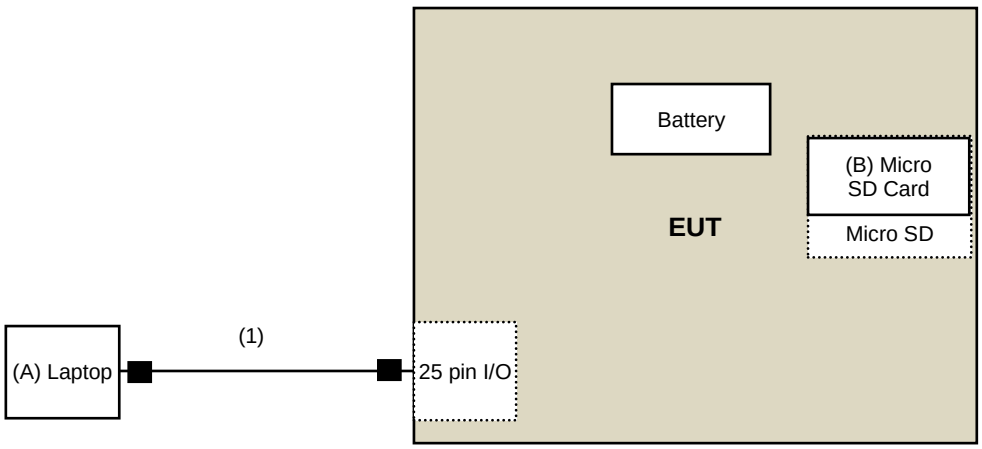
1. All power cords of the above support units are non-shielded (1.8m).

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB Charging Cable	1	1.25	Yes	2	Supplied by applicant

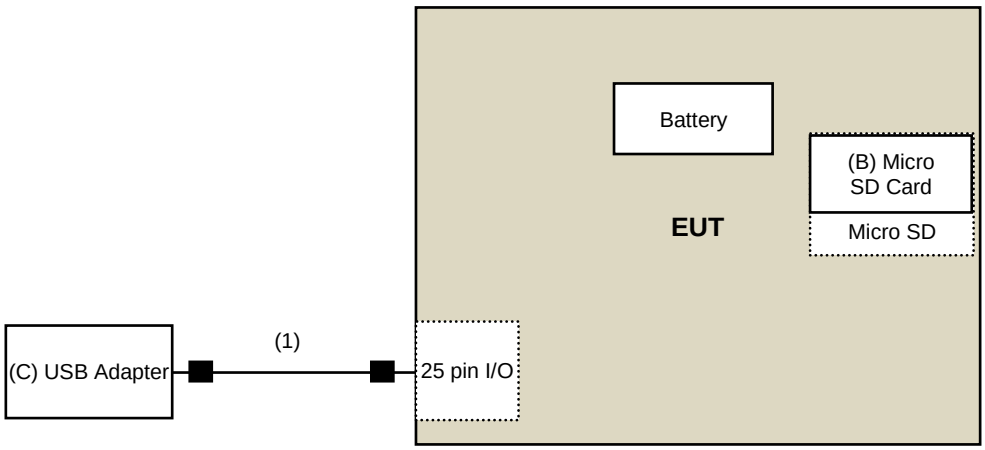
Note: The core(s) is(are) originally attached to the cable(s).

3.3.1 Configuration of System under Test

Power from laptop mode



Power from adapter mode



3.4 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:

FCC Part 15, Subpart C (15.225)
FCC Part 15, Subpart C (15.215)
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

(a) The field strength of any emissions within the band 13.553-13.567 MHz shall not exceed 15,848 microvolts/meter at 30 meters.

(b) Within the bands 13.410-13.553 MHz and 13.567-13.710 MHz, the field strength of any emissions shall not exceed 334 microvolts/meter at 30 meters.

(c) Within the bands 13.110-13.410 MHz and 13.710-14.010 MHz the field strength of any emissions shall not exceed 106 microvolts/meter at 30 meters.

(d) The field strength of any emissions appearing outside of the 13.110-14.010 MHz band shall not exceed the general radiated emission limits in §15.209 as below table:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
0.009 ~ 0.490	2400/F(kHz)	300
0.490 ~ 1.705	24000/F(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:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
4. 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

For Radiated Emission test: (Below 30MHz)

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Spectrum Analyzer KEYSIGHT	N9030B	MY57142938	2021/4/26	2022/4/25
Test Receiver KEYSIGHT	N9038A	MY59050100	2021/5/3	2022/5/2
Software	ADT_Radiated_V8.7 .08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Pre_Amplifier EMCI	EMC001340	980142	2021/5/24	2022/5/23
Loop Antenna TESEQ	HLA 6121	45745	2021/7/21	2022/7/20
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-001	2022/1/6	2023/1/5
RF Coaxial Cable JYEBO	5D-FB	LOOPCAB-002	2022/1/6	2023/1/5

Note: 1. The test was performed in 966 Chamber No. 3.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: 2022/2/21

For Radiated Emission test: (Above 30MHz)

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Spectrum Analyzer KEYSIGHT	N9030B	MY57142938	2021/4/26	2022/4/25
Test Receiver KEYSIGHT	N9038A	MY59050100	2021/5/3	2022/5/2
Software	ADT_Radiated_V8.7 .08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Pre_Amplifier Mini-Circuits	ZFL-1000VH2	QA0838008	2021/10/19	2022/10/18
Trilog Broadband Antenna Schwarzbeck	VULB 9168	9168-361	2021/10/26	2022/10/25
RF Coaxial Cable COMMATE/PEWC	8D	966-3-1	2022/2/26	2023/2/25
RF Coaxial Cable COMMATE/PEWC	8D	966-3-2	2022/2/26	2023/2/25
RF Coaxial Cable COMMATE/PEWC	8D	966-3-3	2022/2/26	2023/2/25
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	2021/9/23	2022/9/22

Note: 1. The test was performed in 966 Chamber No. 3.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: 2022/3/23

For other test items:

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Spectrum Analyzer R&S	FSV40	100964	2021/5/31	2022/5/30
Attenuator WOKEN	MDCS18N-10	MDCS18N-10-01	2021/4/13	2022/4/12
Software	ADT_RF Test Software V6.6.5.4	NA	NA	NA
DC POWER SUPPLY Topward	6603D	795558	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	2022/1/14	2023/1/13
True RMS Clamp Meter Fluke	325	31130711WS	2021/6/2	2022/6/1

Note: 1. The test was performed in Oven room 2.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: 2022/3/15

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 or Peak / Average Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

1. The resolution bandwidth of test receiver/spectrum analyzer is 200Hz at frequency below 150kHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 9kHz at frequency 150kHz ~ 30MHz.

For Radiated Emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters 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.

Note:

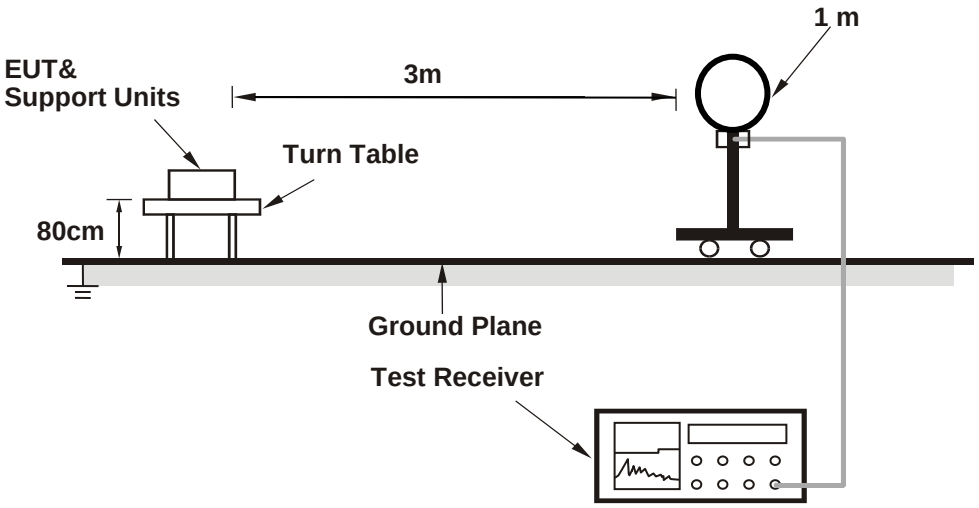
1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

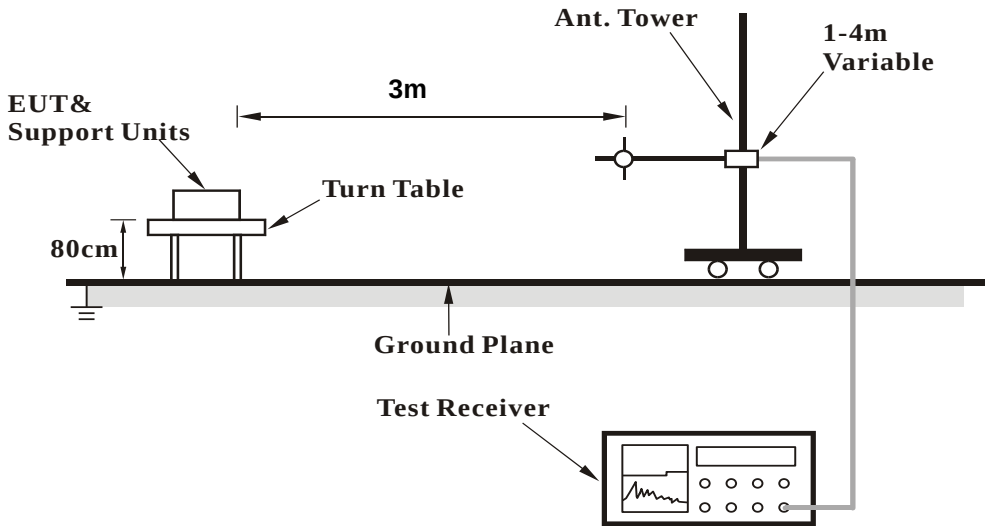
No deviation.

4.1.5 Test Setup

For Radiated Emission below 30MHz



For Radiated Emission 30MHz to 1GHz



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

4.1.6 EUT Operating Conditions

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

4.1.7 Test Results

Type A

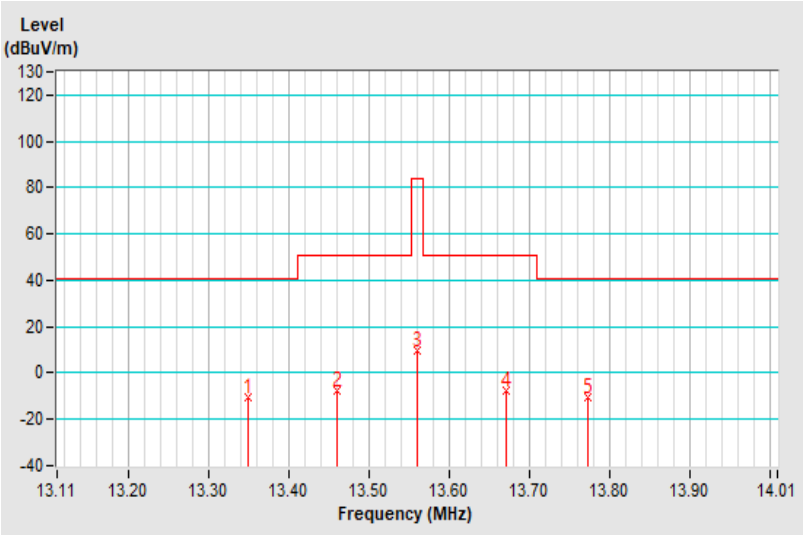
Below 30MHz Data:

Frequency Range	13.11 MHz ~ 14.01 MHz	**Detector Function & Bandwidth**	Quasi-Peak (QP), 9 kHz

Antenna Polarity : Parallel								
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	13.348	-10.63 QP	40.51	-51.14	1.00	25	32.12	-42.75
2	13.459	-7.64 QP	50.47	-58.11	1.00	25	35.12	-42.76
3	***13.560**	**9.65 QP**	**84.00**	**-74.35**	**1.00**	**25**	**52.43**	**-42.78**
4	13.671	-7.40 QP	50.47	-57.87	1.00	25	35.39	-42.79
5	13.773	-10.42 QP	40.51	-50.93	1.00	25	32.39	-42.81

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. The test distance for 0.49 ~ 30 MHz is 3 m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

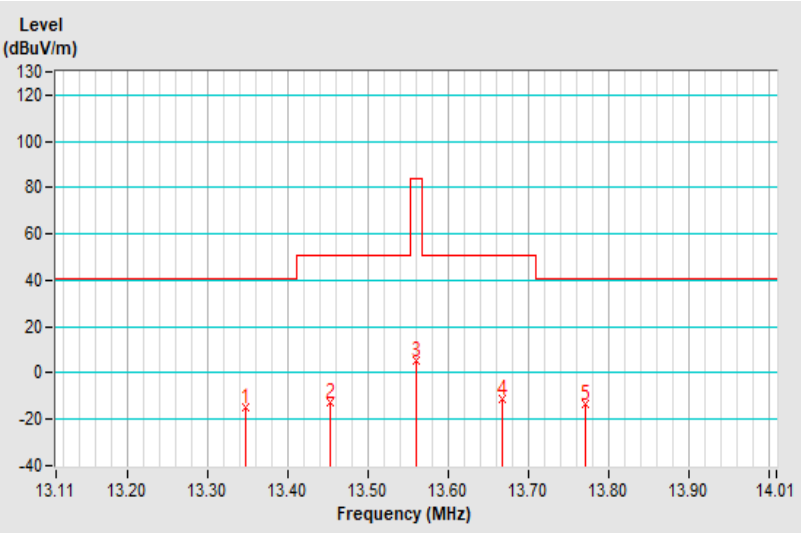


Frequency Range	13.11 MHz ~ 14.01 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9 kHz

Antenna Polarity : Perpendicular								
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	13.346	-14.77 QP	40.51	-55.28	1.00	153	27.98	-42.75
2	13.453	-12.54 QP	50.47	-63.01	1.00	153	30.22	-42.76
3	*13.560	5.74 QP	84.00	-78.26	1.00	153	48.52	-42.78
4	13.668	-11.08 QP	50.47	-61.55	1.00	153	31.71	-42.79
5	13.772	-13.58 QP	40.51	-54.09	1.00	153	29.23	-42.81

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. The test distance for 0.49 ~ 30 MHz is 3 m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

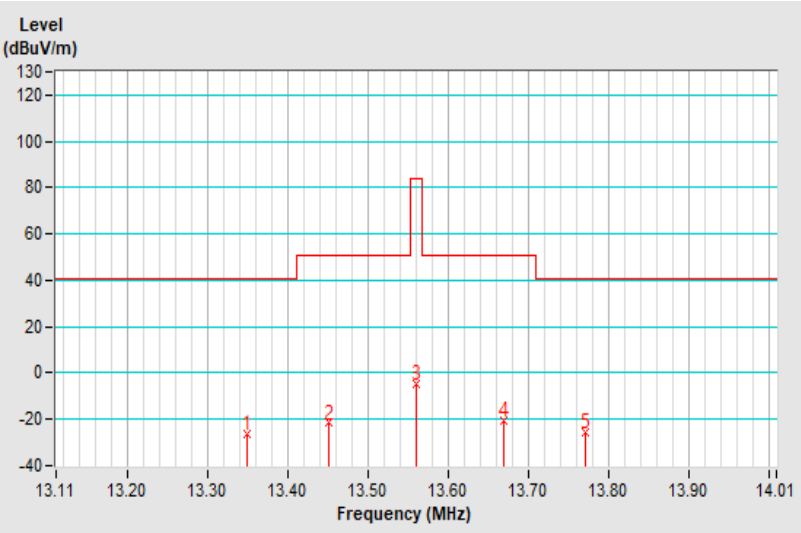


Frequency Range	13.11 MHz ~ 14.01 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9 kHz

Antenna Polarity : Ground-parallel								
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	13.349	-26.30 QP	40.51	-66.81	1.00	157	16.45	-42.75
2	13.451	-21.59 QP	50.47	-72.06	1.00	157	21.17	-42.76
3	*13.560	-4.38 QP	84.00	-88.38	1.00	157	38.40	-42.78
4	13.670	-20.33 QP	50.47	-70.80	1.00	157	22.46	-42.79
5	13.772	-25.58 QP	40.51	-66.09	1.00	157	17.23	-42.81

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. The test distance for 0.49 ~ 30 MHz is 3 m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

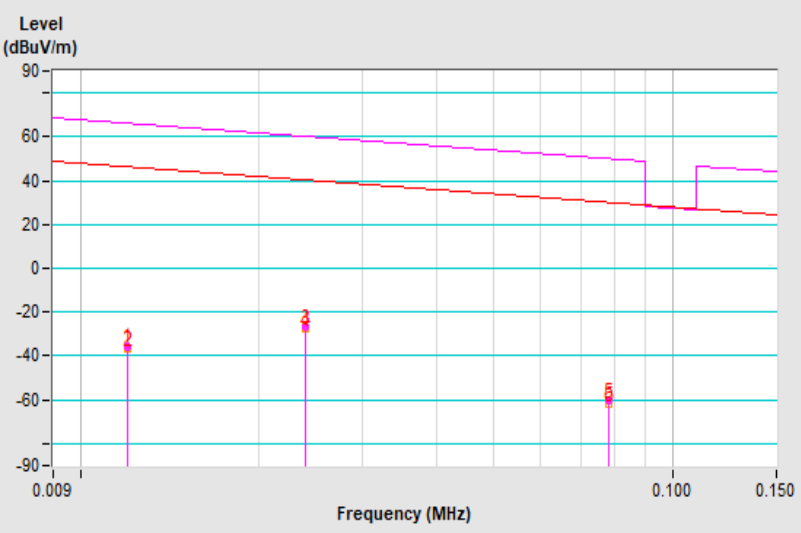


Frequency Range	9 kHz ~ 150 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 200 Hz

Antenna Polarity : Parallel								
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	0.012	-35.83 PK	66.02	-101.85	1.00	127	8.99	-44.82
2	0.012	-36.91 AV	46.02	-82.93	1.00	127	7.91	-44.82
3	0.024	-26.76 PK	60.00	-86.76	1.00	42	23.23	-49.99
4	0.024	-27.55 AV	40.00	-67.55	1.00	42	22.44	-49.99
5	0.078	-60.63 PK	49.75	-110.38	1.00	245	0.13	-60.76
6	0.078	-62.00 AV	29.76	-91.76	1.00	245	-1.24	-60.76

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49 MHz is 3 m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

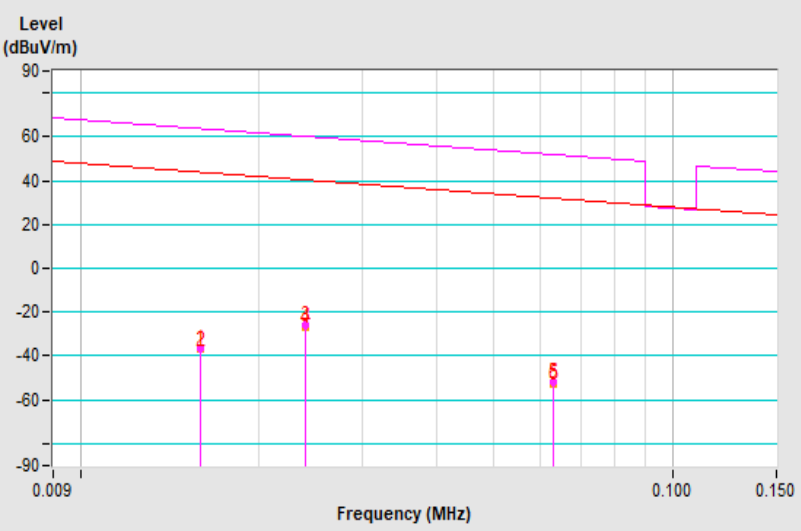


Frequency Range	9 kHz ~ 150 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 200 Hz

Antenna Polarity : Perpendicular								
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	0.016	-36.51 PK	63.52	-100.03	1.00	52	10.10	-46.61
2	0.016	-36.68 AV	43.52	-80.20	1.00	52	9.93	-46.61
3	0.024	-25.64 PK	60.00	-85.64	1.00	247	24.35	-49.99
4	0.024	-26.53 AV	40.00	-66.53	1.00	247	23.46	-49.99
5	0.063	-51.53 PK	51.61	-103.14	1.00	64	7.14	-58.67
6	0.063	-52.46 AV	31.62	-84.08	1.00	64	6.21	-58.67

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49 MHz is 3 m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

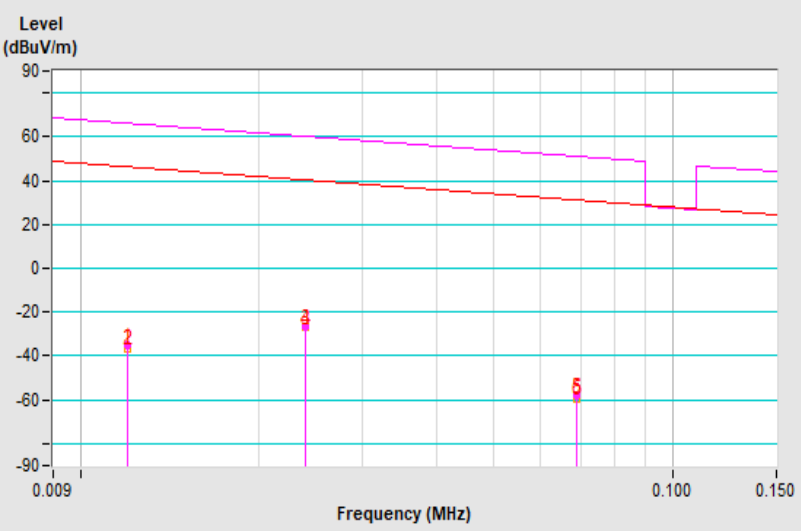


Frequency Range	9 kHz ~ 150 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 200 Hz

Antenna Polarity : Ground-parallel								
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	0.012	-35.25 PK	66.02	-101.27	1.00	222	9.57	-44.82
2	0.012	-36.23 AV	46.02	-82.25	1.00	222	8.59	-44.82
3	0.024	-26.97 PK	60.00	-86.97	1.00	124	23.02	-49.99
4	0.024	-26.97 AV	40.00	-66.97	1.00	124	23.02	-49.99
5	0.069	-58.07 PK	50.82	-108.89	1.00	200	1.44	-59.51
6	0.069	-59.33 AV	30.83	-90.16	1.00	200	0.18	-59.51

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49 MHz is 3 m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

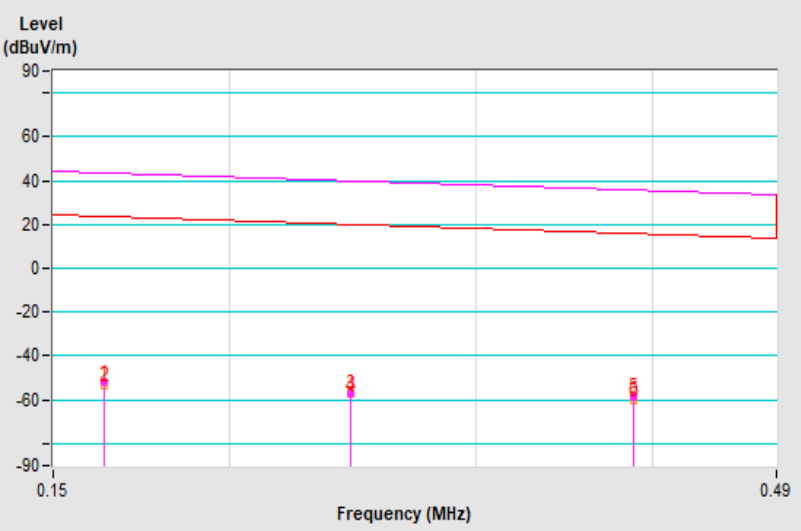


Frequency Range	150 kHz ~ 490 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 9 kHz

Antenna Polarity : Parallel								
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	0.163	-52.10 PK	43.36	-95.46	1.00	126	14.11	-66.21
2	0.163	-53.02 AV	23.36	-76.38	1.00	126	13.19	-66.21
3	0.244	-57.04 PK	39.85	-96.89	1.00	26	12.39	-69.43
4	0.244	-57.50 AV	19.85	-77.35	1.00	26	11.93	-69.43
5	0.388	-58.76 PK	35.83	-94.59	1.00	224	14.48	-73.24
6	0.388	-59.97 AV	15.83	-75.80	1.00	224	13.27	-73.24

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49 MHz is 3 m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

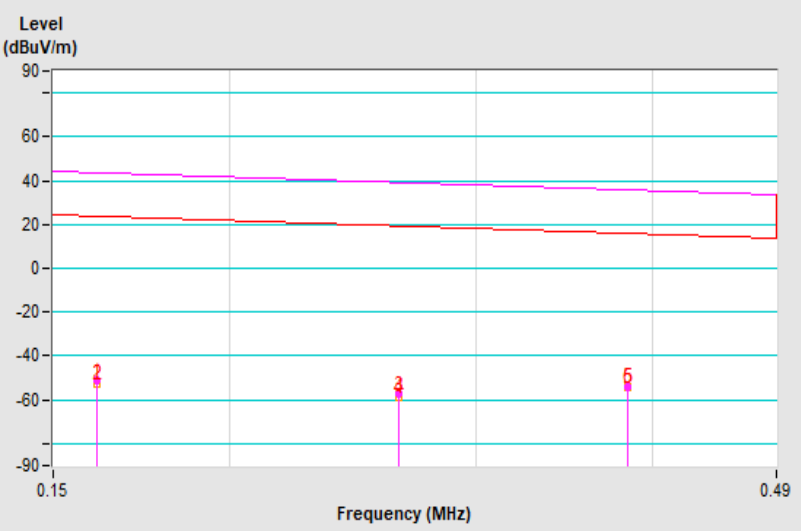


Frequency Range	150 kHz ~ 490 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 9 kHz

Antenna Polarity : Perpendicular								
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	0.161	-51.19 PK	43.47	-94.66	1.00	57	14.94	-66.13
2	0.161	-52.50 AV	23.47	-75.97	1.00	57	13.63	-66.13
3	0.264	-57.50 PK	39.17	-96.67	1.00	154	12.73	-70.23
4	0.264	-58.76 AV	19.17	-77.93	1.00	154	11.47	-70.23
5	0.384	-53.80 PK	35.92	-89.72	1.00	324	19.38	-73.18
6	0.384	-53.98 AV	15.92	-69.90	1.00	324	19.20	-73.18

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49 MHz is 3 m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

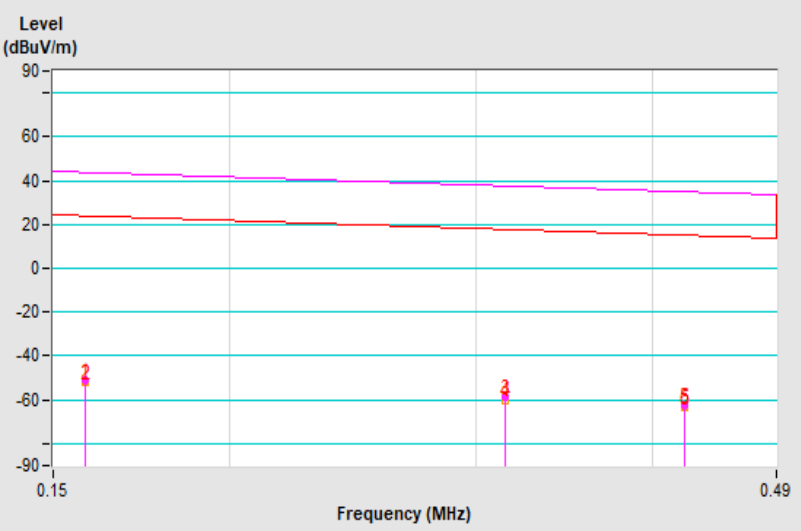


Frequency Range	150 kHz ~ 490 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 9 kHz

Antenna Polarity : Ground-parallel								
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	0.158	-51.25 PK	43.63	-94.88	1.00	245	14.77	-66.02
2	0.158	-52.12 AV	23.63	-75.75	1.00	245	13.90	-66.02
3	0.314	-58.94 PK	37.66	-96.60	1.00	234	12.98	-71.92
4	0.314	-60.15 AV	17.66	-77.81	1.00	234	11.77	-71.92
5	0.422	-62.61 PK	35.10	-97.71	1.00	153	11.27	-73.88
6	0.422	-63.61 AV	15.10	-78.71	1.00	153	10.27	-73.88

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49 MHz is 3 m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

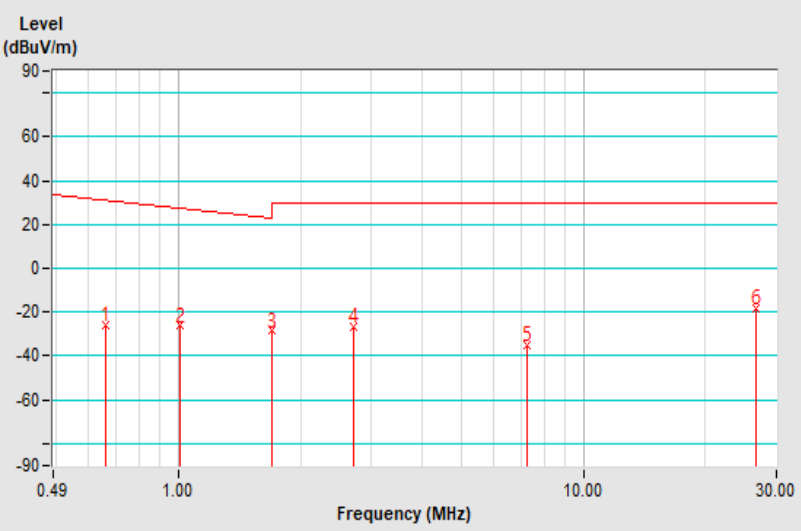


Frequency Range	490 kHz ~ 30 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9 kHz

Antenna Polarity : Parallel								
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	0.662	-25.74 QP	31.18	-56.92	1.00	100	10.85	-36.59
2	1.012	-25.98 QP	27.49	-53.47	1.00	111	13.17	-39.15
3	1.699	-28.58 QP	22.99	-51.57	1.00	157	11.91	-40.49
4	2.715	-26.53 QP	29.54	-56.07	1.00	68	16.04	-42.57
5	7.270	-34.74 QP	29.54	-64.28	1.00	164	8.30	-43.04
6	26.611	-18.05 QP	29.54	-47.59	1.00	125	24.74	-42.79

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for 0.49 ~ 30 MHz is 3 m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

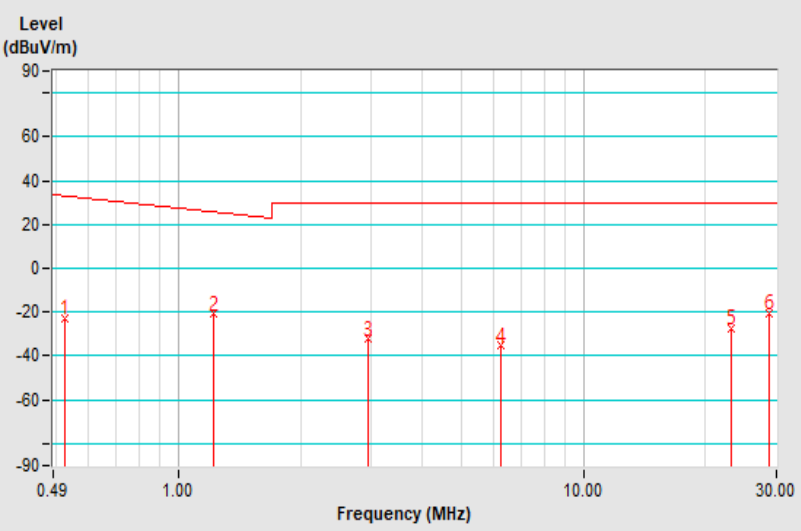


Frequency Range	490 kHz ~ 30 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9 kHz

Antenna Polarity : Perpendicular								
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	0.523	-22.92 QP	33.23	-56.15	1.00	114	12.62	-35.54
2	1.216	-20.93 QP	25.90	-46.83	1.00	81	18.62	-39.55
3	2.934	-32.31 QP	29.54	-61.85	1.00	241	10.71	-43.02
4	6.243	-35.13 QP	29.54	-64.67	1.00	154	8.22	-43.35
5	23.131	-27.34 QP	29.54	-56.88	1.00	312	15.94	-43.28
6	28.687	-20.41 QP	29.54	-49.95	1.00	254	22.11	-42.52

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for 0.49 ~ 30 MHz is 3 m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

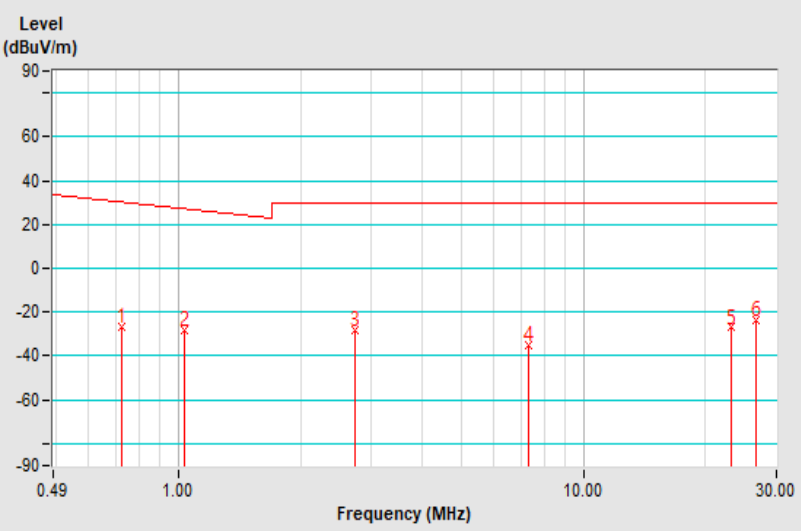


Frequency Range	490 kHz ~ 30 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9 kHz

Antenna Polarity : Ground-parallel								
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	0.723	-26.59 QP	30.42	-57.01	1.00	15	10.46	-37.05
2	1.032	-27.91 QP	27.32	-55.23	1.00	113	11.29	-39.20
3	2.730	-28.07 QP	29.54	-57.61	1.00	64	14.54	-42.61
4	7.321	-34.95 QP	29.54	-64.49	1.00	221	8.07	-43.02
5	23.130	-26.89 QP	29.54	-56.43	1.00	35	16.39	-43.28
6	26.611	-23.60 QP	29.54	-53.14	1.00	15	19.19	-42.79

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for 0.49 ~ 30 MHz is 3 m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB



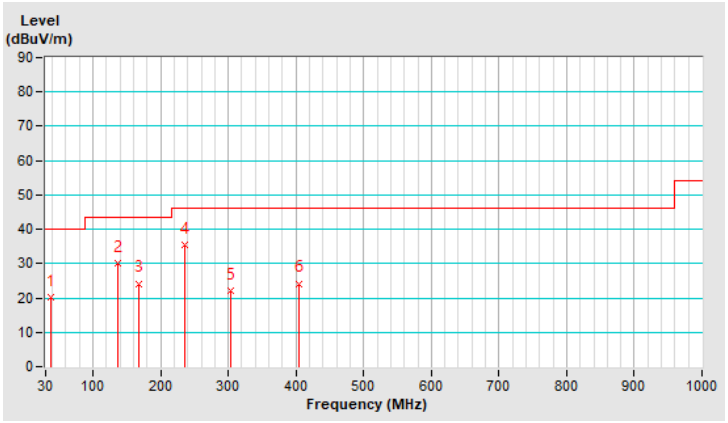
Above 30MHz Data:

Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test Distance : Horizontal at 3 m								
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	38.27	20.1 QP	40.0	-19.9	1.50 H	284	33.7	-13.6
2	136.60	30.2 QP	43.5	-13.3	2.00 H	260	43.9	-13.7
3	167.78	24.2 QP	43.5	-19.3	1.50 H	284	37.9	-13.7
4	**235.42**	**35.6 QP**	**46.0**	**-10.4**	**1.50 H**	**153**	**50.7**	**-15.1**
5	303.80	22.1 QP	46.0	-23.9	3.00 H	14	34.6	-12.5
6	404.87	24.2 QP	46.0	-21.8	2.00 H	312	34.5	-10.3

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

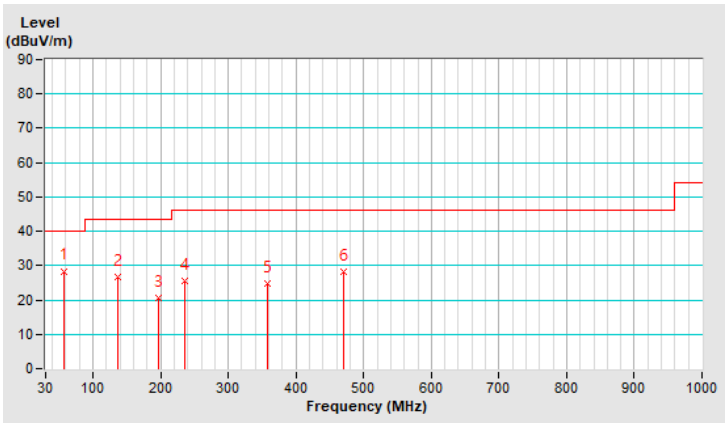


Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test Distance : Vertical at 3 m								
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	56.75	28.4 QP	40.0	-11.6	1.00 V	5	42.1	-13.7
2	137.11	26.6 QP	43.5	-16.9	1.50 V	145	40.3	-13.7
3	196.33	20.5 QP	43.5	-23.0	2.00 V	158	36.7	-16.2
4	234.81	25.6 QP	46.0	-20.4	1.50 V	200	40.8	-15.2
5	358.20	24.6 QP	46.0	-21.4	2.00 V	63	35.9	-11.3
6	471.31	28.1 QP	46.0	-17.9	2.00 V	15	36.6	-8.5

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



Type B

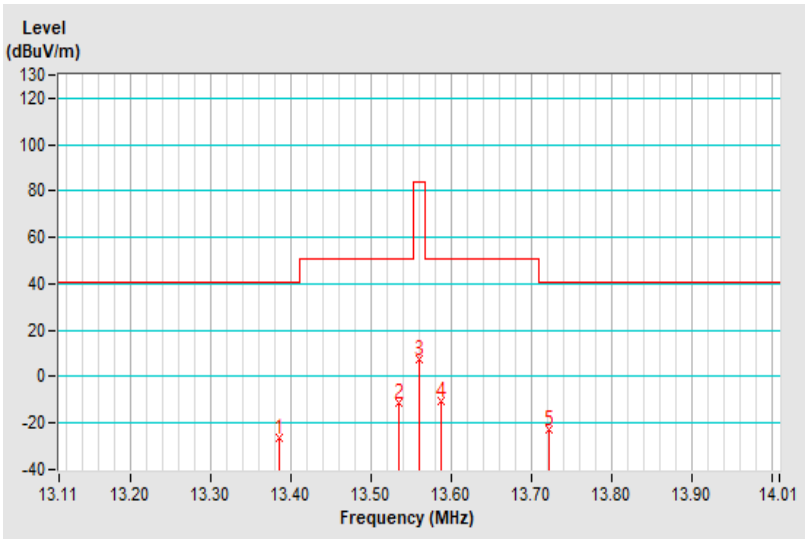
Below 30MHz Data:

Frequency Range	13.11 MHz ~ 14.01 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Parallel								
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	13.386	-25.99 QP	40.51	-66.50	1.00	142	16.76	-42.75
2	13.535	-11.05 QP	50.47	-61.52	1.00	142	31.73	-42.78
3	*13.560	7.54 QP	84.00	-76.46	1.00	142	50.32	-42.78
4	13.588	-10.13 QP	50.47	-60.60	1.00	142	32.65	-42.78
5	13.722	-22.98 QP	40.51	-63.49	1.00	142	19.82	-42.80

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

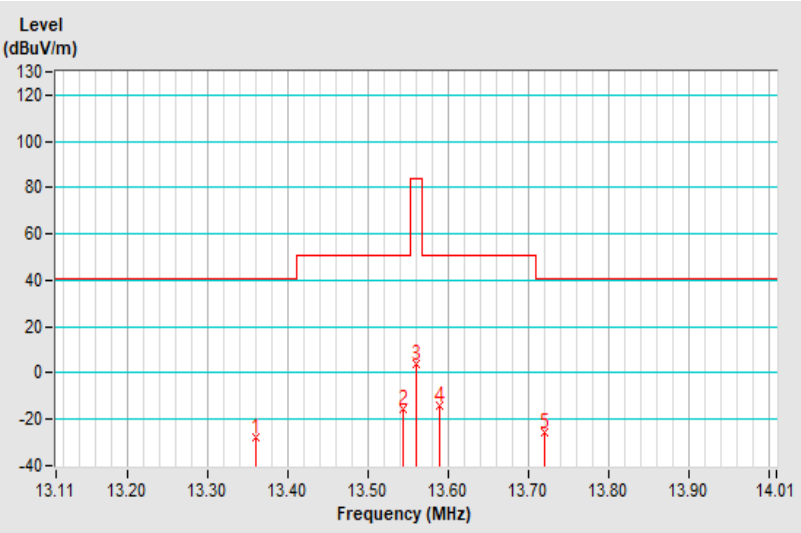


Frequency Range	13.11 MHz ~ 14.01 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Perpendicular								
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	13.360	-27.91 QP	40.51	-68.42	1.00	99	14.84	-42.75
2	13.543	-15.49 QP	50.47	-65.96	1.00	99	27.29	-42.78
3	*13.560	4.22 QP	84.00	-79.78	1.00	99	47.00	-42.78
4	13.589	-14.10 QP	50.47	-64.57	1.00	99	28.68	-42.78
5	13.721	-25.78 QP	40.51	-66.29	1.00	99	17.02	-42.80

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

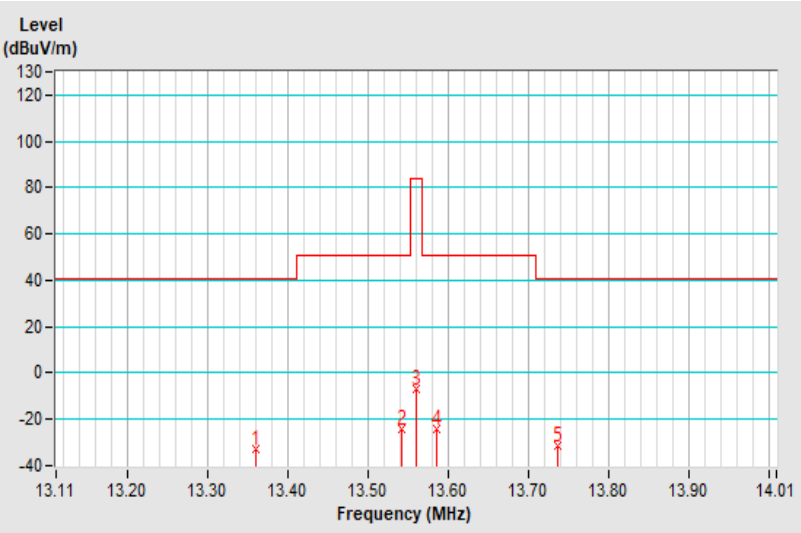


Frequency Range	13.11 MHz ~ 14.01 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Ground-parallel								
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	13.359	-33.05 QP	40.51	-73.56	1.00	61	9.70	-42.75
2	13.542	-24.43 QP	50.47	-74.90	1.00	61	18.35	-42.78
3	*13.560	-6.92 QP	84.00	-90.92	1.00	61	35.86	-42.78
4	13.586	-23.82 QP	50.47	-74.29	1.00	61	18.96	-42.78
5	13.737	-31.32 QP	40.51	-71.83	1.00	61	11.48	-42.80

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

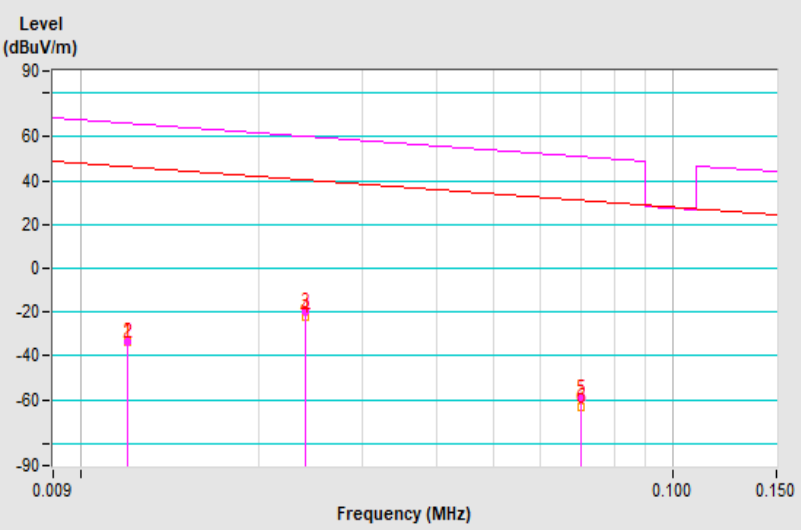


Frequency Range	9 kHz ~ 150 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 200Hz

Antenna Polarity : Parallel								
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	0.012	-33.23 PK	66.02	-99.25	1.00	325	11.59	-44.82
2	0.012	-33.23 AV	46.02	-79.25	1.00	325	11.59	-44.82
3	0.024	-19.71 PK	60.00	-79.71	1.00	41	30.28	-49.99
4	0.024	-22.08 AV	40.00	-62.08	1.00	41	27.91	-49.99
5	0.070	-59.43 PK	50.69	-110.12	1.00	105	0.22	-59.65
6	0.070	-62.95 AV	30.70	-93.65	1.00	105	-3.30	-59.65

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

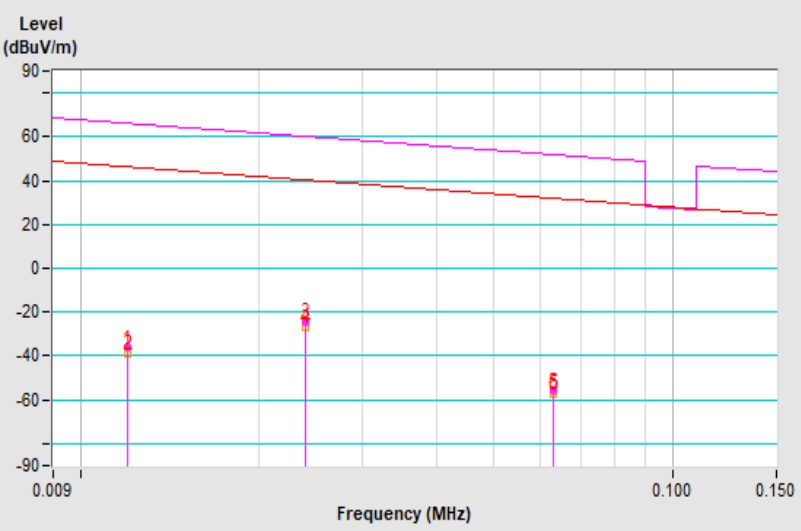


Frequency Range	9 kHz ~ 150 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 200Hz

Antenna Polarity : Perpendicular								
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	0.012	-36.04 PK	66.02	-102.06	1.00	132	8.78	-44.82
2	0.012	-38.63 AV	46.02	-84.65	1.00	132	6.19	-44.82
3	0.024	-24.16 PK	60.00	-84.16	1.00	70	25.83	-49.99
4	0.024	-26.57 AV	40.00	-66.57	1.00	70	23.42	-49.99
5	0.063	-55.74 PK	51.61	-107.35	1.00	89	2.93	-58.67
6	0.063	-57.24 AV	31.62	-88.86	1.00	89	1.43	-58.67

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

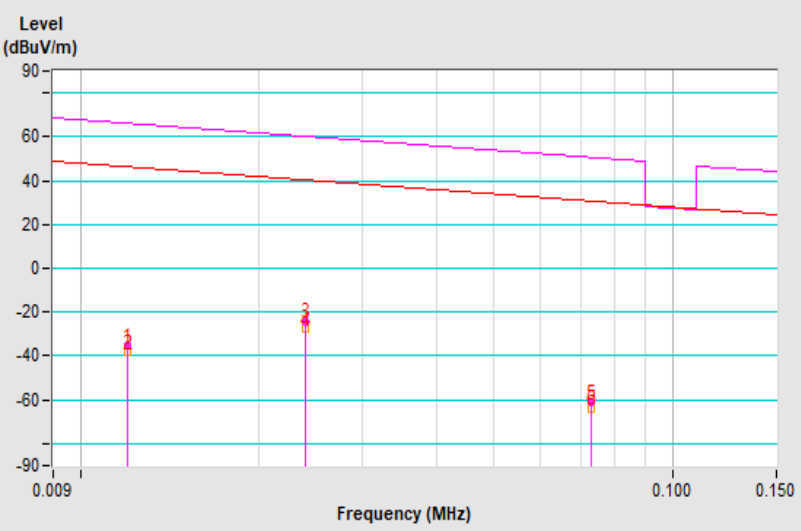


Frequency Range	9 kHz ~ 150 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 200Hz

Antenna Polarity : Ground-parallel								
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	0.012	-35.17 PK	66.02	-101.19	1.00	321	9.65	-44.82
2	0.012	-38.33 AV	46.02	-84.35	1.00	321	6.49	-44.82
3	0.024	-24.37 PK	60.00	-84.37	1.00	84	25.62	-49.99
4	0.024	-27.57 AV	40.00	-67.57	1.00	84	22.42	-49.99
5	0.073	-61.27 PK	50.33	-111.60	1.00	66	-1.20	-60.07
6	0.073	-63.83 AV	30.34	-94.17	1.00	66	-3.76	-60.07

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

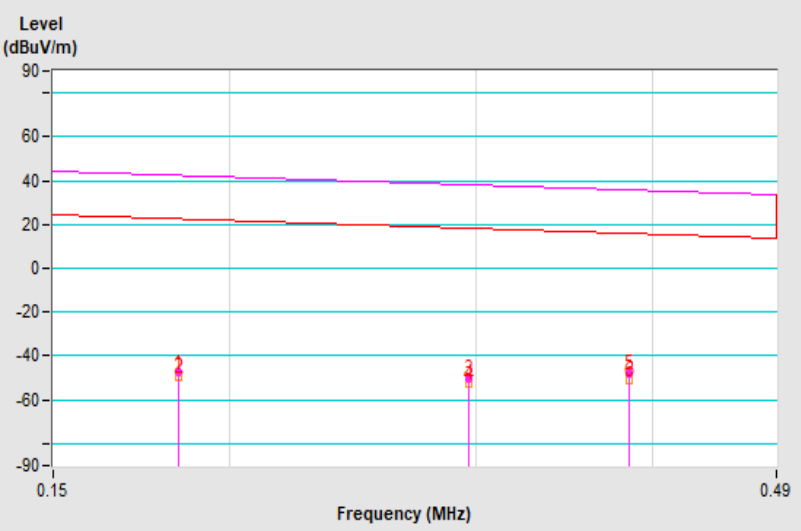


Frequency Range	150 kHz ~ 490 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 9kHz

Antenna Polarity : Parallel								
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	0.184	-47.58 PK	42.31	-89.89	1.00	54	19.45	-67.03
2	0.184	-49.35 AV	22.31	-71.66	1.00	54	17.68	-67.03
3	0.296	-50.36 PK	38.18	-88.54	1.00	99	21.15	-71.51
4	0.296	-52.64 AV	18.18	-70.82	1.00	99	18.87	-71.51
5	0.385	-47.84 PK	35.89	-83.73	1.00	38	25.36	-73.20
6	0.385	-50.98 AV	15.89	-66.87	1.00	38	22.22	-73.20

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

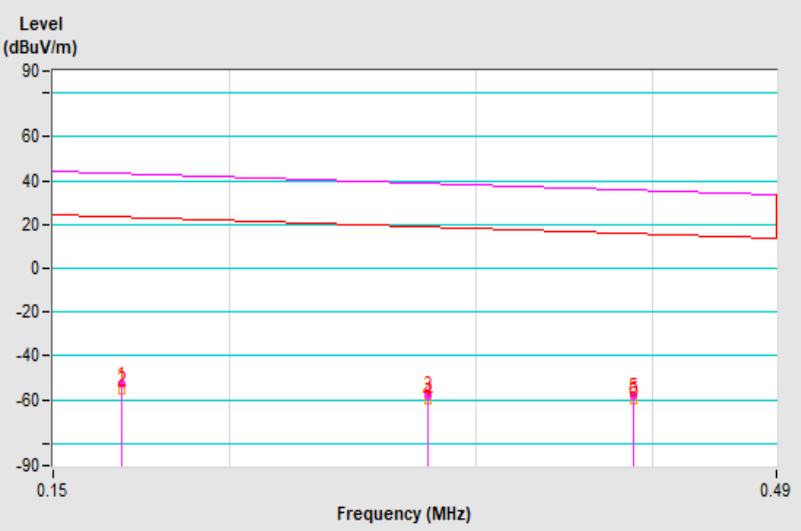


Frequency Range	150 kHz ~ 490 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 9kHz

Antenna Polarity : Perpendicular								
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	0.168	-52.87 PK	43.10	-95.97	1.00	122	13.54	-66.41
2	0.168	-55.71 AV	23.10	-78.81	1.00	122	10.70	-66.41
3	0.277	-57.76 PK	38.75	-96.51	1.00	120	12.99	-70.75
4	0.277	-60.11 AV	18.75	-78.86	1.00	120	10.64	-70.75
5	0.388	-58.05 PK	35.83	-93.88	1.00	56	15.19	-73.24
6	0.388	-60.10 AV	15.83	-75.93	1.00	56	13.14	-73.24

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

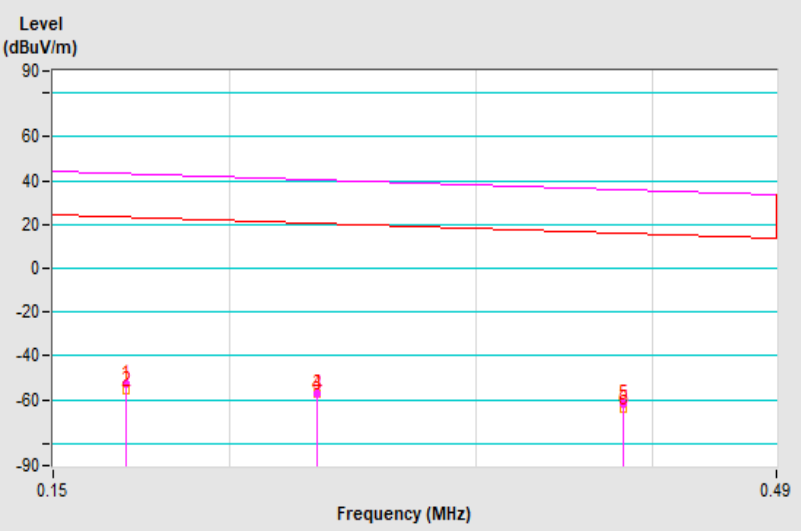


Frequency Range	150 kHz ~ 490 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 9kHz

Antenna Polarity : Ground-parallel								
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	0.169	-52.49 PK	43.04	-95.53	1.00	123	13.96	-66.45
2	0.169	-55.55 AV	23.04	-78.59	1.00	123	10.90	-66.45
3	0.231	-56.95 PK	40.33	-97.28	1.00	268	11.96	-68.91
4	0.231	-56.95 AV	20.33	-77.28	1.00	268	11.96	-68.91
5	0.381	-61.60 PK	35.98	-97.58	1.00	99	11.52	-73.12
6	0.381	-63.72 AV	15.98	-79.70	1.00	99	9.40	-73.12

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

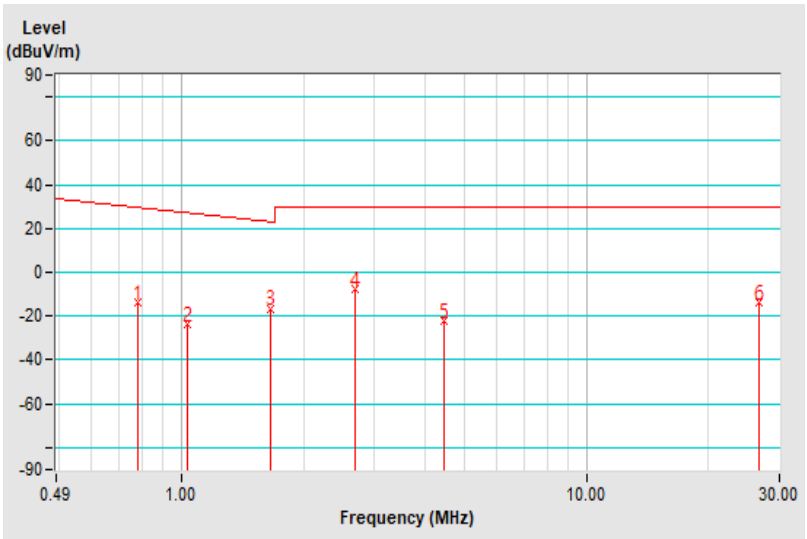


Frequency Range	490 kHz ~ 30 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Parallel								
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	0.780	-14.02 QP	29.76	-43.78	1.00	241	23.45	-37.47
2	1.038	-23.92 QP	27.27	-51.19	1.00	35	15.29	-39.21
3	1.661	-16.59 QP	23.19	-39.78	1.00	129	23.83	-40.42
4	2.694	-7.84 QP	29.54	-37.38	1.00	75	34.68	-42.52
5	4.460	-22.27 QP	29.54	-51.81	1.00	227	21.32	-43.59
6	26.611	-14.06 QP	29.54	-43.60	1.00	94	28.73	-42.79

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

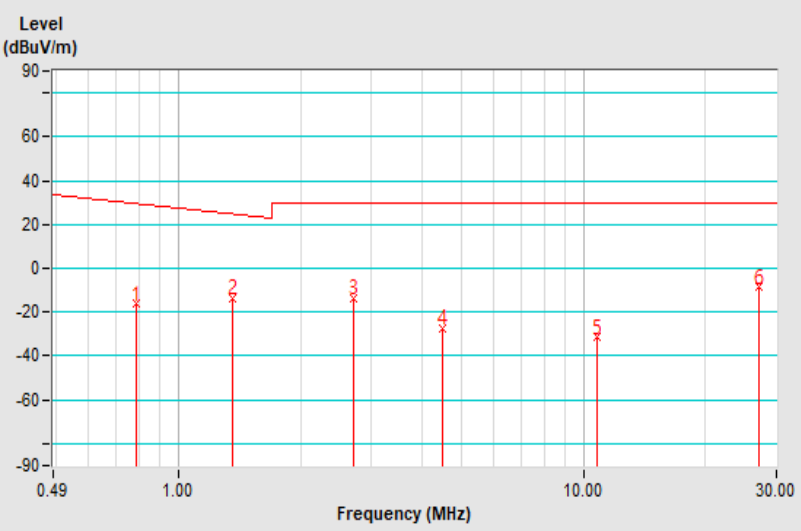


Frequency Range	490 kHz ~ 30 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Perpendicular								
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	0.789	-16.30 QP	29.66	-45.96	1.00	114	21.24	-37.54
2	1.361	-13.70 QP	24.92	-38.62	1.00	269	26.13	-39.83
3	2.713	-13.69 QP	29.54	-43.23	1.00	26	28.87	-42.56
4	4.481	-27.09 QP	29.54	-56.63	1.00	81	16.49	-43.58
5	10.793	-31.50 QP	29.54	-61.04	1.00	209	10.86	-42.36
6	27.161	-8.65 QP	29.54	-38.19	1.00	33	34.08	-42.73

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

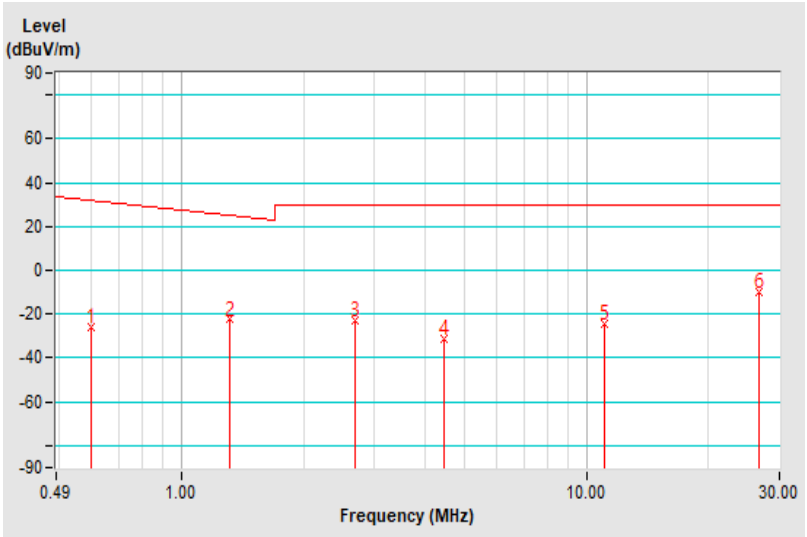


Frequency Range	490 kHz ~ 30 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Ground-parallel								
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	0.596	-25.88 QP	32.10	-57.98	1.00	51	10.22	-36.10
2	1.319	-22.49 QP	25.19	-47.68	1.00	78	17.25	-39.74
3	2.692	-22.74 QP	29.54	-52.28	1.00	147	19.78	-42.52
4	4.454	-31.07 QP	29.54	-60.61	1.00	217	12.51	-43.58
5	11.094	-24.06 QP	29.54	-53.60	1.00	158	18.34	-42.40
6	26.611	-9.77 QP	29.54	-39.31	1.00	56	33.02	-42.79

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB



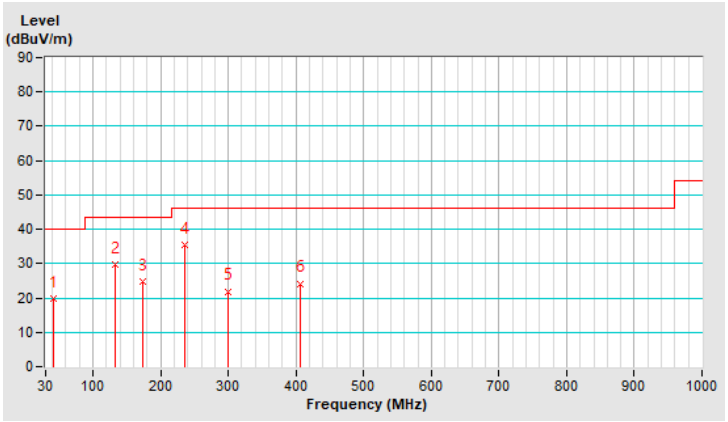
Above 30MHz Data:

Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test Distance : Horizontal at 3 m								
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	41.43	19.8 QP	40.0	-20.2	1.00 H	295	33.3	-13.5
2	132.38	29.7 QP	43.5	-13.8	2.00 H	265	43.7	-14.0
3	172.63	24.7 QP	43.5	-18.8	1.50 H	286	38.8	-14.1
4	235.82	35.4 QP	46.0	-10.6	1.50 H	143	50.5	-15.1
5	299.82	21.9 QP	46.0	-24.1	3.00 H	24	34.6	-12.7
6	406.83	24.2 QP	46.0	-21.8	2.00 H	318	34.5	-10.3

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

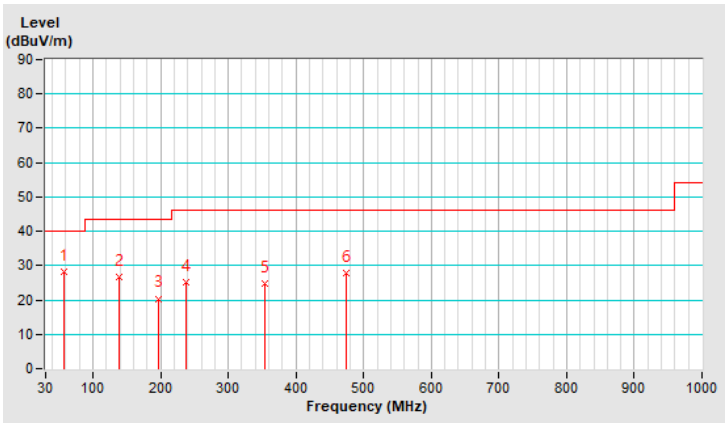


Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test Distance : Vertical at 3 m								
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	56.34	28.3 QP	40.0	-11.7	1.00 V	4	41.9	-13.6
2	139.22	26.7 QP	43.5	-16.8	1.50 V	140	40.2	-13.5
3	197.64	20.4 QP	43.5	-23.1	2.00 V	148	36.6	-16.2
4	237.34	25.2 QP	46.0	-20.8	1.50 V	215	40.2	-15.0
5	354.19	24.8 QP	46.0	-21.2	2.00 V	48	36.2	-11.4
6	473.52	27.9 QP	46.0	-18.1	1.00 V	2	36.4	-8.5

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



Type F

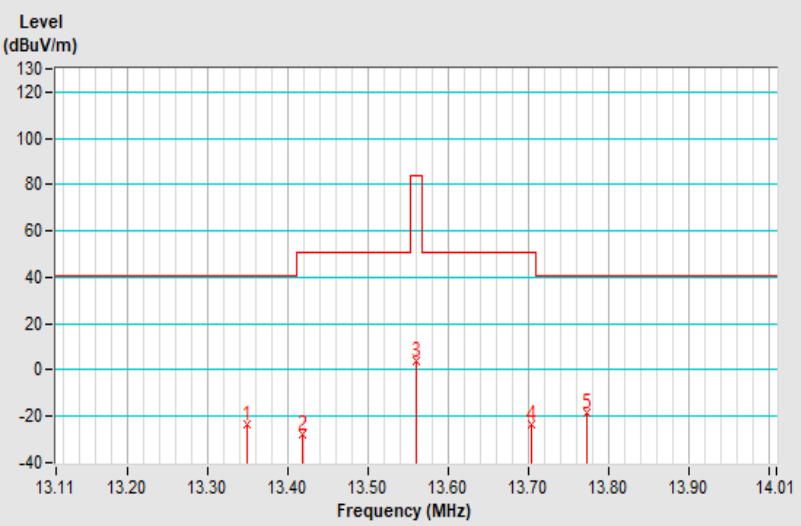
Below 30MHz Data:

Frequency Range	13.11 MHz ~ 14.01 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Parallel								
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	13.348	-23.51 QP	40.51	-64.02	1.00	101	19.24	-42.75
2	13.417	-27.63 QP	50.47	-78.10	1.00	101	15.13	-42.76
3	*13.560	4.09 QP	84.00	-79.91	1.00	101	46.87	-42.78
4	13.704	-23.32 QP	50.47	-73.79	1.00	101	19.47	-42.79
5	13.773	-18.70 QP	40.51	-59.21	1.00	101	24.11	-42.81

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

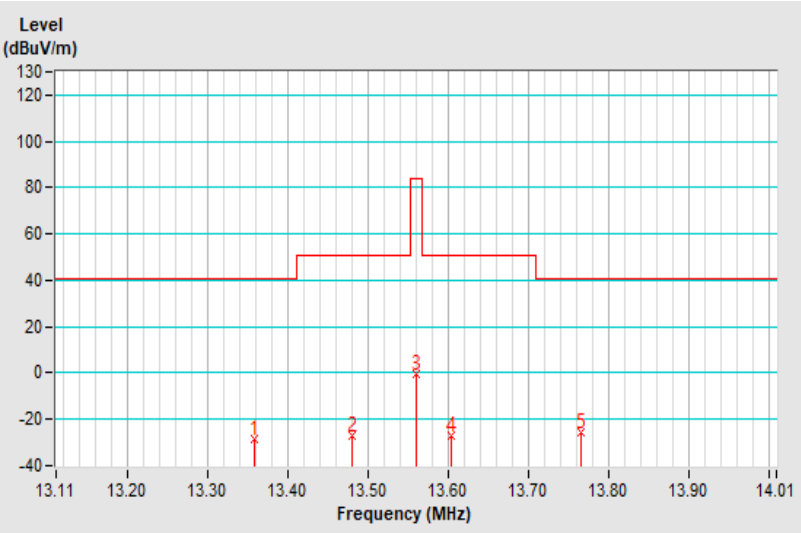


Frequency Range	13.11 MHz ~ 14.01 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Perpendicular								
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	13.357	-28.55 QP	40.51	-69.06	1.00	243	14.20	-42.75
2	13.480	-26.88 QP	50.47	-77.35	1.00	243	15.89	-42.77
3	*13.560	-0.69 QP	84.00	-84.69	1.00	243	42.09	-42.78
4	13.603	-26.91 QP	50.47	-77.38	1.00	243	15.88	-42.79
5	13.765	-25.83 QP	40.51	-66.34	1.00	243	16.98	-42.81

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

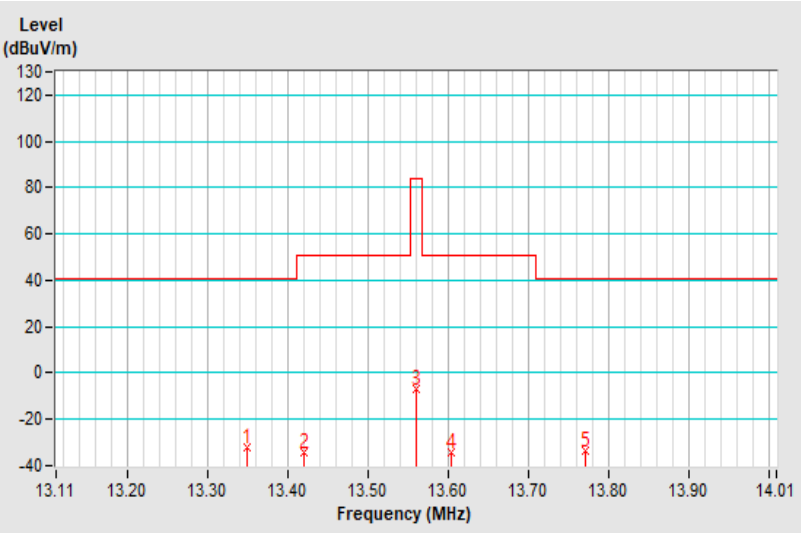


Frequency Range	13.11 MHz ~ 14.01 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Ground-parallel								
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	13.348	-32.22 QP	40.51	-72.73	1.00	84	10.53	-42.75
2	13.420	-34.09 QP	50.47	-84.56	1.00	84	8.67	-42.76
3	*13.560	-7.13 QP	84.00	-91.13	1.00	84	35.65	-42.78
4	13.603	-33.95 QP	50.47	-84.42	1.00	84	8.84	-42.79
5	13.771	-33.59 QP	40.51	-74.10	1.00	84	9.22	-42.81

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

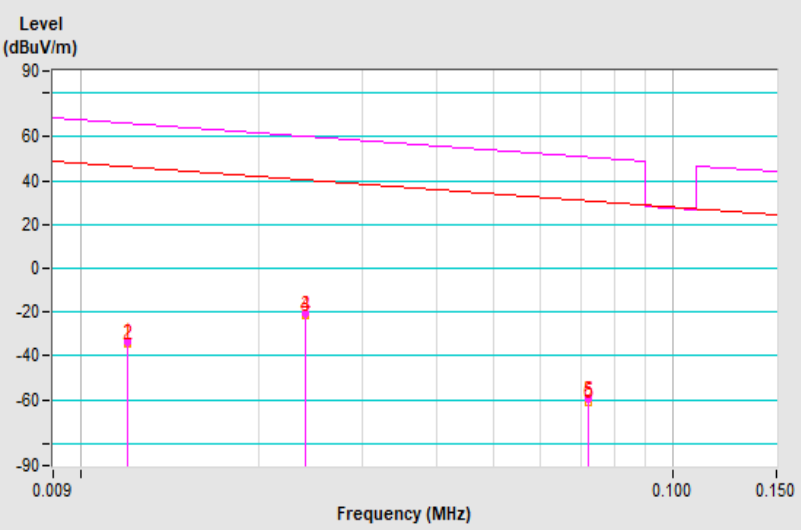


Frequency Range	9 kHz ~ 150 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 200Hz

Antenna Polarity : Parallel								
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	0.012	-33.37 PK	66.02	-99.39	1.00	19	11.45	-44.82
2	0.012	-34.23 AV	46.02	-80.25	1.00	19	10.59	-44.82
3	0.024	-20.68 PK	60.00	-80.68	1.00	237	29.31	-49.99
4	0.024	-20.98 AV	40.00	-60.98	1.00	237	29.01	-49.99
5	0.072	-59.68 PK	50.45	-110.13	1.00	233	0.24	-59.92
6	0.072	-60.78 AV	30.46	-91.24	1.00	233	-0.86	-59.92

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

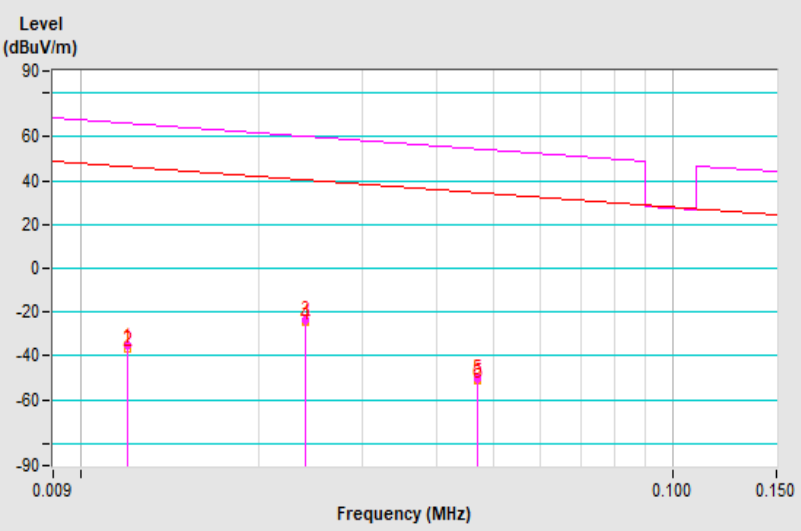


Frequency Range	9 kHz ~ 150 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 200Hz

Antenna Polarity : Perpendicular								
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	0.012	-35.42 PK	66.02	-101.44	1.00	63	9.40	-44.82
2	0.012	-36.89 AV	46.02	-82.91	1.00	63	7.93	-44.82
3	0.024	-23.37 PK	60.00	-83.37	1.00	201	26.62	-49.99
4	0.024	-24.72 AV	40.00	-64.72	1.00	201	25.27	-49.99
5	0.047	-50.03 PK	54.16	-104.19	1.00	139	6.14	-56.17
6	0.047	-51.33 AV	34.16	-85.49	1.00	139	4.84	-56.17

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

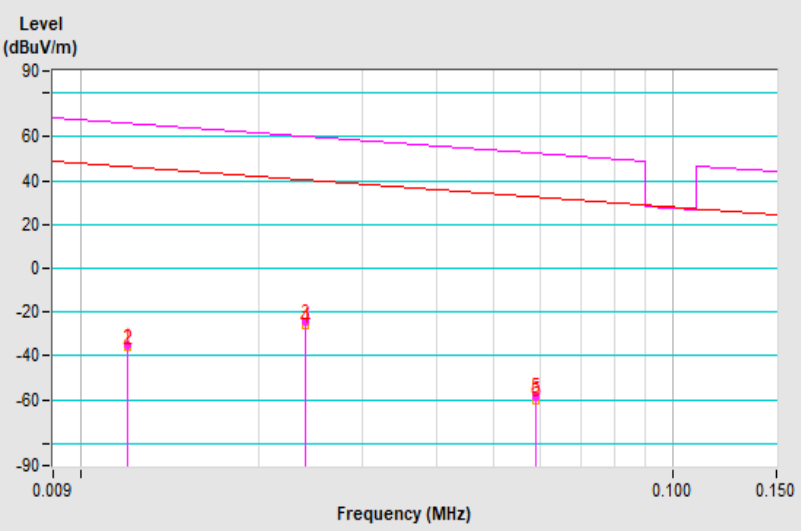


Frequency Range	9 kHz ~ 150 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 200Hz

Antenna Polarity : Ground-parallel								
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	0.012	-35.31 PK	66.02	-101.33	1.00	73	9.51	-44.82
2	0.012	-36.15 AV	46.02	-82.17	1.00	73	8.67	-44.82
3	0.024	-24.50 PK	60.00	-84.50	1.00	84	25.49	-49.99
4	0.024	-26.03 AV	40.00	-66.03	1.00	84	23.96	-49.99
5	0.059	-58.43 PK	52.18	-110.61	1.00	184	-0.32	-58.11
6	0.059	-59.88 AV	32.19	-92.07	1.00	184	-1.77	-58.11

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

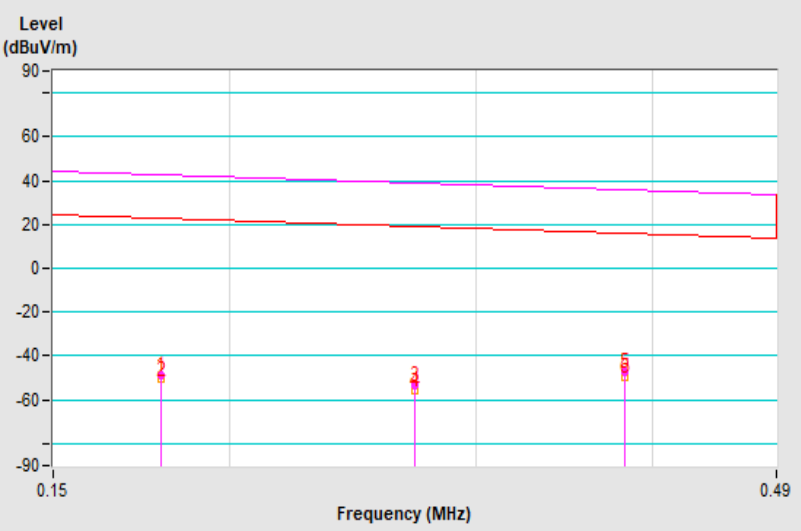


Frequency Range	150 kHz ~ 490 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 9kHz

Antenna Polarity : Parallel								
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	0.179	-48.55 PK	42.55	-91.10	1.00	182	18.29	-66.84
2	0.179	-50.65 AV	22.55	-73.20	1.00	182	16.19	-66.84
3	0.271	-53.30 PK	38.94	-92.24	1.00	47	17.21	-70.51
4	0.271	-55.64 AV	18.94	-74.58	1.00	47	14.87	-70.51
5	0.382	-46.95 PK	35.96	-82.91	1.00	350	26.19	-73.14
6	0.382	-49.53 AV	15.96	-65.49	1.00	350	23.61	-73.14

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

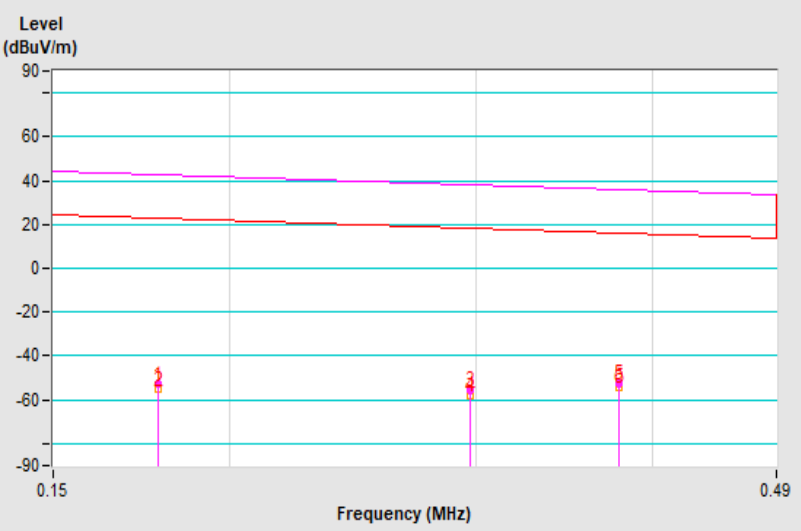


Frequency Range	150 kHz ~ 490 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 9kHz

Antenna Polarity : Perpendicular								
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	0.178	-52.85 PK	42.59	-95.44	1.00	224	13.95	-66.80
2	0.178	-55.11 AV	22.59	-77.70	1.00	224	11.69	-66.80
3	0.297	-55.72 PK	38.15	-93.87	1.00	61	15.83	-71.55
4	0.297	-57.72 AV	18.15	-75.87	1.00	61	13.83	-71.55
5	0.379	-52.45 PK	36.03	-88.48	1.00	179	20.63	-73.08
6	0.379	-54.14 AV	16.03	-70.17	1.00	179	18.94	-73.08

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

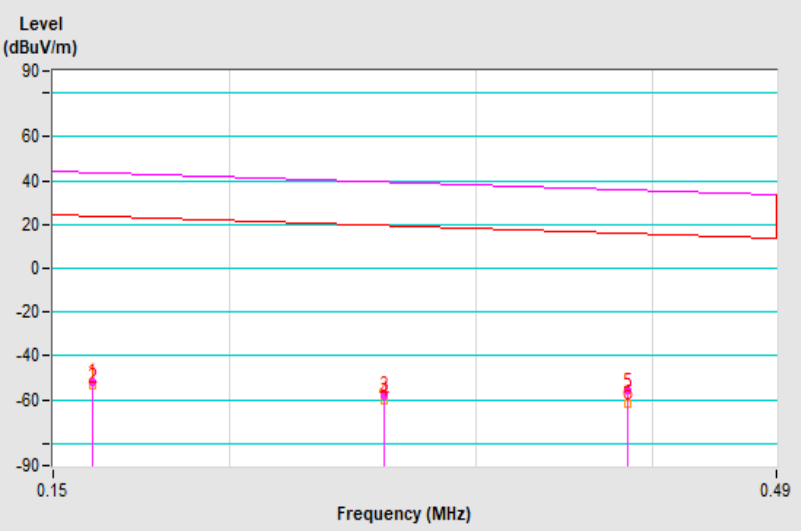


Frequency Range	150 kHz ~ 490 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 9kHz

Antenna Polarity : Ground-parallel								
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	0.160	-51.61 PK	43.52	-95.13	1.00	86	14.49	-66.10
2	0.160	-53.46 AV	23.52	-76.98	1.00	86	12.64	-66.10
3	0.258	-57.60 PK	39.37	-96.97	1.00	216	12.39	-69.99
4	0.258	-60.20 AV	19.37	-79.57	1.00	216	9.79	-69.99
5	0.384	-55.92 PK	35.92	-91.84	1.00	107	17.26	-73.18
6	0.384	-61.70 AV	15.92	-77.62	1.00	107	11.48	-73.18

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

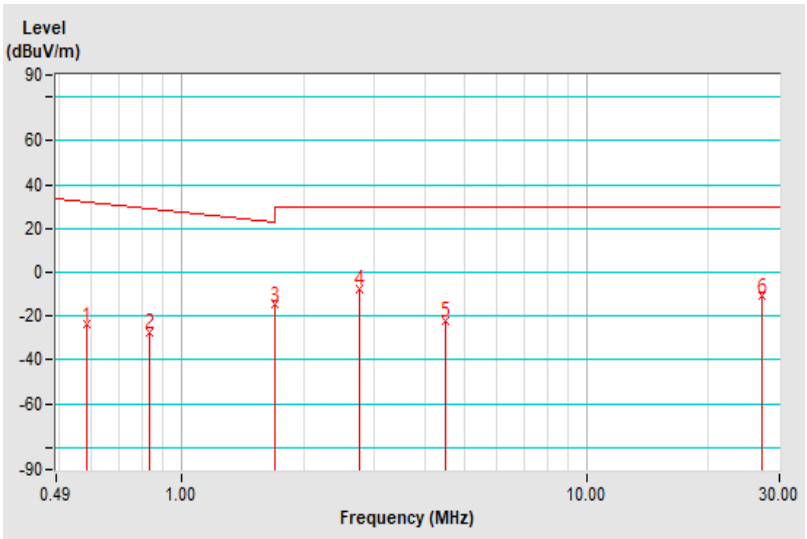


Frequency Range	490 kHz ~ 30 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Parallel								
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	0.584	-23.93 QP	32.27	-56.20	1.00	121	12.07	-36.00
2	0.836	-27.41 QP	29.16	-56.57	1.00	51	10.49	-37.90
3	1.696	-14.68 QP	23.01	-37.69	1.00	34	25.81	-40.49
4	2.741	-7.27 QP	29.54	-36.81	1.00	127	35.36	-42.63
5	4.481	-21.99 QP	29.54	-51.53	1.00	241	21.59	-43.58
6	27.161	-10.81 QP	29.54	-40.35	1.00	241	31.92	-42.73

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

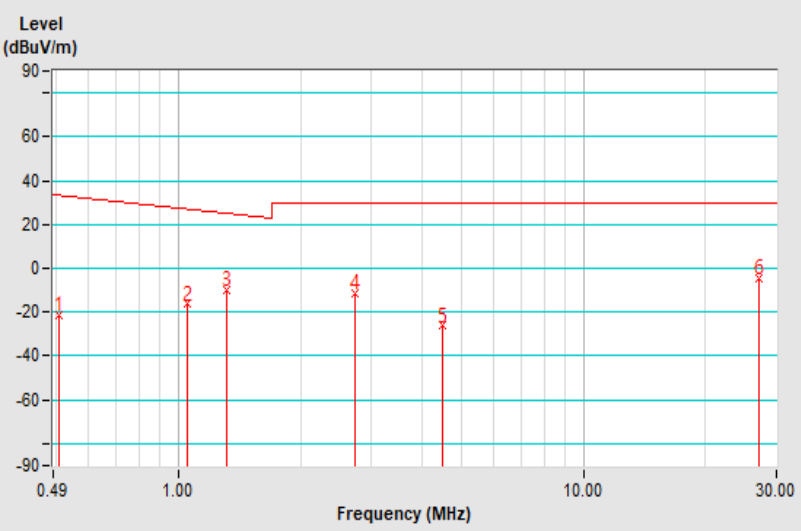


Frequency Range	490 kHz ~ 30 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Perpendicular								
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	0.507	-21.39 QP	33.50	-54.89	1.00	58	14.03	-35.42
2	1.054	-16.06 QP	27.14	-43.20	1.00	243	23.18	-39.24
3	1.316	-9.78 QP	25.21	-34.99	1.00	224	29.96	-39.74
4	2.725	-11.18 QP	29.54	-40.72	1.00	221	31.42	-42.60
5	4.480	-26.20 QP	29.54	-55.74	1.00	0	17.38	-43.58
6	27.161	-4.48 QP	29.54	-34.02	1.00	117	38.25	-42.73

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

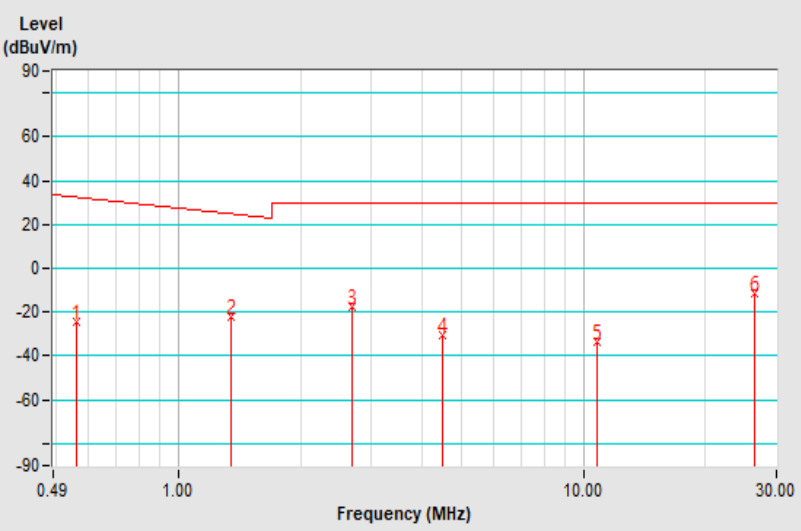


Frequency Range	490 kHz ~ 30 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Ground-parallel								
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	0.558	-24.76 QP	32.67	-57.43	1.00	36	11.05	-35.81
2	1.353	-22.18 QP	24.97	-47.15	1.00	89	17.63	-39.81
3	2.690	-17.79 QP	29.54	-47.33	1.00	98	24.72	-42.51
4	4.474	-30.85 QP	29.54	-60.39	1.00	157	12.73	-43.58
5	10.793	-33.89 QP	29.54	-63.43	1.00	99	8.47	-42.36
6	26.550	-11.77 QP	29.54	-41.31	1.00	37	31.03	-42.80

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB



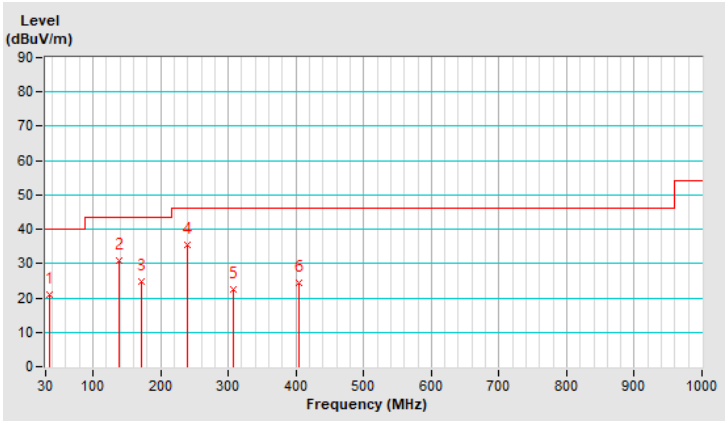
Above 30MHz Data:

Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test Distance : Horizontal at 3 m								
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	35.96	20.8 QP	40.0	-19.2	1.50 H	284	34.9	-14.1
2	139.59	30.7 QP	43.5	-12.8	2.00 H	257	44.2	-13.5
3	171.93	24.6 QP	43.5	-18.9	1.00 H	295	38.6	-14.0
4	**239.12**	**35.6 QP**	**46.0**	**-10.4**	**1.00 H**	**161**	**50.5**	**-14.9**
5	306.90	22.4 QP	46.0	-23.6	3.00 H	15	34.8	-12.4
6	403.58	24.5 QP	46.0	-21.5	2.00 H	296	34.8	-10.3

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

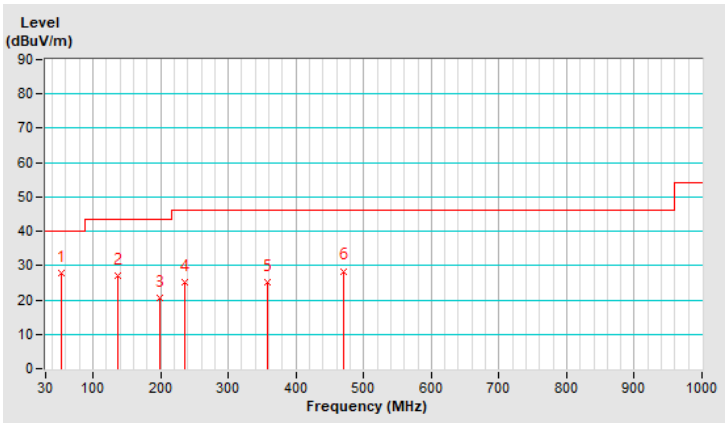


Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test Distance : Vertical at 3 m								
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	53.88	27.9 QP	40.0	-12.1	1.00 V	8	41.4	-13.5
2	137.25	27.1 QP	43.5	-16.4	1.50 V	156	40.8	-13.7
3	199.51	20.7 QP	43.5	-22.8	2.00 V	152	36.9	-16.2
4	235.58	25.0 QP	46.0	-21.0	1.00 V	200	40.1	-15.1
5	357.97	25.1 QP	46.0	-20.9	2.00 V	73	36.4	-11.3
6	469.68	28.4 QP	46.0	-17.6	2.00 V	5	36.9	-8.5

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



Type V

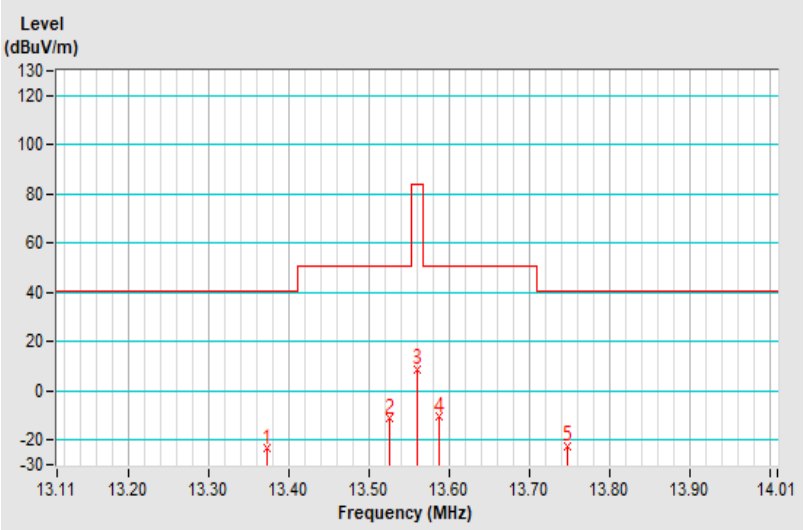
Below 30MHz Data:

Frequency Range	13.11 MHz ~ 14.01 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Parallel								
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	13.373	-23.34 QP	40.51	-63.85	1.00	5	19.41	-42.75
2	13.525	-11.32 QP	50.47	-61.79	1.00	5	31.45	-42.77
3	*13.560	8.98 QP	84.00	-75.02	1.00	5	51.76	-42.78
4	13.588	-10.40 QP	50.47	-60.87	1.00	5	32.38	-42.78
5	13.747	-22.28 QP	40.51	-62.79	1.00	5	20.52	-42.80

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

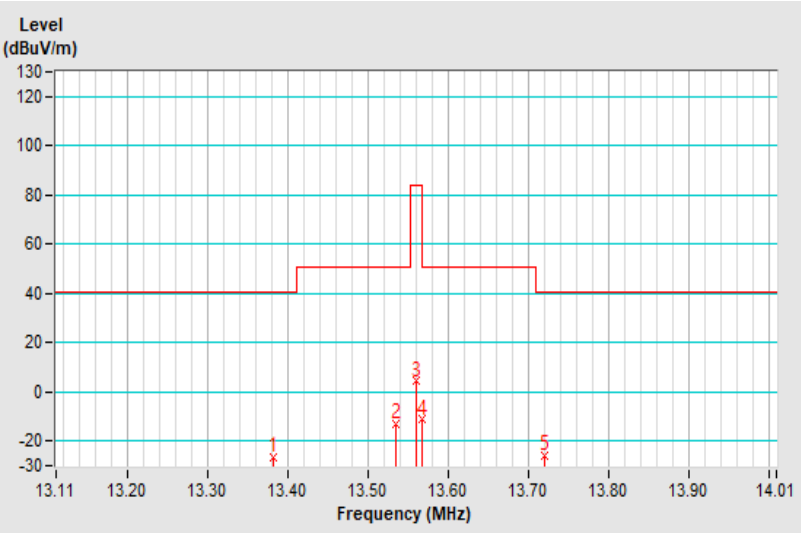


Frequency Range	13.11 MHz ~ 14.01 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Perpendicular								
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	13.382	-26.45 QP	40.51	-66.96	1.00	6	16.30	-42.75
2	13.535	-12.89 QP	50.47	-63.36	1.00	6	29.89	-42.78
3	*13.560	4.63 QP	84.00	-79.37	1.00	6	47.41	-42.78
4	13.568	-11.15 QP	50.47	-61.62	1.00	6	31.63	-42.78
5	13.720	-25.68 QP	40.51	-66.19	1.00	6	17.12	-42.80

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

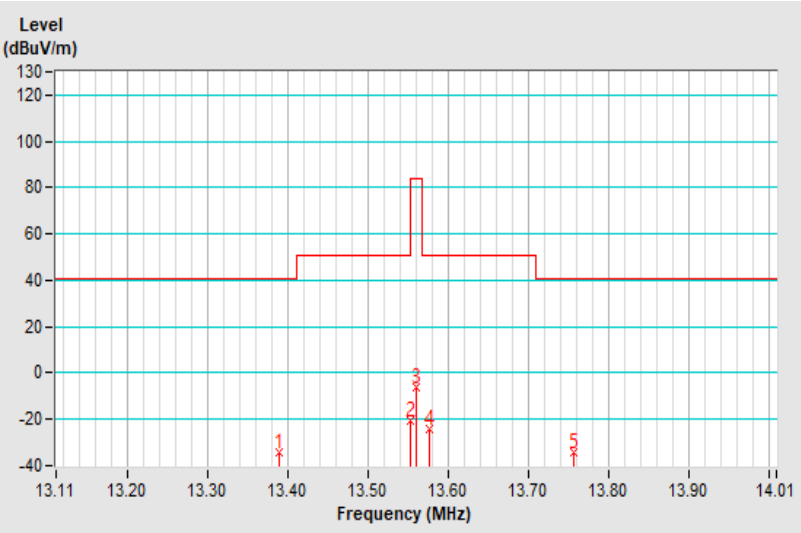


Frequency Range	13.11 MHz ~ 14.01 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Ground-parallel								
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	13.389	-34.20 QP	40.51	-74.71	1.00	74	8.55	-42.75
2	13.553	-20.27 QP	50.47	-70.74	1.00	74	22.51	-42.78
3	*13.560	-6.19 QP	84.00	-90.19	1.00	74	36.59	-42.78
4	13.577	-24.03 QP	50.47	-74.50	1.00	74	18.75	-42.78
5	13.756	-34.27 QP	40.51	-74.78	1.00	74	8.54	-42.81

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

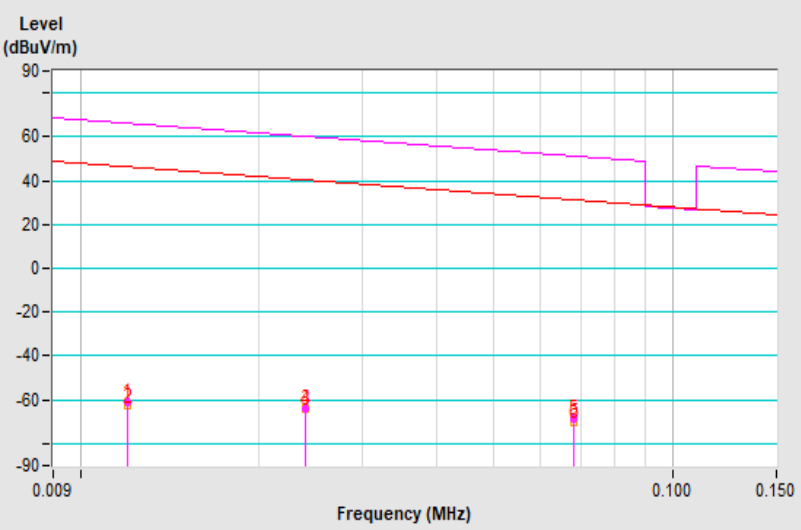


Frequency Range	9 kHz ~ 150 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 200Hz

Antenna Polarity : Parallel								
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	0.012	-60.83 PK	66.02	-126.85	1.00	101	-16.01	-44.82
2	0.012	-62.70 AV	46.02	-108.72	1.00	101	-17.88	-44.82
3	0.024	-63.70 PK	60.00	-123.70	1.00	157	-13.71	-49.99
4	0.024	-63.70 AV	40.00	-103.70	1.00	157	-13.71	-49.99
5	0.068	-68.35 PK	50.95	-119.30	1.00	200	-8.98	-59.37
6	0.068	-70.13 AV	30.95	-101.08	1.00	200	-10.76	-59.37

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

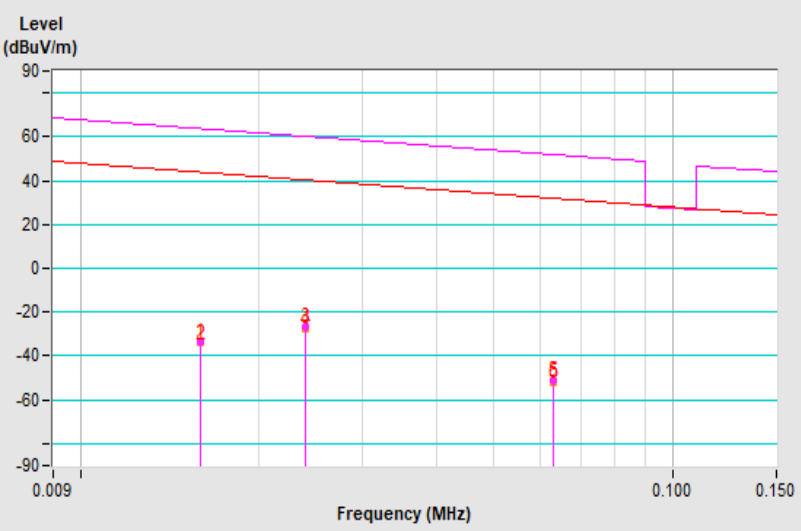


Frequency Range	9 kHz ~ 150 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 200Hz

Antenna Polarity : Perpendicular								
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	0.016	-33.25 PK	63.52	-96.77	1.00	5	13.36	-46.61
2	0.016	-33.90 AV	43.52	-77.42	1.00	5	12.71	-46.61
3	0.024	-26.69 PK	60.00	-86.69	1.00	5	23.30	-49.99
4	0.024	-27.12 AV	40.00	-67.12	1.00	5	22.87	-49.99
5	0.063	-50.90 PK	51.61	-102.51	1.00	7	7.77	-58.67
6	0.063	-51.65 AV	31.62	-83.27	1.00	7	7.02	-58.67

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

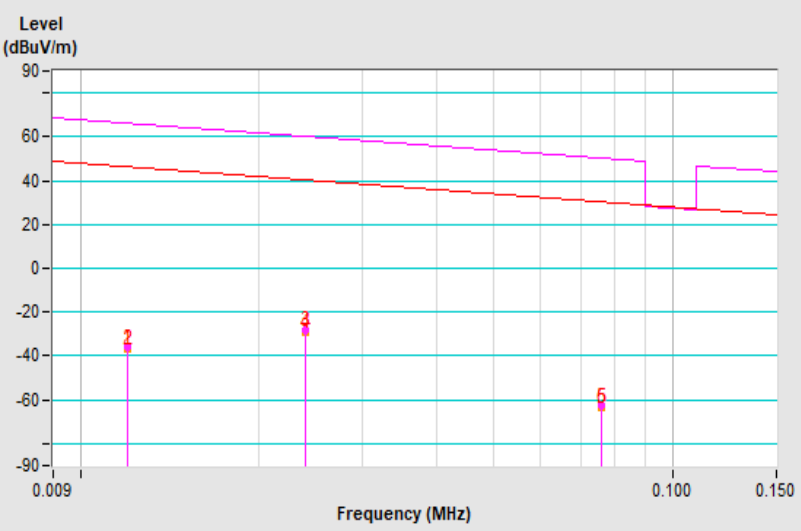


Frequency Range	9 kHz ~ 150 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 200Hz

Antenna Polarity : Ground-parallel								
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	0.012	-36.10 PK	66.02	-102.12	1.00	2	8.72	-44.82
2	0.012	-36.57 AV	46.02	-82.59	1.00	2	8.25	-44.82
3	0.024	-28.14 PK	60.00	-88.14	1.00	42	21.85	-49.99
4	0.024	-28.71 AV	40.00	-68.71	1.00	42	21.28	-49.99
5	0.076	-62.74 PK	49.98	-112.72	1.00	45	-2.27	-60.47
6	0.076	-63.31 AV	29.99	-93.30	1.00	45	-2.84	-60.47

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

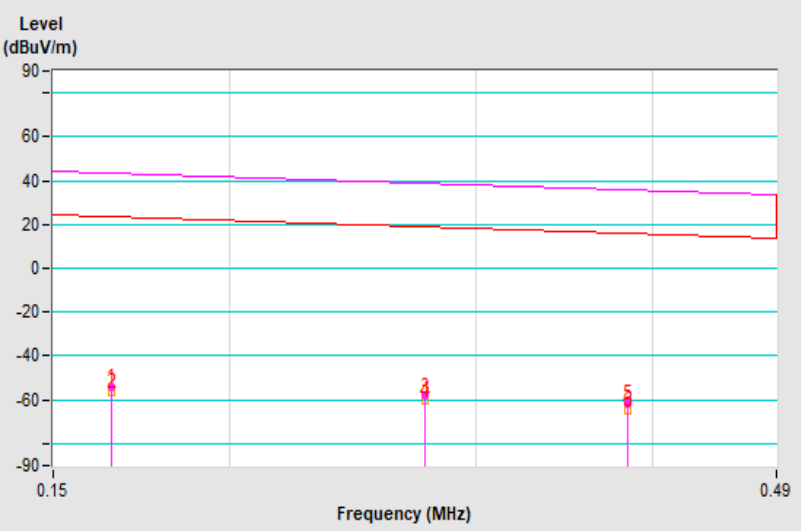


Frequency Range	150 kHz ~ 490 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 9kHz

Antenna Polarity : Parallel								
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	0.165	-54.09 PK	43.25	-97.34	1.00	135	12.21	-66.30
2	0.165	-56.47 AV	23.25	-79.72	1.00	135	9.83	-66.30
3	0.276	-58.01 PK	38.78	-96.79	1.00	182	12.70	-70.71
4	0.276	-60.14 AV	18.78	-78.92	1.00	182	10.57	-70.71
5	0.384	-61.44 PK	35.92	-97.36	1.00	290	11.74	-73.18
6	0.384	-64.46 AV	15.92	-80.38	1.00	290	8.72	-73.18

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

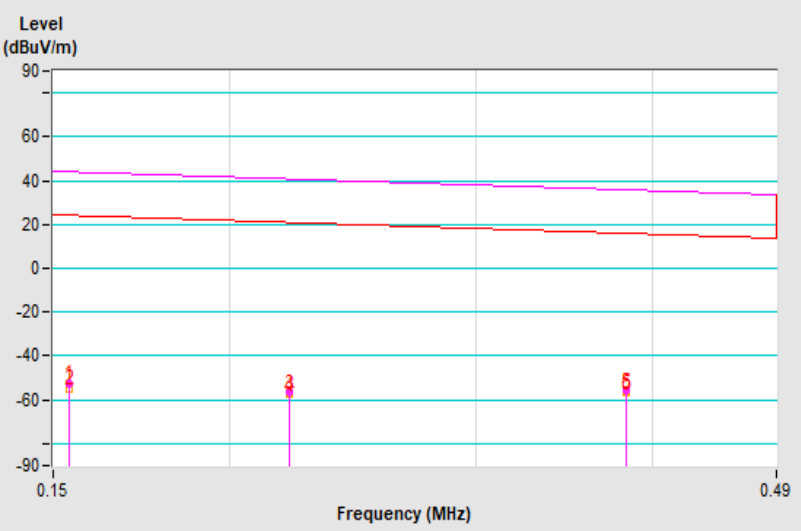


Frequency Range	150 kHz ~ 490 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 9kHz

Antenna Polarity : Perpendicular								
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	0.154	-52.52 PK	43.85	-96.37	1.00	5	13.33	-65.85
2	0.154	-54.56 AV	23.85	-78.41	1.00	5	11.29	-65.85
3	0.221	-56.58 PK	40.71	-97.29	1.00	1	11.93	-68.51
4	0.221	-57.37 AV	20.71	-78.08	1.00	1	11.14	-68.51
5	0.383	-55.79 PK	35.94	-91.73	1.00	5	17.37	-73.16
6	0.383	-56.55 AV	15.94	-72.49	1.00	5	16.61	-73.16

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

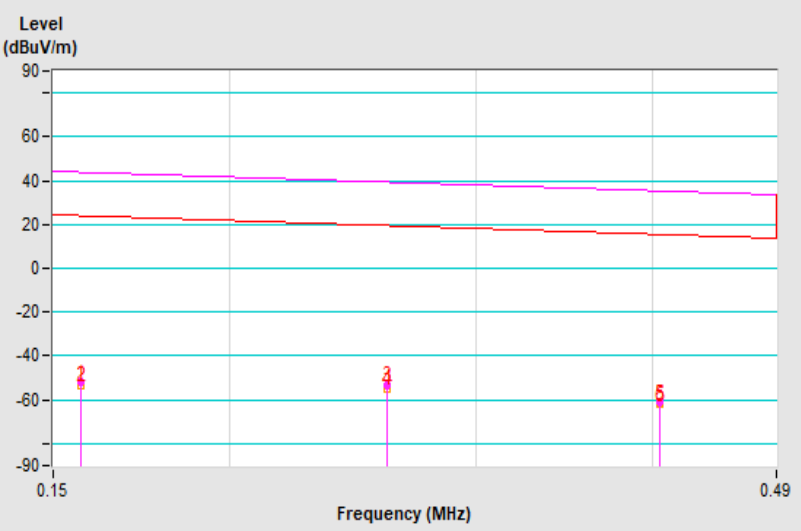


Frequency Range	150 kHz ~ 490 kHz	Detector Function & Bandwidth	Peak (PK) / Average (AV), 9kHz

Antenna Polarity : Ground-parallel								
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	0.157	-52.04 PK	43.68	-95.72	1.00	7	13.94	-65.98
2	0.157	-53.14 AV	23.68	-76.82	1.00	7	12.84	-65.98
3	0.259	-53.14 PK	39.34	-92.48	1.00	24	16.89	-70.03
4	0.259	-54.95 AV	19.34	-74.29	1.00	24	15.08	-70.03
5	0.405	-61.08 PK	35.45	-96.53	1.00	2	12.48	-73.56
6	0.405	-62.08 AV	15.45	-77.53	1.00	2	11.48	-73.56

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for below 0.49MHz is 3m, extrapolate the measured field strength to a distance of 300 meters.
   Distance factor@3m = 40*log(3/300) = -80dB

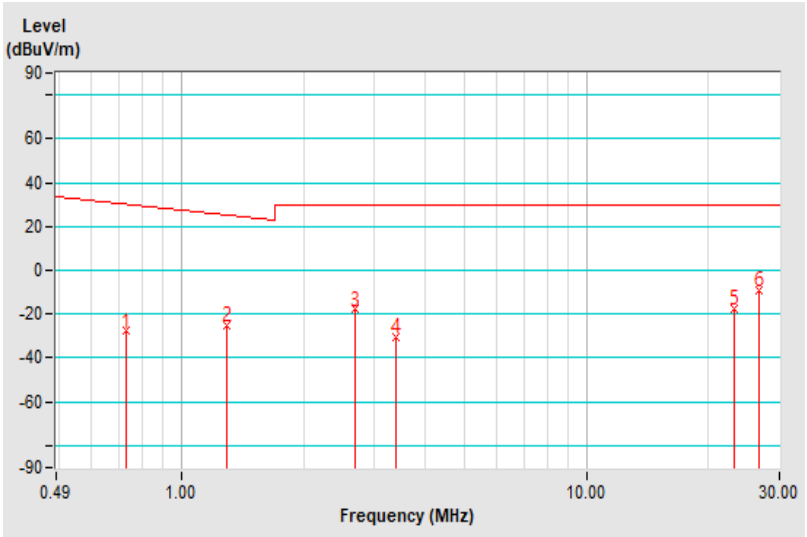


Frequency Range	490 kHz ~ 30 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Parallel								
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	0.728	-27.55 QP	30.36	-57.91	1.00	22	9.54	-37.09
2	1.294	-25.03 QP	25.36	-50.39	1.00	51	14.67	-39.70
3	2.689	-17.85 QP	29.54	-47.39	1.00	141	24.66	-42.51
4	3.381	-30.13 QP	29.54	-59.67	1.00	69	13.15	-43.28
5	23.130	-17.20 QP	29.54	-46.74	1.00	161	26.08	-43.28
6	26.611	-9.19 QP	29.54	-38.73	1.00	202	33.60	-42.79

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

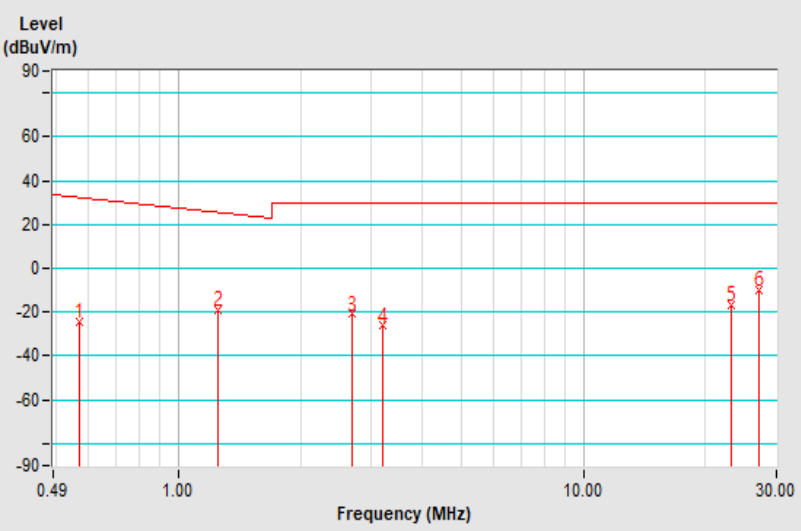


Frequency Range	490 kHz ~ 30 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Perpendicular								
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	0.568	-24.11 QP	32.52	-56.63	1.00	2	11.77	-35.88
2	1.251	-19.01 QP	25.65	-44.66	1.00	55	20.60	-39.61
3	2.689	-20.86 QP	29.54	-50.40	1.00	5	21.65	-42.51
4	3.201	-26.22 QP	29.54	-55.76	1.00	1	17.01	-43.23
5	23.130	-16.47 QP	29.54	-46.01	1.00	6	26.81	-43.28
6	27.161	-9.75 QP	29.54	-39.29	1.00	8	32.98	-42.73

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB

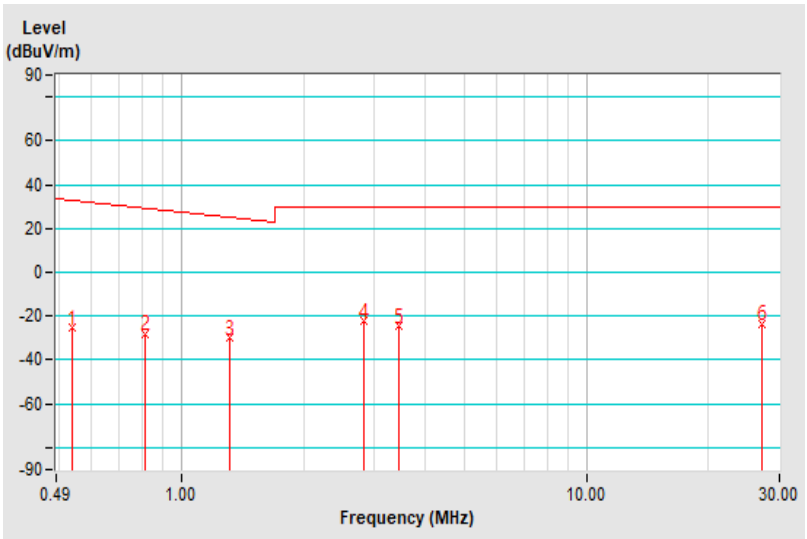


Frequency Range	490 kHz ~ 30 MHz	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz

Antenna Polarity : Ground-parallel								
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	0.537	-25.27 QP	33.00	-58.27	1.00	6	10.38	-35.65
2	0.812	-28.12 QP	29.41	-57.53	1.00	59	9.60	-37.72
3	1.316	-29.98 QP	25.21	-55.19	1.00	7	9.76	-39.74
4	2.824	-22.42 QP	29.54	-51.96	1.00	360	20.37	-42.79
5	3.456	-24.66 QP	29.54	-54.20	1.00	84	18.63	-43.29
6	27.161	-23.61 QP	29.54	-53.15	1.00	57	19.12	-42.73

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) + Distance Factor
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. The test distance for 0.49 ~ 30MHz is 3m, extrapolate the measured field strength to a distance of 30 meters.
   Distance factor@3m = 40*log(3/30) = -40dB



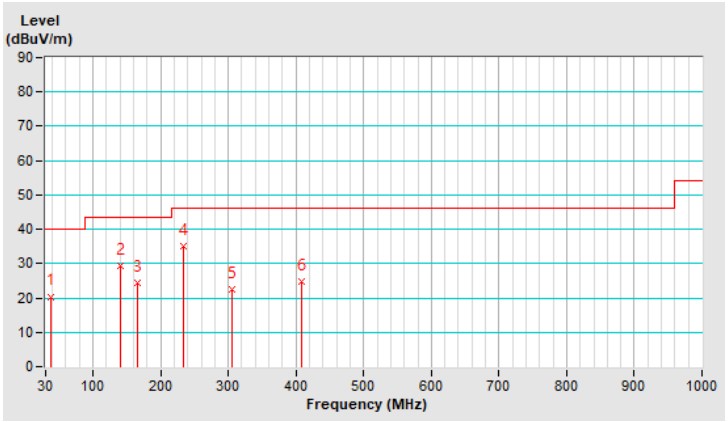
Above 30MHz Data:

Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test Distance : Horizontal at 3 m								
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	37.24	20.4 QP	40.0	-19.6	1.00 H	272	34.3	-13.9
2	139.78	29.5 QP	43.5	-14.0	2.00 H	261	43.0	-13.5
3	165.88	24.3 QP	43.5	-19.2	1.50 H	291	37.9	-13.6
4	233.76	34.9 QP	46.0	-11.1	1.00 H	159	50.2	-15.3
5	306.03	22.4 QP	46.0	-23.6	3.00 H	23	34.9	-12.5
6	407.57	24.7 QP	46.0	-21.3	2.00 H	318	34.9	-10.2

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

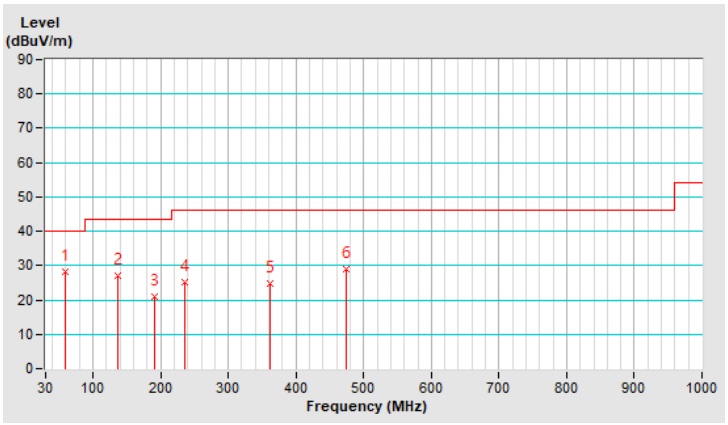


Frequency Range	30MHz ~ 1GHz	Detector Function	Quasi-Peak (QP), 120kHz

Antenna Polarity & Test Distance : Vertical at 3 m								
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	59.00	28.1 QP	40.0	-11.9	1.00 V	17	41.8	-13.7
2	135.97	27.0 QP	43.5	-16.5	1.50 V	155	40.7	-13.7
3	191.73	20.9 QP	43.5	-22.6	2.00 V	143	36.9	-16.0
4	236.37	25.3 QP	46.0	-20.7	1.50 V	196	40.4	-15.1
5	362.13	24.9 QP	46.0	-21.1	2.00 V	76	36.1	-11.2
6	473.49	28.8 QP	46.0	-17.2	2.00 V	0	37.3	-8.5

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



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 0.50MHz.
3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
TEST RECEIVER R&S	ESCS 30	847124/029	2021/10/13	2022/10/12
LISN R&S	ESH3-Z5	848773/004	2021/10/29	2022/10/28
LISN R & S	ESH3-Z5	835239/001	2021/3/26	2022/3/25
50 ohms Terminator NA	50	3	2021/10/27	2022/10/26
RF Coaxial Cable JYEBO	5D-FB	COCCAB-001	2021/9/25	2022/9/24
Fixed attenuator STI	STI02-2200-10	005	2021/8/27	2022/8/26
Software BVADT	BVADT_Cond_V7.3.7.4	NA	NA	NA

Note: 1. The test was performed in Conduction 1.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: 2022/2/26

4.2.3 Test Procedures

a. 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/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

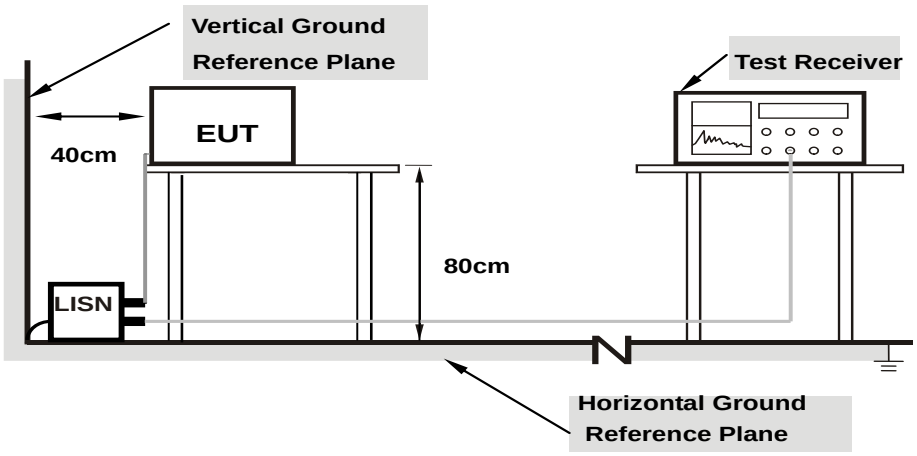
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

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 from other units and other metal planes

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

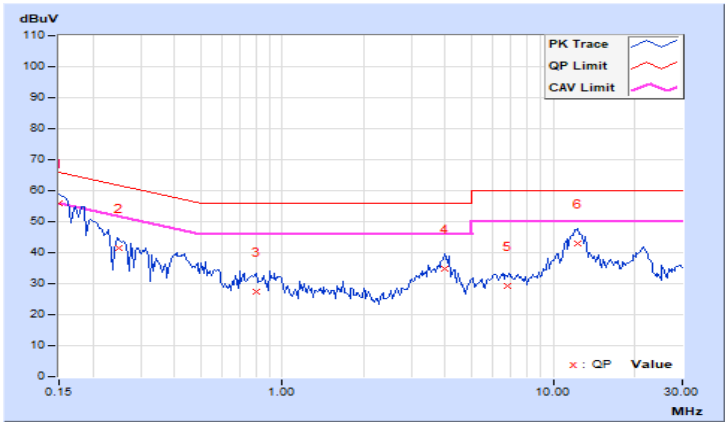
4.2.7 Test Results (Mode 1)

RF Mode	TX NFC-13.56MHz	Channel	CH 1：13.56 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

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	**0.15017**	**10.05**	**46.03**	**34.77**	**56.08**	**44.82**	**65.99**	**55.99**	**-9.91**	**-11.17**
2	0.24915	10.05	31.40	18.76	41.45	28.81	61.79	51.79	-20.34	-22.98
3	0.80154	10.10	17.34	7.46	27.44	17.56	56.00	46.00	-28.56	-28.44
4	3.97129	10.26	24.37	15.53	34.63	25.79	56.00	46.00	-21.37	-20.21
5	6.79307	10.42	18.92	12.66	29.34	23.08	60.00	50.00	-30.66	-26.92
6	12.32377	10.75	32.26	26.24	43.01	36.99	60.00	50.00	-16.99	-13.01

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

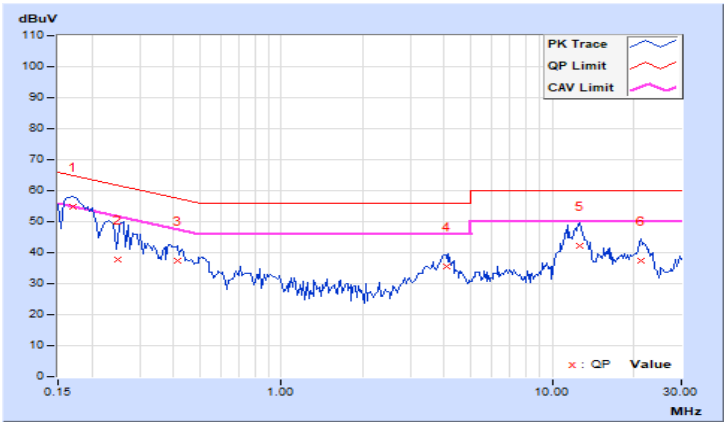


RF Mode	TX NFC-13.56MHz	Channel	CH 1：13.56 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

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	0.16973	10.02	44.67	33.03	54.69	43.05	64.97	54.97	-10.28	-11.92
2	0.24973	10.03	27.83	12.88	37.86	22.91	61.77	51.77	-23.91	-28.86
3	0.41594	10.04	27.53	17.55	37.57	27.59	57.53	47.53	-19.96	-19.94
4	4.06173	10.21	25.21	16.26	35.42	26.47	56.00	46.00	-20.58	-19.53
5	12.71375	10.62	31.49	25.43	42.11	36.05	60.00	50.00	-17.89	-13.95
6	21.19906	10.96	26.46	21.47	37.42	32.43	60.00	50.00	-22.58	-17.57

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



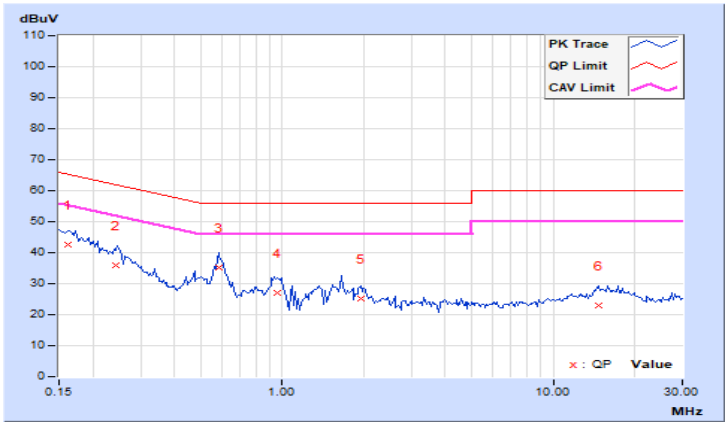
4.2.8 Test Results (Mode 2)

RF Mode	TX NFC-13.56MHz	Channel	CH 1：13.56 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

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	0.16171	10.07	32.53	20.76	42.60	30.83	65.38	55.38	-22.78	-24.55
2	0.24437	10.09	25.76	14.75	35.85	24.84	61.95	51.95	-26.10	-27.11
3	0.58631	10.12	24.90	15.53	35.02	25.65	56.00	46.00	-20.98	-20.35
4	0.96340	10.15	16.71	7.62	26.86	17.77	56.00	46.00	-29.14	-28.23
5	1.95955	10.21	15.13	4.92	25.34	15.13	56.00	46.00	-30.66	-30.87
6	14.72179	11.16	11.62	4.77	22.78	15.93	60.00	50.00	-37.22	-34.07

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

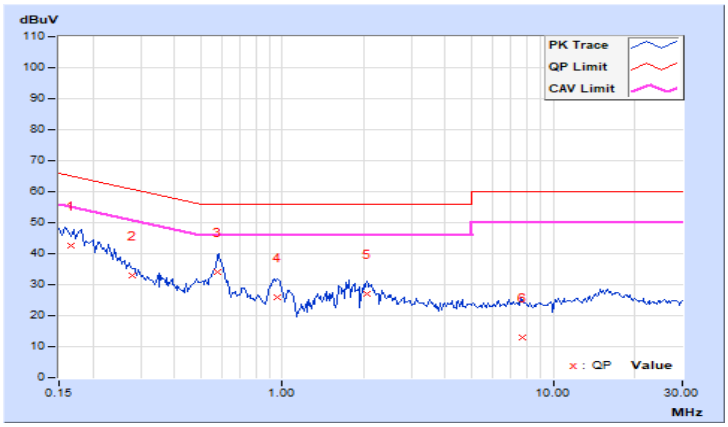


RF Mode	TX NFC-13.56MHz	Channel	CH 1：13.56 MHz
Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz

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	0.16617	10.06	32.43	17.56	42.49	27.62	65.15	55.15	-22.66	-27.53
2	0.27949	10.09	22.93	10.85	33.02	20.94	60.83	50.83	-27.81	-29.89
3	0.57906	10.11	24.13	17.17	34.24	27.28	56.00	46.00	-21.76	-18.72
4	0.96337	10.14	15.63	8.60	25.77	18.74	56.00	46.00	-30.23	-27.26
5	2.04941	10.22	16.71	7.43	26.93	17.65	56.00	46.00	-29.07	-28.35
6	7.65627	10.54	2.53	-3.46	13.07	7.08	60.00	50.00	-46.93	-42.92

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

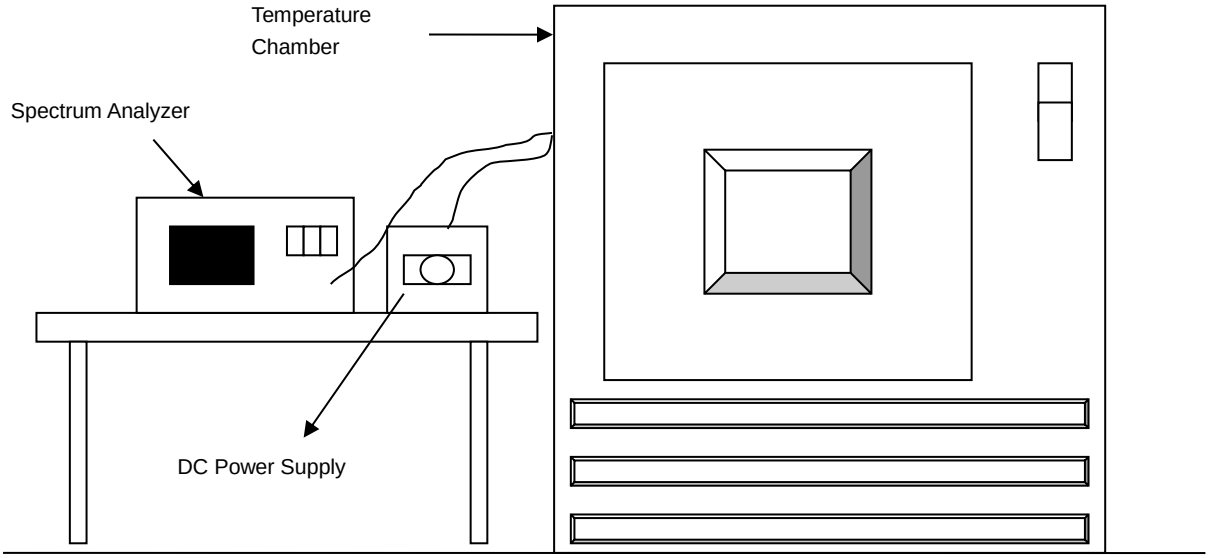


4.3 Frequency Stability

4.3.1 Limits of Frequency Stability Measurement

The frequency tolerance of the carrier signal shall be maintained within +/- 0.01% of the operating frequency over a temperature variation of –20 degrees to 50 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 20 degrees C.

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 Procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.

e. Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.

f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

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 Result

Frequency Stability Versus Temp.									
Operating Frequency: 13.56 MHz									
TEMP. (℃)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	3.85	13.56	0.00000	13.56	0.00000	13.56	0.00000	13.56001	0.00007
40	3.85	13.56004	0.00029	13.56005	0.00037	13.56005	0.00037	13.56005	0.00037
30	3.85	13.55996	-0.00029	13.55995	-0.00037	13.55996	-0.00029	13.55995	-0.00037
20	3.85	13.56001	0.00007	13.56	0.00000	13.56	0.00000	13.56001	0.00007
10	3.85	13.56004	0.00029	13.56003	0.00022	13.56004	0.00029	13.56003	0.00022
0	3.85	13.56002	0.00015	13.56002	0.00015	13.56002	0.00015	13.56002	0.00015
-10	3.85	13.55994	-0.00044	13.55994	-0.00044	13.55994	-0.00044	13.55993	-0.00052
-20	3.85	13.55999	-0.00007	13.55999	-0.00007	13.56	0.00000	13.55999	-0.00007

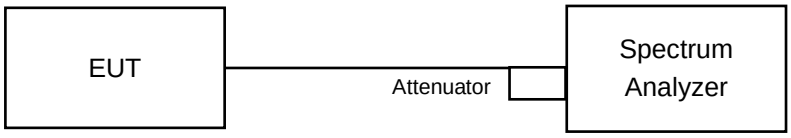
Frequency Stability Versus Voltage									
Operating Frequency: 13.56 MHz									
TEMP. (℃)	Power Supply (Vdc)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	4.4275	13.56001	0.00007	13.56	0.00000	13.56	0.00000	13.56001	0.00007
	3.85	13.56001	0.00007	13.56	0.00000	13.56	0.00000	13.56001	0.00007
	3.2725	13.56001	0.00007	13.56	0.00000	13.56	0.00000	13.56001	0.00007

4.4 20dB Bandwidth

4.4.1 Limits of 20dB BANDWIDTH Measurement

The 20dB bandwidth shall be specified in operating frequency band.

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 bandwidth of the fundamental frequency was measured by spectrum analyzer with 10Hz RBW and 30Hz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

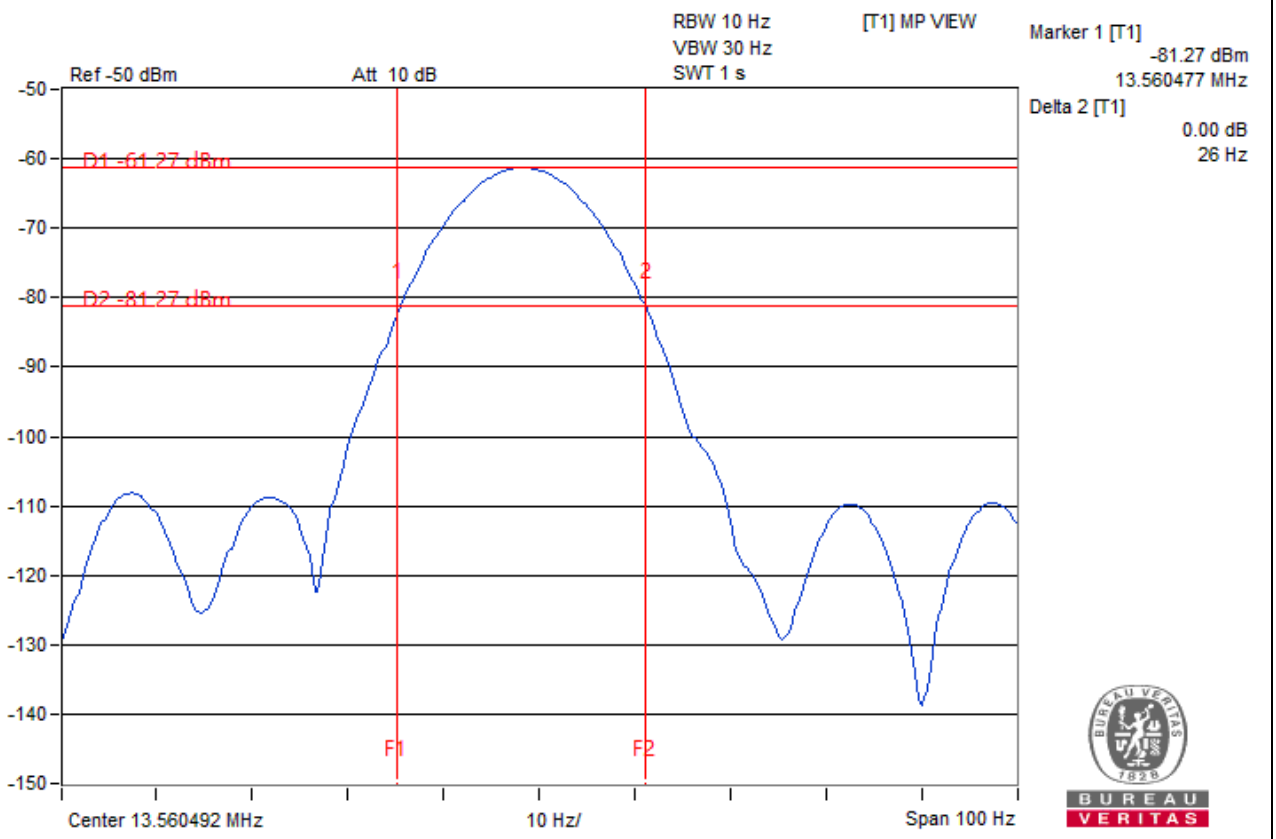
Same as Item 4.1.6.

4.4.7 Test Results

Type A

Operating Frequency Band (MHz)	20dB Bandwidth (MHz)	20dB Point (MHz)		Pass / Fail
		Lowest	Highest	
13.11 – 14.01	0.000026	13.560477	13.560503	PASS

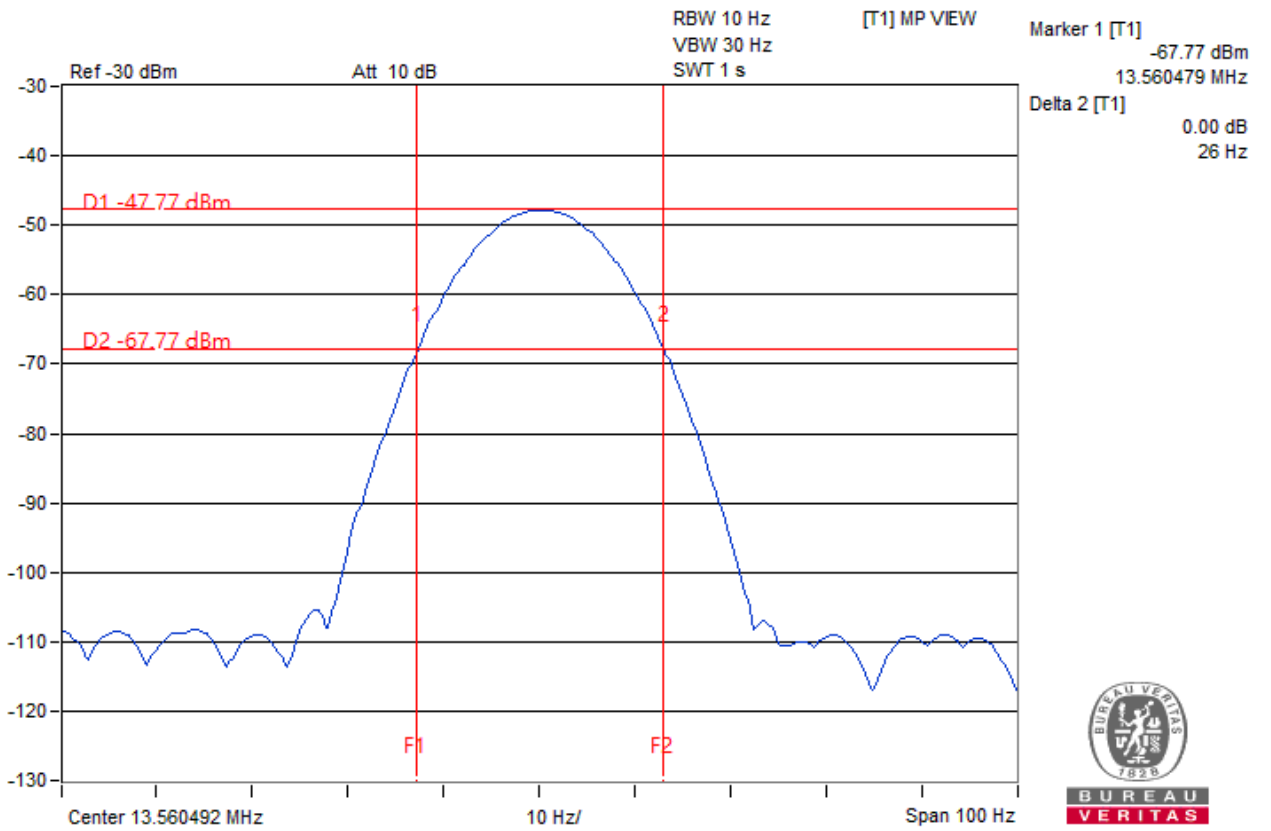
Spectrum Plot of Value



Type B

Operating Frequency Band (MHz)	20dB Bandwidth (MHz)	20dB Point (MHz)		Pass / Fail
		Lowest	Highest	
13.11 – 14.01	0.000026	13.560479	13.560505	PASS

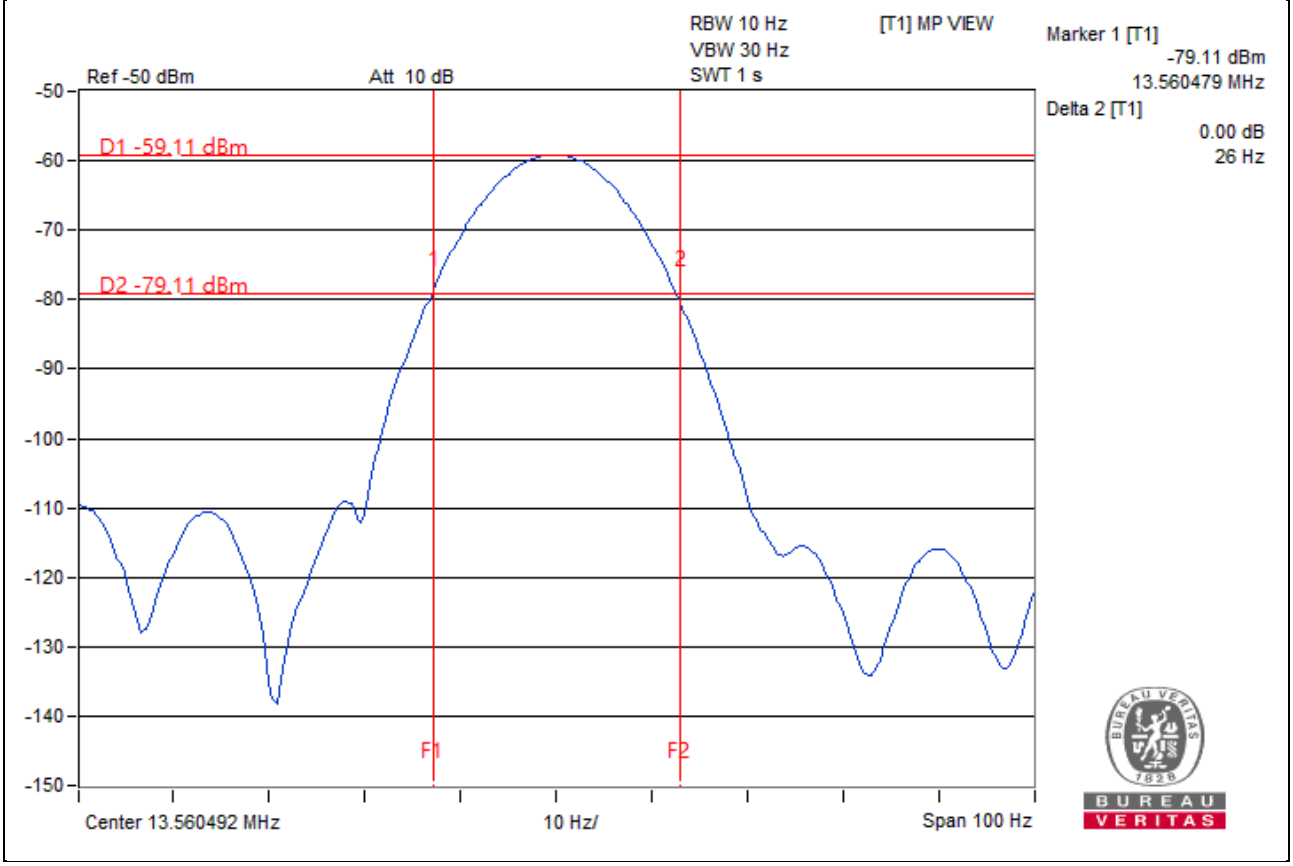
Spectrum Plot of Value



Type F

Operating Frequency Band (MHz)	20dB Bandwidth (MHz)	20dB Point (MHz)		Pass / Fail
		Lowest	Highest	
13.11 – 14.01	0.000026	13.560479	13.560505	PASS

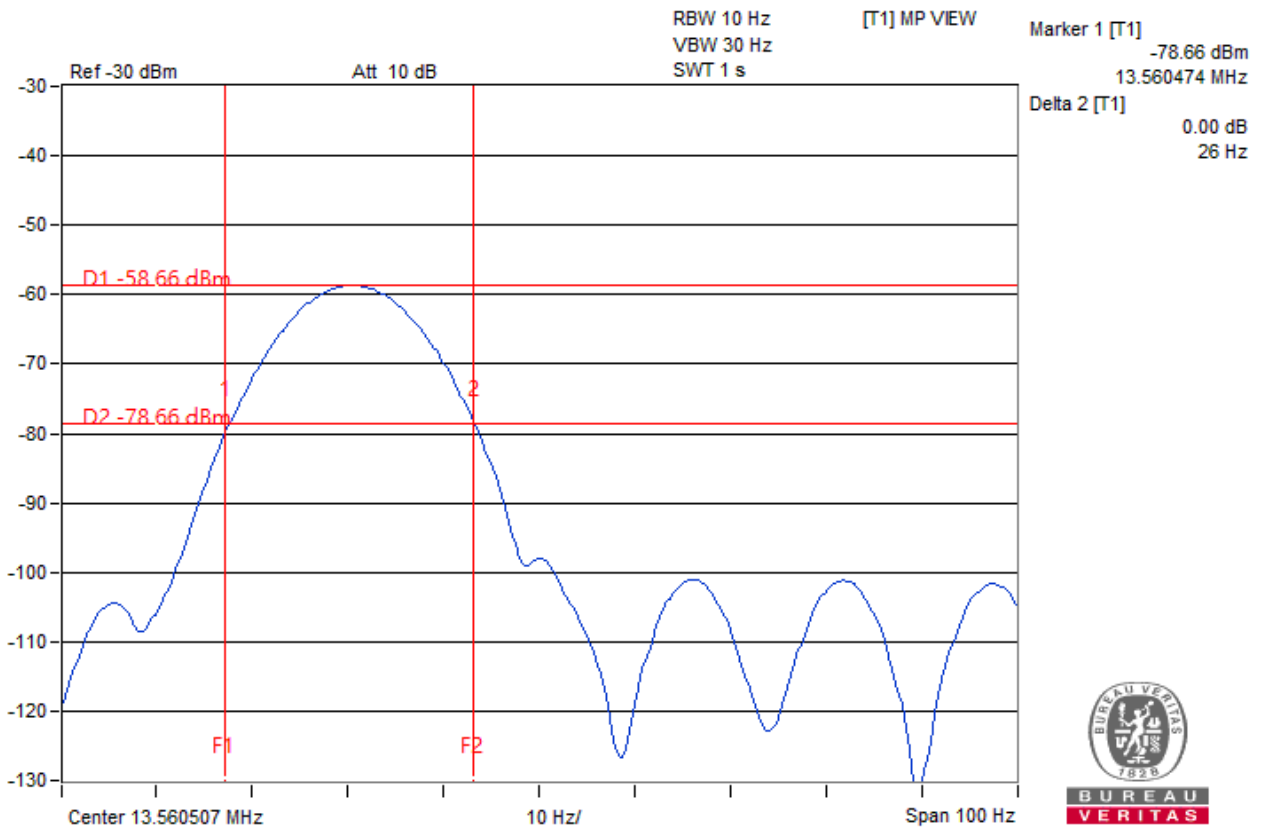
Spectrum Plot of Value



Type V

Operating Frequency Band (MHz)	20dB Bandwidth (MHz)	20dB Point (MHz)		Pass / Fail
		Lowest	Highest	
13.11 – 14.01	0.000026	13.560474	13.5605	PASS

Spectrum Plot of Value



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 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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