

**CFR 47 FCC PART 15 SUBPART C
ISED RSS-247 ISSUE 2 (DSS)**

TEST REPORT

For

WIFI BT module

MODEL NUMBER: 6252B-PR

REPORT NUMBER: E01A23040641F00103

ISSUE DATE: May 15, 2023

FCC ID:2AATL-6252B-PR

IC:12425A-6252BPR

Prepared for

FN-LINK TECHNOLOGY LIMITED

**No.8, Litong Road, Liuyang Economic & Technical Development Zone, Changsha,
Hunan, China**

Prepared by

Dong Guan Anci Electronic Technology Co., Ltd.

**1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan, Lake Hi-
tech Industrial Development Zone, Dongguan City, Guangdong Pr.,
China.**

**This report shall not be reproduced, except in full, without the written approval of
Dong Guan Anci Electronic Technology Co., Ltd.**

Revision History

Rev.	Issue Date	Revisions	Revised By
V0	May 15, 2023	Initial Issue	Duke

Summary of Test Results

Summary of Test Results			
Test Item	Clause	Limit/Requirement	Result
Antenna Requirement	N/A	FCC Part 15.203/15.247 (c) RSS-Gen 6.8	Pass
AC Power Line Conducted Emission	ANSI C63.10-2013 Clause 6.2	FCC Part 15.207 RSS-Gen Clause 8.8	Pass
Conducted Output Power	ANSI C63.10-2013 Clause 7.8.5	FCC Part 15.247 (b)(1) RSS-247 Clause 5.4 (b)	Pass
20 dB Bandwidth and 99% Occupied Bandwidth	ANSI C63.10-2013 Clause 6.9.2	FCC Part 15.247 (a)(1) RSS-247 Clause 5.1 (a) RSS-Gen Clause 6.7	Pass
Carrier Hopping Channel Separation	ANSI C63.10-2013 Clause 7.8.2	FCC Part 15.247 (a)(1) RSS-247 Clause 5.1 (b)	Pass
Number of Hopping Frequency	ANSI C63.10-2013 Clause 7.8.3	FCC Part 15.247 (b)(1) RSS-247 Clause 5.1 (d)	Pass
Time of Occupancy (Dwell Time)	ANSI C63.10-2013 Clause 7.8.4	FCC Part 15.247 (a)(1) RSS-247 Clause 5.1 (d)	Pass
Conducted Band edge and Spurious Emission	ANSI C63.10-2013 Clause 6.10.4 & Clause 7.8.8	FCC Part 15.247(d) RSS-247 5.5	Pass
Radiated Band edge and Spurious Emission	ANSI C63.10-2013 Clause 6.3 & 6.5 & 6.6	FCC Part 15.205/15.209 RSS-GEN Clause 8.9 and Clause 8.10	Pass
Duty Cycle	ANSI C63.10-2013, Clause 11.6	None; for reporting purposes only.	Pass

*The measurement result for the sample received is <Pass> according to <CFR 47 FCC PART 15 SUBPART C
ISED RSS-247 ISSUE 2 (DSS)> when <Accuracy Method> decision rule is applied.

CONTENTS

1. ATTESTATION OF TEST RESULTS	5
2. TEST METHODOLOGY	6
3. FACILITIES AND ACCREDITATION	6
4. CALIBRATION AND UNCERTAINTY	7
4.1. MEASURING INSTRUMENT CALIBRATION	7
4.2. MEASUREMENT UNCERTAINTY	7
5. EQUIPMENT UNDER TEST	8
5.1. DESCRIPTION OF EUT	8
5.2. CHANNEL LIST	8
5.3. MAXIMUM AVERAGE EIRP	8
5.4. TEST CHANNEL CONFIGURATION	9
5.5. THE WORSE CASE POWER SETTING PARAMETER	9
5.6. DESCRIPTION OF AVAILABLE ANTENNAS	10
5.7. SUPPORT UNITS FOR SYSTEM TEST	10
5.8. SETUP DIAGRAM	10
6. MEASURING EQUIPMENT AND SOFTWARE USED	11
7. ANTENNA PORT TEST RESULTS	13
7.1. Conducted Output Power	13
7.2. 20 dB Bandwidth and 99% Occupied Bandwidth	14
7.3. Carrier Hopping Channel Separation	15
7.4. Number of Hopping Frequency	16
7.5. Time of Occupancy (Dwell Time)	17
7.6. Conducted Bandedge and Spurious Emission	18
8. RADIATED TEST RESULTS	20
9. ANTENNA REQUIREMENT	34
10. AC POWER LINE CONDUCTED EMISSION	35
11. ST DATA	38
APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION	39

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: FN-LINK TECHNOLOGY LIMITED
Address: No.8, Litong Road, Liuyang Economic & Technical Development Zone, Changsha, Hunan, China

Manufacturer Information

Company Name: FN-LINK TECHNOLOGY LIMITED
Address: No.8, Litong Road, Liuyang Economic & Technical Development Zone, Changsha, Hunan, China

EUT Information

EUT Name: WIFI BT module
Model: 6252B-PR
Brand: FN-LINK
Sample Received Date: Apr 24, 2023
Sample Status: Normal
Sample ID: A23040641 005
Date of Tested: Apr 24, 2023 to May 15, 2023

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 FCC PART 15 SUBPART C ISED RSS-247 ISSUE 2 (DSS)	Pass

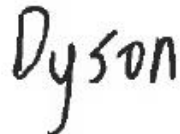
Prepared By:



Duke

Project Engineer

Checked By:



Dyson

Project Engineer

Approved By:



Tiger

Laboratory Supervisor

2. TEST METHODOLOGY

All tests were performed in accordance with the standard CFR 47 FCC PART 15 SUBPART C
ISED RSS-247 ISSUE 2 (DSS), DSS

3. FACILITIES AND ACCREDITATION

Site Description

Name of Firm : Dong Guan Anci Electronic Technology Co., Ltd.
Site Location : 1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan,
Lake Hi-tech Industrial Development Zone, Dongguan
City, evelopment Zone, Dongguan City, Guangdong Pr., China.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations and is traceable to recognized national standards.

4.2. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Radio Frequency	3.5×10^{-7}
RF power, conducted	± 2.5 dB
Temperature	± 1 °C
Humidity	± 5 %
Voltage (DC)	± 1 %
Voltage (AC, < 10 kHz)	± 2 %

Test Item	Uncertainty
Uncertainty for Radiation Emission test	4.62 dB (30 MHz-1 GHz)
	3.50 dB (1 GHz-18 GHz)

For the test methods, according to the present document the uncertainty figures shall be calculated according to the methods described in the TR 100 028 [i.4] and shall correspond to an expansion factor (coverage factor) $k = 1,96$ or $k = 2$ (which provide confidence levels of respectively 95 % and 95,45 % in case where the distributions characterizing the actual measurement uncertainties are normal (Gaussian)).

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

EUT Name	WIFI BT module
Model	6252B-PR
Ratings	DC 3.3V
Frequency Band:	2400 MHz to 2483.5 MHz
Frequency Range:	2402 MHz to 2480 MHz
Bluetooth Version:	Bluetooth 5.2
Bluetooth Mode:	Bluetooth BR + EDR
Type of Modulation:	GFSK, $\Pi/4$ DQPSK, 8DPSK
Number of Channels:	79
Channel Separation:	1 MHz
Maximum Peak Power:	5.74dBm
Antenna Type:	External Antenna
Antenna Gain:	2.98dBi
Normal Test Voltage:	DC 3.3 V
EUT Test software:	RTLBTAPP.exe

5.2. CHANNEL LIST

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
00	2402	20	2422	40	2442	60	2462
01	2403	21	2423	41	2443	61	2463
02	2404	22	2424	42	2444	62	2464
03	2405	23	2425	43	2445	63	2465
04	2406	24	2426	44	2446	64	2466
05	2407	25	2427	45	2447	65	2467
06	2408	26	2428	46	2448	66	2468
07	2409	27	2429	47	2449	67	2469
08	2410	28	2430	48	2450	68	2470
09	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	/	/

5.3. MAXIMUM AVERAGE EIRP

Test Mode	Frequency	Channel Number	Maximum Peak Output	Maximum EIRP
-----------	-----------	----------------	---------------------	--------------

	(MHz)		Power (dBm)	(dBm)
GFSK	2402 ~ 2480	0-78[79]	2.92	5.90
π/4-DQPSK	2402 ~ 2480	0-78[79]	5.11	8.09
8DPSK	2402 ~ 2480	0-78[79]	5.74	8.72

5.4. TEST CHANNEL CONFIGURATION

Test Mode	Test Channel	Frequency
GFSK	CH 0(Low Channel), CH 39(MID Channel), CH 78(High Channel)	2402 MHz, 2441 MHz, 2480 MHz
π/4-DQPSK	CH 0(Low Channel), CH 39(MID Channel), CH 78(High Channel)	2402 MHz, 2441 MHz, 2480 MHz
8DPSK	CH 0(Low Channel), CH 39(MID Channel), CH 78(High Channel)	2402 MHz, 2441 MHz, 2480 MHz

Note: The hop is hopping mode.

PACKET TYPE CONFIGURATION

Test Mode	Packet Type	Setting (Packet Length)
GFSK	DH1	27
	DH3	183
	DH5	339
π/4-DQPSK	2-DH1	54
	2-DH3	367
	2-DH5	679
8DPSK	3-DH1	83
	3-DH3	552
	3-DH5	1021

5.5. THE WORSE CASE POWER SETTING PARAMETER

WORST-CASE CONFIGURATIONS

Bluetooth Mode	Modulation Technology	Modulation Type	Data Rate (Mbps)
BR	FHSS	GFSK	1Mbit/s
EDR	FHSS	π/4-DQPSK	2Mbit/s
EDR	FHSS	8DPSK	3Mbit/s

Note: Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates.

The Worse Case Power Setting Parameter under 2400 ~ 2483.5MHz Band	
Test Software	RTLBTAPP.exe

Modulation Type	Transmit Antenna Number	Test Software setting value		
		CH 00	CH 39	CH 78
GFSK	1	5	6	6
Π/4-DQPSK	1	5	6	6
8DPSK	1	5	6	6

5.6. DESCRIPTION OF AVAILABLE ANTENNAS

Antenna	Frequency (MHz)	Antenna Type	MAX Antenna Gain (dBi)
1	2402-2480	External	2.98dBi

Test Mode	Transmit and Receive Mode	Description
GFSK	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
Π/4-DQPSK	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.
8DPSK	☒ 1TX, 1RX	Antenna 1 can be used as transmitting/receiving antenna.

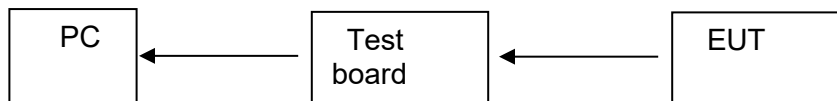
Note:

1.BT&WLAN 2.4G, BT & WLAN 5G, WLAN 2.4G & WLAN 5G can't transmit simultaneously.
(declared by client)

5.7. SUPPORT UNITS FOR SYSTEM TEST

Equipment	Manufacturer	Model No.
Test board	FN-LINK	6252B-PR
PC	Lenovo	T14

5.8. SETUP DIAGRAM



6. MEASURING EQUIPMENT AND SOFTWARE USED

Test Equipment of Conducted RF					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Spectrum Analyzer	Rohde & Schwarz	FSV40	US40240623	2022-10-29	2023-10-28
RF Test Software	MWRF-test	MTS 8310	N/A	N/A	N/A
Radio Frequency control box	MWRF-test	MW200-RFCB	MW220111 ANCI	2023/05/09	2024/5/10
Radio Frequency control box	MWRF-test	MW200-RFCB 2#	/	2023/05/09	2024/5/10

Test Equipment of Radiated emissions below 1GHz					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
EMI Test Receiver	ROHDE&SCHWARZ	ESCI	100302	2023/05/09	2024/5/10
Bilog Antenna	Schwarzbeck	VULB9163	VULB9163-1290	2022/12/12	2023/12/11
RF Cable	ZKJC	ZT06S-NJ-NJ-11M	19060398	2023/05/09	2024/5/10
RF Cable	ZKJC	ZT06S-NJ-NJ-0.5M	19060400	2023/05/09	2024/5/10
RF Cable	ZKJC	ZT06S-NJ-NJ-2.5M	19060404	2023/05/09	2024/5/10
EMI Test Receiver	ROHDE&SCHWARZ	ESPI7	100502	2022/10/8	2023/10/7
3m Semi-anechoic Chamber	Keysight	9m*6m*6m	N/A	2021/11/13	2024/11/12

Test Equipment of Radiated emissions above 1GHz					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Low noise Amplifiers	A-INFO	LA1018N4009	J1013130524001	2023/05/09	2024/5/10
Horn antenna	A-INFO	LB-10180-SF	J2031090612123	2023/05/09	2024/5/10
RF Cable	ZKJC	ZT26-NJ-NJ-11M	19060401	2023/05/09	2024/5/10
RF Cable	ZKJC	ZT26-NJ-NJ-2.5M	19060402	2023/05/09	2024/5/10
RF Cable	ZKJC	ZT26-NJ-NJ-0.5M	19060403	2023/05/09	2024/5/10
Spectrum Analyzer	Rohde & Schwarz	FSV40	US40240623	2022-10-29	2023-10-28
3m Semi-anechoic Chamber	Keysight	9m*6m*6m	N/A	2021/11/13	2024/11/12
Test Software	Farad	EZ-EMC (Ver.FA-03A2RE)	N/A	N/A	N/A

Test Equipment of Conducted emissions					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
EMI Test Receiver	ROHDE&SCHWARZ	ESCI	101358	2023/05/09	2024/5/10
1# Shielded Room	chengyu	8m*4m*3.3m	N/A	2022/11/22	2025/11/21
LISN	ROHDE&SCHWARZ	ENV216	101413	2022/10/8	2023/10/7
Test Software	Farad	EZ-EMC (Ver.ANCI-3A1)	N/A	N/A	N/A
RF Cable	N/A	ZT06S-NJ-NJ-2.5M	19044022	2023/05/09	2024/5/10

7. ANTENNA PORT TEST RESULTS

7.1. CONDUCTED OUTPUT POWER

LIMITS

CFR 47 FCC Part15 (15.247), Subpart C ISED RSS-247 ISSUE 2			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247 (b) (1) ISED RSS-247 Clause 5.4 (b)	Peak Conducted Output Power	Hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel: 1 watt or 30 dBm; Hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel: 125 mW or 21 dBm	2400-2483.5

TEST PROCEDURE

Connect the EUT to a low loss RF cable from the antenna port to the power sensor (video bandwidth is greater than the occupied bandwidth).
Measure peak emission level, the indicated level is the peak output power, after any corrections for external attenuators and cables.

TEST ENVIRONMENT

Temperature	24°C	Relative Humidity	55%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to section "Test Data" - Appendix C

7.2. 20 DB BANDWIDTH AND 99% OCCUPIED BANDWIDTH**LIMITS**

CFR 47FCC Part15 (15.247) Subpart C ISED RSS-247 ISSUE 2			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247 (a) (1) RSS-247 Clause 5.1 (a)	20 dB Bandwidth	None; for reporting purposes only.	2400-2483.5
ISED RSS-Gen Clause 6.7	99 % Occupied Bandwidth	None; for reporting purposes only.	2400-2483.5

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 6.9.2.

Connect the EUT to the spectrum analyser and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	For 20 dB Bandwidth: 1 % to 5 % of the 20 dB bandwidth For 99 % Occupied Bandwidth: 1 % to 5 % of the occupied bandwidth
VBW	For 20 dB Bandwidth: approximately 3×RBW For 99 % Occupied Bandwidth: ≥ 3×RBW
Span	Approximately 2 to 3 times the 20dB bandwidth
Trace	Max hold
Sweep	Auto couple

a) Use the occupied bandwidth function of the instrument, allow the trace to stabilize and report the measured 99 % occupied bandwidth and 20 dB Bandwidth.

TEST ENVIRONMENT

Temperature	24°C	Relative Humidity	55%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to section "Test Data" - Appendix C

7.3. CARRIER HOPPING CHANNEL SEPARATION

LIMITS

CFR 47 FCC Part15 (15.247), Subpart C ISSED RSS-247 ISSUE 2			
Section	Test Item	Limit	Frequency Range (MHz)
CFR 47 FCC 15.247 (a) (1) ISSED RSS-247 Clause 5.1 (b)	Carrier Frequency Separation	Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel.	2400-2483.5

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 7.8.2.

Connect the EUT to the spectrum analyzer and use the following settings:

Center Frequency	The center frequency of the channel under test
Span	wide enough to capture the peaks of two adjacent channels
Detector	Peak
RBW	Start with the RBW set to approximately 30 % of the channel spacing; adjust as necessary to best identify the center of each individual channel.
VBW	≥RBW
Trace	Max hold
Sweep time	Auto couple

Allow the trace to stabilize and use the marker-delta function to determine the separation between the peaks of the adjacent channels.

Compliance of an EUT with the appropriate regulatory limit shall be determined.

TEST ENVIRONMENT

Temperature	24°C	Relative Humidity	55%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to section "Test Data" - Appendix C

7.4. NUMBER OF HOPPING FREQUENCY

LIMITS

CFR 47 FCC Part15 (15.247), Subpart C ISED RSS-247 ISSUE 2		
Section	Test Item	Limit
CFR 47 15.247 (a) (1) III ISED RSS-247 Clause 5.1 (d)	Number of Hopping Frequency	at least 15 hopping channels

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 7.8.3.

Connect the EUT to the spectrum Analyzer and use the following settings:

Detector	Peak
RBW	To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller.
VBW	≥RBW
Span	The frequency band of operation. Depending on the number of channels the device supports, it may be necessary to divide the frequency range of operation across multiple spans, to allow the individual channels to be clearly seen.
Trace	Max hold
Sweep time	Auto couple

Set EUT to transmit maximum output power and switch on frequency hopping function. then set enough count time (larger than 5000 times) to get all the hopping frequency channel displayed on the screen of spectrum analyzer, count the quantity of peaks to get the number of hopping channels.

TEST ENVIRONMENT

Temperature	24°C	Relative Humidity	55%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to section "Test Data" - Appendix C

7.5. TIME OF OCCUPANCY (DWELL TIME)

LIMITS

CFR 47 FCC Part15 (15.247), Subpart C ISED RSS-247 ISSUE 2		
Section	Test Item	Limit
CFR 47 15.247 (a) (1) III ISED RSS-247 Clause 5.1 (d)	Time of Occupancy (Dwell Time)	The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds, multiplied by the number of hopping channels employed.

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 7.8.4.

Connect the EUT to the spectrum Analyzer and use the following settings:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	1 MHz
VBW	≥RBW
Span	Zero span, centered on a hopping channel
Trace	Max hold
Sweep time	As necessary to capture the entire dwell time per hopping channel; where possible use a video trigger and trigger delay so that the transmitted signal starts a little to the right of the start of the plot. The trigger level might need slight adjustment to prevent triggering when the system hops on an adjacent channel

Use the marker-delta function to determine the transmit time per hop (Burst Width). If this value varies with different modes of operation (data rate, modulation format, number of hopping channels, etc.), then repeat this test for each variation in transmit time.

For FHSS Mode (79 Channel):

DH1/3DH1 Dwell Time: $\text{Burst Width} * (1600/2) * 31.6 / (\text{channel number})$

DH3/3DH3 Dwell Time: $\text{Burst Width} * (1600/4) * 31.6 / (\text{channel number})$

DH5/3DH5 Dwell Time: $\text{Burst Width} * (1600/6) * 31.6 / (\text{channel number})$

For AFHSS Mode (20 Channel):

DH1/3DH1 Dwell Time: $\text{Burst Width} * (1600/2) * 8 / (\text{channel number})$

DH3/3DH3 Dwell Time: $\text{Burst Width} * (1600/4) * 8 / (\text{channel number})$

DH5/3DH5 Dwell Time: $\text{Burst Width} * (1600/6) * 8 / (\text{channel number})$

TEST ENVIRONMENT

Temperature	24°C	Relative Humidity	55%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to section "Test Data" - Appendix C

7.6. CONDUCTED BANDEDGE AND SPURIOUS EMISSION

LIMITS

CFR 47 FCC Part15 (15.247), Subpart C ISED RSS-247 ISSUE 2		
Section	Test Item	Limit
CFR 47 FCC §15.247 (d) ISED RSS-247 5.5	Conducted Spurious Emission	at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power

TEST PROCEDURE

Refer to ANSI C63.10-2013 clause 7.8.6 and 7.8.8.

Connect the EUT to the spectrum analyser and use the following settings for reference level measurement:

Center Frequency	The center frequency of the channel under test
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times \text{RBW}$
Span	1.5 x DTS bandwidth
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level.

Change the settings for emission level measurement:

Span	Set the center frequency and span to encompass frequency range to be measured
Detector	Peak
RBW	100 kHz
VBW	$\geq 3 \times \text{RBW}$
measurement points	$\geq \text{span}/\text{RBW}$
Trace	Max hold
Sweep time	Auto couple.

Allow trace to fully stabilize and use the peak marker function to determine the maximum PSD level. Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum

TEST ENVIRONMENT

Temperature	24°C	Relative Humidity	55%
Atmosphere Pressure	101kPa		

TEST RESULTS

Please refer to section "Test Data" - Appendix C

8. RADIATED TEST RESULTS

LIMITS

Please refer to CFR 47 FCC §15.205 and §15.209.

Please refer to ISED RSS-GEN Clause 8.9 and Clause 8.10.

Radiation Disturbance Test Limit for FCC (Class B) (9 kHz-1 GHz)

Emissions radiated outside of the specified frequency bands above 30 MHz			
Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m	
		Quasi-Peak	
30 - 88	100	40	
88 - 216	150	43.5	
216 - 960	200	46	
Above 960	500	54	
Above 1000	500	Peak	Average
		74	54

FCC Emissions radiated outside of the specified frequency bands below 30 MHz		
Frequency (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

ISED General field strength limits at frequencies below 30 MHz

Table 6 – General field strength limits at frequencies below 30 MHz		
Frequency	Magnetic field strength (H-Field) (uA/m)	Measurement distance (m)
9 - 490 kHz ^{Note 1}	6.37/F (F in kHz)	300
490 - 1705 kHz	63.7/F (F in kHz)	30
1.705 - 30 MHz	0.08	30

Note 1: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector.

ISED Restricted bands please refer to ISED RSS-GEN Clause 8.10

Table 7 – Restricted frequency bands ^{Note 1}		
MHz	MHz	GHz
0.090 - 0.110	149.9 - 150.05	9.0 - 9.2
0.495 - 0.505	156.52475 - 156.52525	9.3 - 9.5
2.1735 - 2.1905	158.7 - 158.9	10.6 - 12.7
3.020 - 3.026	162.0125 - 167.17	13.25 - 13.4
4.125 - 4.128	167.72 - 173.2	14.47 - 14.5
4.17725 - 4.17775	240 - 285	15.35 - 16.2
4.20725 - 4.20775	322 - 335.4	17.7 - 21.4
5.677 - 5.683	399.9 - 410	22.01 - 23.12
6.215 - 6.218	608 - 614	23.6 - 24.0
6.26775 - 6.26825	960 - 1427	31.2 - 31.8
6.31175 - 6.31225	1435 - 1626.5	36.43 - 36.5
8.291 - 8.294	1645.5 - 1646.5	Above 38.6
8.362 - 8.366	1660 - 1710	
8.37625 - 8.38675	1718.8 - 1722.2	
8.41425 - 8.41475	2200 - 2300	
12.29 - 12.293	2310 - 2390	
12.51975 - 12.52025	2483.5 - 2500	
12.57675 - 12.57725	2695 - 2900	
13.36 - 13.41	3260 - 3267	
16.42 - 16.423	3332 - 3339	
16.60475 - 16.60525	3345.8 - 3358	
16.80425 - 16.80475	3500 - 4400	
25.5 - 25.67	4500 - 5150	
37.5 - 38.25	5350 - 5460	
73 - 74.6	7250 - 7750	
74.8 - 75.2	8025 - 8500	
108 - 138		

Note 1: Certain frequency bands listed in table 7 and in bands above 38.6 GHz are designated for licence-exempt applications. These frequency bands and the requirements that apply to related devices are set out in the 200 and 300 series of RSSs.

FCC Restricted bands of operation refer to FCC §15.205 (a):

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

Note: ¹Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz.

²Above 38.6c

TEST PROCEDURE

Below 30 MHz

TRF No.: 01-R001-3A

Global Testing, Great Quality.

The setting of the spectrum analyser

RBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
VBW	200 Hz (From 9 kHz to 0.15 MHz)/ 9 kHz (From 0.15 MHz to 30 MHz)
Sweep	Auto

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.4.
2. The EUT was arranged to its worst case and then turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both Horizontal, Face-on and Face-off polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80 cm above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a 1 m height antenna tower.
5. The radiated emission limits are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz Radiated emission limits in these three bands are based on measurements employing an average detector.
6. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak and average detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak and average detector and reported.
7. Although these tests were performed other than open field site, adequate comparison measurements were confirmed against 30m open field site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field site based on KDB 414788.
8. The limits in CFR 47, Part 15, Subpart C, paragraph 15.209 (a), are identical to those in RSS-GEN Section 8.9, Table 6, since the measurements are performed in terms of magnetic field strength and converted to electric field strength levels (as reported in the table) using the free space impedance of 377Ω . For example, the measurement frequency X KHz resulted in a level of Y dBuV/m, which is equivalent to $Y-51.5 = Z$ dBuA/m, which has the same margin, W dB, to the corresponding RSS-GEN Table 6 limit as it has to be 15.209(a) limit.

Below 1 GHz and above 30 MHz

The setting of the spectrum analyser

RBW	120 kHz
VBW	300 kHz
Sweep	Auto
Detector	Peak/QP
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.5.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 80 cm above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement below 1 GHz, the initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured. If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.

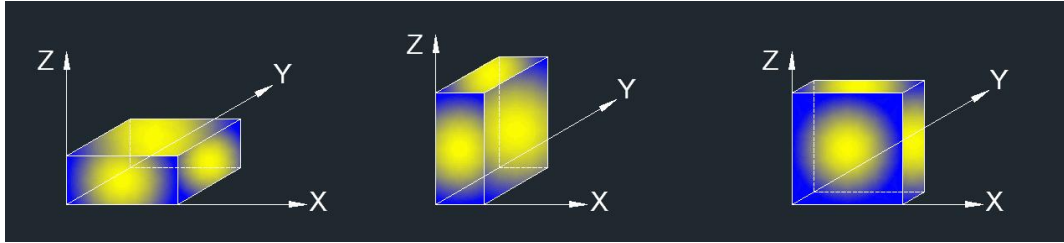
Above 1 GHz

The setting of the spectrum analyser

RBW	1 MHz
VBW	PEAK: 3 MHz AVG: see note 6
Sweep	Auto
Detector	Peak
Trace	Max hold

1. The testing follows the guidelines in ANSI C63.10-2013 clause 6.6.
2. The EUT was arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
3. The EUT was placed on a turntable with 1.5 m above ground.
4. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower.
5. For measurement above 1 GHz, the emission measurement will be measured by the peak detector. This peak level, once corrected, must comply with the limit specified in Section 15.209.
6. For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 3 MHz for peak measurements and 1 MHz resolution bandwidth with 1/T video bandwidth with peak detector for average measurements. For the Duty Cycle please refer to clause 7.1.ON TIME AND DUTY CYCLE.

X axis, Y axis, Z axis positions:



Note 1: For all radiated test, EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.

Note 2: The EUT was fully exercised with external accessories during the test. In the case of multiple accessory external ports, an external accessory shall be connected to one of each type of port.

TEST ENVIRONMENT

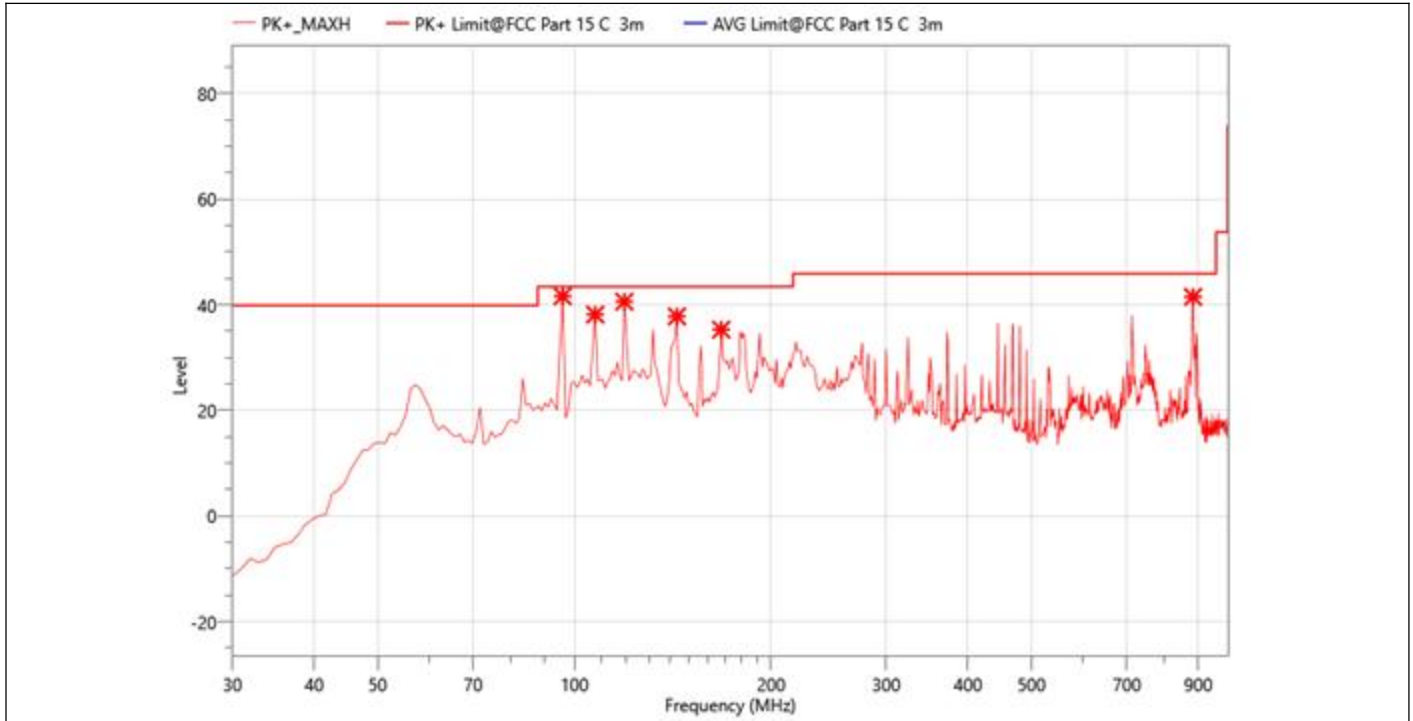
Temperature	24°C	Relative Humidity	55%
Atmosphere Pressure	101kPa		

TEST RESULTS

Radiated Spurious Emission :

The data of the mode (GFSK 2402MHz) are recorded in the following pages.

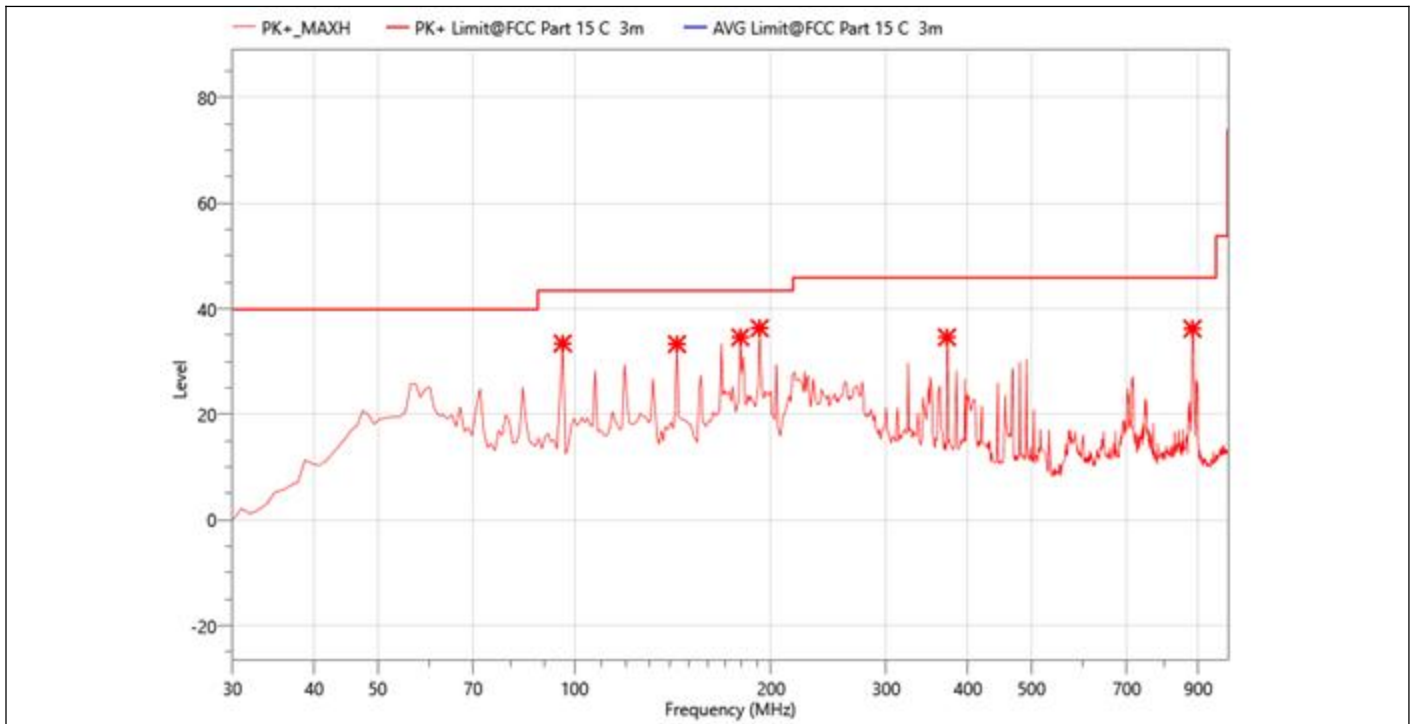
The worst result as below:



Site:
Limit: FCC Part 15 C 3m Radiation(QP)
EUT: WIFI BT module
M/N.: 6252B-PR
Mode: TX2402
Note:

Antenna:Horizontal
Temperature(C):23(C)
Humidity(%):57%
Test Time: 2023-05-12-03
Power Rating: DC 5V
Test Engineer: Luffy

Freq. (MHz)	Reading (dBμV)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dBμV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)
95.96	65.35	41.64	43.50	1.86	PK+	149.9	H	360.1	-23.71
107.6	61.2	38.16	43.50	5.34	PK+	149.9	H	360.1	-23.04
119.24	62.42	40.61	43.50	2.89	PK+	149.9	H	360.1	-21.81
143.49	58.32	37.83	43.50	5.67	PK+	149.9	H	360.1	-20.49
167.74	56.32	35.32	43.50	8.18	PK+	149.9	H	360.1	-21
883.6	58.62	41.52	46.00	4.48	PK+	149.9	H	360.1	-17.1



Site: ChamberA-2
Limit: FCC Part 15 C 3m Radiation(QP)
EUT: WIFI BT module
M/N.: 6252B-PR
Mode: TX2402
Note:

Antenna: Vertical
Temperature(C): 23(C)
Humidity(%): 57%
Test Time: 2023-05-12-03
Power Rating: DC 5V
Test Engineer: Luffy

Freq. (MHz)	Reading (dBμV)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dBμV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)
95.96	57.15	33.44	43.50	10.06	PK+	149.9	V	360.1	-23.71
143.49	53.82	33.33	43.50	10.17	PK+	149.9	V	360.1	-20.49
179.38	54.85	34.62	43.50	8.88	PK+	149.9	V	360.1	-20.23
191.99	55.94	36.35	43.50	7.15	PK+	149.9	V	360.1	-19.59
371.44	54.49	34.62	46.00	11.38	PK+	149.9	V	360.1	-19.87
881.66	53.36	36.25	46.00	9.75	PK+	149.9	V	360.1	-17.11

Note: 1. Result Level = Read Level+ Antenna Factor+ Cable Loss- Amp. Factor

Above 1000MHz~10th Harmonics:

Operation Mode: TX Mode (GFSK CH00: 2402MHz) Test Date : 2023-05-12

Frequency Range: 1-25GHz Temperature : 23°C

Test Result: PASS Humidity : 57 %

Measured Distance: 3m Test By: Luffy

Freq. (MHz)	Reading (dBμV)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dBμV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)
1416	72.27	49.09	74.00	24.91	PK+	149.8	V	339.6	-23.18
1518	69.11	46.19	74.00	27.81	PK+	149.8	V	339.6	-22.92
1778	69.75	49.01	74.00	24.99	PK+	149.8	V	339.6	-20.74
2126	66.61	48.1	74.00	25.9	PK+	149.8	V	339.6	-18.51
2474	63.63	45.91	74.00	28.09	PK+	149.8	V	339.6	-17.72
2860	63.92	47.03	74.00	26.97	PK+	149.8	V	339.6	-16.89
3195	66.28	51.48	74.00	22.52	PK+	149.8	V	90.2	-14.8
3720	65.8	52.17	74.00	21.83	PK+	149.8	V	90.2	-13.63
4050	64.05	51.03	74.00	22.97	PK+	149.8	V	90.2	-13.02
4245	63.68	51.17	74.00	22.83	PK+	149.8	V	90.2	-12.51
6000	58.05	50.23	74.00	23.77	PK+	149.8	V	90.2	-7.82
6390	55.72	48.96	74.00	25.04	PK+	149.8	V	90.2	-6.76
1416	72.02	48.84	74.00	25.16	PK+	149.8	H	0.0	-23.18
1776	70.03	49.27	74.00	24.73	PK+	149.8	H	0.0	-20.76
1792	69.72	49.07	74.00	24.93	PK+	149.8	H	0.0	-20.65
2130	68.47	49.98	74.00	24.02	PK+	149.8	H	0.0	-18.49
2480	66.95	49.24	74.00	24.76	PK+	149.8	H	0.0	-17.71
2668	66.1	48.83	74.00	25.17	PK+	149.8	H	0.0	-17.27
3180	67.82	52.99	74.00	21.01	PK+	149.8	H	360.1	-14.83
3720	63.37	49.74	74.00	24.26	PK+	149.8	H	360.1	-13.63
4245	65.08	52.57	74.00	21.43	PK+	149.8	H	360.1	-12.51
4605	60.63	48.96	74.00	25.04	PK+	149.8	H	360.1	-11.67
5595	59.55	50.56	74.00	23.44	PK+	149.8	H	360.1	-8.99
6000	59.01	51.19	74.00	22.81	PK+	149.8	H	360.1	-7.82

Other harmonics emissions are lower than 20dB below the allowable limit.

Note: (1) All Readings are Peak Value and AV.

(2) Emission Level= Reading Level+ Probe Factor +Cable Loss.

(3) The average measurement was not performed when the peak measured data under the limit of average detection.

(4) Measuring frequencies from 1GHz to 25GHz.

Operation Mode: TX Mode (GFSK CH39: 2441MHz) Test Date : 2023-05-12

Frequency Range: 1-25GHz Temperature : 23°C

Test Result: PASS Humidity : 57 %

Measured Distance: 3m Test By: Luffy

Freq. (MHz)	Reading (dBμV)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dBμV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)
1414	76.25	53.05	74.00	20.95	PK+	149.8	V	-0.6	-23.2
1764	72.22	51.36	74.00	22.64	PK+	149.8	V	-0.6	-20.86
1778	72.95	52.21	74.00	21.79	PK+	149.8	V	-0.6	-20.74
1958	70.73	51.54	74.00	22.46	PK+	149.8	V	-0.6	-19.19
2124	71.51	52.98	74.00	21.02	PK+	149.8	V	-0.6	-18.53
2712	73.81	56.58	74.00	17.42	PK+	149.8	V	-0.6	-17.23
2712.05	28.58	11.35	53.90	42.55	AVG	149.8	V	0.0	-17.23
3180	66.01	51.18	74.00	22.82	PK+	149.8	V	360.1	-14.83
4050	63.94	50.92	74.00	23.08	PK+	149.8	V	360.1	-13.02
4245	62.43	49.92	74.00	24.08	PK+	149.8	V	360.1	-12.51
6000	56.69	48.87	74.00	25.13	PK+	149.8	V	360.1	-7.82
6750	56.52	49.39	74.00	24.61	PK+	149.8	V	360.1	-7.13
17085	46.63	52.9	74.00	21.1	PK+	149.8	V	360.1	6.27
1358	75.5	52.13	74.00	21.87	PK+	149.8	H	0.0	-23.37
1418	76.36	53.2	74.00	20.8	PK+	149.8	H	0.0	-23.16
1796	73.77	53.15	74.00	20.85	PK+	149.8	H	0.0	-20.62
1952	70.81	51.57	74.00	22.43	PK+	149.8	H	0.0	-19.24
2124	71.69	53.16	74.00	20.84	PK+	149.8	H	0.0	-18.53
2478	69.48	51.76	74.00	22.24	PK+	149.8	H	0.0	-17.72
3195	76.26	61.46	74.00	12.54	PK+	149.8	H	0.0	-14.8
3194.80	32.56	17.75	53.90	36.15	AVG	149.8	H	0.0	-14.81
3450	64.9	50.7	74.00	23.3	PK+	149.8	H	0.0	-14.2
3720	64.68	51.05	74.00	22.95	PK+	149.8	H	0.0	-13.63
4050	66.07	53.05	74.00	20.95	PK+	149.8	H	0.0	-13.02
4260	62.28	49.83	74.00	24.17	PK+	149.8	H	0.0	-12.45
5325	61.04	50.98	74.00	23.02	PK+	149.8	H	0.0	-10.06

Other harmonics emissions are lower than 20dB below the allowable limit.

Note: (1) All Readings are Peak Value and AV.

(2) Emission Level= Reading Level+ Probe Factor +Cable Loss.

(3) The average measurement was not performed when the peak measured data under the limit of average detection.

(4) Measuring frequencies from 1GHz to 25GHz.

Operation Mode: TX Mode (GFSK CH78: 2480MHz) Test Date : 2023-05-12

Frequency Range: 1-25GHz Temperature : 23°C

Test Result: PASS Humidity : 57 %

Measured Distance: 3m Test By: Luffy

Freq. (MHz)	Reading (dBμV)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dBμV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)
1414	76	52.8	74.00	21.2	PK+	149.8	V	0.0	-23.2
1598	73.46	51.17	74.00	22.83	PK+	149.8	V	0.0	-22.29
1774	72.99	52.22	74.00	21.78	PK+	149.8	V	0.0	-20.77
1948	66.38	47.1	74.00	26.9	PK+	149.8	V	0.0	-19.28
2134	70.86	52.38	74.00	21.62	PK+	149.8	V	0.0	-18.48
2838	64.74	47.91	74.00	26.09	PK+	149.8	V	0.0	-16.83
3180	66.38	51.55	74.00	22.45	PK+	149.8	V	-0.1	-14.83
3720	62.63	49	74.00	25	PK+	149.8	V	-0.1	-13.63
4050	63.81	50.79	74.00	23.21	PK+	149.8	V	-0.1	-13.02
4245	67.56	55.05	74.00	18.95	PK+	149.8	V	-0.1	-12.51
4244.93	27.67	15.15	53.90	38.75	AVG	149.8	V	-0.1	-12.52
5310	61.15	51.11	74.00	22.89	PK+	149.8	V	-0.1	-10.04
6750	56.17	49.04	74.00	24.96	PK+	149.8	V	-0.1	-7.13
1346	76.35	52.94	74.00	21.06	PK+	149.8	H	360.0	-23.41
1378	75.87	52.51	74.00	21.49	PK+	149.8	H	360.0	-23.36
1414	75.7	52.5	74.00	21.5	PK+	149.8	H	360.0	-23.2
1778	74.03	53.29	74.00	20.71	PK+	149.8	H	360.0	-20.74
1944	71.57	52.25	74.00	21.75	PK+	149.8	H	360.0	-19.32
2124	71	52.47	74.00	21.53	PK+	149.8	H	360.0	-18.53
3195	76.09	61.29	74.00	12.71	PK+	149.8	H	-0.1	-14.8
3195.18	32.79	17.99	53.90	35.91	AVG	149.8	H	-0.2	-14.8
3555	64.08	50.06	74.00	23.94	PK+	149.8	H	-0.1	-14.02
3720	65.09	51.46	74.00	22.54	PK+	149.8	H	-0.1	-13.63
4050	66.22	53.2	74.00	20.8	PK+	149.8	H	-0.1	-13.02
5310	57.87	47.83	74.00	26.17	PK+	149.8	H	-0.1	-10.04
6000	58.68	50.86	74.00	23.14	PK+	149.8	H	-0.1	-7.82

Other harmonics emissions are lower than 20dB below the allowable limit.

Note: (1) All Readings are Peak Value and AV.

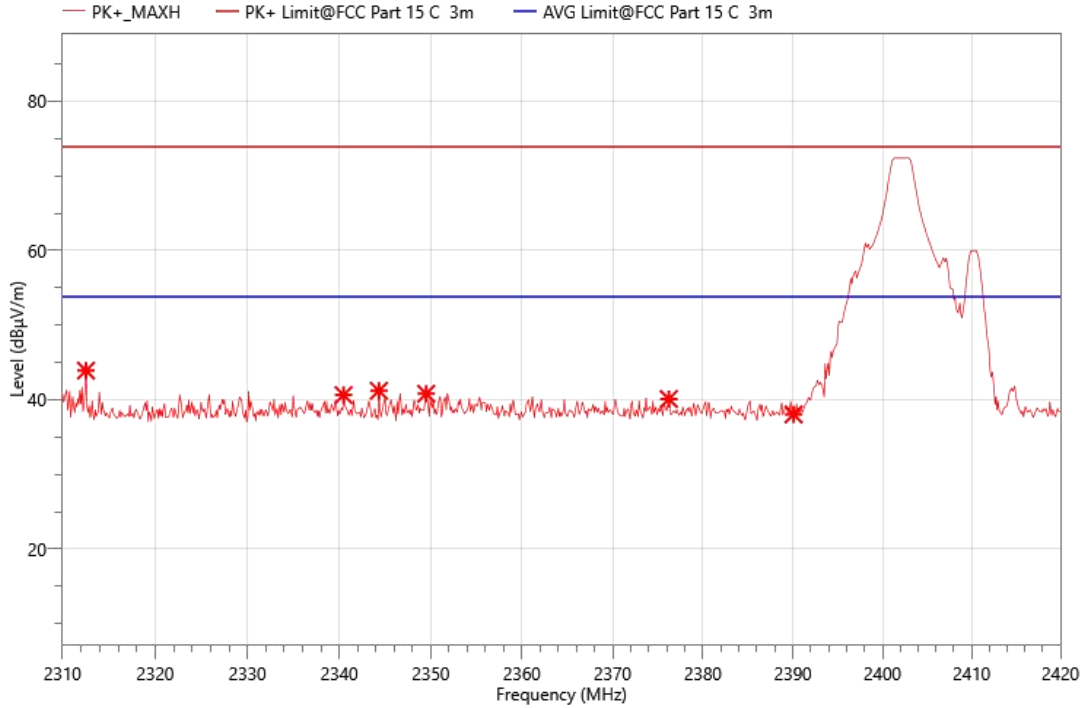
(2) Emission Level= Reading Level+ Probe Factor +Cable Loss.

(3) The average measurement was not performed when the peak measured data under the limit of average detection.

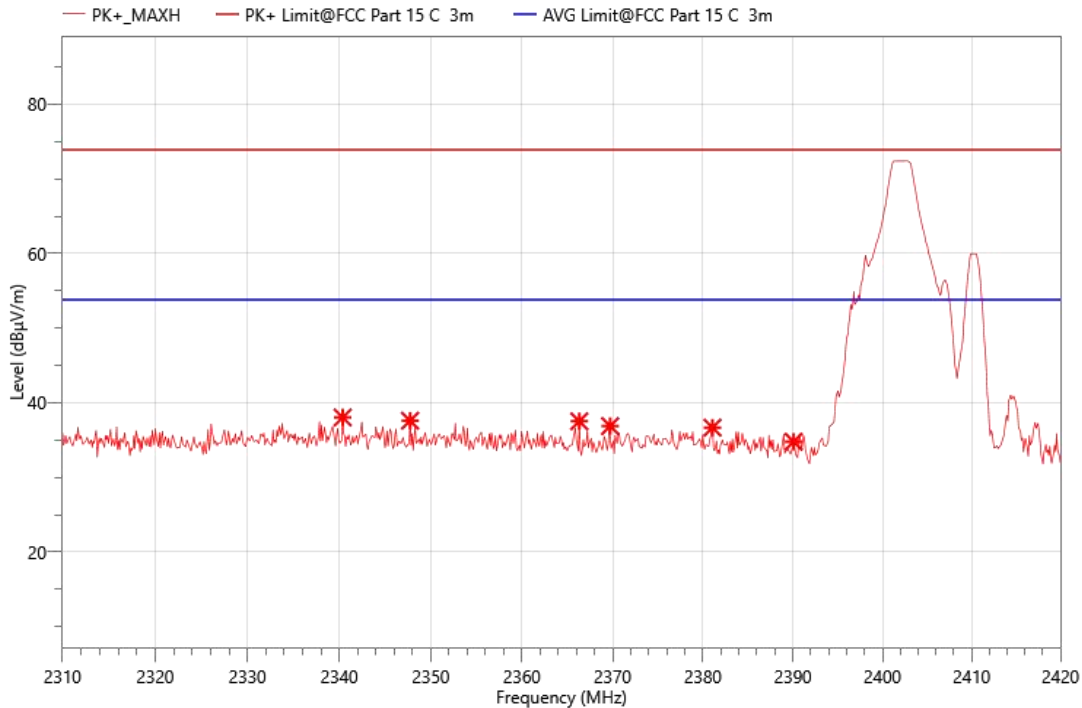
(4) Measuring frequencies from 1GHz to 25GHz.

Band edge:

TX Mode (CH00: 2402MHz)



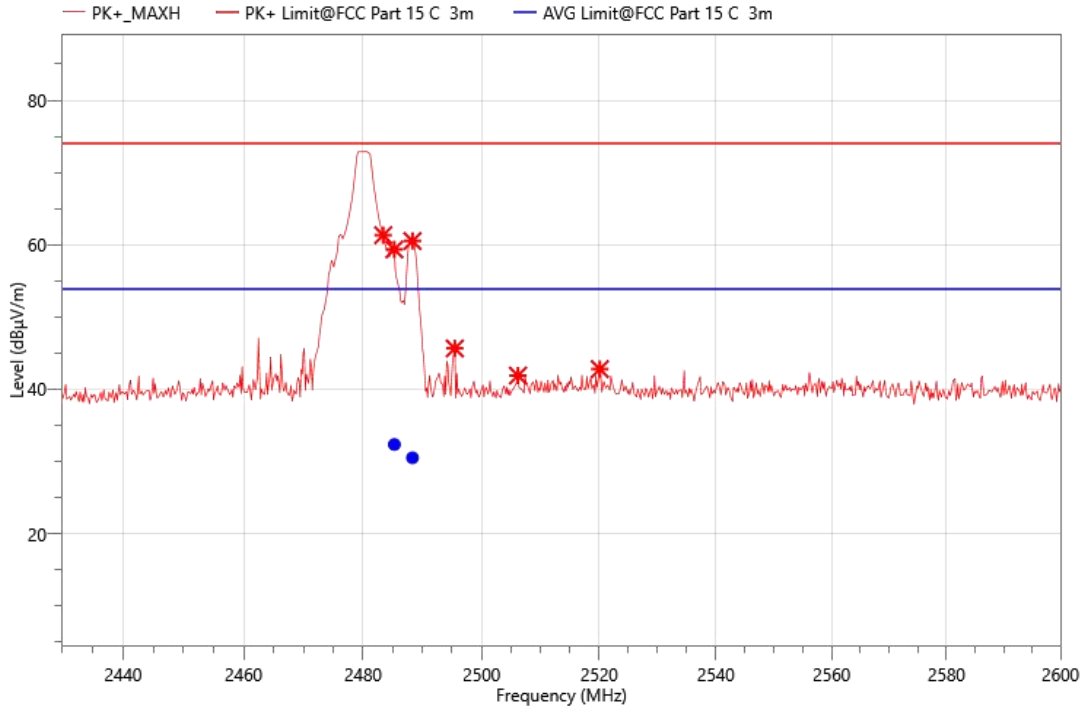
Freq. (MHz)	Reading (dBμV)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dBμV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)
2312.53	62.01	43.91	74.00	30.09	PK+	149.8	V	-0.2	-18.1
2340.47	58.68	40.64	74.00	33.36	PK+	149.8	V	-0.2	-18.04
2344.32	59.22	41.21	74.00	32.79	PK+	149.8	V	-0.2	-18.01
2349.49	58.78	40.81	74.00	33.19	PK+	149.8	V	-0.2	-17.97
2376.22	58.11	40.1	74.00	33.9	PK+	149.8	V	-0.2	-18.01
2390.08	56.03	38.04	74.00	35.96	PK+	149.8	V	-0.2	-17.99



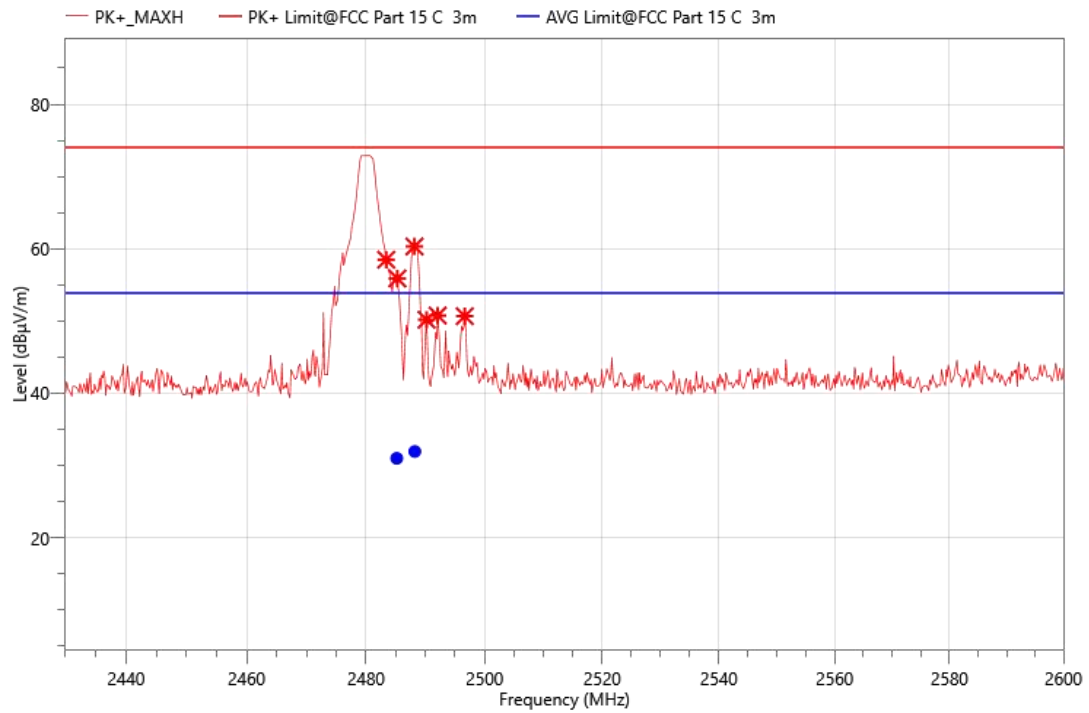
Freq. (MHz)	Reading (dBμV)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dBμV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)
-------------	----------------	----------------	----------------	-----------------	------	-------------	------	---------------	------------

2340.36	56.07	38.03	74.00	35.97	PK+	149.8	H	360.0	-18.04
2347.73	55.59	37.6	74.00	36.4	PK+	149.8	H	360.0	-17.99
2366.32	55.51	37.52	74.00	36.48	PK+	149.8	H	360.0	-17.99
2369.73	54.87	36.88	74.00	37.12	PK+	149.8	H	360.0	-17.99
2381.06	54.67	36.67	74.00	37.33	PK+	149.8	H	360.0	-18
2390.08	52.77	34.78	74.00	39.22	PK+	149.8	H	360.0	-17.99

TX Mode (CH78: 2480MHz)



Freq. (MHz)	Reading (dBμV)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dBμV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)
2483.38	79.04	61.33	74.00	12.67	PK+	149.8	V	360.0	-17.71
2485.25	77.06	59.36	74.00	14.64	PK+	149.8	V	360.0	-17.7
2485.25	50.06	32.36	53.90	21.54	AVG	149.8	V	360.0	-17.7
2488.31	78.22	60.52	74.00	13.48	PK+	149.8	V	360.0	-17.7
2488.31	48.22	30.52	53.90	23.38	AVG	149.8	V	360.0	-17.7
2495.45	63.34	45.65	74.00	28.35	PK+	149.8	V	360.0	-17.69
2506.16	59.56	41.89	74.00	32.11	PK+	149.8	V	360.0	-17.67
2520.1	60.41	42.79	74.00	31.21	PK+	149.8	V	360.0	-17.62



Freq. (MHz)	Reading (dBμV)	Meas. (dBμV/m)	Limit (dBμV/m)	Margin (dBμV/m)	Det.	Height (cm)	Pol.	Azimuth (deg)	Corr. (dB)
2483.38	76.19	58.48	74.00	15.52	PK+	149.8	H	0.0	-17.71
2485.25	73.59	55.89	74.00	18.11	PK+	149.8	H	0.0	-17.7
2485.15	48.69	30.99	53.90	22.91	AVG	149.8	H	-0.1	-17.7
2488.14	78.02	60.32	74.00	13.68	PK+	149.8	H	0.0	-17.7
2488.19	49.64	31.94	53.90	21.96	AVG	149.8	H	-0.1	-17.7
2490.18	67.88	50.18	74.00	23.82	PK+	149.8	H	0.0	-17.7
2492.05	68.45	50.76	74.00	23.24	PK+	149.8	H	0.0	-17.69
2496.64	68.36	50.67	74.00	23.33	PK+	149.8	H	0.0	-17.69

Note: GFSK, $\pi/4$ -DQPSK, 8DPSK all has been tested, the worst case is GFSK, only shown the worst case.

9. ANTENNA REQUIREMENT

REQUIREMENT

The EUT'S antenna is met the requirement of FCC part 15C section 15.203 and 15.247 and RSS-Gen issue 5 6.8.

FCC part 15C section 15.247 and RSS 247 requirements:

Systems operating in the 2402-2480MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum peak output power of the intentional radiator is reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

DESCRIPTION

Pass

10. AC POWER LINE CONDUCTED EMISSION

LIMITS

Please refer to CFR 47 FCC §15.207 (a) and ISED RSS-Gen Clause 8.8

FREQUENCY (MHz)	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

TEST PROCEDURE

TEST SETUP AND PROCEDURE

Refer to ANSI C63.10-2013 clause 6.2.

The EUT is put on a table of non-conducting material that is 80 cm high. The vertical conducting wall of shielding is located 40 cm to the rear of the EUT. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.). A EMI Measurement Receiver (R&S Test Receiver ESR3) is used to test the emissions from both sides of AC line. According to the requirements in Section 6.2 of ANSI C63.10-2013. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode. The bandwidth of EMI test receiver is set at 9 kHz.

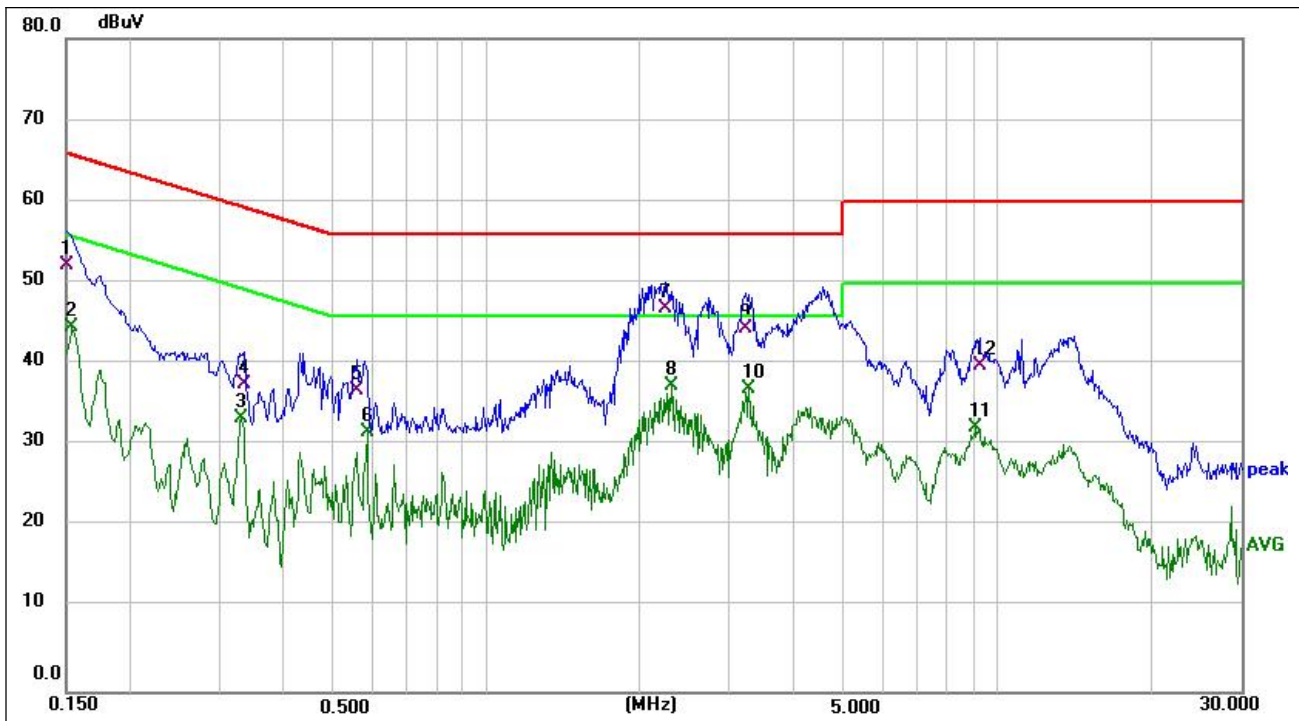
The arrangement of the equipment is installed to meet the standards and operating in a manner, which tends to maximize its emission characteristics in a normal application.

TEST ENVIRONMENT

Temperature	24°C	Relative Humidity	55%
Atmosphere Pressure	101kPa		

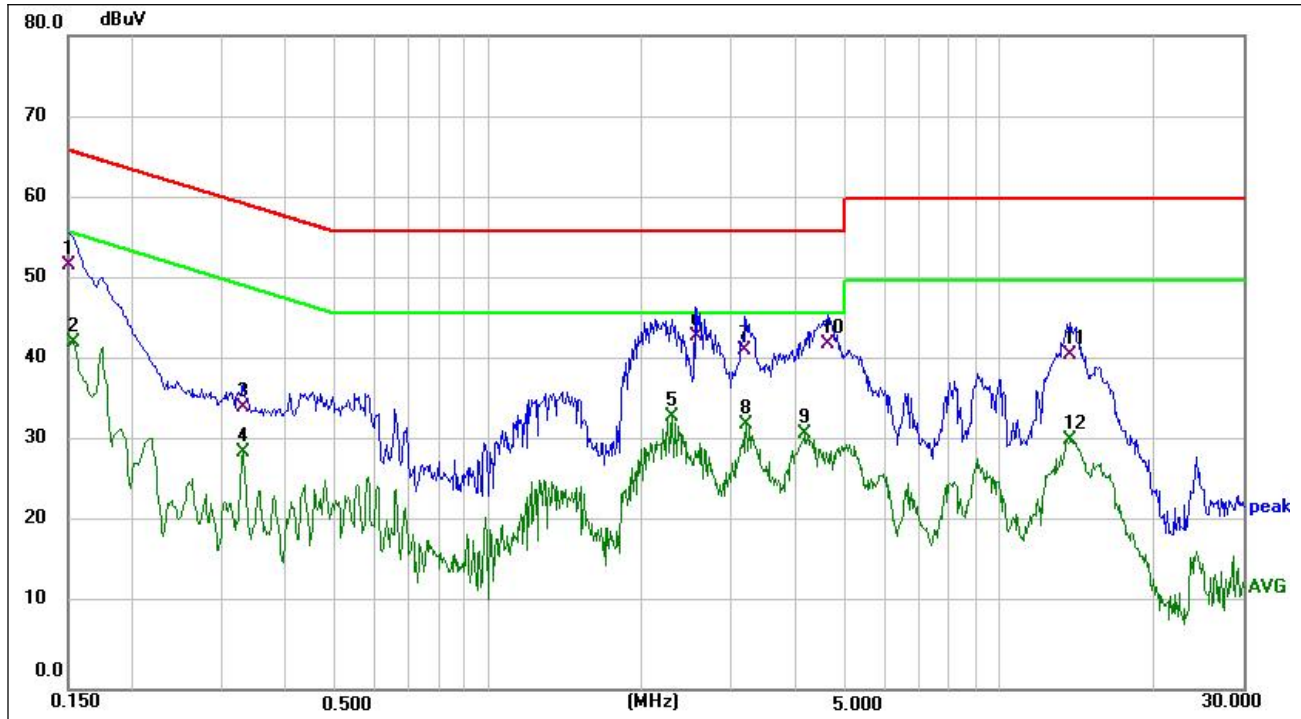
TEST RESULTS

Test Mode:	BT-GFSK	Channel:	2402
Line:	Line		



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	42.47	9.83	52.30	66.00	-13.70	QP
2	0.1539	34.92	9.84	44.76	55.79	-11.03	AVG
3	0.3300	23.39	10.22	33.61	49.45	-15.84	AVG
4	0.3337	27.58	10.22	37.80	59.36	-21.56	QP
5	0.5580	26.31	10.69	37.00	56.00	-19.00	QP
6	0.5820	21.16	10.73	31.89	46.00	-14.11	AVG
7	2.2420	37.37	9.63	47.00	56.00	-9.00	QP
8 *	2.3020	27.82	9.64	37.46	46.00	-8.54	AVG
9	3.2100	34.95	9.65	44.60	56.00	-11.40	QP
10	3.2620	27.48	9.66	37.14	46.00	-8.86	AVG
11	9.0659	22.56	9.90	32.46	50.00	-17.54	AVG
12	9.2340	30.09	9.91	40.00	60.00	-20.00	QP

Test Mode:	BT-GFSK	Channel:	2402
Line:	Neutral		



No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measure-ment(dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	42.16	9.84	52.00	66.00	-14.00	QP
2	0.1532	32.68	9.85	42.53	55.82	-13.29	AVG
3	0.3300	24.28	10.22	34.50	59.45	-24.95	QP
4	0.3300	18.82	10.22	29.04	49.45	-20.41	AVG
5 *	2.2940	23.70	9.64	33.34	46.00	-12.66	AVG
6	2.5620	33.66	9.64	43.30	56.00	-12.70	QP
7	3.1780	31.95	9.65	41.60	56.00	-14.40	QP
8	3.2020	22.73	9.65	32.38	46.00	-13.62	AVG
9	4.1660	21.62	9.68	31.30	46.00	-14.70	AVG
10	4.6060	32.61	9.69	42.30	56.00	-13.70	QP
11	13.7740	30.86	10.04	40.90	60.00	-19.10	QP
12	13.7740	20.53	10.04	30.57	50.00	-19.43	AVG

Note:

1. Result = Reading + Correct Factor.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz ~ 150 kHz), 9 kHz (150 kHz ~ 30 MHz).
4. Step size: 80 Hz (0.009 MHz ~ 0.15 MHz), 4 kHz (0.15 MHz ~ 30 MHz), Scan time: auto.

Note: All the modes have been tested, only the worst data was recorded in the report.

11. ST DATA

Please refer to section "Test Data" - Appendix C

APPENDIX: PHOTOGRAPHS OF TEST CONFIGURATION

Please refer to test report: **E01A23040641F00101**

END OF REPORT