FCC Test Report

Report No.:	RFBFKV-WTW-P23050559-1 R1
FCC ID:	L6AITH100-1
Test Model:	ITH100-1
Received Date:	May 23, 2023
Test Date:	Jun. 01 ~ Jun. 11, 2023 (For all tests of data rate: 80kbps & Radiated Emissions test of data rate: 500kbps) Aug. 02, 2023 (For all tests except Radiated Emissions test of data rate: 500kbps)
Issued Date:	Aug. 02, 2023
Applicant:	BlackBerry Limited
Address:	2200 University Avenue Eest, Waterloo, Ontario, Canada N2K 0A7
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location (1):	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, Taiwan
Test Location (2):	No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)
FCC Registration / Designation Number(1):	788550 / TW0003
FCC Registration / Designation Number(2):	281270 / TW0032

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Release Control Record

Issue No.	Description	Date Issued
RFBFKV-WTW-P23050559-1	Original release	Jul. 07, 2023
RFBFKV-WTW-P23050559-1 R1	Add test data of data rate: 500kbps	Aug. 02, 2023

1 Certificate of Conformity

Product: Radar H2M IS

Brand: BlackBerry

Test Model: ITH100-1

Sample Status: Engineering sample

Applicant: BlackBerry Limited

Test Date: Jun. 01 ~ Jun. 11, 2023 (For all tests of data rate: 80kbps & Radiated Emissions test of data rate: 500kbps)

Aug. 02, 2023 (For all tests except Radiated Emissions test of data rate: 500kbps)

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.247)

ANSI C63.10-2013

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

Prepared by : Pettie Chen , **Date:** Aug. 02, 2023

Pettie Chen / Senior Specialist

Approved by : Jeremy Lin , **Date:** Aug. 02, 2023

Jeremy Lin / Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.247)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	NA	Power supply is 7.2Vdc from battery.
15.205 / 15.209 / 15.247(d)	Radiated Emissions and Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -4.7dB at 30.97MHz.
15.247(d)	Antenna Port Emission	Pass	Meet the requirement of limit.
15.247(a)(2)	6dB bandwidth	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	Pass	Reference only
15.247(b)	Conducted power	Pass	Meet the requirement of limit.
15.247(e)	Power Spectral Density	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is Murata MM8030-2610B/RJ3/RK0 not a standard connector.

NA: Not Applicable

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) (±)
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.00 dB
	30MHz ~ 200MHz	2.91 dB
	200MHz ~1000MHz	2.92 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	1.76 dB
	18GHz ~ 40GHz	1.77 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Radar H2M IS
Brand	BlackBerry
Test Model	ITH100-1
Sample Status	Engineering sample
Power Supply Rating	7.2Vdc from battery
Modulation Type	80kbps: half-sine shaped OQPSK 500kbps: 2GFSK
Operating Frequency	904-926MHz
Number of Channel	23
Transfer Rate	80kbps, 500kbps
Output Power	Data Rate: 80kbps: 49.774mW Data Rate: 500kbps: 49.431mW
Antenna Type	Refer to note
Antenna Connector	Refer to note
Accessory Device	NA
Cable Supplied	NA

Note:

1. The EUT consumes power from the following batteries.

Battery 1	
Brand	EVE
Model	BAT-63705-001
Power Rating	7.2V, 38Ah, 274 Wh

Battery 2	
Brand	Vitrocell
Model	BAT-63705-002
Power Rating	7.2V, 38Ah, 274 Wh

2. The following antennas were provided to the EUT.

Antenna Type	Connector	Gain(dBi)
Monopole	Murata MM8030-2610B/RJ3/RK0	2

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

3.2 Description of Test Modes

23 channels are provided to this EUT:

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
1	904	11	914	21	924
2	905	12	915	22	925
3	906	13	916	23	926
4	907	14	917		
5	908	15	918		
6	909	16	919		
7	910	17	920		
8	911	18	921		
9	912	19	922		
10	913	20	923		

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	Note	√	Power from battery 1
B	-	√	Note	-	Power from battery 2

Where RE≥1G: Radiated Emission above 1GHz & Bandedge Measurement
RE<1G: Radiated Emission below 1GHz
PLC: Power Line Conducted Emission
APCM: Antenna Port Conducted Measurement

Note:
1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-axis.**
2. Radiated emission test (below 1GHz) chosen the worst maximum power.
3. No need to concern of Conducted Emission due to the EUT is powered by battery.
4. "-": Means no effect.

Radiated Emission Test (Above 1GHz):

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

EUT Configure Mode	Available Channel	Tested Channel	Data Rate (kbps)	Modulation Type
A	1	904MHz	80	half-sine shaped OQPSK
			500	2GFSK
A	12	915MHz	80	half-sine shaped OQPSK
			500	2GFSK
A	23	926MHz	80	half-sine shaped OQPSK
			500	2GFSK

Radiated Emission Test (Below 1GHz):

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

EUT Configure Mode	Available Channel	Tested Channel	Data Rate (kbps)	Modulation Type
A, B	1	904MHz	80	half-sine shaped OQPSK
			500	2GFSK
A, B	12	915MHz	80	half-sine shaped OQPSK
			500	2GFSK
A, B	23	926MHz	80	half-sine shaped OQPSK
			500	2GFSK

Antenna Port Conducted Measurement:

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

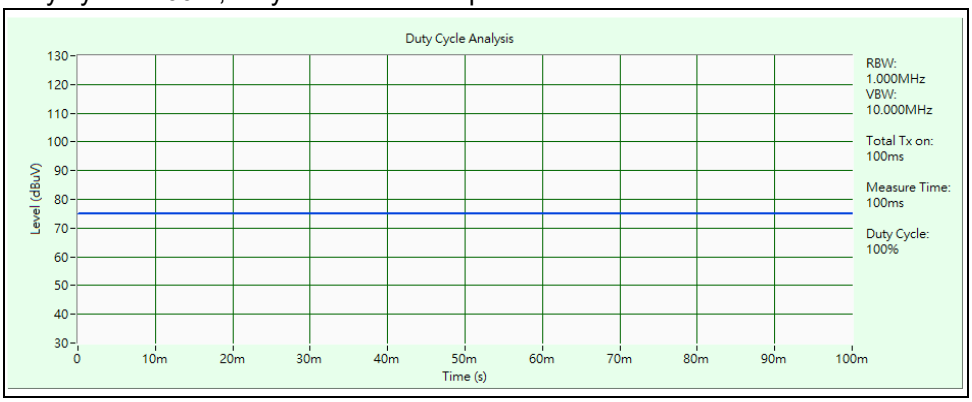
EUT Configure Mode	Available Channel	Tested Channel	Data Rate (kbps)	Modulation Type
A	1	904MHz	80	half-sine shaped OQPSK
			500	2GFSK
A	12	915MHz	80	half-sine shaped OQPSK
			500	2GFSK
A	23	926MHz	80	half-sine shaped OQPSK
			500	2GFSK

Test Condition:

Applicable to	Environmental Conditions	Input Power	Tested by
RE≥1G	19 deg. C, 63% RH	7.2Vdc	Edison Lee
RE<1G	19 deg. C, 63% RH	7.2Vdc	Edison Lee
APCM	25 deg. C, 60% RH	7.2Vdc	Jisyong Wang

3.3 Duty Cycle of Test Signal

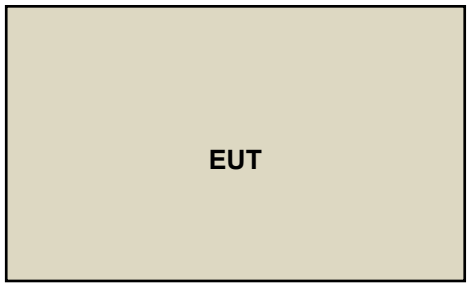
Duty cycle =100%, duty factor is not required.



3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units.

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards and References

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)

ANSI C63.10-2013

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

References Test Guidance:

KDB 558074 D01 15.247 Meas Guidance v05r02

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

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 20dB 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 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.1.2 Test Instruments

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
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
EMI Test Receiver R&S	ESR3	102782	2022/12/12	2023/12/11
Signal & Spectrum Analyzer R&S	FSW43	101866	2023/1/10	2024/1/9
Loop Antenna Electro-Metrics	EM-6879	269	2022/9/19	2023/9/18
Preamplifier EMCI	EMC001340	980201	2022/9/23	2023/9/22
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2023/1/7	2024/1/6
Preamplifier EMCI	EMC330N	980782	2023/1/16	2024/1/15
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-1213	2022/10/20	2023/10/19
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-500	201233	2023/1/16	2024/1/15
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-3000	201235	2023/1/16	2024/1/15
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-9000	201236(with PAD)	2023/1/16	2024/1/15
Horn Antenna RFSPIN	DRH18-E	210103A18E	2022/11/13	2023/11/12
Preamplifier EMCI	EMC118A45SE	980808	2022/12/29	2023/12/28
RF Coaxial Cable EMCI	EMC104-SM-SM-1000	210102	2023/1/16	2024/1/15
RF Coaxial Cable EMCI	EMC104-SM-SM-3000	201231	2023/1/16	2024/1/15
RF Coaxial Cable EMCI	EMC104-SM-SM-9000	201243	2023/1/16	2024/1/15
Preamplifier EMCI	EMC184045SE	980788	2023/1/16	2024/1/15
Horn Antenna Schwarzbeck	BBHA 9170	9170-1049	2022/11/13	2023/11/12
RF Coaxial Cable EMCI	EMC101G-KM-KM-5000	201260	2023/1/16	2024/1/15
RF Coaxial Cable EMCI	EMC101G-KM-KM-3000	201257	2023/1/16	2024/1/15
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201254	2023/1/16	2024/1/15
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY55190004/ MY55190007/MY55210005	2022/7/13	2023/7/10
			2023/7/19	2023/7/18
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA

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

4.1.3 Test Procedures

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

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

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) 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 ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.

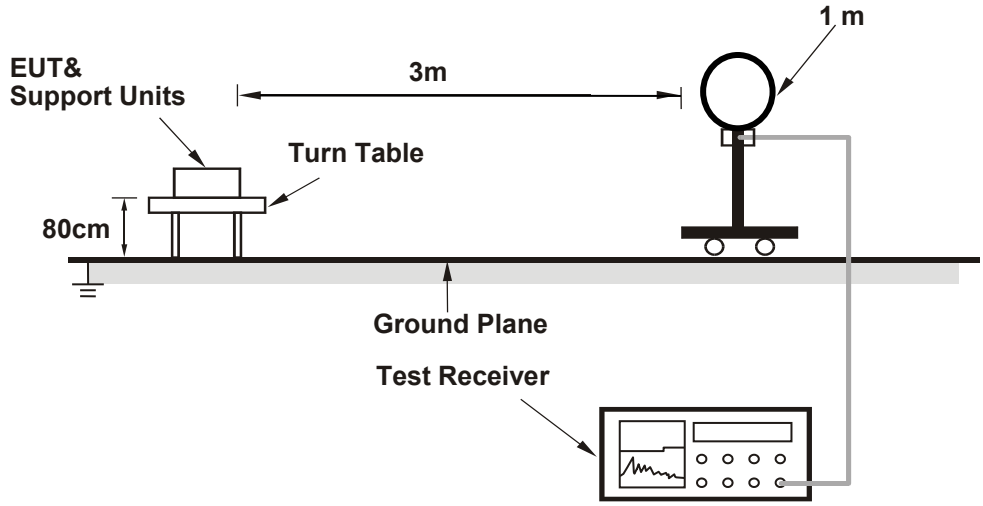
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

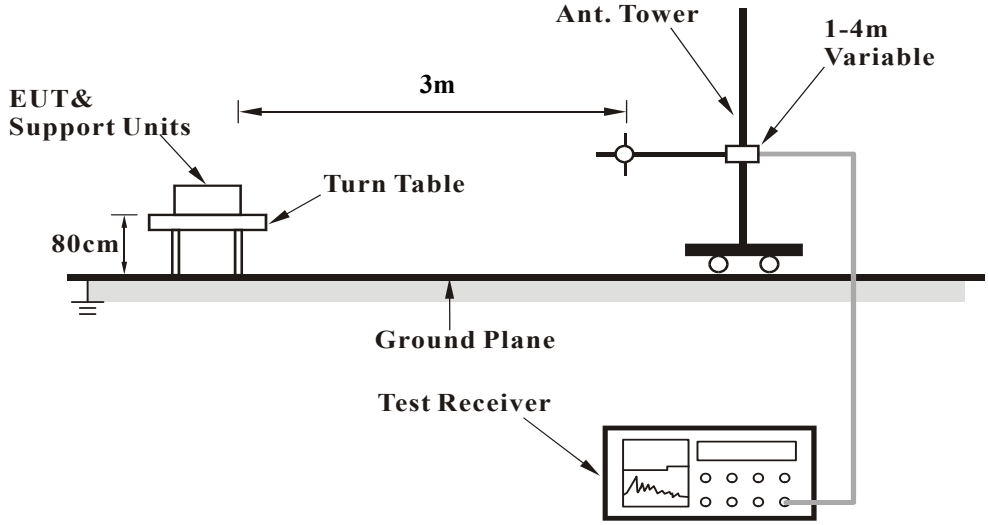
No deviation.

4.1.5 Test Setup

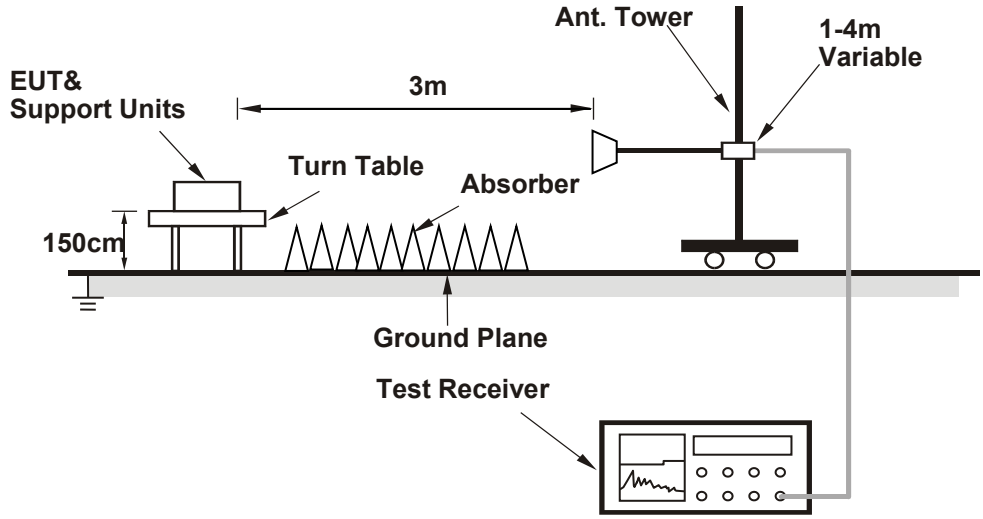
For Radiated emission below 30MHz



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

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

4.1.7 Test Results

CHANNEL	TX Channel 1	DATA RATE	80kbps
FREQUENCY RANGE	902MHz ~ 928MHz	DETECTOR FUNCTION	Quasi-Peak (QP) Peak (PK)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	902.00	61.3 QP	98.4	-37.1	1.00 H	225	31.5	29.8
2	*904.00	117.7 QP			1.00 H	225	87.8	29.9
3	*904.00	118.4 PK			1.00 H	225	88.5	29.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	902.00	57.5 QP	92.0	-34.5	1.67 V	266	27.7	29.8
2	*904.00	111.1 QP			1.67 V	266	81.2	29.9
3	*904.00	112.0 PK			1.67 V	266	82.1	29.9

Remarks:

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

CHANNEL	TX Channel 12	DATA RATE	80kbps
FREQUENCY RANGE	902MHz ~ 928MHz	DETECTOR FUNCTION	Quasi-Peak (QP) Peak (PK)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*915.00	116.5 QP			1.00 H	228	86.4	30.1
2	*915.00	117.6 PK			1.00 H	228	87.5	30.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*915.00	110.3 QP			2.73 V	271	80.2	30.1
2	*915.00	111.6 PK			2.73 V	271	81.5	30.1

Remarks:

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

CHANNEL	TX Channel 23	DATA RATE	80kbps
FREQUENCY RANGE	902MHz ~ 928MHz	DETECTOR FUNCTION	Quasi-Peak (QP) Peak (PK)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*926.00	115.3 QP			1.00 H	333	85.0	30.3
2	*926.00	116.6 PK			1.00 H	333	86.3	30.3
3	928.00	60.7 QP	96.6	-35.9	1.00 H	333	30.4	30.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*926.00	110.0 QP			2.70 V	271	79.7	30.3
2	*926.00	110.7 PK			2.70 V	271	80.4	30.3
3	928.00	58.1 QP	90.7	-32.6	2.70 V	271	27.8	30.3

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 1	DATA RATE	500kbps
FREQUENCY RANGE	902MHz ~ 928MHz	DETECTOR FUNCTION	Quasi-Peak (QP) Peak (PK)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	902.00	60.8 QP	98.9	-38.1	1.00 H	231	31.0	29.8
2	*904.00	117.6 QP			1.00 H	231	87.7	29.9
3	*904.00	118.9 PK			1.00 H	231	89.0	29.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	902.00	56.8 QP	92.1	-35.3	1.67 V	256	27.0	29.8
2	*904.00	110.9 QP			1.67 V	256	81.0	29.9
3	*904.00	112.1 PK			1.67 V	256	82.2	29.9

Remarks:

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

CHANNEL	TX Channel 12	DATA RATE	500kbps
FREQUENCY RANGE	902MHz ~ 928MHz	DETECTOR FUNCTION	Quasi-Peak (QP) Peak (PK)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*915.00	116.6 QP			1.00 H	227	86.5	30.1
2	*915.00	117.8 PK			1.00 H	227	87.7	30.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*915.00	110.5 QP			2.70 V	269	80.4	30.1
2	*915.00	111.7 PK			2.70 V	269	81.6	30.1

Remarks:

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

CHANNEL	TX Channel 23	DATA RATE	500kbps
FREQUENCY RANGE	902MHz ~ 928MHz	DETECTOR FUNCTION	Quasi-Peak (QP) Peak (PK)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*926.00	115.4 QP			1.00 H	337	85.1	30.3
2	*926.00	116.3 PK			1.00 H	337	86.0	30.3
3	928.00	61.2 QP	96.3	-35.1	1.00 H	337	30.9	30.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*926.00	110.2 QP			2.68 V	271	79.9	30.3
2	*926.00	110.8 PK			2.68 V	271	80.5	30.3
3	928.00	57.8 QP	90.8	-33.0	2.68 V	271	27.5	30.3

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value.
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Above 1GHz Data

CHANNEL	TX Channel 1	DATA RATE	80kbps
FREQUENCY RANGE	1GHz ~ 10GHz	DETECTOR FUNCTION	Peak (PK) Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#1808.00	61.5 PK	98.4	-36.9	1.90 H	195	67.2	-5.7
2	#1808.00	58.8 AV	78.4	-19.6	1.90 H	195	64.5	-5.7
3	2712.00	44.8 PK	74.0	-29.2	1.83 H	185	47.3	-2.5
4	2712.00	35.9 AV	54.0	-18.1	1.83 H	185	38.4	-2.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#1808.00	57.8 PK	92.0	-34.2	2.92 V	259	63.5	-5.7
2	#1808.00	55.0 AV	72.0	-17.0	2.92 V	259	60.7	-5.7
3	2712.00	44.3 PK	74.0	-29.7	2.93 V	267	46.8	-2.5
4	2712.00	35.1 AV	54.0	-18.9	2.93 V	267	37.6	-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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value.
5. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 12	DATA RATE	80kbps
FREQUENCY RANGE	1GHz ~ 10GHz	DETECTOR FUNCTION	Peak (PK) Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#1830.00	58.1 PK	97.6	-39.5	1.52 H	188	63.7	-5.6
2	#1830.00	55.1 AV	77.6	-22.5	1.52 H	188	60.7	-5.6
3	2745.00	44.6 PK	74.0	-29.4	1.66 H	178	47.0	-2.4
4	2745.00	35.6 AV	54.0	-18.4	1.66 H	178	38.0	-2.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#1830.00	54.8 PK	91.6	-36.8	2.87 V	251	60.4	-5.6
2	#1830.00	51.3 AV	71.6	-20.3	2.87 V	251	56.9	-5.6
3	2745.00	44.1 PK	74.0	-29.9	2.86 V	269	46.5	-2.4
4	2745.00	34.8 AV	54.0	-19.2	2.86 V	269	37.2	-2.4

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value.
5. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 23	DATA RATE	80kbps
FREQUENCY RANGE	1GHz ~ 10GHz	DETECTOR FUNCTION	Peak (PK) Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#1852.00	55.2 PK	96.6	-41.4	1.47 H	192	60.7	-5.5
2	#1852.00	52.2 AV	76.6	-24.4	1.47 H	192	57.7	-5.5
3	2778.00	44.5 PK	74.0	-29.5	1.44 H	188	46.7	-2.2
4	2778.00	35.3 AV	54.0	-18.7	1.44 H	188	37.5	-2.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#1852.00	51.9 PK	90.7	-38.8	3.24 V	260	57.4	-5.5
2	#1852.00	48.1 AV	70.7	-22.6	3.24 V	260	53.6	-5.5
3	2778.00	44.4 PK	74.0	-29.6	3.45 V	254	46.6	-2.2
4	2778.00	34.3 AV	54.0	-19.7	3.45 V	254	36.5	-2.2

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value.
5. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 1	DATA RATE	500kbps
FREQUENCY RANGE	1GHz ~ 10GHz	DETECTOR FUNCTION	Peak (PK) Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#1808.00	61.8 PK	98.9	-37.1	1.84 H	186	67.5	-5.7
2	#1808.00	59.0 AV	78.9	-19.9	1.84 H	186	64.7	-5.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#1808.00	58.8 PK	92.1	-33.3	2.93 V	253	64.5	-5.7
2	#1808.00	56.1 AV	72.1	-16.0	2.93 V	253	61.8	-5.7

Remarks:

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

CHANNEL	TX Channel 12	DATA RATE	500kbps
FREQUENCY RANGE	1GHz ~ 10GHz	DETECTOR FUNCTION	Peak (PK) Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#1830.00	58.5 PK	97.8	-39.3	1.50 H	186	64.1	-5.6
2	#1830.00	55.4 AV	77.8	-22.4	1.50 H	186	61.0	-5.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#1830.00	55.0 PK	91.7	-36.7	2.88 V	254	60.6	-5.6
2	#1830.00	51.6 AV	71.7	-20.1	2.88 V	254	57.2	-5.6

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value.
5. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 23	DATA RATE	500kbps
FREQUENCY RANGE	1GHz ~ 10GHz	DETECTOR FUNCTION	Peak (PK) Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#1852.00	55.6 PK	96.3	-40.7	1.46 H	188	61.1	-5.5
2	#1852.00	52.7 AV	76.3	-23.6	1.46 H	188	58.2	-5.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#1852.00	52.5 PK	90.8	-38.3	3.30 V	258	58.0	-5.5
2	#1852.00	48.8 AV	70.8	-22.0	3.30 V	258	54.3	-5.5

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. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value.
5. " # ": The radiated frequency is out of the restricted band.

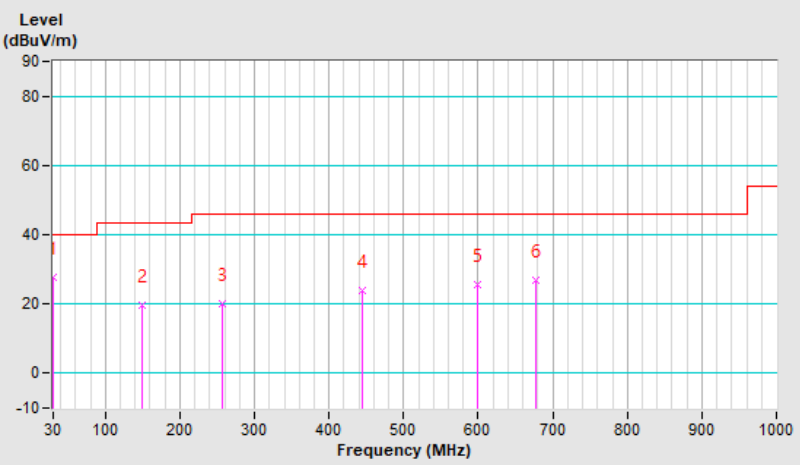
Below 1GHz worst-case data:

CHANNEL	TX Channel 1	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	27.6 QP	40.0	-12.4	1.00 H	123	42.2	-14.6
2	148.34	19.7 QP	43.5	-23.8	1.00 H	107	32.9	-13.2
3	256.01	20.0 QP	46.0	-26.0	1.50 H	194	34.5	-14.5
4	445.16	23.8 QP	46.0	-22.2	2.00 H	148	32.7	-8.9
5	599.39	25.6 QP	46.0	-20.4	1.50 H	167	31.2	-5.6
6	676.99	26.7 QP	46.0	-19.3	1.00 H	228	31.2	-4.5

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

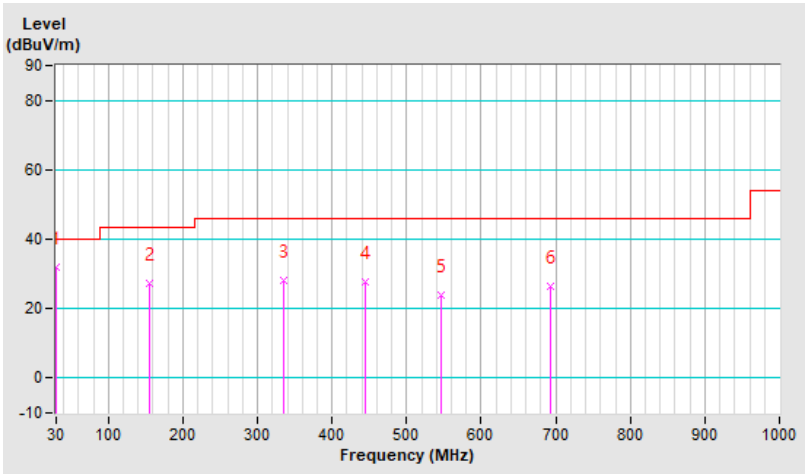


CHANNEL	TX Channel 1	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	31.8 QP	40.0	-8.2	2.00 V	105	46.2	-14.4
2	155.13	27.3 QP	43.5	-16.2	1.00 V	192	40.3	-13.0
3	334.58	28.0 QP	46.0	-18.0	1.00 V	162	39.7	-11.7
4	445.16	27.8 QP	46.0	-18.2	1.50 V	204	36.7	-8.9
5	546.04	24.0 QP	46.0	-22.0	1.00 V	138	31.1	-7.1
6	693.48	26.4 QP	46.0	-19.6	1.50 V	312	30.5	-4.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

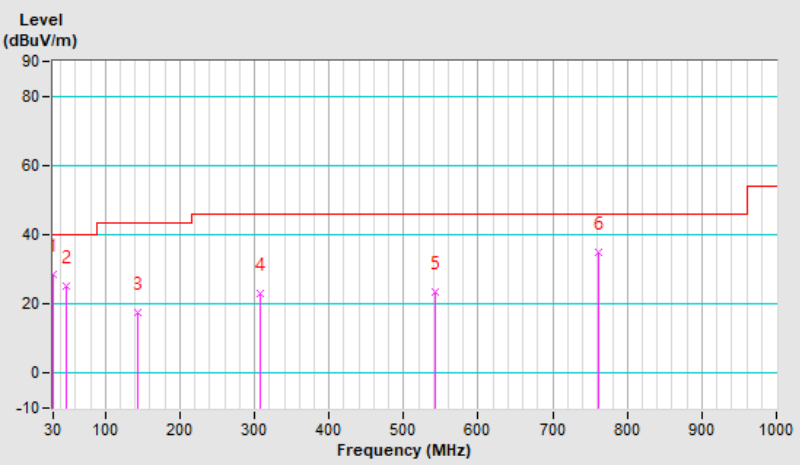


CHANNEL	TX Channel 12	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	28.4 QP	40.0	-11.6	1.50 H	130	43.0	-14.6
2	48.43	25.0 QP	40.0	-15.0	1.00 H	263	38.1	-13.1
3	142.52	17.4 QP	43.5	-26.1	2.00 H	18	30.8	-13.4
4	307.42	22.9 QP	46.0	-23.1	1.00 H	208	35.3	-12.4
5	542.16	23.6 QP	46.0	-22.4	2.00 H	284	30.8	-7.2
6	762.35	35.1 QP	46.0	-10.9	1.00 H	114	37.8	-2.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

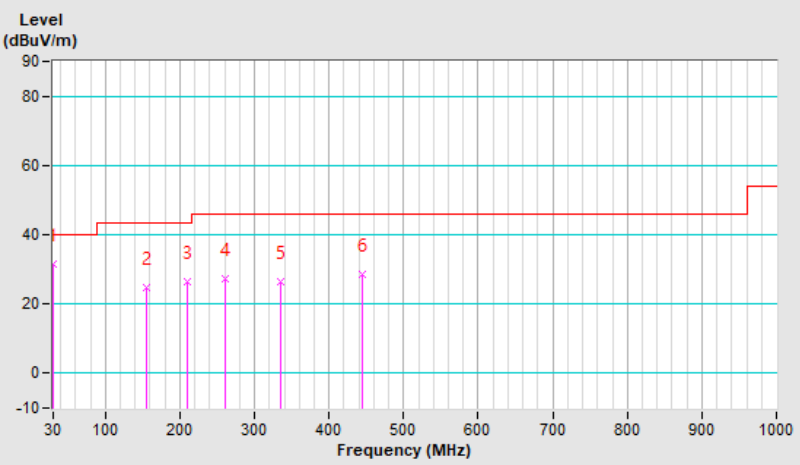


CHANNEL	TX Channel 12	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	31.5 QP	40.0	-8.5	1.50 V	271	45.9	-14.4
2	155.13	24.6 QP	43.5	-18.9	1.00 V	126	37.6	-13.0
3	209.45	26.5 QP	43.5	-17.0	1.00 V	171	43.5	-17.0
4	259.89	27.5 QP	46.0	-18.5	2.00 V	346	41.7	-14.2
5	334.58	26.4 QP	46.0	-19.6	2.00 V	143	38.1	-11.7
6	445.16	28.4 QP	46.0	-17.6	1.00 V	107	37.3	-8.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

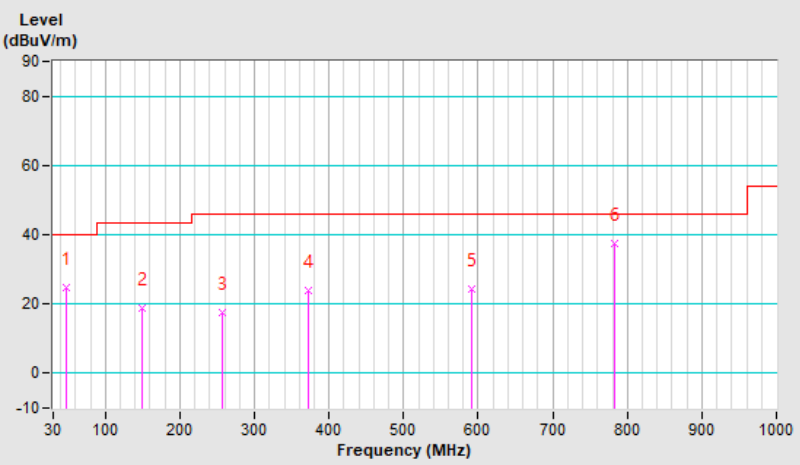


CHANNEL	TX Channel 23	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	48.43	24.8 QP	40.0	-15.2	2.00 H	82	37.9	-13.1
2	148.34	18.9 QP	43.5	-24.6	1.00 H	149	32.1	-13.2
3	256.01	17.6 QP	46.0	-28.4	1.50 H	15	32.1	-14.5
4	371.44	24.0 QP	46.0	-22.0	1.00 H	117	35.0	-11.0
5	591.63	24.3 QP	46.0	-21.7	2.00 H	248	30.1	-5.8
6	783.69	37.6 QP	46.0	-8.4	1.00 H	128	40.2	-2.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

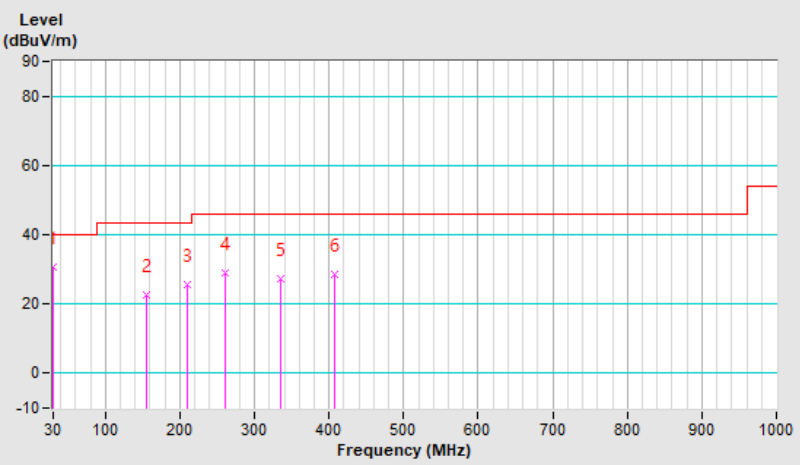


CHANNEL	TX Channel 23	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	30.8 QP	40.0	-9.2	1.00 V	2	45.2	-14.4
2	155.13	22.8 QP	43.5	-20.7	1.00 V	42	35.8	-13.0
3	209.45	25.4 QP	43.5	-18.1	1.50 V	189	42.4	-17.0
4	259.89	28.9 QP	46.0	-17.1	2.00 V	36	43.1	-14.2
5	334.58	27.3 QP	46.0	-18.7	1.00 V	262	39.0	-11.7
6	408.30	28.6 QP	46.0	-17.4	1.00 V	267	38.7	-10.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

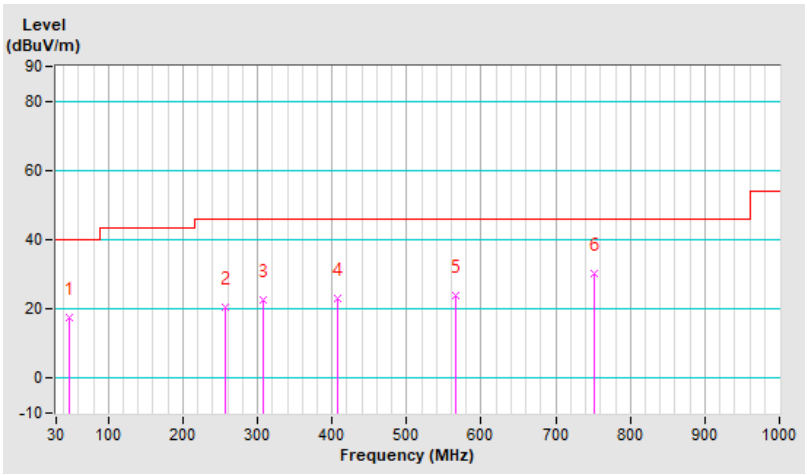


CHANNEL	TX Channel 1	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	48.43	17.5 QP	40.0	-22.5	2.00 H	2	30.6	-13.1
2	256.01	20.7 QP	46.0	-25.3	1.00 H	66	35.2	-14.5
3	307.42	22.8 QP	46.0	-23.2	2.00 H	191	35.2	-12.4
4	408.30	22.9 QP	46.0	-23.1	1.00 H	294	33.0	-10.1
5	565.44	23.7 QP	46.0	-22.3	1.00 H	99	30.4	-6.7
6	750.71	30.3 QP	46.0	-15.7	1.50 H	71	33.1	-2.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

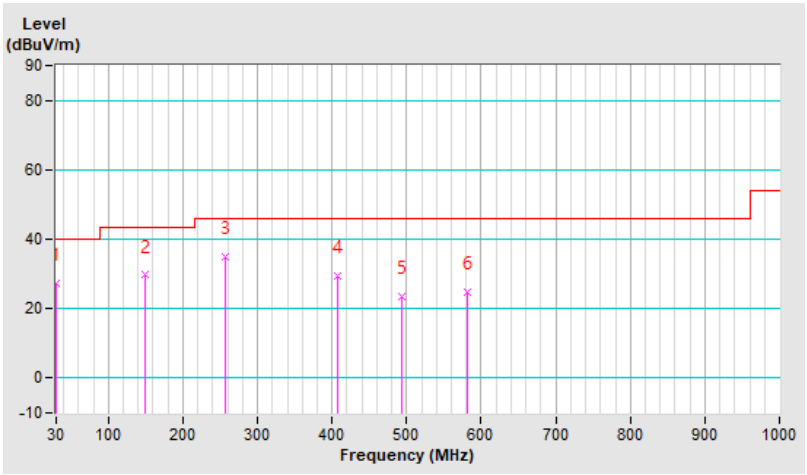


CHANNEL	TX Channel 1	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	27.3 QP	40.0	-12.7	2.00 V	59	41.9	-14.6
2	148.34	29.6 QP	43.5	-13.9	1.00 V	30	42.8	-13.2
3	256.01	34.9 QP	46.0	-11.1	1.00 V	20	49.4	-14.5
4	408.30	29.6 QP	46.0	-16.4	1.50 V	125	39.7	-10.1
5	492.69	23.6 QP	46.0	-22.4	1.50 V	17	31.6	-8.0
6	581.93	24.6 QP	46.0	-21.4	1.00 V	104	30.7	-6.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

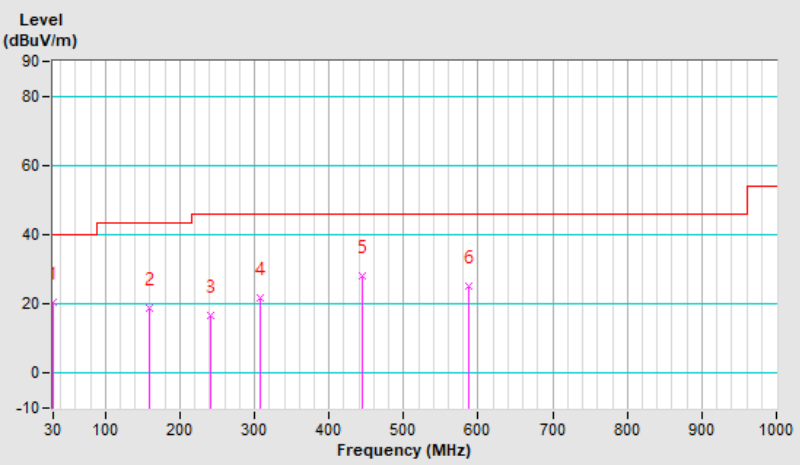


CHANNEL	TX Channel 12	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	20.6 QP	40.0	-19.4	1.50 H	328	35.2	-14.6
2	159.01	18.9 QP	43.5	-24.6	1.00 H	52	31.9	-13.0
3	240.49	16.5 QP	46.0	-29.5	1.50 H	19	31.3	-14.8
4	307.42	21.6 QP	46.0	-24.4	1.00 H	2	34.0	-12.4
5	445.16	28.2 QP	46.0	-17.8	2.00 H	133	37.1	-8.9
6	586.78	25.1 QP	46.0	-20.9	1.00 H	18	31.0	-5.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

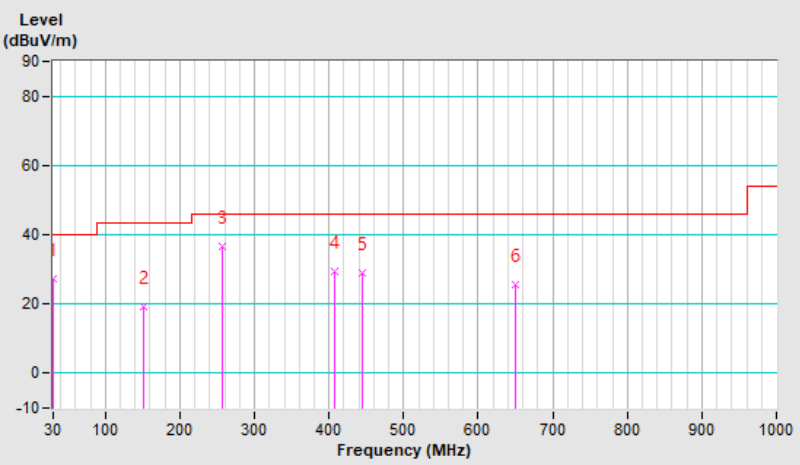


CHANNEL	TX Channel 12	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	27.5 QP	40.0	-12.5	1.50 V	112	42.1	-14.6
2	150.28	19.2 QP	43.5	-24.3	1.00 V	39	32.2	-13.0
3	256.01	36.8 QP	46.0	-9.2	1.50 V	34	51.3	-14.5
4	408.30	29.4 QP	46.0	-16.6	1.00 V	292	39.5	-10.1
5	445.16	28.9 QP	46.0	-17.1	1.50 V	198	37.8	-8.9
6	649.83	25.7 QP	46.0	-20.3	1.00 V	236	30.5	-4.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

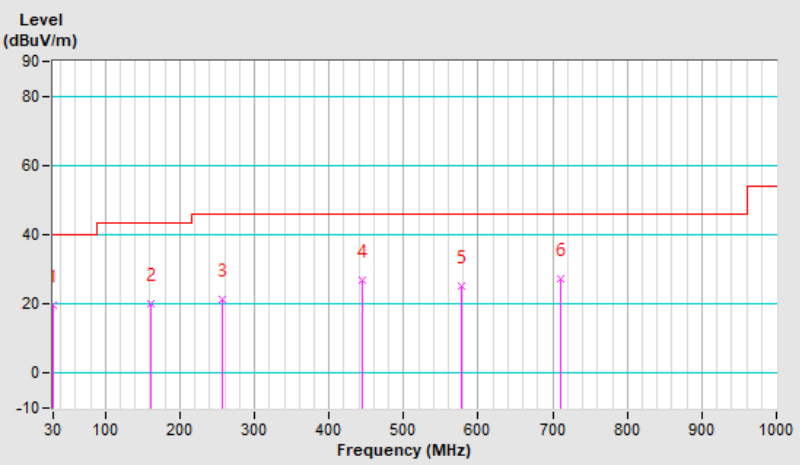


CHANNEL	TX Channel 23	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	19.8 QP	40.0	-20.2	2.00 H	297	34.4	-14.6
2	161.92	19.9 QP	43.5	-23.6	1.00 H	2	33.0	-13.1
3	256.01	21.3 QP	46.0	-24.7	1.50 H	48	35.8	-14.5
4	445.16	26.8 QP	46.0	-19.2	1.50 H	138	35.7	-8.9
5	577.08	25.1 QP	46.0	-20.9	1.00 H	288	31.4	-6.3
6	710.94	27.4 QP	46.0	-18.6	1.00 H	243	31.3	-3.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

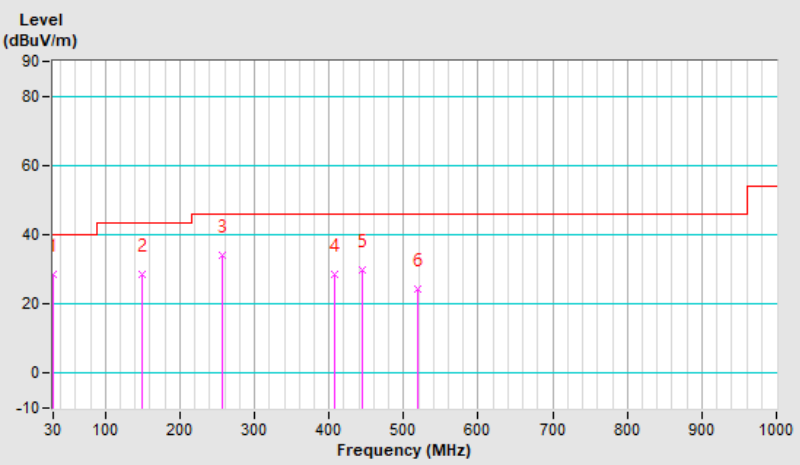


CHANNEL	TX Channel 23	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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	28.4 QP	40.0	-11.6	1.00 V	52	43.0	-14.6
2	148.34	28.5 QP	43.5	-15.0	2.00 V	44	41.7	-13.2
3	256.01	34.0 QP	46.0	-12.0	1.00 V	13	48.5	-14.5
4	408.30	28.5 QP	46.0	-17.5	1.50 V	132	38.6	-10.1
5	445.16	29.8 QP	46.0	-16.2	1.00 V	112	38.7	-8.9
6	519.85	24.5 QP	46.0	-21.5	1.00 V	124	32.1	-7.6

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

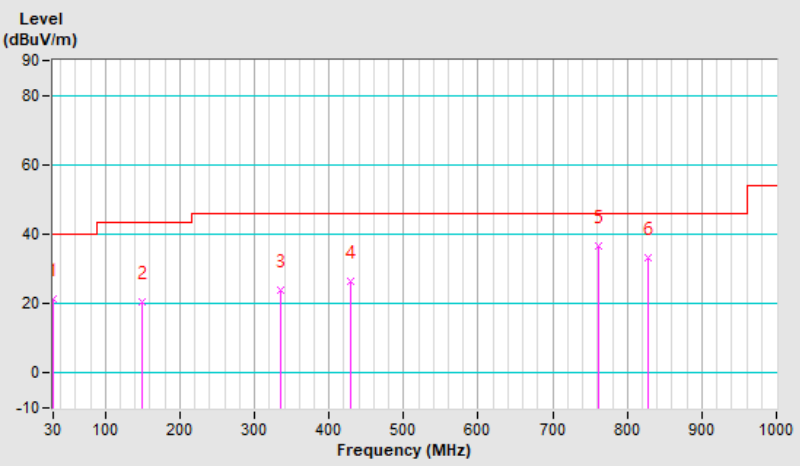


CHANNEL	TX Channel 1	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	21.36 QP	40.00	-18.64	1.51 H	209	35.99	-14.63
2	148.34	20.43 QP	43.50	-23.07	1.01 H	117	33.57	-13.14
3	334.58	23.80 QP	46.00	-22.20	1.01 H	193	35.52	-11.72
4	428.67	26.32 QP	46.00	-19.68	1.51 H	178	35.76	-9.44
5	762.35	36.61 QP	46.00	-9.39	1.01 H	18	39.36	-2.75
6	827.34	33.20 QP	46.00	-12.80	1.01 H	219	35.31	-2.11

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

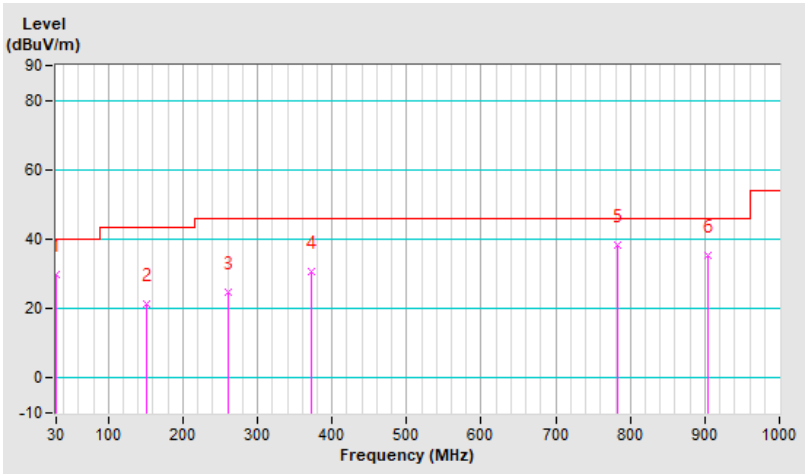


CHANNEL	TX Channel 1	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	29.64 QP	40.00	-10.36	1.49 V	193	44.08	-14.44
2	152.22	21.25 QP	43.50	-22.25	1.99 V	5	34.29	-13.04
3	259.89	24.91 QP	46.00	-21.09	1.00 V	347	39.15	-14.24
4	371.44	30.63 QP	46.00	-15.37	1.00 V	262	41.68	-11.05
5	783.69	38.14 QP	46.00	-7.86	1.00 V	256	40.74	-2.60
6	903.97	35.43 QP	46.00	-10.57	1.49 V	299	36.74	-1.31

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

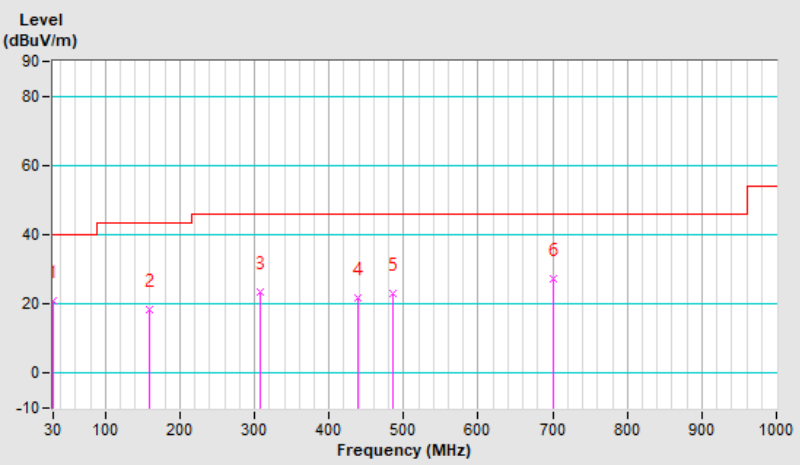


CHANNEL	TX Channel 12	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	20.78 QP	40.00	-19.22	2.00 H	127	35.22	-14.44
2	159.01	18.52 QP	43.50	-24.98	1.00 H	113	31.49	-12.97
3	307.42	23.40 QP	46.00	-22.60	1.50 H	3	35.88	-12.48
4	439.34	21.58 QP	46.00	-24.42	1.00 H	80	30.56	-8.98
5	484.93	23.17 QP	46.00	-22.83	1.50 H	275	31.30	-8.13
6	700.27	27.26 QP	46.00	-18.74	1.00 H	332	31.27	-4.01

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

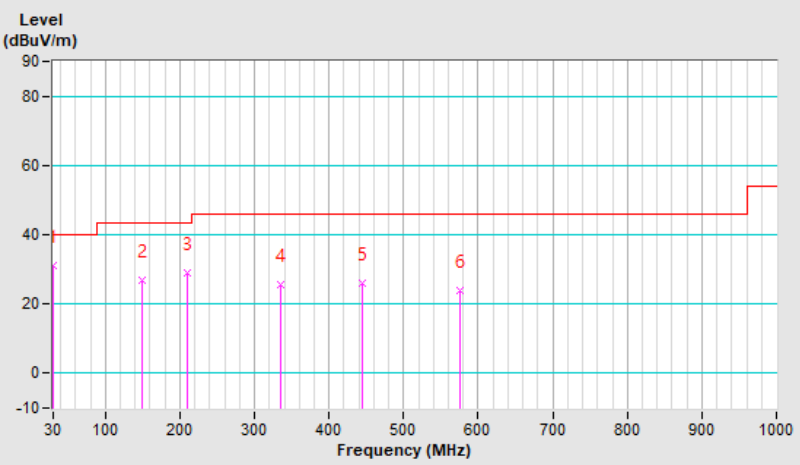


CHANNEL	TX Channel 12	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	31.16 QP	40.00	-8.84	1.00 V	277	45.60	-14.44
2	148.34	26.80 QP	43.50	-16.70	1.00 V	104	39.94	-13.14
3	209.45	28.98 QP	43.50	-14.52	1.00 V	108	45.87	-16.89
4	334.58	25.45 QP	46.00	-20.55	2.00 V	156	37.17	-11.72
5	445.16	25.96 QP	46.00	-20.04	1.50 V	111	34.78	-8.82
6	576.11	23.86 QP	46.00	-22.14	1.00 V	307	30.21	-6.35

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

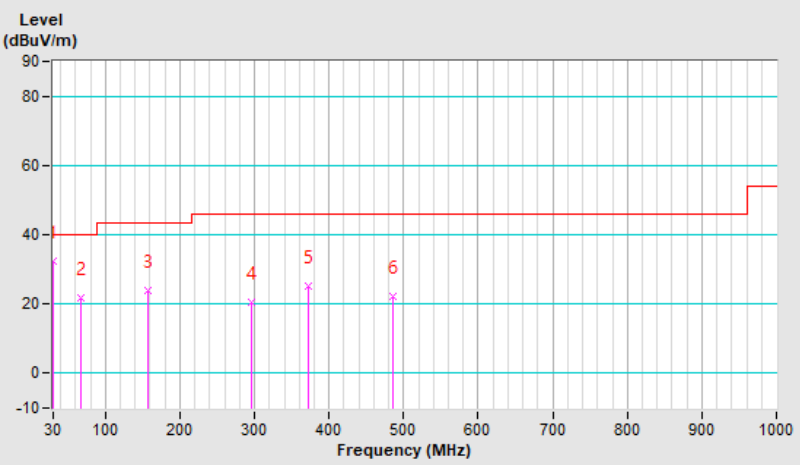


CHANNEL	TX Channel 23	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	32.20 QP	40.00	-7.80	2.00 H	296	46.60	-14.40
2	67.83	21.80 QP	40.00	-18.20	1.00 H	182	37.00	-15.20
3	157.07	24.10 QP	43.50	-19.40	2.00 H	202	37.00	-12.90
4	296.75	20.40 QP	46.00	-25.60	1.00 H	124	33.10	-12.70
5	371.44	25.20 QP	46.00	-20.80	1.50 H	253	36.20	-11.00
6	484.93	22.20 QP	46.00	-23.80	1.00 H	2	30.30	-8.10

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

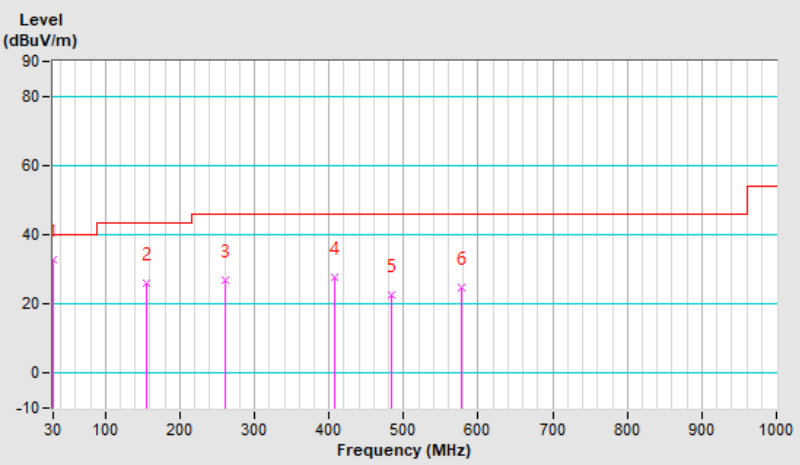


CHANNEL	TX Channel 23	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	32.80 QP	40.00	-7.20	2.00 V	242	47.20	-14.40
2	155.13	25.90 QP	43.50	-17.60	1.00 V	230	38.90	-13.00
3	259.89	27.00 QP	46.00	-19.00	1.00 V	197	41.20	-14.20
4	408.30	27.90 QP	46.00	-18.10	1.50 V	273	38.00	-10.10
5	482.99	22.70 QP	46.00	-23.30	1.50 V	128	30.90	-8.20
6	578.05	24.90 QP	46.00	-21.10	1.00 V	220	31.10	-6.20

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

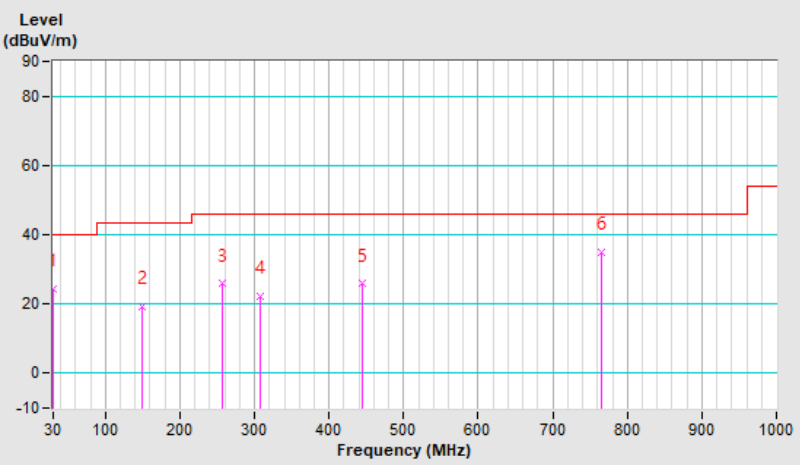


CHANNEL	TX Channel 1	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	24.2 QP	40.0	-15.8	1.51 H	2	38.8	-14.6
2	148.34	19.1 QP	43.5	-24.4	1.51 H	2	32.3	-13.2
3	256.01	25.8 QP	46.0	-20.2	2.00 H	98	40.3	-14.5
4	307.42	22.2 QP	46.0	-23.8	1.01 H	18	34.6	-12.4
5	445.16	25.8 QP	46.0	-20.2	2.00 H	120	34.7	-8.9
6	765.26	35.1 QP	46.0	-10.9	2.00 H	240	37.8	-2.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

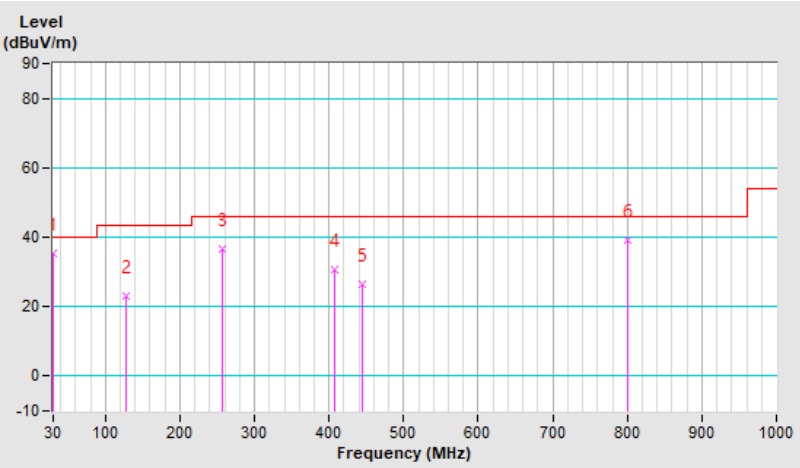


CHANNEL	TX Channel 1	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (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**	**35.3 QP**	**40.0**	**-4.7**	**2.00 V**	**42**	**49.9**	**-14.6**
2	127.97	22.9 QP	43.5	-20.6	1.00 V	209	37.5	-14.6
3	256.01	36.4 QP	46.0	-9.6	1.50 V	24	50.9	-14.5
4	408.30	30.7 QP	46.0	-15.3	1.00 V	299	40.8	-10.1
5	445.16	26.5 QP	46.0	-19.5	1.50 V	192	35.4	-8.9
6	800.18	39.0 QP	46.0	-7.0	1.99 V	102	41.5	-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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

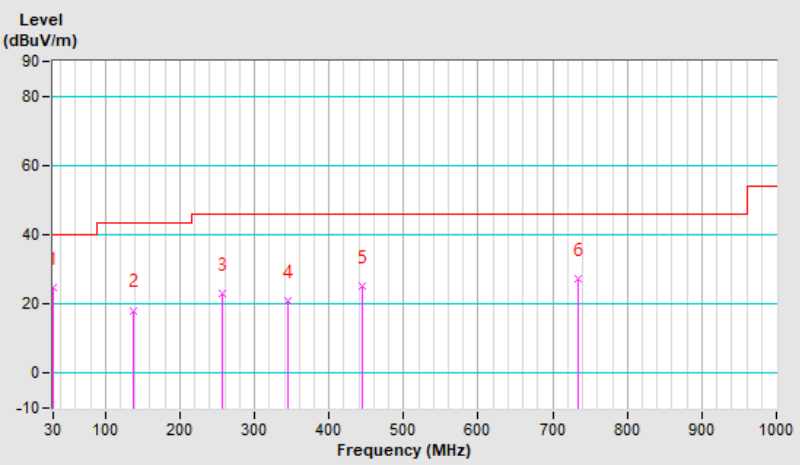


CHANNEL	TX Channel 12	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (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	24.8 QP	40.0	-15.2	2.00 H	116	39.4	-14.6
2	137.67	18.2 QP	43.5	-25.3	1.00 H	77	31.9	-13.7
3	256.01	22.9 QP	46.0	-23.1	1.00 H	71	37.4	-14.5
4	345.25	21.1 QP	46.0	-24.9	1.50 H	18	32.9	-11.8
5	445.16	25.3 QP	46.0	-20.7	1.50 H	129	34.2	-8.9
6	733.25	27.3 QP	46.0	-18.7	1.00 H	192	30.6	-3.3

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. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

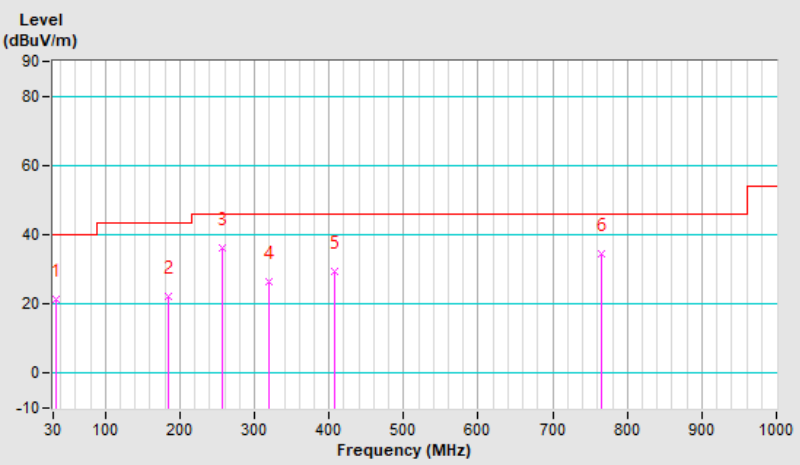


CHANNEL	TX Channel 12	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	34.85	21.5 QP	40.0	-18.5	2.00 V	118	35.7	-14.2
2	185.20	22.2 QP	43.5	-21.3	1.00 V	98	37.7	-15.5
3	256.01	36.2 QP	46.0	-9.8	1.00 V	21	50.7	-14.5
4	320.03	26.3 QP	46.0	-19.7	1.50 V	44	38.3	-12.0
5	408.30	29.6 QP	46.0	-16.4	1.00 V	128	39.7	-10.1
6	766.23	34.7 QP	46.0	-11.3	1.00 V	212	37.4	-2.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

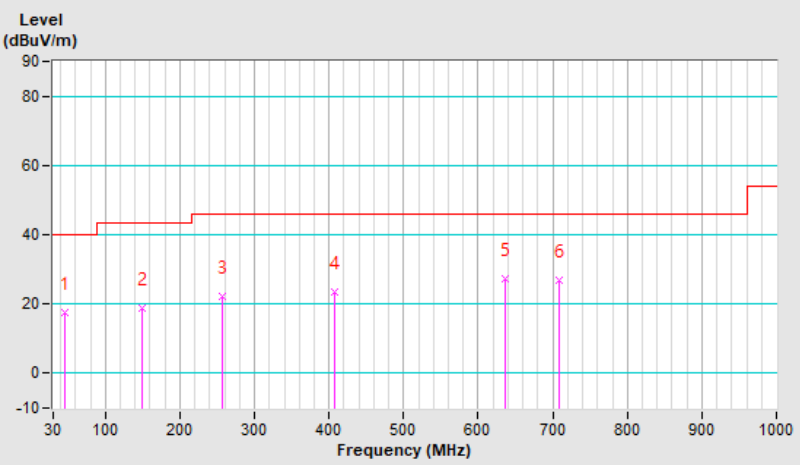


CHANNEL	TX Channel 23	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	45.52	17.4 QP	40.0	-22.6	2.00 H	123	30.6	-13.2
2	148.34	18.9 QP	43.5	-24.6	1.00 H	51	32.1	-13.2
3	256.01	22.1 QP	46.0	-23.9	1.00 H	100	36.6	-14.5
4	408.30	23.5 QP	46.0	-22.5	1.00 H	221	33.6	-10.1
5	636.25	27.4 QP	46.0	-18.6	1.50 H	200	32.4	-5.0
6	708.03	26.8 QP	46.0	-19.2	1.00 H	12	30.7	-3.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

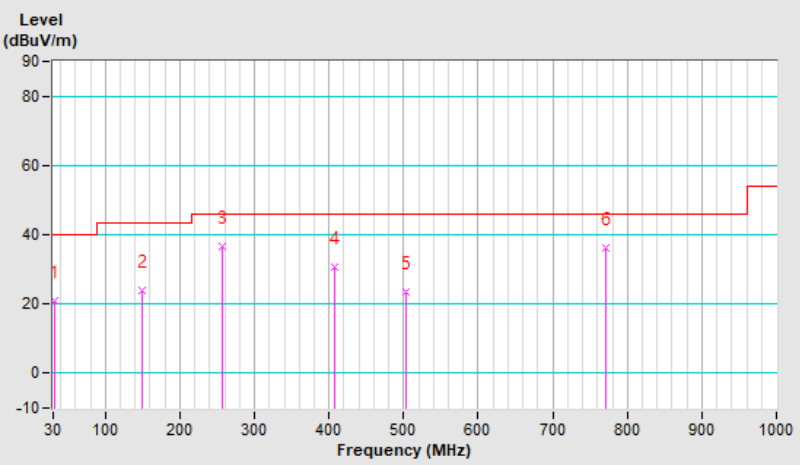


CHANNEL	TX Channel 23	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	31.94	20.9 QP	40.0	-19.1	2.00 V	171	35.3	-14.4
2	148.34	24.1 QP	43.5	-19.4	1.00 V	2	37.3	-13.2
3	256.01	36.8 QP	46.0	-9.2	2.00 V	20	51.3	-14.5
4	408.30	30.7 QP	46.0	-15.3	1.00 V	297	40.8	-10.1
5	502.39	23.3 QP	46.0	-22.7	1.00 V	250	31.2	-7.9
6	772.05	36.2 QP	46.0	-9.8	1.50 V	117	38.9	-2.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. The other emission levels were very low against the limit of frequency range 30MHz ~ 1000MHz.
4. Margin value = Emission Level – Limit value.
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.

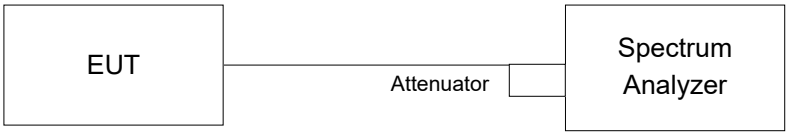


4.2 6dB Bandwidth Measurement

4.2.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

4.2.2 Test Setup



4.2.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.2.4 Test Procedure

a. Set resolution bandwidth (RBW) = 100kHz.

b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = peak.

c. Trace mode = max hold.

d. Sweep = auto couple.

e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.2.5 Deviation from Test Standard

No deviation.

4.2.6 EUT Operating Conditions

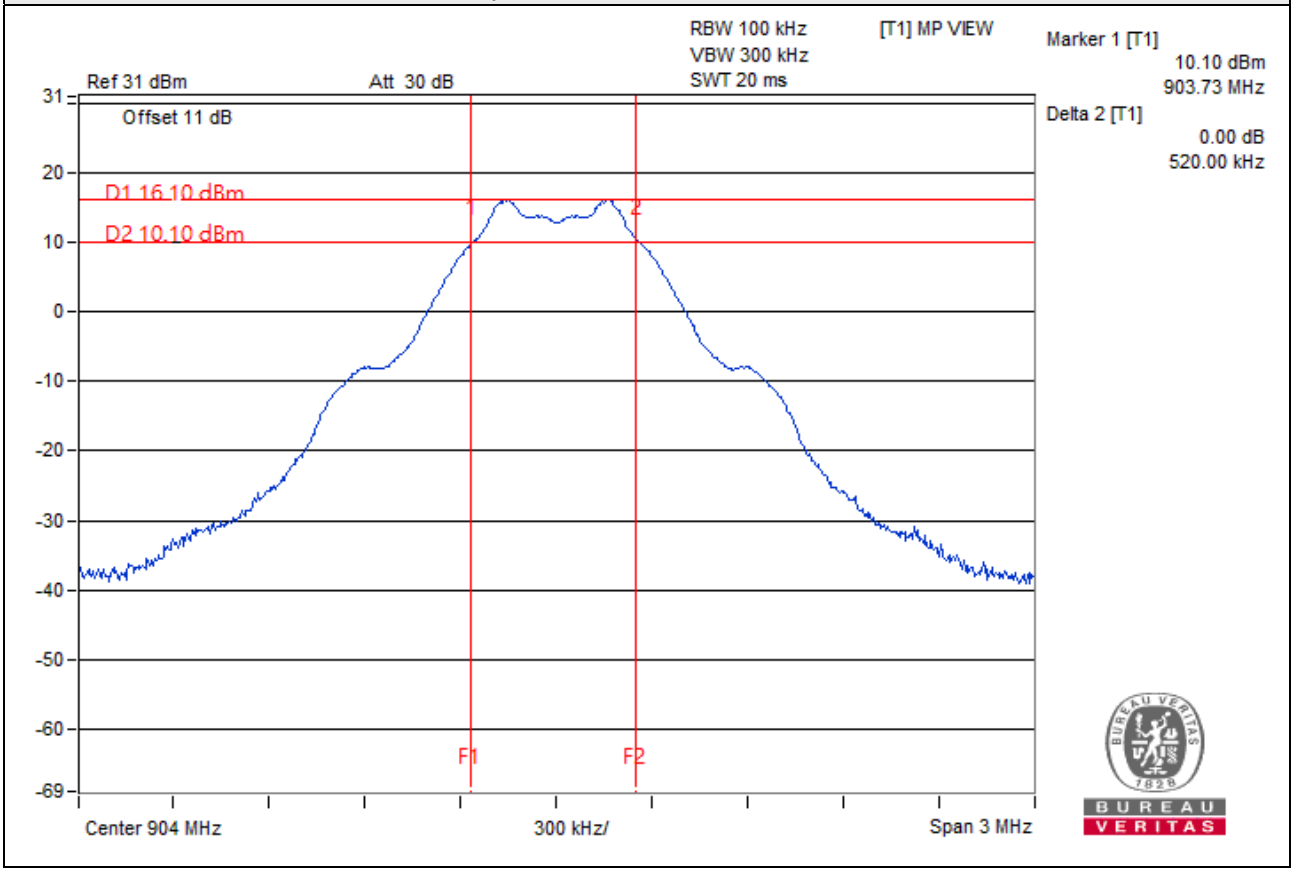
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.2.7 Test Result

Data Rate: 80kbps

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	904	0.52	0.5	Pass
12	915	0.52	0.5	Pass
23	926	0.52	0.5	Pass

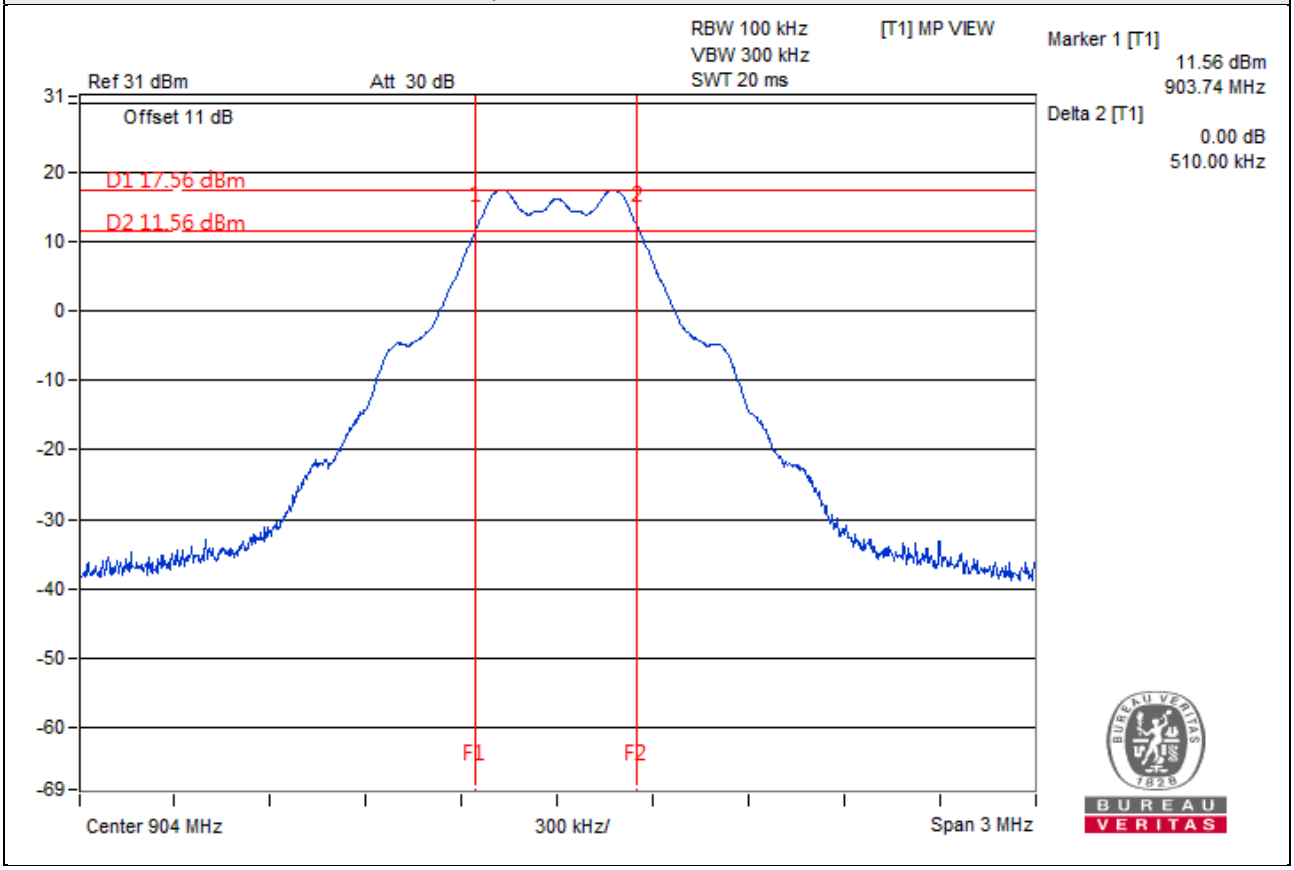
Spectrum Plot of Worst Value



Data Rate: 500kbps

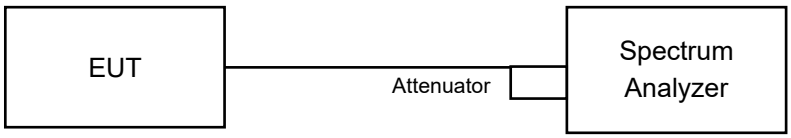
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
1	904	0.51	0.5	Pass
12	915	0.51	0.5	Pass
23	926	0.52	0.5	Pass

Spectrum Plot of Worst Value



4.3 Occupied Bandwidth Measurement

4.3.1 Test Setup



4.3.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

4.3.4 Deviation from Test Standard

No deviation.

4.3.5 EUT Operating Conditions

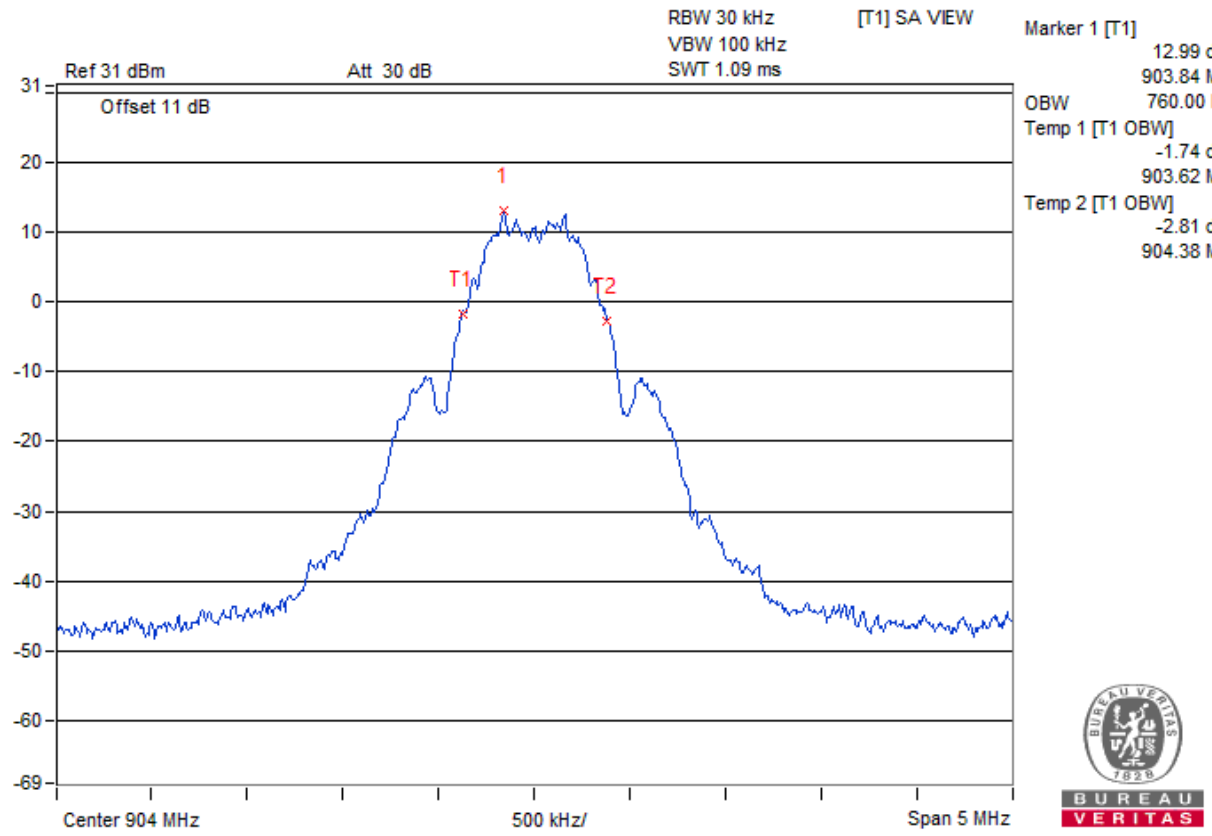
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.6 Test Results

Data Rate: 80kbps

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
1	904	0.76
12	915	0.76
23	926	0.76

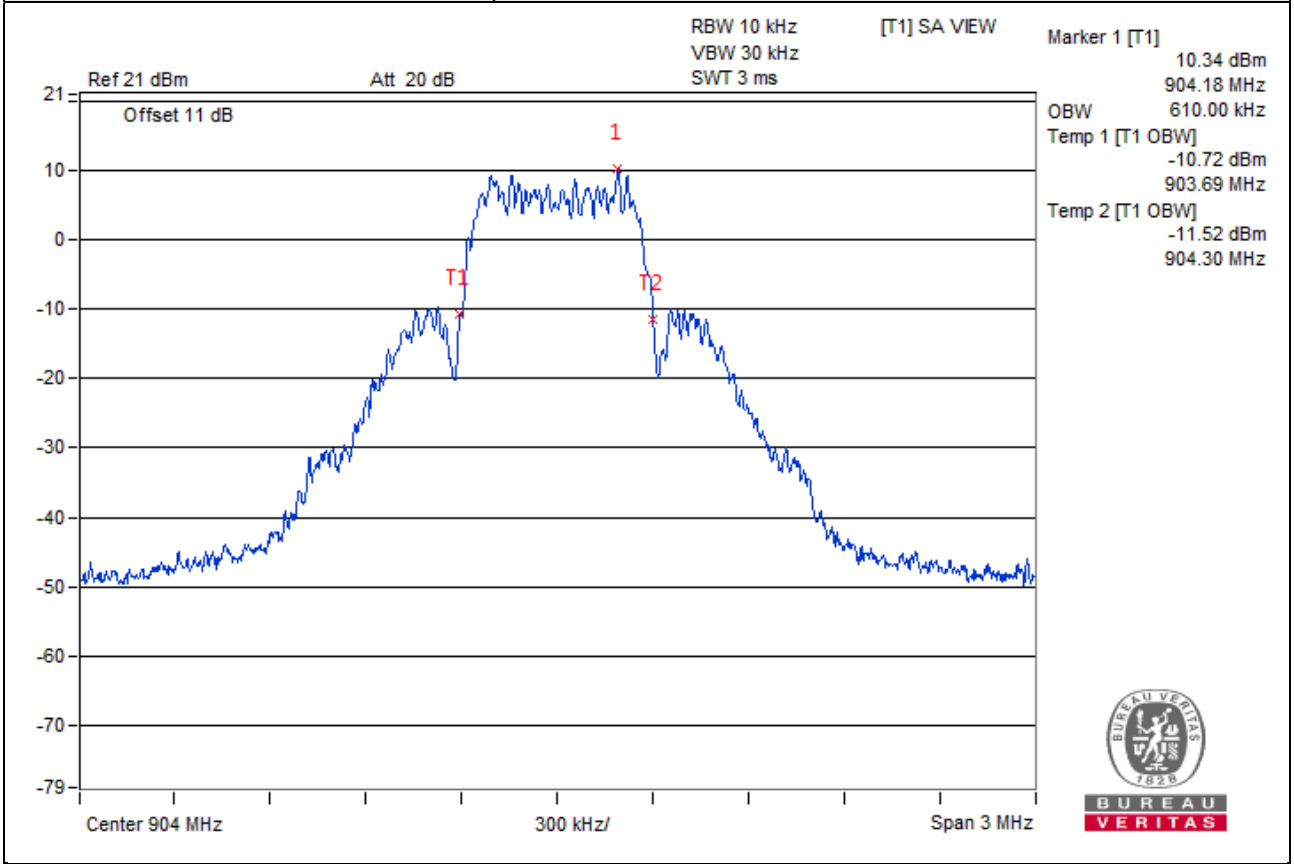
Spectrum Plot of Worst Value



Data Rate: 500kbps

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
1	904	0.61
12	915	0.61
23	926	0.61

Spectrum Plot of Worst Value



4.4 Conducted Output Power Measurement

4.4.1 Limits of Conducted Output Power Measurement

For systems using digital modulation in the 2400–2483.5 MHz bands: 1 Watt (30dBm)

4.4.2 Test Setup

4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

For Peak Power
A peak power sensor was used on the output port of the EUT. A power meter was used to read the response of the peak power sensor. Record the power level.

For Average Power
Average power sensor was used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as item 4.2.6.

4.4.7 Test Results

Data Rate: 80kbps

For Peak Power

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	904	49.774	16.97	30.00	Pass
12	915	49.545	16.95	30.00	Pass
23	926	49.431	16.94	30.00	Pass

For Average Power

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	904	48.865	16.89
12	915	48.978	16.90
23	926	48.865	16.89

Data Rate: 500kbps

For Peak Power

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	904	49.431	16.94	30.00	Pass
12	915	49.431	16.94	30.00	Pass
23	926	48.204	16.92	30.00	Pass

For Average Power

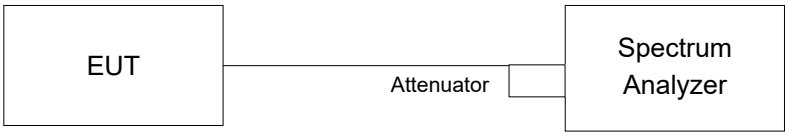
Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	904	48.865	16.89
12	915	48.978	16.90
23	926	48.753	16.88

4.5 Power Spectral Density Measurement

4.5.1 Limits of Power Spectral Density Measurement

The Maximum of Power Spectral Density Measurement is 8dBm per 3kHz.

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

a. Set analyzer center frequency to DTS channel center frequency.

b. Set the span to 1.5 times the DTS bandwidth.

c. Set the RBW to: 3 kHz ≤ RBW ≤ 100 kHz.

d. Set the VBW ≥ 3 × RBW.

e. Detector = peak.

f. Sweep time = auto couple.

g. Trace mode = max hold.

h. Allow trace to fully stabilize.

i. Use the peak marker function to determine the maximum amplitude level within the RBW.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

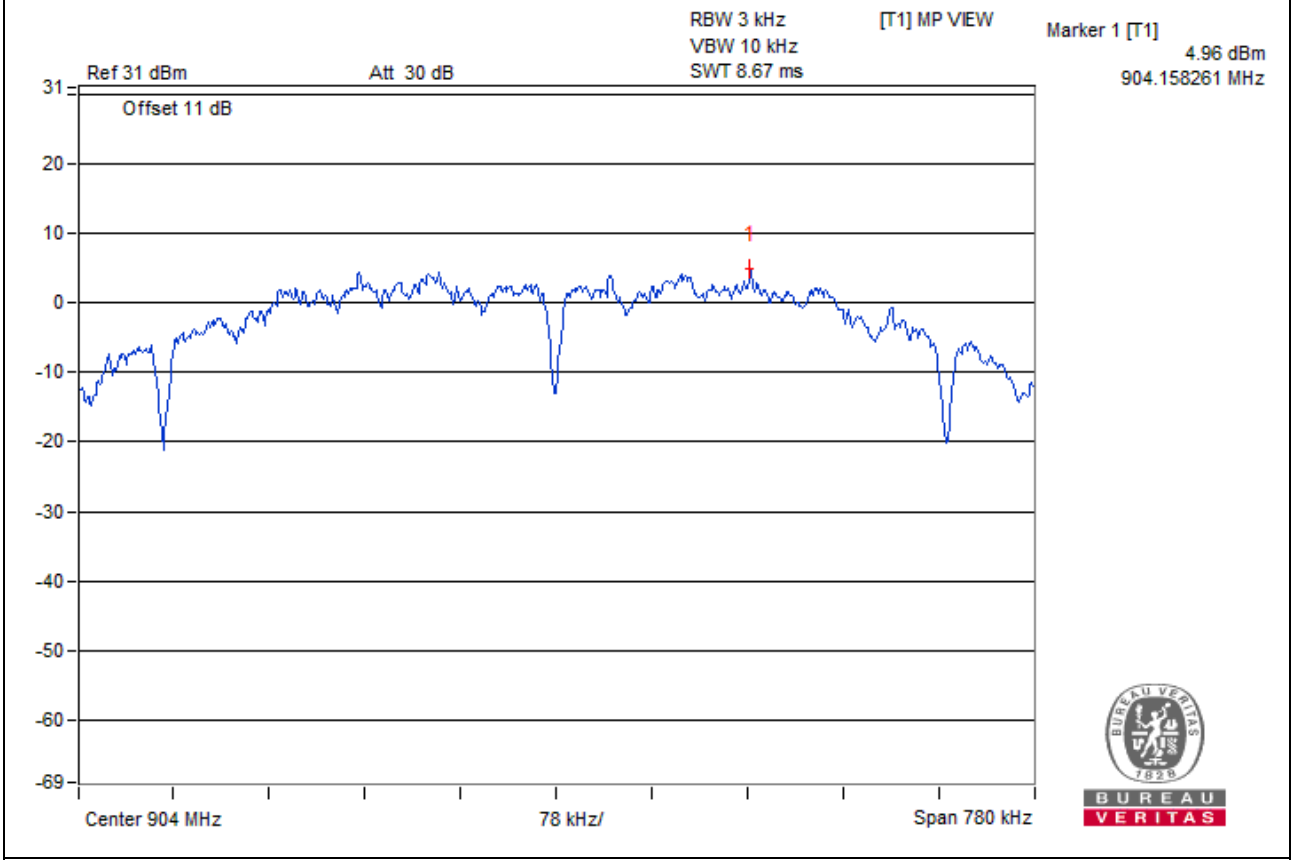
Same as item 4.2.6

4.5.7 Test Results

Data Rate: 80kbps

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
1	904	4.96	8.00	Pass
12	915	4.86	8.00	Pass
23	926	4.85	8.00	Pass

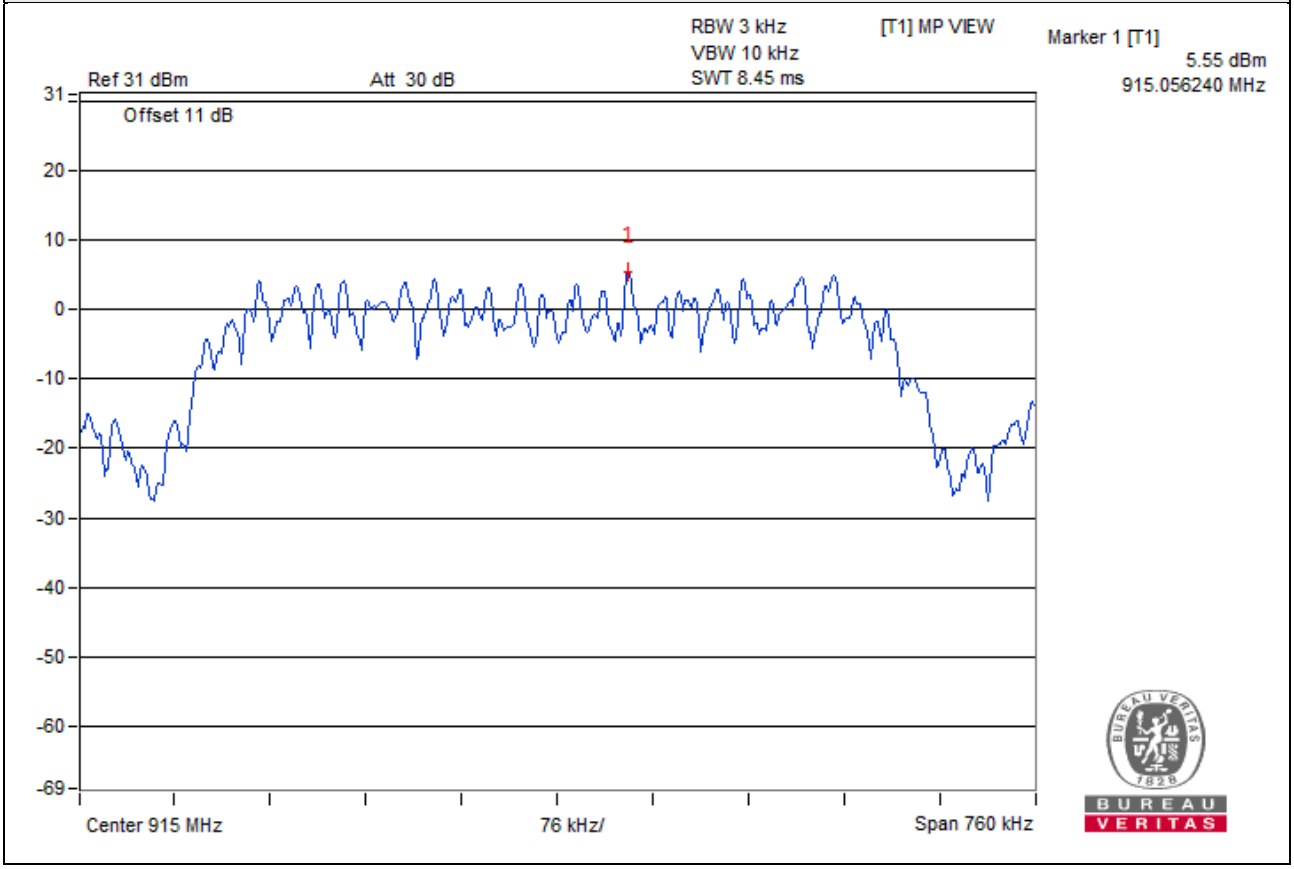
Spectrum Plot of Worst Value



Data Rate: 500kbps

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
1	904	5.34	8.00	Pass
12	915	5.55	8.00	Pass
23	926	5.33	8.00	Pass

Spectrum Plot of Worst Value

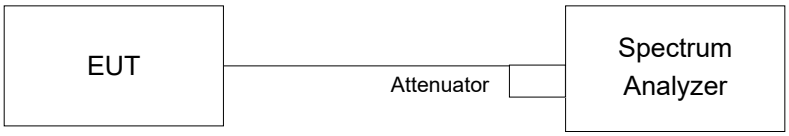


4.6 Conducted Out of Band Emission Measurement

4.6.1 Limits of Conducted Out of Band Emission Measurement

Below 20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

MEASUREMENT PROCEDURE REF

a. Set the RBW = 100 kHz.
b. Set the VBW ≥ 300 kHz.
c. Detector = peak.
d. Sweep time = auto couple.
e. Trace mode = max hold.
f. Allow trace to fully stabilize.
g. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOBE

a. Set RBW = 100 kHz.
b. Set VBW ≥ 300 kHz.
c. Detector = peak.
d. Sweep = auto couple.
e. Trace Mode = max hold.
f. Allow trace to fully stabilize.
g. Use the peak marker function to determine the maximum amplitude level.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

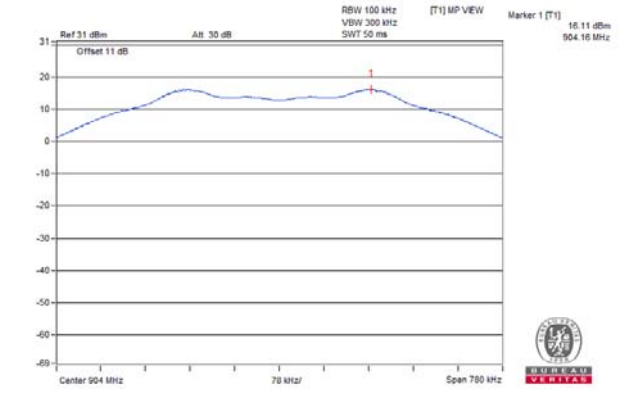
Same as item 4.2.6

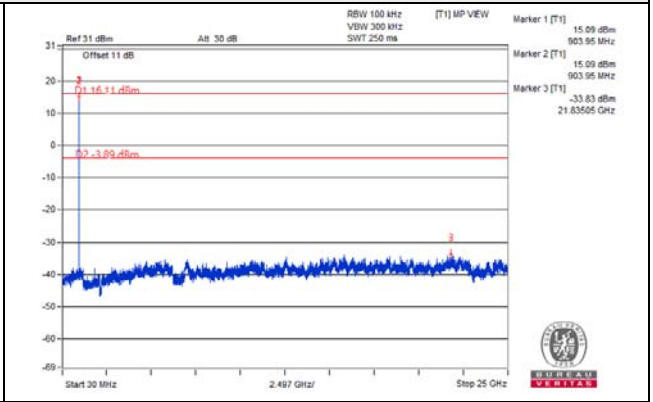
4.6.7 Test Results

The conducted emission test is performed on each TX port of operating mode without summing or adding 10log (N) since the limit is relative emission limit.
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

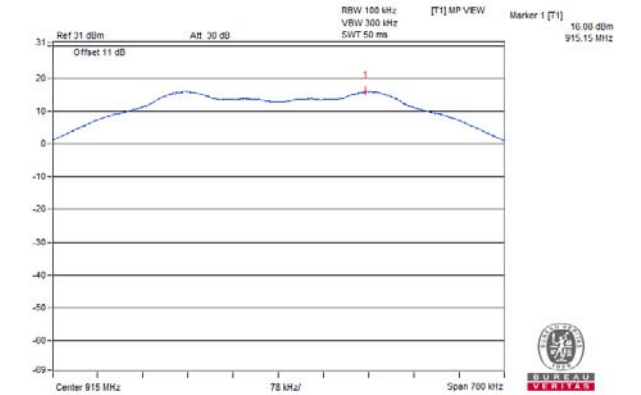
Data Rate: 80kbps

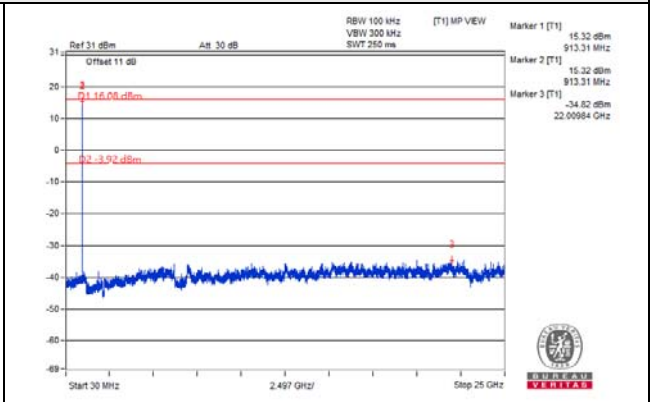
CH 1



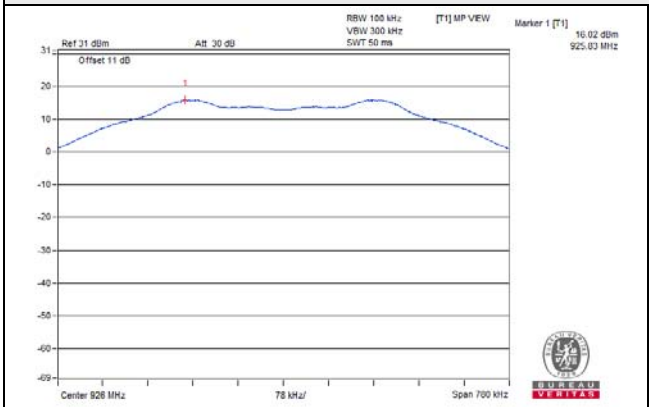


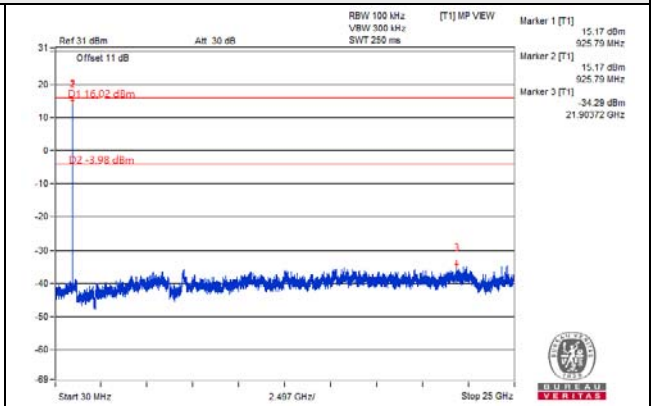
CH 12



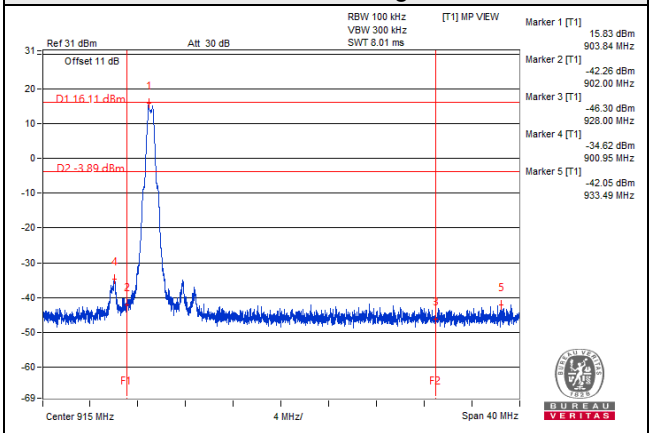


CH 23

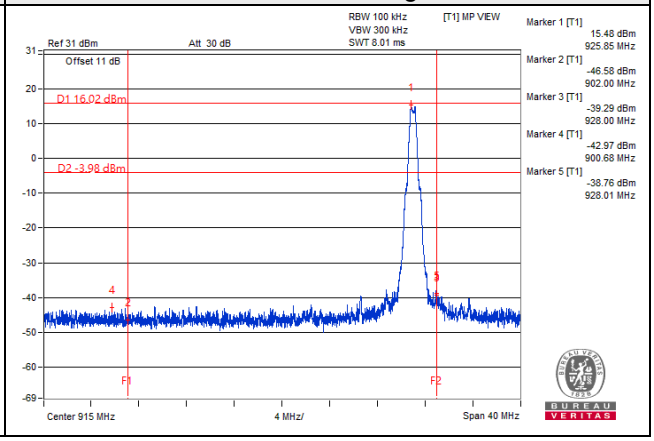




CH 1 Band edge



CH 23 Band edge



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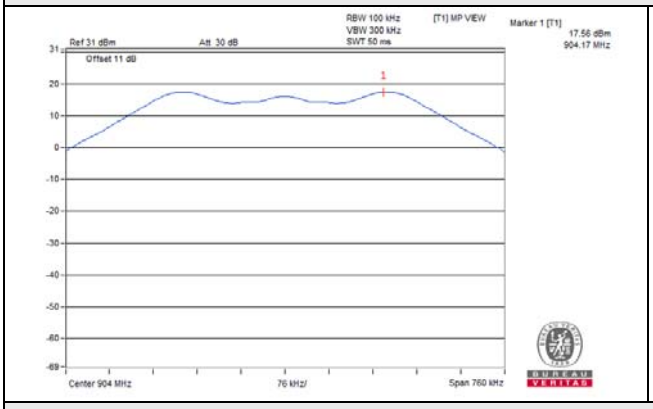
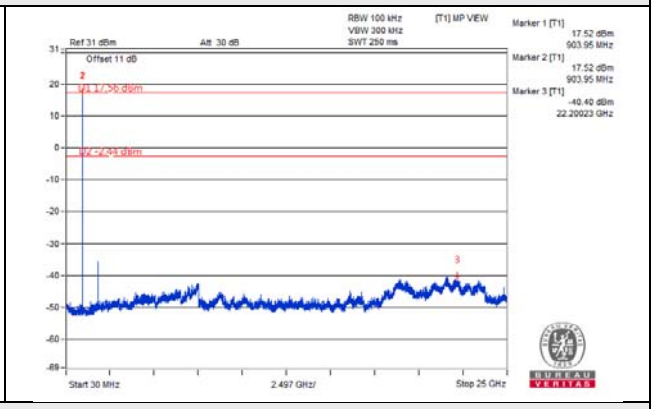
CH 1





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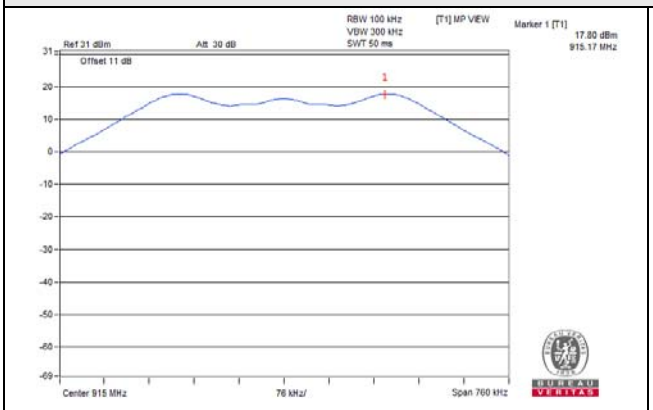
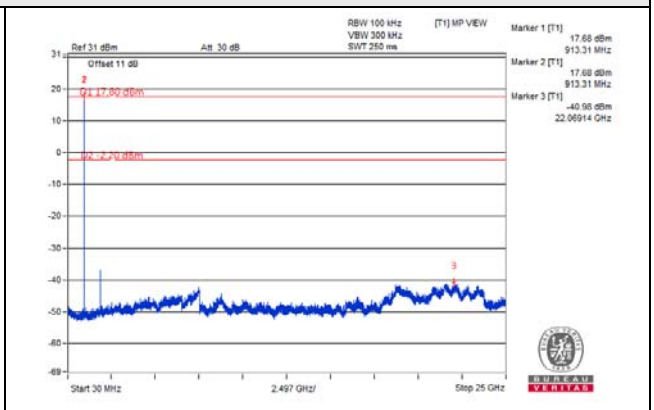
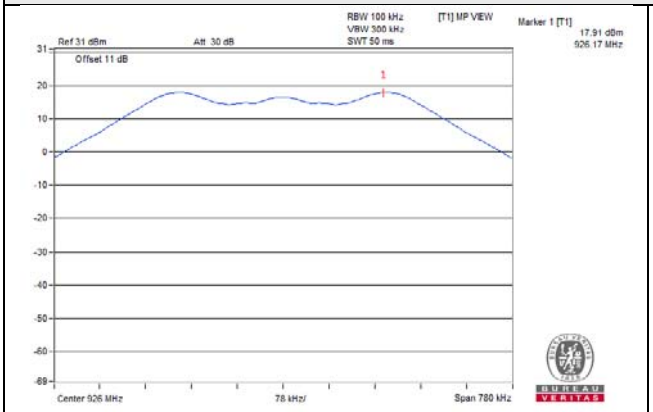
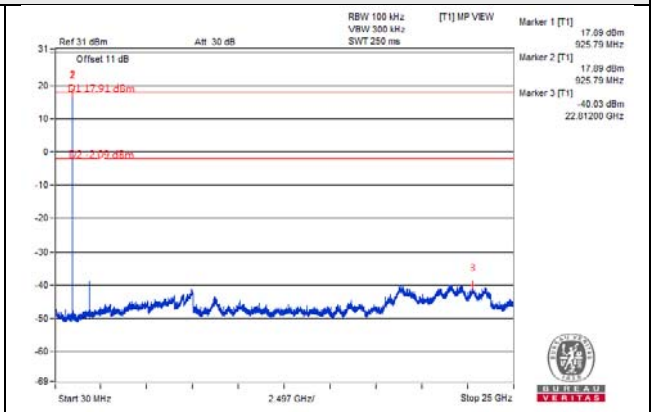


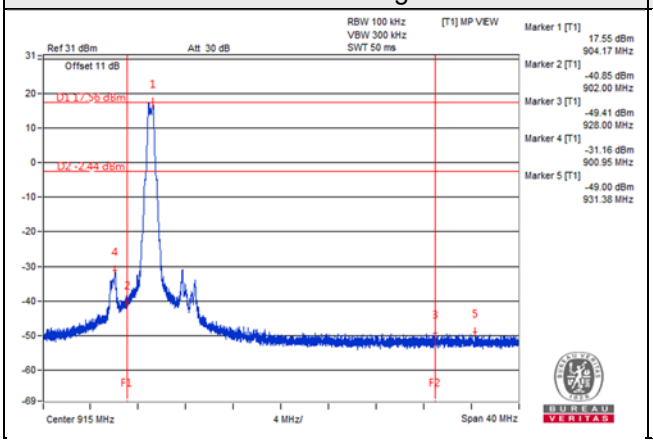


CH 23

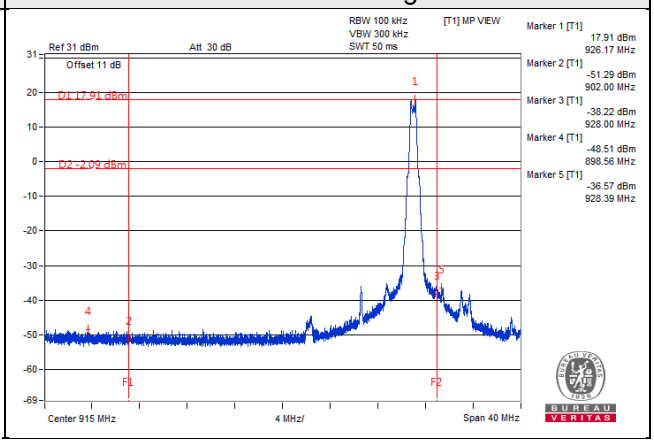




CH 1 Band edge



CH 23 Band edge



5 Pictures of Test Arrangements

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

Appendix – Information of the Testing Laboratories

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

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

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