

FCC/IC Test Report (BT-EDR)

Report No.: RF141008E03C-2

FCC ID: PPD-QCNFA435

IC: 4104A-QCNFA435

Test Model: QCNFA435

Received Date: Jan. 21, 2015

Test Date: Apr. 07 to 28, 2015

Issued Date: Apr. 29, 2015

Applicant: Qualcomm Atheros, Inc.

Address: 1700 Technology Drive, San Jose, CA 95110

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

Lab Address: No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin
Chu Hsien 307, Taiwan R.O.C.

Test Location (1): No. 81-1, Lu Liao Keng, 9th Ling, Wu Lung Tsuen, Chiung Lin Hsiang, Hsin
Chu Hsien 307, Taiwan R.O.C.

Test Location (2): No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin
Chu Hsien 307, Taiwan R.O.C.



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies

Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 Summary of Test Results	5
2.1 Measurement Uncertainty	6
2.2 Modification Record	6
3 General Information	7
3.1 General Description of EUT (BT-EDR)	7
3.2 Description of Antenna	8
3.3 Description of Test Modes	9
3.3.1 Test Mode Applicability and Tested Channel Detail	10
3.4 Description of Support Units	11
3.4.1 Configuration of System under Test	11
3.5 General Description of Applied Standards	12
4 Test Types and Results	13
4.1 Maximum Output Power Measurement	13
4.1.1 Limits of Maximum Output Power Measurement	13
4.1.2 Test Setup	13
4.1.3 Test Instruments	13
4.1.4 Test Procedures	13
4.1.5 Deviation from Test Standard	14
4.1.6 EUT Operating Conditions	14
4.1.7 Test Results	14
4.2 Radiated Emission and Bandedge Measurement	15
4.2.1 Limits of Radiated Emission and Bandedge Measurement	15
4.2.2 Test Instruments	16
4.2.3 Test Procedures	17
4.2.4 Deviation from Test Standard	17
4.2.5 Test Setup	18
4.2.6 EUT Operating Conditions	18
4.2.7 Test Results (Mode 1)	19
4.2.8 Test Results (Mode 2)	23
4.2.9 Test Results (Mode 3)	27
5 Pictures of Test Arrangements	31
Appendix – Information on the Testing Laboratories	32



A D T

Release Control Record

Issue No.	Description	Date Issued
RF141008E03C-2	Original release.	Apr. 29, 2015

1 Certificate of Conformity

Product: Single Stream 802.11a/b/g/n/ac + BT 4.1 M.2 Type Card

Brand: Qualcomm Atheros

Test Model: QCNFA435

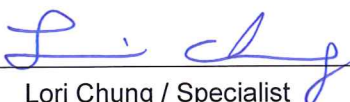
Sample Status: R&D SAMPLE

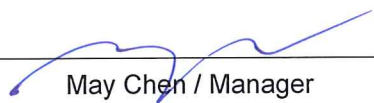
Applicant: Qualcomm Atheros, Inc.

Test Date: Apr. 07 to 28, 2015

Standards: 47 CFR FCC Part 15, Subpart C (Section 15.247)
ANSI C63.10:2013
Canada RSS-210 Issue 8 (2010-12)
Canada RSS-Gen Issue 4 (2014-11)

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 :  , **Date:** Apr. 29, 2015
Lori Chung / Specialist

Approved by :  , **Date:** Apr. 29, 2015
May Chen / Manager

2 Summary of Test Results

APPLIED STANDARD: 47 CFR FCC Part 15, Subpart C (SECTION 15.247) ; RSS-210; RSS-Gen				
STANDARD SECTION		Test Item	Result	Remarks
FCC Clause	RSS-Gen RSS-210			
15.247(b)	RSS-210 A8.4 (2)	Maximum Peak Output Power	PASS	Meet the requirement of limit.
15.205 15.209 15.247(d)	RSS-210 A8.5	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -6.2dB at 199.31MHz.
15.203	-	Antenna Requirement	PASS	Antenna connector is IPEX not a standard connector.

NOTE:

1. If the Frequency Hopping System operating in 2400-2483.5MHz band and the output power less than 125mW. The hopping channel carrier frequencies separated by a minimum of 25kHz or two-thirds of the 20dB bandwidth of hopping channel whichever is greater.
2. This report is prepared for FCC class II permissive change / IC reassessment change. Only radiated emissions / Maximum Peak Output Power were presented in this test report.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) ($\pm$)
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.43 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	3.72 dB
	6GHz ~ 18GHz	4.00 dB
	18GHz ~ 40GHz	4.11 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT (BT-EDR)

Product	Single Stream 802.11a/b/g/n/ac + BT 4.1 M.2 Type Card
Brand	Qualcomm Atheros
Test Model	QCNFA435
Status of EUT	R&D SAMPLE
Power Supply Rating	3.3Vdc form host equipment
Modulation Type	GFSK, $\pi/4$ -DQPSK, 8DPSK
Modulation Technology	FHSS
Transfer Rate	Up to 3Mbps
Operating Frequency	2402MHz ~ 2480MHz
Number of Channel	79
Output Power	13.646mW
Antenna Type	See item 3.2
Antenna Connector	See item 3.2
Accessory Device	NA
Data Cable Supplied	NA

Note:

- This report is prepared for FCC class II permissive change / IC reassessment change. The difference compared with the Report No.: RF141008E03-2 R1 design is as the following:

- ◆ Shielding change. Shielding shape and z-height change.
- ◆ The EUT was applied for limited module approval to limit use with Notebook Computer as below table:

15" Notebook Computer		
Brand	Model	Remark
ACER	Zoro_BH (N15Q1)	Intel CPU
ACER	Nami_CZ (N15Q2)	AMD CPU
14" Notebook Computer		
Brand	Model	Remark
ACER	Robin_BH (N15C1)	Intel CPU
ACER	Sanji_CZ (N15C2)	AMD CPU
17" Notebook Computer		
Brand	Model	Remark
ACER	Franky_CZ (N15W2)	AMD CPU
ACER	Brook_BH (N15W1)	Intel CPU

Note: From above Notebook Computer, Model: **Zoro_BH (N15Q1)**, **Robin_BH (N15C1)** and **Franky_CZ (N15W2)** was selected as representative model for the test and its data was recorded in this report.

- According to above conditions, only radiated emissions / Maximum Peak Output Power need to be performed. And all data was verified to meet the requirements.
- There are Bluetooth technology and WLAN technology used for the EUT.
- The EUT support multiple function, therefore the WLAN OFDM will be cover BT OFDM (low power) scenario.
- WLAN/BT coexistence mode:
 - ◆ 1x1 WLAN + BT:
 - 5GHz 802.11a/an (or 11ac) transmit concurrent with BT.
 - 2.4GHz: timely shared coexistence.
- The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Description of Antenna

The antenna gain was declared by client; please refer to the following table:

Antenna No.	Transmitter Circuit	Brand	Model	Ant. Type	2.4GHz Gain with cable loss (dBi)	5GHz Gain with cable loss (dBi)	Connector Type	Cable Length (mm)
1	Main	WNC	N15Q	PIFA	1.45	Band 1&2: 0.87	IPEX	643
						Band 3: 2.21		
						Band 4: 2.64		
	Aux	WNC	N15Q	PIFA	1.24	Band 1&2: 0.18	IPEX	756
						Band 3: 0.95		
						Band 4: 1.38		
2	Main	WNC	N15C	PIFA	0.7	Band 1&2: 0.97	IPEX	626
						Band 3: -0.01		
						Band 4: -0.32		
	Aux	WNC	N15C	PIFA	2.4	Band 1&2: -1.21	IPEX	749
						Band 3: -0.84		
						Band 4: -0.24		
3	Main	WNC	N15W	PIFA	2.2	Band 1&2: -0.41	IPEX	645
						Band 3: 0.74		
						Band 4: -0.05		
	Aux	WNC	N15W	PIFA	1.58	Band 1&2: -0.01	IPEX	720
						Band 3: -0.31		
						Band 4: -0.43		

Note: 1. All of antenna can be application for WLAN and Bluetooth.

3.3 Description of Test Modes

79 channels are provided for BT-EDR mode:

Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)	Channel	Freq. (MHz)
0	2402	20	2422	40	2442	60	2462
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2432	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461		

3.3.1 Test Mode Applicability and Tested Channel Detail

EUT CONFIGURE MODE	APPLICABLE TO			DESCRIPTION
	RE $\geq$ 1G	RE<1G	APCM	
1	√	√	-	with 15" Notebook Computer - Zoro_BH (N15Q1)
2	√	√	√	with 14" Notebook Computer - Robin_BH (N15C1)
3	√	√	-	with 17" Notebook Computer - Franky_CZ (N15W2)

Where **RE $\geq$ 1G**: Radiated Emission above 1GHz **RE<1G**: Radiated Emission below 1GHz
APCM: Antenna Port Conducted Measurement

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	PACKET TYPE
0 to 78	0, 39, 78	GFSK	DH5

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	PACKET TYPE
0 to 78	39	GFSK	DH5

Antenna Port Conducted 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	PACKET TYPE
0 to 78	0, 39, 78	GFSK	DH5

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE $\geq$ 1G	23deg. C, 68%RH	120Vac, 60Hz	Gary Cheng
RE<1G	22deg. C, 64%RH	120Vac, 60Hz	Gary Cheng
APCM	25deg. C, 60%RH	120Vac, 60Hz	Anderson Chen

3.4 Description of Support Units

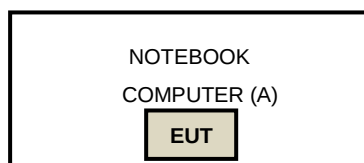
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

No.	Product	Brand	Model No.	Serial No.	FCC ID	Remark
A	NOTEBOOK COMPUTER	Acer	Zoro_BH (N15Q1)	NA	NA	Supplied by Client
	NOTEBOOK COMPUTER	Acer	Robin_BH (N15C1)	NA	NA	Supplied by Client
	NOTEBOOK COMPUTER	Acer	Franky_CZ (N15W2)	NA	NA	Supplied by Client

NOTE:

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

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 (15.247)
FCC Public Notice DA 00-705
Canada RSS-210 Issue 8 (2010-12)
Canada RSS-Gen Issue 4 (2014-11)
ANSI C63.10-2013

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

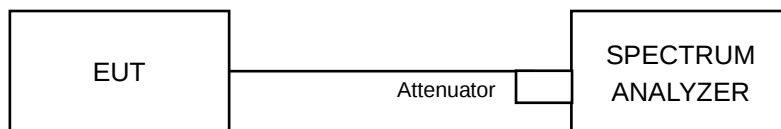
4 Test Types and Results

4.1 Maximum Output Power Measurement

4.1.1 Limits of Maximum Output Power Measurement

The Maximum Output Power Measurement is 125mW.

4.1.2 Test Setup



4.1.3 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
SPECTRUM ANALYZER R&S	FSP 40	100060	May 08, 2014	May 07, 2015

NOTE:

1. The test was performed in Oven room B.
2. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. Tested Date: Apr. 07, 2015

4.1.4 Test Procedures

- 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. Set a reference level on the measuring instrument equal to the highest peak value.
- c. The center frequency of the spectrum analyzer is set to the fundamental frequency and using 3MHz RBW and 10 MHz VBW.
- d. Measure the captured power within the band and recording the plot.
- e. Repeat above procedures until all frequencies required were complete.

4.1.5 Deviation from Test Standard

No deviation.

4.1.6 EUT Operating Conditions

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

4.1.7 Test Results

GFSK

Channel	Frequency (MHz)	Output Power (mW)	Output Power (dBm)	Power Limit (mW)	Pass/Fail
0	2402	12.972	11.13	125	Pass
39	2441	13.646	11.35	125	Pass
78	2480	13.062	11.16	125	Pass

4.2 Radiated Emission and Bandedge Measurement

4.2.1 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.

4.2.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
MXE EMI Receiver Agilent	N9038A	MY50010156	Aug. 11, 2014	Aug. 10, 2015
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-04	Nov. 12, 2014	Nov. 11, 2015
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Feb. 06, 2015	Feb. 05, 2016
RF Cable	NA	CHHCAB_001	Oct. 05, 2014	Oct. 04, 2015
Horn_Antenna AISI	AIH.8018	0000220091110	Feb. 06, 2015	Feb. 05, 2016
Pre-Amplifier Agilent	8449B	300801923	Oct. 28, 2014	Oct. 27, 2015
RF Cable	NA	131206 131213 131215 SNMY23685/4	Jan. 16, 2015	Jan. 15, 2016
Spectrum Analyzer R&S	FSV40	100964	July 05, 2014	July 04, 2015
Pre-Amplifier SPACEK LABS	SLKKA-48-6	9K16	Dec. 12, 2014	Dec. 11, 2015
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Feb. 05, 2015	Feb. 04, 2016
RF Cable	NA	329751/4 RF104-204	Dec. 11, 2014	Dec. 10, 2015
Software	ADT_Radiated _V8.7.07	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	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 horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
- 3 The test was performed in 966 Chamber No. H.
4. The FCC Site Registration No. is 797305.
- 5 The CANADA Site Registration No. is IC 7450H-3.
- 6 Tested Date: Apr. 25 to 28, 2015

4.2.3 Test Procedures

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- 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 detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

Note:

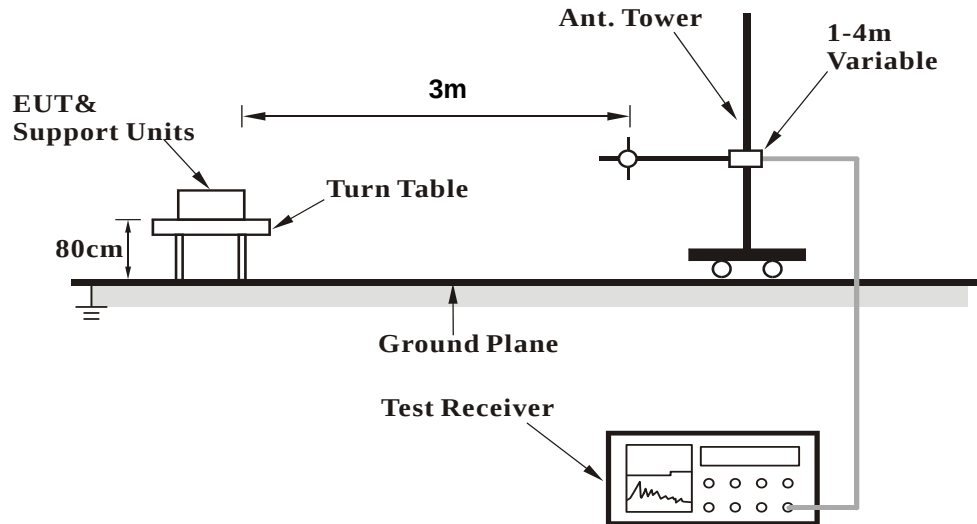
1. For emission measurements above 1 GHz, the EUT shall be placed at a height of 1.5 m above the ground at 3 meter chamber room for test
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
4. For Average measurement, due to the DH5 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on 0.625×5 per 296.25 ms per channel. Therefore, the duty cycle correlation factor be equal to: $20\log(3.125 / 100) = -30.1$ dB, therefore Average value = peak reading + $20\log(\text{duty cycle})$.
5. All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 Deviation from Test Standard

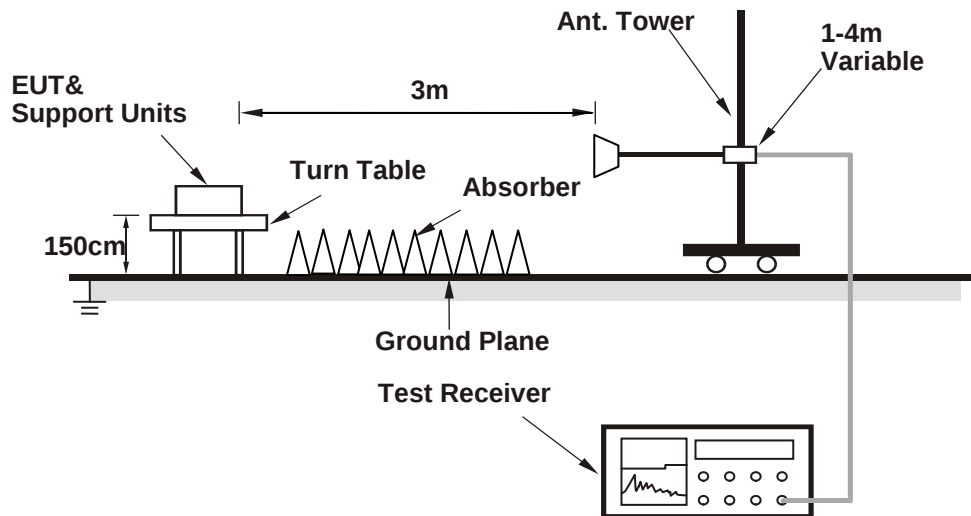
No deviation.

4.2.5 Test Setup

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



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

4.2.6 EUT Operating Conditions

1. Connect the EUT with the support unit A (Notebook Computer) which is placed on a testing table.
2. The support unit A (Notebook Computer) runs test program "QCA Radio Control Toolkit V3.0.33.0" to enable EUT under transmission/receiving condition continuously at specific channel frequency.

4.2.7 Test Results (Mode 1)

Above 1GHz Data

BT_GFSK

CHANNEL	TX Channel 0	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		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	2390.00	52.9 PK	74.0	-21.1	1.00 H	201	58.77	-5.87
2	2390.00	34.1 AV	54.0	-19.9	1.00 H	201	39.97	-5.87
3	*2402.00	104.9 PK			1.00 H	201	110.76	-5.86
4	*2402.00	96.5 AV			1.00 H	201	102.36	-5.86
5	4804.00	50.8 PK	74.0	-23.2	1.11 H	30	47.36	3.44
6	4804.00	38.6 AV	54.0	-15.4	1.11 H	30	35.16	3.44
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	2390.00	51.4 PK	74.0	-22.6	1.00 V	281	57.27	-5.87
2	2390.00	33.8 AV	54.0	-20.2	1.00 V	281	39.67	-5.87
3	*2402.00	100.0 PK			1.00 V	281	105.86	-5.86
4	*2402.00	93.0 AV			1.00 V	281	98.86	-5.86
5	4804.00	51.9 PK	74.0	-22.1	1.02 V	320	48.46	3.44
6	4804.00	39.9 AV	54.0	-14.1	1.02 V	320	36.46	3.44

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 39	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		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	*2441.00	105.7 PK			1.02 H	215	111.38	-5.68
2	*2441.00	97.7 AV			1.02 H	215	103.38	-5.68
3	4882.00	50.6 PK	74.0	-23.4	1.13 H	6	47.21	3.39
4	4882.00	38.3 AV	54.0	-15.7	1.13 H	6	34.91	3.39
5	7323.00	57.4 PK	74.0	-16.6	1.02 H	70	49.60	7.80
6	7323.00	42.1 AV	54.0	-11.9	1.02 H	70	34.30	7.80
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	*2441.00	100.9 PK			1.00 V	302	106.58	-5.68
2	*2441.00	95.0 AV			1.00 V	302	100.68	-5.68
3	4882.00	50.5 PK	74.0	-23.5	1.06 V	316	47.11	3.39
4	4882.00	39.1 AV	54.0	-14.9	1.06 V	316	35.71	3.39
5	7323.00	59.2 PK	74.0	-14.8	1.05 V	8	51.40	7.80
6	7323.00	42.4 AV	54.0	-11.6	1.05 V	8	34.60	7.80

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 78	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		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	*2480.00	106.8 PK			1.13 H	194	112.32	-5.52
2	*2480.00	98.6 AV			1.13 H	194	104.12	-5.52
3	2483.50	53.9 PK	74.0	-20.1	1.04 H	199	59.39	-5.49
4	2483.50	36.3 AV	54.0	-17.7	1.04 H	199	41.79	-5.49
5	4960.00	51.4 PK	74.0	-22.6	1.23 H	16	47.99	3.41
6	4960.00	39.0 AV	54.0	-15.0	1.23 H	16	35.59	3.41
7	7440.00	58.4 PK	74.0	-15.6	1.00 H	66	50.23	8.17
8	7440.00	41.4 AV	54.0	-12.6	1.00 H	66	33.23	8.17
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	*2480.00	101.4 PK			1.02 V	294	106.92	-5.52
2	*2480.00	95.9 AV			1.02 V	294	101.42	-5.52
3	2483.50	54.5 PK	74.0	-19.5	1.02 V	294	59.99	-5.49
4	2483.50	35.6 AV	54.0	-18.4	1.02 V	294	41.09	-5.49
5	4960.00	51.4 PK	74.0	-22.6	1.06 V	297	47.99	3.41
6	4960.00	40.1 AV	54.0	-13.9	1.06 V	297	36.69	3.41
7	7440.00	58.1 PK	74.0	-15.9	1.03 V	10	49.93	8.17
8	7440.00	42.2 AV	54.0	-11.8	1.03 V	10	34.03	8.17

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.

Below 1GHz Data

BT_GFSK

CHANNEL	TX Channel 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	67.20	14.1 QP	40.0	-25.9	1.20 H	27	29.12	-15.02
2	194.60	19.4 QP	43.5	-24.1	1.10 H	90	35.29	-15.87
3	319.70	22.3 QP	46.0	-23.7	1.10 H	60	33.36	-11.10
4	454.11	22.5 QP	46.0	-23.5	1.60 H	100	30.59	-8.09
5	519.50	24.0 QP	46.0	-22.0	1.00 H	148	30.73	-6.73
6	956.91	30.7 QP	46.0	-15.3	1.20 H	180	29.54	1.16
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	77.22	26.2 QP	40.0	-13.9	1.10 V	100	43.28	-17.13
2	194.61	35.5 QP	43.5	-8.0	1.00 V	142	51.37	-15.87
3	199.31	37.3 QP	43.5	-6.2	1.11 V	300	53.27	-15.99
4	214.11	35.3 QP	43.5	-8.2	1.01 V	308	51.33	-16.05
5	832.81	38.0 QP	46.0	-8.0	1.09 V	280	38.89	-0.89
6	956.78	32.3 QP	46.0	-13.7	1.00 V	102	31.14	1.16

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

4.2.8 Test Results (Mode 2)

Above 1GHz Data

BT_GFSK

CHANNEL	TX Channel 0	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		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	2390.00	52.6 PK	74.0	-21.4	1.01 H	293	58.47	-5.87
2	2390.00	33.7 AV	54.0	-20.3	1.01 H	293	39.57	-5.87
3	*2402.00	106.0 PK			1.01 H	293	111.86	-5.86
4	*2402.00	96.8 AV			1.01 H	293	102.66	-5.86
5	4804.00	51.5 PK	74.0	-22.5	1.03 H	323	48.06	3.44
6	4804.00	39.0 AV	54.0	-15.0	1.03 H	323	35.56	3.44
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	2390.00	53.1 PK	74.0	-20.9	1.03 V	195	58.97	-5.87
2	2390.00	34.5 AV	54.0	-19.5	1.03 V	195	40.37	-5.87
3	*2402.00	107.1 PK			1.03 V	195	112.96	-5.86
4	*2402.00	97.7 AV			1.03 V	195	103.56	-5.86
5	4804.00	51.0 PK	74.0	-23.0	1.08 V	28	47.56	3.44
6	4804.00	38.6 AV	54.0	-15.4	1.08 V	28	35.16	3.44

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 39	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		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	*2441.00	106.6 PK			1.02 H	290	112.28	-5.68
2	*2441.00	97.2 AV			1.02 H	290	102.88	-5.68
3	4882.00	51.1 PK	74.0	-22.9	1.08 H	319	47.71	3.39
4	4882.00	37.9 AV	54.0	-16.1	1.08 H	319	34.51	3.39
5	7323.00	59.6 PK	74.0	-14.4	1.06 H	17	51.80	7.80
6	7323.00	41.7 AV	54.0	-12.3	1.06 H	17	33.90	7.80
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	*2441.00	107.6 PK			1.06 V	204	113.28	-5.68
2	*2441.00	99.0 AV			1.06 V	204	104.68	-5.68
3	4882.00	50.7 PK	74.0	-23.3	1.16 V	16	47.31	3.39
4	4882.00	38.2 AV	54.0	-15.8	1.16 V	16	34.81	3.39
5	7323.00	58.1 PK	74.0	-15.9	1.11 V	100	50.30	7.80
6	7323.00	42.3 AV	54.0	-11.7	1.11 V	100	34.50	7.80

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 78	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		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	*2480.00	106.8 PK			1.06 H	298	112.32	-5.52
2	*2480.00	98.9 AV			1.06 H	298	104.42	-5.52
3	2483.50	52.3 PK	74.0	-21.7	1.06 H	295	57.79	-5.49
4	2483.50	35.9 AV	54.0	-18.1	1.06 H	295	41.39	-5.49
5	4960.00	51.4 PK	74.0	-22.6	1.05 H	318	47.99	3.41
6	4960.00	38.6 AV	54.0	-15.4	1.05 H	318	35.19	3.41
7	7440.00	57.7 PK	74.0	-16.3	1.02 H	2	49.53	8.17
8	7440.00	41.8 AV	54.0	-12.2	1.02 H	2	33.63	8.17
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	*2480.00	108.1 PK			1.08 V	199	113.62	-5.52
2	*2480.00	99.4 AV			1.08 V	199	104.92	-5.52
3	2483.50	54.7 PK	74.0	-19.3	1.08 V	199	60.19	-5.49
4	2483.50	36.2 AV	54.0	-17.8	1.08 V	199	41.69	-5.49
5	4960.00	51.4 PK	74.0	-22.6	1.20 V	10	47.99	3.41
6	4960.00	39.4 AV	54.0	-14.6	1.20 V	10	35.99	3.41
7	7440.00	58.9 PK	74.0	-15.1	1.03 V	78	50.73	8.17
8	7440.00	41.0 AV	54.0	-13.0	1.03 V	78	32.83	8.17

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.

Below 1GHz Data

BT_GFSK

CHANNEL	TX Channel 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	66.42	21.8 QP	40.0	-18.2	1.14 H	301	36.58	-14.78
2	215.90	28.6 QP	43.5	-14.9	1.40 H	210	44.69	-16.09
3	359.97	31.3 QP	46.0	-14.7	1.10 H	300	41.74	-10.44
4	480.00	25.7 QP	46.0	-20.3	1.50 H	270	33.31	-7.63
5	558.22	25.4 QP	46.0	-20.6	1.10 H	100	31.58	-6.18
6	797.81	31.2 QP	46.0	-14.8	1.50 H	110	32.75	-1.55
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	49.02	31.4 QP	40.0	-8.6	1.10 V	200	44.65	-13.25
2	248.72	25.8 QP	46.0	-20.2	1.00 V	180	39.69	-13.89
3	353.70	26.1 QP	46.0	-19.9	1.10 V	112	36.79	-10.67
4	480.11	25.6 QP	46.0	-20.4	1.10 V	280	33.23	-7.63
5	786.25	30.3 QP	46.0	-15.7	1.10 V	260	31.76	-1.44
6	956.92	34.2 QP	46.0	-11.8	1.77 V	180	33.06	1.16

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

4.2.9 Test Results (Mode 3)

Above 1GHz Data

BT_GFSK

CHANNEL	TX Channel 0	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		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	2390.00	53.1 PK	74.0	-20.9	1.07 H	286	58.97	-5.87
2	2390.00	34.6 AV	54.0	-19.4	1.07 H	286	40.47	-5.87
3	*2402.00	107.5 PK			1.07 H	286	113.36	-5.86
4	*2402.00	97.9 AV			1.07 H	286	103.76	-5.86
5	4804.00	50.8 PK	74.0	-23.2	1.02 H	335	47.36	3.44
6	4804.00	38.4 AV	54.0	-15.6	1.02 H	335	34.96	3.44
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	2390.00	52.9 PK	74.0	-21.1	1.03 V	198	58.77	-5.87
2	2390.00	33.9 AV	54.0	-20.1	1.03 V	198	39.77	-5.87
3	*2402.00	106.3 PK			1.03 V	198	112.16	-5.86
4	*2402.00	97.1 AV			1.03 V	198	102.96	-5.86
5	4804.00	51.7 PK	74.0	-22.3	1.04 V	25	48.26	3.44
6	4804.00	39.1 AV	54.0	-14.9	1.04 V	25	35.66	3.44

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 39	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		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	*2441.00	107.8 PK			1.04 H	289	113.48	-5.68
2	*2441.00	98.9 AV			1.04 H	289	104.58	-5.68
3	4882.00	50.6 PK	74.0	-23.4	1.06 H	311	47.21	3.39
4	4882.00	37.8 AV	54.0	-16.2	1.06 H	311	34.41	3.39
5	7323.00	57.7 PK	74.0	-16.3	1.11 H	16	49.90	7.80
6	7323.00	42.1 AV	54.0	-11.9	1.11 H	16	34.30	7.80
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	*2441.00	106.9 PK			1.00 V	190	112.58	-5.68
2	*2441.00	97.6 AV			1.00 V	190	103.28	-5.68
3	4882.00	51.5 PK	74.0	-22.5	1.09 V	24	48.11	3.39
4	4882.00	38.4 AV	54.0	-15.6	1.09 V	24	35.01	3.39
5	7323.00	59.8 PK	74.0	-14.2	1.06 V	108	52.00	7.80
6	7323.00	42.0 AV	54.0	-12.0	1.06 V	108	34.20	7.80

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 78	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz		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	*2480.00	108.1 PK			1.05 H	306	113.62	-5.52
2	*2480.00	99.3 AV			1.05 H	306	104.82	-5.52
3	2483.50	54.3 PK	74.0	-19.7	1.05 H	306	59.79	-5.49
4	2483.50	35.8 AV	54.0	-18.2	1.05 H	306	41.29	-5.49
5	4960.00	51.3 PK	74.0	-22.7	1.03 H	321	47.89	3.41
6	4960.00	39.3 AV	54.0	-14.7	1.03 H	321	35.89	3.41
7	7440.00	58.7 PK	74.0	-15.3	1.08 H	10	50.53	8.17
8	7440.00	41.0 AV	54.0	-13.0	1.08 H	10	32.83	8.17
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	*2480.00	107.1 PK			1.07 V	180	112.62	-5.52
2	*2480.00	98.9 AV			1.07 V	180	104.42	-5.52
3	2483.50	51.7 PK	74.0	-22.3	1.07 V	180	57.19	-5.49
4	2483.50	35.6 AV	54.0	-18.4	1.07 V	180	41.09	-5.49
5	4960.00	50.9 PK	74.0	-23.1	1.22 V	19	47.49	3.41
6	4960.00	38.1 AV	54.0	-15.9	1.22 V	19	34.69	3.41
7	7440.00	57.2 PK	74.0	-16.8	1.02 V	63	49.03	8.17
8	7440.00	41.5 AV	54.0	-12.5	1.02 V	63	33.33	8.17

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.

Below 1GHz Data

BT_GFSK

CHANNEL	TX Channel 39	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	238.60	30.7 QP	46.0	-15.3	1.10 H	200	44.84	-14.12
2	399.90	29.5 QP	46.0	-16.5	1.10 H	152	39.12	-9.62
3	499.80	29.3 QP	46.0	-16.7	1.70 H	315	36.46	-7.16
4	600.12	28.3 QP	46.0	-17.7	1.00 H	315	32.99	-4.69
5	798.50	31.5 QP	46.0	-14.5	1.00 H	302	33.04	-1.54
6	897.70	28.9 QP	46.0	-17.1	1.10 H	300	28.78	0.12
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	48.70	32.6 QP	40.0	-7.4	1.10 V	102	45.85	-13.23
2	285.50	28.8 QP	46.0	-17.2	1.15 V	360	41.27	-12.45
3	398.15	33.4 QP	46.0	-12.6	1.10 V	100	43.09	-9.69
4	598.61	29.9 QP	46.0	-16.1	1.15 V	100	34.66	-4.74
5	799.10	33.4 QP	46.0	-12.6	1.10 V	130	34.93	-1.51
6	956.95	32.4 QP	46.0	-13.6	1.10 V	200	31.24	1.16

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 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:

Linko EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF Lab/Telecom Lab

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety

Tel: 886-3-3183232

Fax: 886-3-3270892

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.

--- END ---