

FCC Test Report

Report No.: RFBFKV-WTW-P23050558-2

FCC ID: L6AITG100-1

Test Model: ITG100-1

Received Date: May 23, 2023

Test Date: Nov. 27, 2023 ~ Jan. 04, 2024 (For all tests except Radiated Emissions below 1GHz of Test Mode B)

Mar. 05, 2024 (For Test Mode B: Radiated Emissions below 1GHz)

Issued Date: Apr. 11, 2024

Applicant: BlackBerry Limited

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**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-P23050558-2	Original release	Apr. 11, 2024

1 Certificate of Conformity

Product: Radar H2M

Brand: BlackBerry

Test Model: ITG100-1

Sample Status: Engineering sample

Applicant: BlackBerry Limited

Test Date: Nov. 27, 2023 ~ Jan. 04, 2024 (For all tests except Radiated Emissions below 1GHz of Test Mode B)

Mar. 05, 2024 (For Test Mode B: Radiated Emissions below 1GHz)

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:** Apr. 11, 2024
Pettie Chen / Senior Specialist

Approved by : Jeremy Lin , **Date:** Apr. 11, 2024
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 -6.2dB at 480.08MHz.
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) (\pm)
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
Brand	BlackBerry
Test Model	ITG100-1
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: 49.431mW Data Rate: 500kbps: 49.545mW
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-63820-001
Power Rating	7.2V, 38Ah, 274 Wh

Battery 2	
Brand	Vitrocell
Model	BAT-63820-002
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 \geq 1G	RE<1G	PLC	APCM	
A	√	√	Note	√	Power from battery 1
B	-	√	Note	-	Power from battery 2

Where RE \geq 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. No need to concern of Conducted Emission due to the EUT is powered by battery.
3. "-": 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.

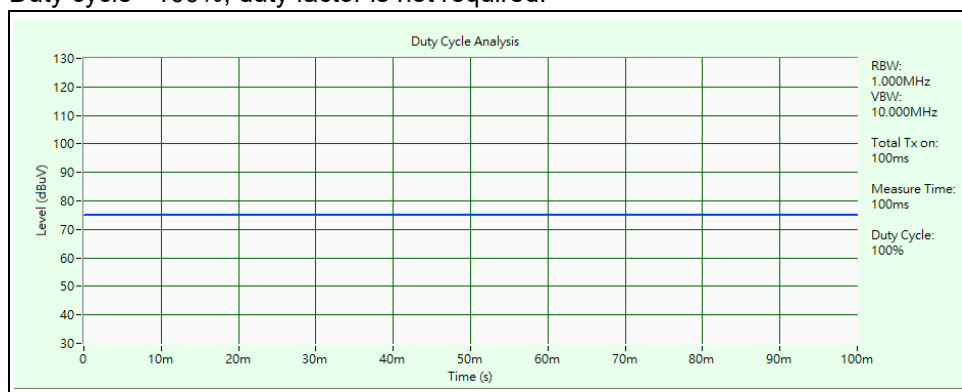
EUT Configure Mode	Available Channel	Tested Channel	Data Rate (kbps)	Modulation Type
A, B	1	904MHz	80	half-sine shaped OQPSK
			500	2GFSK
A, B	12	915MHz	80	half-sine shaped OQPSK
			500	2GFSK
A, B	23	926MHz	80	half-sine shaped OQPSK
			500	2GFSK

Test Condition:

Applicable to	Environmental Conditions	Input Power	Tested by
RE \ge 1G	22 deg. C, 68% RH	7.2Vdc	Greg Lin
RE<1G	22 deg. C, 68% RH	7.2Vdc	Greg Lin
APCM	25 deg. C, 60% RH	7.2Vdc	Jisyong Wang

3.3 Duty Cycle of Test Signal

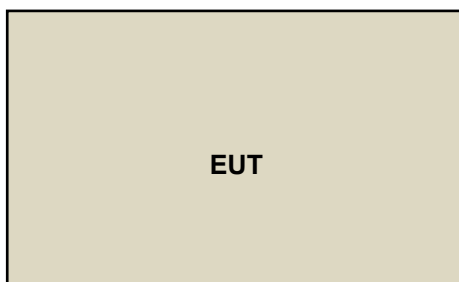
Duty cycle =100%, duty factor is not required.



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

Test Date: Nov. 27, 2023 ~ Jan. 04, 2024

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
			2023/12/7	2024/12/6
Signal & Spectrum Analyzer R&S	FSW43	101866	2023/1/10	2024/1/9
Loop Antenna TESEQ	HLA 6121	45745	2023/8/8	2024/8/7
Loop Antenna Electro-Metrics	EM-6879	269	2023/9/23	2024/9/22
Preamplifier EMCI	EMC001340	980201	2023/9/27	2024/9/26
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	2023/10/13	2024/10/12
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
			2023/11/12	2024/11/11
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
			2023/11/12	2024/11/11
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

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY55190004/ MY55190007/MY55210005	2023/7/19	2024/7/18
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.

Test Date: Mar. 05, 2024

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	2023/12/7	2024/12/6
Signal & Spectrum Analyzer R&S	FSW43	101582	2023/4/13	2024/4/12
Loop Antenna TESEQ	HLA 6121	45745	2023/8/8	2024/8/7
Loop Antenna Electro-Metrics	EM-6879	269	2023/9/23	2024/9/22
Preamplifier EMCI	EMC001340	980201	2023/9/27	2024/9/26
RF Coaxial Cable EMCI	5D-NM-BM	140901	2023/9/27	2024/9/26
Preamplifier EMCI	EMC330N	980782	2024/1/15	2025/1/14
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-1213	2023/10/13	2024/10/12
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-500	201233	2024/1/15	2025/1/14
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-3000	201235	2024/1/15	2025/1/14
RF Coaxial Cable EMCI	EMCCFD400-NM-NM-9000	201236(with PAD)	2024/1/15	2025/1/14

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:

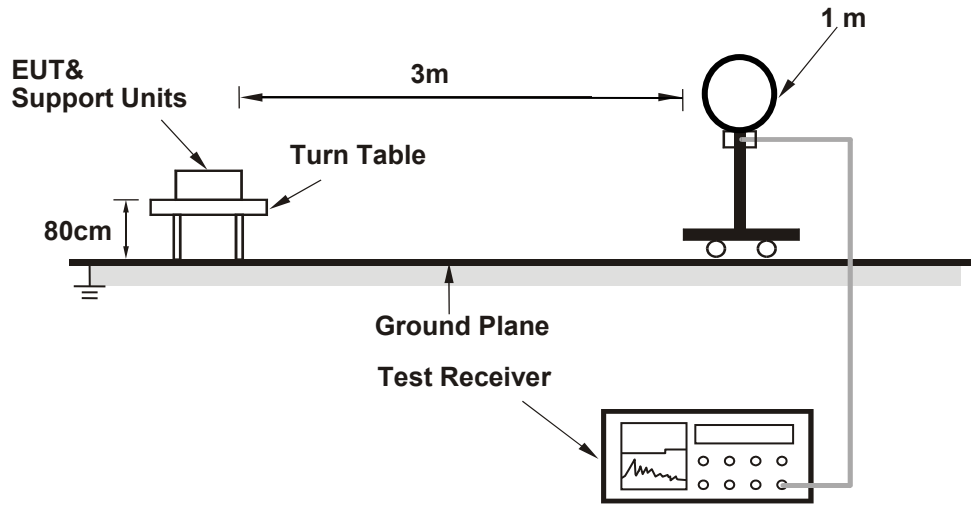
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (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.

4.1.4 Deviation from Test Standard

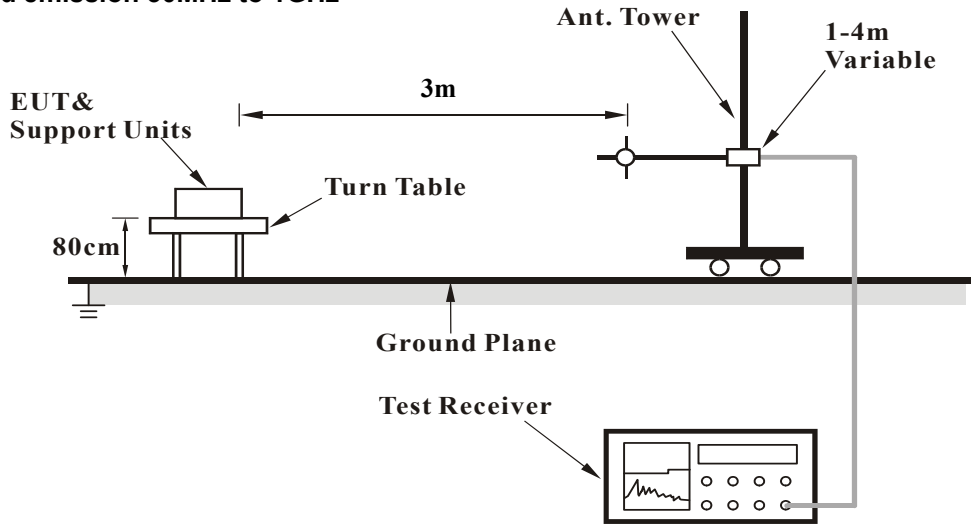
No deviation.

4.1.5 Test Setup

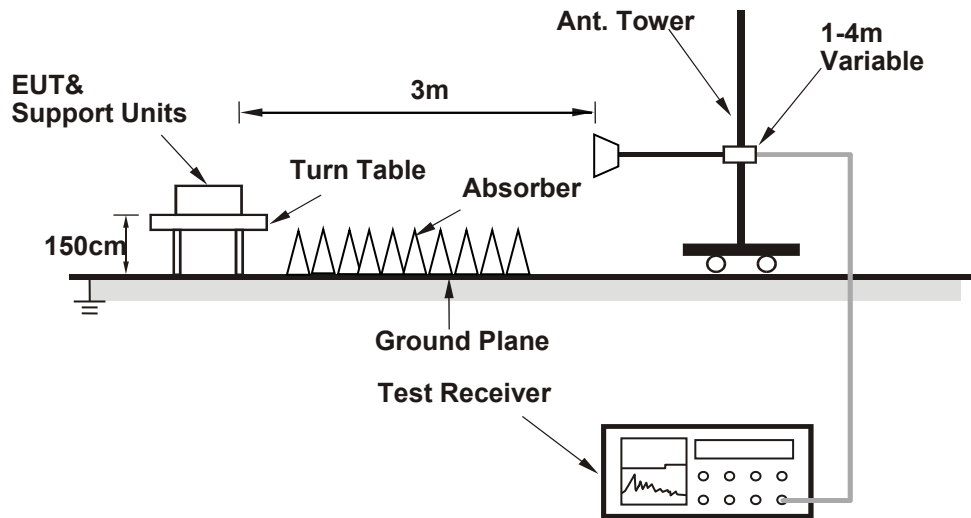
For Radiated emission below 30MHz



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	61.2 QP	98.1	-36.9	1.03 H	242	31.0	30.2
2	*904.00	117.5 QP			1.03 H	242	87.3	30.2
3	*904.00	118.1 PK			1.03 H	242	87.9	30.2

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	902.00	57.5 QP	91.6	-34.1	1.46 V	292	27.3	30.2
2	*904.00	110.8 QP			1.46 V	292	80.6	30.2
3	*904.00	111.6 PK			1.46 V	292	81.4	30.2

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. " * ": 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	116.4 QP			1.02 H	239	86.0	30.4
2	*915.00	117.3 PK			1.02 H	239	86.9	30.4

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	*915.00	110.3 QP			1.43 V	289	79.9	30.4
2	*915.00	111.3 PK			1.43 V	289	80.9	30.4

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. " * ": 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	115.1 QP			1.01 H	243	84.5	30.6
2	*926.00	116.4 PK			1.01 H	243	85.8	30.6
3	928.00	60.9 QP	96.4	-35.5	1.01 H	243	30.3	30.6

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	*926.00	109.3 QP			1.44 V	292	78.7	30.6
2	*926.00	110.3 PK			1.44 V	292	79.7	30.6
3	928.00	58.2 QP	90.3	-32.1	1.44 V	292	27.6	30.6

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. " * ": 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	61.5 QP	98.5	-37.0	1.00 H	237	31.3	30.2
2	*904.00	117.3 QP			1.02 H	237	87.1	30.2
3	*904.00	118.5 PK			1.02 H	237	88.3	30.2

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	902.00	57.6 QP	91.8	-34.2	1.58 V	302	27.4	30.2
2	*904.00	110.6 QP			1.58 V	302	80.4	30.2
3	*904.00	111.8 PK			1.58 V	302	81.6	30.2

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. " * ": 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	116.8 QP			1.01 H	245	86.4	30.4
2	*915.00	117.9 PK			1.01 H	245	87.5	30.4

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	*915.00	110.6 QP			1.52 V	298	80.2	30.4
2	*915.00	111.7 PK			1.52 V	298	81.3	30.4

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. " * ": 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	115.5 QP			1.00 H	238	84.9	30.6
2	*926.00	116.4 PK			1.00 H	238	85.8	30.6
3	928.00	61.4 QP	96.4	-35.0	1.00 H	238	30.8	30.6

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	*926.00	110.0 QP			1.51 V	307	79.4	30.6
2	*926.00	110.9 PK			1.51 V	307	80.3	30.6
3	928.00	58.0 QP	90.9	-32.9	1.51 V	307	27.4	30.6

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. " * ": 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	61.4 PK	98.1	-36.7	2.03 H	186	67.4	-6.0
2	#1808.00	58.6 AV	78.1	-19.5	2.03 H	186	64.6	-6.0
3	2712.00	43.1 PK	74.0	-30.9	1.39 H	114	45.8	-2.7
4	2712.00	30.1 AV	54.0	-23.9	1.39 H	114	32.8	-2.7

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	57.9 PK	91.6	-33.7	3.11 V	247	63.9	-6.0
2	#1808.00	54.9 AV	71.6	-16.7	3.11 V	247	60.9	-6.0
3	2712.00	42.3 PK	74.0	-31.7	2.16 V	332	45.0	-2.7
4	2712.00	28.9 AV	54.0	-25.1	2.16 V	332	31.6	-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.
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	97.3	-39.2	2.07 H	183	64.1	-6.0
2	#1830.00	55.2 AV	77.3	-22.1	2.07 H	183	61.2	-6.0
3	2745.00	43.5 PK	74.0	-30.5	1.42 H	118	46.1	-2.6
4	2745.00	30.3 AV	54.0	-23.7	1.42 H	118	32.9	-2.6

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	54.8 PK	91.3	-36.5	3.09 V	251	60.8	-6.0
2	#1830.00	51.6 AV	71.3	-19.7	3.09 V	251	57.6	-6.0
3	2745.00	42.6 PK	74.0	-31.4	2.17 V	336	45.2	-2.6
4	2745.00	29.2 AV	54.0	-24.8	2.17 V	336	31.8	-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.
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	96.4	-41.2	2.01 H	193	61.1	-5.9
2	#1852.00	52.3 AV	76.4	-24.1	2.01 H	193	58.2	-5.9
3	2778.00	43.3 PK	74.0	-30.7	1.37 H	115	45.7	-2.4
4	2778.00	30.1 AV	54.0	-23.9	1.37 H	115	32.5	-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	#1852.00	51.8 PK	90.3	-38.5	3.07 V	244	57.7	-5.9
2	#1852.00	48.5 AV	70.3	-21.8	3.07 V	244	54.4	-5.9
3	2778.00	42.8 PK	74.0	-31.2	2.14 V	331	45.2	-2.4
4	2778.00	29.3 AV	54.0	-24.7	2.14 V	331	31.7	-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 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	61.6 PK	98.5	-36.9	2.09 H	183	67.6	-6.0
2	#1808.00	58.8 AV	78.5	-19.7	2.09 H	183	64.8	-6.0
3	2712.00	43.3 PK	74.0	-30.7	1.42 H	118	46.0	-2.7
4	2712.00	30.2 AV	54.0	-23.8	1.42 H	118	32.9	-2.7

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	59.0 PK	91.8	-32.8	3.15 V	238	65.0	-6.0
2	#1808.00	56.2 AV	71.8	-15.6	3.15 V	238	62.2	-6.0
3	2712.00	42.4 PK	74.0	-31.6	2.23 V	317	45.1	-2.7
4	2712.00	29.1 AV	54.0	-24.9	2.23 V	317	31.8	-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.
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	58.4 PK	97.9	-39.5	2.12 H	184	64.4	-6.0
2	#1830.00	55.2 AV	77.9	-22.7	2.12 H	184	61.2	-6.0
3	2745.00	43.7 PK	74.0	-30.3	1.34 H	112	46.3	-2.6
4	2745.00	30.5 AV	54.0	-23.5	1.34 H	112	33.1	-2.6

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	54.6 PK	91.7	-37.1	3.06 V	234	60.6	-6.0
2	#1830.00	51.4 AV	71.7	-20.3	3.06 V	234	57.4	-6.0
3	2745.00	42.6 PK	74.0	-31.4	2.15 V	330	45.2	-2.6
4	2745.00	29.2 AV	54.0	-24.8	2.15 V	330	31.8	-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.
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	96.4	-40.8	2.12 H	193	61.5	-5.9
2	#1852.00	52.5 AV	76.4	-23.9	2.12 H	193	58.4	-5.9
3	2778.00	43.6 PK	74.0	-30.4	1.39 H	116	46.0	-2.4
4	2778.00	30.5 AV	54.0	-23.5	1.39 H	116	32.9	-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	#1852.00	52.3 PK	90.9	-38.6	3.13 V	236	58.2	-5.9
2	#1852.00	48.5 AV	70.9	-22.4	3.13 V	236	54.4	-5.9
3	2778.00	42.7 PK	74.0	-31.3	2.24 V	329	45.1	-2.4
4	2778.00	29.2 AV	54.0	-24.8	2.24 V	329	31.6	-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.

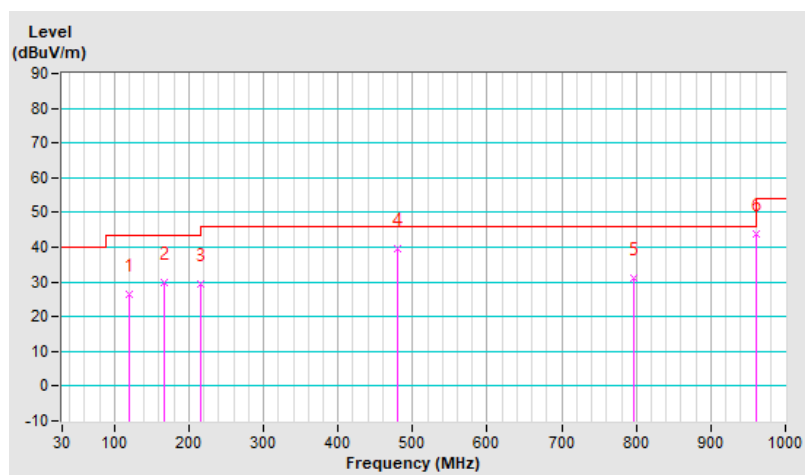
Below 1GHz worst-case data:

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	120.21	26.6 QP	43.5	-16.9	1.50 H	2	41.9	-15.3
2	167.74	29.8 QP	43.5	-13.7	1.00 H	214	42.9	-13.1
3	216.24	29.5 QP	46.0	-16.5	1.25 H	323	46.1	-16.6
4	480.08	39.7 QP	46.0	-6.3	1.00 H	314	47.7	-8.0
5	797.27	31.1 QP	46.0	-14.9	1.25 H	2	33.7	-2.6
6	960.23	43.7 QP	54.0	-10.3	1.00 H	83	43.9	-0.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



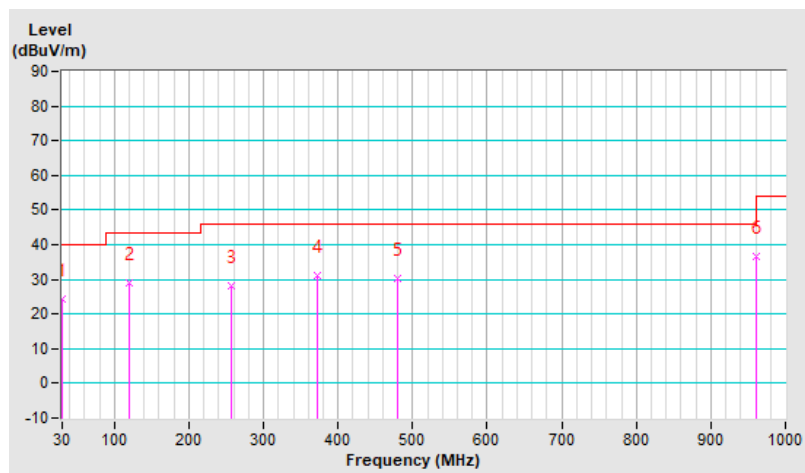
CHANNEL	TX Channel 1	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

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	24.3 QP	40.0	-15.7	1.00 V	294	38.6	-14.3
2	120.21	29.1 QP	43.5	-14.4	1.25 V	15	44.4	-15.3
3	256.01	28.3 QP	46.0	-17.7	1.50 V	348	42.6	-14.3
4	371.44	31.1 QP	46.0	-14.9	1.00 V	90	41.8	-10.7
5	480.08	30.4 QP	46.0	-15.6	1.25 V	252	38.4	-8.0
6	960.23	36.7 QP	54.0	-17.3	1.00 V	259	36.9	-0.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

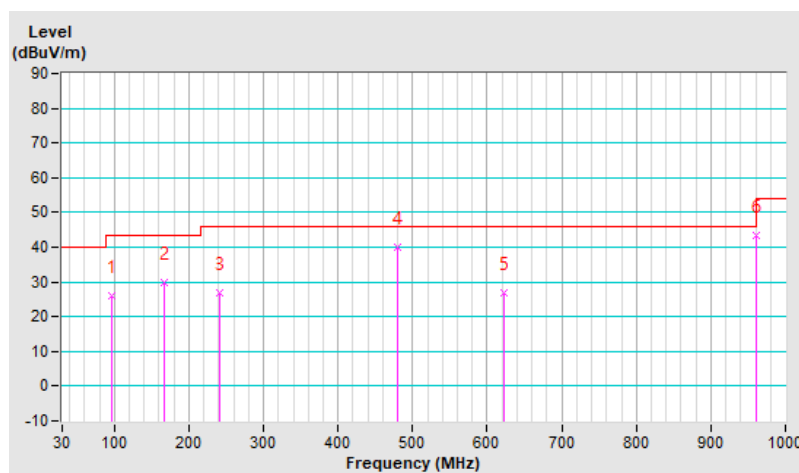


CHANNEL	TX Channel 12	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

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	95.96	26.1 QP	43.5	-17.4	1.25 H	242	44.5	-18.4
2	167.74	30.0 QP	43.5	-13.5	1.25 H	223	43.1	-13.1
3	240.49	26.7 QP	46.0	-19.3	1.00 H	205	41.4	-14.7
4	480.08	39.8 QP	46.0	-6.2	1.50 H	319	47.8	-8.0
5	622.67	27.0 QP	46.0	-19.0	1.00 H	57	32.0	-5.0
6	960.23	43.4 QP	54.0	-10.6	1.25 H	88	43.6	-0.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



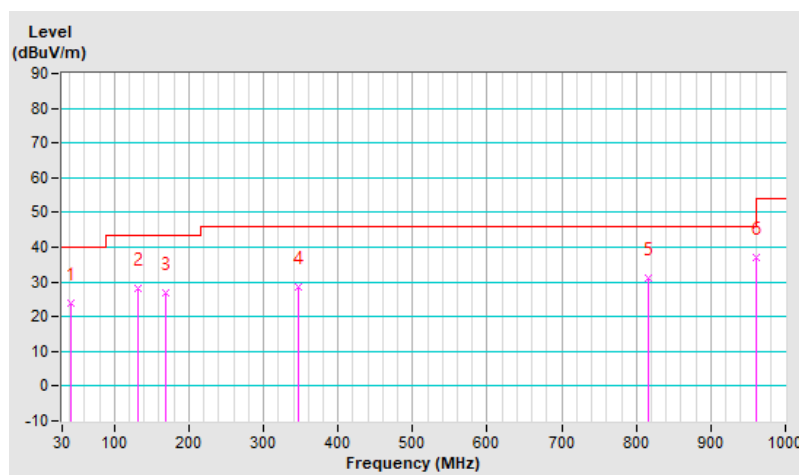
CHANNEL	TX Channel 12	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

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	41.64	24.1 QP	40.0	-15.9	1.25 V	352	37.3	-13.2
2	131.85	28.3 QP	43.5	-15.2	1.00 V	48	42.6	-14.3
3	168.71	26.9 QP	43.5	-16.6	1.00 V	326	40.0	-13.1
4	347.19	28.7 QP	46.0	-17.3	1.00 V	18	40.3	-11.6
5	816.67	30.9 QP	46.0	-15.1	1.00 V	205	33.1	-2.2
6	960.23	37.1 QP	54.0	-16.9	1.25 V	267	37.3	-0.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



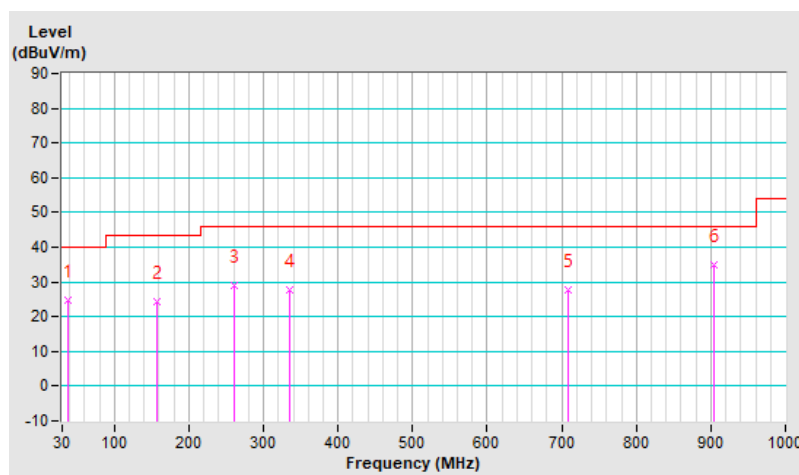
CHANNEL	TX Channel 23	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

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	37.76	24.9 QP	40.0	-15.1	1.25 H	3	38.6	-13.7
2	157.07	24.4 QP	43.5	-19.1	1.50 H	232	37.2	-12.8
3	259.89	28.8 QP	46.0	-17.2	1.00 H	360	42.9	-14.1
4	334.58	27.7 QP	46.0	-18.3	1.00 H	141	39.2	-11.5
5	708.03	27.9 QP	46.0	-18.1	1.25 H	66	31.6	-3.7
6	903.97	35.0 QP	46.0	-11.0	1.00 H	262	36.0	-1.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



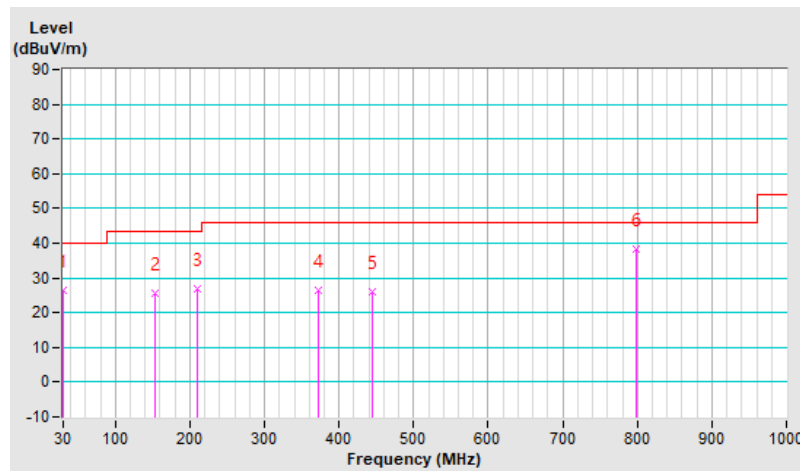
CHANNEL	TX Channel 23	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

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	26.5 QP	40.0	-13.5	1.25 V	326	40.8	-14.3
2	154.16	25.6 QP	43.5	-17.9	1.00 V	238	38.3	-12.7
3	209.45	26.9 QP	43.5	-16.6	1.00 V	139	43.7	-16.8
4	371.44	26.5 QP	46.0	-19.5	1.00 V	199	37.2	-10.7
5	445.16	26.1 QP	46.0	-19.9	1.00 V	178	34.8	-8.7
6	798.24	38.1 QP	46.0	-7.9	1.00 V	238	40.7	-2.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

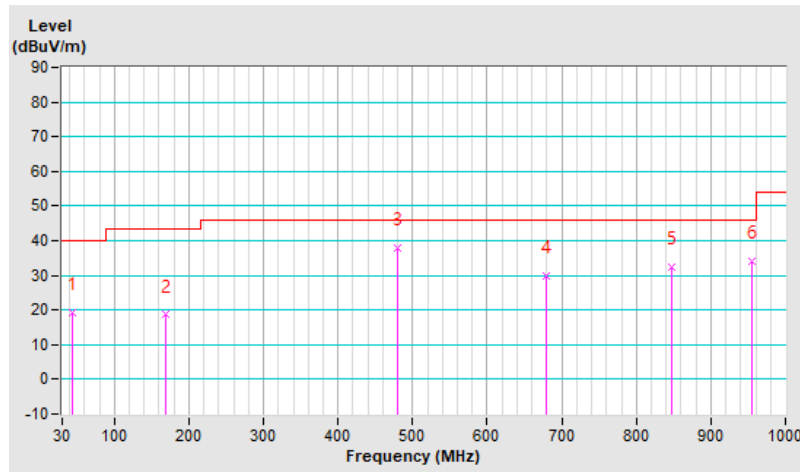


CHANNEL	TX Channel 1	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

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	44.55	19.1 QP	40.0	-20.9	1.25 H	161	32.2	-13.1
2	168.71	18.6 QP	43.5	-24.9	1.00 H	108	31.6	-13.0
3	480.08	38.0 QP	46.0	-8.0	1.50 H	189	45.8	-7.8
4	678.93	29.9 QP	46.0	-16.1	1.25 H	202	34.0	-4.1
5	846.74	32.2 QP	46.0	-13.8	1.00 H	20	33.7	-1.5
6	955.38	34.1 QP	46.0	-11.9	1.25 H	176	34.0	0.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



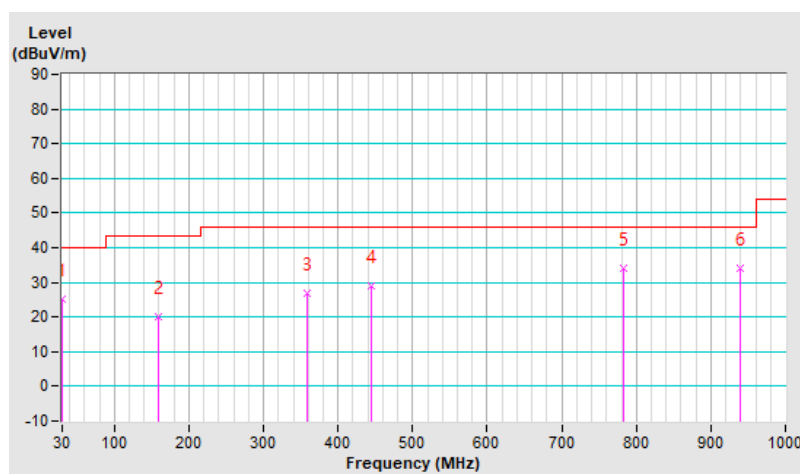
CHANNEL	TX Channel 1	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

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	25.3 QP	40.0	-14.7	1.00 V	49	39.8	-14.5
2	159.98	20.2 QP	43.5	-23.3	1.25 V	2	32.9	-12.7
3	357.86	26.8 QP	46.0	-19.2	1.00 V	2	37.9	-11.1
4	445.16	28.8 QP	46.0	-17.2	1.25 V	19	37.2	-8.4
5	783.69	34.1 QP	46.0	-11.9	1.00 V	122	36.1	-2.0
6	938.89	33.9 QP	46.0	-12.1	1.50 V	93	33.9	0.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



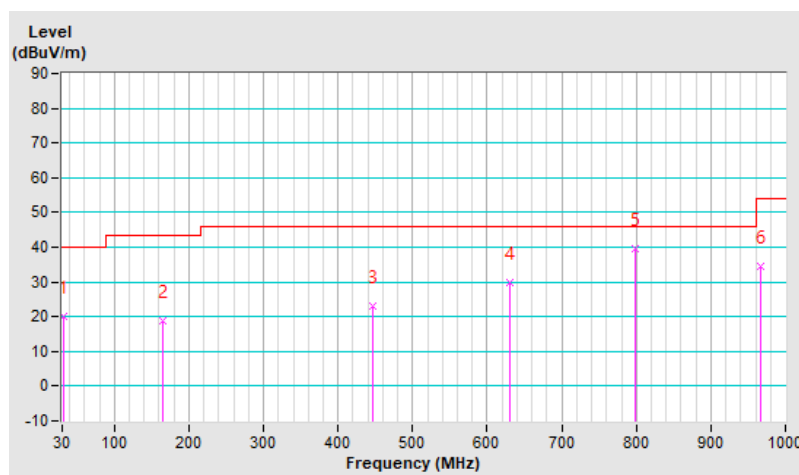
CHANNEL	TX Channel 12	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

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	32.91	20.2 QP	40.0	-19.8	1.00 H	20	34.5	-14.3
2	164.83	18.7 QP	43.5	-24.8	1.25 H	29	31.6	-12.9
3	446.13	23.1 QP	46.0	-22.9	1.00 H	97	31.5	-8.4
4	629.46	29.7 QP	46.0	-16.3	1.00 H	247	34.2	-4.5
5	798.24	39.4 QP	46.0	-6.6	1.00 H	290	41.5	-2.1
6	966.05	34.7 QP	54.0	-19.3	1.50 H	158	34.6	0.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



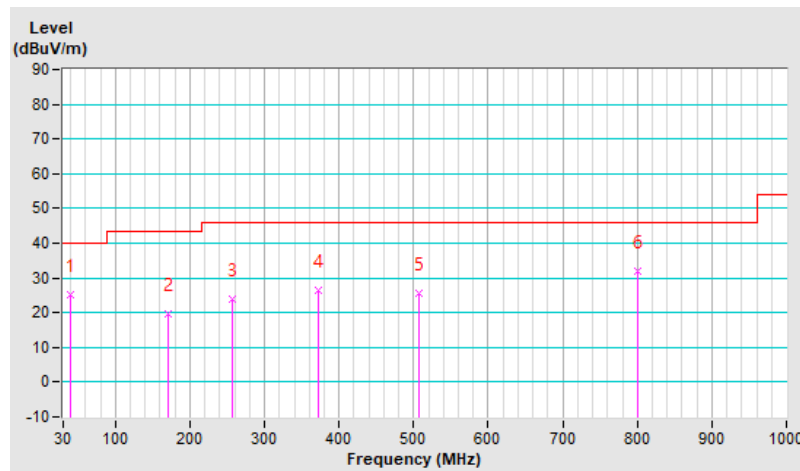
CHANNEL	TX Channel 12	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

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	39.70	25.2 QP	40.0	-14.8	1.25 V	127	38.8	-13.6
2	171.62	19.5 QP	43.5	-24.0	1.50 V	55	32.7	-13.2
3	256.01	24.0 QP	46.0	-22.0	1.00 V	218	37.9	-13.9
4	371.44	26.6 QP	46.0	-19.4	1.25 V	28	37.1	-10.5
5	506.27	25.8 QP	46.0	-20.2	1.00 V	209	33.1	-7.3
6	801.15	32.0 QP	46.0	-14.0	1.50 V	221	34.1	-2.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



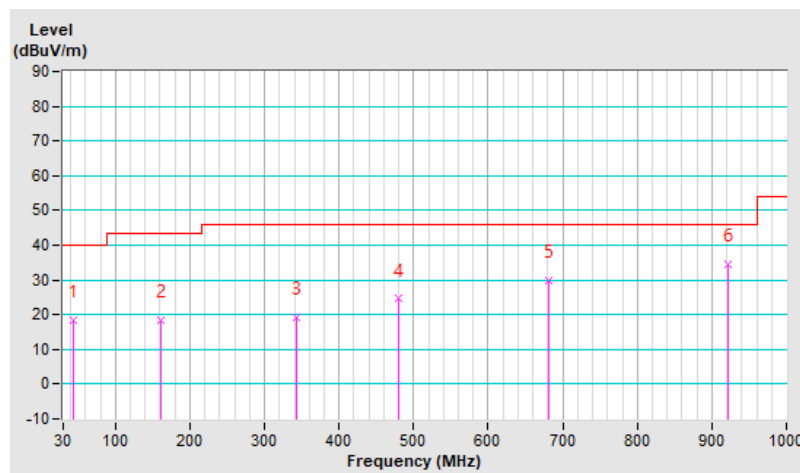
CHANNEL	TX Channel 23	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

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	44.55	18.6 QP	40.0	-21.4	1.50 H	105	31.7	-13.1
2	160.95	18.6 QP	43.5	-24.9	1.00 H	239	31.4	-12.8
3	343.31	19.3 QP	46.0	-26.7	1.25 H	176	30.7	-11.4
4	480.08	24.5 QP	46.0	-21.5	1.00 H	6	32.3	-7.8
5	680.87	30.0 QP	46.0	-16.0	1.50 H	200	34.0	-4.0
6	921.43	34.4 QP	46.0	-11.6	1.00 H	46	34.8	-0.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



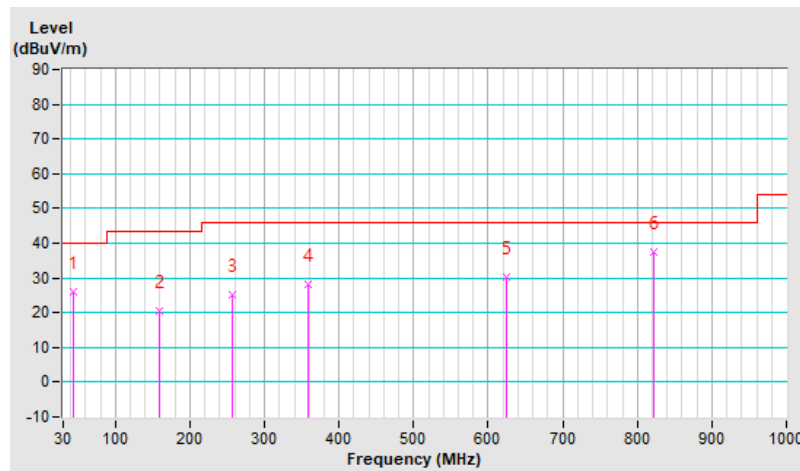
CHANNEL	TX Channel 23	DATA RATE	80kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

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	44.55	25.9 QP	40.0	-14.1	1.00 V	221	39.0	-13.1
2	159.98	20.6 QP	43.5	-22.9	1.50 V	92	33.3	-12.7
3	256.01	25.1 QP	46.0	-20.9	1.25 V	203	39.0	-13.9
4	357.86	28.3 QP	46.0	-17.7	1.00 V	2	39.4	-11.1
5	623.64	30.1 QP	46.0	-15.9	1.00 V	2	34.7	-4.6
6	821.52	37.4 QP	46.0	-8.6	1.25 V	18	39.4	-2.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



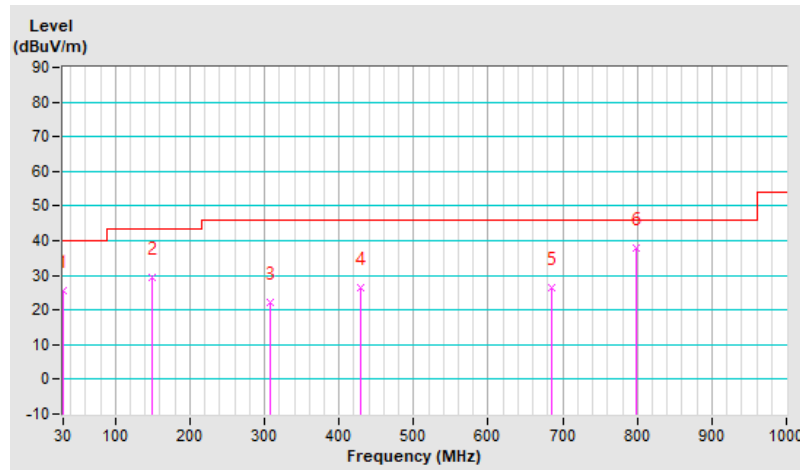
CHANNEL	TX Channel 1	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

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	25.7 QP	40.0	-14.3	1.50 H	213	40.2	-14.5
2	148.34	29.2 QP	43.5	-14.3	1.25 H	124	42.3	-13.1
3	307.42	22.2 QP	46.0	-23.8	1.01 H	16	34.4	-12.2
4	428.67	26.3 QP	46.0	-19.7	1.51 H	178	35.5	-9.2
5	685.72	26.6 QP	46.0	-19.4	2.00 H	287	30.8	-4.2
6	798.24	37.7 QP	46.0	-8.3	1.51 H	2	40.3	-2.6

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



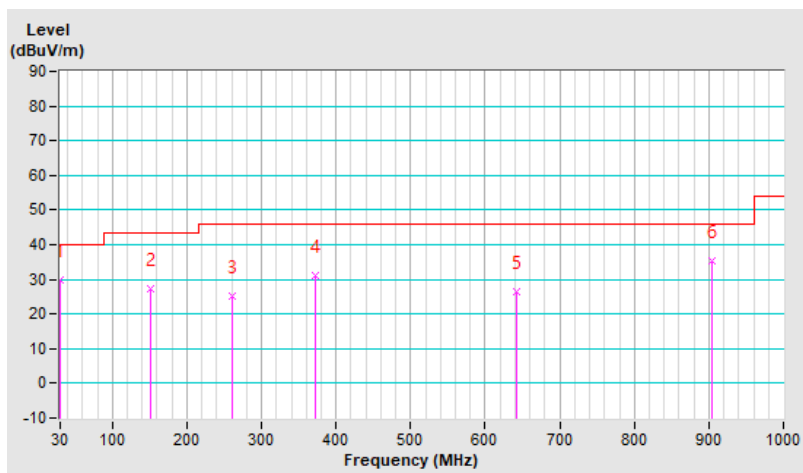
CHANNEL	TX Channel 1	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

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	29.9 QP	40.0	-10.1	1.25 V	203	44.2	-14.3
2	152.22	27.4 QP	43.5	-16.1	2.00 V	15	40.3	-12.9
3	259.89	25.3 QP	46.0	-20.7	1.25 V	336	39.4	-14.1
4	371.44	30.9 QP	46.0	-15.1	1.25 V	274	41.6	-10.7
5	643.04	26.6 QP	46.0	-19.4	1.99 V	250	31.3	-4.7
6	903.97	35.4 QP	46.0	-10.6	1.49 V	299	36.4	-1.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



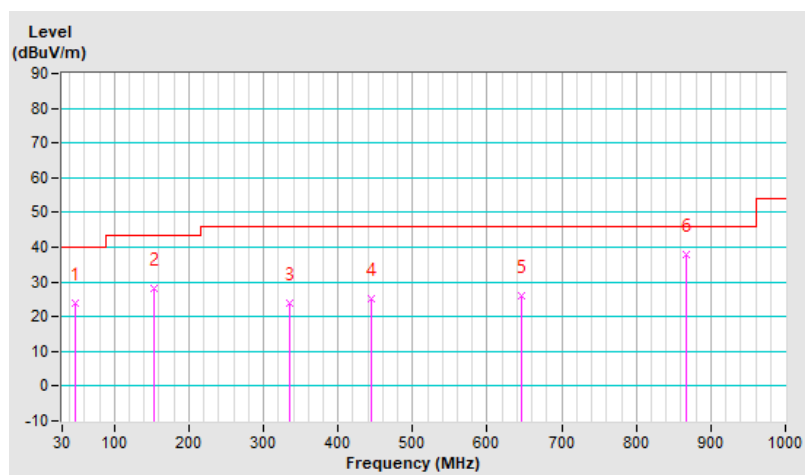
CHANNEL	TX Channel 12	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

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	48.43	23.8 QP	40.0	-16.2	1.51 H	296	36.7	-12.9
2	154.16	28.2 QP	43.5	-15.3	2.00 H	321	40.9	-12.7
3	334.58	23.8 QP	46.0	-22.2	1.01 H	193	35.3	-11.5
4	445.16	25.2 QP	46.0	-20.8	2.00 H	17	33.9	-8.7
5	645.95	26.0 QP	46.0	-20.0	1.01 H	335	30.7	-4.7
6	866.14	37.9 QP	46.0	-8.1	1.01 H	224	39.4	-1.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

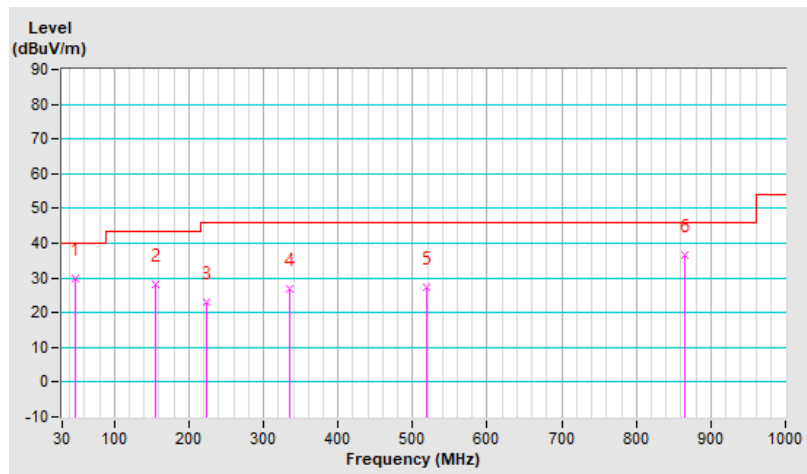


CHANNEL	TX Channel 12	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

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	48.43	29.9 QP	40.0	-10.1	1.50 V	228	42.8	-12.9
2	156.10	28.1 QP	43.5	-15.4	2.00 V	319	40.9	-12.8
3	223.03	23.2 QP	46.0	-22.8	1.25 V	12	39.7	-16.5
4	334.58	27.0 QP	46.0	-19.0	1.00 V	325	38.5	-11.5
5	519.85	27.3 QP	46.0	-18.7	1.00 V	108	34.6	-7.3
6	865.17	36.8 QP	46.0	-9.2	2.00 V	300	38.4	-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 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



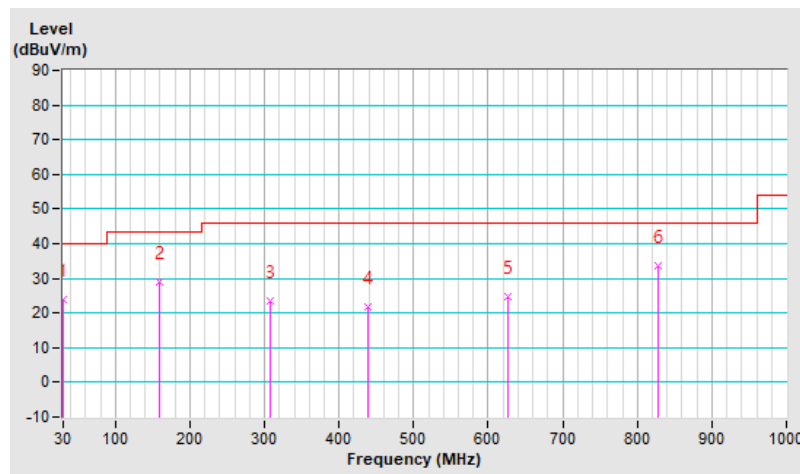
CHANNEL	TX Channel 23	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

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	24.0 QP	40.0	-16.0	2.00 H	127	38.3	-14.3
2	159.01	28.8 QP	43.5	-14.7	1.00 H	113	41.6	-12.8
3	307.42	23.4 QP	46.0	-22.6	1.50 H	3	35.6	-12.2
4	439.34	21.6 QP	46.0	-24.4	1.00 H	80	30.5	-8.9
5	626.55	24.7 QP	46.0	-21.3	1.00 H	235	29.6	-4.9
6	827.34	33.7 QP	46.0	-12.3	1.00 H	226	35.8	-2.1

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



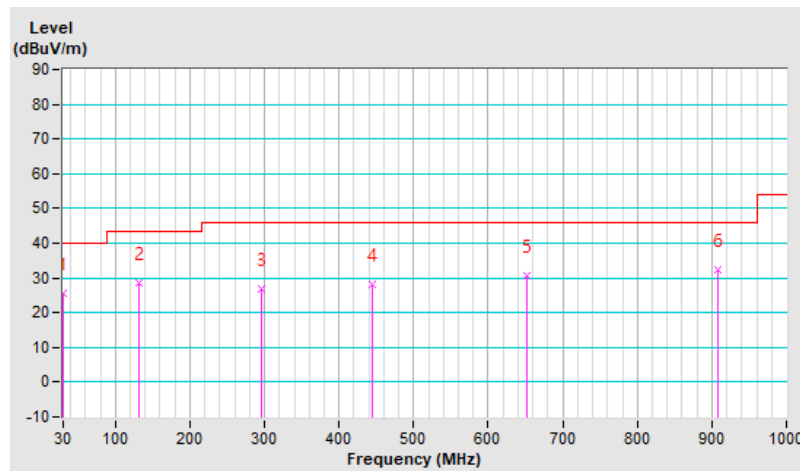
CHANNEL	TX Channel 23	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	A		

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	30.97	25.8 QP	40.0	-14.2	1.25 V	86	40.3	-14.5
2	131.85	28.7 QP	43.5	-14.8	1.00 V	34	43.0	-14.3
3	296.75	27.0 QP	46.0	-19.0	1.50 V	98	39.6	-12.6
4	445.16	28.1 QP	46.0	-17.9	1.25 V	11	36.8	-8.7
5	652.74	30.7 QP	46.0	-15.3	1.50 V	13	35.4	-4.7
6	908.82	32.3 QP	46.0	-13.7	1.25 V	301	33.2	-0.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



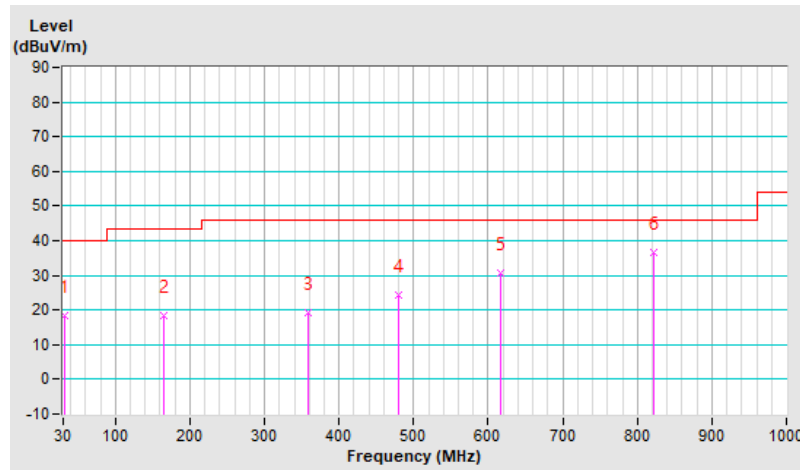
CHANNEL	TX Channel 1	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

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	31.94	18.5 QP	40.0	-21.5	1.25 H	2	32.8	-14.3
2	164.83	18.6 QP	43.5	-24.9	1.00 H	247	31.5	-12.9
3	357.86	19.4 QP	46.0	-26.6	1.50 H	178	30.5	-11.1
4	480.08	24.2 QP	46.0	-21.8	1.00 H	10	32.0	-7.8
5	616.85	30.6 QP	46.0	-15.4	1.25 H	3	35.3	-4.7
6	821.52	36.6 QP	46.0	-9.4	1.25 H	295	38.6	-2.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



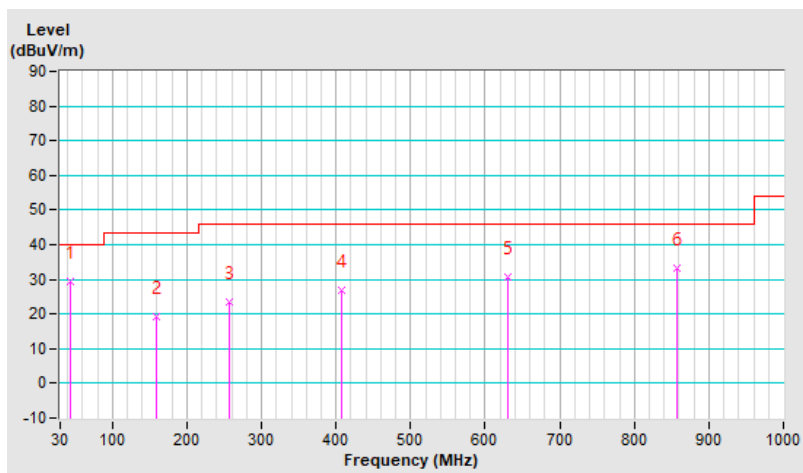
CHANNEL	TX Channel 1	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

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	43.58	29.4 QP	40.0	-10.6	1.00 V	18	42.5	-13.1
2	159.98	19.3 QP	43.5	-24.2	1.50 V	157	32.0	-12.7
3	256.01	23.5 QP	46.0	-22.5	1.25 V	136	37.4	-13.9
4	408.30	26.9 QP	46.0	-19.1	1.00 V	273	36.5	-9.6
5	629.46	30.6 QP	46.0	-15.4	1.25 V	12	35.1	-4.5
6	856.44	33.1 QP	46.0	-12.9	1.00 V	199	34.5	-1.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

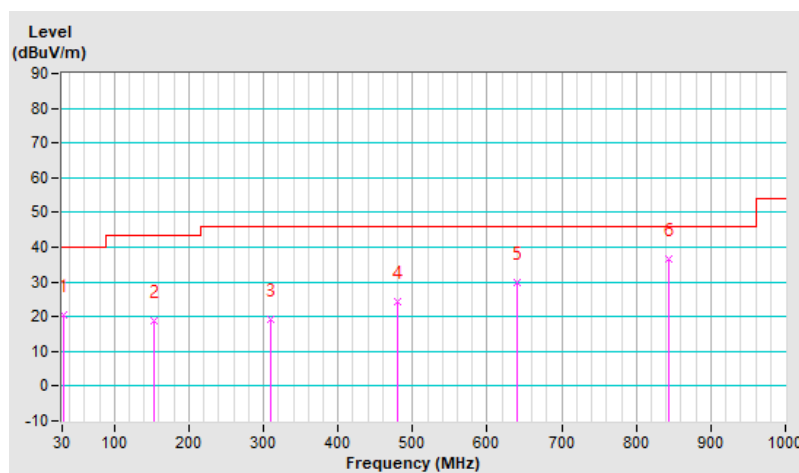


CHANNEL	TX Channel 12	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

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	31.94	20.5 QP	40.0	-19.5	1.25 H	56	34.8	-14.3
2	154.16	18.9 QP	43.5	-24.6	1.50 H	58	31.5	-12.6
3	310.33	19.3 QP	46.0	-26.7	1.00 H	146	31.3	-12.0
4	480.08	24.2 QP	46.0	-21.8	1.25 H	2	32.0	-7.8
5	641.10	29.9 QP	46.0	-16.1	1.25 H	177	34.2	-4.3
6	843.83	36.5 QP	46.0	-9.5	1.00 H	198	38.1	-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 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



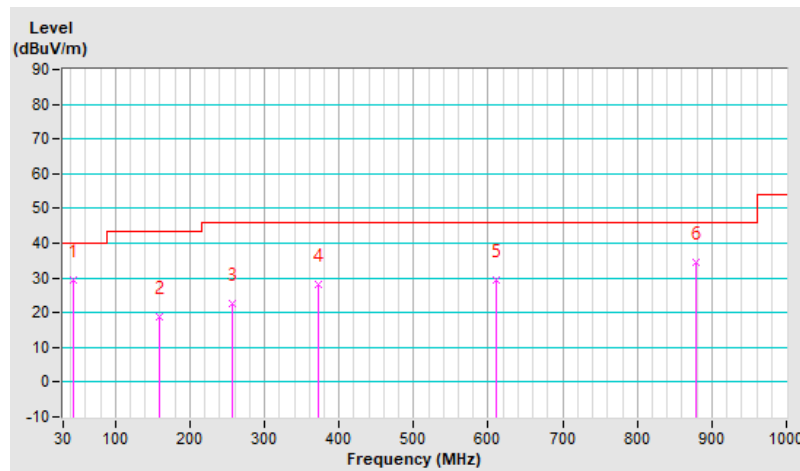
CHANNEL	TX Channel 12	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

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	43.58	29.6 QP	40.0	-10.4	1.50 V	12	42.7	-13.1
2	159.98	18.8 QP	43.5	-24.7	1.00 V	140	31.5	-12.7
3	256.01	22.6 QP	46.0	-23.4	1.25 V	135	36.5	-13.9
4	371.44	28.3 QP	46.0	-17.7	1.25 V	242	38.8	-10.5
5	611.03	29.5 QP	46.0	-16.5	1.00 V	320	34.3	-4.8
6	877.78	34.7 QP	46.0	-11.3	1.50 V	186	35.7	-1.0

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. Margin value = Emission Level – Limit value
4. The other emission levels were very low against the limit of frequency range 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

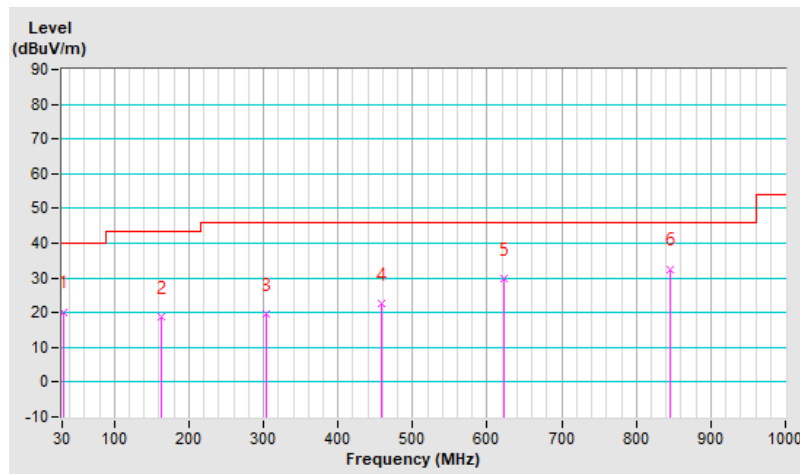


CHANNEL	TX Channel 23	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

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	31.94	20.3 QP	40.0	-19.7	1.00 H	2	34.6	-14.3
2	162.89	19.0 QP	43.5	-24.5	1.25 H	230	31.9	-12.9
3	303.54	19.5 QP	46.0	-26.5	1.25 H	14	31.8	-12.3
4	458.74	22.7 QP	46.0	-23.3	1.50 H	360	30.7	-8.0
5	621.70	29.8 QP	46.0	-16.2	1.00 H	36	34.4	-4.6
6	844.80	32.6 QP	46.0	-13.4	1.00 H	5	34.2	-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 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.



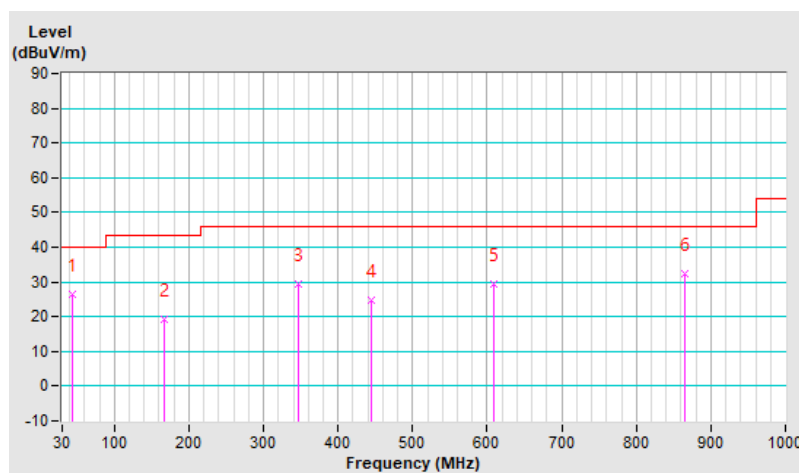
CHANNEL	TX Channel 23	DATA RATE	500kbps
FREQUENCY RANGE	9kHz ~ 1GHz	DETECTOR FUNCTION	Quasi-Peak (QP)
TEST MODE	B		

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	43.58	26.5 QP	40.0	-13.5	1.00 V	44	39.6	-13.1
2	167.74	19.4 QP	43.5	-24.1	1.50 V	114	32.4	-13.0
3	347.19	29.3 QP	46.0	-16.7	1.25 V	346	40.7	-11.4
4	445.16	24.6 QP	46.0	-21.4	1.00 V	117	33.0	-8.4
5	608.12	29.2 QP	46.0	-16.8	1.25 V	83	34.0	-4.8
6	864.20	32.3 QP	46.0	-13.7	1.00 V	2	33.6	-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 30 MHz ~ 1 GHz.
5. The frequency range 9 kHz ~ 30 MHz: all emissions are more than 20 dB below the limit, therefore do not be recorded in this report.

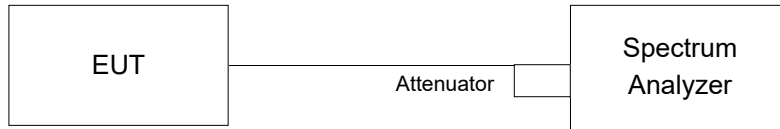


4.2 6dB Bandwidth Measurement

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

- Set resolution bandwidth (RBW) = 100kHz.
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = peak.
- Trace mode = max hold.
- Sweep = auto couple.
- 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.

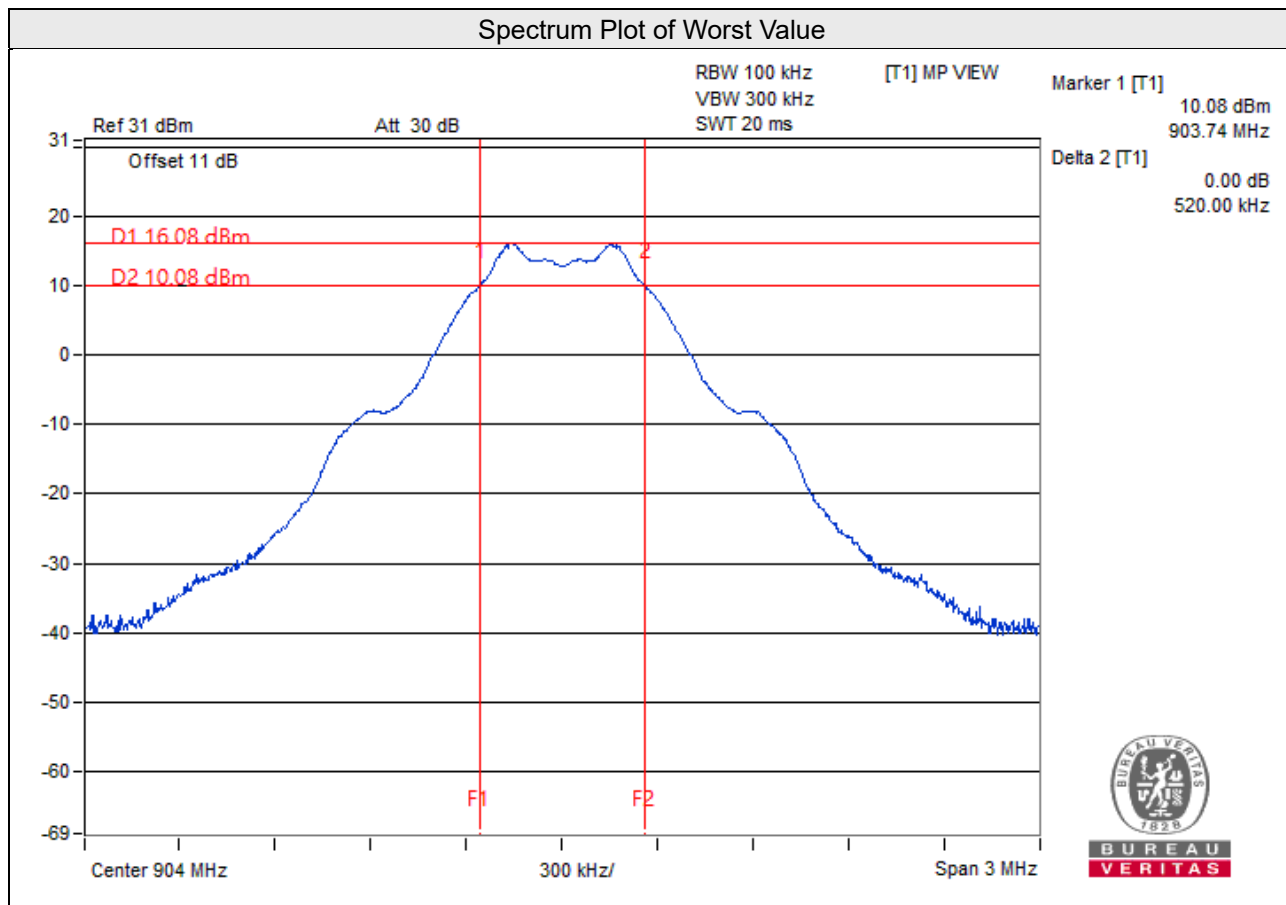
4.2.6 EUT Operating Conditions

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

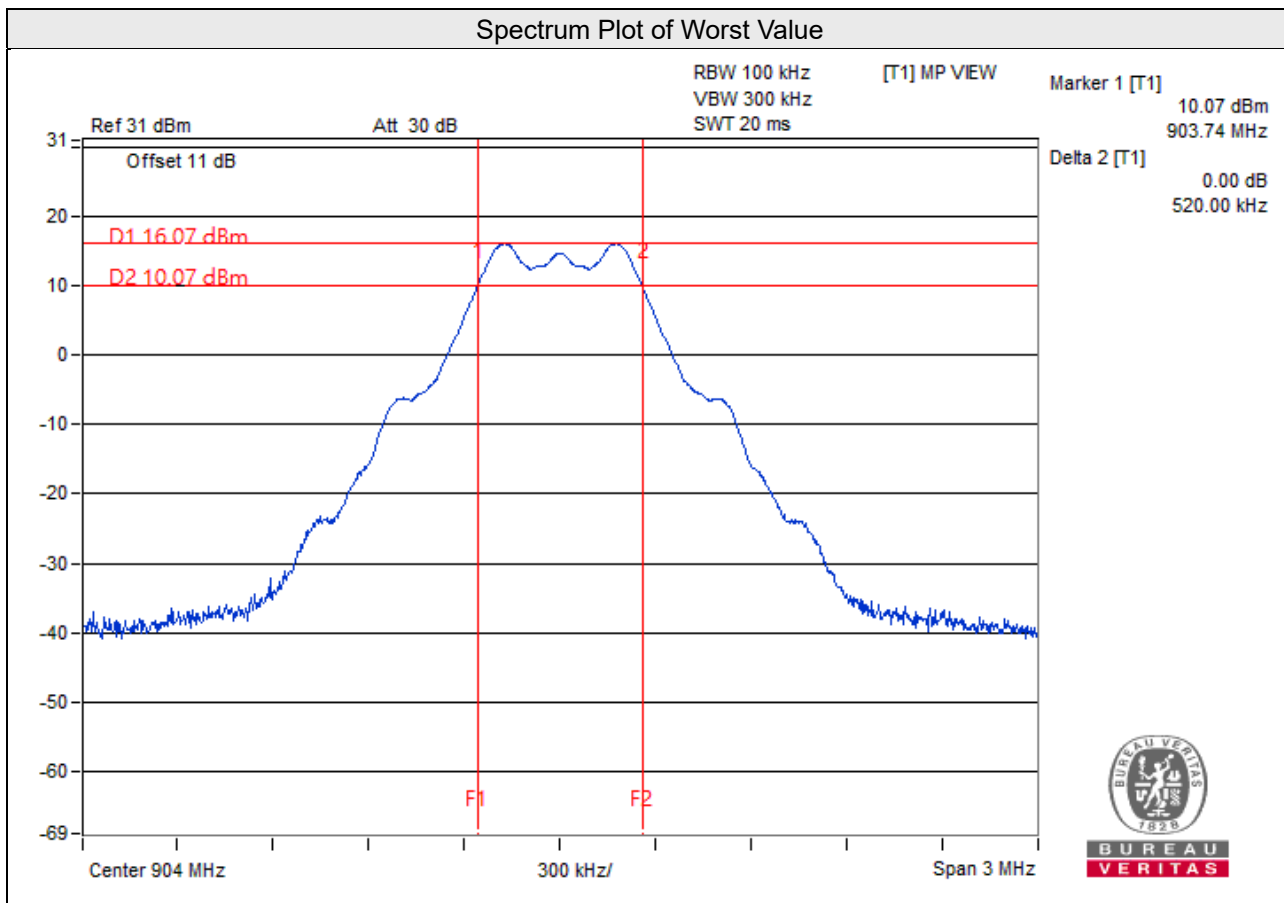
Data Rate: 80kbps

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



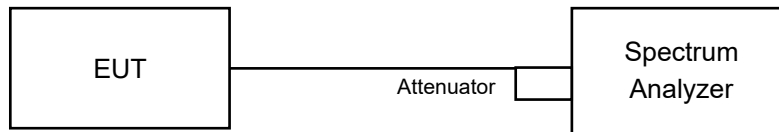
Data Rate: 500kbps

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



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.

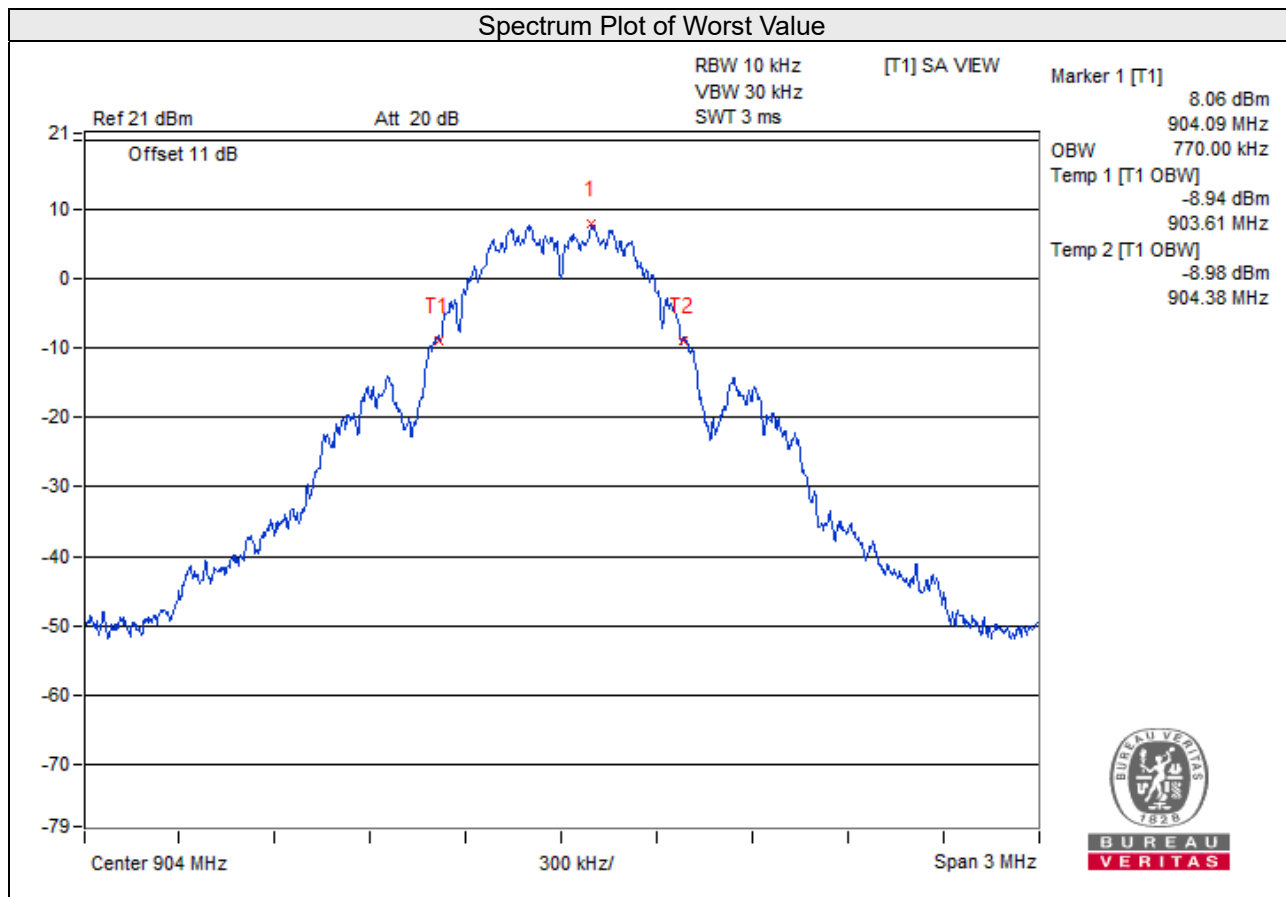
4.3.5 EUT Operating Conditions

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

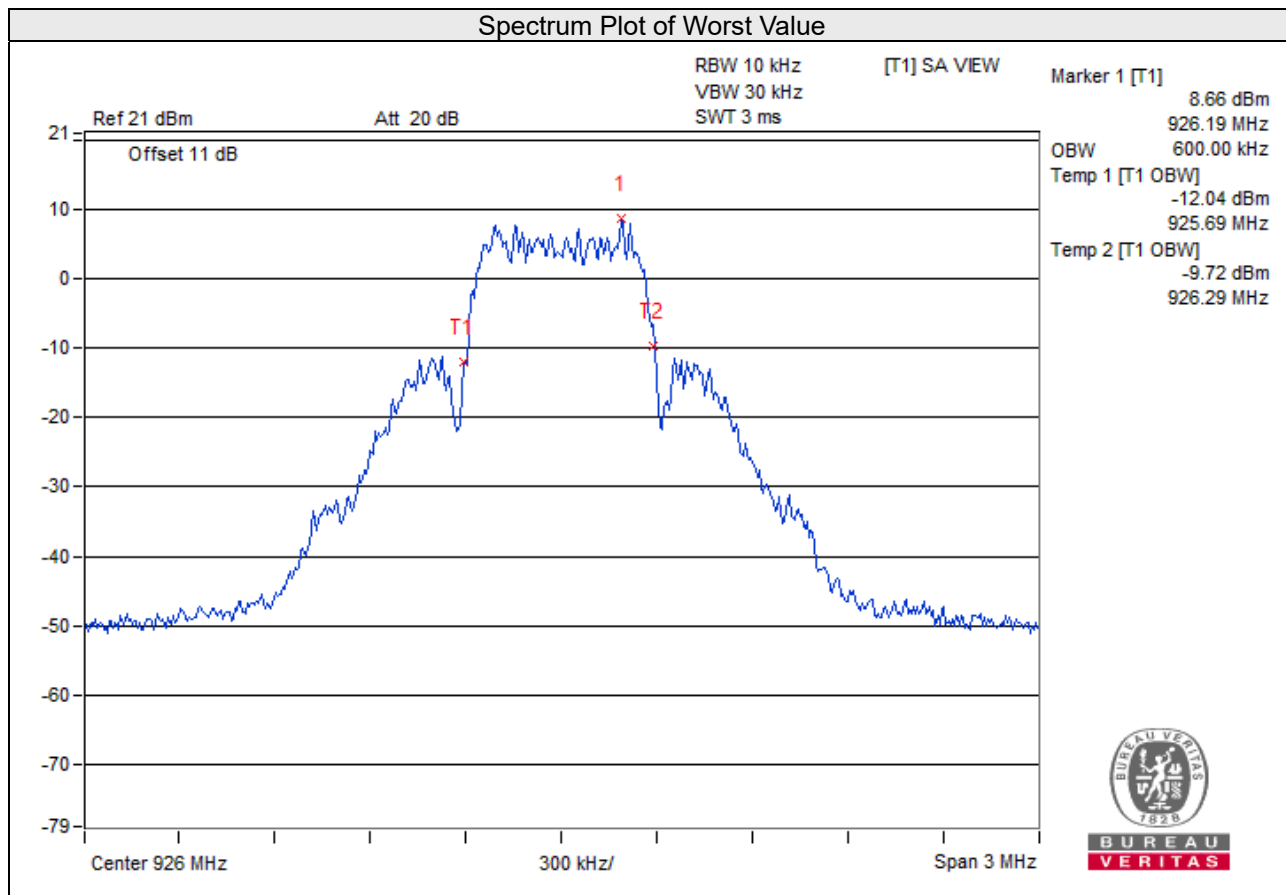
Data Rate: 80kbps

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
1	904	0.77
12	915	0.77
23	926	0.76



Data Rate: 500kbps

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
1	904	0.61
12	915	0.61
23	926	0.60

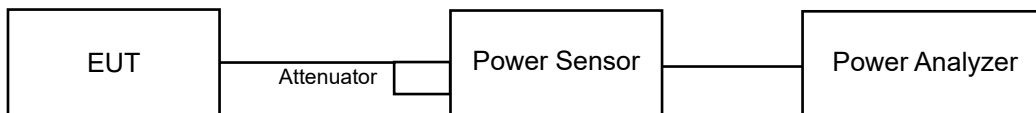


4.4 Conducted Output Power Measurement

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	49.431	16.94	30.00	Pass
12	915	48.753	16.88	30.00	Pass
23	926	48.084	16.82	30.00	Pass

For Average Power

Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	904	48.641	16.87
12	915	47.973	16.81
23	926	47.315	16.75

Data Rate: 500kbps

For Peak Power

Channel	Frequency (MHz)	Peak Power (mW)	Peak Power (dBm)	Limit (dBm)	Pass/Fail
1	904	49.545	16.95	30.00	Pass
12	915	48.865	16.89	30.00	Pass
23	926	47.973	16.81	30.00	Pass

For Average Power

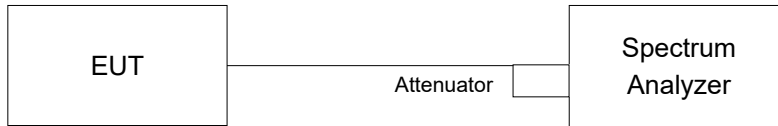
Channel	Frequency (MHz)	Average Power (mW)	Average Power (dBm)
1	904	48.753	16.88
12	915	48.084	16.82
23	926	47.206	16.74

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: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
- d. Set the VBW $\geq 3 \times \text{RBW}$.
- 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.

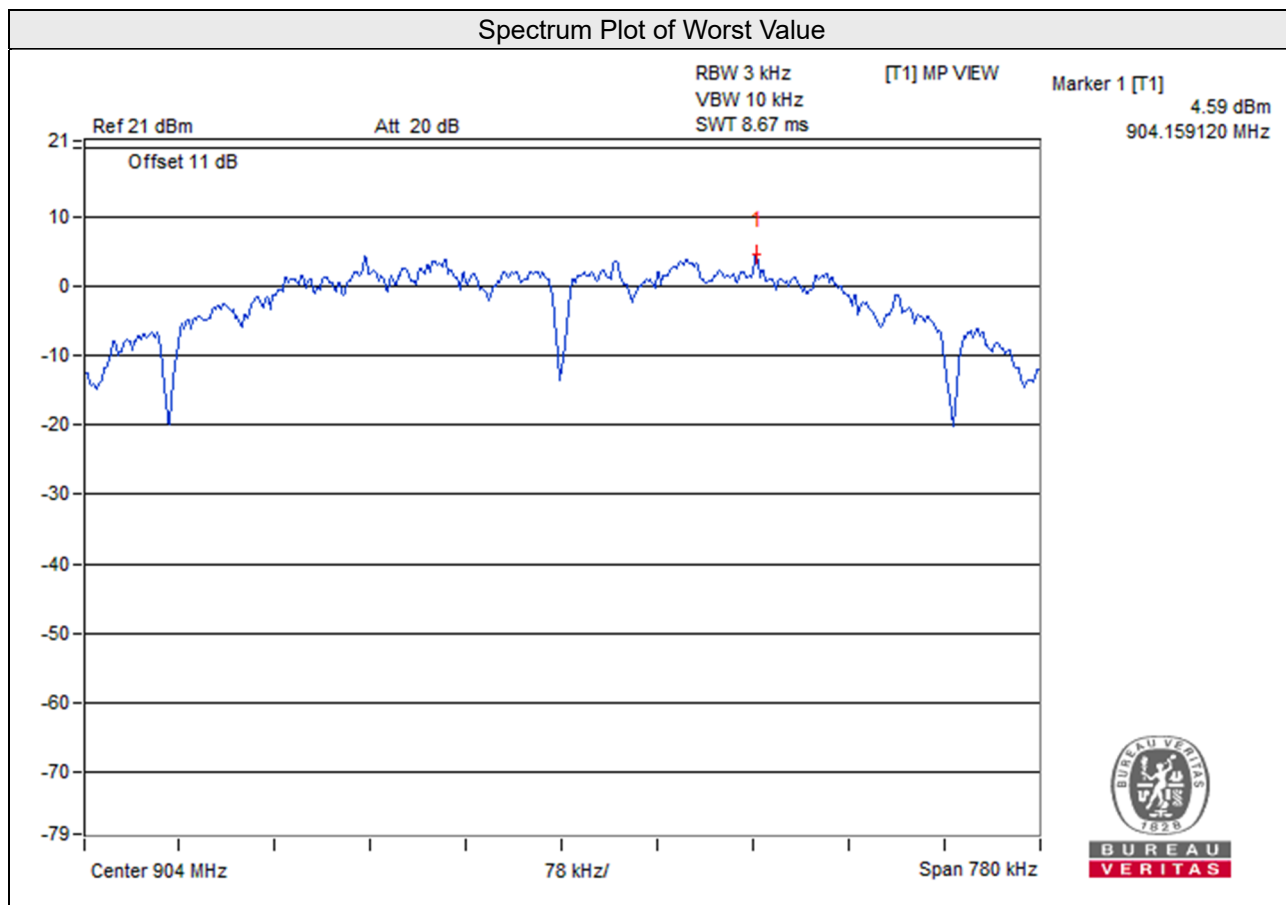
4.5.6 EUT Operating Condition

Same as item 4.2.6

4.5.7 Test Results

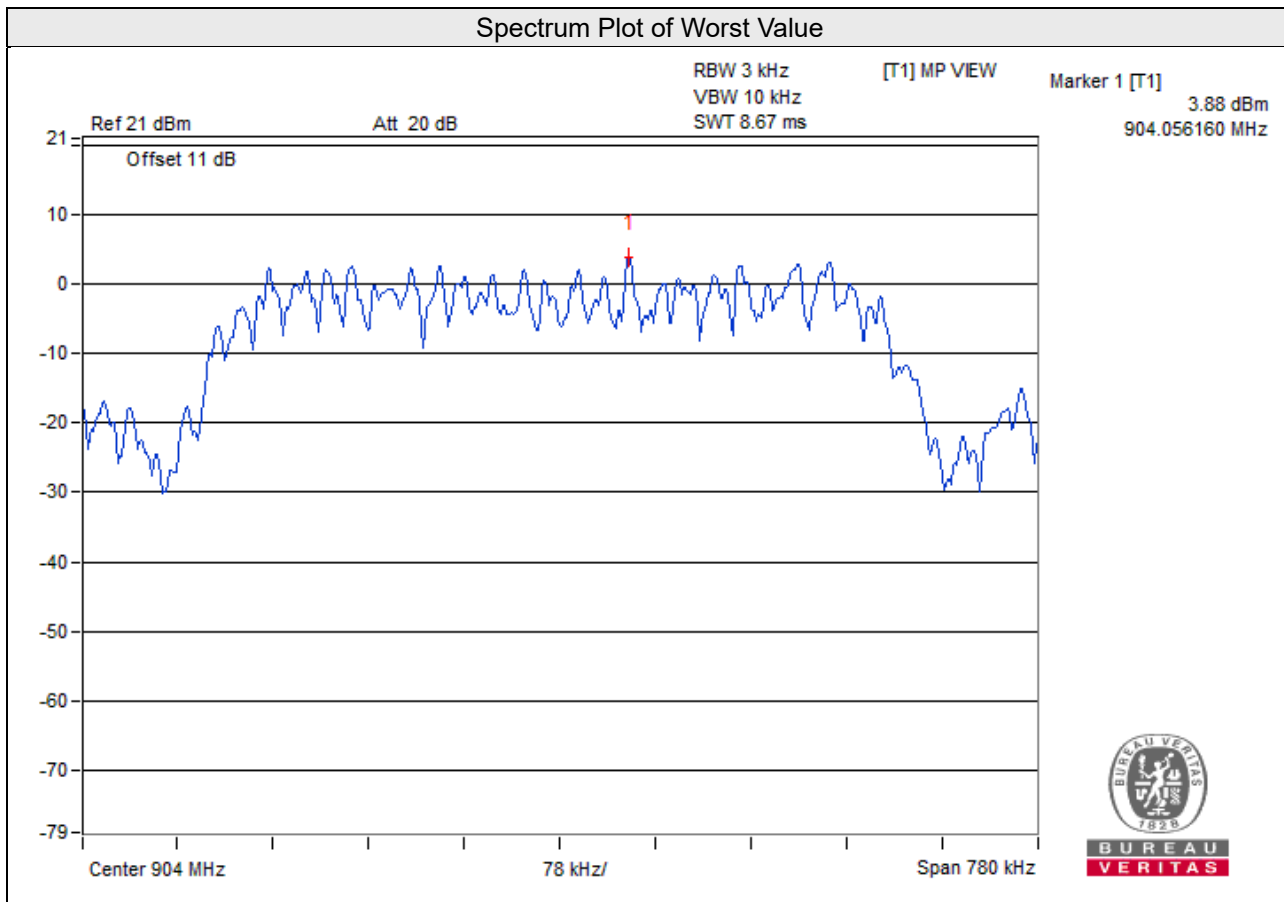
Data Rate: 80kbps

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
1	904	4.59	8.00	Pass
12	915	4.55	8.00	Pass
23	926	4.52	8.00	Pass



Data Rate: 500kbps

Channel	Freq. (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Pass / Fail
1	904	3.88	8.00	Pass
12	915	3.85	8.00	Pass
23	926	3.80	8.00	Pass

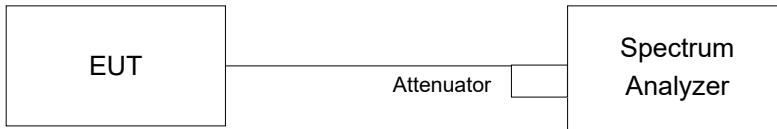


4.6 Conducted Out of Band Emission Measurement

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

- Set the RBW = 100 kHz.
- Set the VBW \geq 300 kHz.
- Detector = peak.
- Sweep time = auto couple.
- Trace mode = max hold.
- Allow trace to fully stabilize.
- Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW.

MEASUREMENT PROCEDURE OOB

- Set RBW = 100 kHz.
- Set VBW \geq 300 kHz.
- Detector = peak.
- Sweep = auto couple.
- Trace Mode = max hold.
- Allow trace to fully stabilize.
- 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

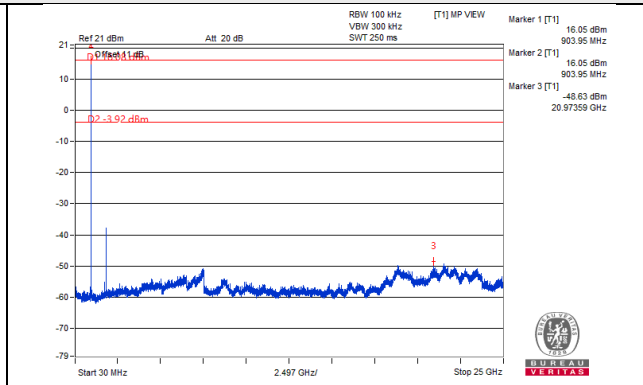
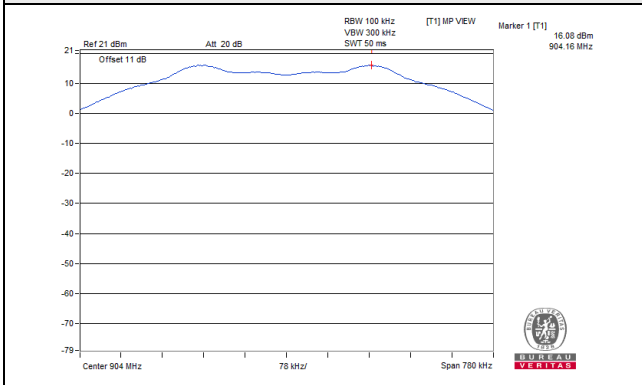
4.6.7 Test Results

The conducted emission test is performed on each TX port of operating mode without summing or adding $10\log(N)$ since the limit is relative emission limit.

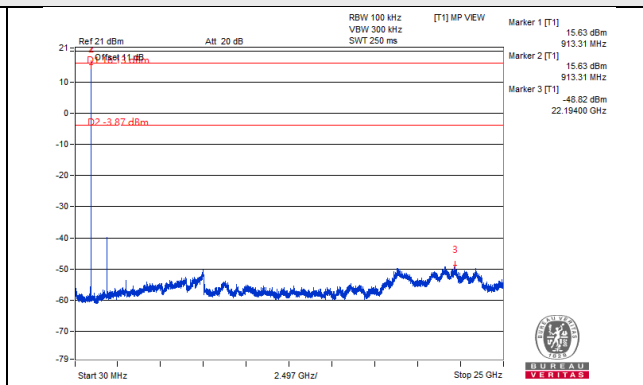
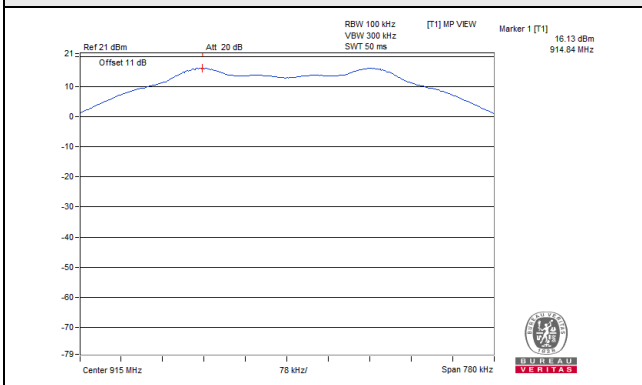
The spectrum plots are attached on the following pages. D1 line indicates the highest level, and D2 line indicates the 20dB offset below D1. It shows compliance with the requirement.

Data Rate: 80kbps

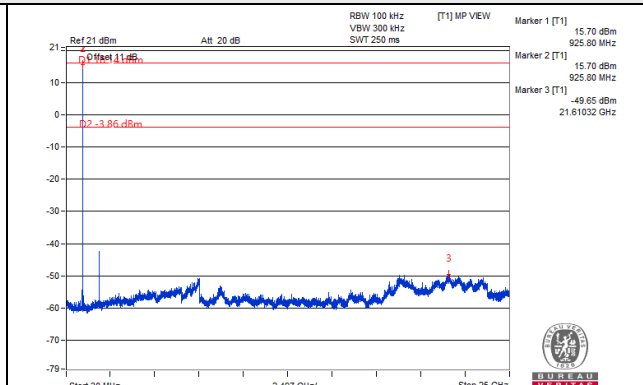
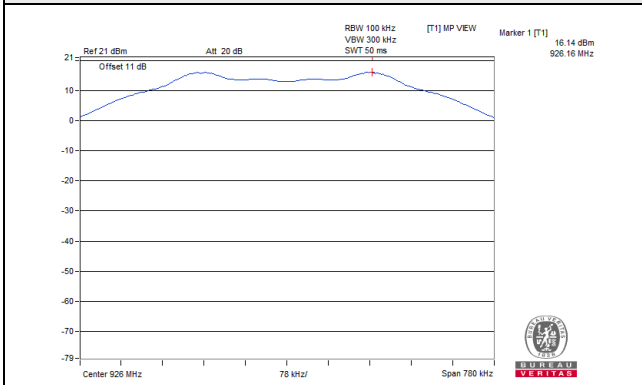
CH 1



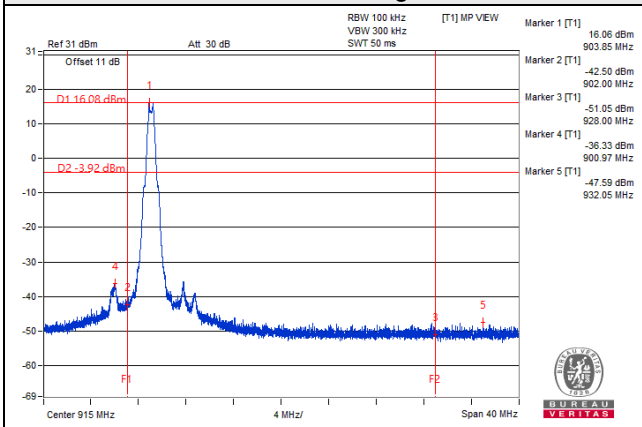
CH 12



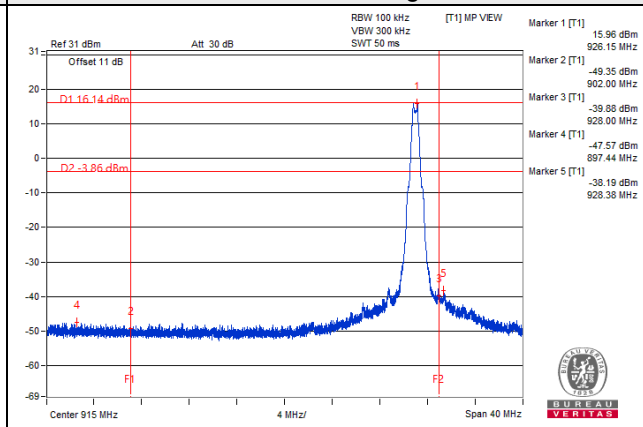
CH 23



CH 1 Band edge

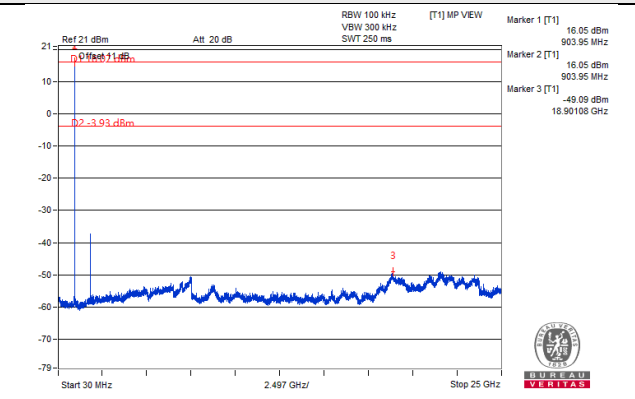
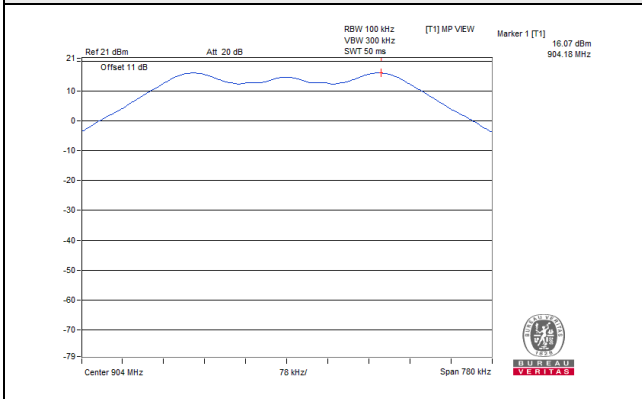


CH 23 Band edge

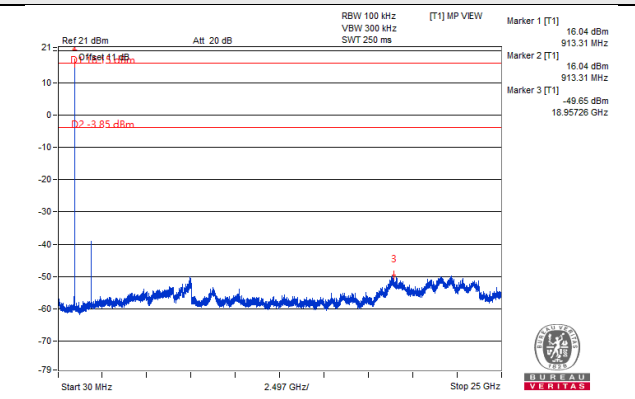
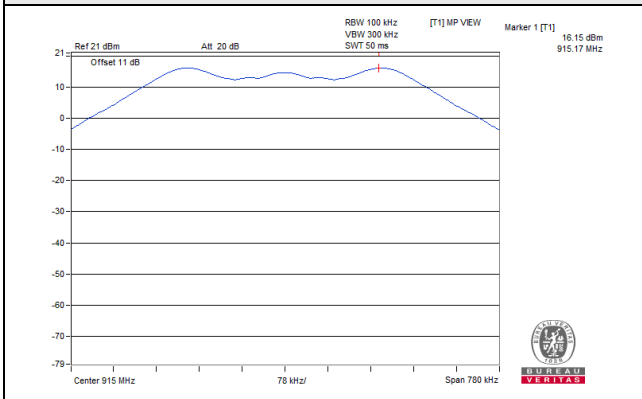


Data Rate: 500kbps

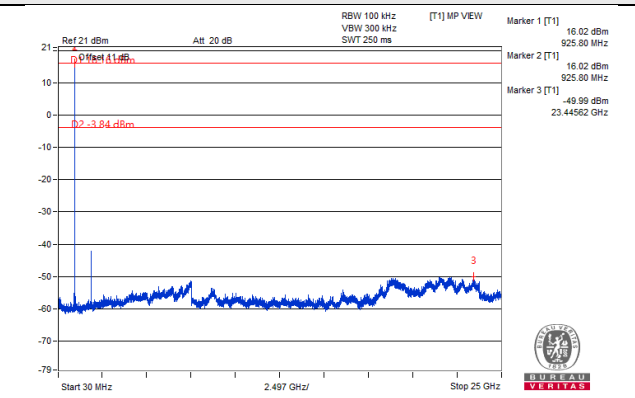
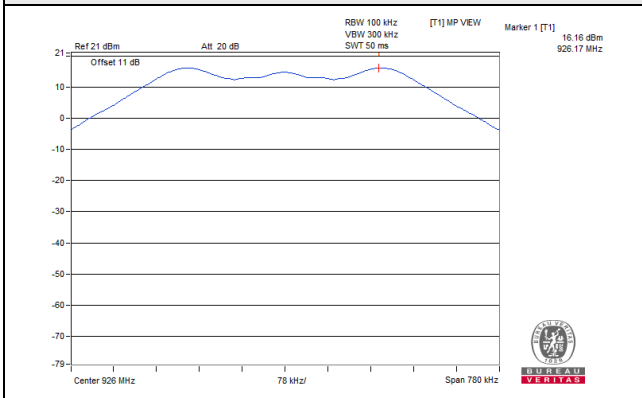
CH 1



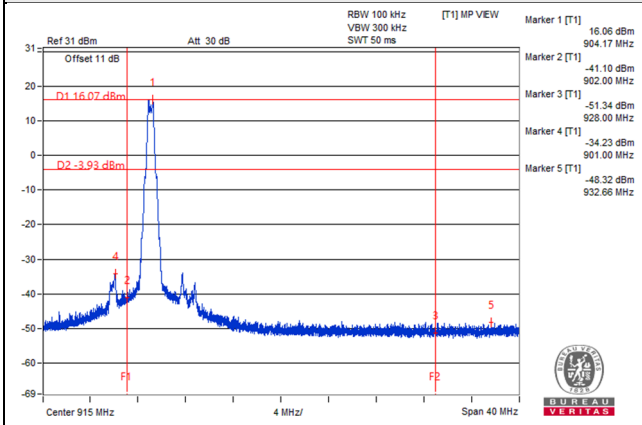
CH 12



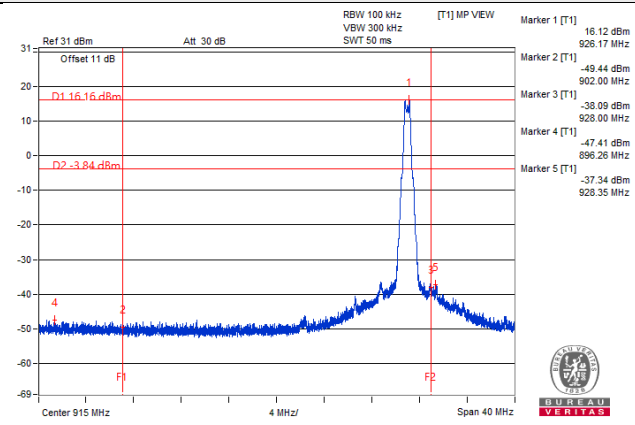
CH 23



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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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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