

FCC Test Report

Report No.: RF190212E02

FCC ID: 2ANPR-M-PWRSENS

Test Model: M-PWRSENS

Received Date: Feb. 12, 2019

Test Date: Feb. 12 to 22, 2019

Issued Date: Mar. 12, 2019

Applicant: SensThys, Inc.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory

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Taiwan R.O.C.

Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan R.O.C.

**FCC Registration /
Designation Number:** 723255 / TW2022



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Release Control Record

Issue No.	Description	Date Issued
RF190212E02	Original release.	Mar. 12, 2019

1 Certificate of Conformity

Product: M-PWRSENS

Brand: SensThys, Inc.

Test Model: M-PWRSENS

Sample Status: ENGINEERING SAMPLE

Applicant: SensThys, Inc.

Test Date: Feb. 12 to 22, 2019

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 EMC characteristics under the conditions specified in this report.

Prepared by : Cindy Hsin, **Date:** Mar. 12, 2019
Cindy Hsin / Specialist

Approved by : May Chen, **Date:** Mar. 12, 2019
May Chen / Manager

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	PASS	Meet the requirement of limit. Minimum passing margin is -6.27dB at 0.48203MHz.
15.247(a)(1)(iii)	Number of Hopping Frequency Used	PASS	Meet the requirement of limit.
15.247(a)(1)(iii)	Dwell Time on Each Channel	PASS	Meet the requirement of limit.
15.247(a)(1)	1. Hopping Channel Separation 2. Spectrum Bandwidth of a Frequency Hopping Sequence Spread Spectrum System	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power	PASS	Meet the requirement of limit.
15.205 & 15.209 & 15.247(d)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -6.0dB at 199.98MHz.
15.247(d)	Antenna Port Emission	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is SMA Female not a standard connector.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.8 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	4.9 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.1 dB
	6GHz ~ 18GHz	4.9 dB
	18GHz ~ 40GHz	5.2 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	M-PWRSENS
Brand	SensThys, Inc.
Test Model	M-PWRSENS
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	DC 37~56V
Modulation Type	ASK
Modulation Technology	FHSS
Operating Frequency	902.75MHz ~ 927.25MHz
Number of Channel	50
Output Power	893.305mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Data Cable Supplied	NA

Note:

1. The EUT must be supplied with a PoE adapter as following table: (only for test not for sale)

Brand	Model No.	Spec.
PowerDsine HiPoE	PD-9501 G/SP/AC	Input: 100-240Vac, 1.5A, 50-60Hz Output: 55Vdc, 1.35A

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

Ant. No.	Antenna Net Gain (dBi)	Frequency range (MHz to MHz)	Antenna Type	Connector Type	Cable Loss(dB)	Excluding cable loss Antenna Gain(dBic)
1	4.75	902~928	Patch	SMA Female	0.75	8.5
2	5.25	902~928	Patch	SMA Female	0.75	9

Note:

1. The EUT has four chain ports (chain 0 / chain 1 / chain 2 / chain 3) and can connect any one to function. When one chain port functions, another don't any function.
2. From the above conditions, the worst cases were found in Chain 0. Therefore only the test data of the mode was recorded in this report.
3. Max. gain was selected for final test.

3. The EUT has three different Link Profile designs as following table:

Type No	Link Profile
1	PR_ASK/M4/250kHz
2	DSB_ASK/FM0/40kHz
3	DSB_ASK/FM0/400kHz

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

3.2 Description of Test Modes

50 channels are provided to this EUT.

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
0	902.75	21	913.25	42	923.75
1	903.25	22	913.75	43	924.25
2	903.75	23	914.25	44	924.75
3	904.25	24	914.75	45	925.25
4	904.75	25	915.25	46	925.75
5	905.25	26	915.75	47	926.25
6	905.75	27	916.25	48	926.75
7	906.25	28	916.75	49	927.25
8	906.75	29	917.25		
9	907.25	30	917.75		
10	907.75	31	918.25		
11	908.25	32	918.75		
12	908.75	33	919.25		
13	909.25	34	919.75		
14	909.75	35	920.25		
15	910.25	36	920.75		
16	910.75	37	921.25		
17	911.25	38	921.75		
18	911.75	39	922.25		
19	912.25	40	922.75		
20	912.75	41	923.25		

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE $\geq$ 1G	RE<1G	PLC	APCM	
1	√	√	√	√	with Link Profile design: Type 1
2	√	√	-	√	with Link Profile design: Type 2
3	√	√	-	√	with Link Profile design: Type 3

Where **RE $\geq$ 1G**: Radiated Emission above 1GHz **RE<1G**: Radiated Emission below 1GHz

APCM: Antenna Port Conducted Measurement **PLC**: Power Line Conducted Emission

NOTE: "-" means no effect.

NOTE: 1. According to the User's manual the module arrange the antenna to use the vertical setting

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.

Available Channel	Tested Channel	Modulation Technology	Modulation Technology
0 to 49	0, 24, 49	FHSS	ASK

Radiated Emission Test (Below 1GHz):

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

Available Channel	Tested Channel	Modulation Technology	Modulation Technology
0 to 49	0, 24, 49	FHSS	ASK

Power Line Conducted Emission Test:

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

Available Channel	Tested Channel	Modulation Technology	Modulation Technology
0 to 49	0	FHSS	ASK

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.

Available Channel	Tested Channel	Modulation Technology	Modulation Technology
0 to 49	0, 24, 49	FHSS	ASK

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (System)	TESTED BY
RE $\geq$ 1G	19deg. C, 63%RH	120Vac, 60Hz	Robert Cheng
RE<1G	21deg. C, 66%RH	120Vac, 60 Hz	Rey Chen
PLC	23deg. C, 75%RH	120Vac, 60 Hz	Andy Ho
APCM	25deg. C, 60%RH	120Vac, 60 Hz	Jyunchun Lin

3.3 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E6420	B92T3R1	FCC DoC	Provided by Lab
B.	Test Tool	NA	NA	NA	NA	Supplied by client
C.	POE	NA	NA	NA	NA	Supplied by client

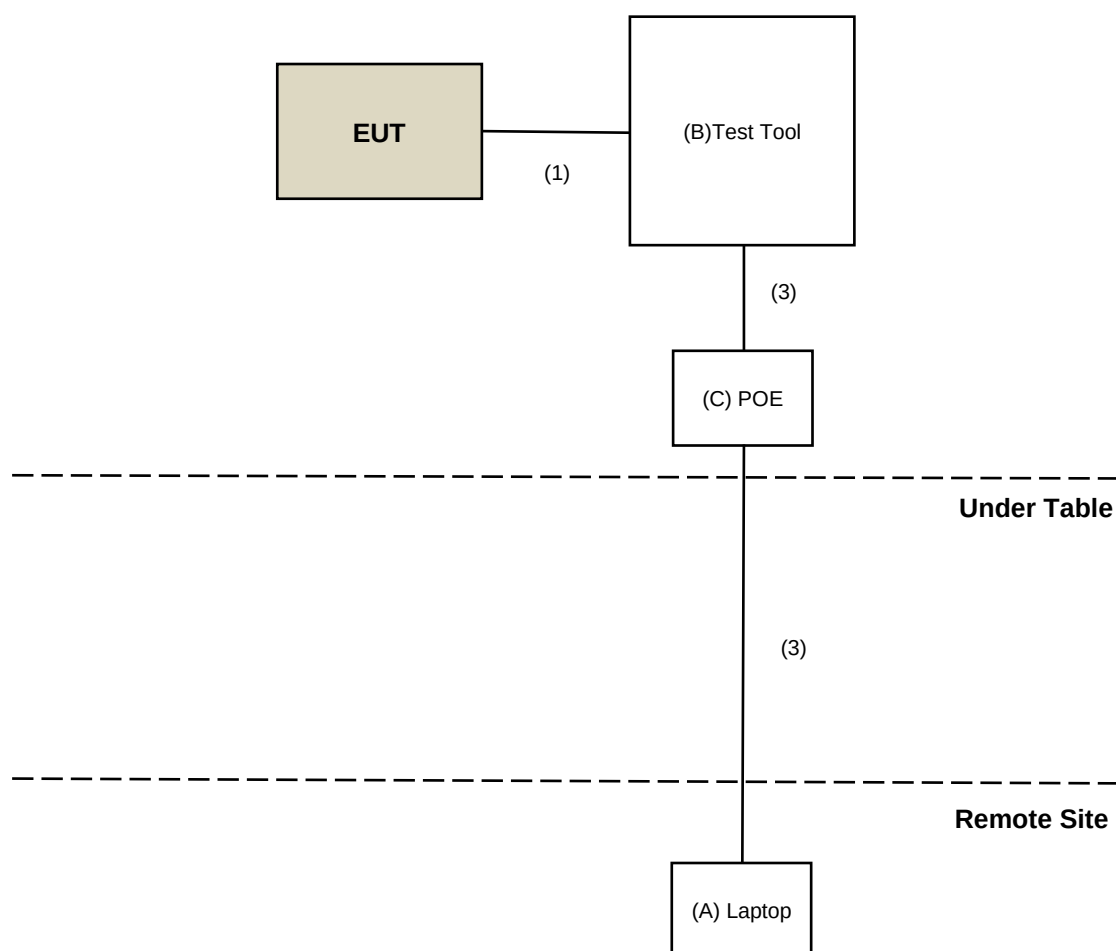
Note:

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

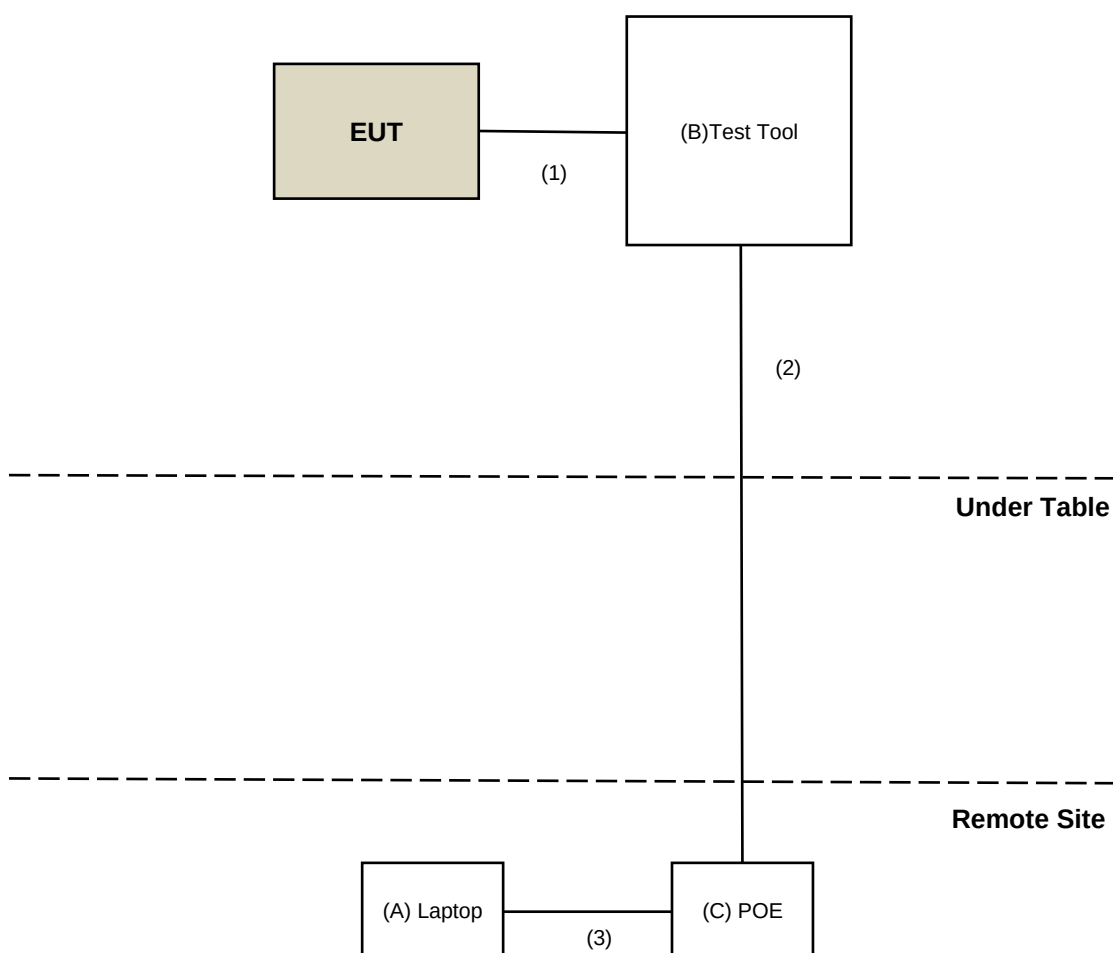
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Console Cable	1	0.03	No	0	Supplied by client
2.	RJ-45 Cable	1	10	No	0	Provided by Lab
3.	RJ-45 Cable	1	1.5	No	0	Provided by Lab

3.3.1 Configuration of System under Test

For Conducted emission test :



For Radiated emission test :



3.4 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C (15.247)

KDB 558074 D01 15.247 Meas Guidance v05

ANSI C63.10-2013

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

4 Test Types and Results

4.1 Radiated Emission 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
Test Receiver Keysight	N9038A	MY54450088	July 05, 2018	July 04, 2019
Pre-Amplifier EMCi	EMC001340	980142	Jan. 25, 2019	Jan. 24, 2020
Loop Antenna Electro-Metrics	EM-6879	269	Sep. 07, 2018	Sep. 06, 2019
RF Cable	NA	LOOPCAB-001	Jan. 14, 2019	Jan. 13, 2020
RF Cable	NA	LOOPCAB-002	Jan. 14, 2019	Jan. 13, 2020
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-01	Oct. 30, 2018	Oct. 29, 2019
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Nov. 22, 2018	Nov. 21, 2019
RF Cable	8D	966-4-1	Mar. 21, 2018	Mar. 20, 2019
RF Cable	8D	966-4-2	Mar. 21, 2018	Mar. 20, 2019
RF Cable	8D	966-4-3	Mar. 21, 2018	Mar. 20, 2019
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-4-01	Sep. 27, 2018	Sep. 26, 2019
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Nov. 25, 2018	Nov. 24, 2019
Pre-Amplifier EMCi	EMC12630SE	980385	Aug. 16, 2018	Aug. 15, 2019
RF Cable	EMC104-SM-SM-1200	160923	Jan. 28, 2019	Jan. 27, 2020
RF Cable	104 RF cable	131215	Jan. 10, 2019	Jan. 09, 2020
RF Cable	EMC104-SM-SM-6000	180418	May 07, 2018	May 06, 2019
Pre-Amplifier EMCi	EMC184045SE	980387	Jan. 28, 2019	Jan. 27, 2020
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170519	Nov. 25, 2018	Nov. 24, 2019
RF Cable	EMC102-KM-KM-1200	160924	Jan. 28, 2019	Jan. 27, 2020
RF Cable	EMC102-KM-KM-1200	160925	Jan. 28, 2019	Jan. 27, 2020
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	NA	NA
Spectrum Analyzer R&S	FSV40	100964	June 20, 2018	June 19, 2019
Power meter Anritsu	ML2495A	1014008	May 09, 2018	May 08, 2019
Power sensor Anritsu	MA2411B	0917122	May 09, 2018	May 08, 2019

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 966 Chamber No. 4.
3. The CANADA Site Registration No. is 20331-2
4. Loop antenna was used for all emissions below 30 MHz.
5. Tested Date: Feb. 12 to 13, 2019

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. Both 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:

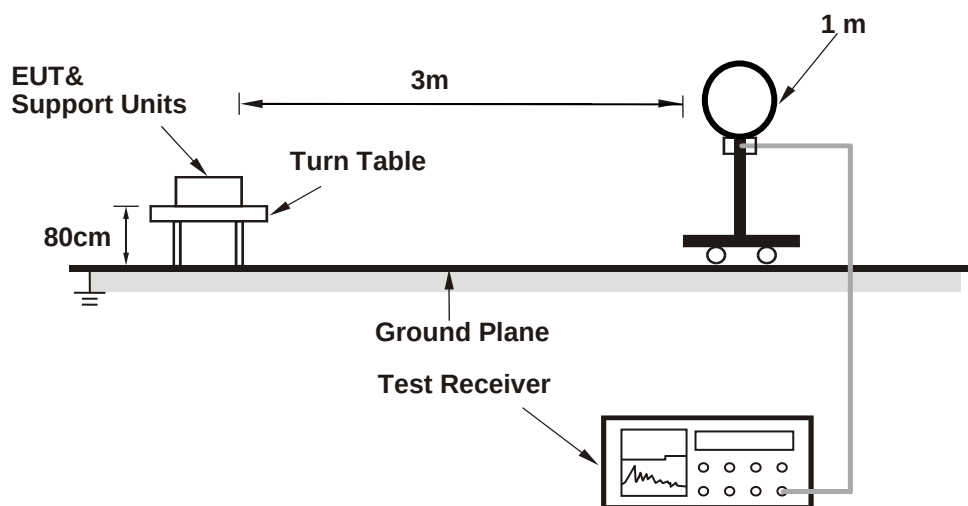
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

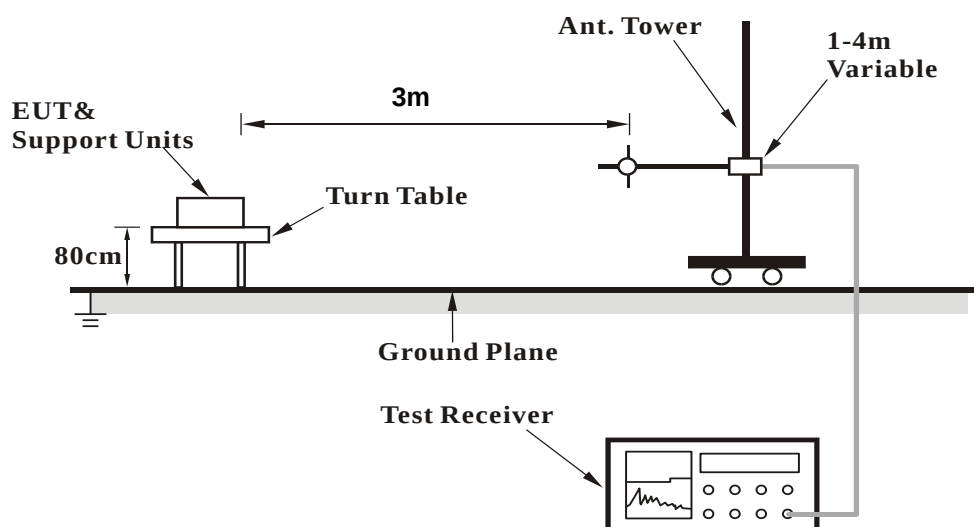
No deviation.

4.1.5 Test Setup

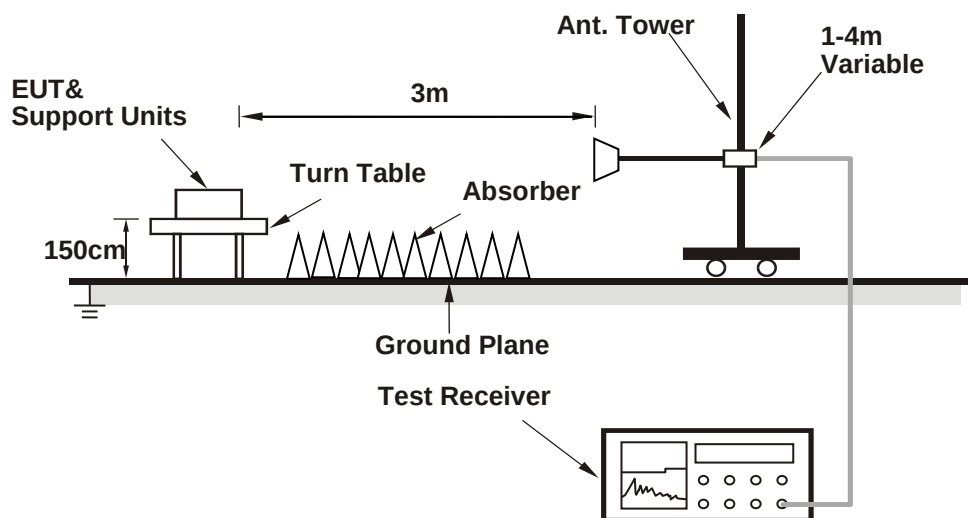
For Radiated emission below 30MHz



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

- Placed the EUT on the testing table.
- Controlling software (RFID_Console_V1.0.7.2) has been activated to set the EUT on specific status.

4.1.7 Test Results (Mode 1)

Above 1GHz Data:

CHANNEL	TX Channel 0	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 10GHz		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	#1805.50	44.4 PK	74.0	-29.6	1.45 H	122	48.9	-4.5
2	#1805.50	43.0 AV	54.0	-11.0	1.45 H	122	47.5	-4.5
3	2708.25	40.2 PK	74.0	-33.8	1.45 H	356	42.3	-2.1
4	2708.25	38.5 AV	54.0	-15.5	1.45 H	356	40.6	-2.1
5	5416.50	40.2 PK	74.0	-33.8	1.65 H	41	37.4	2.8
6	5416.50	30.0 AV	54.0	-24.0	1.65 H	41	27.2	2.8
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	#1854.50	42.3 PK	74.0	-31.7	1.70 V	325	46.8	-4.5
2	#1854.50	39.0 AV	54.0	-15.0	1.70 V	325	43.5	-4.5
3	2781.75	39.1 PK	74.0	-34.9	1.78 V	170	40.9	-1.8
4	2781.75	31.4 AV	54.0	-22.6	1.78 V	170	33.2	-1.8
5	#5563.50	43.1 PK	74.0	-30.9	2.40 V	191	40.2	2.9
6	#5563.50	37.4 AV	54.0	-16.6	2.40 V	191	34.5	2.9

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 24	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 10GHz		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	#1829.50	43.2 PK	74.0	-30.8	1.27 H	81	47.7	-4.5
2	#1829.50	39.5 AV	54.0	-14.5	1.27 H	81	44.0	-4.5
3	2744.25	40.1 PK	74.0	-33.9	1.51 H	321	42.0	-1.9
4	2744.25	39.4 AV	54.0	-14.6	1.51 H	321	41.3	-1.9
5	#5488.50	40.2 PK	74.0	-33.8	1.46 H	100	37.3	2.9
6	#5488.50	31.1 AV	54.0	-22.9	1.46 H	100	28.2	2.9
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	#1829.50	42.9 PK	74.0	-31.1	1.68 V	300	47.4	-4.5
2	#1829.50	39.4 AV	54.0	-14.6	1.68 V	300	43.9	-4.5
3	2744.25	39.2 PK	74.0	-34.8	1.88 V	176	41.1	-1.9
4	2744.25	31.4 AV	54.0	-22.6	1.88 V	176	33.3	-1.9
5	#5488.50	43.4 PK	74.0	-30.6	2.44 V	162	40.5	2.9
6	#5488.50	37.7 AV	54.0	-16.3	2.44 V	162	34.8	2.9

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 49	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 10GHz		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	#1854.50	43.8 PK	74.0	-30.2	1.41 H	101	48.3	-4.5
2	#1854.50	42.2 AV	54.0	-11.8	1.41 H	101	46.7	-4.5
3	2781.75	40.3 PK	74.0	-33.7	1.48 H	351	42.1	-1.8
4	2781.75	38.1 AV	54.0	-15.9	1.48 H	351	39.9	-1.8
5	#5563.50	40.6 PK	74.0	-33.4	1.61 H	100	37.7	2.9
6	#5563.50	30.3 AV	54.0	-23.7	1.61 H	100	27.4	2.9
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	#1854.50	42.3 PK	74.0	-31.7	1.70 V	325	46.8	-4.5
2	#1854.50	39.0 AV	54.0	-15.0	1.70 V	325	43.5	-4.5
3	2781.75	39.1 PK	74.0	-34.9	1.78 V	170	40.9	-1.8
4	2781.75	31.4 AV	54.0	-22.6	1.78 V	170	33.2	-1.8
5	#5563.50	43.1 PK	74.0	-30.9	2.40 V	191	40.2	2.9
6	#5563.50	37.4 AV	54.0	-16.6	2.40 V	191	34.5	2.9

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. " # ": The radiated frequency is out of the restricted band.

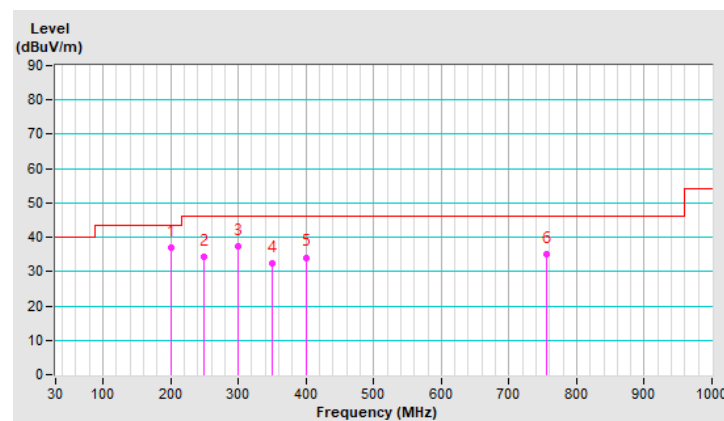
Below 1GHz Data:

CHANNEL	TX Channel 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	199.98	36.9 QP	43.5	-6.6	1.24 H	100	47.3	-10.4
2	250.02	34.4 QP	46.0	-11.6	1.44 H	77	43.1	-8.7
3	300.01	37.2 QP	46.0	-8.8	1.40 H	244	44.3	-7.1
4	350.02	32.4 QP	46.0	-13.6	1.22 H	88	38.4	-6.0
5	399.99	34.1 QP	46.0	-11.9	1.20 H	255	38.5	-4.4
6	754.99	35.1 QP	46.0	-10.9	1.45 H	77	31.5	3.6

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 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.

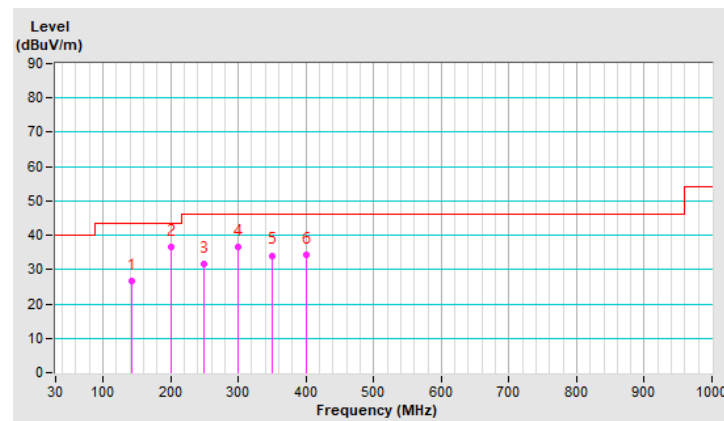


CHANNEL	TX Channel 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	143.42	26.5 QP	43.5	-17.0	1.02 V	111	34.5	-8.0
2	199.98	36.6 QP	43.5	-6.9	1.10 V	165	47.0	-10.4
3	250.03	31.7 QP	46.0	-14.3	1.24 V	120	40.4	-8.7
4	300.02	36.5 QP	46.0	-9.5	1.42 V	75	43.6	-7.1
5	350.11	34.1 QP	46.0	-11.9	1.74 V	152	40.1	-6.0
6	399.99	34.2 QP	46.0	-11.8	1.21 V	102	38.6	-4.4

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 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.

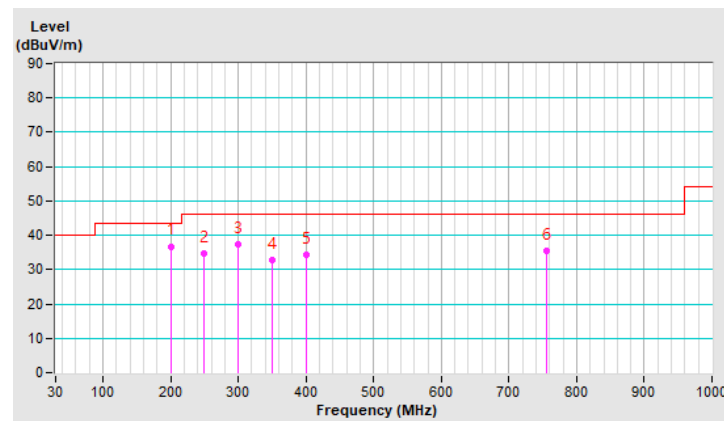


CHANNEL	TX Channel 24	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	199.99	36.8 QP	43.5	-6.7	1.35 H	124	47.2	-10.4
2	250.01	34.6 QP	46.0	-11.4	1.52 H	88	43.3	-8.7
3	300.02	37.5 QP	46.0	-8.5	1.65 H	199	44.6	-7.1
4	350.01	32.6 QP	46.0	-13.4	1.74 H	111	38.6	-6.0
5	399.98	34.4 QP	46.0	-11.6	1.65 H	77	38.8	-4.4
6	754.85	35.4 QP	46.0	-10.6	1.66 H	105	31.8	3.6

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 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.

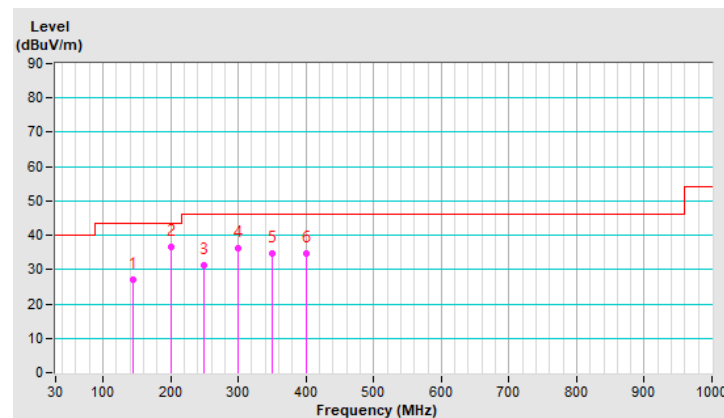


CHANNEL	TX Channel 24	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	143.52	26.9 QP	43.5	-16.6	2.32 V	165	34.9	-8.0
2	199.99	36.4 QP	43.5	-7.1	1.89 V	208	46.8	-10.4
3	250.01	31.2 QP	46.0	-14.8	1.74 V	66	39.9	-8.7
4	300.01	36.1 QP	46.0	-9.9	1.87 V	79	43.2	-7.1
5	350.02	34.6 QP	46.0	-11.4	2.05 V	211	40.6	-6.0
6	399.98	34.6 QP	46.0	-11.4	1.95 V	89	39.0	-4.4

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 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.

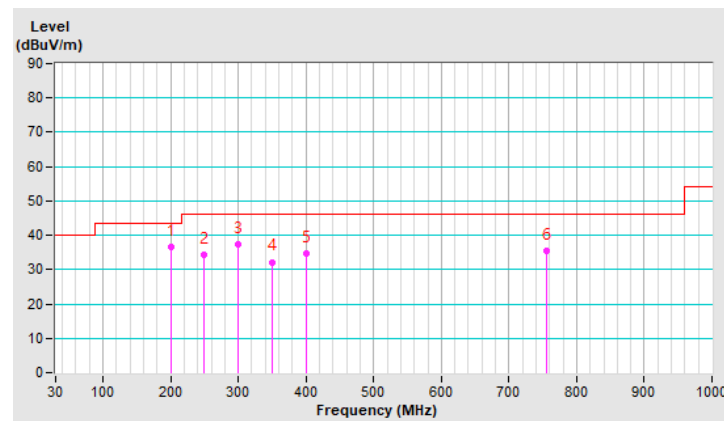


CHANNEL	TX Channel 49	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	199.98	36.5 QP	43.5	-7.0	1.44 H	102	46.9	-10.4
2	250.02	34.2 QP	46.0	-11.8	1.33 H	102	42.9	-8.7
3	300.01	37.2 QP	46.0	-8.8	1.20 H	177	44.3	-7.1
4	350.02	32.2 QP	46.0	-13.8	1.85 H	124	38.2	-6.0
5	399.99	34.6 QP	46.0	-11.4	1.20 H	85	39.0	-4.4
6	754.92	35.6 QP	46.0	-10.4	1.45 H	52	32.0	3.6

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 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.

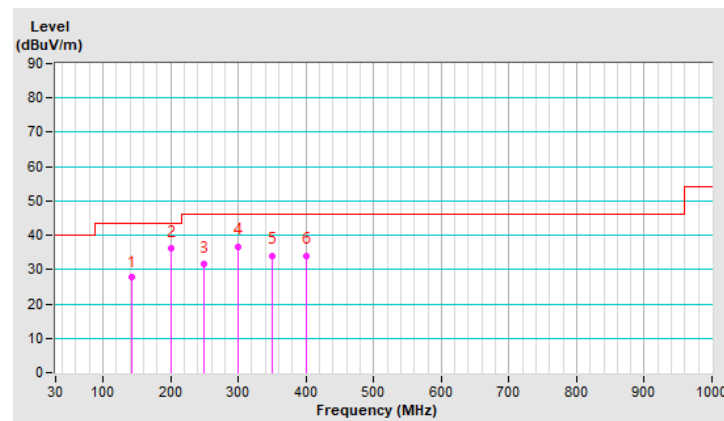


CHANNEL	TX Channel 49	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	143.45	27.6 QP	43.5	-15.9	2.02 V	75	35.6	-8.0
2	199.98	36.1 QP	43.5	-7.4	1.47 V	165	46.5	-10.4
3	250.03	31.6 QP	46.0	-14.4	1.45 V	88	40.3	-8.7
4	300.02	36.8 QP	46.0	-9.2	1.69 V	86	43.9	-7.1
5	350.01	34.1 QP	46.0	-11.9	2.45 V	62	40.1	-6.0
6	399.99	34.1 QP	46.0	-11.9	1.45 V	165	38.5	-4.4

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 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.

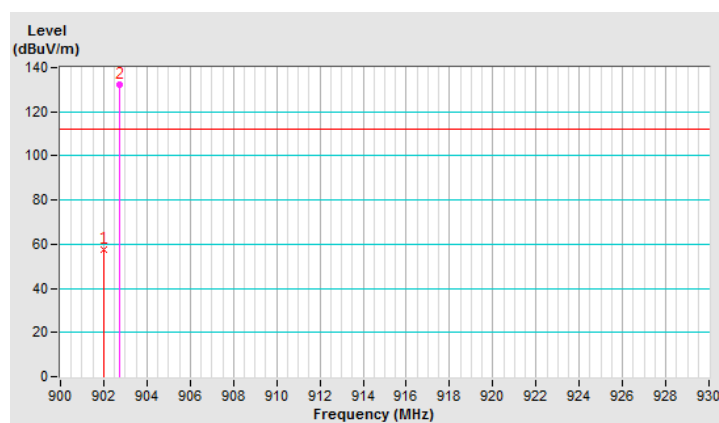


CHANNEL	TX Channel 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	57.4 QP	112.0	-54.6	1.24 H	360	24.7	32.7
2	*902.75	132.0 QP			1.24 H	352	99.3	32.7

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. " * ": Fundamental frequency.

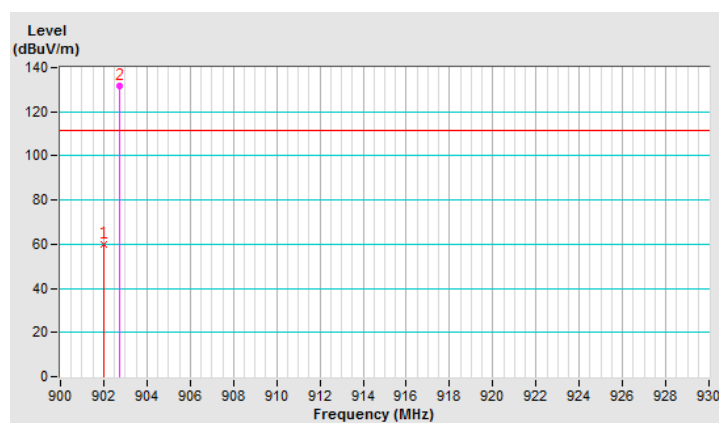


CHANNEL	TX Channel 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	59.7 QP	111.6	-51.9	1.00 V	351	27.0	32.7
2	*902.75	131.6 QP			1.00 V	351	98.9	32.7

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. " * ": Fundamental frequency.

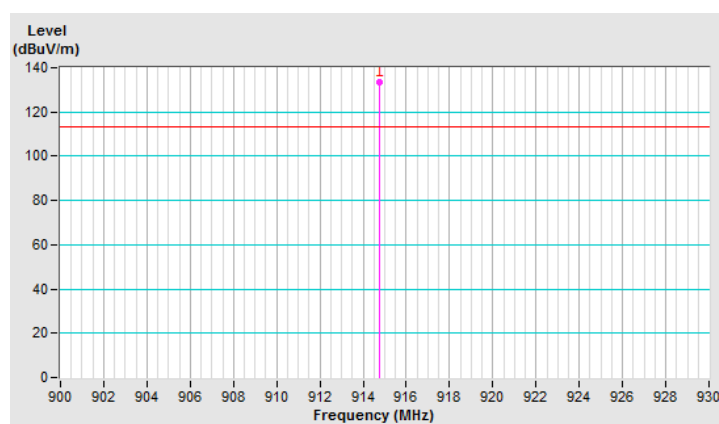


CHANNEL	TX Channel 24	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	*914.75	133.3 QP			1.24 H	352	100.4	32.9

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.

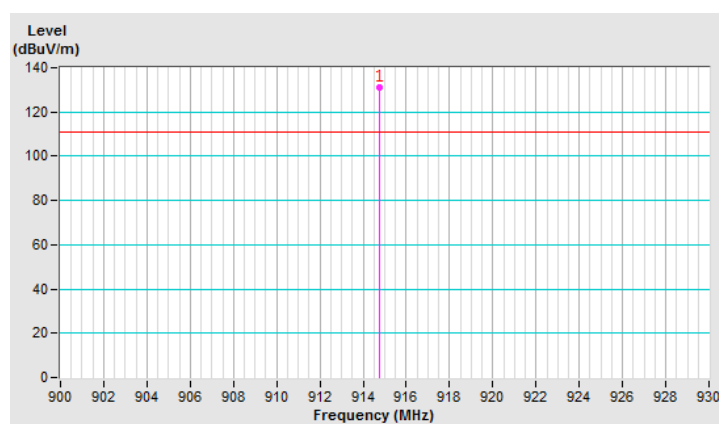


CHANNEL	TX Channel 24	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	*914.75	131.0 QP			1.00 V	351	98.1	32.9

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.

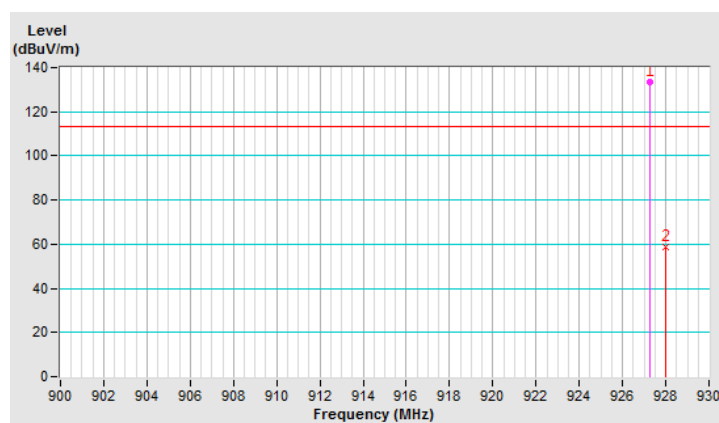


CHANNEL	TX Channel 49	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	*927.25	133.5 QP			1.24 H	352	100.4	33.1
2	928.00	58.5 QP	113.5	-55.0	1.24 H	360	25.4	33.1

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.

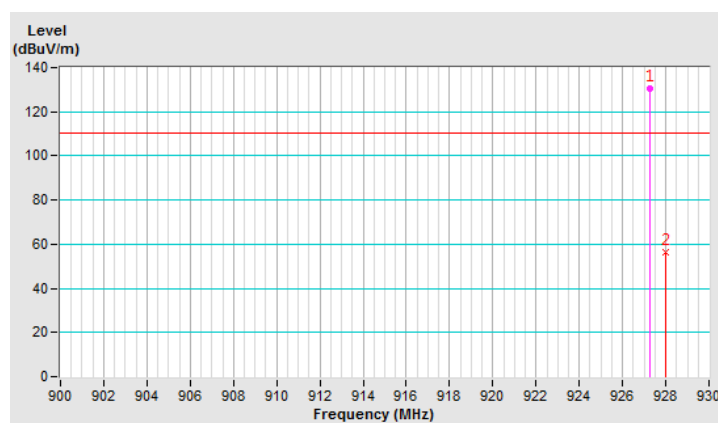


CHANNEL	TX Channel 49	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	*927.25	130.6 QP			1.00 V	351	97.5	33.1
2	928.00	56.5 QP	110.6	-54.1	1.00 V	351	23.4	33.1

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.



4.1.8 Test Results (Mode 2)

Above 1GHz Data:

CHANNEL	TX Channel 0	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 10GHz		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	#1805.50	44.8 PK	74.0	-29.2	1.42 H	120	49.3	-4.5
2	#1805.50	43.4 AV	54.0	-10.6	1.42 H	120	47.9	-4.5
3	2708.25	40.6 PK	74.0	-33.4	1.39 H	360	42.7	-2.1
4	2708.25	38.9 AV	54.0	-15.1	1.39 H	360	41.0	-2.1
5	5416.50	40.0 PK	74.0	-34.0	1.63 H	37	37.2	2.8
6	5416.50	29.8 AV	54.0	-24.2	1.63 H	37	27.0	2.8
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	#1854.50	42.6 PK	74.0	-31.4	1.65 V	311	47.1	-4.5
2	#1854.50	39.3 AV	54.0	-14.7	1.65 V	311	43.8	-4.5
3	2781.75	39.9 PK	74.0	-34.1	1.92 V	162	41.7	-1.8
4	2781.75	32.1 AV	54.0	-21.9	1.92 V	162	33.9	-1.8
5	#5563.50	42.4 PK	74.0	-31.6	2.49 V	178	39.5	2.9
6	#5563.50	37.0 AV	54.0	-17.0	2.49 V	178	34.1	2.9

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 24	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 10GHz		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	#1829.50	44.3 PK	74.0	-29.7	1.42 H	123	48.8	-4.5
2	#1829.50	43.1 AV	54.0	-10.9	1.42 H	123	47.6	-4.5
3	2744.25	40.2 PK	74.0	-33.8	1.36 H	351	42.1	-1.9
4	2744.25	38.5 AV	54.0	-15.5	1.36 H	351	40.4	-1.9
5	#5488.50	40.2 PK	74.0	-33.8	1.62 H	36	37.3	2.9
6	#5488.50	29.7 AV	54.0	-24.3	1.62 H	36	26.8	2.9
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	#1829.50	42.8 PK	74.0	-31.2	1.72 V	311	47.3	-4.5
2	#1829.50	39.2 AV	54.0	-14.8	1.72 V	311	43.7	-4.5
3	2744.25	39.7 PK	74.0	-34.3	1.84 V	191	41.6	-1.9
4	2744.25	31.6 AV	54.0	-22.4	1.84 V	191	33.5	-1.9
5	#5488.50	43.0 PK	74.0	-31.0	2.47 V	186	40.1	2.9
6	#5488.50	37.5 AV	54.0	-16.5	2.47 V	186	34.6	2.9

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 49	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 10GHz		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	#1854.50	44.7 PK	74.0	-29.3	1.36 H	128	49.2	-4.5
2	#1854.50	43.5 AV	54.0	-10.5	1.36 H	128	48.0	-4.5
3	2781.75	40.5 PK	74.0	-33.5	1.41 H	360	42.3	-1.8
4	2781.75	38.8 AV	54.0	-15.2	1.41 H	360	40.6	-1.8
5	#5563.50	39.7 PK	74.0	-34.3	1.59 H	53	36.8	2.9
6	#5563.50	29.5 AV	54.0	-24.5	1.59 H	53	26.6	2.9
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	#1854.50	42.6 PK	74.0	-31.4	1.65 V	311	47.1	-4.5
2	#1854.50	39.3 AV	54.0	-14.7	1.65 V	311	43.8	-4.5
3	2781.75	39.9 PK	74.0	-34.1	1.92 V	162	41.7	-1.8
4	2781.75	32.1 AV	54.0	-21.9	1.92 V	162	33.9	-1.8
5	#5563.50	42.4 PK	74.0	-31.6	2.49 V	178	39.5	2.9
6	#5563.50	37.0 AV	54.0	-17.0	2.49 V	178	34.1	2.9

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. " # ": The radiated frequency is out of the restricted band.

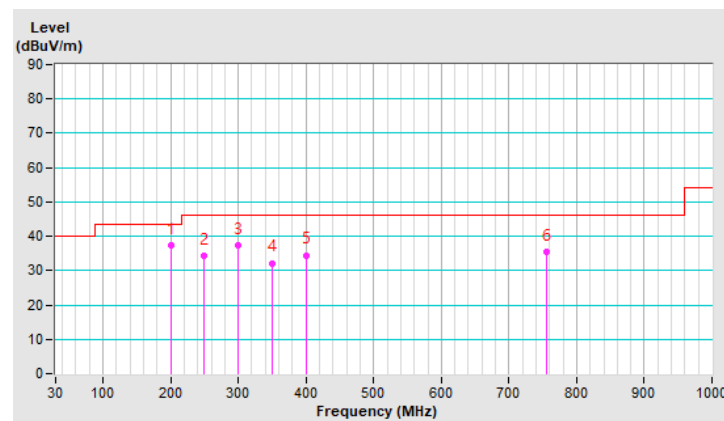
Below 1GHz Data:

CHANNEL	TX Channel 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	199.99	37.2 QP	43.5	-6.3	1.11 H	75	47.6	-10.4
2	250.01	34.2 QP	46.0	-11.8	1.65 H	277	42.9	-8.7
3	300.02	37.5 QP	46.0	-8.5	1.65 H	100	44.6	-7.1
4	350.01	32.2 QP	46.0	-13.8	1.56 H	277	38.2	-6.0
5	399.98	34.5 QP	46.0	-11.5	1.24 H	311	38.9	-4.4
6	754.92	35.4 QP	46.0	-10.6	1.11 H	245	31.8	3.6

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 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.

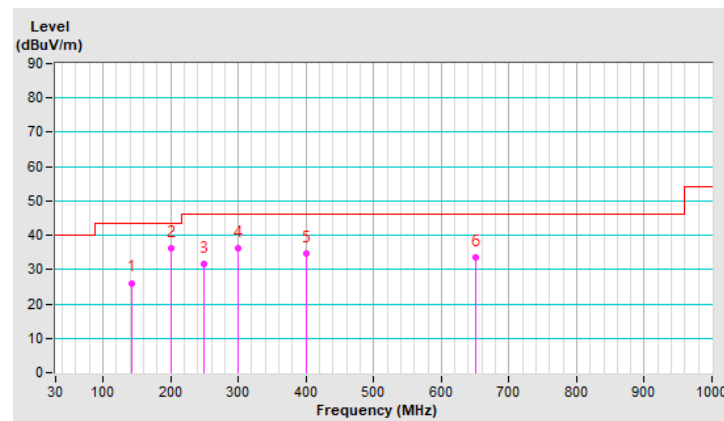


CHANNEL	TX Channel 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	143.39	26.1 QP	43.5	-17.4	1.21 V	100	34.1	-8.0
2	199.99	36.1 QP	43.5	-7.4	1.24 V	182	46.5	-10.4
3	250.01	31.5 QP	46.0	-14.5	1.82 V	175	40.2	-8.7
4	300.01	36.2 QP	46.0	-9.8	1.42 V	105	43.3	-7.1
5	399.98	34.6 QP	46.0	-11.4	1.65 V	112	39.0	-4.4
6	650.16	33.5 QP	46.0	-12.5	1.44 V	100	32.2	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 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.

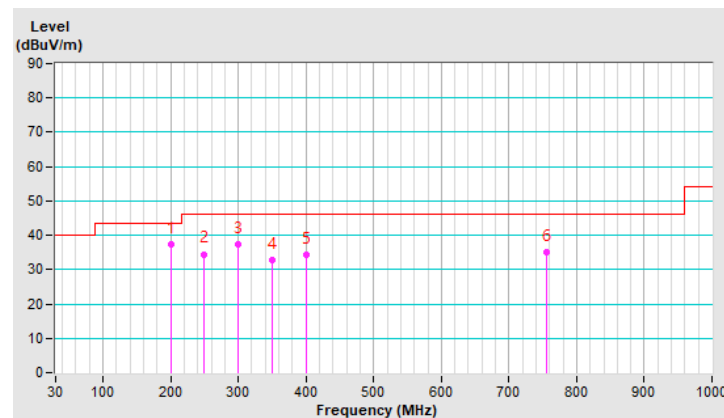


CHANNEL	TX Channel 24	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	199.98	37.5 QP	43.5	-6.0	1.42 H	66	47.9	-10.4
2	250.02	34.5 QP	46.0	-11.5	1.11 H	302	43.2	-8.7
3	300.01	37.3 QP	46.0	-8.7	1.45 H	65	44.4	-7.1
4	350.02	32.7 QP	46.0	-13.3	1.41 H	290	38.7	-6.0
5	399.99	34.2 QP	46.0	-11.8	1.05 H	302	38.6	-4.4
6	754.85	35.2 QP	46.0	-10.8	1.02 H	341	31.6	3.6

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 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.

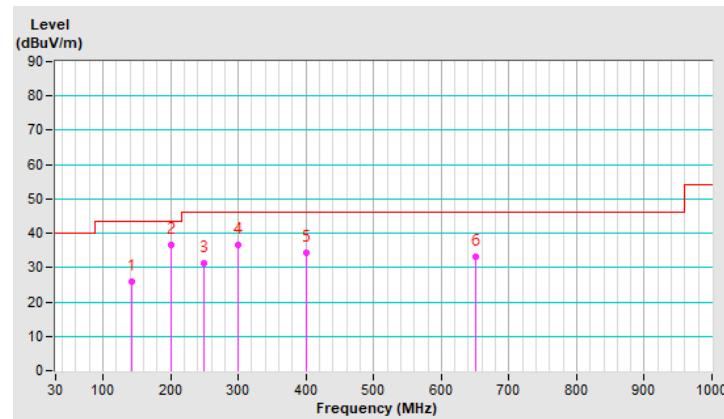


CHANNEL	TX Channel 24	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	143.41	25.9 QP	43.5	-17.6	1.11 V	85	33.9	-8.0
2	199.98	36.5 QP	43.5	-7.0	1.65 V	211	46.9	-10.4
3	250.02	31.4 QP	46.0	-14.6	2.11 V	165	40.1	-8.7
4	300.02	36.5 QP	46.0	-9.5	1.56 V	100	43.6	-7.1
5	399.99	34.4 QP	46.0	-11.6	1.45 V	77	38.8	-4.4
6	650.22	33.1 QP	46.0	-12.9	1.65 V	42	31.8	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 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.

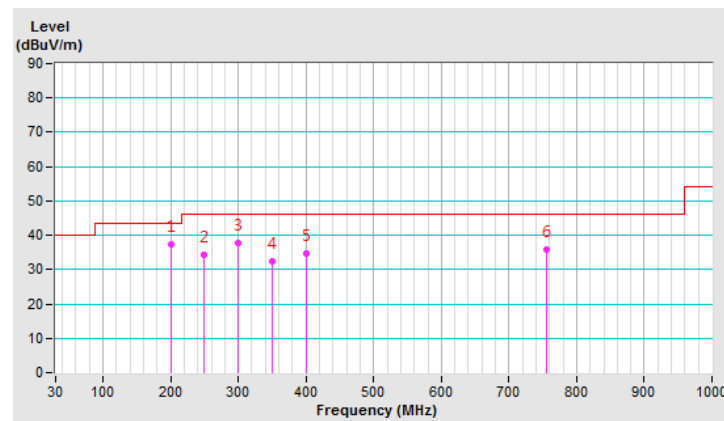


CHANNEL	TX Channel 49	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	199.99	37.3 QP	43.5	-6.2	1.50 H	54	47.7	-10.4
2	250.00	34.2 QP	46.0	-11.8	1.00 H	294	42.9	-8.7
3	300.02	37.6 QP	46.0	-8.4	1.50 H	49	44.7	-7.1
4	350.00	32.4 QP	46.0	-13.6	1.50 H	290	38.4	-6.0
5	399.98	34.6 QP	46.0	-11.4	1.00 H	302	39.0	-4.4
6	754.78	35.7 QP	46.0	-10.3	1.00 H	354	32.1	3.6

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 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.

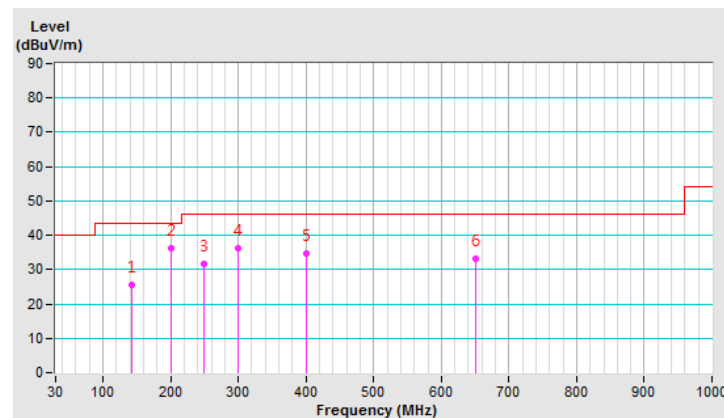


CHANNEL	TX Channel 49	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	143.37	25.6 QP	43.5	-17.9	1.00 V	0	33.7	-8.1
2	199.99	36.2 QP	43.5	-7.3	1.00 V	179	46.6	-10.4
3	250.00	31.7 QP	46.0	-14.3	1.50 V	220	40.4	-8.7
4	300.00	36.2 QP	46.0	-9.8	2.00 V	19	43.4	-7.2
5	399.98	34.7 QP	46.0	-11.3	1.00 V	346	39.1	-4.4
6	650.00	33.0 QP	46.0	-13.0	1.00 V	24	31.7	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 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.

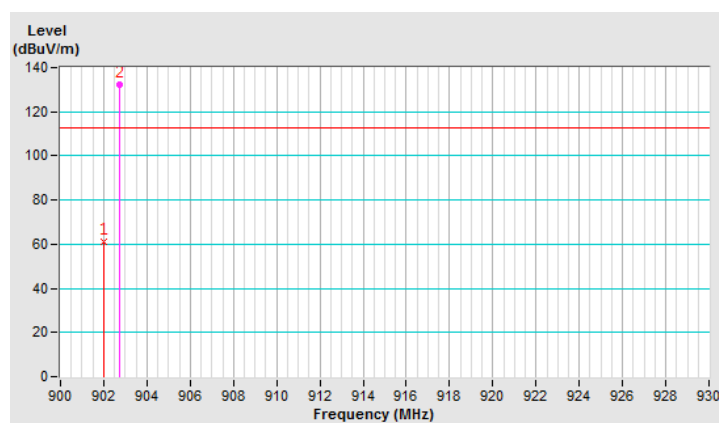


CHANNEL	TX Channel 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	112.5	-51.2	1.24 H	352	28.6	32.7
2	*902.75	132.5 QP			1.24 H	351	99.8	32.7

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. " * ": Fundamental frequency.

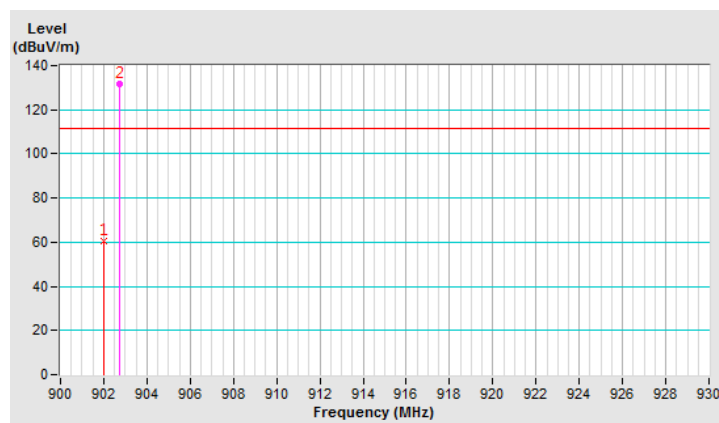


CHANNEL	TX Channel 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	60.3 QP	111.6	-51.3	1.00 V	360	27.6	32.7
2	*902.75	131.6 QP			1.00 V	347	98.9	32.7

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. " * ": Fundamental frequency.

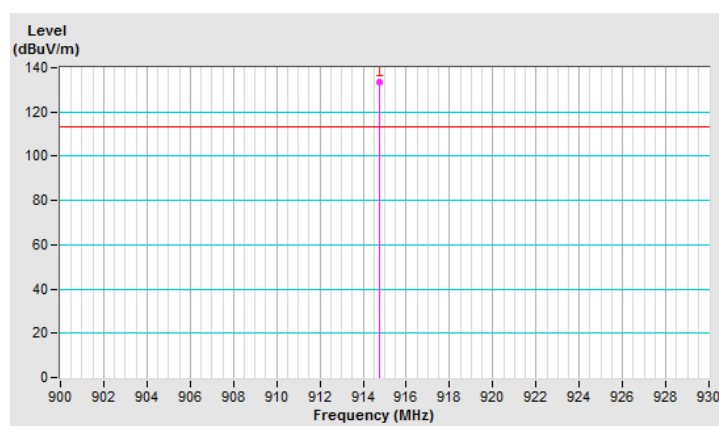


CHANNEL	TX Channel 24	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	*914.75	133.3 QP			1.24 H	352	100.4	32.9

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.

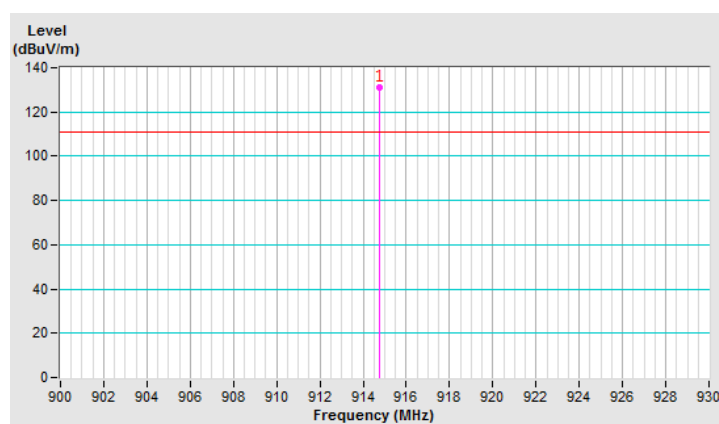


CHANNEL	TX Channel 24	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	*914.75	131.1 QP			1.00 V	347	98.2	32.9

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.

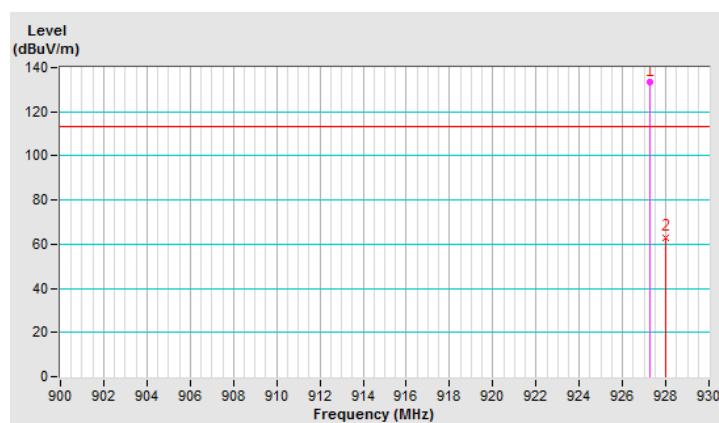


CHANNEL	TX Channel 49	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	*927.25	133.5 QP			1.24 H	351	100.4	33.1
2	928.00	63.2 QP	113.5	-50.3	1.24 H	352	30.1	33.1

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.

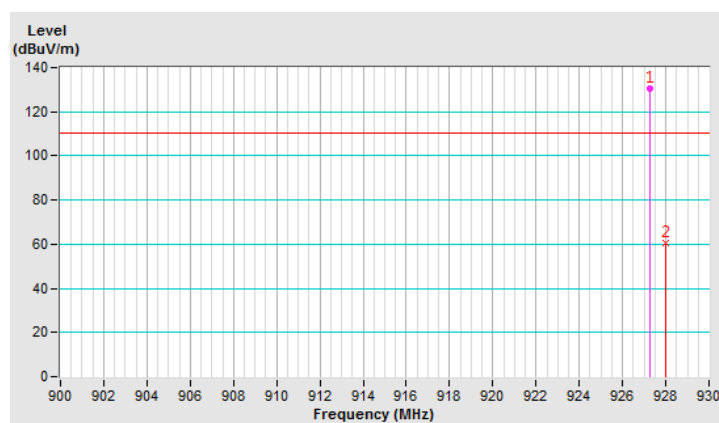


CHANNEL	TX Channel 49	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	*927.25	130.4 QP			1.00 V	347	97.3	33.1
2	928.00	60.2 QP	110.4	-50.2	1.00 V	347	27.1	33.1

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.



4.1.9 Test Results (Mode 3)

Above 1GHz Data:

CHANNEL	TX Channel 0	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 10GHz		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	#1805.50	44.9 PK	74.0	-29.1	1.39 H	110	49.4	-4.5
2	#1805.50	43.5 AV	54.0	-10.5	1.39 H	110	48.0	-4.5
3	2708.25	39.9 PK	74.0	-34.1	1.38 H	360	42.0	-2.1
4	2708.25	38.4 AV	54.0	-15.6	1.38 H	360	40.5	-2.1
5	5416.50	39.7 PK	74.0	-34.3	1.65 H	33	36.9	2.8
6	5416.50	29.4 AV	54.0	-24.6	1.65 H	33	26.6	2.8
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	#1854.50	43.2 PK	74.0	-30.8	1.79 V	331	47.7	-4.5
2	#1854.50	39.5 AV	54.0	-14.5	1.79 V	331	44.0	-4.5
3	2781.75	40.1 PK	74.0	-33.9	1.90 V	203	41.9	-1.8
4	2781.75	32.1 AV	54.0	-21.9	1.90 V	203	33.9	-1.8
5	#5563.50	43.0 PK	74.0	-31.0	2.49 V	172	40.1	2.9
6	#5563.50	37.5 AV	54.0	-16.5	2.49 V	172	34.6	2.9

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 24	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 10GHz		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	#1829.50	44.5 PK	74.0	-29.5	1.40 H	103	49.0	-4.5
2	#1829.50	43.3 AV	54.0	-10.7	1.40 H	103	47.8	-4.5
3	2744.25	40.4 PK	74.0	-33.6	1.36 H	360	42.3	-1.9
4	2744.25	38.8 AV	54.0	-15.2	1.36 H	360	40.7	-1.9
5	#5488.50	39.6 PK	74.0	-34.4	1.66 H	30	36.7	2.9
6	#5488.50	29.4 AV	54.0	-24.6	1.66 H	30	26.5	2.9
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	#1829.50	42.9 PK	74.0	-31.1	1.76 V	343	47.4	-4.5
2	#1829.50	39.0 AV	54.0	-15.0	1.76 V	343	43.5	-4.5
3	2744.25	39.4 PK	74.0	-34.6	1.83 V	183	41.3	-1.9
4	2744.25	31.4 AV	54.0	-22.6	1.83 V	183	33.3	-1.9
5	#5488.50	42.4 PK	74.0	-31.6	2.46 V	163	39.5	2.9
6	#5488.50	37.2 AV	54.0	-16.8	2.46 V	163	34.3	2.9

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. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 49	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 10GHz		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	#1854.50	44.7 PK	74.0	-29.3	1.45 H	104	49.2	-4.5
2	#1854.50	43.6 AV	54.0	-10.4	1.45 H	104	48.1	-4.5
3	2781.75	40.4 PK	74.0	-33.6	1.38 H	360	42.2	-1.8
4	2781.75	38.6 AV	54.0	-15.4	1.38 H	360	40.4	-1.8
5	#5563.50	40.1 PK	74.0	-33.9	1.62 H	26	37.2	2.9
6	#5563.50	29.6 AV	54.0	-24.4	1.62 H	26	26.7	2.9
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	#1854.50	43.2 PK	74.0	-30.8	1.79 V	331	47.7	-4.5
2	#1854.50	39.5 AV	54.0	-14.5	1.79 V	331	44.0	-4.5
3	2781.75	40.1 PK	74.0	-33.9	1.90 V	203	41.9	-1.8
4	2781.75	32.1 AV	54.0	-21.9	1.90 V	203	33.9	-1.8
5	#5563.50	43.0 PK	74.0	-31.0	2.49 V	172	40.1	2.9
6	#5563.50	37.5 AV	54.0	-16.5	2.49 V	172	34.6	2.9

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. " # ": The radiated frequency is out of the restricted band.

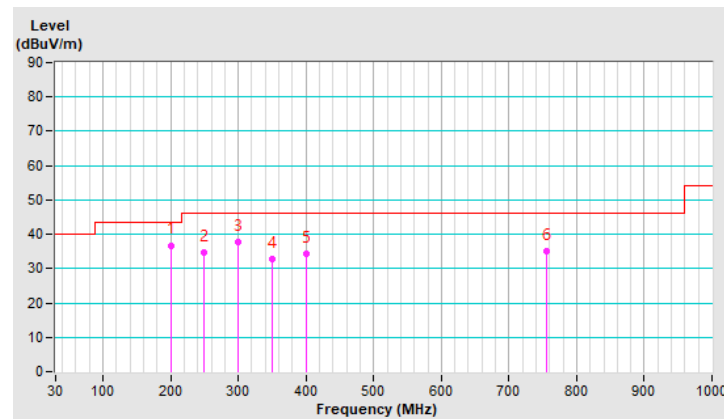
Below 1GHz Data:

CHANNEL	TX Channel 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	199.99	36.8 QP	43.5	-6.7	1.11 H	22	47.2	-10.4
2	250.01	34.5 QP	46.0	-11.5	1.45 H	75	43.2	-8.7
3	300.02	37.6 QP	46.0	-8.4	1.74 H	68	44.7	-7.1
4	350.01	32.6 QP	46.0	-13.4	1.65 H	100	38.6	-6.0
5	399.98	34.2 QP	46.0	-11.8	1.85 H	78	38.6	-4.4
6	754.99	35.2 QP	46.0	-10.8	1.96 H	65	31.6	3.6

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 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.

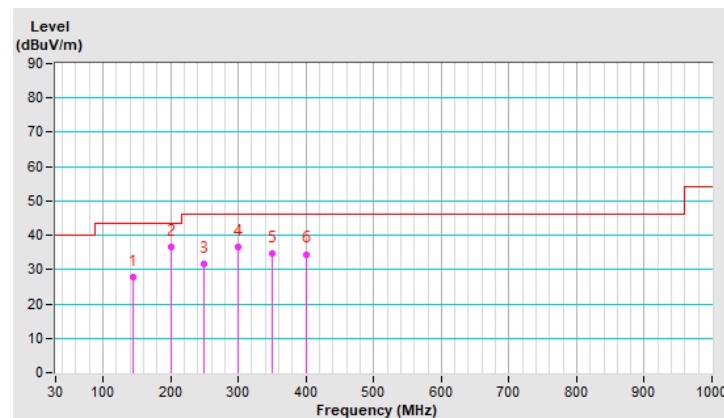


CHANNEL	TX Channel 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	143.52	27.9 QP	43.5	-15.6	1.65 V	111	35.9	-8.0
2	199.99	36.4 QP	43.5	-7.1	1.20 V	100	46.8	-10.4
3	250.04	31.8 QP	46.0	-14.2	1.52 V	99	40.5	-8.7
4	300.01	36.4 QP	46.0	-9.6	1.45 V	86	43.5	-7.1
5	350.02	34.6 QP	46.0	-11.4	1.42 V	60	40.6	-6.0
6	399.98	34.5 QP	46.0	-11.5	1.52 V	102	38.9	-4.4

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 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.

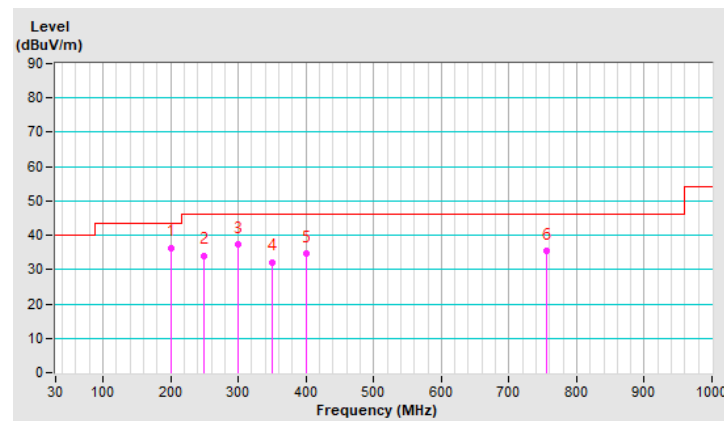


CHANNEL	TX Channel 24	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	199.98	36.4 QP	43.5	-7.1	1.20 H	100	46.8	-10.4
2	250.03	34.1 QP	46.0	-11.9	1.02 H	100	42.8	-8.7
3	300.01	37.2 QP	46.0	-8.8	1.85 H	122	44.3	-7.1
4	350.02	32.2 QP	46.0	-13.8	1.77 H	45	38.2	-6.0
5	399.98	34.6 QP	46.0	-11.4	1.00 H	100	39.0	-4.4
6	754.98	35.6 QP	46.0	-10.4	1.00 H	77	32.0	3.6

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 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.

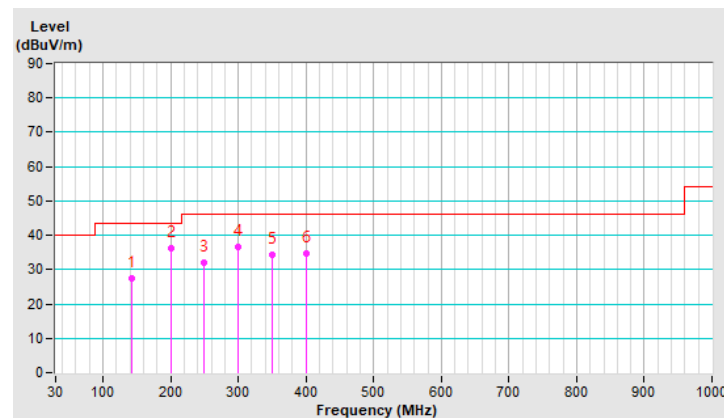


CHANNEL	TX Channel 24	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	143.42	27.4 QP	43.5	-16.1	1.20 V	102	35.4	-8.0
2	199.98	36.1 QP	43.5	-7.4	1.02 V	85	46.5	-10.4
3	250.01	32.1 QP	46.0	-13.9	1.42 V	100	40.8	-8.7
4	300.02	36.6 QP	46.0	-9.4	1.75 V	65	43.7	-7.1
5	350.01	34.2 QP	46.0	-11.8	1.98 V	99	40.2	-6.0
6	399.99	34.8 QP	46.0	-11.2	1.74 V	47	39.2	-4.4

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 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.

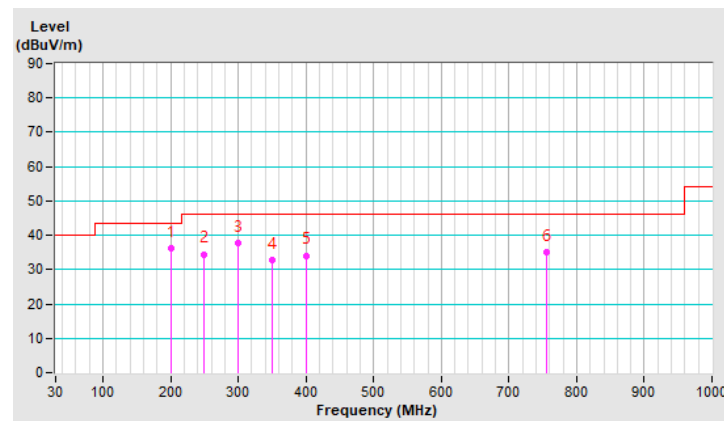


CHANNEL	TX Channel 49	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	199.99	36.1 QP	43.5	-7.4	1.65 H	55	46.5	-10.4
2	250.01	34.5 QP	46.0	-11.5	1.65 H	55	43.2	-8.7
3	300.02	37.6 QP	46.0	-8.4	1.47 H	55	44.7	-7.1
4	350.01	32.6 QP	46.0	-13.4	1.65 H	142	38.6	-6.0
5	399.99	34.1 QP	46.0	-11.9	1.42 H	85	38.5	-4.4
6	754.99	35.2 QP	46.0	-10.8	1.47 H	152	31.6	3.6

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 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.

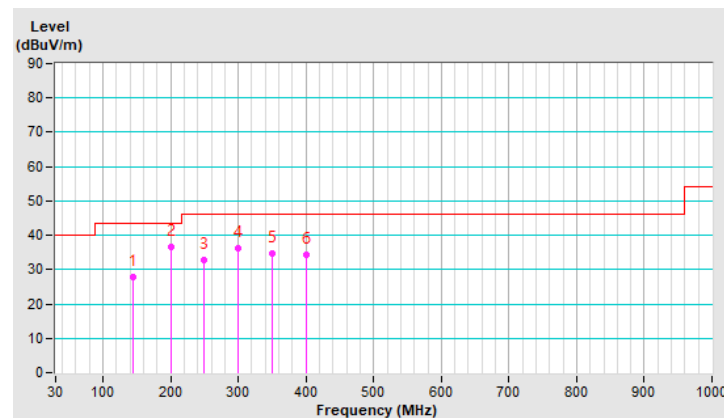


CHANNEL	TX Channel 49	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	143.52	27.8 QP	43.5	-15.7	1.65 V	111	35.8	-8.0
2	199.99	36.4 QP	43.5	-7.1	1.00 V	120	46.8	-10.4
3	250.01	32.6 QP	46.0	-13.4	1.22 V	74	41.3	-8.7
4	300.01	36.2 QP	46.0	-9.8	1.74 V	100	43.3	-7.1
5	350.03	34.6 QP	46.0	-11.4	1.65 V	111	40.6	-6.0
6	399.98	34.2 QP	46.0	-11.8	1.78 V	52	38.6	-4.4

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 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.

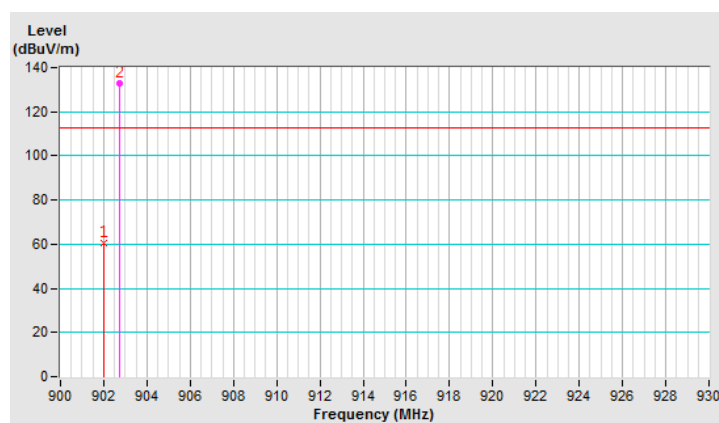


CHANNEL	TX Channel 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	60.5 QP	112.7	-52.2	1.24 H	352	27.8	32.7
2	*902.75	132.7 QP			1.24 H	352	100.0	32.7

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. " * ": Fundamental frequency.

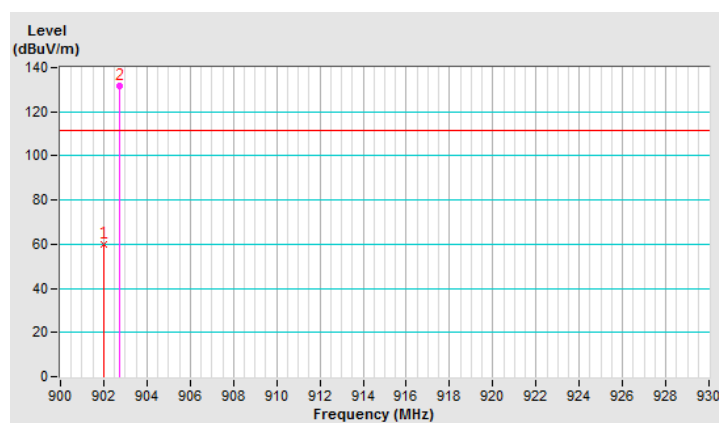


CHANNEL	TX Channel 0	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	59.7 QP	111.7	-52.0	1.00 V	360	27.0	32.7
2	*902.75	131.7 QP			1.00 V	351	99.0	32.7

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. " * ": Fundamental frequency.

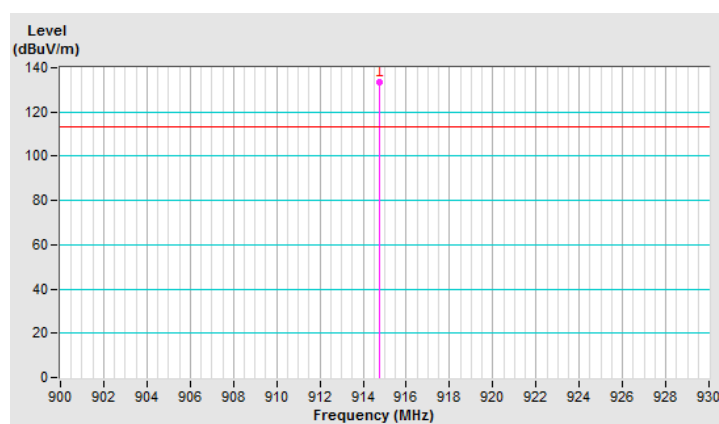


CHANNEL	TX Channel 24	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	*914.75	133.3 QP			1.24 H	352	100.4	32.9

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.

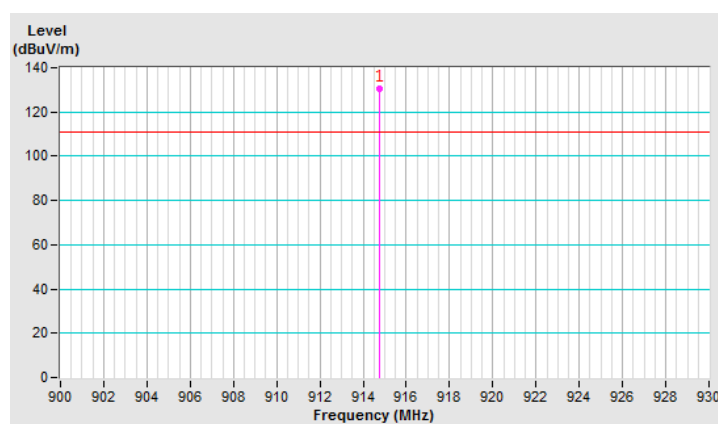


CHANNEL	TX Channel 24	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	*914.75	130.8 QP			1.00 V	347	97.9	32.9

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.

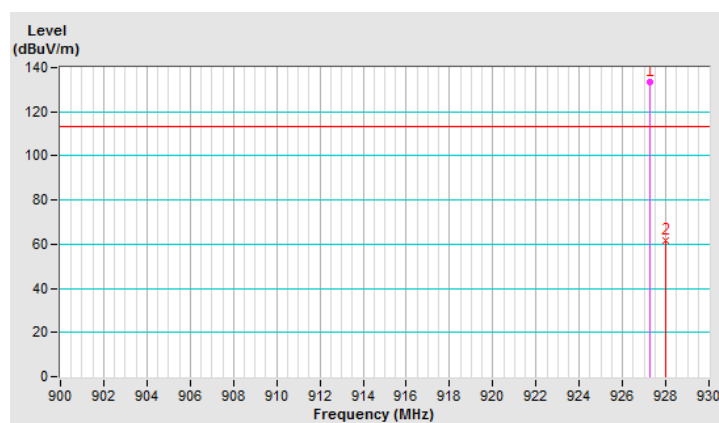


CHANNEL	TX Channel 49	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	*927.25	133.4 QP			1.24 H	352	100.3	33.1
2	928.00	61.5 QP	113.4	-51.9	1.24 H	352	28.4	33.1

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.

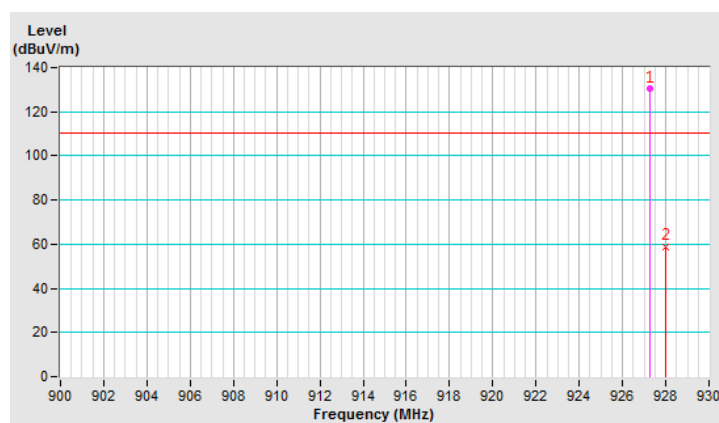


CHANNEL	TX Channel 49	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	900MHz ~ 930MHz		

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	*927.25	130.3 QP			1.00 V	347	97.2	33.1
2	928.00	58.8 QP	110.3	-51.5	1.00 V	347	25.7	33.1

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.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

Frequency (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56	56 - 46
0.50 - 5.0	56	46
5.0 - 30.0	60	50

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver R&S	ESCS 30	847124/029	Oct. 24, 2018	Oct. 23, 2019
Line-Impedance Stabilization Network (for EUT) R&S	ESH3-Z5	848773/004	Oct. 22, 2018	Oct. 21, 2019
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV216	100072	June 04, 2018	June 03, 2019
50 ohms Terminator	N/A	3	Oct. 22, 2018	Oct. 21, 2019
RF Cable	5D-FB	COCCAB-001	Sep. 28, 2018	Sep. 27, 2019
Fixed attenuator EMCI	STI02-2200-10	003	Mar. 16, 2018	Mar. 15, 2019
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

Note:

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Conduction 1.
- 3 Tested Date: Feb. 14, 2019

4.2.3 Test Procedures

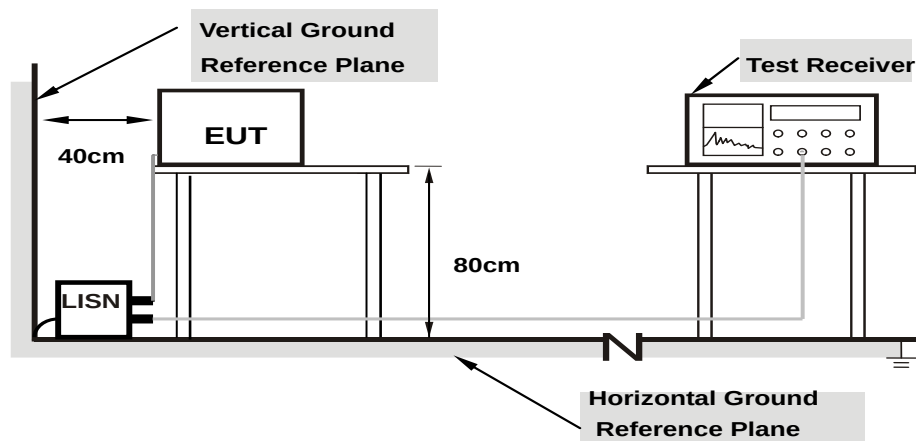
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 Deviation From Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

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

4.2.6 EUT Operating Condition

Same as 4.1.6.

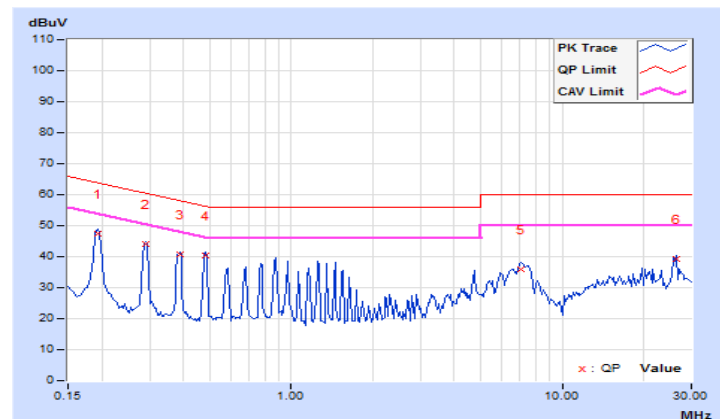
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	----------	-------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19297	10.04	37.29	32.54	47.33	42.58	63.91	53.91	-16.58	-11.33
2	0.29063	10.05	33.97	31.69	44.02	41.74	60.51	50.51	-16.49	-8.77
3	0.38828	10.07	30.49	28.88	40.56	38.95	58.10	48.10	-17.54	-9.15
4	0.48203	10.08	30.30	29.95	40.38	40.03	56.30	46.30	-15.92	-6.27
5	7.03906	10.39	25.63	17.19	36.02	27.58	60.00	50.00	-23.98	-22.42
6	26.48828	11.17	27.92	24.71	39.09	35.88	60.00	50.00	-20.91	-14.12

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

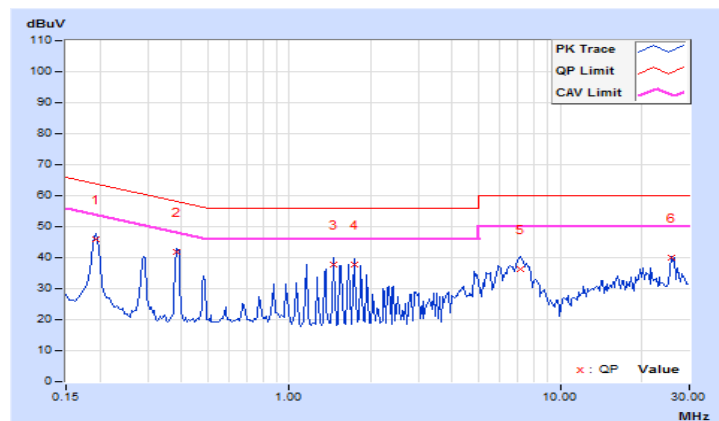


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

No	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19297	9.94	35.95	27.87	45.89	37.81	63.91	53.91	-18.02	-16.10
2	0.38625	9.96	31.99	30.66	41.95	40.62	58.14	48.14	-16.19	-7.52
3	1.45313	10.01	27.63	23.80	37.64	33.81	56.00	46.00	-18.36	-12.19
4	1.73828	10.03	27.84	22.85	37.87	32.88	56.00	46.00	-18.13	-13.12
5	7.09375	10.25	26.21	9.87	36.46	20.12	60.00	50.00	-23.54	-29.88
6	25.87500	10.93	29.07	25.87	40.00	36.80	60.00	50.00	-20.00	-13.20

REMARKS:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.



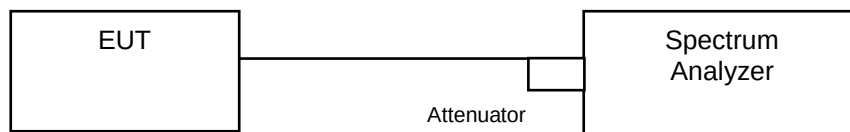
4.3 Number of Hopping Frequency Used

4.3.1 Limits of Hopping Frequency Used Measurement

At least 15 channels frequencies, and should be equally spaced.

Condition	Hopping Frequency Used	Application
20dB Bandwidth <250kHz	hopping channels ≥ 50	v
20dB Bandwidth >250kHz	hopping channels ≥ 25	v

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

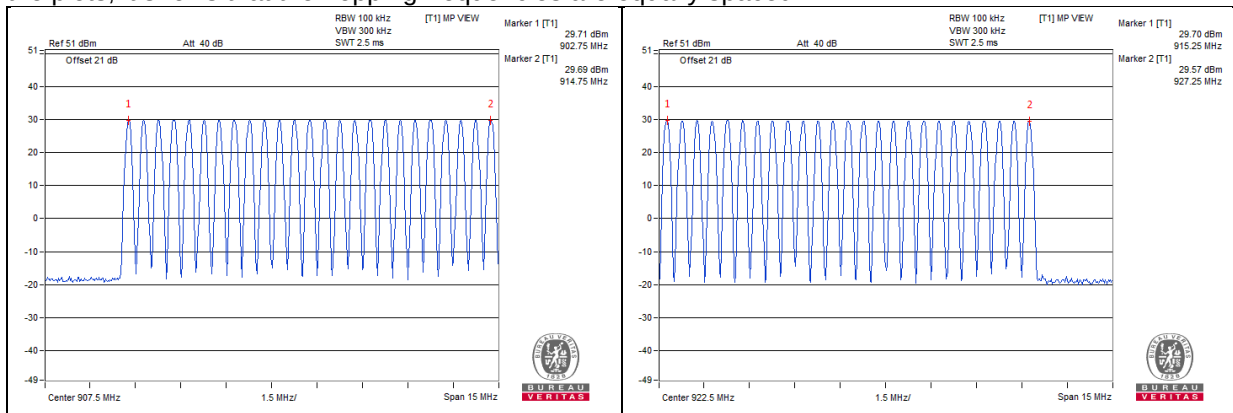
- Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.
- Turn on the EUT and connect its antenna terminal to measurement via a low loss cable. Then set it to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.
- Set the SA on MaxHold Mode, and then keep the EUT in hopping mode. Record all the signals from each channel until each one has been recorded.
- Set the SA on View mode and then plot the result on SA screen.
- Repeat above procedures until all frequencies measured were complete.

4.3.5 Deviation from Test Standard

No deviation.

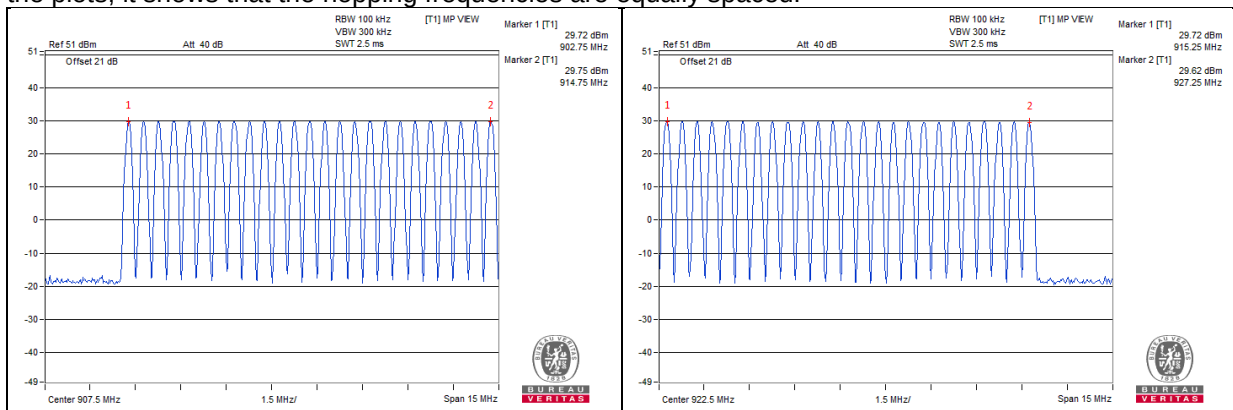
4.3.6 Test Results (Mode 1)

There are 50 hopping frequencies in the hopping mode. Please refer to next page for the test result. On the plots, it shows that the hopping frequencies are equally spaced.



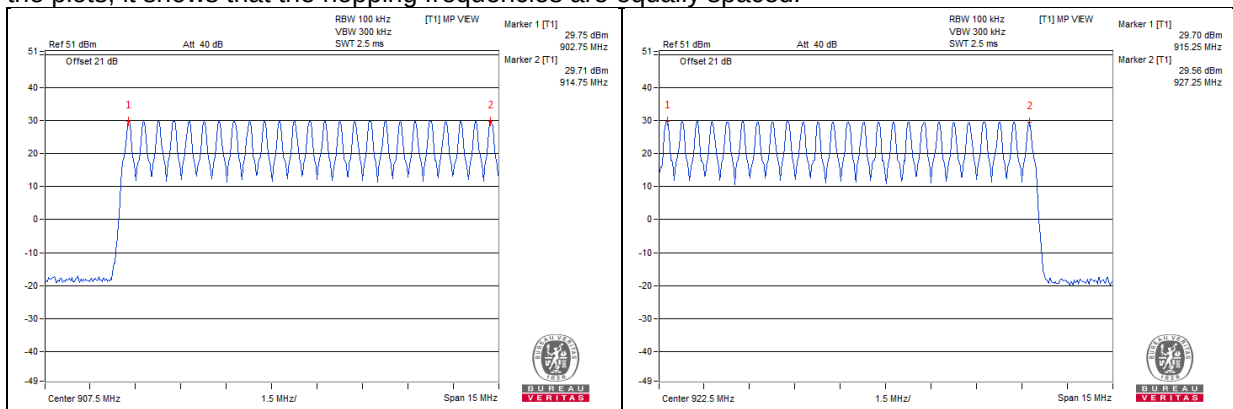
4.3.7 Test Results (Mode 2)

There are 50 hopping frequencies in the hopping mode. Please refer to next page for the test result. On the plots, it shows that the hopping frequencies are equally spaced.



4.3.8 Test Results (Mode 3)

There are 50 hopping frequencies in the hopping mode. Please refer to next page for the test result. On the plots, it shows that the hopping frequencies are equally spaced.

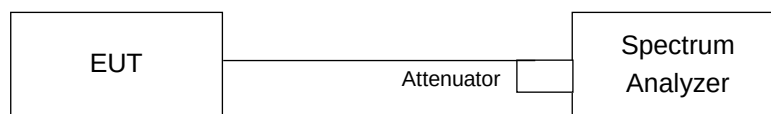


4.4 Dwell Time on Each Channel

4.4.1 Limits of Dwell Time on Each Channel Measurement

Condition	Dwell Time	Application
20dB Bandwidth <250kHz (hopping channels ≥ 50)	0.4 seconds within a 20 second period	v
20dB Bandwidth >250kHz (hopping channels ≥ 25)	0.4 seconds within a 10 second period	v

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

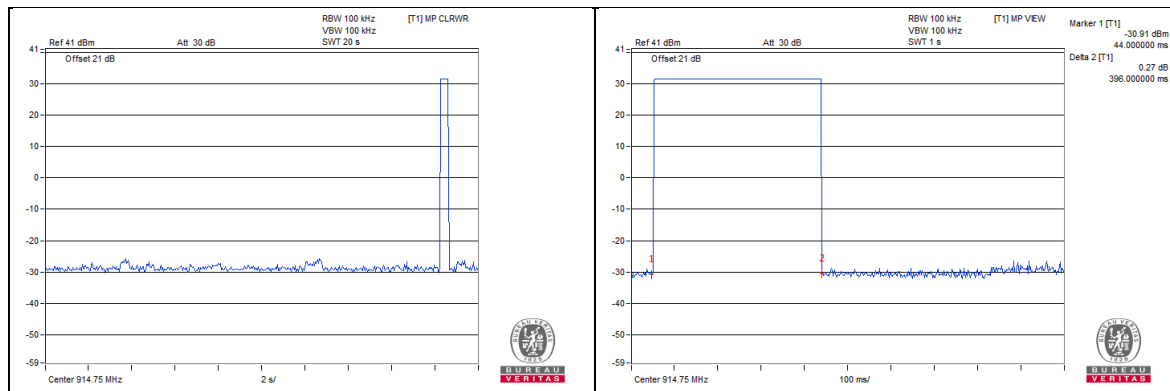
- Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.
- Turn on the EUT and connect its antenna terminal to measurement via a low loss cable. Then set it to any one measured frequency within its operating range and make sure the instrument is operated in its linear range.
- Adjust the center frequency of SA on any frequency be measured and set SA to zero span mode. And then, set RBW and VBW of spectrum analyzer to proper value.
- Measure the time duration of one transmission on the measured frequency. And then plot the result with time difference of this time duration.
- Repeat above procedures until all different time-slot modes have been completed.

4.4.5 Deviation from Test Standard

No deviation.

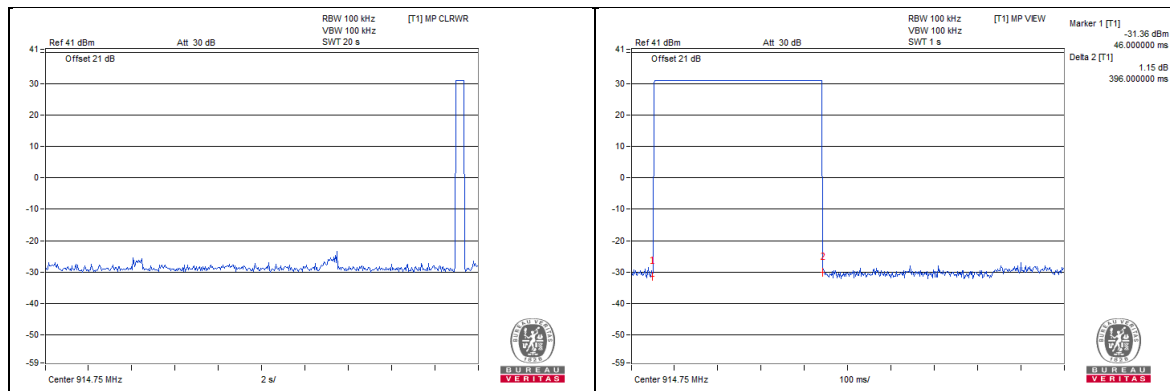
4.4.6 Test Results (Mode 1)

Number of transmission in a 20 s	Length of transmission time (msec)	Result (msec)	Limit (msec)
1 time	396	396	400



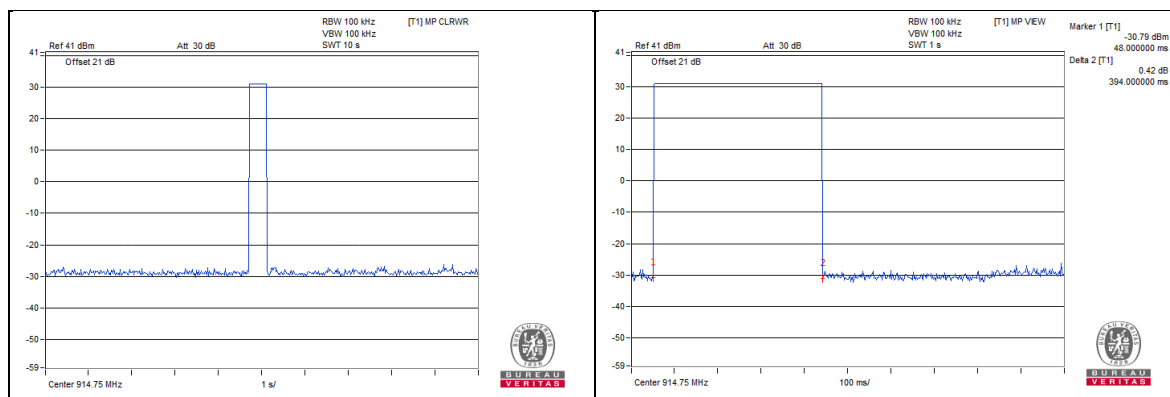
4.4.7 Test Results (Mode 2)

Number of transmission in a 20 s	Length of transmission time (msec)	Result (msec)	Limit (msec)
1 time	396	396	400



4.4.8 Test Results (Mode 3)

Number of transmission in a 10 s	Length of transmission time (msec)	Result (msec)	Limit (msec)
1 time	394	394	400

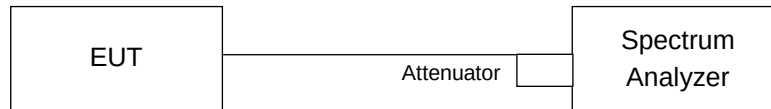


4.5 Channel Bandwidth

4.5.1 Limits of Channel Bandwidth Measurement

Condition	Maximum Limit (kHz)	Application
20dB Bandwidth <250kHz (hopping channels ≥ 50)	250	v
20dB Bandwidth >250kHz (hopping channels ≥ 25)	500	v

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

- Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
- Measure the frequency difference of two frequencies that were attenuated 20dB from the reference level. Record the frequency difference as the emission bandwidth.
- Repeat above procedures until all frequencies measured were complete.

4.5.5 Deviation from Test Standard

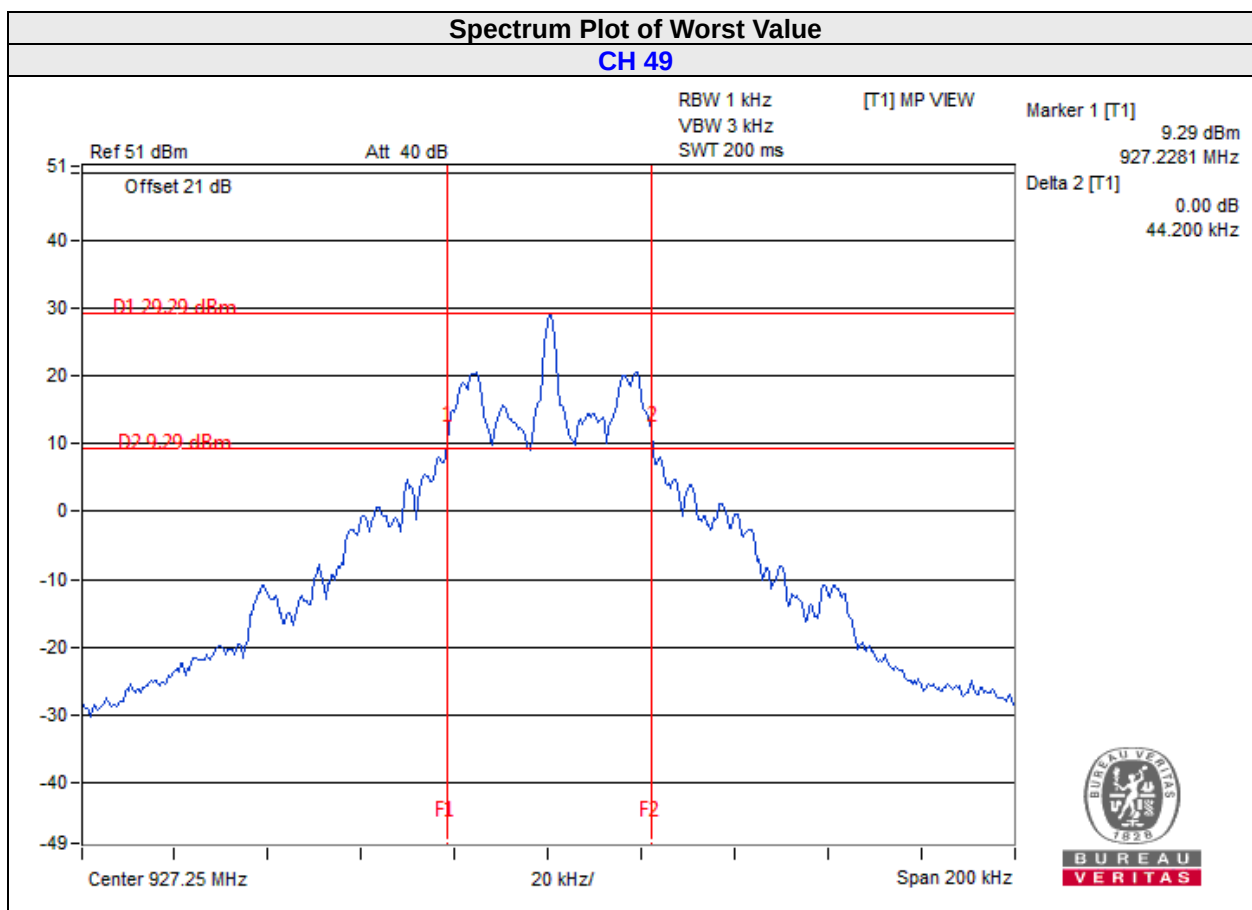
No deviation.

4.5.6 EUT Operating Condition

The software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel frequencies individually.

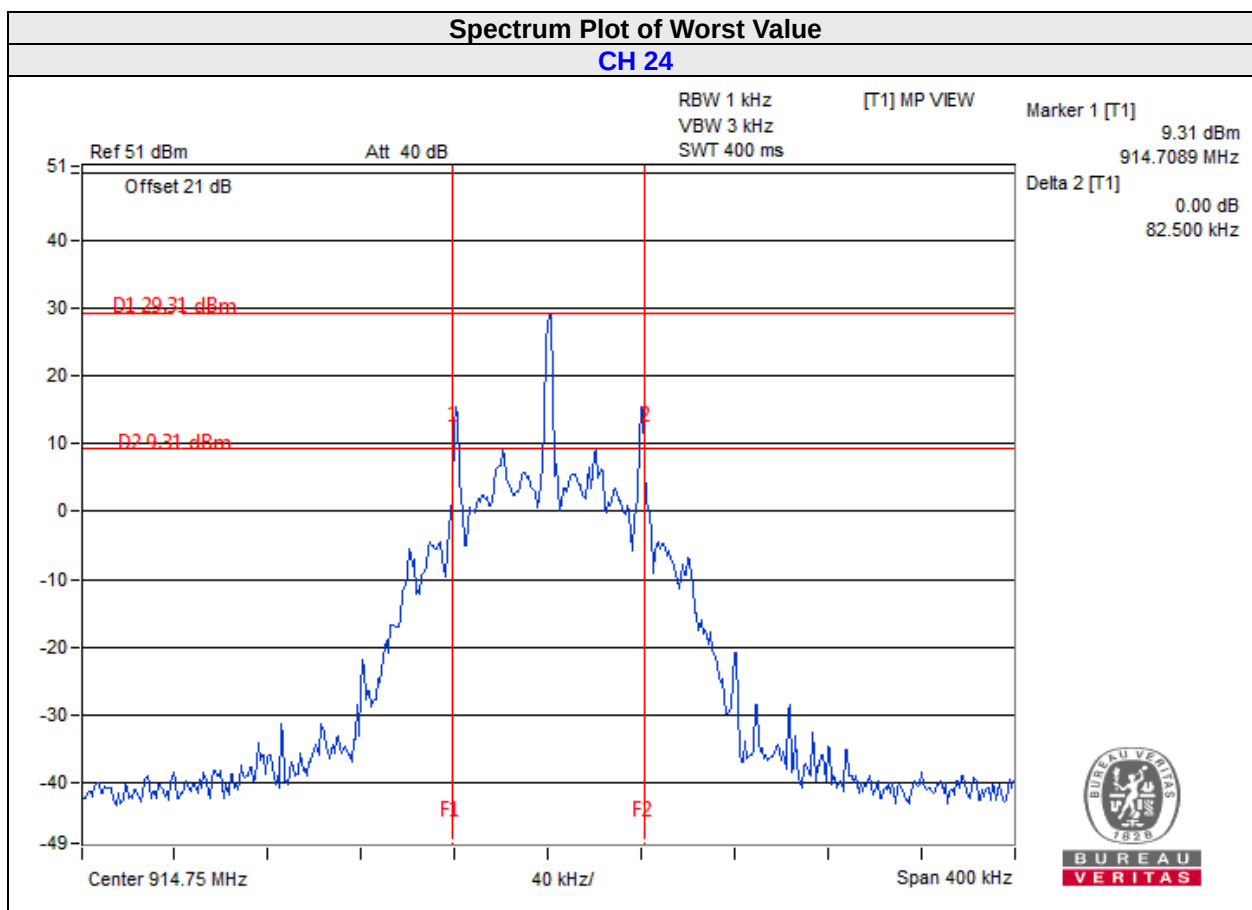
4.5.7 Test Results (Mode 1)

Channel	Frequency (MHz)	20dB Bandwidth (kHz)	Maximum Limit (kHz)	Pass / Fail
0	902.75	44.2	250	Pass
24	914.75	44.2	250	Pass
49	927.25	44.2	250	Pass



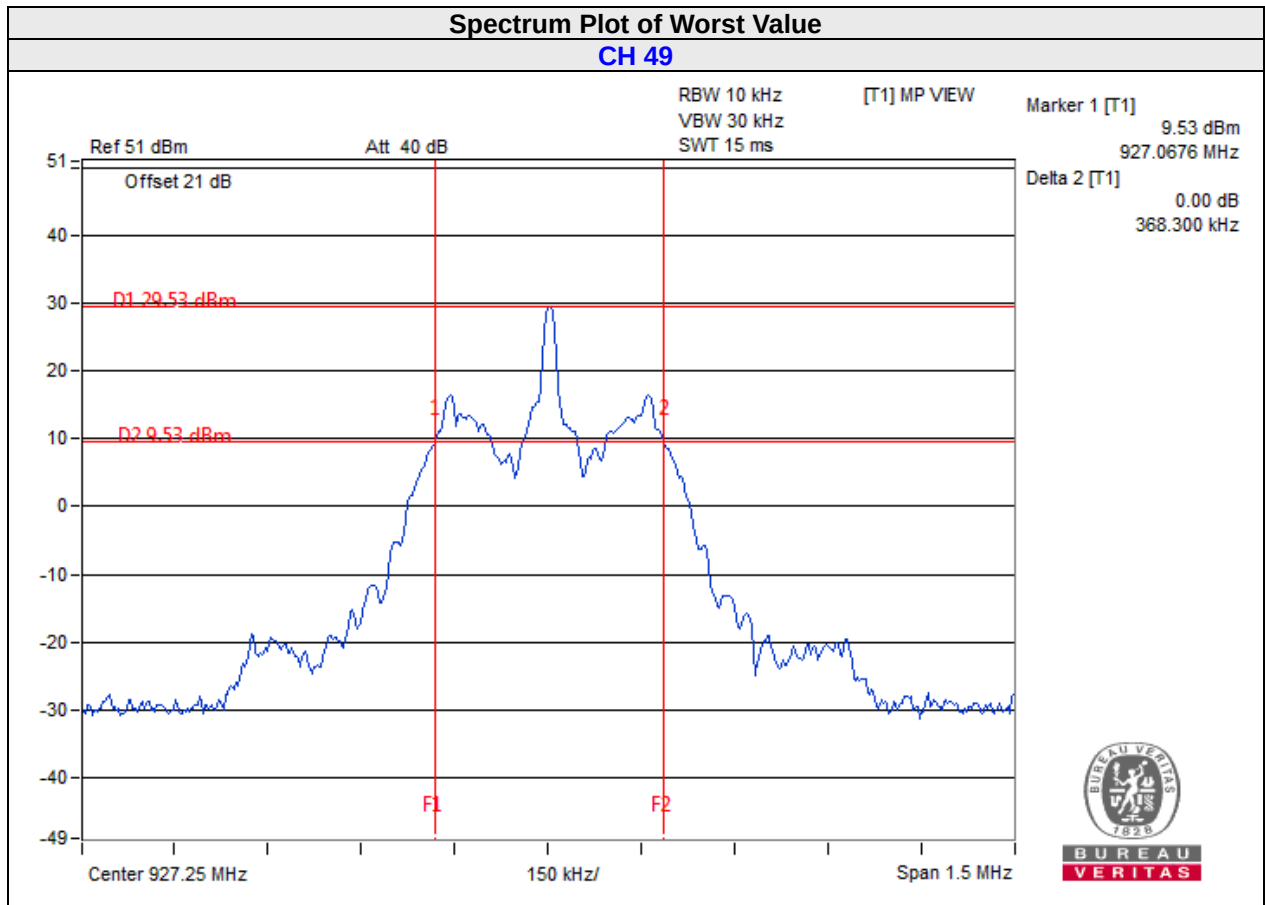
4.5.8 Test Results (Mode 2)

Channel	Frequency (MHz)	20dB Bandwidth (kHz)	Maximum Limit (kHz)	Pass / Fail
0	902.75	82.4	250	Pass
24	914.75	82.5	250	Pass
49	927.25	82.4	250	Pass



4.5.9 Test Results (Mode 3)

Channel	Frequency (MHz)	20dB Bandwidth (kHz)	Maximum Limit (kHz)	Pass / Fail
0	902.75	368.0	500	Pass
24	914.75	367.9	500	Pass
49	927.25	368.3	500	Pass

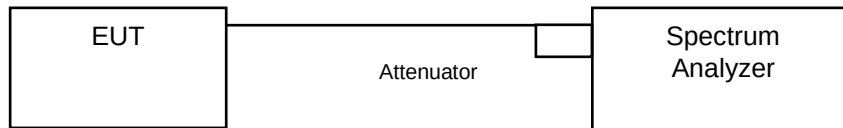


4.6 Hopping Channel Separation

4.6.1 Limits of Hopping Channel Separation Measurement

At least 25kHz or 20dB hopping channel bandwidth (whichever is greater).

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

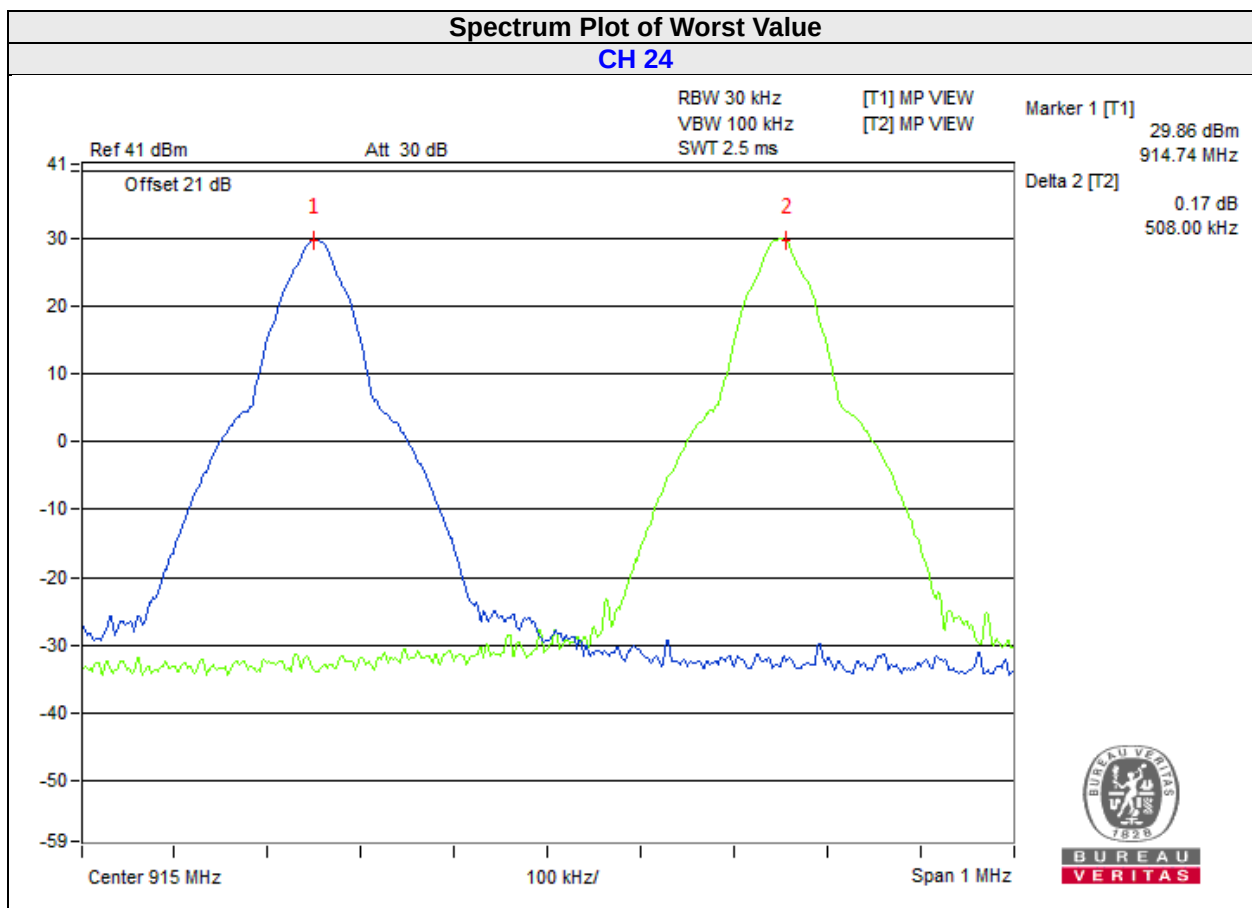
- a. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- b. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range.
- c. By using the MaxHold function record the separation of two adjacent channels.
- d. Measure the frequency difference of these two adjacent channels by SA MARK function. And then plot the result on SA screen.
- e. Repeat above procedures until all frequencies measured were complete.

4.6.5 Deviation from Test Standard

No deviation.

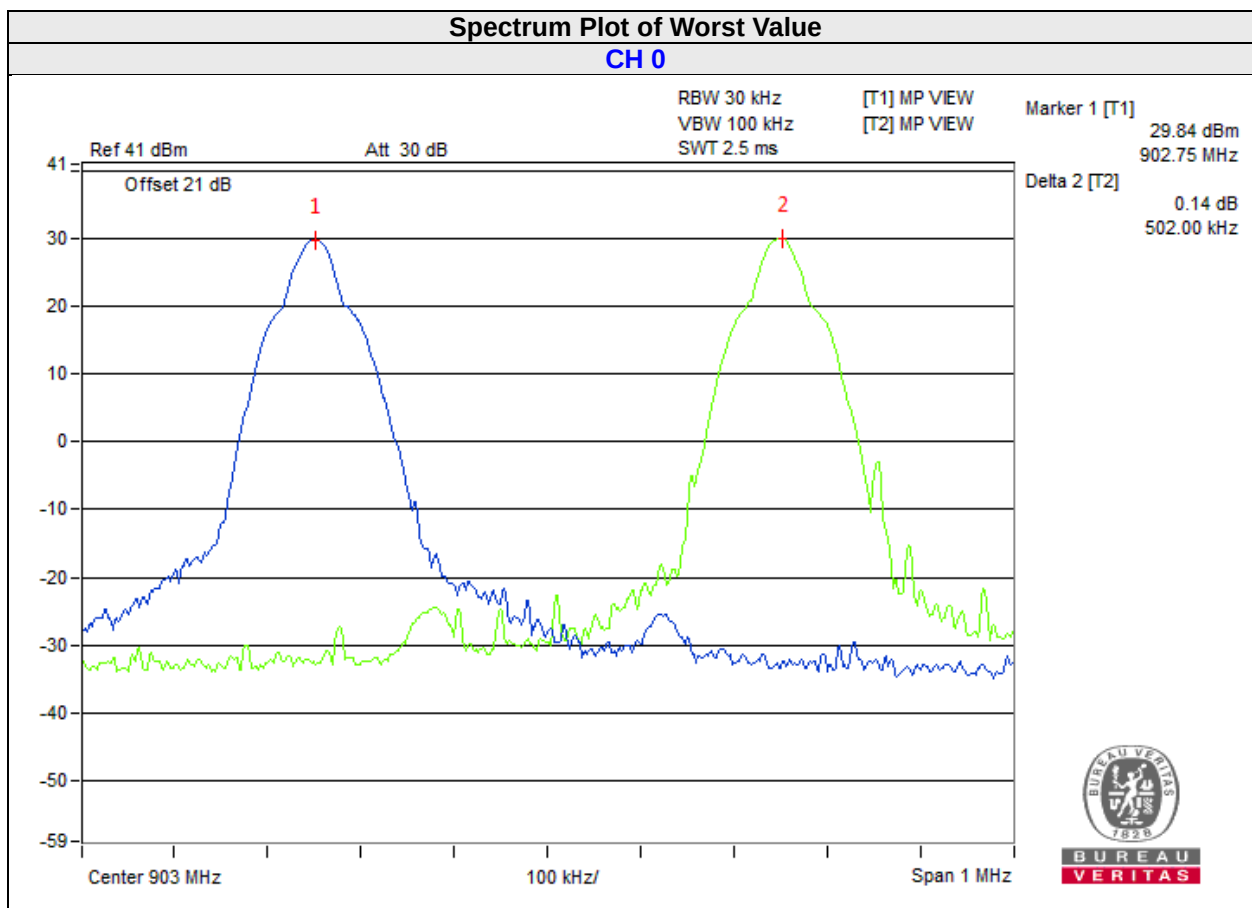
4.6.6 Test Results (Mode 1)

Channel	Frequency (MHz)	Adjacent Channel Separation (kHz)	Minimum Limit (kHz)	Pass / Fail
0	902.75	502	44.2	Pass
24	914.75	508	44.2	Pass
49	927.25	505	44.2	Pass



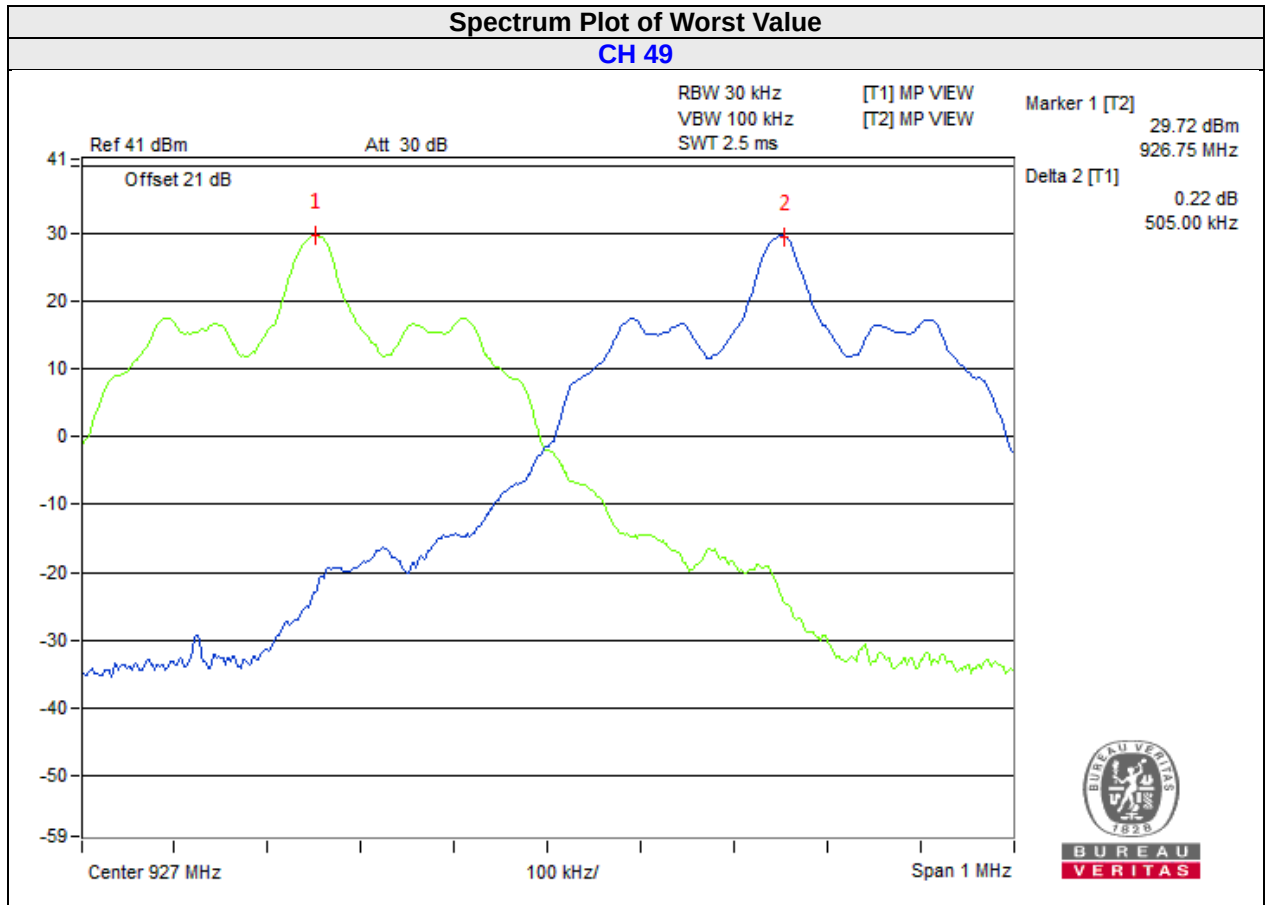
4.6.7 Test Results (Mode 2)

Channel	Frequency (MHz)	Adjacent Channel Separation (kHz)	Minimum Limit (kHz)	Pass / Fail
0	902.75	502	82.4	Pass
24	914.75	500	82.5	Pass
49	927.25	501	82.4	Pass



4.6.8 Test Results (Mode 3)

Channel	Frequency (MHz)	Adjacent Channel Separation (kHz)	Minimum Limit (kHz)	Pass / Fail
0	902.75	503	368.0	Pass
24	914.75	501	367.9	Pass
49	927.25	505	368.3	Pass

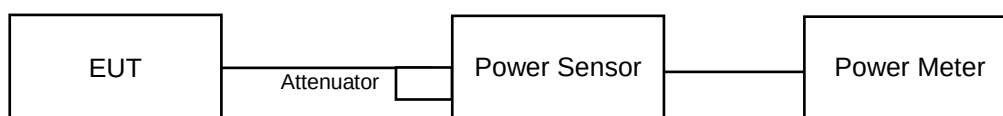


4.7 Maximum Output Power

4.7.1 Limits of Maximum Output Power Measurement

CONDITION	OUTPUT POWER	APPLICATION
hopping channels ≥ 50	1 W	v
hopping channels ≥ 25 & ≤ 50	0.25W	x

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

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.

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

The software provided by client enabled the EUT to transmit and receive data at lowest and highest channel frequencies individually.

4.7.7 Test Results (Mode 1)

Channel	Frequency (MHZ)	Output Power (mW)	Output Power (dBm)	Power Limit (mW)	Pass / Fail
0	902.75	866.962	29.38	30.00	Pass
24	914.75	870.964	29.40	30.00	Pass
49	927.25	870.964	29.40	30.00	Pass

4.7.8 Test Results (Mode 2)

Channel	Frequency (MHZ)	Output Power (mW)	Output Power (dBm)	Power Limit (mW)	Pass / Fail
0	902.75	893.305	29.51	30.00	Pass
24	914.75	885.116	29.47	30.00	Pass
49	927.25	891.251	29.50	30.00	Pass

4.7.9 Test Results (Mode 3)

Channel	Frequency (MHZ)	Output Power (mW)	Output Power (dBm)	Power Limit (mW)	Pass / Fail
0	902.75	866.962	29.38	30.00	Pass
24	914.75	862.979	29.36	30.00	Pass
49	927.25	860.994	29.35	30.00	Pass

5 Pictures of Test Arrangements

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

Appendix – Information of the Testing Laboratories

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

If you have any comments, please feel free to contact us at the following:

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

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