

FCC Test Report

(Co-located)

Report No.: RFBHTZ-WTW-P22080640-1

FCC ID: PPQ202008EG91NAXD

Test Model: EX-1193-M

Series Model: EX-1193-E, EX-1193-T, EX-1193-M-48, EX-1193-E-48, EX-1193-T-48
(refer to item 3.1 for more details)

Received Date: 2022/8/18

Test Date: 2022/9/12 ~ 2022/9/23

Issued Date: 2023/2/8

Applicant: LITE-ON Technology Corp.

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(R.O.C.)

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

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33383, Taiwan

**FCC Registration /
Designation Number:** 788550 / TW0003



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Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 Summary of Test Results.....	5
2.1 Measurement Uncertainty.....	6
2.2 Modification Record	6
3 General Information	7
3.1 General Description of EUT	7
3.2 Description of Test Modes.....	10
3.2.1 Test Mode Applicability and Tested Channel Detail.....	11
3.3 Description of Support Units	13
3.3.1 Configuration of System under Test	13
3.4 General Description of Applied Standards.....	14
4 Test Types and Results	15
4.1 Radiated Emission and Bandedge Measurement	15
4.1.1 Limits of Radiated Emission and Bandedge Measurement	15
4.1.2 Test Instruments	17
4.1.3 Test Procedures.....	18
4.1.4 Deviation from Test Standard	20
4.1.5 Test Setup.....	21
4.1.6 EUT Operating Conditions.....	22
4.1.7 Test Results	23
5 Pictures of Test Arrangements.....	77
Appendix – Information of the Testing Laboratories	78

Release Control Record

Issue No.	Description	Date Issued
RFBHTZ-WTW-P22080640-1	Original Release	2023/2/8

1 Certificate of Conformity

Product: AC charging station

Brand: LITEON

Test Model: EX-1193-M

Series Model: EX-1193-E, EX-1193-T, EX-1193-M-48, EX-1193-E-48, EX-1193-T-48 (refer to item 3.1 for more details)

Sample Status: Engineering Sample

Applicant: LITE-ON Technology Corp.

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.247)
47 CFR FCC Part 15, Subpart C (Section 15.225)
47 CFR FCC Part 15, Subpart C (Section 15.215)
ANSI C63.10:2013
FCC Part 22, Subpart H
FCC Part 24, Subpart E
FCC Part 27, Subpart C, H, F, L
FCC Part 90, Subpart I, S
FCC Part 2

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

Prepared by : Lena Wang, **Date:** 2023/2/8
Lena Wang / Specialist

Approved by : Jeremy Lin, **Date:** 2023/2/8
Jeremy Lin / Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247) 47 CFR FCC Part 15, Subpart C (Section 15.225, 15.215) FCC Part 22, Subpart H FCC Part 24, Subpart E FCC Part 27, Subpart C, H, F, L FCC Part 90, Subpart I, S FCC Part 2			
FCC Clause	Test Item	Result	Remarks
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.2 dB at 66.86 MHz.
2.1053 22.917	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -13.94 dB at 1649.40 MHz.
2.1053 24.238	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -15.61 dB at 36.79 MHz.
2.1053 27.53(h) / (g)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -14.09 dB at 37.76 MHz.
2.1053 90.691	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -13.47 dB at 1629.40 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 -57.9 dB at 13.56 MHz.

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

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (\pm)
Radiated Emissions up to 1 GHz	9 kHz ~ 30 MHz	3.04 dB
	30 MHz ~ 200 MHz	2.0153 dB
	200 MHz ~ 1000 MHz	2.0224 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	1.0121 dB
	18 GHz ~ 40 GHz	1.1508 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	AC charging station	
Brand	LITEON	
Test Model	EX-1193-M	
Series Model	EX-1193-E, EX-1193-T, EX-1193-M-48, EX-1193-E-48, EX-1193-T-48	
Status of EUT	Engineering Sample	
Power Supply Rating	208- 240Vac	
Modulation Type	WLAN	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
	WCDMA	BPSK, QPSK
	LTE	QPSK, 16QAM
	NFC	ASK
Data Rate	WLAN	802.11b: 11.0 / 5.5 / 2.0 / 1.0 Mbps 802.11g: 54.0 / 48.0 / 36.0 / 24.0 / 18.0 / 12.0 / 9.0 / 6.0 Mbps 802.11n: up to 72.2Mbps
	NFC	Type A: 106 kbit/s Type B: 106 kbit/s Type F: 212 kbit/s, 424 kbit/s
Operating Frequency	WLAN	2412 ~ 2462 MHz
	WCDMA Band 2	1852.4 ~ 1907.6 MHz
	WCDMA Band 4	1712.4 ~ 1752.6 MHz
	WCDMA Band 5	826.4 ~ 846.6 MHz
	LTE Band 2 (Channel Bandwidth: 1.4 MHz)	1850.7 ~ 1909.3 MHz
	LTE Band 2 (Channel Bandwidth: 3 MHz)	1851.5 ~ 1908.5 MHz
	LTE Band 2 (Channel Bandwidth: 5 MHz)	1852.5 ~ 1907.5 MHz
	LTE Band 2 (Channel Bandwidth: 10 MHz)	1855.0 ~ 1905.0 MHz
	LTE Band 2 (Channel Bandwidth: 15 MHz)	1857.5 ~ 1902.5 MHz
	LTE Band 2 (Channel Bandwidth: 20 MHz)	1860.0 ~ 1900.0 MHz
	LTE Band 4 (Channel Bandwidth: 1.4 MHz)	1710.7 ~ 1754.3 MHz
	LTE Band 4 (Channel Bandwidth: 3 MHz)	1711.5 ~ 1753.5 MHz
	LTE Band 4 (Channel Bandwidth: 5 MHz)	1712.5 ~ 1752.5 MHz
	LTE Band 4 (Channel Bandwidth: 10 MHz)	1715.0 ~ 1750.0 MHz
	LTE Band 4 (Channel Bandwidth: 15 MHz)	1717.5 ~ 1747.5 MHz
LTE Band 4 (Channel Bandwidth: 20 MHz)	1720.0 ~ 1745.0 MHz	

	LTE Band 5 (Channel Bandwidth: 1.4 MHz)	824.7 ~ 848.3 MHz
	LTE Band 5 (Channel Bandwidth: 3 MHz)	825.5 ~ 847.5 MHz
	LTE Band 5 (Channel Bandwidth: 5 MHz)	826.5 ~ 846.5 MHz
	LTE Band 5 (Channel Bandwidth: 10 MHz)	829 ~ 844 MHz
	LTE Band 12 (Channel Bandwidth: 1.4 MHz)	699.7 ~ 715.3 MHz
	LTE Band 12 (Channel Bandwidth: 3 MHz)	700.5 ~ 714.5 MHz
	LTE Band 12 (Channel Bandwidth: 5 MHz)	701.5 ~ 713.5 MHz
	LTE Band 12 (Channel Bandwidth: 10 MHz)	704.0 ~ 711.0 MHz
	LTE Band 13 (Channel Bandwidth: 5 MHz)	779.5 ~ 784.5 MHz
	LTE Band 13 (Channel Bandwidth: 10 MHz)	782.0 MHz
	LTE Band 25 (Channel Bandwidth: 1.4 MHz)	1850.7 ~ 1914.3 MHz
	LTE Band 25 (Channel Bandwidth: 3 MHz)	1851.5 ~ 1913.5 MHz
	LTE Band 25 (Channel Bandwidth: 5 MHz)	1852.5 ~ 1912.5 MHz
	LTE Band 25 (Channel Bandwidth: 10 MHz)	1855.0 ~ 1910.0 MHz
	LTE Band 25 (Channel Bandwidth: 15 MHz)	1857.5 ~ 1907.5 MHz
	LTE Band 25 (Channel Bandwidth: 20 MHz)	1860.0 ~ 1905.0 MHz
	LTE Band 26 (Channel Bandwidth: 1.4 MHz) - Part 22	824.7 ~ 848.3 MHz
	LTE Band 26 (Channel Bandwidth: 3 MHz) - Part 22	825.5 ~ 847.5 MHz
	LTE Band 26 (Channel Bandwidth: 5 MHz) - Part 22	826.5 ~ 846.5 MHz
	LTE Band 26 (Channel Bandwidth: 10 MHz) - Part 22	829 ~ 844 MHz
	LTE Band 26 (Channel Bandwidth: 1.4 MHz)) -Part 90	814.7 ~ 823.3 MHz
	LTE Band 26 (Channel Bandwidth: 3 MHz) - Part 90	815.5 ~ 822.5 MHz
	LTE Band 26 (Channel Bandwidth: 5 MHz) - Part 90	816.5 ~ 821.5 MHz
	LTE Band 26 (Channel Bandwidth: 10 MHz) - Part 90	819 MHz
	NFC	13.56 MHz
Number of Channel	WLAN	2412 ~ 2462 MHz 11 for 802.11b, 802.11g, 802.11n (HT20)
	NFC	1
Antenna Type	Refer to Note as below	

Antenna Connector	Refer to Note as below
Accessory Device	Refer to Note as below
Data Cable Supplied	N/A

Note:

- The EUT provides 1 completed transmitter and 1 receiver.

Modulation Mode	Tx Function
802.11b	1TX
802.11g	1TX
802.11n (HT20)	1TX

- All models are listed as below. Only Model Number: EX-1193-M and EX-1193-E as a representative for final test.

Brand	Model	LTE	RFID	WIFI	Bluetooth	Difference
LITEON	EX-1193-M	Provided	Provided	Provided	Not Provided	The rated current (80A/48A) and the model of the charger
	EX-1193-M-48					
	EX-1193-E	Not Provided	Provided	Provided	Not Provided	The rated current (80A/48A) and the model of the charger
	EX-1193-E-48					
	EX-1193-T	Not Provided	Not Provided	Provided	Not Provided	The rated current (80A/48A) and the model of the charger
	EX-1193-T-48					

- The EUT contains following accessory devices.

Product	Brand	Model	Description
holster	Liteon	N/A	-

- The antenna information is listed as below.

WWAN Antenna										
Antenna Type	Monopole Coupling									
Band	WCDMA			LTE						
	II	IV	V	2	4	5	12	13	25	26
Gain	3.8	3	1.4	3.8	3	1.4	1.2	1.7	3.8	1.4

WLAN Antenna	
Antenna Type	Antenna Gain (dBi)
	WLAN 2.4 GHz
Dipole	3.0

- Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.
- WLAN 2.4G & WWAN & NFC technology can transmit at same time.
- The EUT contains certified WLAN module with FCC ID: PPQLILYW131, NFC module with FCC ID: PPQRYORR2L and WWAN module with FCC ID: PPQ202008EG91NAXD.
- 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.

3.2 Description of Test Modes

For 2.4G

11 channels are provided for 802.11b, 802.11g and 802.11n (HT20):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437		

For NFC

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 \geq 1G	RE<1G	
A	√	√	EX-1193-M
B	√	√	EX-1193-E

Where RE \geq 1G: Radiated Emission above 1GHz & Bandedge Measurement

RE<1G: Radiated Emission below 1GHz

Note: The EUT is designed to be positioned on the Z-plane only.

Radiated Emission Test (Above 1 GHz):

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

EUT Configure Mode	Mode	Freq. Range (MHz)	Available Channel	Tested Channel	Modulation Technology
A	11n (HT20) + LTE Band 26 (Part 22) + NFC	2412-2462	1, 6, 11	6 + 26797 + 1	BPSK
		824.7-848.3	26797, 26915, 27033		QPSK
		13.56	1		ASK
	11n (HT20) + LTE Band 2 + NFC	2412 ~ 2462	1, 6, 11	6 + 19185 + 1	BPSK
		1850.7-1909.3	18615, 18900, 19185		QPSK
		13.56	1		ASK
	11n (HT20) + LTE Band 4 + NFC	2412-2462	1, 6, 11	6 + 20050 + 1	BPSK
		1710.7-1754.3	20050, 20175, 20300		QPSK
		13.56	1		ASK
	11n (HT20) + LTE Band 26 (Part 90) + NFC	2412-2462	1, 6, 11	6 + 26697 + 1	BPSK
		814.7-823.3	26697, 26740, 26783		QPSK
		13.56	1		ASK
B	11n (HT20) + NFC	2412-2462	1, 6, 11	6 + 1	BPSK
		13.56	1		ASK

Radiated Emission Test (Below 1GHz):

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

EUT Configure Mode	Mode	Freq. Range (MHz)	Available Channel	Tested Channel	Modulation Technology
A	11n (HT20) + LTE Band 26 (Part 22) + NFC	2412-2462	1, 6, 11	6 + 26797 + 1	BPSK
		824.7-848.3	26797, 26915, 27033		QPSK
		13.56	1		ASK
	11n (HT20) + LTE Band 2 + NFC	2412 ~ 2462	1, 6, 11	6 + 19185 + 1	BPSK
		1850.7-1909.3	18615, 18900, 19185		QPSK
		13.56	1		ASK
	11n (HT20) + LTE Band 4 + NFC	2412-2462	1, 6, 11	6 + 20050 + 1	BPSK
		1710.7-1754.3	20050, 20175, 20300		QPSK
		13.56	1		ASK
	11n (HT20) + LTE Band 26 (Part 90) + NFC	2412-2462	1, 6, 11	6 + 26697 + 1	BPSK
		814.7-823.3	26697, 26740, 26783		QPSK
		13.56	1		ASK
B	11n (HT20) + NFC	2412-2462	1, 6, 11	6 + 1	BPSK
		13.56	1		ASK

Test Condition:

Applicable to	Environmental Conditions	Input Power (System)	Tested by
RE \geq 1G	23 deg. C, 72 % RH	120 Vac, 60 Hz	Vincent Chen
RE<1G	23 deg. C, 72 % RH	120 Vac, 60 Hz	Vincent Chen

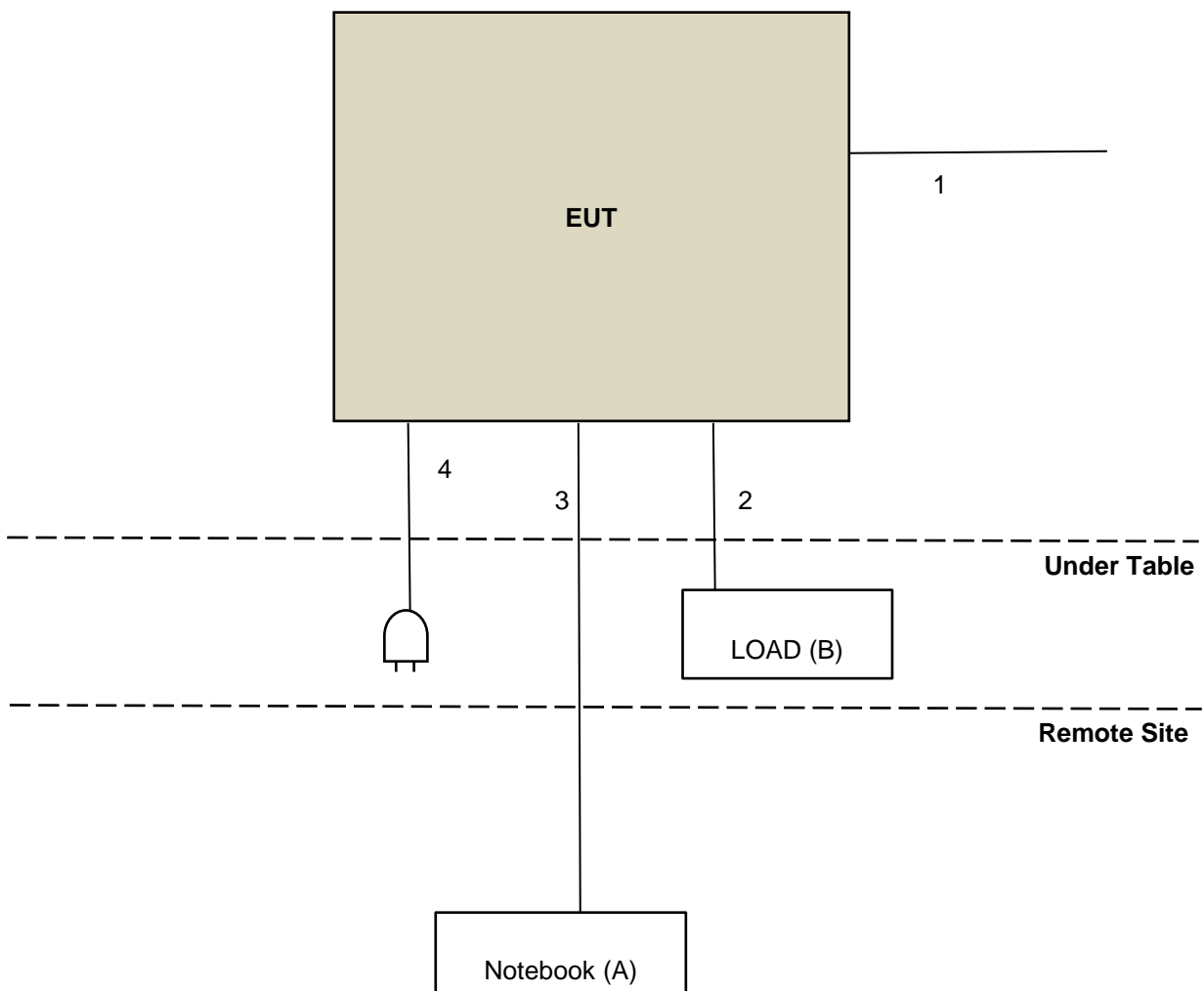
3.3 Description of Support Units

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	Notebook	DELL	E5420	33MJMQ1	N/A	Supplied by applicant
B	LOAD	N/A	N/A	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	POWER CABLE(DC out)	1	5	Y	0	Accessory of EUT
2	RJ-45 Cable	1	1.8	N	0	Provided by Lab
3	RJ-45 Cable	1	10	N	0	Provided by Lab
4	POWER CABLE(AC in)	1	1.8	Y	0	Accessory of EUT

3.3.1 Configuration of System under Test



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 and references:

Test Standard:

FCC Part 15, Subpart C (15.247)

FCC Part 15, Subpart C (15.225)

FCC Part 15, Subpart C (15.215)

ANSI C63.10-2013

FCC 47 CFR Part 2

FCC 47 CFR Part 22

FCC 47 CFR Part 24

FCC 47 CFR Part 27

FCC 47 CFR Part 90

ANSI 63.26-2015

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

References Test Guidance:

KDB 558074 D01 15.247 Meas Guidance v05r02

KDB 414788 D01 Radiated Test Site v01r01

KDB 971168 D01 Power Meas License Digital Systems v03r01

KDB 971168 D02 Misc Rev Approv License Devices v02r01

ANSI/TIA/EIA-603-E 2016

All test items have been performed as a reference to the above KDB test guidance.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

For WLAN

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20 dB below the highest level of the desired power:

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. For frequencies above 1000 MHz, 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 20 dB under any condition of modulation.

For Part 22 & Part 24

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least $43 + 10 \log(P)$ dB. The emission limit is equal to -13 dBm.

For Part 27

For LTE Band 4:

According to FCC 27.53(h), for operations in the 1695-1710MHz, 1710-1755MHz, 1755-1780 MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) in watts by at least $43 + 10 \log (P)$ dB.

For Part 90

The power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least $43 + 10 \log (P)$ dB. The limit of emission is equal to -13 dBm.

For NFC

- 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. For frequencies above 1000 MHz, 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 20 dB under any condition of modulation.

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower & Turn Max-Full	MFA-440H	AT93021705	NA	NA
Turn Table Max-Full	MFT-201SS	NA	NA	NA
Turn Table Controller Max-Full	MG-7802	NA	NA	NA
Loop Antenna TESEQ	HLA 6121	45745	2022/7/27	2023/7/26
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2022/1/15	2023/1/14
Pre-Amplifier EMCI	EMC 330H	980112	2021/10/5	2022/10/4
Bi_Log Antenna Schwarzbeck	VULB9168	9168-472	2021/10/28	2022/10/27
RF Coaxial Cable WORKEN	8D-FB	Cable-Ch10-01	2021/10/5	2022/10/4
Test Receiver KEYSIGHT	N9038A	MY55420137	2022/4/27	2023/4/26
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-969	2021/11/14	2022/11/13
Signal Analyzer Agilent	N9010A	MY52220314	2021/12/3	2022/12/2
Pre-Amplifier EMCI	EMC 012645	980115	2021/10/5	2022/10/4
RF Coaxial Cable EMCI	EMC104-SM-SM- 8000+3000	171005	2021/10/5	2022/10/4
RF Coaxial Cable HUBER SUHNER	SUCOFLEX 104	EMC104-SM-SM- 1000(140807)	2021/10/5	2022/10/4
RF FLITER MICRO-TRONICS	BRM50716	060	2022/1/10	2023/1/9
RF FLITER MICRO-TRONICS	BRM17690	004	2022/1/10	2023/1/9
Boresight antenna tower fixture BV	BAF-02	7	NA	NA
Pre-Amplifier EMCI	EMC 184045	980116	2021/10/5	2022/10/4
Horn Antenna Schwarzbeck	BBHA 9170	148	2021/11/14	2022/11/13
Signal Analyzer Agilent	N9010A	MY52220314	2021/12/3	2022/12/2
RF Coaxial Cable EMCI	EMC102-KM-KM- 600	150928	2022/7/9	2023/7/8
RF Coaxial Cable EMCI	EMC102-KM-KM- 3000	150929	2022/7/9	2023/7/8

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HY 966 chamber 5

4.1.3 Test Procedures

For WLAN

For Radiated emission below 30MHz

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

Note:

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

For Radiated emission above 30MHz

1. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
3. 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.
4. 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.
5. 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.
6. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

For Part 22 & Part 24 & Part 27

1. In the semi-anechoic chamber, EUT placed on the 0.8m(below or equal 1GHz) and/or 1.5m(above 1GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
2. 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.
3. Perform a field strength measurement and record the worse read value, is the field strength value via a spectrum reading obtained corrected for antenna factor, cable loss and pre-amplifier factor and then mathematically convert the measured field strength level to EIRP/ERP level.
4. Following C63.26 section 5.5 and 5.2.7
$$\text{EIRP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 20\log(D) - 104.8;$$
 where D is the measurement distance (in the far field region) in m.
$$\text{ERP (dBm)} = E \text{ (dB}\mu\text{V/m)} + 20\log(D) - 104.8 - 2.15;$$
 where D is the measurement distance (in the far field region) in m.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz/3 MHz.
2. The emission levels were against the limit of frequency range 9 kHz ~ 30 MHz:
The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

For Part 90

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8 m (below or equal 1 GHz) and/or 1.5 m (above 1 GHz) height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1 m to 4 m to find the maximum polar radiated power. The “Read Value” is the spectrum reading the maximum power value.
- b. $\text{EIRP} = \text{Output power level of S.G} - \text{TX cable loss} + \text{Antenna gain of substitution horn}.$
- c. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, $\text{E.R.P power} = \text{E.I.P.R power} - 2.15 \text{ dB}.$

Note: The resolution bandwidth of spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz.

For NFC

For Radiated Emission below 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode, except for the frequency band (9kHz-90kHz, 110Hz-490kHz) set to average detect function.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz at frequency below 30 MHz.
2. There is a comparison data of both open-field test site and semi-Anechoic chamber, and the result came out very similar.

For Radiated Emission above 30 MHz

9. 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.
10. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
11. 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.
12. 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.
13. 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.
14. The test-receiver system was set to peak and average detected function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

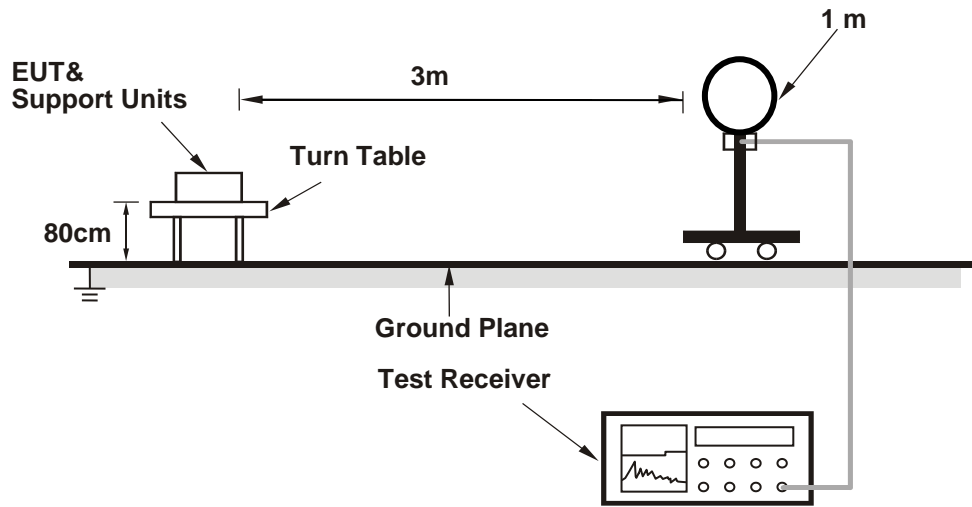
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) or Peak detection (PK) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10 Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1 GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

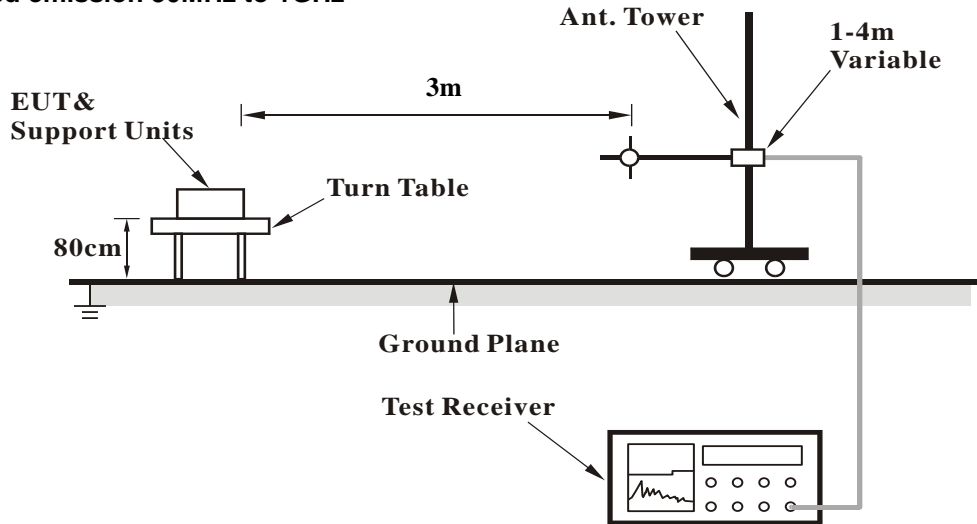
No deviation.

4.1.5 Test Setup

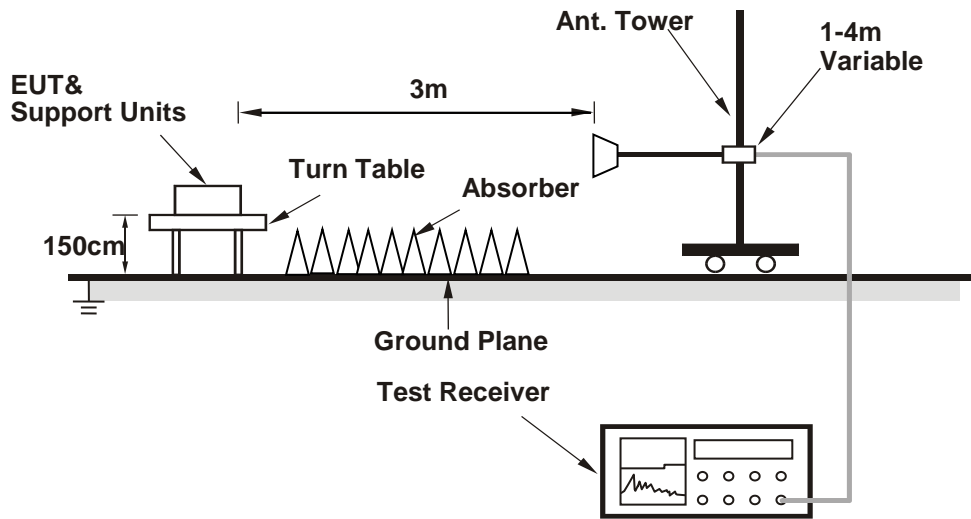
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

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

4.1.7 Test Results

Above 1 GHz Data :

Mode A

11n (HT20) + LTE Bang 26 (Part 22) + NFC

Channel	Ch6 + Ch 26797 + Ch1	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 25GHz		

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	*2437.00	101.7 PK			2.06 H	317	69.7	32.0
2	*2437.00	93.3 AV			2.06 H	317	61.3	32.0
3	4874.00	47.9 PK	74.0	-26.1	1.87 H	232	58.3	-10.4
4	4874.00	37.8 AV	54.0	-16.2	1.87 H	232	48.2	-10.4
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	*2437.00	97.4 PK			2.86 V	255	65.4	32.0
2	*2437.00	89.6 AV			2.86 V	255	57.6	32.0
3	4874.00	46.7 PK	74.0	-27.3	3.18 V	152	57.1	-10.4
4	4874.00	36.8 AV	54.0	-17.2	3.18 V	152	47.2	-10.4

Remarks:

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

Channel	Ch6 + Ch 26797 + Ch1	Frequency Range	1GMHz ~ 18GHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1649.40	-26.94	-13.00	-13.94	1.35 H	232	95.26	-122.20
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1649.40	-27.19	-13.00	-14.19	2.01 V	156	95.01	-122.20

Remarks:

1. $ERP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8 - 2.15$
3. $Margin\ value = ERP - Limit\ value$
4. The other ERP levels were very low against the limit.

11n (HT20) + LTE Bang 2 + NFC

Channel	Ch 6 + Ch 19185 + Ch1	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 25GHz		

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	*2437.00	101.6 PK			1.87 H	284	69.6	32.0
2	*2437.00	93.5 AV			1.87 H	284	61.5	32.0
3	4874.00	46.9 PK	74.0	-27.1	3.12 H	157	57.3	-10.4
4	4874.00	36.7 AV	54.0	-17.3	3.12 H	157	47.1	-10.4
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	*2437.00	97.2 PK			2.78 V	255	65.2	32.0
2	*2437.00	89.3 AV			2.78 V	255	57.3	32.0
3	4874.00	46.7 PK	74.0	-27.3	3.32 V	152	57.1	-10.4
4	4874.00	36.9 AV	54.0	-17.1	3.32 V	152	47.3	-10.4

Remarks:

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

Channel	Ch 6 + Ch 19185 + Ch1	Frequency Range	1GMHz ~ 18GHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3812.00	-49.07	-13.00	-36.07	1.75 H	75	66.35	-115.42
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3817.00	-54.39	-13.00	-41.39	1.32 V	31	61.02	-115.41

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

11n (HT20) + LTE Bang 4 + NFC

Channel	Ch6 + Ch 20050 + Ch1	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 25GHz		

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	*2437.00	101.7 PK			1.78 H	325	69.7	32.0
2	*2437.00	93.5 AV			1.78 H	325	61.5	32.0
3	4874.00	48.0 PK	74.0	-26.0	2.78 H	333	58.4	-10.4
4	4874.00	37.8 AV	54.0	-16.2	2.78 H	333	48.2	-10.4
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	*2437.00	97.3 PK			2.78 V	253	65.3	32.0
2	*2437.00	89.5 AV			2.78 V	253	57.5	32.0
3	4874.00	46.8 PK	74.0	-27.2	2.87 V	123	57.2	-10.4
4	4874.00	36.8 AV	54.0	-17.2	2.87 V	123	47.2	-10.4

Remarks:

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

Channel	Ch6 + Ch 20050 + Ch1	Frequency Range	1GMHz ~ 18GHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3440.00	-36.27	-13.00	-23.27	1.32 H	26	80.17	-116.44
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	3440.00	-37.44	-13.00	-24.44	2.03 V	15	79.00	-116.44

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit.

11n (HT20) + LTE Bang 26 (Part 90) + NFC

Channel	Ch6 + Ch 26697 + Ch1	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 25GHz		

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	*2437.00	101.5 PK			1.69 H	296	69.5	32.0
2	*2437.00	93.7 AV			1.69 H	296	61.7	32.0
3	4874.00	48.0 PK	74.0	-26.0	1.87 H	226	58.4	-10.4
4	4874.00	37.8 AV	54.0	-16.2	1.87 H	226	48.2	-10.4
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	*2437.00	97.2 PK			2.76 V	286	65.2	32.0
2	*2437.00	89.5 AV			2.76 V	286	57.5	32.0
3	4874.00	46.8 PK	74.0	-27.2	3.15 V	152	57.2	-10.4
4	4874.00	36.8 AV	54.0	-17.2	3.15 V	152	47.2	-10.4

Remarks:

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

Channel	Ch6 + Ch 26697 + Ch1	Frequency Range	1GMHz ~ 18GHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1629.40	-26.47	-13.00	-13.47	1.23 H	278	95.74	-122.21
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	1629.40	-26.63	-13.00	-13.63	1.47 V	232	95.58	-122.21

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.

Mode B
11n (HT20) + NFC

Channel	Ch6 + Ch1	Detector Function	Peak (PK) Average (AV)
Frequency Range	1GHz ~ 25GHz		

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	*2437.00	102.1 PK			2.29 H	343	70.1	32.0
2	*2437.00	94.2 AV			2.29 H	343	62.2	32.0
3	4874.00	48.0 PK	74.0	-26.0	2.96 H	154	58.4	-10.4
4	4874.00	37.9 AV	54.0	-16.1	2.96 H	154	48.3	-10.4

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	*2437.00	96.7 PK			1.01 V	30	64.7	32.0
2	*2437.00	88.7 AV			1.01 V	30	56.7	32.0
3	4874.00	46.8 PK	74.0	-27.2	2.32 V	147	57.2	-10.4
4	4874.00	37.0 AV	54.0	-17.0	2.32 V	147	47.4	-10.4

Remarks:

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

Below 30MHz data

Mode A

11n (HT20) + LTE Bang 26 (Part 22) + NFC

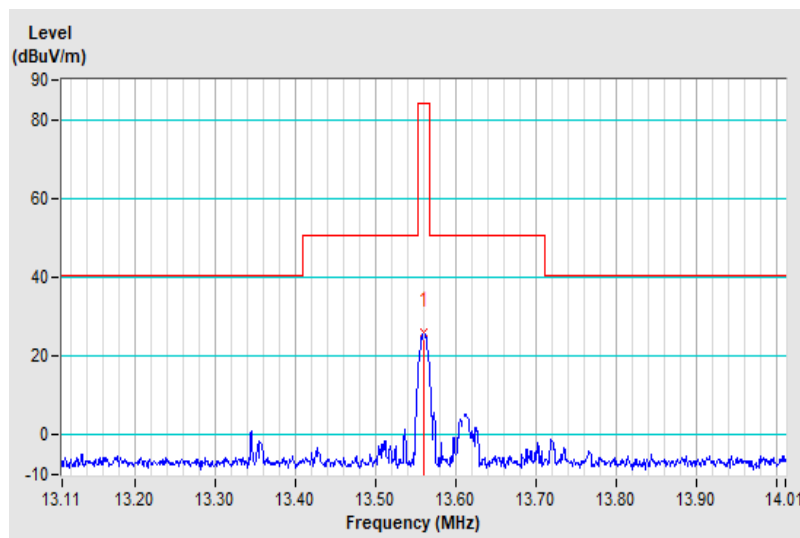
Channel	Ch6 + Ch 26797 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	26.1 QP	84.0	-57.9	1.00	175	44.3	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



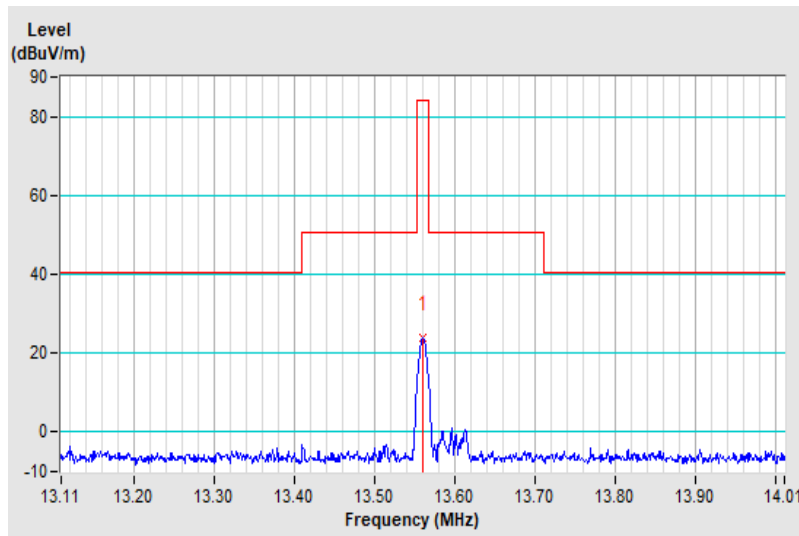
Channel	Ch6 + Ch 26797 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	24.5 QP	84.0	-59.5	1.00	259	42.7	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



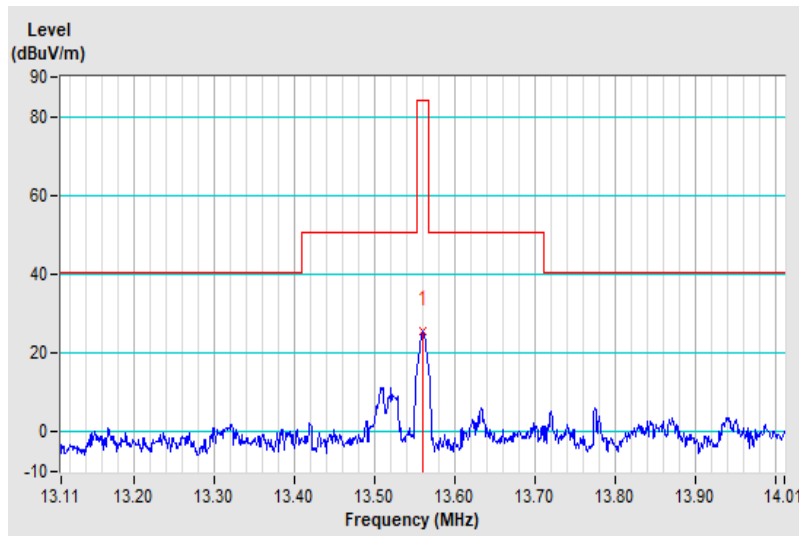
Channel	Ch6 + Ch 26797 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	25.7 QP	84.0	-58.3	1.00	190	43.9	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

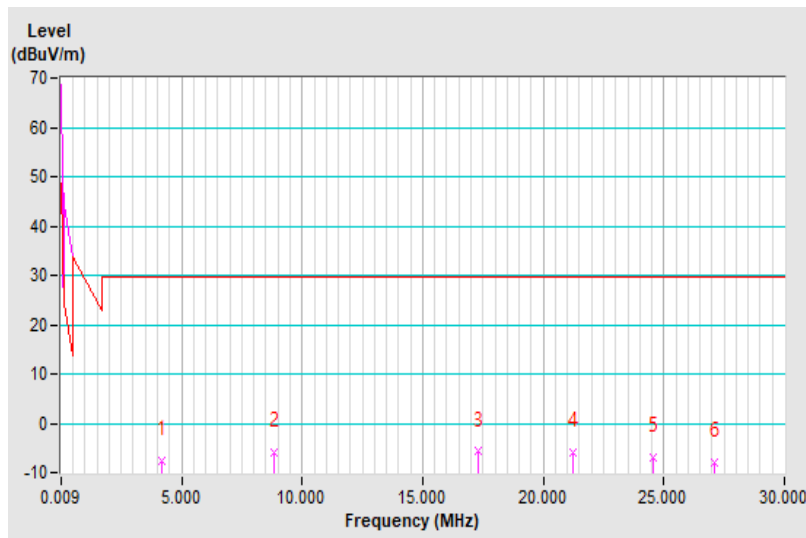


Channel	Ch6 + Ch 26797 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	4.18	-7.7 PK	29.5	-37.2	1.00	188	12.3	-20.0
2	8.83	-5.9 PK	29.5	-35.4	1.00	268	12.7	-18.6
3	17.28	-5.8 PK	29.5	-35.3	1.00	159	12.3	-18.1
4	21.24	-5.8 PK	29.5	-35.3	1.00	18	12.3	-18.1
5	24.54	-7.0 PK	29.5	-36.5	1.00	195	11.1	-18.1
6	27.12	-7.9 PK	29.5	-37.4	1.00	69	10.2	-18.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

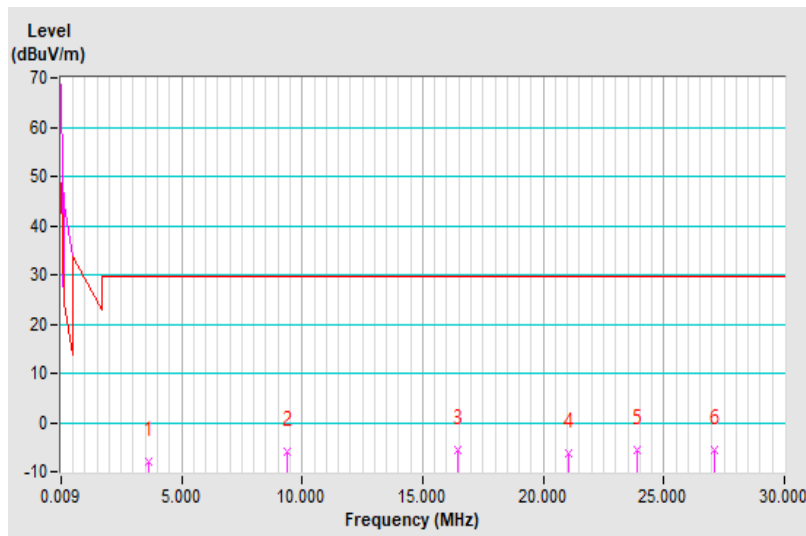


Channel	Ch6 + Ch 26797 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.61	-8.1 PK	29.5	-37.6	1.00	168	11.8	-19.9
2	9.37	-6.0 PK	29.5	-35.5	1.00	254	12.4	-18.4
3	16.44	-5.6 PK	29.5	-35.1	1.00	342	12.5	-18.1
4	21.03	-6.3 PK	29.5	-35.8	1.00	158	11.8	-18.1
5	23.88	-5.7 PK	29.5	-35.2	1.00	181	12.4	-18.1
6	27.12	-5.5 PK	29.5	-35.0	1.00	286	12.6	-18.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

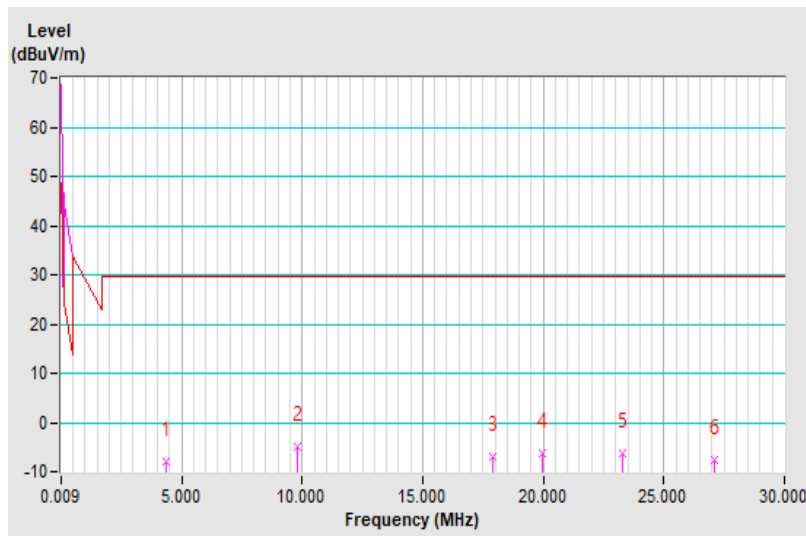


Channel	Ch6 + Ch 26797 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	4.36	-8.0 PK	29.5	-37.5	1.00	292	12.0	-20.0
2	9.79	-4.9 PK	29.5	-34.4	1.00	268	13.4	-18.3
3	17.88	-6.9 PK	29.5	-36.4	1.00	242	11.2	-18.1
4	19.95	-6.2 PK	29.5	-35.7	1.00	261	11.9	-18.1
5	23.31	-6.3 PK	29.5	-35.8	1.00	134	11.8	-18.1
6	27.12	-7.6 PK	29.5	-37.1	1.00	6	10.5	-18.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



11n (HT20) + LTE Bang 2 + NFC

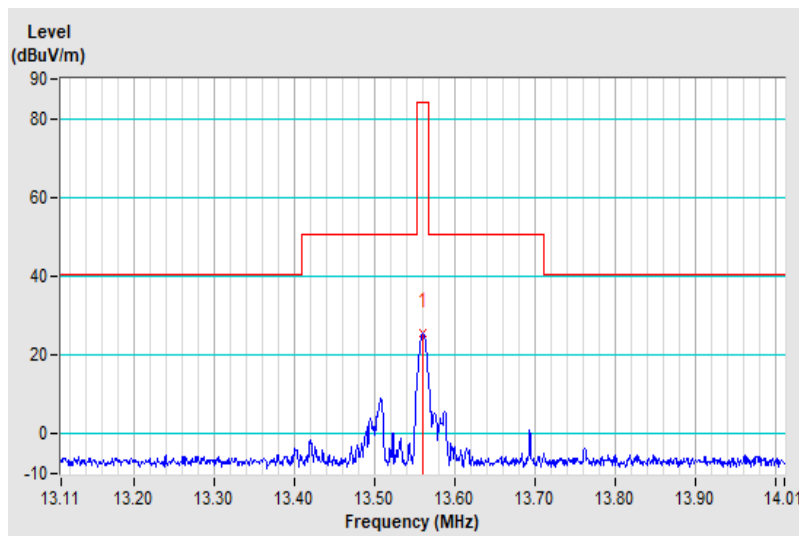
Channel	Ch 6 + Ch 19185 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	25.7 QP	84.0	-58.3	1.00	172	43.9	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



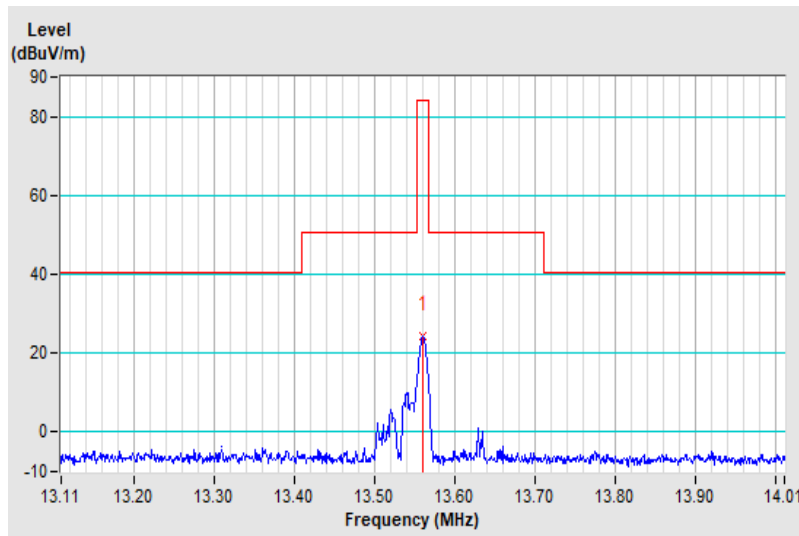
Channel	Ch 6 + Ch 19185 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	24.2 QP	84.0	-59.8	1.00	269	42.4	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



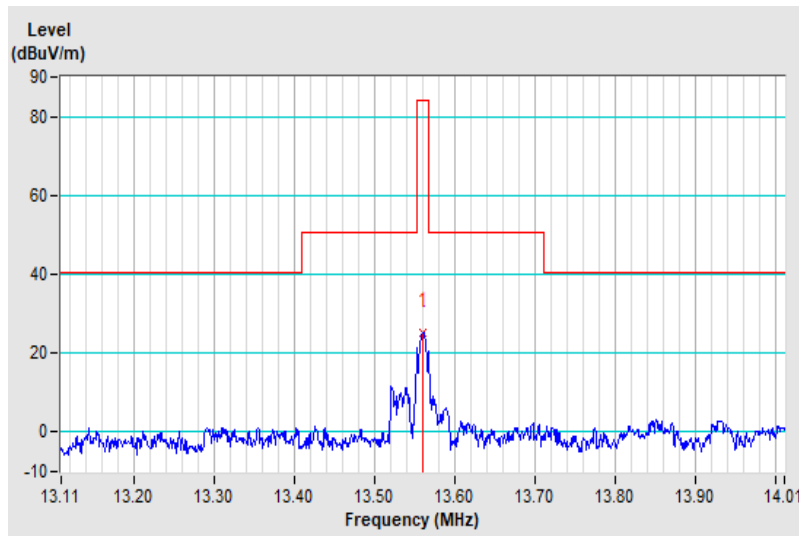
Channel	Ch 6 + Ch 19185 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	25.1 QP	84.0	-58.9	1.00	203	43.3	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

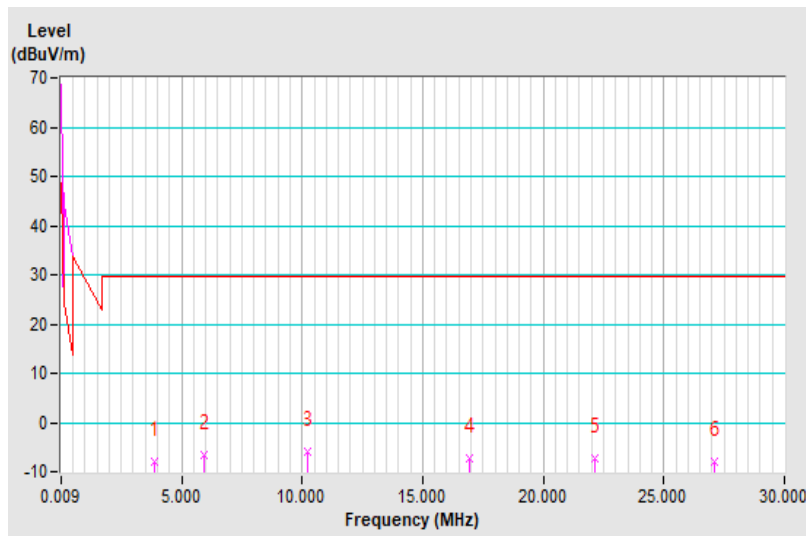


Channel	Ch 6 + Ch 19185 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.88	-8.0 PK	29.5	-37.5	1.00	292	11.9	-19.9
2	5.95	-6.7 PK	29.5	-36.2	1.00	63	13.0	-19.7
3	10.24	-5.8 PK	29.5	-35.3	1.00	204	12.4	-18.2
4	16.92	-7.4 PK	29.5	-36.9	1.00	7	10.7	-18.1
5	22.14	-7.3 PK	29.5	-36.8	1.00	175	10.8	-18.1
6	27.12	-7.9 PK	29.5	-37.4	1.00	17	10.2	-18.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

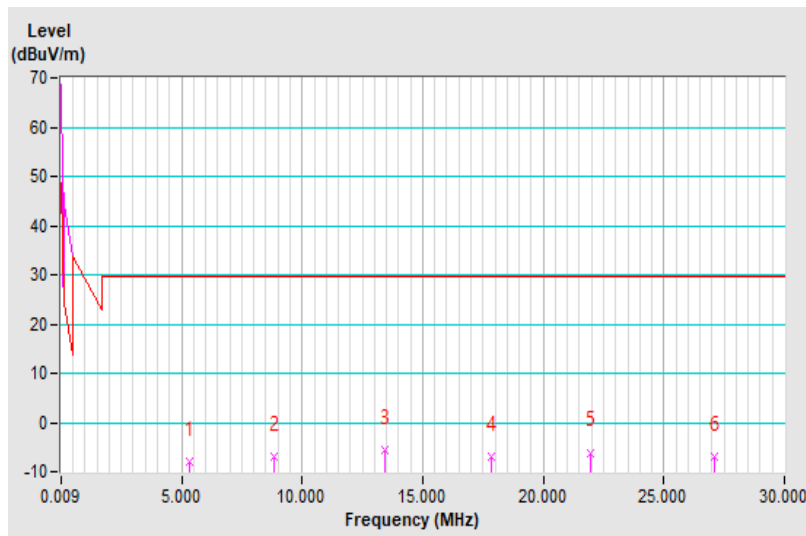


Channel	Ch 6 + Ch 19185 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	5.35	-8.1 PK	29.5	-37.6	1.00	2	11.9	-20.0
2	8.83	-6.8 PK	29.5	-36.3	1.00	172	11.8	-18.6
3	13.44	-5.5 PK	29.5	-35.0	1.00	1	12.7	-18.2
4	17.85	-6.9 PK	29.5	-36.4	1.00	219	11.2	-18.1
5	21.93	-6.1 PK	29.5	-35.6	1.00	346	12.0	-18.1
6	27.12	-7.0 PK	29.5	-36.5	1.00	17	11.1	-18.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

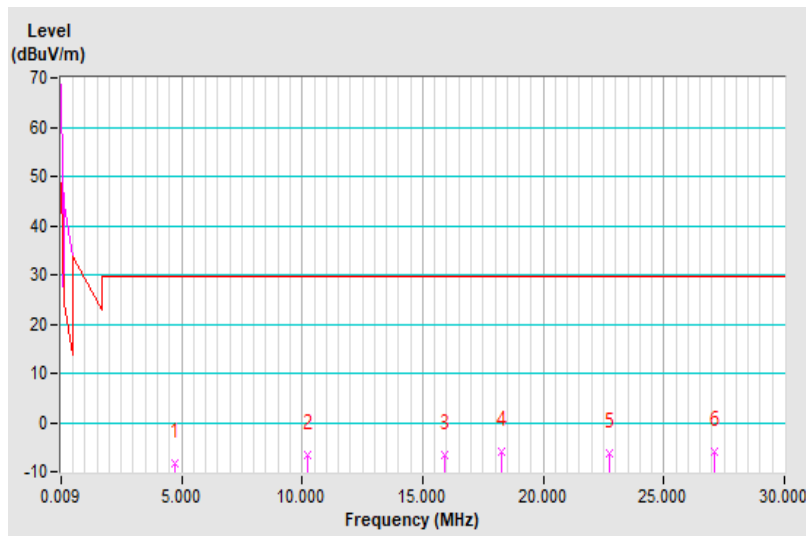


Channel	Ch 6 + Ch 19185 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	4.72	-8.4 PK	29.5	-37.9	1.00	292	11.7	-20.1
2	10.21	-6.7 PK	29.5	-36.2	1.00	184	11.5	-18.2
3	15.90	-6.7 PK	29.5	-36.2	1.00	200	11.4	-18.1
4	18.24	-5.8 PK	29.5	-35.3	1.00	95	12.3	-18.1
5	22.74	-6.2 PK	29.5	-35.7	1.00	300	11.9	-18.1
6	27.12	-5.8 PK	29.5	-35.3	1.00	173	12.3	-18.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



11n (HT20) + LTE Bang 4 + NFC

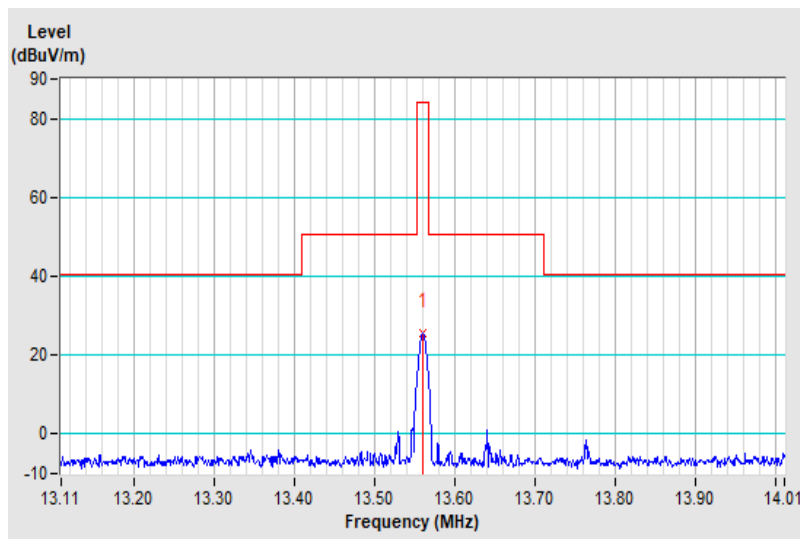
Channel	Ch6 + Ch 20050 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	25.7 QP	84.0	-58.3	1.00	165	43.9	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



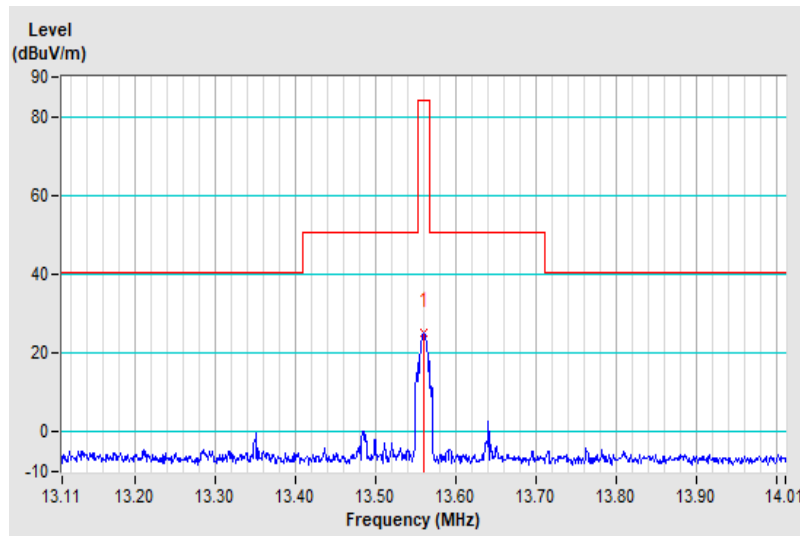
Channel	Ch6 + Ch 20050 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	25.2 QP	84.0	-58.8	1.00	283	43.4	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



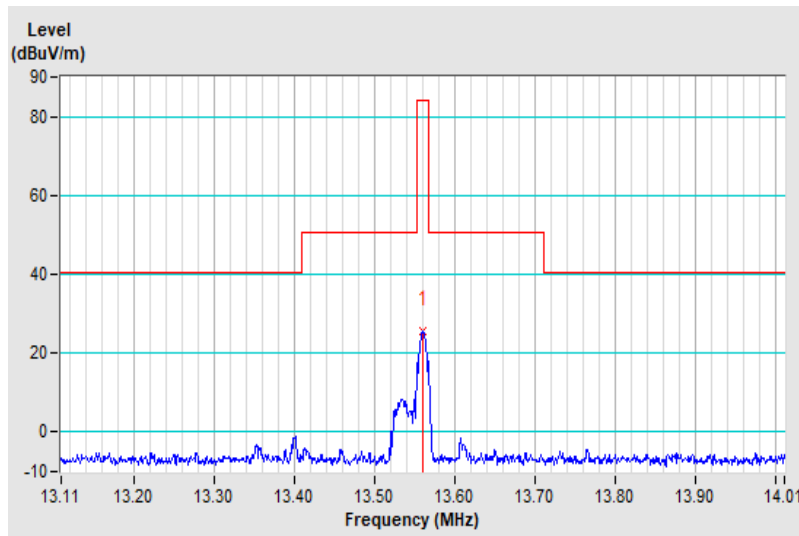
Channel	Ch6 + Ch 20050 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	25.4 QP	84.0	-58.6	1.00	168	43.6	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

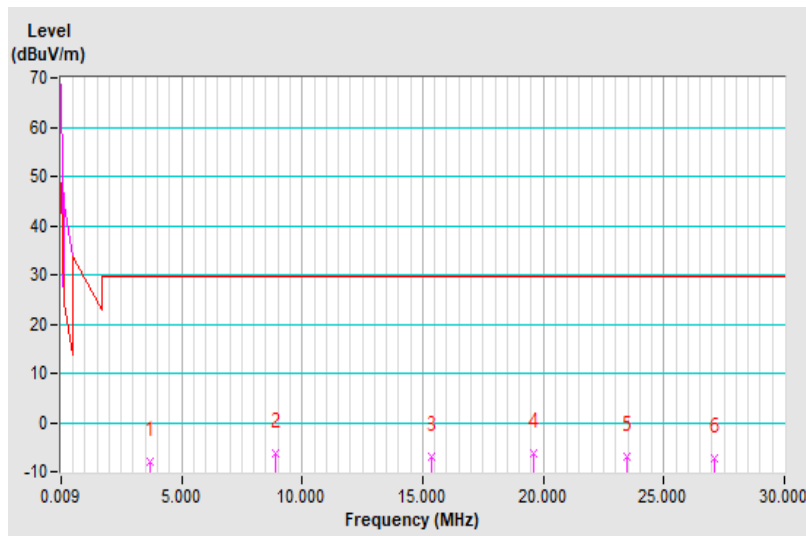


Channel	Ch6 + Ch 20050 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.67	-8.0 PK	29.5	-37.5	1.00	292	11.9	-19.9
2	8.89	-6.3 PK	29.5	-35.8	1.00	2	12.3	-18.6
3	15.39	-7.0 PK	29.5	-36.5	1.00	196	11.1	-18.1
4	19.62	-6.2 PK	29.5	-35.7	1.00	33	11.9	-18.1
5	23.46	-6.9 PK	29.5	-36.4	1.00	223	11.2	-18.1
6	27.12	-7.4 PK	29.5	-36.9	1.00	288	10.7	-18.1

Remarks:

1. Emission Level(dBUV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

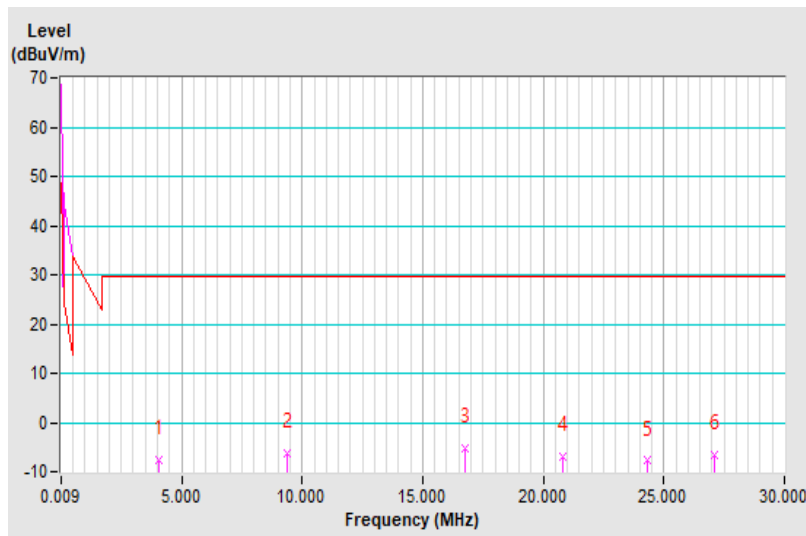


Channel	Ch6 + Ch 20050 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	4.06	-7.5 PK	29.5	-37.0	1.00	167	12.5	-20.0
2	9.37	-6.2 PK	29.5	-35.7	1.00	351	12.2	-18.4
3	16.77	-5.3 PK	29.5	-34.8	1.00	263	12.8	-18.1
4	20.82	-7.0 PK	29.5	-36.5	1.00	113	11.1	-18.1
5	24.33	-7.8 PK	29.5	-37.3	1.00	278	10.3	-18.1
6	27.12	-6.7 PK	29.5	-36.2	1.00	255	11.4	-18.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

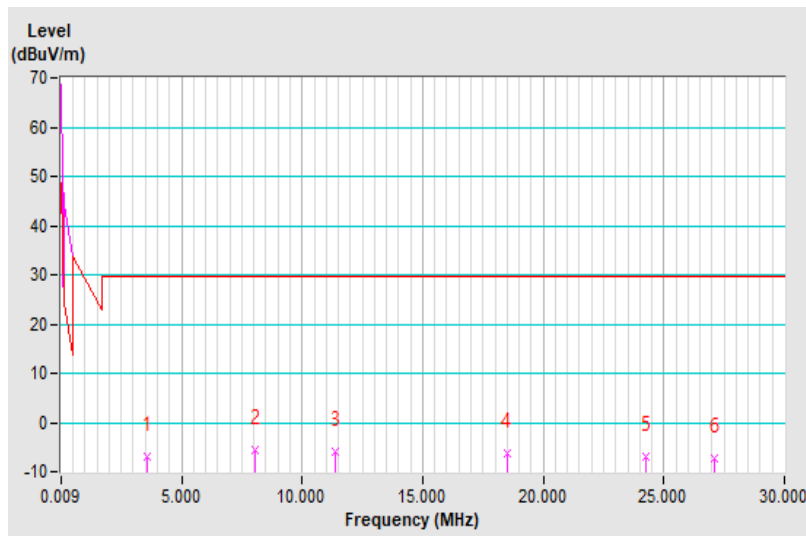


Channel	Ch6 + Ch 20050 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.55	-6.9 PK	29.5	-36.4	1.00	15	13.0	-19.9
2	8.08	-5.7 PK	29.5	-35.2	1.00	338	13.2	-18.9
3	11.38	-6.0 PK	29.5	-35.5	1.00	256	12.2	-18.2
4	18.48	-6.2 PK	29.5	-35.7	1.00	178	11.9	-18.1
5	24.24	-6.9 PK	29.5	-36.4	1.00	16	11.2	-18.1
6	27.12	-7.3 PK	29.5	-36.8	1.00	59	10.8	-18.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



11n (HT20) + LTE Bang 26 (Part 90) + NFC

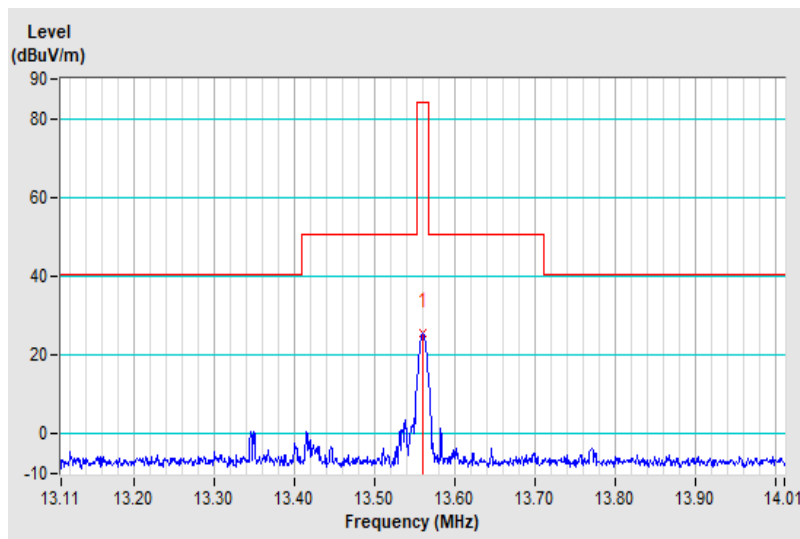
Channel	Ch6 + Ch 26697 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	25.7 QP	84.0	-58.3	1.00	181	43.9	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



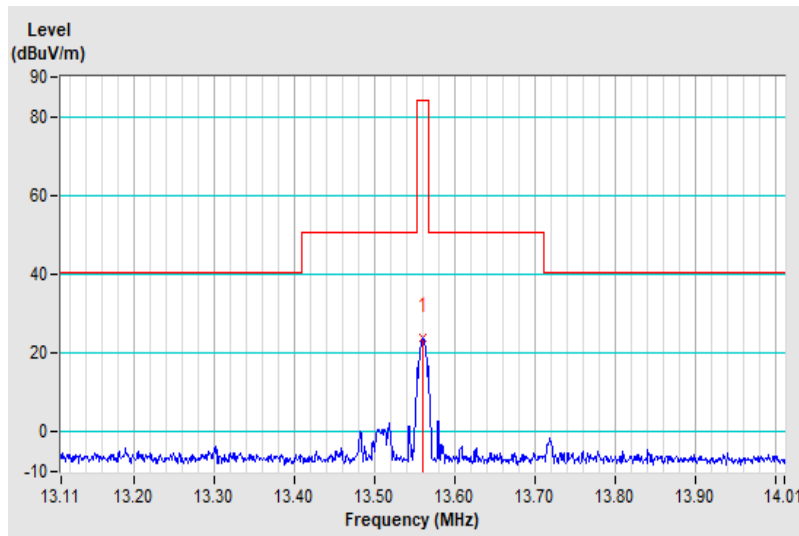
Channel	Ch6 + Ch 26697 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	23.7 QP	84.0	-60.3	1.00	291	41.9	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



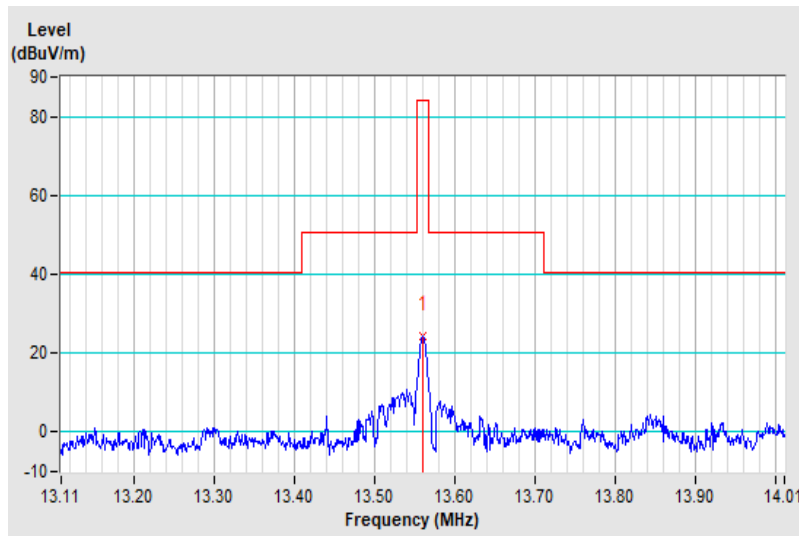
Channel	Ch6 + Ch 26697 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	24.5 QP	84.0	-59.5	1.00	188	42.7	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

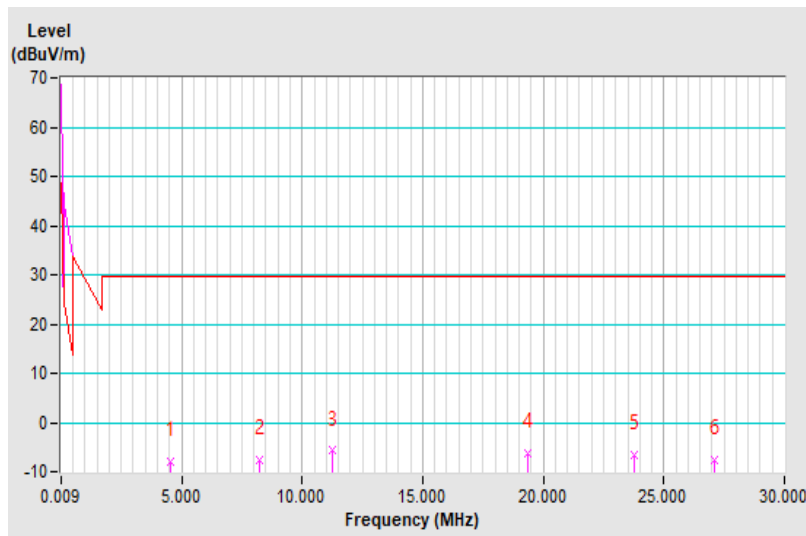


Channel	Ch6 + Ch 26697 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	4.54	-8.0 PK	29.5	-37.5	1.00	250	12.0	-20.0
2	8.23	-7.5 PK	29.5	-37.0	1.00	39	11.4	-18.9
3	11.23	-5.8 PK	29.5	-35.3	1.00	18	12.4	-18.2
4	19.35	-6.2 PK	29.5	-35.7	1.00	116	11.9	-18.1
5	23.76	-6.6 PK	29.5	-36.1	1.00	113	11.5	-18.1
6	27.12	-7.7 PK	29.5	-37.2	1.00	48	10.4	-18.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

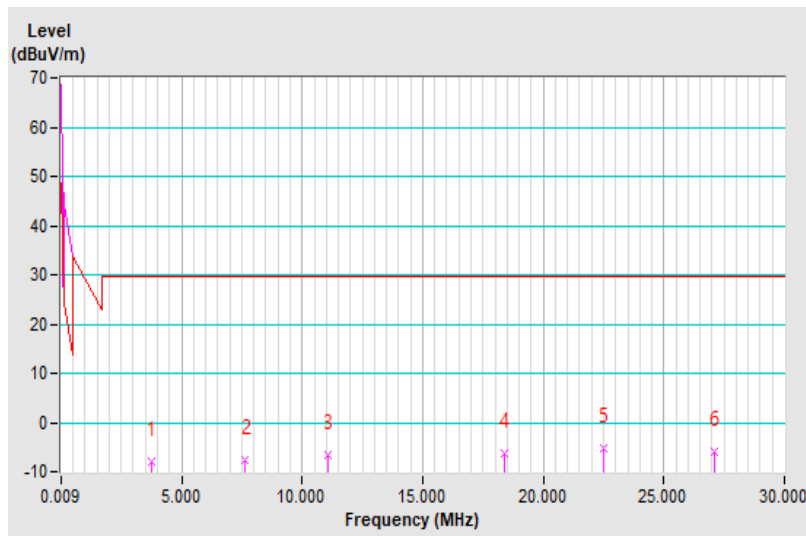


Channel	Ch6 + Ch 26697 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.73	-8.1 PK	29.5	-37.6	1.00	167	11.8	-19.9
2	7.66	-7.6 PK	29.5	-37.1	1.00	149	11.5	-19.1
3	11.08	-6.7 PK	29.5	-36.2	1.00	319	11.5	-18.2
4	18.39	-6.3 PK	29.5	-35.8	1.00	74	11.8	-18.1
5	22.53	-5.2 PK	29.5	-34.7	1.00	77	12.9	-18.1
6	27.12	-5.9 PK	29.5	-35.4	1.00	350	12.2	-18.1

Remarks:

1. Emission Level(dBUV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

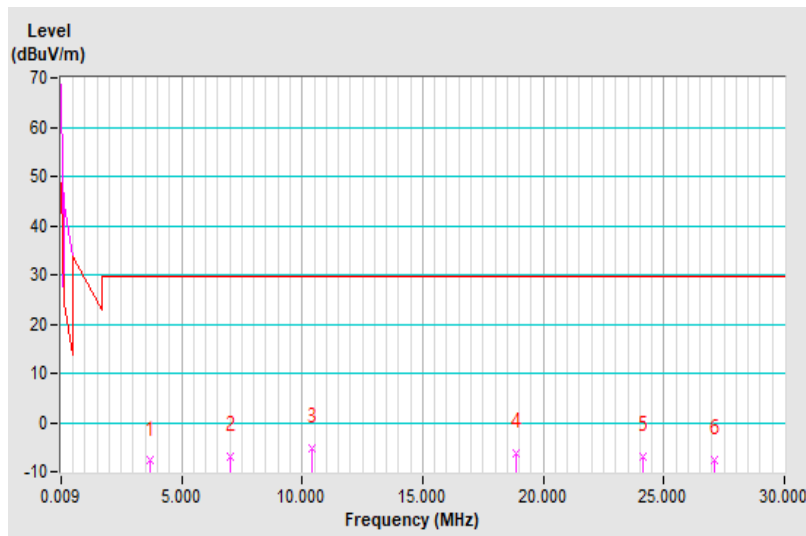


Channel	Ch6 + Ch 26697 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.67	-7.8 PK	29.5	-37.3	1.00	209	12.1	-19.9
2	7.03	-6.9 PK	29.5	-36.4	1.00	83	12.4	-19.3
3	10.39	-5.1 PK	29.5	-34.6	1.00	59	13.1	-18.2
4	18.90	-6.2 PK	29.5	-35.7	1.00	157	11.9	-18.1
5	24.12	-6.9 PK	29.5	-36.4	1.00	49	11.2	-18.1
6	27.12	-7.5 PK	29.5	-37.0	1.00	90	10.6	-18.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



Mode B

11n (HT20) + NFC

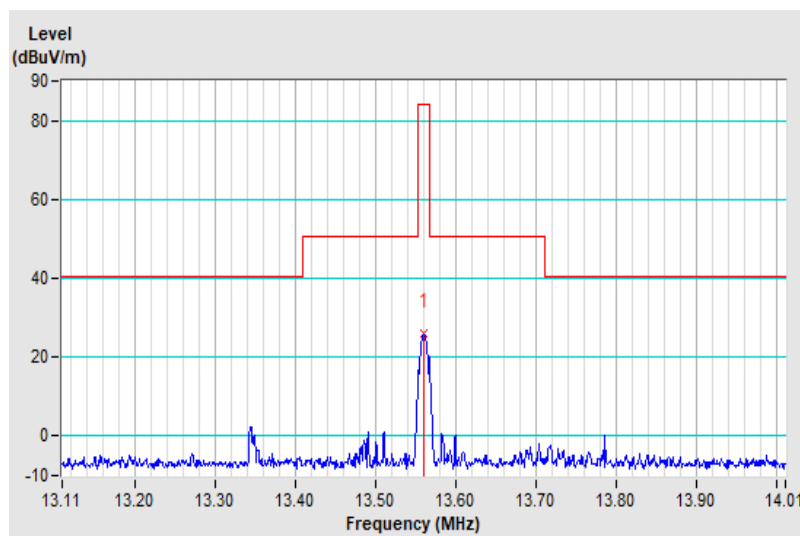
Channel	Ch6 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	26.1 QP	84.0	-57.9	1.00	2	44.3	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



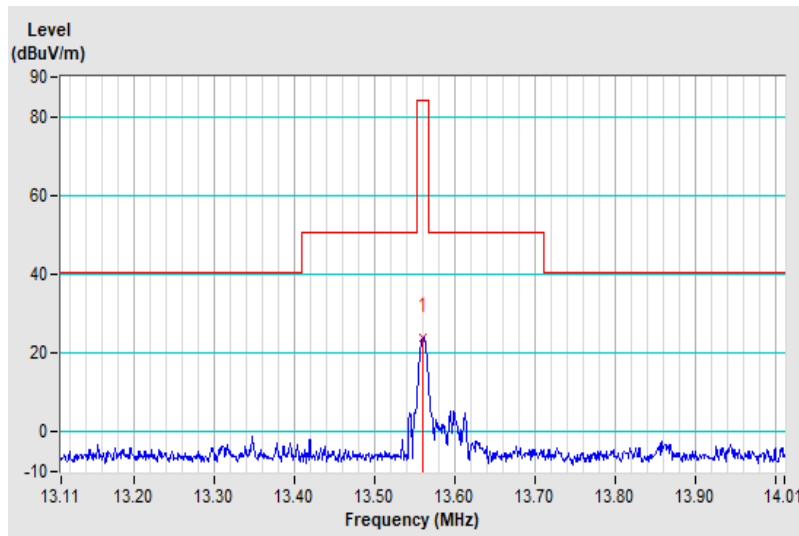
Channel	Ch6 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	23.9 QP	84.0	-60.1	1.00	91	42.1	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



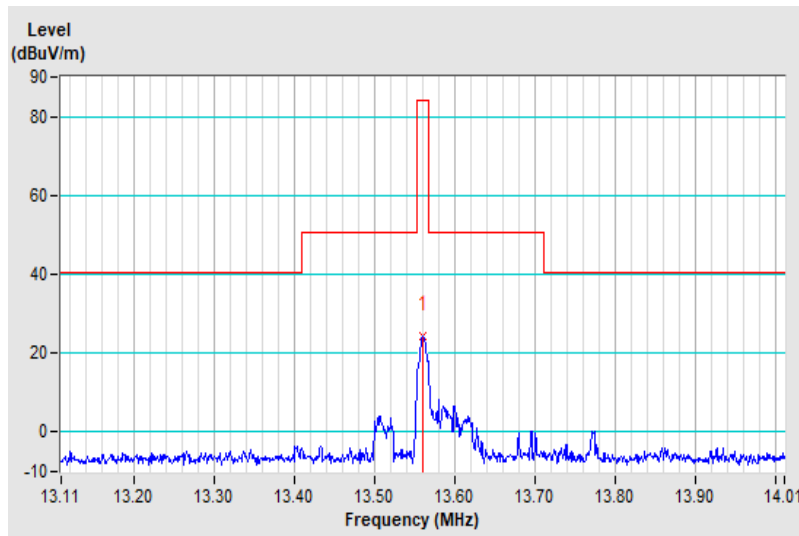
Channel	Ch6 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	*13.56	24.3 QP	84.0	-59.7	1.00	198	42.5	-18.2

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) + Distance Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.
6. Above limits have been translated by the formula

The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

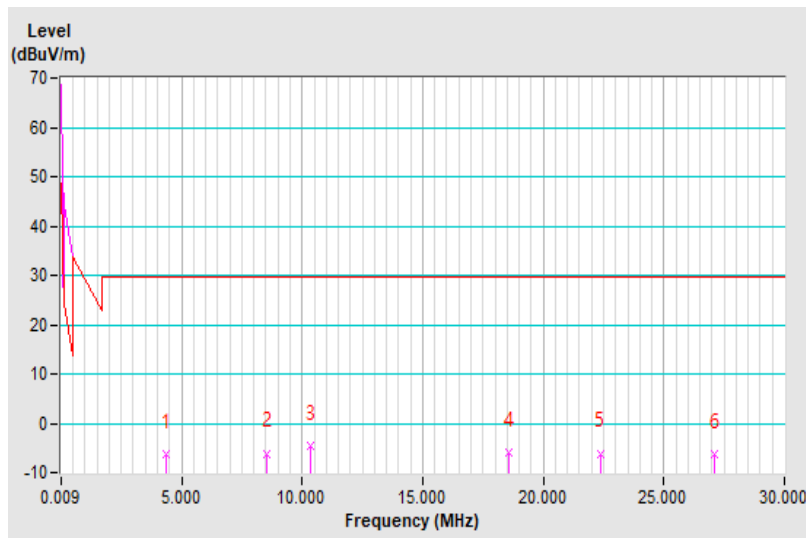


Channel	Ch6 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	4.39	-6.2 PK	29.5	-35.7	1.00	146	13.8	-20.0
2	8.56	-6.1 PK	29.5	-35.6	1.00	123	12.6	-18.7
3	10.33	-4.7 PK	29.5	-34.2	1.00	81	13.5	-18.2
4	18.57	-6.0 PK	29.5	-35.5	1.00	157	12.1	-18.1
5	22.35	-6.1 PK	29.5	-35.6	1.00	239	12.0	-18.1
6	27.12	-6.4 PK	29.5	-35.9	1.00	132	11.7	-18.1

Remarks:

1. Emission Level(dBUV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

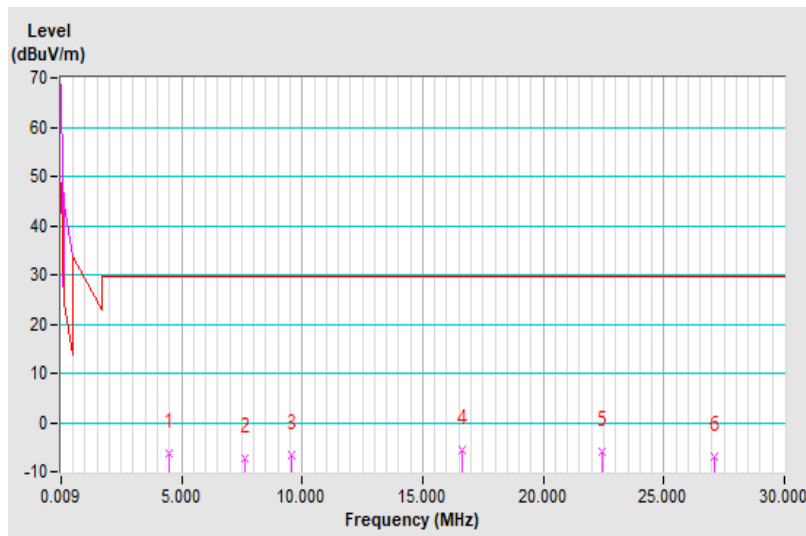


Channel	Ch6 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	4.48	-6.4 PK	29.5	-35.9	1.00	188	13.6	-20.0
2	7.63	-7.2 PK	29.5	-36.7	1.00	171	11.9	-19.1
3	9.58	-6.5 PK	29.5	-36.0	1.00	214	11.9	-18.4
4	16.65	-5.6 PK	29.5	-35.1	1.00	19	12.5	-18.1
5	22.44	-5.9 PK	29.5	-35.4	1.00	326	12.2	-18.1
6	27.12	-7.1 PK	29.5	-36.6	1.00	184	11.0	-18.1

Remarks:

1. Emission Level(dBUV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

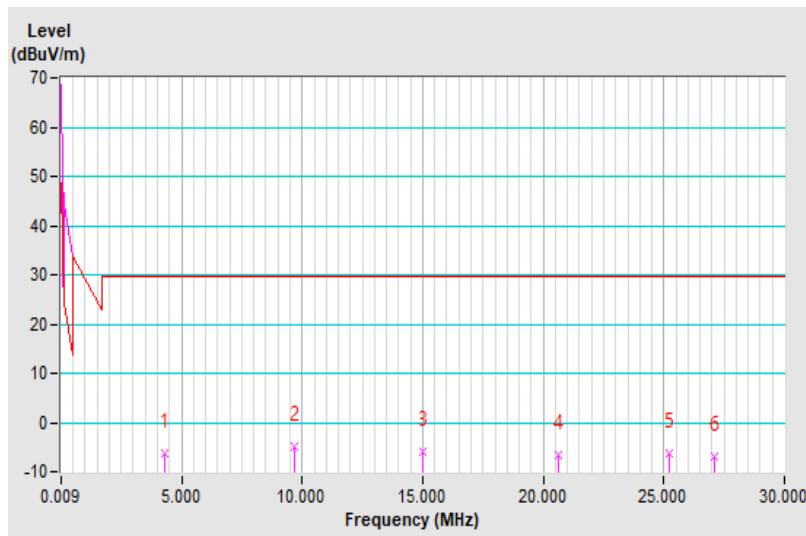


Channel	Ch6 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	4.30	-6.2 PK	29.5	-35.7	1.00	209	13.8	-20.0
2	9.67	-5.0 PK	29.5	-34.5	1.00	350	13.3	-18.3
3	15.00	-5.8 PK	29.5	-35.3	1.00	326	12.3	-18.1
4	20.64	-6.5 PK	29.5	-36.0	1.00	198	11.6	-18.1
5	25.23	-6.4 PK	29.5	-35.9	1.00	215	11.7	-18.1
6	27.12	-6.8 PK	29.5	-36.3	1.00	68	11.3	-18.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + Distance Factor(dB)
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, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)



Below 1GHz data

Mode A

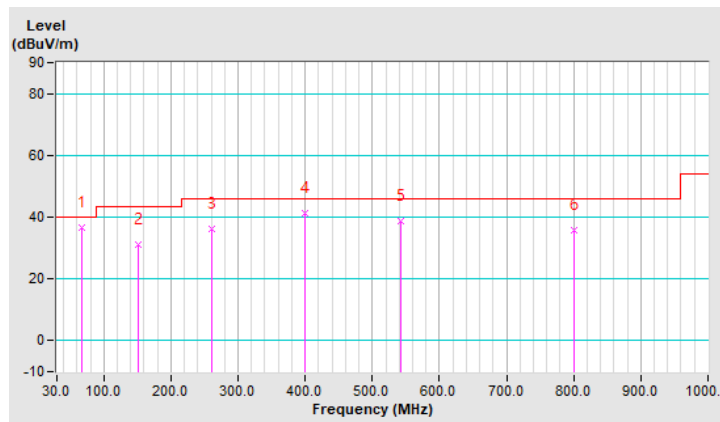
11n (HT20) + LTE Bang 26 (Part 22) + NFC

Channel	Ch6 + Ch 26797 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	67.83	36.5 QP	40.0	-3.5	2.49 H	185	51.1	-14.6
2	152.23	31.1 QP	43.5	-12.4	1.49 H	2	43.3	-12.2
3	259.91	36.1 QP	46.0	-9.9	1.00 H	9	50.4	-14.3
4	399.61	41.3 QP	46.0	-4.7	1.99 H	348	50.7	-9.4
5	542.21	38.6 QP	46.0	-7.4	1.49 H	2	44.0	-5.4
6	800.26	35.6 QP	46.0	-10.4	2.49 H	359	35.2	0.4

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 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

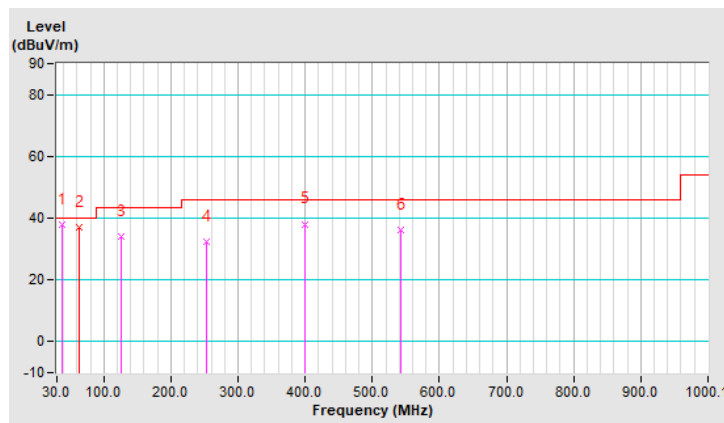


Channel	Ch6 + Ch 26797 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	37.76	37.7 QP	40.0	-2.3	1.51 V	129	51.0	-13.3
2	63.87	36.9 QP	40.0	-3.1	1.00 V	186	50.6	-13.7
3	125.07	34.1 QP	43.5	-9.4	1.01 V	202	48.0	-13.9
4	252.15	32.5 QP	46.0	-13.5	2.01 V	182	46.9	-14.4
5	399.61	38.1 QP	46.0	-7.9	1.01 V	249	47.5	-9.4
6	542.21	36.3 QP	46.0	-9.7	1.51 V	26	41.7	-5.4

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 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

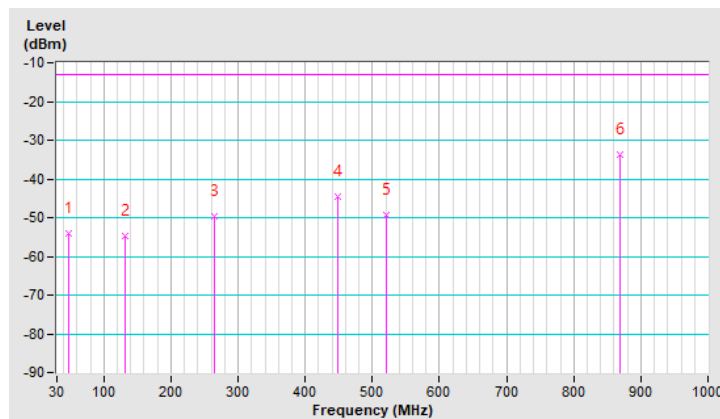


Channel	Ch6 + Ch 26797 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	48.43	-54.08	-13.00	-41.08	2.00 H	97	55.91	-109.99
2	130.88	-54.86	-13.00	-41.86	1.00 H	50	55.80	-110.66
3	264.74	-49.64	-13.00	-36.64	1.50 H	109	61.62	-111.26
4	449.04	-44.50	-13.00	-31.50	1.49 H	2	60.31	-104.81
5	520.82	-49.43	-13.00	-36.43	1.50 H	2	53.68	-103.11
6	869.05	-33.63	-13.00	-20.63	2.00 H	283	62.53	-96.16

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.
5. The EIRP 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.

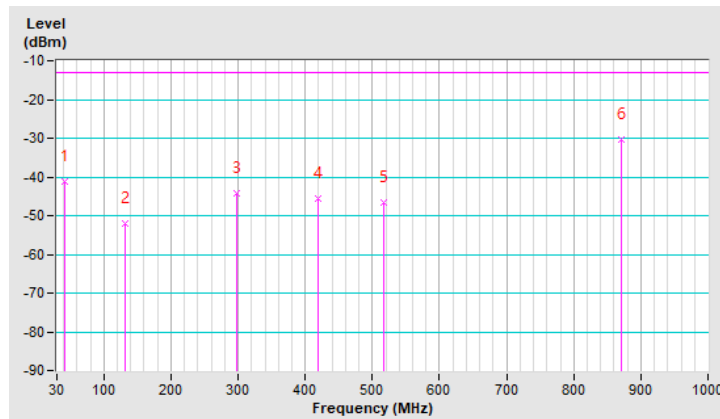


Channel	Ch6 + Ch 26797 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	42.61	-41.26	-13.00	-28.26	2.00 V	95	69.06	-110.32
2	131.85	-52.18	-13.00	-39.18	1.50 V	189	58.48	-110.66
3	298.69	-44.32	-13.00	-31.32	1.50 V	124	65.26	-109.58
4	418.97	-45.70	-13.00	-32.70	1.00 V	241	60.38	-106.08
5	516.94	-46.50	-13.00	-33.50	1.00 V	214	56.71	-103.21
6	870.02	-30.22	-13.00	-17.22	1.00 V	283	65.91	-96.13

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit.
5. The EIRP 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.



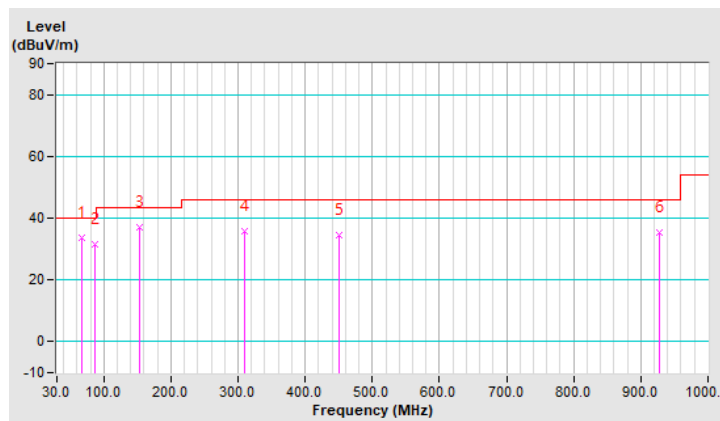
11n (HT20) + LTE Bang 2 + NFC

Channel	Ch 6 + Ch 19185 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	66.86	33.8 QP	40.0	-6.2	2.49 H	14	48.0	-14.2
2	87.24	31.6 QP	40.0	-8.4	2.49 H	153	49.9	-18.3
3	154.17	36.9 QP	43.5	-6.6	1.00 H	168	49.1	-12.2
4	310.36	35.8 QP	46.0	-10.2	2.49 H	266	47.3	-11.5
5	450.05	34.4 QP	46.0	-11.6	2.49 H	18	41.7	-7.3
6	927.34	35.4 QP	46.0	-10.6	2.49 H	87	33.1	2.3

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 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

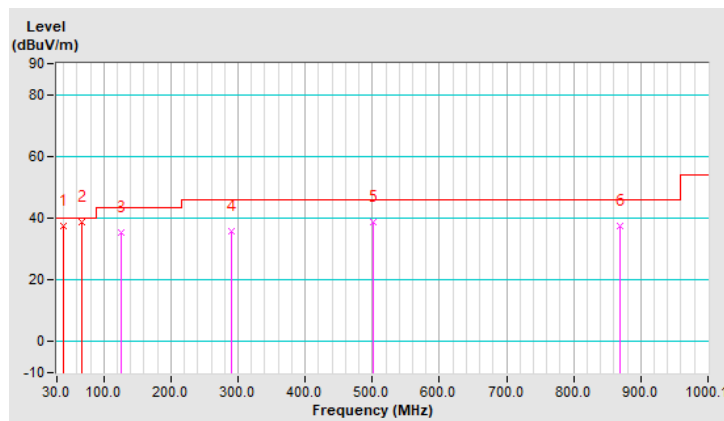


Channel	Ch 6 + Ch 19185 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	39.70	37.3 QP	40.0	-2.7	1.00 V	101	50.6	-13.3
2	66.86	38.8 QP	40.0	-1.2	1.00 V	226	53.0	-14.2
3	125.07	35.2 QP	43.5	-8.3	1.00 V	236	49.1	-13.9
4	290.96	35.7 QP	46.0	-10.3	1.99 V	18	48.2	-12.5
5	501.47	38.7 QP	46.0	-7.3	1.00 V	26	44.7	-6.0
6	868.17	37.4 QP	46.0	-8.6	1.00 V	4	36.1	1.3

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 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

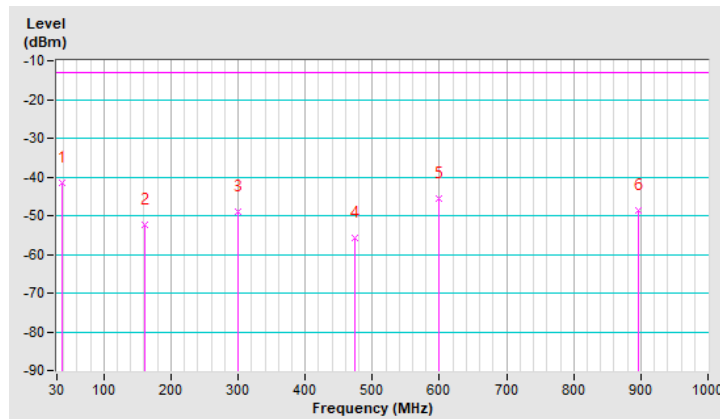


Channel	Ch 6 + Ch 19185 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37.76	-41.60	-13.00	-28.60	1.00 H	136	66.97	-108.57
2	161.92	-52.23	-13.00	-39.23	2.00 H	83	55.56	-107.79
3	299.66	-49.04	-13.00	-36.04	1.00 H	105	58.35	-107.39
4	474.26	-55.60	-13.00	-42.60	1.50 H	15	46.55	-102.15
5	599.39	-45.61	-13.00	-32.61	1.00 H	79	53.20	-98.81
6	896.21	-48.66	-13.00	-35.66	2.00 H	254	45.08	-93.74

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The EIRP 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.

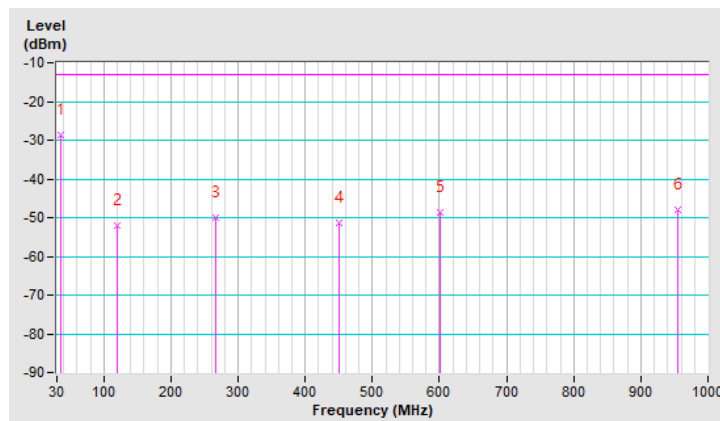


Channel	Ch 6 + Ch 19185 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	36.79	-28.61	-13.00	-15.61	1.00 V	78	80.20	-108.81
2	119.24	-52.14	-13.00	-39.14	1.50 V	120	57.56	-109.70
3	266.68	-50.00	-13.00	-37.00	2.00 V	110	58.97	-108.97
4	450.01	-51.26	-13.00	-38.26	1.00 V	105	51.39	-102.65
5	601.33	-48.76	-13.00	-35.76	2.00 V	2	50.01	-98.77
6	954.41	-47.97	-13.00	-34.97	2.00 V	2	44.55	-92.52

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The EIRP 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.



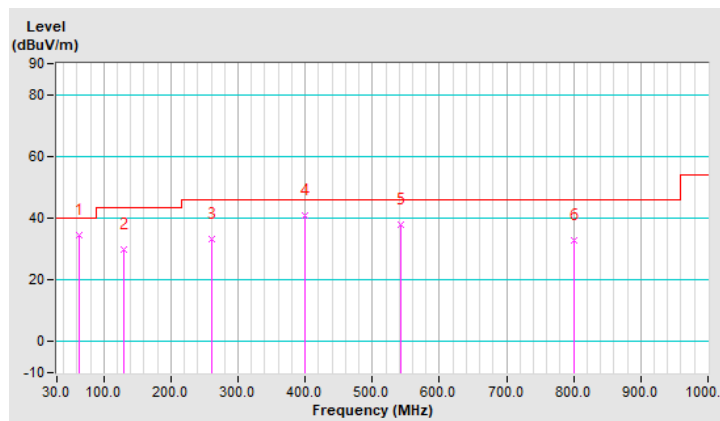
11n (HT20) + LTE Bang 4 + NFC

Channel	Ch6 + Ch 20050 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	63.95	34.6 QP	40.0	-5.4	2.00 H	196	48.3	-13.7
2	129.92	30.0 QP	43.5	-13.5	1.50 H	306	43.4	-13.4
3	260.88	33.3 QP	46.0	-12.7	1.00 H	16	47.4	-14.1
4	399.61	40.9 QP	46.0	-5.1	1.50 H	340	50.3	-9.4
5	542.21	37.9 QP	46.0	-8.1	1.00 H	18	43.3	-5.4
6	800.26	32.8 QP	46.0	-13.2	1.50 H	136	32.4	0.4

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 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

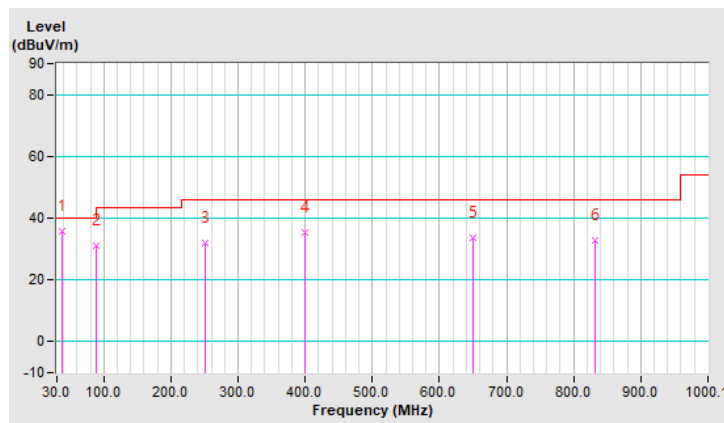


Channel	Ch6 + Ch 20050 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	37.76	35.7 QP	40.0	-4.3	1.00 V	177	49.0	-13.3
2	89.18	31.1 QP	43.5	-12.4	1.50 V	160	49.4	-18.3
3	250.21	31.8 QP	46.0	-14.2	2.00 V	189	46.3	-14.5
4	399.61	35.5 QP	46.0	-10.5	1.50 V	210	44.9	-9.4
5	649.89	33.6 QP	46.0	-12.4	1.00 V	356	36.1	-2.5
6	831.30	32.8 QP	46.0	-13.2	2.00 V	298	31.8	1.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

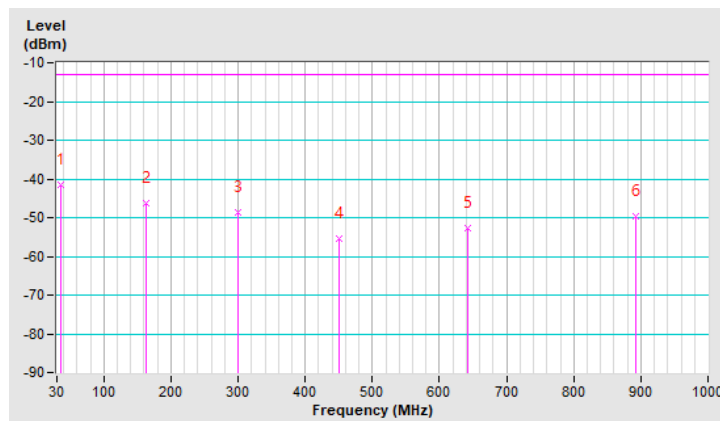


Channel	Ch6 + Ch 20050 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	36.79	-41.42	-13.00	-28.42	1.00 H	154	67.39	-108.81
2	162.89	-46.29	-13.00	-33.29	1.50 H	56	61.50	-107.79
3	299.66	-48.55	-13.00	-35.55	1.00 H	111	58.84	-107.39
4	450.01	-55.58	-13.00	-42.58	2.00 H	198	47.07	-102.65
5	642.07	-52.60	-13.00	-39.60	1.50 H	2	45.27	-97.87
6	893.30	-49.81	-13.00	-36.81	2.00 H	11	43.90	-93.71

Remarks:

1. $EIRP(dBm) = Raw\ Value(dBuV) + Correction\ Factor(dB/m)$
2. $Correction\ Factor(dB/m) = Antenna\ Factor(dB/m) + Cable\ Factor(dB) - Pre-Amplifier\ Factor(dB) + 20\log(D) - 104.8$
3. $Margin\ value = EIRP - Limit\ value$
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The EIRP 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.

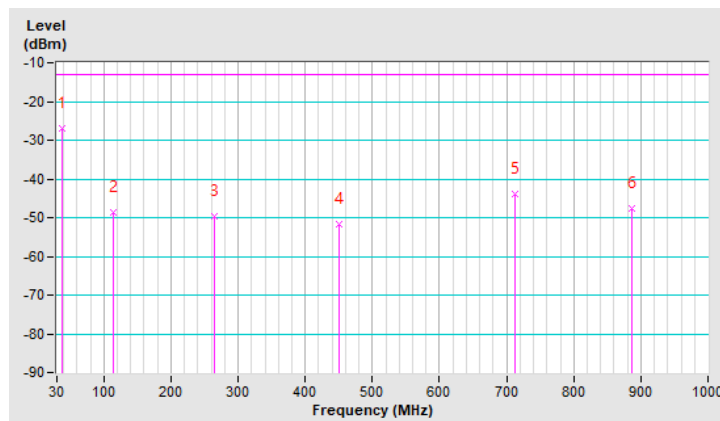


Channel	Ch6 + Ch 20050 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37.76	-27.09	-13.00	-14.09	1.00 V	74	81.48	-108.57
2	113.42	-48.76	-13.00	-35.76	1.00 V	73	61.37	-110.13
3	263.77	-49.67	-13.00	-36.67	2.00 V	12	59.51	-109.18
4	450.01	-51.73	-13.00	-38.73	1.50 V	77	50.92	-102.65
5	711.91	-43.88	-13.00	-30.88	1.50 V	236	53.12	-97.00
6	886.51	-47.57	-13.00	-34.57	1.00 V	228	46.17	-93.74

Remarks:

1. EIRP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8
3. Margin value = EIRP – Limit value
4. The other EIRP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The EIRP 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.



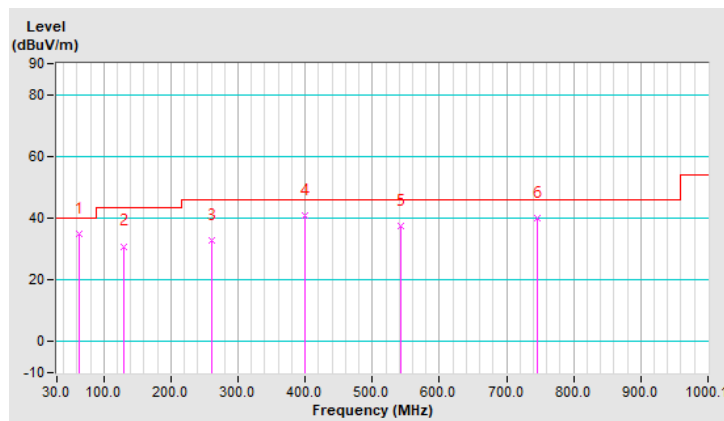
11n (HT20) + LTE Bang 26 (Part 90) + NFC

Channel	Ch6 + Ch 26697 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	63.95	34.8 QP	40.0	-5.2	2.00 H	192	48.5	-13.7
2	129.92	30.9 QP	43.5	-12.6	1.50 H	316	44.3	-13.4
3	260.88	32.7 QP	46.0	-13.3	1.00 H	7	46.8	-14.1
4	399.61	41.0 QP	46.0	-5.0	1.00 H	346	50.4	-9.4
5	542.21	37.3 QP	46.0	-8.7	1.50 H	20	42.7	-5.4
6	745.93	40.2 QP	46.0	-5.8	1.00 H	192	40.8	-0.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

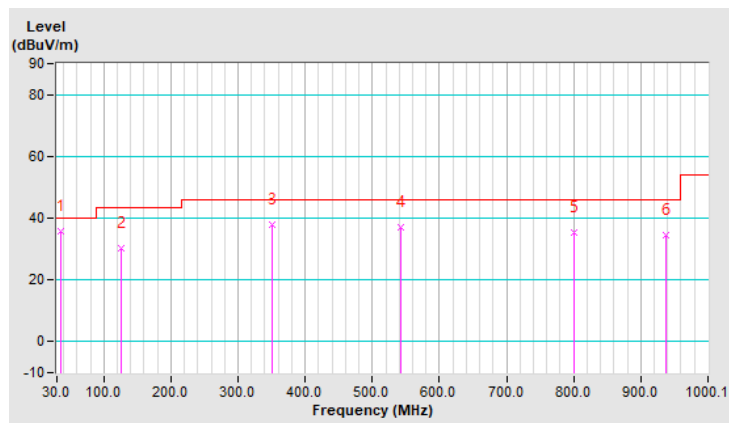


Channel	Ch6 + Ch 26697 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	36.79	35.8 QP	40.0	-4.2	1.00 V	194	49.4	-13.6
2	125.07	30.1 QP	43.5	-13.4	1.50 V	336	44.0	-13.9
3	350.13	37.7 QP	46.0	-8.3	2.00 V	297	48.0	-10.3
4	542.21	36.9 QP	46.0	-9.1	1.50 V	18	42.3	-5.4
5	800.26	35.3 QP	46.0	-10.7	1.00 V	341	34.9	0.4
6	938.01	34.5 QP	46.0	-11.5	1.50 V	346	32.2	2.3

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 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

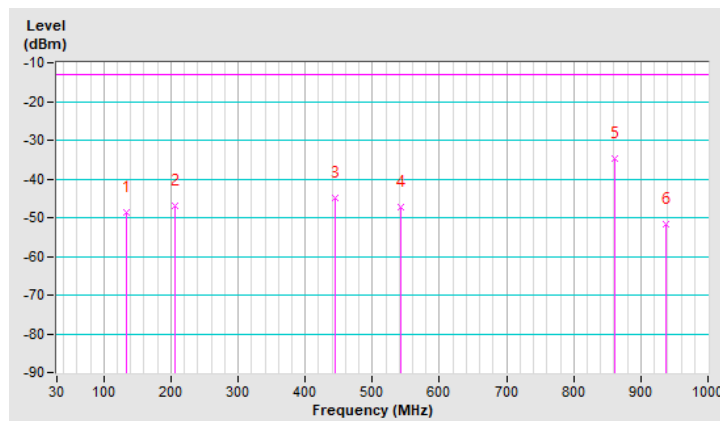


Channel	Ch6 + Ch 26697 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	133.79	-48.48	-13.00	-35.48	1.00 H	97	61.88	-110.36
2	205.57	-47.10	-13.00	-34.10	1.50 H	33	66.50	-113.60
3	444.19	-44.96	-13.00	-31.96	2.00 H	2	59.89	-104.85
4	542.16	-47.38	-13.00	-34.38	1.00 H	2	55.33	-102.71
5	860.32	-34.76	-13.00	-21.76	1.50 H	287	61.49	-96.25
6	937.92	-51.80	-13.00	-38.80	1.50 H	48	43.22	-95.02

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The EIRP 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.

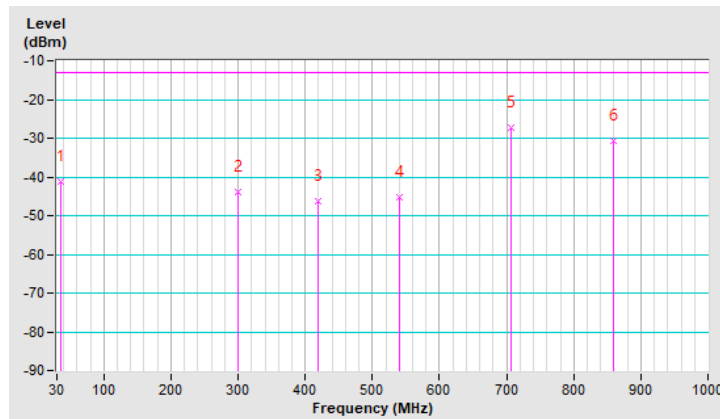


Channel	Ch6 + Ch 26697 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	36.79	-41.24	-13.00	-28.24	1.00 V	321	69.72	-110.96
2	300.63	-44.06	-13.00	-31.06	1.50 V	108	65.43	-109.49
3	418.97	-46.35	-13.00	-33.35	1.00 V	244	59.73	-106.08
4	541.19	-45.33	-13.00	-32.33	2.00 V	213	57.40	-102.73
5	707.06	-27.17	-13.00	-14.17	1.00 V	38	72.06	-99.23
6	859.35	-30.59	-13.00	-17.59	1.50 V	344	65.67	-96.26

Remarks:

1. ERP(dBm) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB) + 20log(D) – 104.8 – 2.15
3. Margin value = ERP – Limit value
4. The other ERP levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The EIRP 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.



Mode B

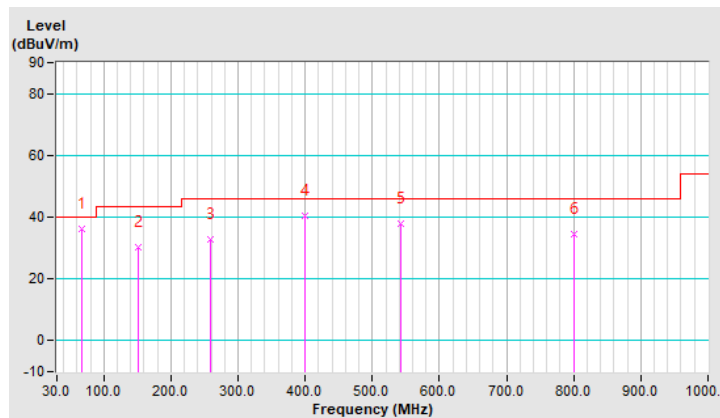
11n (HT20) + NFC

Channel	Ch6 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	67.83	36.0 QP	40.0	-4.0	2.00 H	223	50.6	-14.6
2	151.26	30.2 QP	43.5	-13.3	1.50 H	360	42.4	-12.2
3	258.94	32.8 QP	46.0	-13.2	1.00 H	360	47.1	-14.3
4	399.61	40.6 QP	46.0	-5.4	1.50 H	354	50.0	-9.4
5	542.21	37.8 QP	46.0	-8.2	1.00 H	21	43.2	-5.4
6	800.26	34.5 QP	46.0	-11.5	2.00 H	105	34.1	0.4

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 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

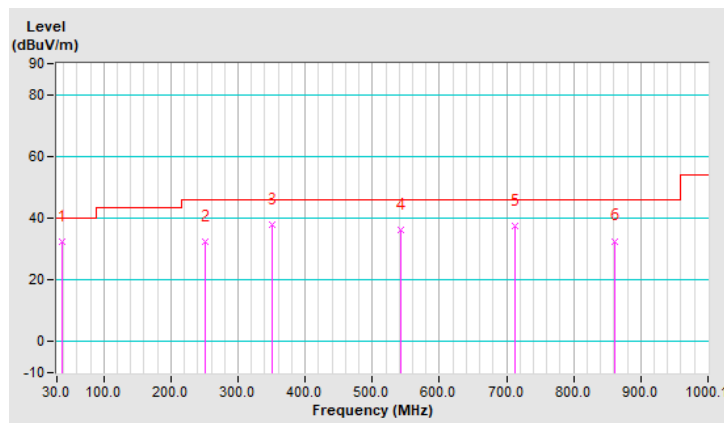


Channel	Ch6 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	37.76	32.3 QP	40.0	-7.7	1.00 V	176	45.6	-13.3
2	251.18	32.2 QP	46.0	-13.8	2.00 V	176	46.6	-14.4
3	350.13	37.7 QP	46.0	-8.3	2.00 V	286	48.0	-10.3
4	542.21	36.0 QP	46.0	-10.0	1.50 V	18	41.4	-5.4
5	711.98	37.3 QP	46.0	-8.7	1.00 V	330	39.1	-1.8
6	861.38	32.6 QP	46.0	-13.4	1.50 V	109	31.4	1.2

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 30MHz~1000MHz.
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



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:

Lin Kou EMC/RF Lab

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Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

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Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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