

FCC Test Report

(Co-located)

Report No.: RFBBDJ-WTW-P23050444-4

FCC ID: PPQ202005BG95M5

Test Model: EX-1193-MFD-80

Series Model: EX-1193-MFD-48

(refer to item 3.1 for more details)

Received Date: May 17, 2023

Test Date: Jun. 02 ~ Jun. 14, 2023

Issued Date: Jul. 20, 2023

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

FCC Registration / 281270 / TW0032
Designation Number:



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Release Control Record

Issue No.	Description	Date Issued
RFBBDJ-WTW-P23050444-4	Original Release	Jul. 20, 2023

1 Certificate of Conformity

Product: FORD 80A gne2

Brand: LITEON

Test Model: EX-1193-MFD-80

Series Model: EX-1193-MFD-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:

Jul. 20, 2023

Lena Wang / Specialist

Approved by :

Jeremy Lin

Date:

Jul. 20, 2023

Jeremy Lin / Project Engineer

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 -2.4 dB at 61.04 MHz.
2.1053 22.917	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -20.32 dB at 31.94 MHz.
2.1053 24.238	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -18.18 dB at 37.76 MHz.
2.1053 27.53(h) / (g)	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -22.77 dB at 42.61 MHz.
2.1053 90.691	Radiated Spurious Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -19.43 dB at 31.94 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 -58.1 dB at 13.56 MHz.

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

1.1 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	9kHz ~ 30MHz	3.00 dB
	30MHz ~ 200MHz	2.91 dB
	200MHz ~1000MHz	2.93 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	1.76 dB
	18GHz ~ 40GHz	1.77 dB

1.2 Modification Record

There were no modifications required for compliance.

2 General Information

2.1 General Description of EUT

Product	FORD 80A gne2	
Brand	LITEON	
Test Model	EX-1193-MFD-80	
Series Model	EX-1193-MFD-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
	GSM/GPRS	GMSK
	EDGE	GMSK, 8PSK
	Cat-M1	QPSK, 16QAM
	NB-IoT	BPSK, QPSK (Subcarrier Spacing: 3.75kHz,15kHz)
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
	GSM850	824.2MHz ~ 848.8MHz
	GSM1900	1850.2MHz ~1909.8MHz
	Cat-M1	
	Cat-M1 Band 2 (Channel Bandwidth: 1.4 MHz)	1850.7MHz ~ 1909.3MHz
	Cat-M1 Band 2 (Channel Bandwidth: 3 MHz)	1851.5MHz ~ 1908.5MHz
	Cat-M1 Band 2 (Channel Bandwidth: 5 MHz)	1852.5MHz ~ 1907.5MHz
	Cat-M1 Band 2 (Channel Bandwidth: 10 MHz)	1855.0MHz ~ 1905.0MHz
	Cat-M1 Band 2 (Channel Bandwidth: 15 MHz)	1857.5MHz ~ 1902.5MHz
	Cat-M1 Band 2 (Channel Bandwidth: 20 MHz)	1860.0MHz ~ 1900.0MHz
	Cat-M1 Band 4 (Channel Bandwidth: 1.4 MHz)	1710.7MHz ~ 1754.3MHz
	Cat-M1 Band 4 (Channel Bandwidth: 3 MHz)	1711.5MHz ~ 1753.5MHz
	Cat-M1 Band 4 (Channel Bandwidth: 5 MHz)	1712.5MHz ~ 1752.5MHz
	Cat-M1 Band 4 (Channel Bandwidth: 10 MHz)	1715.0MHz ~ 1750.0MHz
	Cat-M1 Band 4 (Channel Bandwidth: 15 MHz)	1717.5MHz ~ 1747.5MHz
	Cat-M1 Band 4 (Channel Bandwidth: 20 MHz)	1720.0MHz ~ 1745.0MHz
	Cat-M1 Band 5 (Channel Bandwidth 1.4MHz)	824.7MHz ~ 848.3MHz
	Cat-M1 Band 5 (Channel Bandwidth 3MHz)	825.5MHz ~ 847.5MHz
	Cat-M1 Band 5 (Channel Bandwidth 5MHz)	826.5MHz ~ 846.5MHz
	Cat-M1 Band 5 (Channel Bandwidth 10MHz)	829.0MHz ~ 844.0MHz
	Cat-M1 Band 12 (Channel Bandwidth: 1.4 MHz)	699.7MHz ~ 715.3MHz
	Cat-M1 Band 12 (Channel Bandwidth: 3 MHz)	700.5MHz ~ 714.5MHz
	Cat-M1 Band 12 (Channel Bandwidth: 5 MHz)	701.5MHz ~ 713.5MHz

	Cat-M1 Band 12 (Channel Bandwidth: 10 MHz)	704.0MHz ~ 711.0MHz
	Cat-M1 Band 13 (Channel Bandwidth: 5 MHz)	779.5MHz ~ 784.5MHz
	Cat-M1 Band 13 (Channel Bandwidth: 10 MHz)	782.0MHz
Operating Frequency	Cat-M1 Band 25 (Channel Bandwidth: 1.4 MHz)	1850.7MHz ~ 1914.3MHz
	Cat-M1 Band 25 (Channel Bandwidth: 3 MHz)	1851.5MHz ~ 1913.5MHz
	Cat-M1 Band 25 (Channel Bandwidth: 5 MHz)	1852.5MHz ~ 1912.5MHz
	Cat-M1 Band 25 (Channel Bandwidth: 10 MHz)	1855.0MHz ~ 1910.0MHz
	Cat-M1 Band 25 (Channel Bandwidth: 15 MHz)	1857.5MHz ~ 1907.5MHz
	Cat-M1 Band 25 (Channel Bandwidth: 20 MHz)	1860.0MHz ~ 1905.0MHz
	Cat-M1 26 (Channel Bandwidth: 1.4 MHz) (Part 22)	824.7 ~ 848.3 MHz
	Cat-M1 26 (Channel Bandwidth: 3 MHz) (Part 22)	825.5 ~ 847.5 MHz
	Cat-M1 26 (Channel Bandwidth: 5 MHz) (Part 22)	826.5 ~ 846.5 MHz
	Cat-M1 26 (Channel Bandwidth: 10 MHz) (Part 22)	829 ~ 844 MHz
	Cat-M1 26 (Channel Bandwidth: 15 MHz) (Part 22)	831.5 ~ 841.5 MHz
	Cat-M1 26 (Channel Bandwidth: 1.4 MHz) (Part 90)	814.7MHz ~ 823.3MHz
	Cat-M1 26 (Channel Bandwidth: 3 MHz) (Part 90)	815.5MHz ~ 822.5MHz
	Cat-M1 26 (Channel Bandwidth: 5 MHz) (Part 90)	816.5MHz ~ 821.5MHz
	Cat-M1 26 (Channel Bandwidth: 10 MHz) (Part 90)	819.0MHz
	Cat-M1 Band 66 (Channel Bandwidth: 1.4 MHz)	1710.7 ~ 1779.3 MHz
	Cat-M1 Band 66 (Channel Bandwidth: 3 MHz)	1711.5 ~ 1778.5 MHz
	Cat-M1 Band 66 (Channel Bandwidth: 5 MHz)	1712.5 ~ 1777.5 MHz
	Cat-M1 Band 66 (Channel Bandwidth: 10 MHz)	1715.0 ~ 1775.0 MHz
	Cat-M1 Band 66 (Channel Bandwidth: 15 MHz)	1717.5 ~ 1772.5 MHz
	Cat-M1 Band 66 (Channel Bandwidth: 20 MHz)	1720.0 ~ 1770.0 MHz
	Cat-M1 Band 85 (Channel Bandwidth: 5 MHz)	700.5MHz ~ 713.5MHz
	Cat-M1 Band 85 (Channel Bandwidth: 10 MHz)	703.0MHz ~ 711.0MHz
	NB-IoT Standalone	
	NB-IoT Band 2	1850.2MHz ~ 1909.8MHz
	NB-IoT Band 4	1710.2MHz ~ 1754.8MHz
	NB-IoT Band 5	824.2MHz ~ 848.8MHz
	NB-IoT Band 12	699.2MHz ~ 715.8MHz
	NB-IoT Band 13	777.2MHz ~ 786.8MHz
	NB-IoT Band 25	1850.2MHz ~ 1914.8 MHz
	NB-IoT Band 66	1710.2MHz ~ 1779.8MHz
	NB-IoT Band 71	663.2MHz ~ 697.8MHz
	NB-IoT Band 85	698.2MHz ~ 715.8MHz
Number of Channel	WLAN	2412 ~ 2462 MHz 11 for 802.11b, 802.11g, 802.11n (HT20)
	NFC	1
Antenna Type	Refer to Note	
Antenna Connector	Refer to Note	
Accessory Device	Refer to Note	
Data Cable Supplied	N/A	

Note:

1. The EUT provides 1 completed transmitter and 1 receiver.

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

2. All models are listed as below. Only Model Number: EX-1193-MFD-80 as a representative for final test.

Brand	Model	WWAN	RFID	WIFI	Bluetooth	Difference
LITEON	EX-1193-MFD-80	Provided	Provided	Provided	Not Provided	The difference between EX-1193-MFD-80 and EX-1193-MFD-48 in the rated current (80A/48A)
	EX-1193-MFD-48					

3. The EUT contains following accessory devices.

Product	Brand	Model	Description
holster	Liteon	N/A	-

4. The antenna information is listed as below.

4. The antenna information is listed as below.													
Type		Monopole Coupling											
Connector		ipex(MHF)											
Antenna gain (dBi)													
GSM 850	GSM 1900	Cat-M1 Band 26 (Part 22)	Cat-M1 Band 26 (Part 90)	NB-IoT Band 71	Cat-M1 / NB-IoT Band								
					2	4	5	12	13	25	66	85	
1.9	1.7	1.9	1.1	1.3	1.7	1.5	1.9	1.1	0.7	1.7	1.5	1.1	

WLAN Antenna	
Antenna Type	Antenna Gain (dBi)
	WLAN 2.4 GHz
Dipole	2.6

5. Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.
6. WLAN 2.4G & WWAN & NFC technology can transmit at same time.
7. The EUT contains certified WLAN module with FCC ID: PPQLILYW131, NFC module with FCC ID: PPQRYORR2L and WWAN module with FCC ID: PPQ202005BG95M5.
8. 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.

2.2 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

2.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to		Description
	RE $\geq$ 1G	RE<1G	
-	√	√	-

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
-	11n (HT20) + GSM 850 (Part 22) + NFC	2412-2462	1, 6, 11	6 + 251 + 1	BPSK
		824.2-848.8	128, 189, 251		GMSK
		13.56	1		ASK
	11n (HT20) + PCS1900 (Part 24) + NFC	2412 ~ 2462	1, 6, 11	6 + 661 + 1	BPSK
		1850.2-1909.8	512, 661, 810		GMSK
		13.56	1		ASK
	11n (HT20) + Cat-M1 Band 4 (Part 27) + NFC	2412-2462	1, 6, 11	6 + 20175 + 1	BPSK
		1710.7-1754.3	20050, 20175, 20300		QPSK
		13.56	1		ASK
	11n (HT20) + Cat-M1 Band 26 (Part 90) + NFC	2412-2462	1, 6, 11	6 + 26740 + 1	BPSK
		814.7-823.3	26697, 26740, 26783		QPSK
		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
-	11n (HT20) + GSM 850 (Part 22) + NFC	2412-2462	1, 6, 11	6 + 251 + 1	BPSK
		824.2-848.8	128, 189, 251		GMSK
		13.56	1		ASK
	11n (HT20) + PCS1900 (Part 24) + NFC	2412 ~ 2462	1, 6, 11	6 + 661 + 1	BPSK
		1850.2-1909.8	512, 661, 810		GMSK
		13.56	1		ASK
	11n (HT20) + Cat-M1 Band 4 (Part 27) + NFC	2412-2462	1, 6, 11	6 + 20175 + 1	BPSK
		1710.7-1754.3	20050, 20175, 20300		QPSK
		13.56	1		ASK
	11n (HT20) + Cat-M1 Band 26 (Part 90) + NFC	2412-2462	1, 6, 11	6 + 26740 + 1	BPSK
		814.7-823.3	26697, 26740, 26783		QPSK
		13.56	1		ASK

Test Condition:

Applicable to	Environmental Conditions	Input Power (System)	Tested by
RE $\geq$ 1G	22 deg. C, 67 % RH	120 Vac, 60 Hz	Greg Lin
RE<1G	22 deg. C, 67 % RH	120 Vac, 60 Hz	Greg Lin

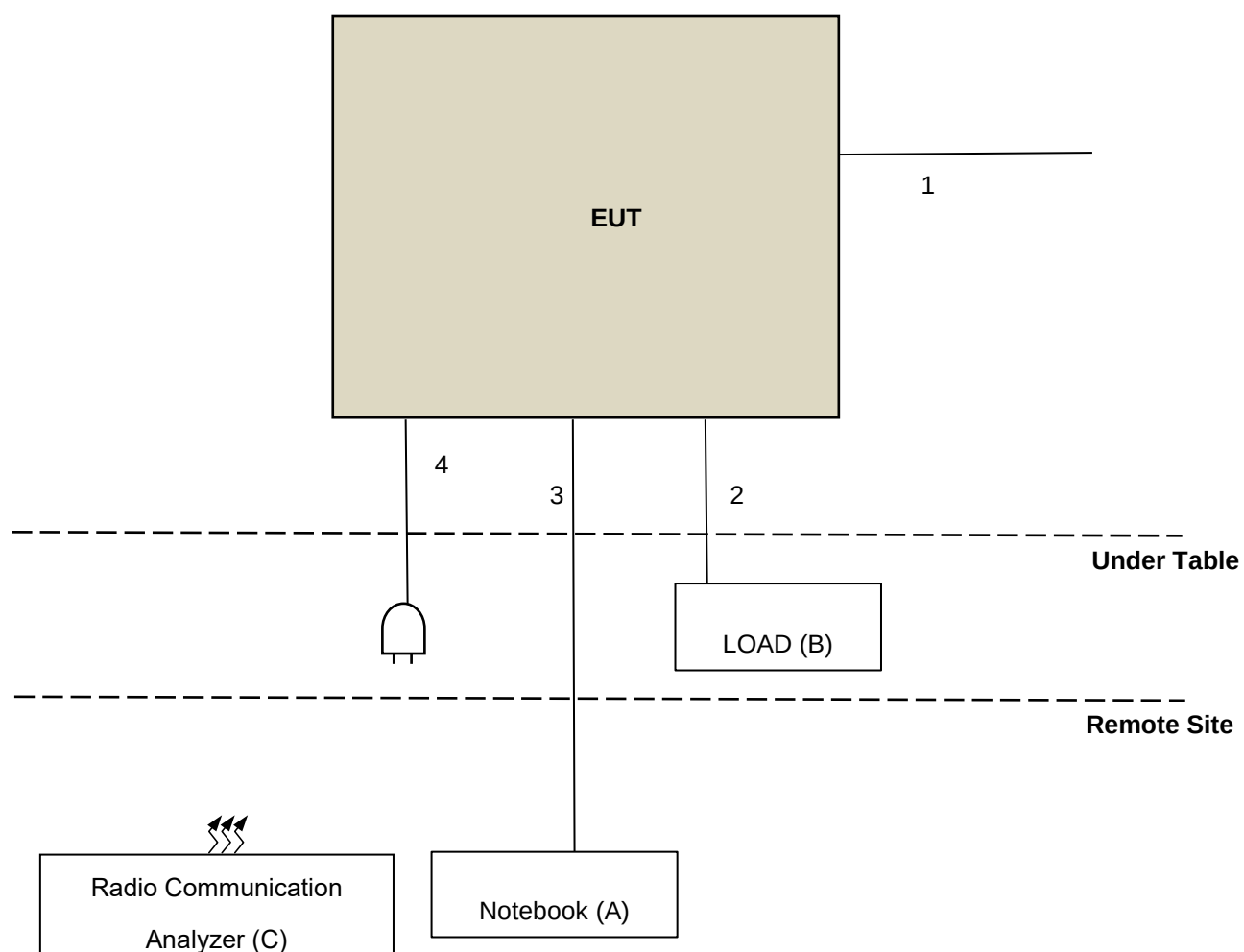
2.3 Description of Support Units

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	Lenovo	L440	R9-0GFJKK	N/A	Provided by Lab
B	LOAD	NA	NA	NA	N/A	Provided by Lab
C	Radio Communication Analyzer	Anritsu	MT8821C	6201462755	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	LAN Cable	1	10	N	0	Provided by Lab
4	POWER CABLE(AC in)	1	1.8	Y	0	Accessory of EUT

2.3.1 Configuration of System under Test



2.4 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 v02r02

ANSI/TIA/EIA-603-E 2016

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

3 Test Types and Results

3.1 Radiated Emission and Bandedge Measurement

3.1.1 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.

3.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver Rohde & Schwarz	N9038A	MY55420137	May 03, 2023	May 02, 2024
Spectrum Analyzer KEYSIGHT	N9020B	MY60110440	Mar. 16, 2023	Mar. 15, 2024
Loop Antenna TESEQ	HLA 6121	45745	Jul. 27, 2022	Jul. 26, 2023
Loop Antenna TESEQ	HLA 6121	45745	Jul. 27, 2022	Jul. 26, 2023
BILOG Antenna SCHWARZBECK	VULB9168	1213	Oct. 20, 2022	Oct. 19, 2023
HORN Antenna RF SPIN	DRH18-E	210103A18E	Nov. 13, 2022	Nov. 12, 2023
HORN Antenna SCHWARZBECK	BBHA 9170	9170	Nov. 13, 2022	Nov. 12, 2023
Loop Antenna EMCI	EM-6879	269	Sep. 19, 2022	Sep. 18, 2023
Preamplifier EMCI	EMC330N	980782	Jan. 16, 2023	Jan. 15, 2024
Preamplifier EMCI	EMC118A45SE	980808	Dec. 29, 2022	Dec. 28, 2023
Preamplifier EMCI	EMC184045SE	980788	Jan. 16, 2023	Jan. 15, 2024
RF signal cable EMCI	EMC104-SM-SM- (9000+2000+1000)	201243+ 201231+ 210102	Jan. 16, 2023	Jan. 15, 2024
RF signal cable EMCI	EMCCFD400-NM- NM- (9000+300+500)	201236+ 201235+ 201233	Jan. 16, 2023	Jan. 15, 2024
RF signal cable EMCI	EMC101G-KM-KM- (5000+3000+2000)	201260+201257+20125 4	Jan. 16, 2023	Jan. 15, 2024
Software BV ADT	ADT_Radiated_V7. 6.15.9.5	NA	NA	NA
Antenna Tower Max-Full	MFT-151SS-0.5T	NA	NA	NA
Turn Table Max-Full	MF-7802BS	NA	NA	NA
Turn Table Controller Max-Full	MF-7802BS	MF780208674	NA	NA
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY55190004 /MY55190007/MY5521000 5	Jul. 13, 2022	Jul. 12, 2023
Radio Communication Analyzer Anritsu	MT8821C	6201462755	Mar. 03, 2023	Mar. 02, 2024

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in WM Chamber 8.

3.1.3 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. Set detector = average.
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:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz. Set detector = average.
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 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

1. 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.
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.

Note:

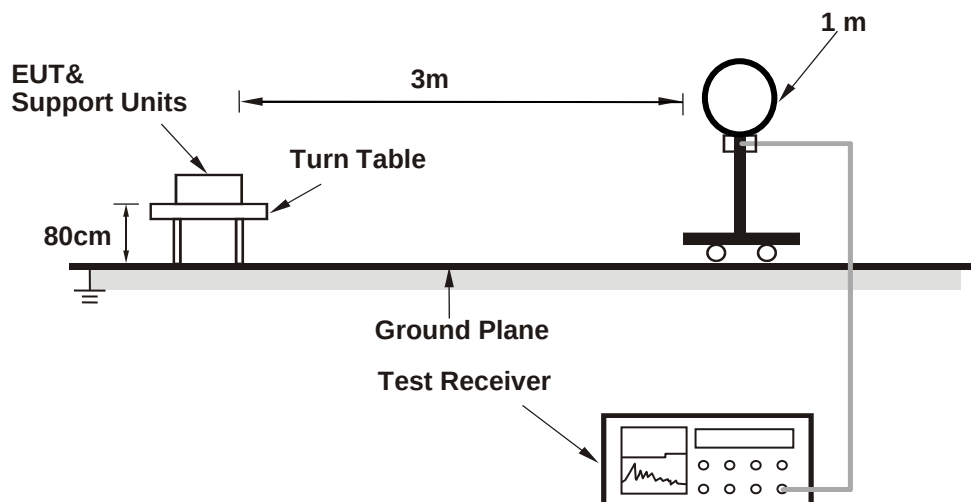
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

3.1.4 Deviation from Test Standard

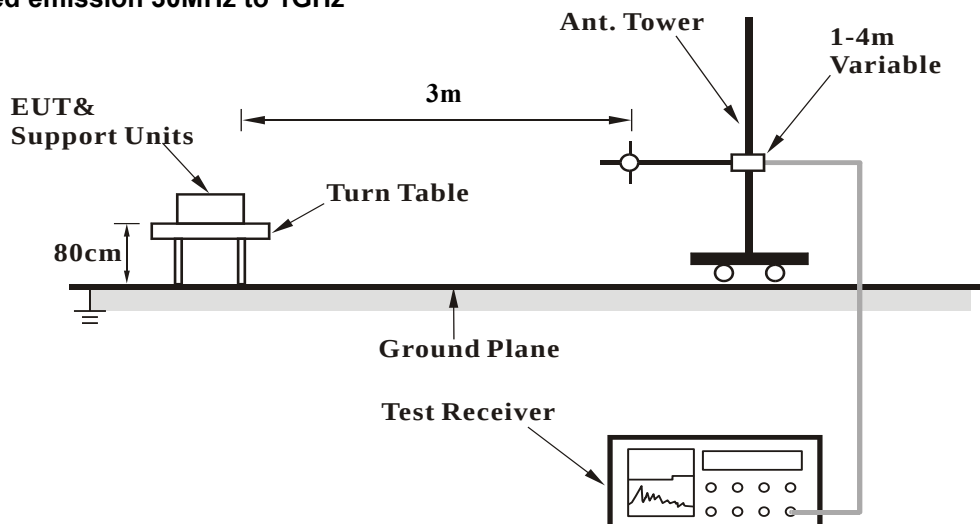
No deviation.

3.1.5 Test Setup

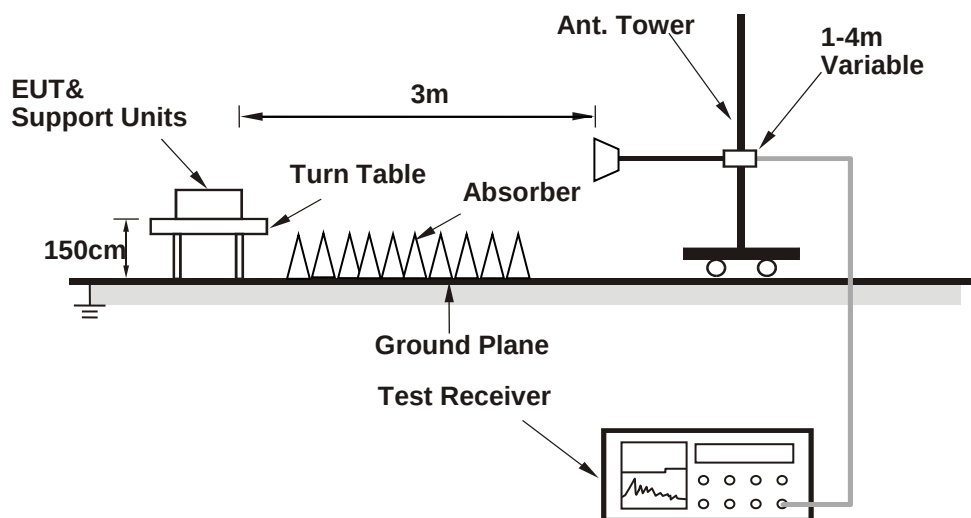
For Radiated emission below 30MHz



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).

3.1.6 EUT Operating Conditions

For WLAN, NFC

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

For WWAN

1. Placed the EUT on the testing table.
2. The EUT is configured by emulator to set data modulation and maximum power using WWAN technology.

3.1.7 Test Results

Above 1 GHz Data :

11n (HT20) + GSM 850 (Part 22) + NFC

Channel	Ch6 + Ch 251 + 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	104.3 PK			2.55 H	344	72.0	32.3
2	#2437.00	94.5 AV			2.55 H	344	62.2	32.3
3	4874.00	48.8 PK	74.0	-25.2	1.68 H	226	45.3	3.5
4	4874.00	36.2 AV	54.0	-17.8	1.68 H	226	32.7	3.5
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	100.6 PK			3.03 V	31	68.3	32.3
2	#2437.00	91.4 AV			3.03 V	31	59.1	32.3
3	4874.00	48.3 PK	74.0	-25.7	2.96 V	143	44.8	3.5
4	4874.00	35.4 AV	54.0	-18.6	2.96 V	143	31.9	3.5

Remarks:

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

Channel	Ch6 + Ch 251 + 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	1697.60	-39.11	-13.00	-26.11	1.21 H	102	64.28	-103.39
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	1697.60	-38.71	-13.00	-25.71	1.56 V	52	64.68	-103.39

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.

11n (HT20) + PCS1900 (Part 24) + NFC

Channel	Ch 6 + Ch 661 + 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	104.4 PK			2.57 H	339	72.1	32.3
2	*2437.00	94.7 AV			2.57 H	339	62.4	32.3
3	4874.00	49.0 PK	74.0	-25.0	1.72 H	224	45.5	3.5
4	4874.00	36.3 AV	54.0	-17.7	1.72 H	224	32.8	3.5
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	100.8 PK			3.08 V	28	68.5	32.3
2	*2437.00	91.5 AV			3.08 V	28	59.2	32.3
3	4874.00	48.1 PK	74.0	-25.9	2.87 V	139	44.6	3.5
4	4874.00	35.3 AV	54.0	-18.7	2.87 V	139	31.8	3.5

Remarks:

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

Channel	Ch 6 + Ch 661 + Ch1	Frequency Range	1GMHz ~ 20GHz
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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	3760.00	-34.20	-13.00	-21.20	1.19 H	178	60.62	-94.82
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	3760.00	-34.99	-13.00	-21.99	1.07 V	162	59.83	-94.82

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) + Cat-M1 Band 4 (Part 27) + NFC

Channel	Ch6 + Ch 20175 + 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	102.2 PK			2.52 H	341	69.9	32.3
2	#2437.00	94.5 AV			2.52 H	341	62.2	32.3
3	4874.00	48.9 PK	74.0	-25.1	1.72 H	231	45.4	3.5
4	4874.00	36.1 AV	54.0	-17.9	1.72 H	231	32.6	3.5
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	100.5 PK			3.07 V	35	68.2	32.3
2	#2437.00	91.2 AV			3.07 V	35	58.9	32.3
3	4874.00	47.9 PK	74.0	-26.1	2.91 V	136	44.4	3.5
4	4874.00	35.2 AV	54.0	-18.8	2.91 V	136	31.7	3.5

Remarks:

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

Channel	Ch6 + Ch 20175 + 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	3465.00	-39.12	-13.00	-26.12	1.02 H	349	56.84	-95.96
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	3465.00	-42.79	-13.00	-29.79	1.14 V	76	53.17	-95.96

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) + Cat-M1 Band 26 (Part 90) + NFC

Channel	Ch6 + Ch 26740 + 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	104.1 PK			2.52 H	346	71.8	32.3
2	#2437.00	94.4 AV			2.52 H	346	62.1	32.3
3	4874.00	49.0 PK	74.0	-25.0	1.72 H	231	45.5	3.5
4	4874.00	36.3 AV	54.0	-17.7	1.72 H	231	32.8	3.5
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	100.5 PK			3.01 V	33	68.2	32.3
2	#2437.00	91.3 AV			3.01 V	33	59.0	32.3
3	4874.00	48.2 PK	74.0	-25.8	2.92 V	147	44.7	3.5
4	4874.00	35.2 AV	54.0	-18.8	2.92 V	147	31.7	3.5

Remarks:

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

Channel	Ch6 + Ch 26740 + 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	1638.00	-39.77	-13.00	-26.77	1.08 H	347	63.74	-103.51
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	1638.00	-39.23	-13.00	-26.23	2.47 V	32	64.28	-103.51

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.

Below 30MHz data

11n (HT20) + GSM 850 (Part 22) + NFC

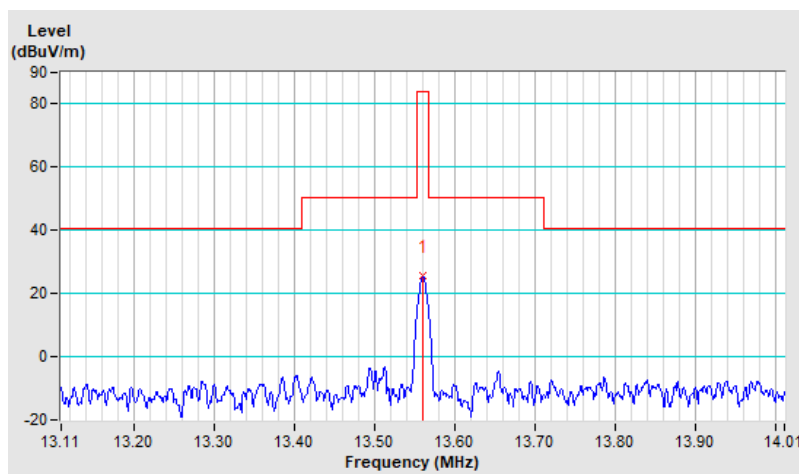
Channel	Ch6 + Ch 251 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	25.6 QP	84.0	-58.4	1.00	354	43.8	-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)



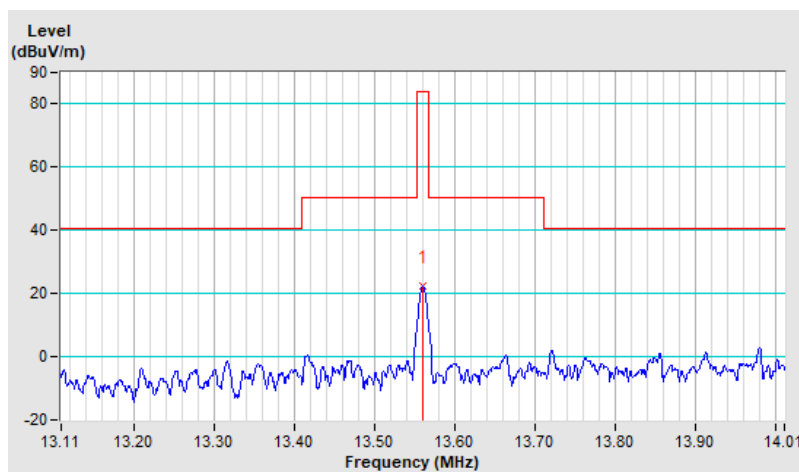
Channel	Ch6 + Ch 251 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	22.6 QP	84.0	-61.4	1.00	83	40.8	-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)



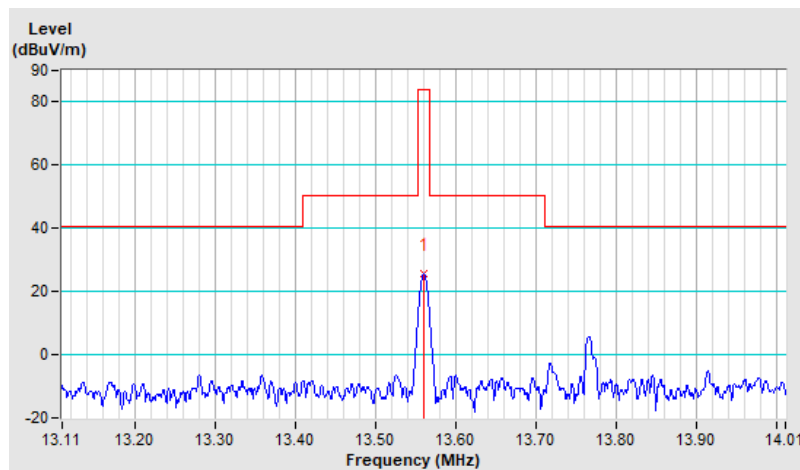
Channel	Ch6 + Ch 251 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	25.8 QP	84.0	-58.2	1.00	356	44.0	-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)

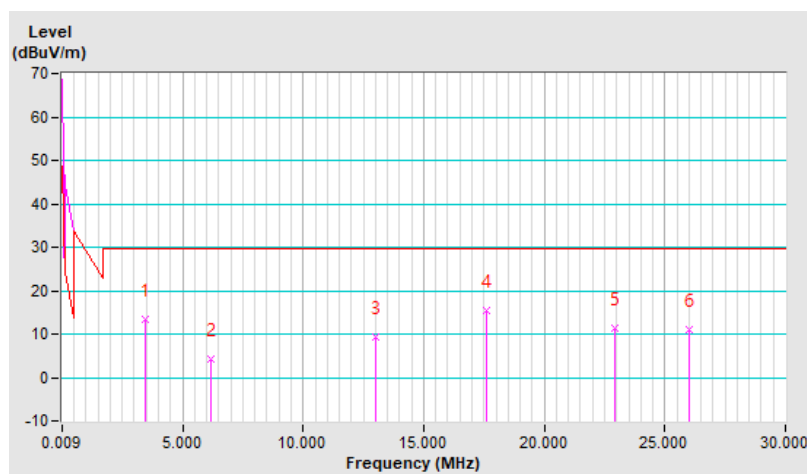


Channel	Ch6 + Ch 251 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.46	13.4 PK	29.5	-16.1	1.00	18	33.3	-19.9
2	6.19	4.1 PK	29.5	-25.4	1.00	18	23.7	-19.6
3	13.00	9.3 PK	29.5	-20.2	1.00	189	27.5	-18.2
4	17.58	15.4 PK	29.5	-14.1	1.00	81	33.5	-18.1
5	22.95	11.4 PK	29.5	-18.1	1.00	38	29.5	-18.1
6	26.01	10.9 PK	29.5	-18.6	1.00	38	29.0	-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)

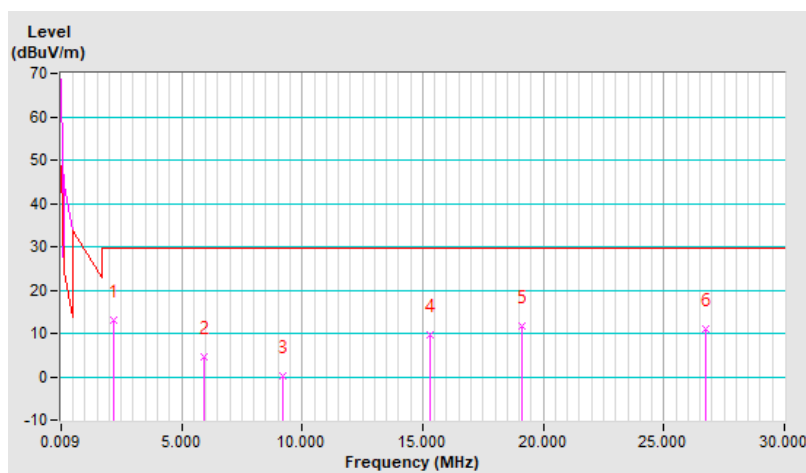


Channel	Ch6 + Ch 251 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	2.20	12.9 PK	29.5	-16.6	1.00	18	32.7	-19.8
2	5.92	4.6 PK	29.5	-24.9	1.00	215	24.4	-19.8
3	9.19	0.3 PK	29.5	-29.2	1.00	238	18.8	-18.5
4	15.30	9.6 PK	29.5	-19.9	1.00	355	27.7	-18.1
5	19.11	11.7 PK	29.5	-17.8	1.00	12	29.8	-18.1
6	26.76	11.0 PK	29.5	-18.5	1.00	252	29.1	-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)

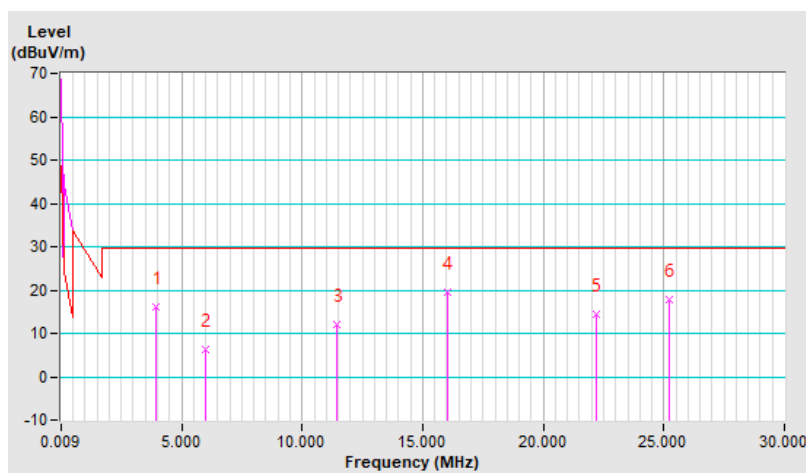


Channel	Ch6 + Ch 251 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.97	16.0 PK	29.5	-13.5	1.00	66	35.9	-19.9
2	6.01	6.3 PK	29.5	-23.2	1.00	3	26.0	-19.7
3	11.47	12.2 PK	29.5	-17.3	1.00	165	30.4	-18.2
4	16.05	19.6 PK	29.5	-9.9	1.00	307	37.7	-18.1
5	22.17	14.5 PK	29.5	-15.0	1.00	98	32.6	-18.1
6	25.23	17.8 PK	29.5	-11.7	1.00	115	35.9	-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) + PCS1900 (Part 22) + NFC

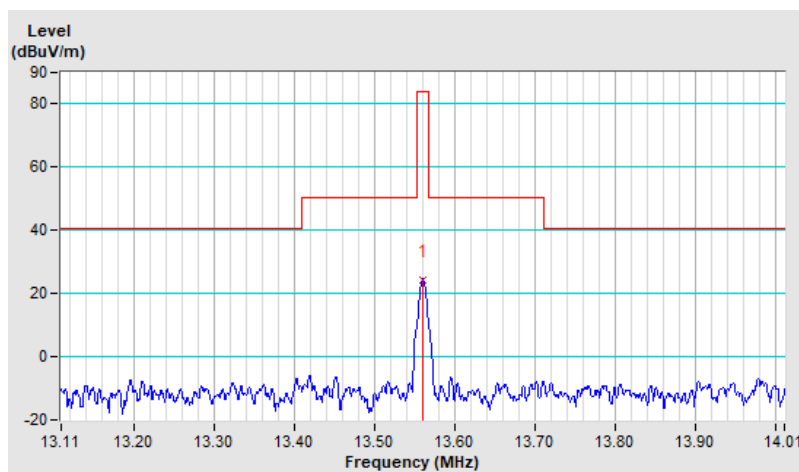
Channel	Ch 6 + Ch 661 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	24.5 QP	84.0	-59.5	1.00	356	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)



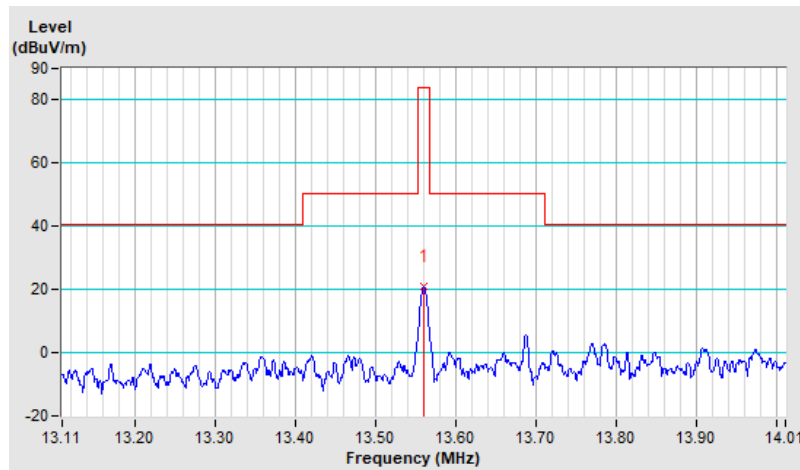
Channel	Ch 6 + Ch 661 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	21.7 QP	84.0	-62.3	1.00	84	39.9	-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)



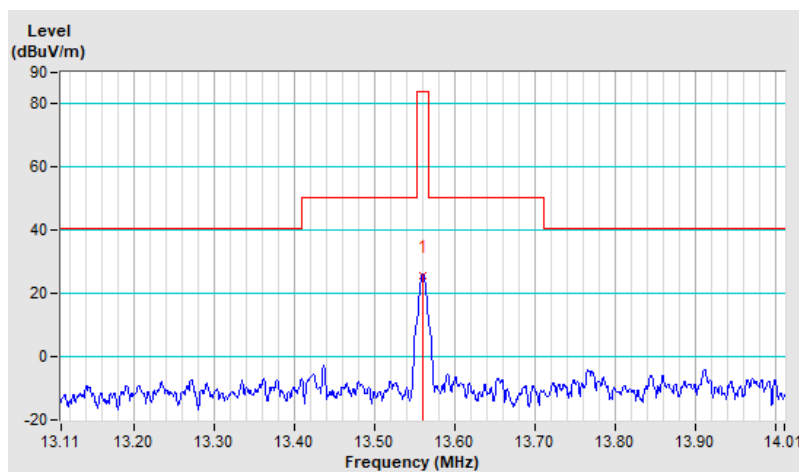
Channel	Ch 6 + Ch 661 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	25.6 QP	84.0	-58.4	1.00	354	43.8	-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)

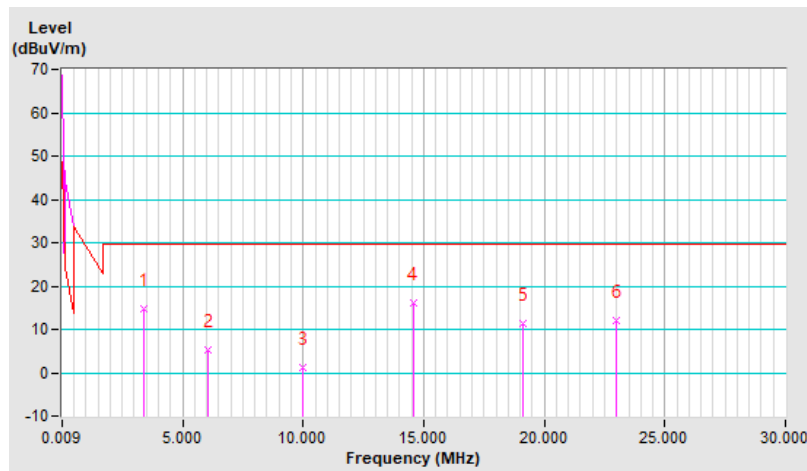


Channel	Ch 6 + Ch 661 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.40	14.7 PK	29.5	-14.8	1.00	31	34.6	-19.9
2	6.04	5.1 PK	29.5	-24.4	1.00	2	24.8	-19.7
3	9.97	1.3 PK	29.5	-28.2	1.00	2	19.5	-18.2
4	14.55	16.1 PK	29.5	-13.4	1.00	317	34.3	-18.2
5	19.14	11.5 PK	29.5	-18.0	1.00	348	29.6	-18.1
6	22.98	12.2 PK	29.5	-17.3	1.00	237	30.3	-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)

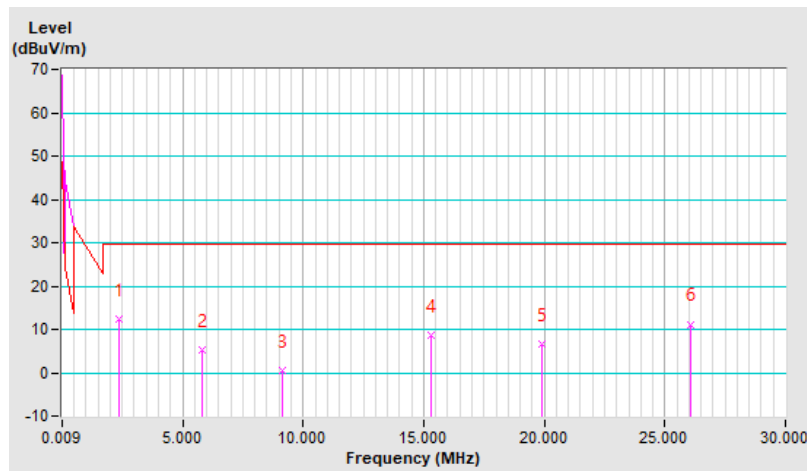


Channel	Ch 6 + Ch 661 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	2.35	12.4 PK	29.5	-17.1	1.00	14	32.2	-19.8
2	5.80	5.3 PK	29.5	-24.2	1.00	281	25.1	-19.8
3	9.13	0.6 PK	29.5	-28.9	1.00	120	19.1	-18.5
4	15.30	8.5 PK	29.5	-21.0	1.00	276	26.6	-18.1
5	19.92	6.7 PK	29.5	-22.8	1.00	46	24.8	-18.1
6	26.04	11.2 PK	29.5	-18.3	1.00	314	29.3	-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)

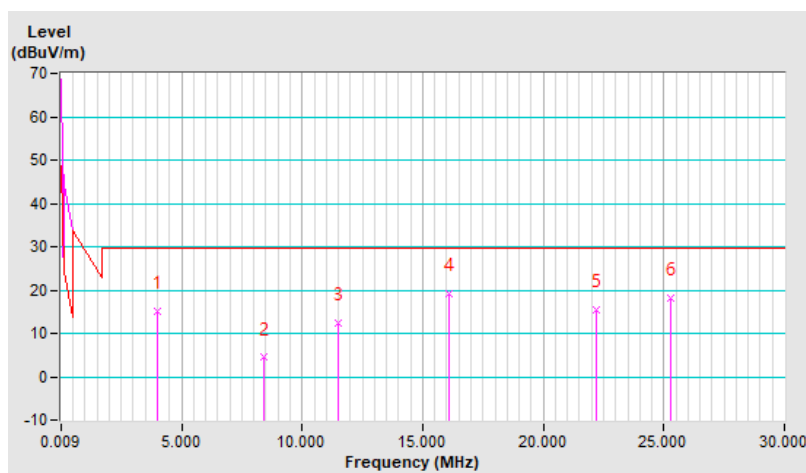


Channel	Ch 6 + Ch 661 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	4.00	15.1 PK	29.5	-14.4	1.00	31	35.0	-19.9
2	8.44	4.4 PK	29.5	-25.1	1.00	316	23.2	-18.8
3	11.50	12.5 PK	29.5	-17.0	1.00	264	30.7	-18.2
4	16.08	19.2 PK	29.5	-10.3	1.00	276	37.3	-18.1
5	22.20	15.4 PK	29.5	-14.1	1.00	212	33.5	-18.1
6	25.26	18.1 PK	29.5	-11.4	1.00	261	36.2	-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)



11n (HT20) + Cat-M1 Band 4 (Part 27) + NFC

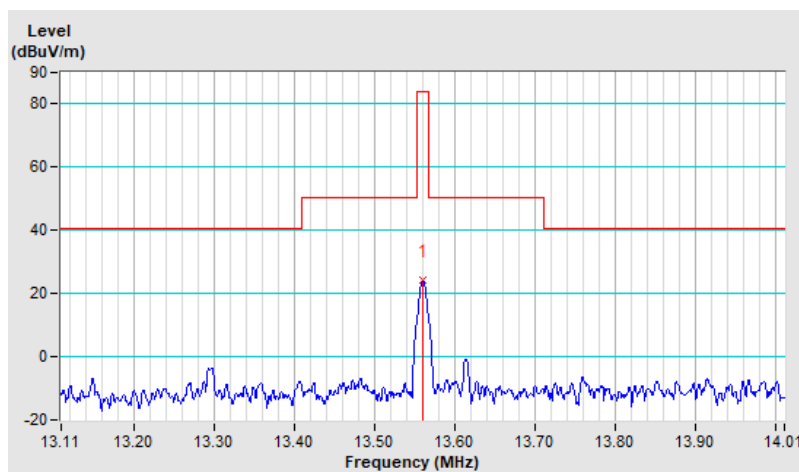
Channel	Ch6 + Ch 20175 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	24.5 QP	84.0	-59.5	1.00	355	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)



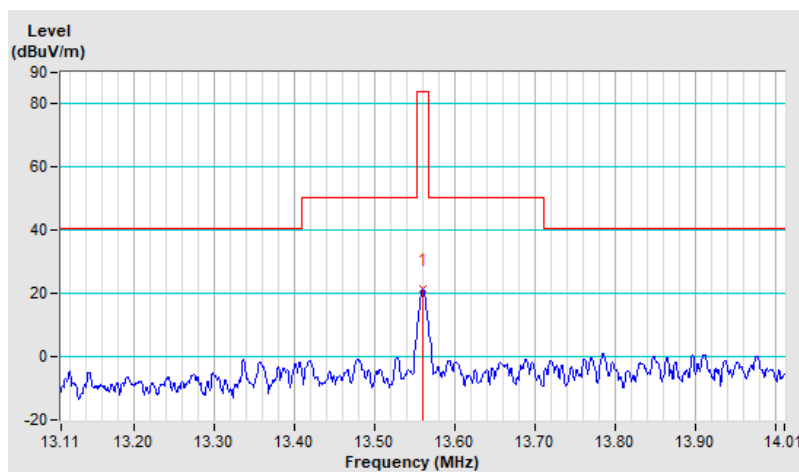
Channel	Ch6 + Ch 20175 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	21.6 QP	84.0	-62.4	1.00	91	39.8	-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)



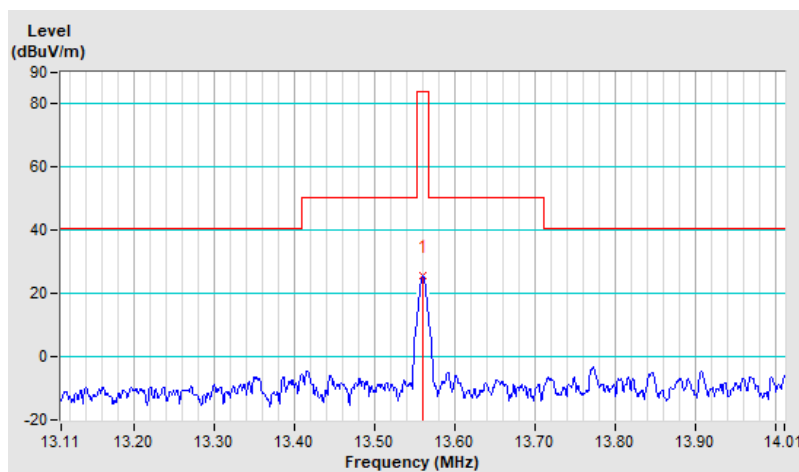
Channel	Ch6 + Ch 20175 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	358	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)

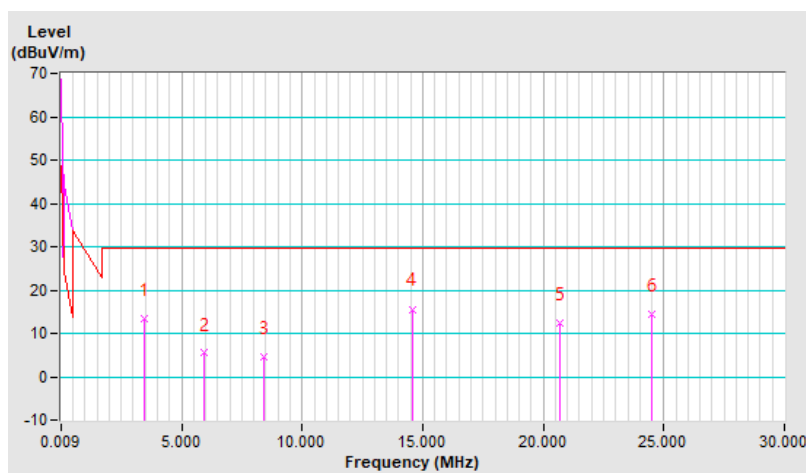


Channel	Ch6 + Ch 20175 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.43	13.4 PK	29.5	-16.1	1.00	262	33.3	-19.9
2	5.92	5.4 PK	29.5	-24.1	1.00	214	25.2	-19.8
3	8.41	4.6 PK	29.5	-24.9	1.00	71	23.4	-18.8
4	14.55	15.6 PK	29.5	-13.9	1.00	225	33.8	-18.2
5	20.67	12.5 PK	29.5	-17.0	1.00	16	30.6	-18.1
6	24.51	14.3 PK	29.5	-15.2	1.00	354	32.4	-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)

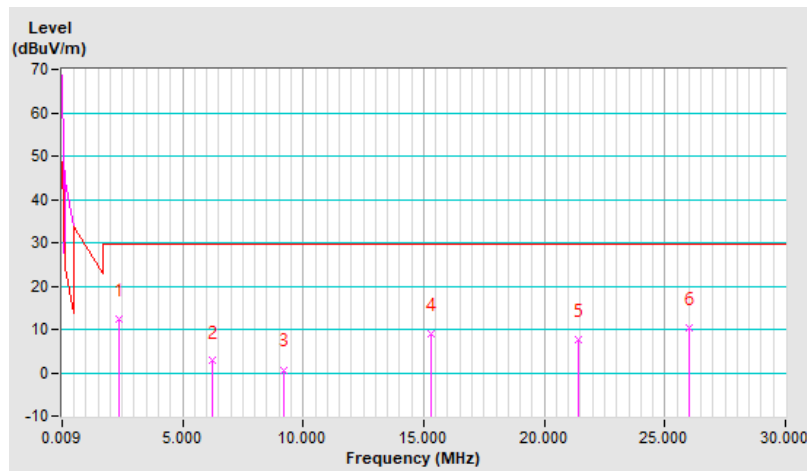


Channel	Ch6 + Ch 20175 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	2.38	12.4 PK	29.5	-17.1	1.00	126	32.2	-19.8
2	6.22	2.7 PK	29.5	-26.8	1.00	148	22.3	-19.6
3	9.19	0.7 PK	29.5	-28.8	1.00	52	19.2	-18.5
4	15.30	9.0 PK	29.5	-20.5	1.00	248	27.1	-18.1
5	21.42	7.7 PK	29.5	-21.8	1.00	347	25.8	-18.1
6	26.01	10.2 PK	29.5	-19.3	1.00	16	28.3	-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)

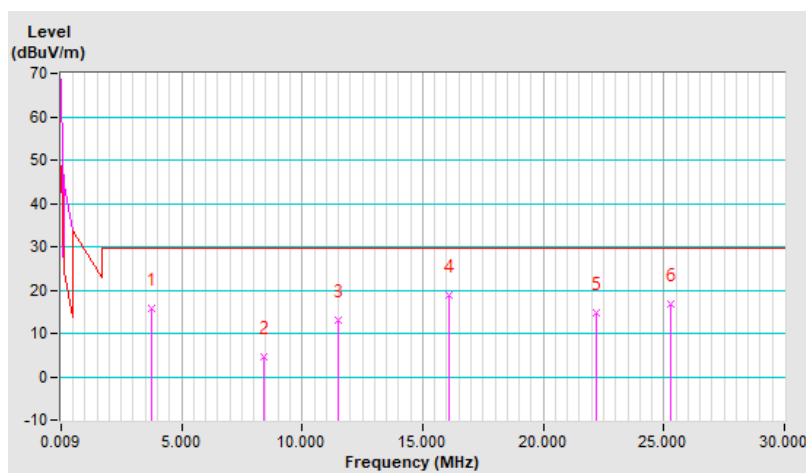


Channel	Ch6 + Ch 20175 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.76	15.6 PK	29.5	-13.9	1.00	334	35.5	-19.9
2	8.41	4.6 PK	29.5	-24.9	1.00	71	23.4	-18.8
3	11.50	12.9 PK	29.5	-16.6	1.00	266	31.1	-18.2
4	16.08	18.8 PK	29.5	-10.7	1.00	135	36.9	-18.1
5	22.20	14.7 PK	29.5	-14.8	1.00	127	32.8	-18.1
6	25.26	16.9 PK	29.5	-12.6	1.00	18	35.0	-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)



11n (HT20) + Cat-M1 Band 26 (Part 90) + NFC

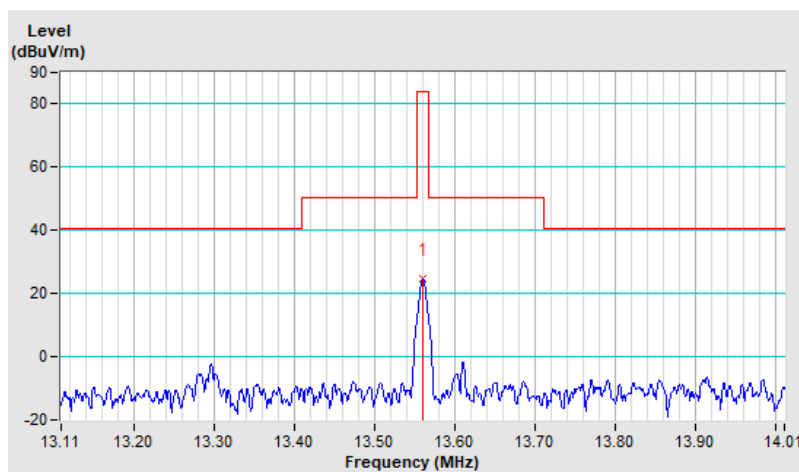
Channel	Ch6 + Ch 26740 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	24.6 QP	84.0	-59.4	1.00	353	42.8	-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)



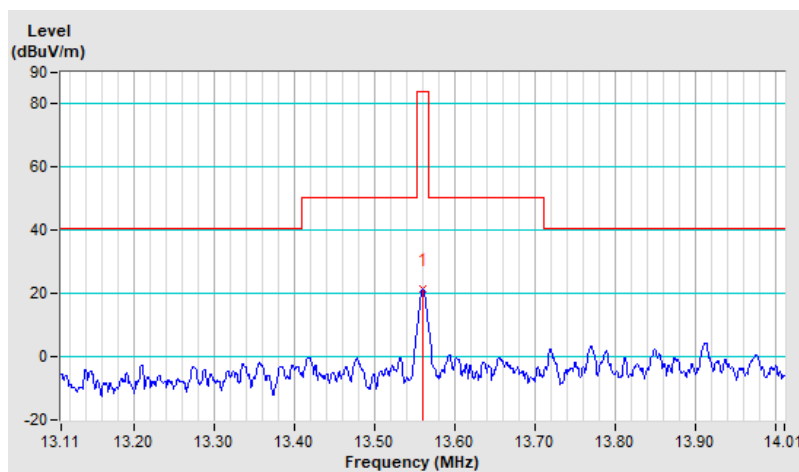
Channel	Ch6 + Ch 26740 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	21.6 QP	84.0	-62.4	1.00	90	39.8	-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)



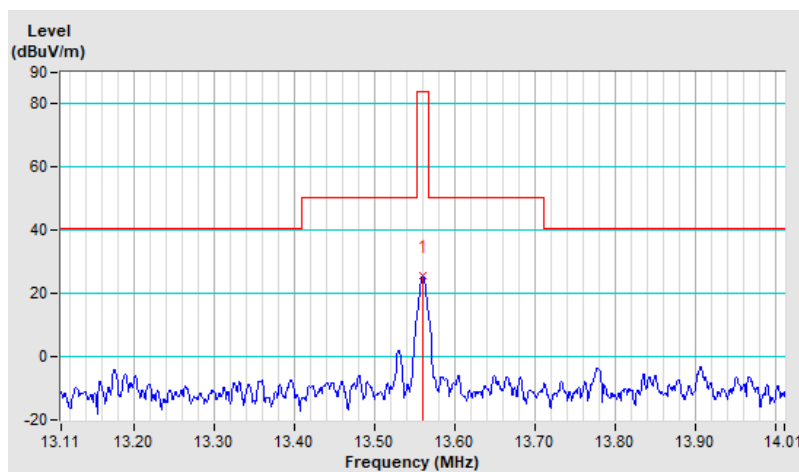
Channel	Ch6 + Ch 26740 + Ch1	Detector Function & Bandwidth	Quasi-Peak (QP), 9kHz
Frequency Range	13.11MHz ~ 14.01MHz		

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	25.9 QP	84.0	-58.1	1.00	353	44.1	-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)

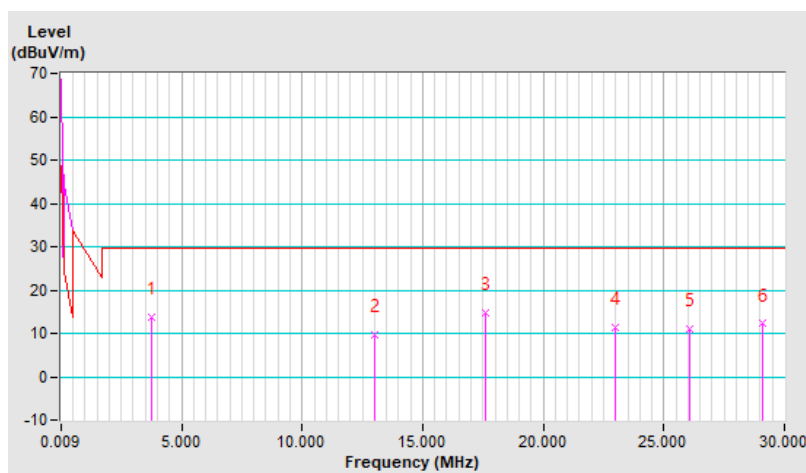


Channel	Ch6 + Ch 26740 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.76	13.8 PK	29.5	-15.7	1.00	195	33.7	-19.9
2	13.03	9.6 PK	29.5	-19.9	1.00	78	27.8	-18.2
3	17.61	14.6 PK	29.5	-14.9	1.00	186	32.7	-18.1
4	22.98	11.3 PK	29.5	-18.2	1.00	258	29.4	-18.1
5	26.04	11.0 PK	29.5	-18.5	1.00	45	29.1	-18.1
6	29.10	12.2 PK	29.5	-17.3	1.00	235	30.3	-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)

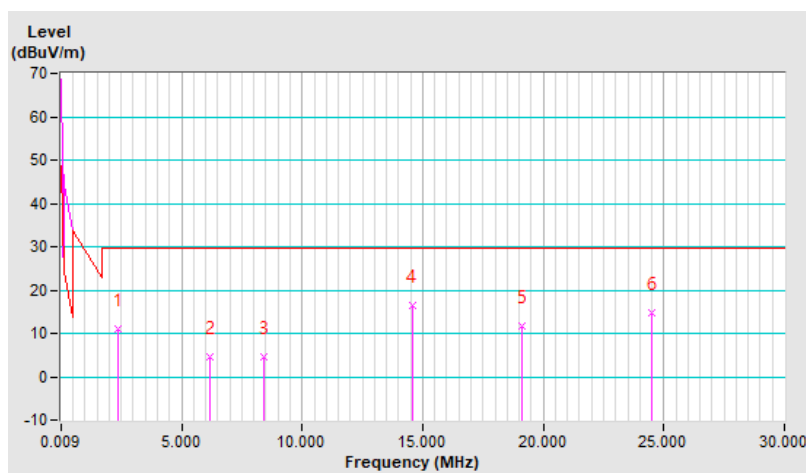


Channel	Ch6 + Ch 26740 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	2.38	11.0 PK	29.5	-18.5	1.00	40	30.8	-19.8
2	6.16	4.5 PK	29.5	-25.0	1.00	89	24.2	-19.7
3	8.44	4.7 PK	29.5	-24.8	1.00	314	23.5	-18.8
4	14.55	16.3 PK	29.5	-13.2	1.00	2	34.5	-18.2
5	19.14	11.7 PK	29.5	-17.8	1.00	115	29.8	-18.1
6	24.51	14.7 PK	29.5	-14.8	1.00	2	32.8	-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)

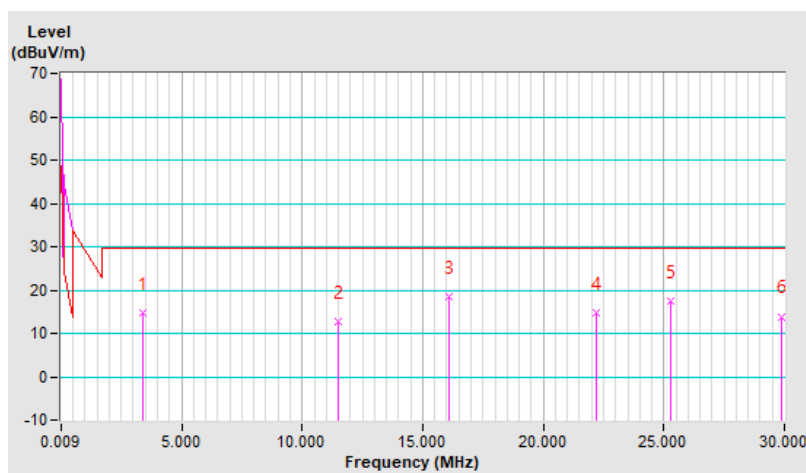


Channel	Ch6 + Ch 26740 + Ch1	Detector Function & Bandwidth	Peak (PK), 9kHz
Frequency Range	9kHz ~ 30MHz		

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	3.40	14.6 PK	29.5	-14.9	1.00	2	34.5	-19.9
2	11.50	12.6 PK	29.5	-16.9	1.00	8	30.8	-18.2
3	16.08	18.5 PK	29.5	-11.0	1.00	322	36.6	-18.1
4	22.20	14.8 PK	29.5	-14.7	1.00	324	32.9	-18.1
5	25.26	17.4 PK	29.5	-12.1	1.00	234	35.5	-18.1
6	29.85	13.9 PK	29.5	-15.6	1.00	242	32.0	-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)



Below 1GHz data

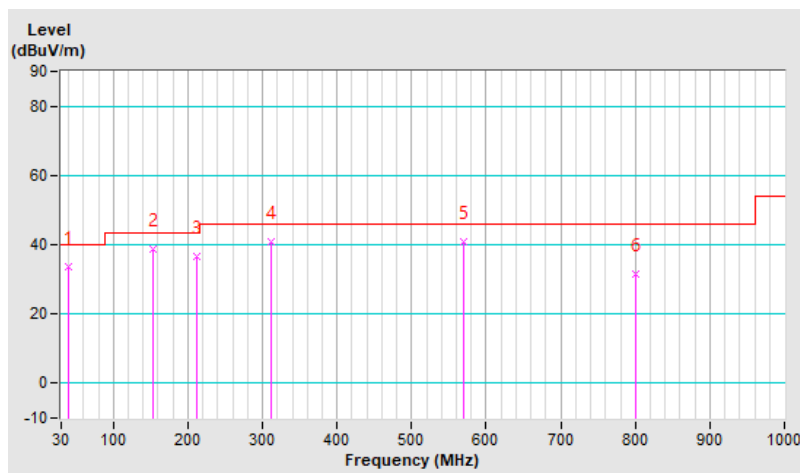
11n (HT20) + GSM 850 (Part 22) + NFC

Channel	Ch6 + Ch 251 + 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	40.67	33.8 QP	40.0	-6.2	1.25 H	63	47.4	-13.6
2	154.16	38.6 QP	43.5	-4.9	1.00 H	356	51.5	-12.9
3	211.39	36.5 QP	43.5	-7.0	1.50 H	185	53.4	-16.9
4	312.27	40.7 QP	46.0	-5.3	1.25 H	51	52.9	-12.2
5	569.32	40.9 QP	46.0	-5.1	1.00 H	16	47.6	-6.7
6	800.18	31.5 QP	46.0	-14.5	2.00 H	137	34.0	-2.5

Remarks:

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

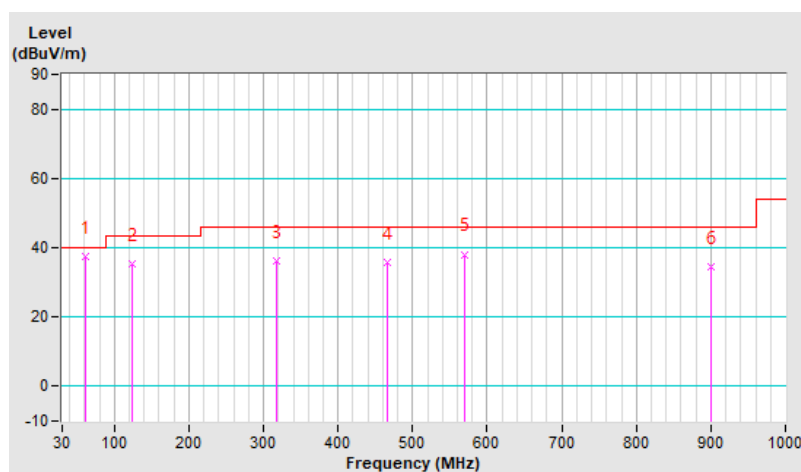


Channel	Ch6 + Ch 251 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	61.04	37.6 QP	40.0	-2.4	1.50 V	348	51.9	-14.3
2	123.12	35.3 QP	43.5	-8.2	1.00 V	138	50.4	-15.1
3	318.09	36.0 QP	46.0	-10.0	1.25 V	75	48.1	-12.1
4	465.53	35.6 QP	46.0	-10.4	1.00 V	15	44.0	-8.4
5	569.32	38.1 QP	46.0	-7.9	1.00 V	339	44.8	-6.7
6	900.09	34.6 QP	46.0	-11.4	1.50 V	15	35.9	-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.

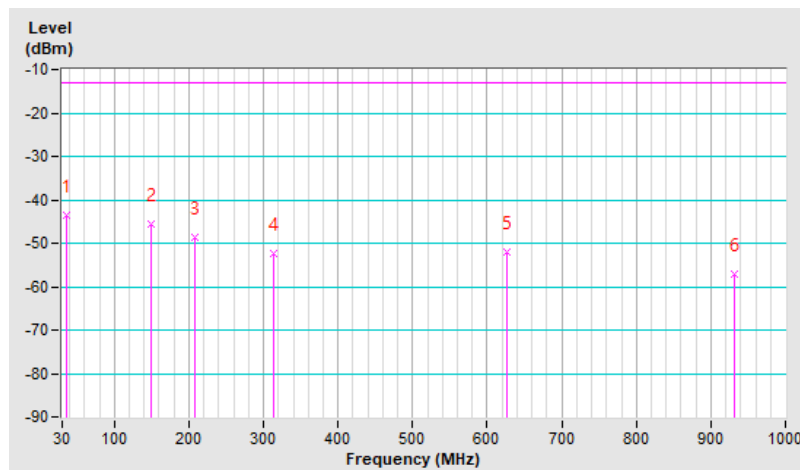


Channel	Ch6 + Ch 251 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	36.79	-43.67	-13.00	-30.67	1.50 H	13	67.65	-111.32
2	148.34	-45.70	-13.00	-32.70	1.00 H	337	64.85	-110.55
3	208.48	-48.65	-13.00	-35.65	1.25 H	191	65.65	-114.30
4	314.21	-52.32	-13.00	-39.32	1.00 H	44	57.32	-109.64
5	626.55	-52.15	-13.00	-39.15	1.00 H	11	50.50	-102.65
6	932.10	-57.01	-13.00	-44.01	1.25 H	179	41.30	-98.31

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.
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.

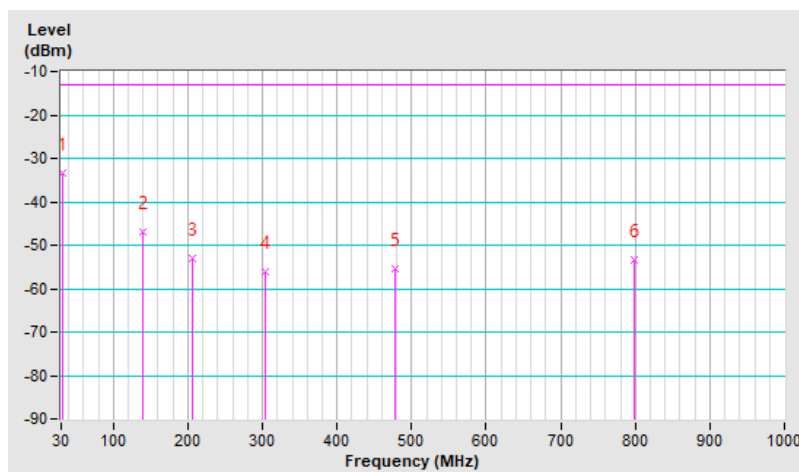


Channel	Ch6 + Ch 251 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	31.94	-33.32	-13.00	-20.32	1.00 V	159	78.48	-111.80
2	139.61	-46.82	-13.00	-33.82	1.50 V	18	64.17	-110.99
3	205.57	-53.09	-13.00	-40.09	1.25 V	131	61.22	-114.31
4	304.51	-56.26	-13.00	-43.26	1.00 V	180	53.71	-109.97
5	477.17	-55.55	-13.00	-42.55	1.50 V	39	50.08	-105.63
6	798.24	-53.25	-13.00	-40.25	1.25 V	59	46.70	-99.95

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.



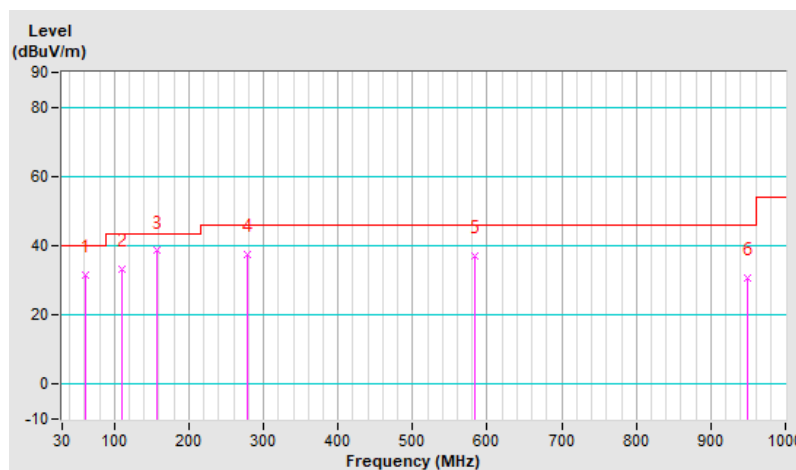
11n (HT20) + PCS1900 (Part 24) + NFC

Channel	Ch 6 + Ch 661 + 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	61.04	31.6 QP	40.0	-8.4	1.50 H	327	45.9	-14.3
2	109.54	33.4 QP	43.5	-10.1	2.00 H	289	49.7	-16.3
3	157.07	38.5 QP	43.5	-5.0	1.00 H	330	51.4	-12.9
4	279.29	37.3 QP	46.0	-8.7	1.25 H	48	50.5	-13.2
5	582.90	37.2 QP	46.0	-8.8	1.50 H	22	43.3	-6.1
6	949.56	30.6 QP	46.0	-15.4	1.00 H	8	31.2	-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.

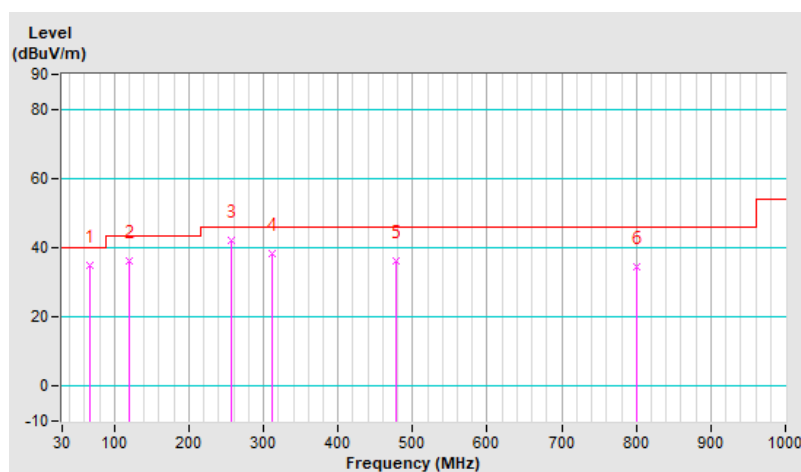


Channel	Ch 6 + Ch 661 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	66.86	34.9 QP	40.0	-5.1	2.00 V	1	50.0	-15.1
2	119.24	36.1 QP	43.5	-7.4	1.00 V	173	51.5	-15.4
3	256.01	42.2 QP	46.0	-3.8	1.25 V	56	56.7	-14.5
4	312.27	38.3 QP	46.0	-7.7	1.50 V	33	50.5	-12.2
5	478.14	36.2 QP	46.0	-9.8	1.00 V	6	44.4	-8.2
6	800.18	34.4 QP	46.0	-11.6	1.50 V	307	36.9	-2.5

Remarks:

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

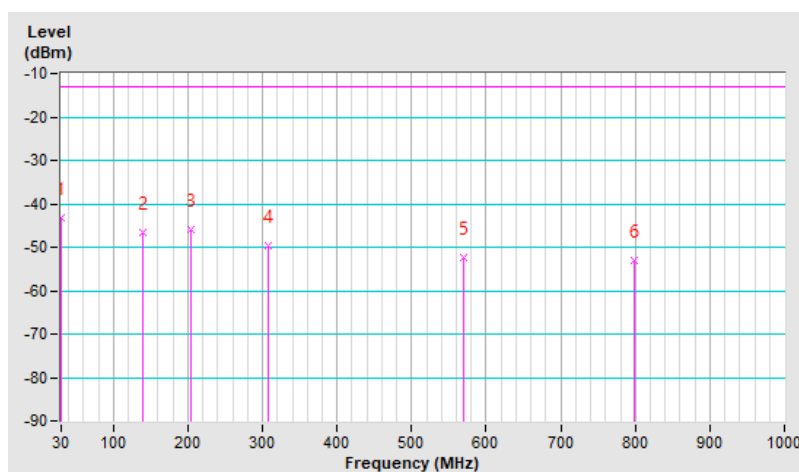


Channel	Ch 6 + Ch 661 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.97	-43.11	-13.00	-30.11	1.25 H	112	66.78	-109.89
2	138.64	-46.74	-13.00	-33.74	1.00 H	197	62.15	-108.89
3	203.63	-45.92	-13.00	-32.92	1.50 H	229	66.23	-112.15
4	308.39	-49.68	-13.00	-36.68	1.25 H	32	58.02	-107.70
5	569.32	-52.24	-13.00	-39.24	2.00 H	19	49.60	-101.84
6	799.21	-53.06	-13.00	-40.06	1.25 H	2	44.69	-97.75

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.

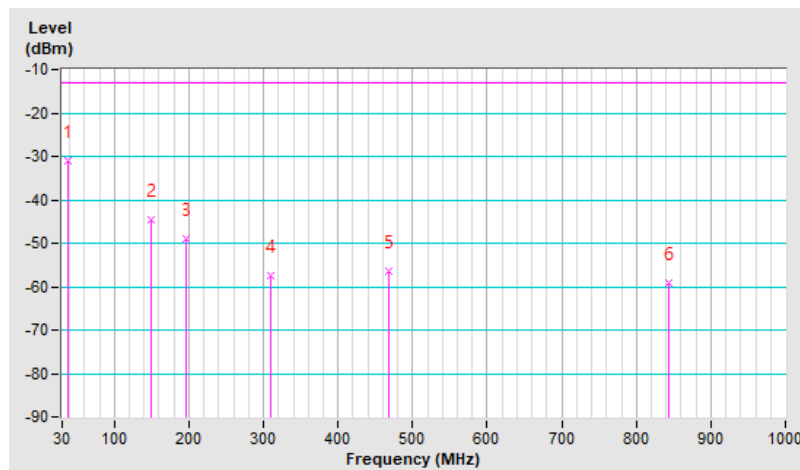


Channel	Ch 6 + Ch 661 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	37.76	-31.18	-13.00	-18.18	1.00 V	70	77.92	-109.10
2	148.34	-44.58	-13.00	-31.58	1.25 V	40	63.82	-108.40
3	196.84	-48.82	-13.00	-35.82	1.00 V	104	63.13	-111.95
4	310.33	-57.53	-13.00	-44.53	1.50 V	191	50.11	-107.64
5	468.44	-56.46	-13.00	-43.46	2.00 V	39	47.19	-103.65
6	842.86	-59.23	-13.00	-46.23	1.50 V	18	37.93	-97.16

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.



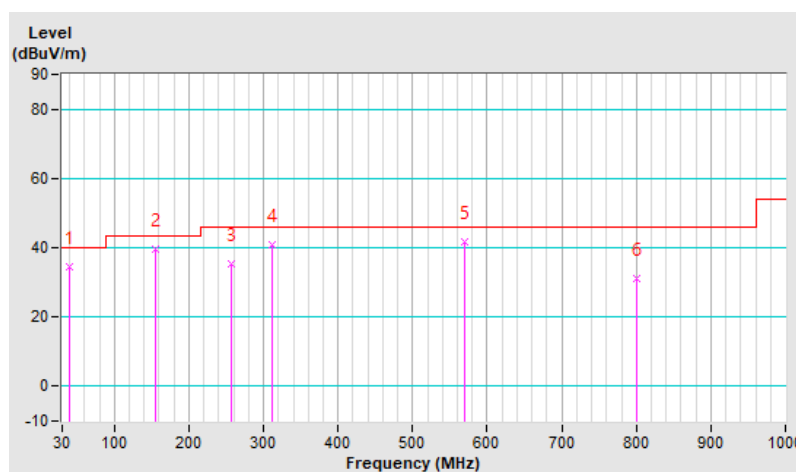
11n (HT20) + Cat-M1 Band 4 (Part 27) + NFC

Channel	Ch6 + Ch 20175 + 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	40.67	34.5 QP	40.0	-5.5	1.50 H	2	48.1	-13.6
2	155.13	39.5 QP	43.5	-4.0	1.25 H	308	52.5	-13.0
3	256.01	35.5 QP	46.0	-10.5	1.00 H	2	50.0	-14.5
4	312.27	40.8 QP	46.0	-5.2	2.00 H	39	53.0	-12.2
5	569.32	41.7 QP	46.0	-4.3	1.25 H	2	48.4	-6.7
6	800.18	31.2 QP	46.0	-14.8	1.50 H	2	33.7	-2.5

Remarks:

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

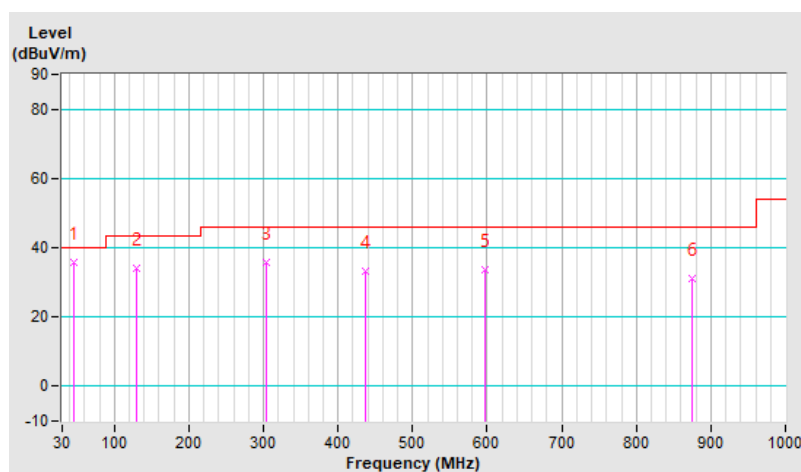


Channel	Ch6 + Ch 20175 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	46.49	35.9 QP	40.0	-4.1	1.50 V	206	49.1	-13.2
2	129.91	33.9 QP	43.5	-9.6	1.25 V	156	48.3	-14.4
3	304.51	35.6 QP	46.0	-10.4	1.00 V	56	48.2	-12.6
4	437.40	33.4 QP	46.0	-12.6	2.00 V	238	42.5	-9.1
5	596.48	33.8 QP	46.0	-12.2	1.00 V	345	39.5	-5.7
6	874.87	30.9 QP	46.0	-15.1	1.25 V	1	32.5	-1.6

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.

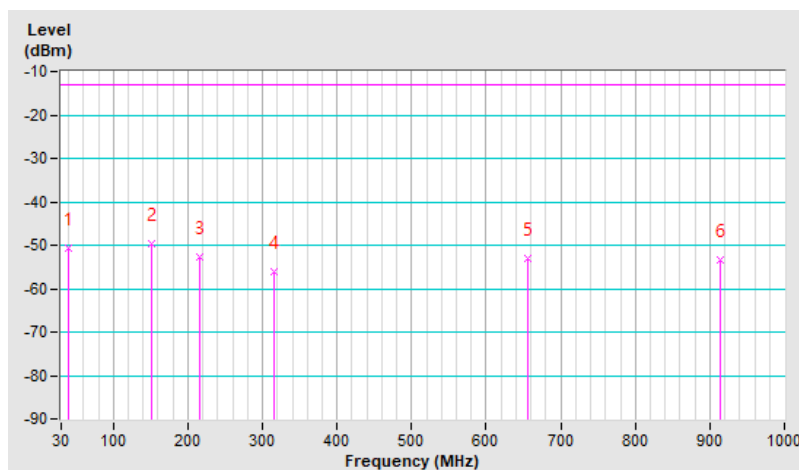


Channel	Ch6 + Ch 20175 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	39.70	-50.61	-13.00	-37.61	1.25 H	18	58.37	-108.98
2	152.22	-49.83	-13.00	-36.83	1.00 H	4	58.47	-108.30
3	215.27	-52.83	-13.00	-39.83	1.50 H	231	59.25	-112.08
4	316.15	-55.98	-13.00	-42.98	1.00 H	85	51.45	-107.43
5	656.62	-53.10	-13.00	-40.10	1.25 H	8	46.94	-100.04
6	913.67	-53.39	-13.00	-40.39	1.50 H	36	43.03	-96.42

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.

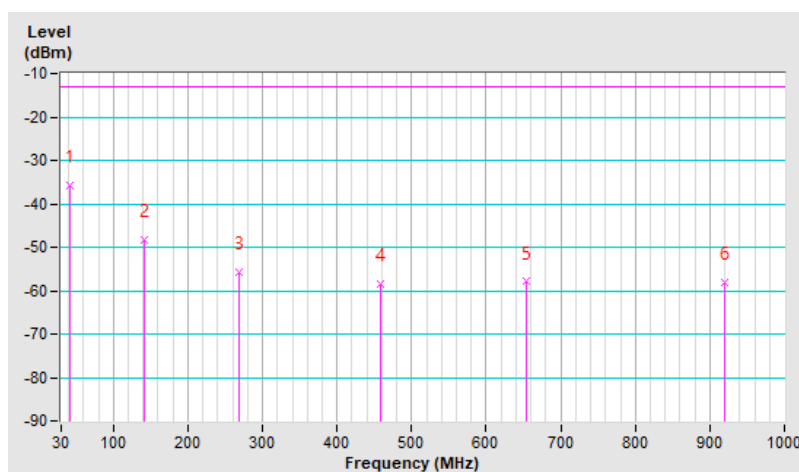


Channel	Ch6 + Ch 20175 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	42.61	-35.77	-13.00	-22.77	1.00 V	8	72.89	-108.66
2	141.55	-48.32	-13.00	-35.32	1.50 V	104	60.42	-108.74
3	267.65	-55.68	-13.00	-42.68	2.00 V	53	53.44	-109.12
4	457.77	-58.36	-13.00	-45.36	1.25 V	18	45.43	-103.79
5	654.68	-57.97	-13.00	-44.97	1.00 V	303	42.08	-100.05
6	919.49	-58.20	-13.00	-45.20	1.25 V	65	38.15	-96.35

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.



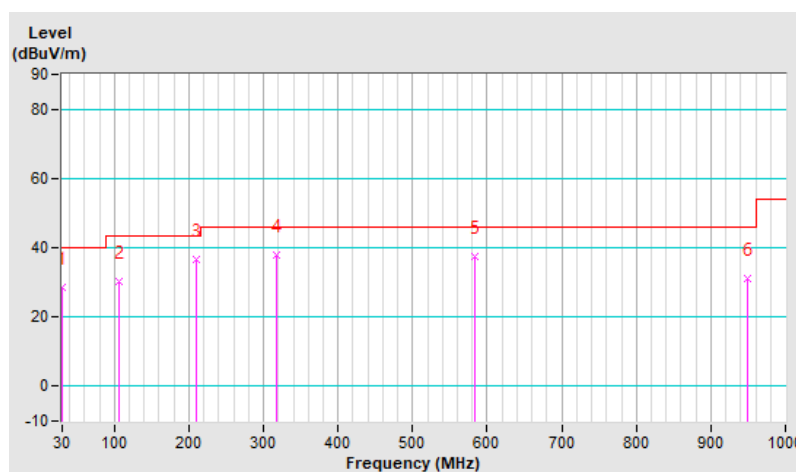
11n (HT20) + Cat-M1 Band 26 (Part 90) + NFC

Channel	Ch6 + Ch 26740 + 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	30.97	28.7 QP	40.0	-11.3	1.25 H	123	43.3	-14.6
2	105.66	30.2 QP	43.5	-13.3	1.00 H	259	46.9	-16.7
3	209.45	36.7 QP	43.5	-6.8	1.50 H	352	53.7	-17.0
4	318.09	37.7 QP	46.0	-8.3	1.00 H	2	49.8	-12.1
5	582.90	37.5 QP	46.0	-8.5	1.00 H	7	43.6	-6.1
6	949.56	31.3 QP	46.0	-14.7	1.50 H	33	31.9	-0.6

Remarks:

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

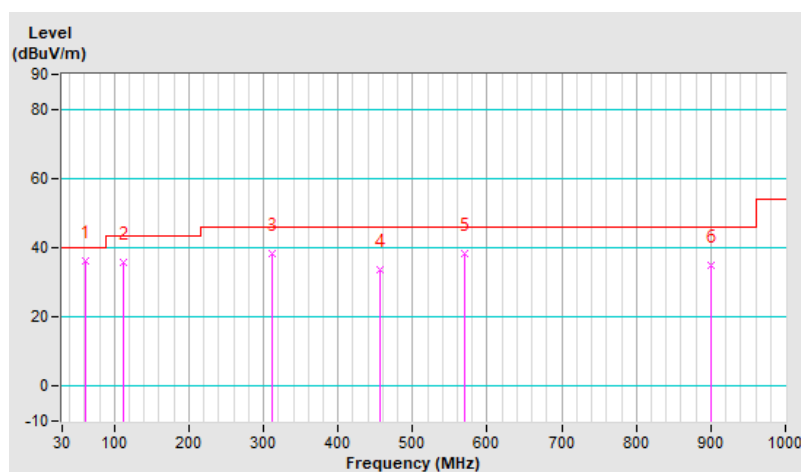


Channel	Ch6 + Ch 26740 + Ch1	Detector Function	Quasi-Peak (QP)
Frequency Range	30MHz ~ 1GHz		

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	61.04	36.3 QP	40.0	-3.7	1.50 V	9	50.6	-14.3
2	111.48	35.9 QP	43.5	-7.6	1.00 V	128	52.0	-16.1
3	312.27	38.3 QP	46.0	-7.7	1.25 V	62	50.5	-12.2
4	455.83	33.8 QP	46.0	-12.2	1.00 V	18	42.4	-8.6
5	569.32	38.2 QP	46.0	-7.8	1.25 V	342	44.9	-6.7
6	900.09	34.8 QP	46.0	-11.2	2.00 V	12	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.

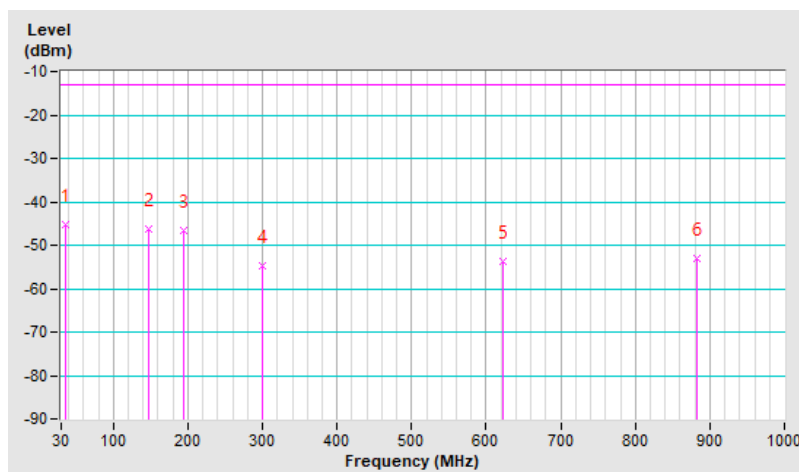


Channel	Ch6 + Ch 26740 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	36.79	-45.22	-13.00	-32.22	1.50 H	69	66.10	-111.32
2	147.37	-46.24	-13.00	-33.24	1.00 H	348	64.26	-110.50
3	193.93	-46.68	-13.00	-33.68	1.25 H	231	67.12	-113.80
4	299.66	-54.62	-13.00	-41.62	1.00 H	31	55.48	-110.10
5	622.67	-53.77	-13.00	-40.77	1.50 H	18	48.92	-102.69
6	883.60	-52.94	-13.00	-39.94	1.00 H	82	45.94	-98.88

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 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.

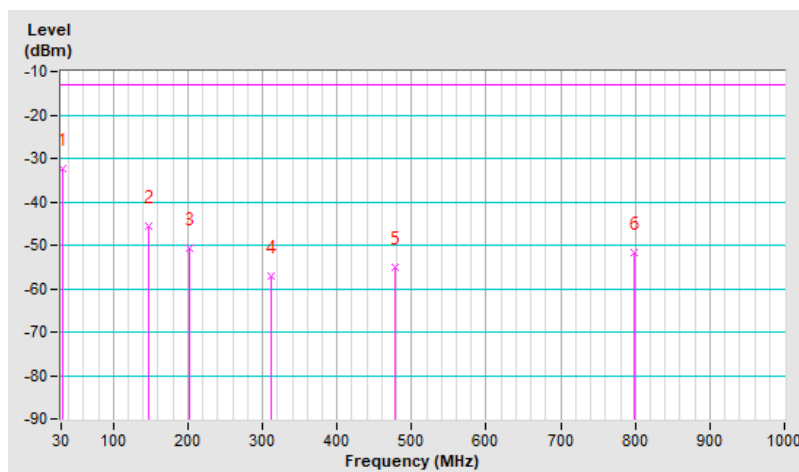


Channel	Ch6 + Ch 26740 + Ch1	Frequency Range	30MHz ~ 1GHz
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Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	ERP (dBm)	Limit (dBm)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	31.94	-32.43	-13.00	-19.43	1.00 V	315	79.37	-111.80
2	147.37	-45.48	-13.00	-32.48	1.50 V	80	65.02	-110.50
3	201.69	-50.56	-13.00	-37.56	2.00 V	103	63.70	-114.26
4	312.27	-57.14	-13.00	-44.14	1.25 V	182	52.57	-109.71
5	477.17	-55.18	-13.00	-42.18	1.50 V	64	50.45	-105.63
6	798.24	-51.76	-13.00	-38.76	1.25 V	18	48.19	-99.95

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.



4 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.

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Web Site: <http://ee.bureauveritas.com.tw>

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

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