

FCC Test Report

Report No.: RF181130E07-1

FCC ID: 2APLE18300393

Test Model: PGZNG1 v2

Received Date: Nov. 30, 2018

Test Date: Dec. 21, 2018 to Jan. 16, 2019

Issued Date: Jan. 24, 2019

Applicant: Arlo Technologies, Inc.

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

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



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Release Control Record

Issue No.	Description	Date Issued
RF181130E07-1	Original release.	Jan. 24, 2019

1 Certificate of Conformity

Product: ADT Pulse Gateway

Brand: ADT

Test Model: PGZNG1 v2

Sample Status: ENGINEERING SAMPLE

Applicant: Arlo Technologies, Inc.

Test Date: Dec. 21, 2018 to Jan. 16, 2019

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.249)
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 : Mary Ko , **Date:** Jan. 24, 2019
Mary Ko / Specialist

Approved by : May Chen , **Date:** Jan. 24, 2019
May Chen / Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart C (Section 15.249)			
FCC Clause	Test Item	Result	Remarks
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is -7.03dB at 0.37656MHz.
15.209 15.249 15.249 (d)	Radiated Emission Test Band Edge Measurement Limit: 50dB less than the peak value of fundamental frequency or meet radiated emission limit in section 15.209	PASS	Meet the requirement of limit. Minimum passing margin is -0.1dB at 1816.80MHz, 1832.00MHz.
15.215 (c)	20dB Bandwidth	PASS	Meet the requirement of limit
15.203	Antenna Requirement	PASS	Antenna connector is i-pex(MHF) 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) (\pm)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.84 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.53 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.08 dB
	6GHz ~ 18GHz	4.98 dB
	18GHz ~ 40GHz	5.19 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	ADT Pulse Gateway
Brand	ADT
Test Model	PGZNG1 v2
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	12Vdc from power adapter
Modulation Type	FSK
Transfer Rate	9.6/40/100 kbit/s
Operating Frequency	908.4 ~ 916MHz
Number of Channel	2
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1
Data Cable Supplied	NA

Note:

1. Simultaneously transmission condition.

Condition	Technology	
1	WLAN 2.4GHz	Z-Wave

Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.

2. The EUT must be supplied with a power adapter as following table:

No.	Brand	Model No.	P/N No.	Spec.
1	Arlo	2ABB018F 1 NA	332-50010-02	Input: 100-120V, 50/60Hz, 0.6A Output: 12V, 1.5A DC output cable: Unshielded 3m
2	Arlo	AD2032F10	332-50011-02	Input: 100-120V, 50/60Hz, 0.56A Output: 12V, 1.5A DC output cable: Unshielded 3m

Note: From the above adapters, the conducted emissions and radiated emissions worse case was found in **Adapter No. 2**. Therefore only the test data of the mode was recorded in this report.

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

For WLAN					
Ant No.	RF Chain No.	Antenna Net Gain (dBi)	Frequency range(GHz)	Antenna type	Connector type
1	Chain (1)	3.85	2.4~2.4835	PIFA	i-pex(MHF)
2	Chain (2)	4.01	2.4~2.4835	PIFA	i-pex(MHF)
For Z-Wave					
Antenna Net Gain (dBi)		Frequency range(MHz)	Antenna type	Connector type	
3.1		908~916	Dipole	i-pex(MHF)	

4. The power setting are list as below:

Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting	Freq. (MHz)	Power Setting
908.4 (R1: 9.6kbit/s)	22	908.4 (R2: 40kbit/s)	22	916 (R3: 100kbit/s)	18

5. 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

2 channels are provided to this EUT:

Channel	Frequency (MHz)
1	908.4 (R1: 9.6kbit/s)
	908.4 (R2: 40kbit/s)
2	916 (R3: 100kbit/s)

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE \geq 1G	RE $<$ 1G	PLC	BW	
-	√	√	√	√	-

Where **RE \geq 1G**: Radiated Emission above 1GHz & Bandedge Measurement
RE $<$ 1G: Radiated Emission below 1GHz
PLC: Power Line Conducted Emission
BW: 20dB Bandwidth Measurement

Note: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Y-plane**.

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 Type
1, 2	1, 2	FSK

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 Type
1, 2	1, 2	FSK

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 Type
1, 2	1, 2	FSK

20dB Bandwidth Measurement:

- 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.

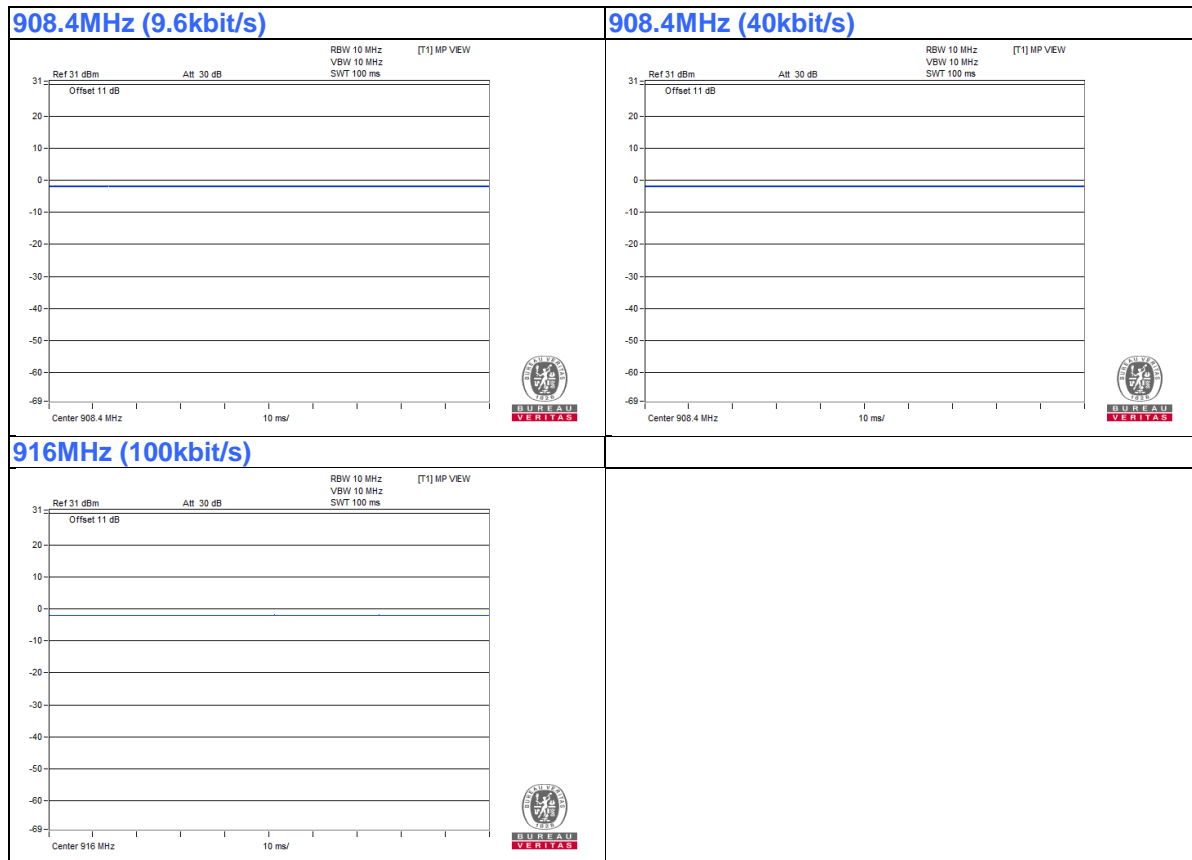
Available Channel	Tested Channel	Modulation Type
1, 2	1, 2	FSK

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE \geq 1G	23deg. C, 70%RH	120Vac, 60Hz	Frank Chuang
RE $<$ 1G	23deg. C, 73%RH	120Vac, 60Hz	Frank Chuang
PLC	25deg. C, 75%RH	120Vac, 60Hz	Andy Ho
BW	25deg. C, 60%RH	120Vac, 60Hz	Jyunchun Lin

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is 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. The following support units or accessories were used to form a representative test configuration during the tests.

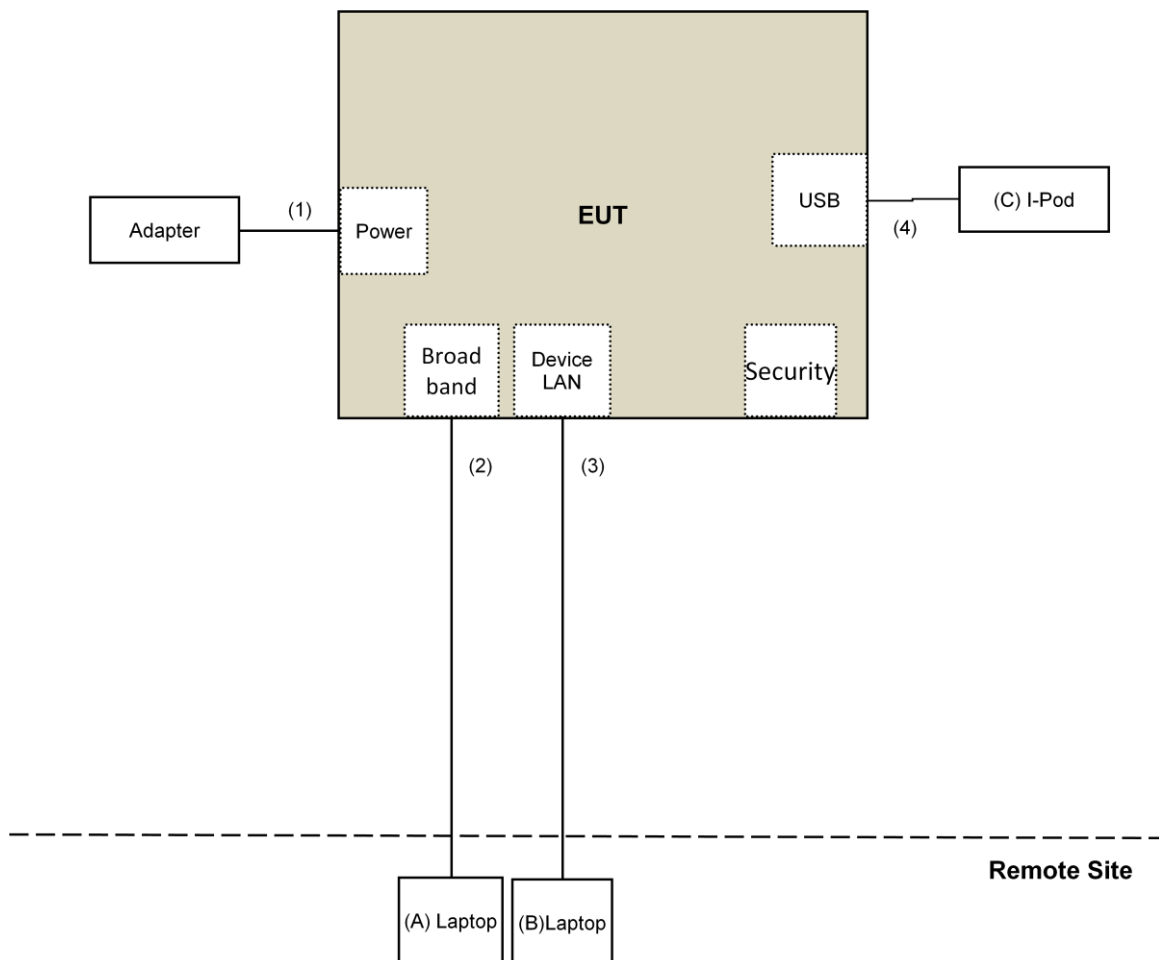
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Laptop	DELL	E6420	B92T3R1	FCC DoC	Provided by Lab
B.	Laptop	HP	TPN-Q186	5CD8212YYG	FCC DoC	Provided by Lab
C.	iPod	Apple	MD778TA/A	CC4JMFL0F4T1	NA	Provided by Lab

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.	DC Cable	1	3	No	0	Supplied by client
2.	RJ-45 Cable	1	10	No	0	Provided by Lab
3.	RJ-45 Cable	1	10	No	0	Provided by Lab
4.	USB Cable	1	0.1	Yes	0	Provided by Lab

3.4.1 Configuration of System under Test



3.5 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 (15.249)

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

The field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
902 ~ 928 MHz	50	500
2400 ~ 2483.5 MHz	50	500
5725 ~ 5875 MHz	50	500
24 ~ 24.25 GHz	250	2500

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits as below table, whichever is the lesser attenuation

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

Below 1GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Agilent	N9038A	MY50010156	July 12, 2018	July 11, 2019
Pre-Amplifier EMCI	EMC001340	980142	Feb. 09, 2018	Feb. 08, 2019
Loop Antenna Electro-Metrics	EM-6879	269	Sep. 07, 2018	Sep. 06, 2019
RF Cable	NA	LOOPCAB-001	Jan. 15, 2018	Jan. 14, 2019
RF Cable	NA	LOOPCAB-002	Jan. 15, 2018	Jan. 14, 2019
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-05	May 05, 2018	May 04, 2019
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Nov. 22, 2018	Nov. 21, 2019
RF Cable	8D	966-3-1	Mar. 20, 2018	Mar. 19, 2019
RF Cable	8D	966-3-2	Mar. 20, 2018	Mar. 19, 2019
RF Cable	8D	966-3-3	Mar. 20, 2018	Mar. 19, 2019
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Sep. 27, 2018	Sep. 26, 2019
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	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 966 Chamber No. 3.
3. The CANADA Site Registration No. is 20331-1
4. Loop antenna was used for all emissions below 30 MHz.
5. Tested Date: Dec. 24, 2018

Above1GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Nov. 25, 2018	Nov. 24, 2019
Pre-Amplifier EMCI	EMC12630SE	980384	Jan. 29, 2018	Jan. 28, 2019
RF Cable	EMC104-SM-SM-1200	160922	Jan. 29, 2018	Jan. 28, 2019
RF Cable	EMC104-SM-SM-2000	150317	Jan. 29, 2018	Jan. 28, 2019
RF Cable	EMC104-SM-SM-5000	150322	Jan. 29, 2018	Jan. 28, 2019
Spectrum Analyzer Keysight	N9030A	MY54490679	July 23, 2018	July 22, 2019
Pre-Amplifier EMCI	EMC184045SE	980386	Jan. 29, 2018	Jan. 28, 2019
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Nov. 25, 2018	Nov. 24, 2019
RF Cable	EMC102-KM-KM-1200	160924	Jan. 29, 2018	Jan. 28, 2019
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
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 966 Chamber No. 3.
3. The CANADA Site Registration No. is 20331-1
4. Loop antenna was used for all emissions below 30 MHz.
5. Tested Date: Jan. 16, 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. 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:

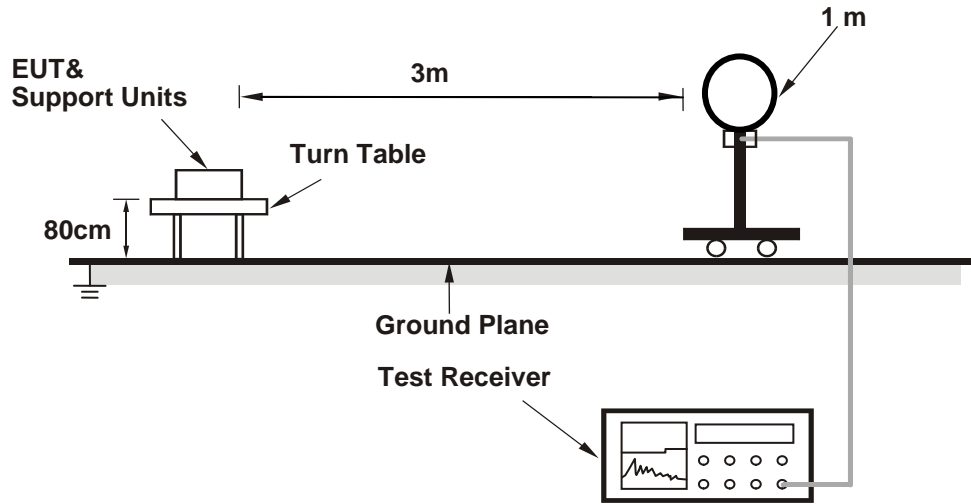
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

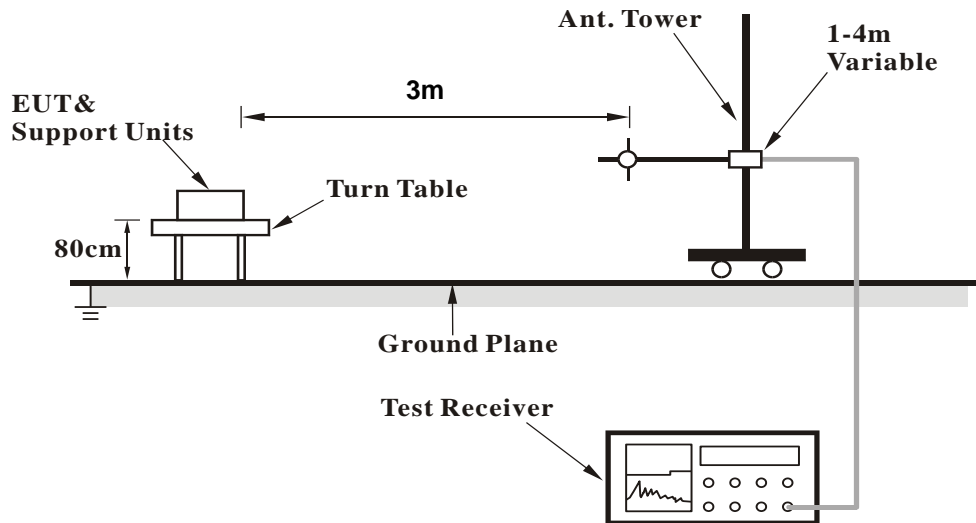
No deviation.

4.1.5 Test Setup

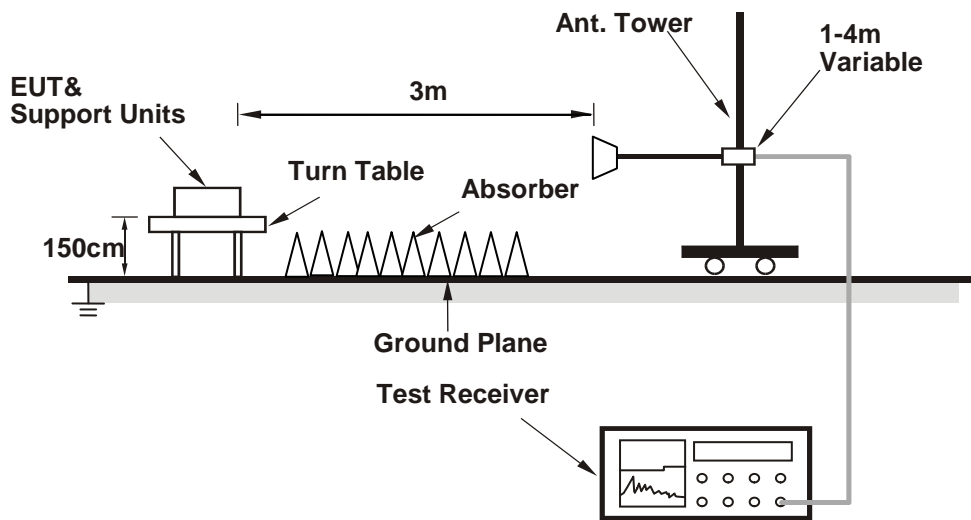
For Radiated emission below 30MHz



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. Connected the EUT with the Laptop which is placed on remote site.
- b. Controlling software (telnet paste command) has been activated to set the EUT under transmission/receiving condition continuously.

4.1.7 Test Results

Above 1GHz Data :

CHANNEL	TX Channel 1 (R1: 9.6kbit/s)	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 10GHz		

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	1816.80	54.5 PK	74.0	-19.5	1.05 H	76	59.4	-4.9
2	1816.80	53.9 AV	54.0	-0.1	1.05 H	76	58.8	-4.9
3	2725.20	53.9 PK	74.0	-20.1	1.03 H	57	55.7	-1.8
4	2725.20	53.2 AV	54.0	-0.8	1.03 H	57	55.0	-1.8
5	3633.60	49.6 PK	74.0	-24.4	1.78 H	88	50.1	-0.5
6	3633.60	47.6 AV	54.0	-6.4	1.78 H	88	48.1	-0.5
7	4542.00	49.7 PK	74.0	-24.3	1.09 H	123	48.4	1.3
8	4542.00	48.0 AV	54.0	-6.0	1.09 H	123	46.7	1.3
9	5450.40	48.4 PK	74.0	-25.6	1.32 H	105	45.4	3.0
10	5450.40	42.6 AV	54.0	-11.4	1.32 H	105	39.6	3.0
11	6358.80	42.1 PK	74.0	-31.9	1.45 H	351	37.3	4.8
12	6358.80	34.5 AV	54.0	-19.5	1.45 H	351	29.7	4.8
13	7267.20	40.4 PK	74.0	-33.6	1.10 H	78	32.3	8.1
14	7267.20	32.2 AV	54.0	-21.8	1.10 H	78	24.1	8.1
15	8175.60	46.4 PK	74.0	-27.6	1.36 H	225	37.7	8.7
16	8175.60	36.5 AV	54.0	-17.5	1.36 H	225	27.8	8.7
17	9084.00	43.9 PK	74.0	-30.1	1.21 H	83	34.3	9.6
18	9084.00	32.3 AV	54.0	-21.7	1.21 H	83	22.7	9.6

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	1816.80	52.1 PK	74.0	-21.9	1.12 V	18	57.0	-4.9
2	1816.80	51.2 AV	54.0	-2.8	1.12 V	18	56.1	-4.9
3	2725.20	46.8 PK	74.0	-27.2	1.14 V	21	48.6	-1.8
4	2725.20	44.5 AV	54.0	-9.5	1.14 V	21	46.3	-1.8
5	3633.60	39.6 PK	74.0	-34.4	1.70 V	5	40.1	-0.5
6	3633.60	33.0 AV	54.0	-21.0	1.70 V	5	33.5	-0.5
7	4542.00	46.2 PK	74.0	-27.8	1.24 V	63	44.9	1.3
8	4542.00	42.6 AV	54.0	-11.4	1.24 V	63	41.3	1.3
9	5450.40	38.1 PK	74.0	-35.9	1.77 V	263	35.1	3.0
10	5450.40	30.1 AV	54.0	-23.9	1.77 V	263	27.1	3.0
11	6358.80	44.1 PK	74.0	-29.9	1.30 V	119	39.3	4.8
12	6358.80	36.3 AV	54.0	-17.7	1.30 V	119	31.5	4.8
13	7267.20	42.9 PK	74.0	-31.1	1.07 V	360	34.8	8.1
14	7267.20	31.2 AV	54.0	-22.8	1.07 V	360	23.1	8.1
15	8175.60	45.4 PK	74.0	-28.6	2.22 V	200	36.7	8.7
16	8175.60	35.1 AV	54.0	-18.9	2.22 V	200	26.4	8.7
17	9084.00	44.4 PK	74.0	-29.6	1.50 V	190	34.8	9.6
18	9084.00	34.0 AV	54.0	-20.0	1.50 V	190	24.4	9.6

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

CHANNEL	TX Channel 1 (R2: 40kbit/s)	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 10GHz		

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	1816.80	54.2 PK	74.0	-19.8	1.05 H	74	59.1	-4.9
2	1816.80	53.7 AV	54.0	-0.3	1.05 H	74	58.6	-4.9
3	2725.20	53.8 PK	74.0	-20.2	1.04 H	62	55.6	-1.8
4	2725.20	53.1 AV	54.0	-0.9	1.04 H	62	54.9	-1.8
5	3633.60	49.8 PK	74.0	-24.2	1.81 H	99	50.3	-0.5
6	3633.60	48.0 AV	54.0	-6.0	1.81 H	99	48.5	-0.5
7	4542.00	49.2 PK	74.0	-24.8	1.06 H	131	47.9	1.3
8	4542.00	47.5 AV	54.0	-6.5	1.06 H	131	46.2	1.3
9	5450.40	48.8 PK	74.0	-25.2	1.75 H	97	45.8	3.0
10	5450.40	43.2 AV	54.0	-10.8	1.75 H	97	40.2	3.0
11	6358.80	42.3 PK	74.0	-31.7	1.48 H	350	37.5	4.8
12	6358.80	34.4 AV	54.0	-19.6	1.48 H	350	29.6	4.8
13	7267.20	40.2 PK	74.0	-33.8	1.13 H	306	32.1	8.1
14	7267.20	32.1 AV	54.0	-21.9	1.13 H	306	24.0	8.1
15	8175.60	45.7 PK	74.0	-28.3	1.21 H	221	37.0	8.7
16	8175.60	35.5 AV	54.0	-18.5	1.21 H	221	26.8	8.7
17	9084.00	43.7 PK	74.0	-30.3	1.20 H	90	34.1	9.6
18	9084.00	32.0 AV	54.0	-22.0	1.20 H	90	22.4	9.6

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	1816.80	51.7 PK	74.0	-22.3	1.13 V	20	56.6	-4.9
2	1816.80	50.8 AV	54.0	-3.2	1.13 V	20	55.7	-4.9
3	2725.20	47.1 PK	74.0	-26.9	1.10 V	20	48.9	-1.8
4	2725.20	44.8 AV	54.0	-9.2	1.10 V	20	46.6	-1.8
5	3633.60	39.9 PK	74.0	-34.1	1.73 V	10	40.4	-0.5
6	3633.60	33.5 AV	54.0	-20.5	1.73 V	10	34.0	-0.5
7	4542.00	45.4 PK	74.0	-28.6	1.19 V	66	44.1	1.3
8	4542.00	42.2 AV	54.0	-11.8	1.19 V	66	40.9	1.3
9	5450.40	38.1 PK	74.0	-35.9	1.78 V	243	35.1	3.0
10	5450.40	30.0 AV	54.0	-24.0	1.78 V	243	27.0	3.0
11	6358.80	44.6 PK	74.0	-29.4	1.31 V	126	39.8	4.8
12	6358.80	36.7 AV	54.0	-17.3	1.31 V	126	31.9	4.8
13	7267.20	43.1 PK	74.0	-30.9	1.11 V	343	35.0	8.1
14	7267.20	31.3 AV	54.0	-22.7	1.11 V	343	23.2	8.1
15	8175.60	45.2 PK	74.0	-28.8	2.17 V	189	36.5	8.7
16	8175.60	35.0 AV	54.0	-19.0	2.17 V	189	26.3	8.7
17	9084.00	44.1 PK	74.0	-29.9	1.52 V	197	34.5	9.6
18	9084.00	33.7 AV	54.0	-20.3	1.52 V	197	24.1	9.6

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

CHANNEL	TX Channel 2 (R3: 100kbit/s)	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	1832.00	54.5 PK	74.0	-19.5	1.01 H	75	59.3	-4.8
2	1832.00	53.9 AV	54.0	-0.1	1.01 H	75	58.7	-4.8
3	2748.00	53.1 PK	74.0	-20.9	1.04 H	56	54.9	-1.8
4	2748.00	52.4 AV	54.0	-1.6	1.04 H	56	54.2	-1.8
5	3664.00	48.7 PK	74.0	-25.3	1.26 H	88	49.1	-0.4
6	3664.00	47.2 AV	54.0	-6.8	1.26 H	88	47.6	-0.4
7	4580.00	47.9 PK	74.0	-26.1	1.49 H	76	46.4	1.5
8	4580.00	44.8 AV	54.0	-9.2	1.49 H	76	43.3	1.5
9	5496.00	48.2 PK	74.0	-25.8	1.34 H	110	45.3	2.9
10	5496.00	42.5 AV	54.0	-11.5	1.34 H	110	39.6	2.9
11	6412.00	42.2 PK	74.0	-31.8	1.72 H	239	37.1	5.1
12	6412.00	34.5 AV	54.0	-19.5	1.72 H	239	29.4	5.1
13	7328.00	40.7 PK	74.0	-33.3	1.23 H	145	32.8	7.9
14	7328.00	32.5 AV	54.0	-21.5	1.23 H	145	24.6	7.9
15	8244.00	46.8 PK	74.0	-27.2	1.79 H	341	38.4	8.4
16	8244.00	36.7 AV	54.0	-17.3	1.79 H	341	28.3	8.4
17	9160.00	43.8 PK	74.0	-30.2	1.25 H	69	34.0	9.8
18	9160.00	32.1 AV	54.0	-21.9	1.25 H	69	22.3	9.8

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	1832.00	50.7 PK	74.0	-23.3	1.07 V	3	55.5	-4.8
2	1832.00	50.0 AV	54.0	-4.0	1.07 V	3	54.8	-4.8
3	2748.00	45.7 PK	74.0	-28.3	1.00 V	24	47.5	-1.8
4	2748.00	43.8 AV	54.0	-10.2	1.00 V	24	45.6	-1.8
5	3664.00	39.8 PK	74.0	-34.2	1.76 V	9	40.2	-0.4
6	3664.00	33.5 AV	54.0	-20.5	1.76 V	9	33.9	-0.4
7	4580.00	45.8 PK	74.0	-28.2	1.24 V	64	44.3	1.5
8	4580.00	42.3 AV	54.0	-11.7	1.24 V	64	40.8	1.5
9	5496.00	38.2 PK	74.0	-35.8	1.74 V	252	35.3	2.9
10	5496.00	30.1 AV	54.0	-23.9	1.74 V	252	27.2	2.9
11	6412.00	44.2 PK	74.0	-29.8	1.26 V	133	39.1	5.1
12	6412.00	36.6 AV	54.0	-17.4	1.26 V	133	31.5	5.1
13	7328.00	42.8 PK	74.0	-31.2	1.06 V	355	34.9	7.9
14	7328.00	31.3 AV	54.0	-22.7	1.06 V	355	23.4	7.9
15	8244.00	45.8 PK	74.0	-28.2	2.21 V	177	37.4	8.4
16	8244.00	35.5 AV	54.0	-18.5	2.21 V	177	27.1	8.4
17	9160.00	44.2 PK	74.0	-29.8	1.56 V	204	34.4	9.8
18	9160.00	33.6 AV	54.0	-20.4	1.56 V	204	23.8	9.8

REMARKS:

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

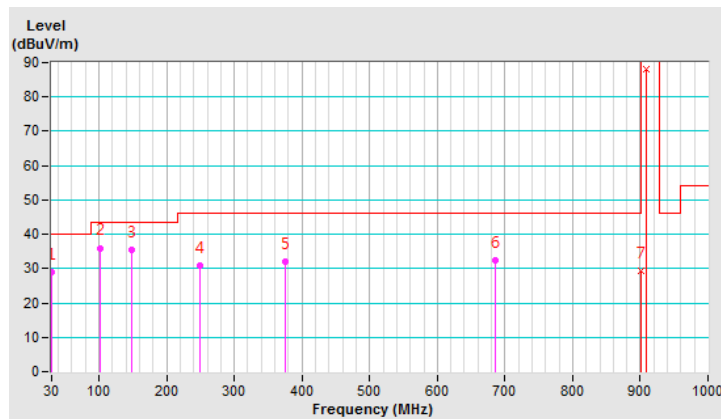
Below 1GHz Data:

CHANNEL	TX Channel 1 (R1: 9.6kbit/s)	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	30.00	28.8 QP	40.0	-11.2	2.00 H	311	38.4	-9.6
2	101.78	36.0 QP	43.5	-7.5	3.00 H	206	48.2	-12.2
3	148.34	35.4 QP	43.5	-8.1	1.50 H	247	43.5	-8.1
4	249.22	30.9 QP	46.0	-15.1	1.50 H	247	39.9	-9.0
5	375.32	31.9 QP	46.0	-14.1	1.50 H	119	37.1	-5.2
6	685.72	32.3 QP	46.0	-13.7	1.50 H	338	30.8	1.5
7	902.00	29.2 QP	46.0	-16.8	1.00 H	253	24.4	4.8
8	*908.43	88.1 QP	94.0	-5.9	1.00 H	253	83.1	5.0

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. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

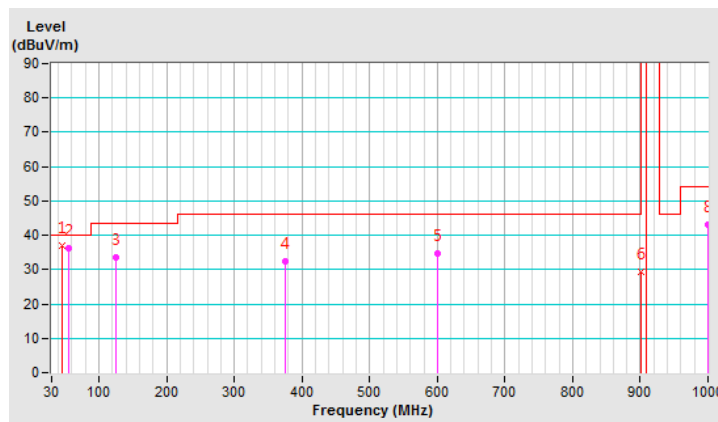


CHANNEL	TX Channel 1 (R1: 9.6kbit/s)	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	45.74	37.0 QP	40.0	-3.0	1.00 V	206	46.0	-9.0
2	55.22	36.1 QP	40.0	-3.9	1.00 V	102	44.9	-8.8
3	125.06	33.7 QP	43.5	-9.8	1.00 V	113	43.7	-10.0
4	375.32	32.4 QP	46.0	-13.6	1.00 V	314	37.6	-5.2
5	600.36	34.7 QP	46.0	-11.3	1.50 V	297	34.5	0.2
6	902.00	29.2 QP	46.0	-16.8	1.00 V	253	24.4	4.8
7	*908.43	93.8 QP	94.0	-0.2	1.00 V	253	88.8	5.0
8	1000.00	43.0 QP	54.0	-11.0	1.50 V	118	37.1	5.9

REMARKS:

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



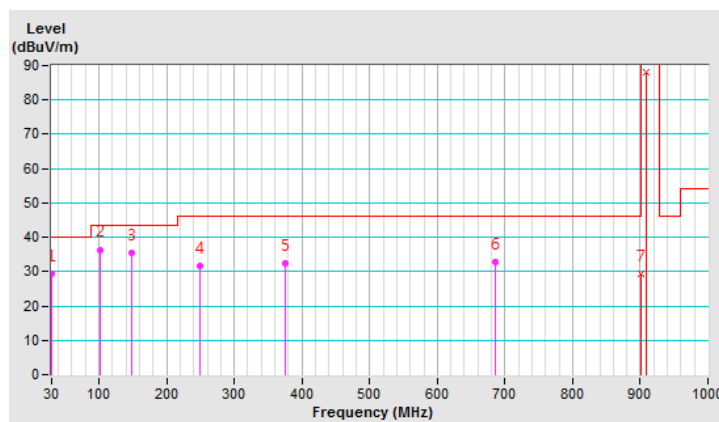
CHANNEL	TX Channel 1 (R2: 40kbit/s)	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	30.00	29.4 QP	40.0	-10.6	1.50 H	267	39.0	-9.6
2	101.78	36.4 QP	43.5	-7.1	2.00 H	312	48.6	-12.2
3	148.34	35.6 QP	43.5	-7.9	1.50 H	334	43.7	-8.1
4	249.22	31.6 QP	46.0	-14.4	1.50 H	156	40.6	-9.0
5	375.32	32.5 QP	46.0	-13.5	1.50 H	279	37.7	-5.2
6	685.72	32.8 QP	46.0	-13.2	1.50 H	158	31.3	1.5
7	902.00	29.4 QP	46.0	-16.6	1.00 H	249	24.6	4.8
8	*908.43	88.0 QP	94.0	-6.0	1.00 H	249	83.0	5.0

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. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

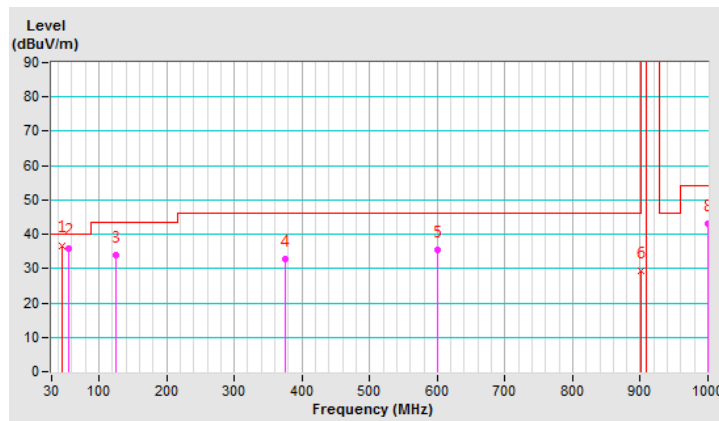


CHANNEL	TX Channel 1 (R2: 40kbit/s)	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	45.74	36.8 QP	40.0	-3.2	1.00 V	253	45.8	-9.0
2	55.22	36.0 QP	40.0	-4.0	1.00 V	149	44.8	-8.8
3	125.06	33.9 QP	43.5	-9.6	1.00 V	264	43.9	-10.0
4	375.32	32.8 QP	46.0	-13.2	1.00 V	302	38.0	-5.2
5	600.36	35.4 QP	46.0	-10.6	1.50 V	265	35.2	0.2
6	902.00	29.3 QP	46.0	-16.7	1.00 V	264	24.5	4.8
7	*908.43	93.7 QP	94.0	-0.3	1.00 V	264	88.7	5.0
8	1000.00	43.2 QP	54.0	-10.8	1.50 V	118	37.3	5.9

REMARKS:

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



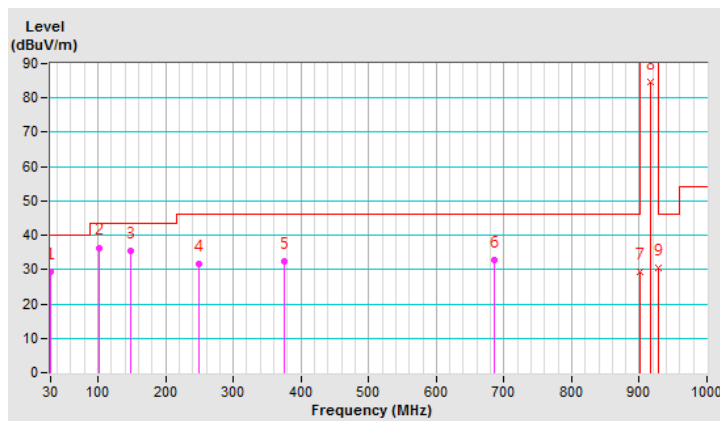
CHANNEL	TX Channel 2 (R3: 100kbit/s)	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	30.00	29.4 QP	40.0	-10.6	1.56 H	315	39.0	-9.6
2	101.78	36.4 QP	43.5	-7.1	2.00 H	247	48.6	-12.2
3	148.34	35.6 QP	43.5	-7.9	1.50 H	226	43.7	-8.1
4	249.22	31.6 QP	46.0	-14.4	1.50 H	341	40.6	-9.0
5	375.32	32.5 QP	46.0	-13.5	1.50 H	264	37.7	-5.2
6	685.72	32.8 QP	46.0	-13.2	1.55 H	279	31.3	1.5
7	902.00	29.4 QP	46.0	-16.6	1.50 H	256	24.6	4.8
8	*915.98	84.6 QP	94.0	-9.4	1.50 H	256	79.5	5.1
9	928.00	30.6 QP	46.0	-15.4	1.50 H	256	25.3	5.3

REMARKS:

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

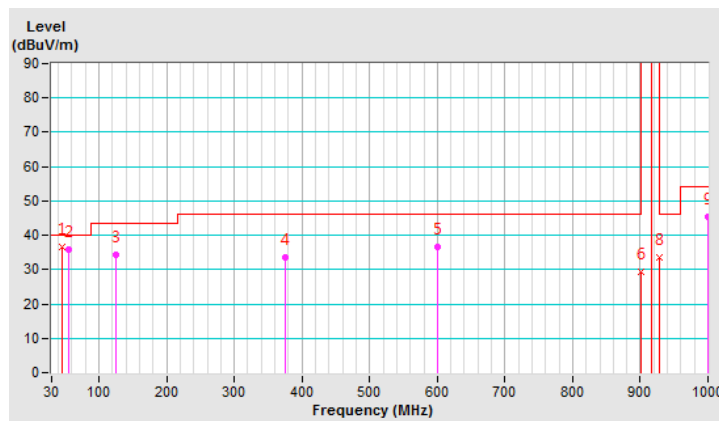


CHANNEL	TX Channel 2 (R3: 100kbit/s)	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	45.74	36.6 QP	40.0	-3.4	1.00 V	239	45.6	-9.0
2	55.22	35.7 QP	40.0	-4.3	1.50 V	298	44.5	-8.8
3	125.06	34.2 QP	43.5	-9.3	1.09 V	223	44.2	-10.0
4	375.32	33.6 QP	46.0	-12.4	1.00 V	264	38.8	-5.2
5	600.36	36.5 QP	46.0	-9.5	1.64 V	318	36.3	0.2
6	902.00	29.4 QP	46.0	-16.6	1.00 V	257	24.6	4.8
7	*915.99	93.4 QP	94.0	-0.6	1.00 V	257	88.3	5.1
8	928.00	33.4 QP	46.0	-12.6	1.00 V	257	28.1	5.3
9	1000.00	45.4 QP	54.0	-8.6	1.50 V	289	39.5	5.9

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.
4. 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: Dec. 21, 2018

4.2.3 Test Procedures

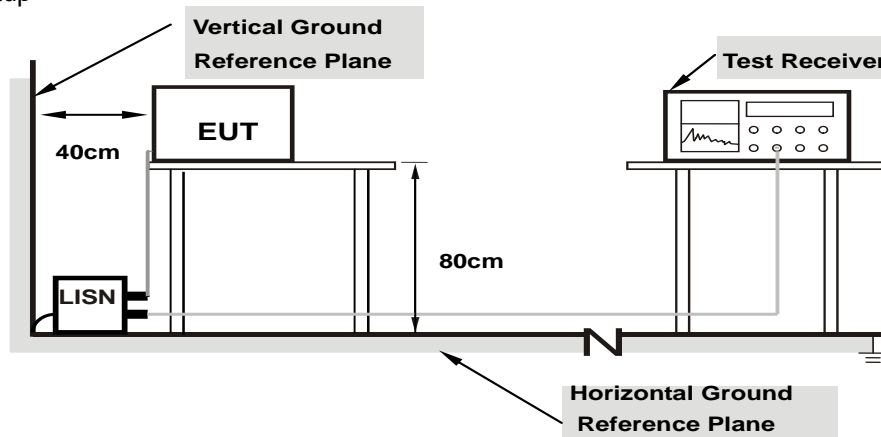
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. 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 Conditions

Same as 4.1.6.

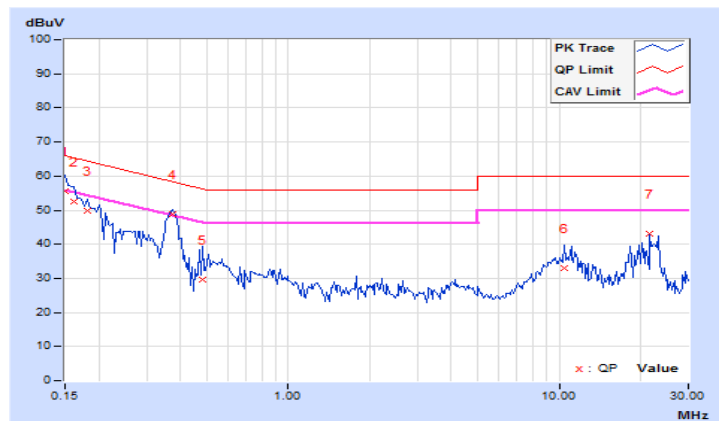
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.03	45.66	31.86	55.69	41.89	66.00	56.00	-10.31	-14.11
2	0.16172	10.03	42.43	25.95	52.46	35.98	65.38	55.38	-12.92	-19.40
3	0.18125	10.04	39.93	22.02	49.97	32.06	64.43	54.43	-14.46	-22.37
4	0.37266	10.08	38.61	31.10	48.69	41.18	58.44	48.44	-9.75	-7.26
5	0.48203	10.09	19.42	5.86	29.51	15.95	56.30	46.30	-26.79	-30.35
6	10.42188	10.73	22.27	15.82	33.00	26.55	60.00	50.00	-27.00	-23.45
7	21.66406	11.40	31.57	28.07	42.97	39.47	60.00	50.00	-17.03	-10.53

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

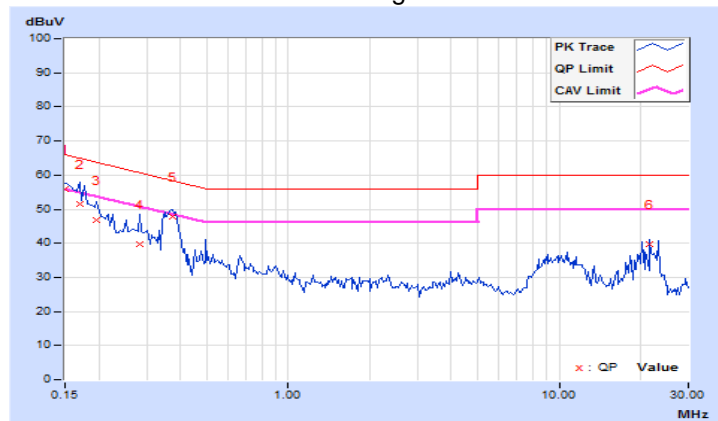


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.94	45.91	31.43	55.85	41.37	66.00	56.00	-10.15	-14.63
2	0.16953	9.94	41.62	24.71	51.56	34.65	64.98	54.98	-13.42	-20.33
3	0.19687	9.95	36.70	22.00	46.65	31.95	63.74	53.74	-17.09	-21.79
4	0.28281	9.96	29.68	17.61	39.64	27.57	60.73	50.73	-21.09	-23.16
5	0.37656	9.98	37.89	31.34	47.87	41.32	58.35	48.35	-10.48	-7.03
6	21.66406	11.17	28.47	25.11	39.64	36.28	60.00	50.00	-20.36	-13.72

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 20dB Bandwidth Measurement

4.3.1 Limits of 20dB Bandwidth Measurement

The 20dB bandwidth shall be specified in operating frequency band.

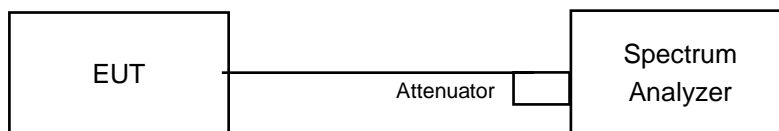
4.3.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.3 Test Procedure

The bandwidth of the fundamental frequency was measured by spectrum analyzer with 3kHz RBW and 10kHz VBW. The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

4.3.4 Test Setup



4.3.5 Deviation from Test Standard

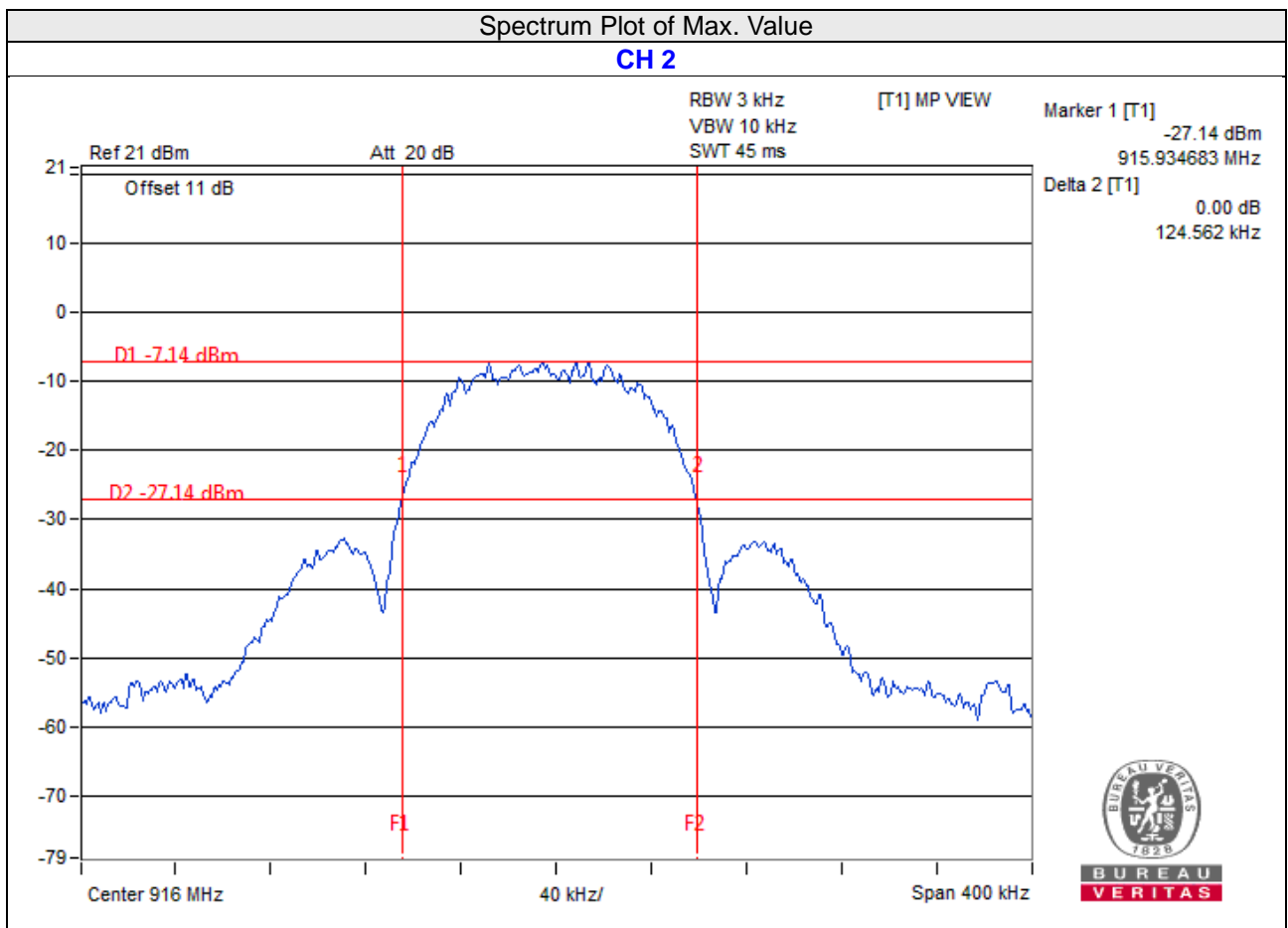
No deviation.

4.3.6 EUT Operating Condition

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

4.3.7 Test Results

Channel	Channel Frequency (MHz)	20dB Bandwidth (kHz)
1	908.4 (9.6kbit/s)	97.944
	908.4 (40kbit/s)	89.484
2	916 (100kbit/s)	124.562



5 Pictures of Test Arrangements

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

Appendix – Information on 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 accredited and approved according to ISO/IEC 17025.

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

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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