FCC RADIO TEST REPORT

FCC ID	:	X8WBT840X
Equipment	:	Bluetooth 5.0 Module
Brand Name	:	Fanstel
Model Name	:	BT840X, BT840XE
Applicant	:	Fanstel Corporation, Taipei 10F-10, No. 79, Sec. 1, Hsin Tai Wu Rd., Hsi-Chih, New Taipei City 221 Taiwan
Manufacturer	:	Fanstel Corporation, Taipei 10F-10, No. 79, Sec. 1, Hsin Tai Wu Rd., Hsi-Chih, New Taipei City 221 Taiwan
Standard	:	FCC Part 15 Subpart C §15.247

The product was received on Nov. 06, 2025 and testing was performed from Mar. 02, 2026 to Mar. 04, 2026. We, Sporton International Inc. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this partial report apply exclusively to the tested model / sample. Without written approval from Sporton International Inc. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.

Louis Wu

Approved by: Louis Wu

Sporton International Inc. EMC & Wireless Communications Laboratory
No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

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History of this test report

Report No.	Version	Description	Issue Date
FR5O0801-01	01	Initial issue of report	Mar. 11, 2026

Summary of Test Result

Report Clause	Ref Std. Clause	Test Items	Result (PASS/FAIL)	Remark
3.1	15.247(b)(3) 15.247(b)(4)	Output Power	Pass	-
3.2	15.247(d)	Radiated Band Edges and Spurious Emission	Pass	3.58 dB under the limit at 3315 MHz
3.3	15.203	Antenna Requirement	Pass	-

Note: The test plans were defined by manufacturer.

Conformity Assessment Condition:

1. The test results (PASS/FAIL) with all measurement uncertainty excluded are presented against the regulation limits or in accordance with the requirements stipulated by the applicant/manufacturer who shall bear all the risks of non-compliance that may potentially occur if measurement uncertainty is taken into account.
2. The measurement uncertainty please refer to each test result in the section “Measurement Uncertainty”.

Disclaimer:

1. The product specifications of the EUT presented in the test report that may affect the test assessments are declared by the manufacturer who shall take full responsibility for the authenticity.
2. The purpose of different model name is for marketing segmentation.

Reviewed by: Wei Chen

Report Producer: Shannon Huang

1 General Description

1.1 Product Feature of Equipment Under Test

Product Feature	
Equipment	Bluetooth 5.0 Module
Brand Name	Fanstel
Model Name	BT840X, BT840XE
FCC ID	X8WBT840X
Installed into the Host	Brand Name: Zebra Model Name: ZQ630
EUT supports Radios application	Bluetooth-LE
HW Version	EV
SW Version	BT840X_Radio test
EUT Stage	Identical Prototype

Remark: The EUT's information above is declared by manufacturer.

1.2 Product Specification of Equipment Under Test

Product Specification is subject to this standard	
Tx/Rx Frequency Range	2480 MHz
Number of Channels	1
Carrier Frequency of Each Channel	1
Antenna Type / Gain	Chip with gain -19.38 dBi
Type of Modulation	Bluetooth LE: GFSK

Remark: The EUT's information above is declared by manufacturer. Please refer to Disclaimer in report summary.

Supported Unit Used in Test Configuration and System				
Printer (Host)	**Brand Name**	Zebra	Model Name	ZQ630
Adapter (Host)	**Brand Name**	ZEBRA	Model Name	FSP025-DYAA3

1.3 Modification of EUT

No modifications made to the EUT during the testing.

1.4 Testing Location

The test location is accredited based on TAF code 1190 designated by NCC (National Communication Commission).

Test Site	Sporton International Inc. EMC & Wireless Communications Laboratory
Test Site Location	No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)

FCC designation No.: TW1190

Note: The test site complies with ANSI C63.4 2014 requirement.

1.5 Applicable Standards

According to the specifications declared by the manufacturer, the EUT must comply with the requirements of the following standards:

- FCC KDB Publication No. 558074 D01 15.247 Meas Guidance v05r02
- FCC KDB 414788 D01 Radiated Test Site v01r01
- FCC Part 15 Subpart C §15.247
- ANSI C63.10-2020 + Cor.1-2023

Remark:

1. All the test items were validated and recorded in accordance with the standards without any modification during the testing.
2. The TAF code is not including all the FCC KDB listed without accreditation.

2 Test Configuration of Equipment Under Test

2.1 Carrier Frequency Channel

Frequency Band	Channel	Freq. (MHz)	Channel	Freq. (MHz)
2400-2483.5 MHz	39	2480	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
	-	-	-	-
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	-	-	-	-
	-	-	-	-

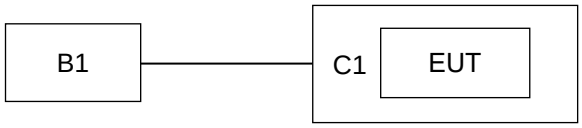
2.2 Test Mode

a. The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application. Frequency range investigated: radiation emission (9 kHz to the 10th harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower). For radiated measurement, the measured emission level of the EUT was maximized by rotating the EUT on a turntable, adjusting the orientation of the EUT and EUT antenna in three orthogonal axis (X: flat, Y: portrait, Z: landscape), and adjusting the measurement antenna orientation, following C63.10 exploratory test procedures and only the worst case emissions were reported in this report.

The following summary table is showing all test modes to demonstrate in compliance with the standard.

Summary table of Test Cases	
Test Item	**Data Rate / Modulation**
Radiated Test Cases	**Bluetooth – LE / GFSK**
	Mode 1: Bluetooth Tx CH39_2480 MHz_2Mbps
Remark: 1. For radiation spurious emission, the modulation and the data rate picked for testing are determined by the Max. RF conducted power. 2. The detailed Radiated test modes are shown in Appendix B.	

2.3 Connection Diagram of Test System



Radiation Tx Test Setup			
No.	**Power Source**	**Connection Type**	**Test Mode**
			Tx
B1	AC : 120V/60Hz	AC Power Cable	**X**
No.	**Setup Peripherals**	**Connection Type**	**Tx**
C1	Host	Embedded in host	**X**

2.4 EUT Operation Test Setup

The RF test utility “Setup Toolbox” was installed in the notebook PC. By connecting the EUT to the notebook PC and issuing commands through the Setup Toolbox, the EUT can be configured to enter engineering mode for BLE TX operation and continuous transmission. The utility provides channel selection, power level, data rate, and application type configuration for RF testing.

3 Test Result

3.1 Output Power Measurement

3.1.1 Limit of Output Power

For systems using digital modulation in the 2400-2483.5 MHz, the limit for output power is 30 dBm. If transmitting antenna of directional gain greater than 6 dBi is used, the peak output power from the intentional radiator shall be reduced below the above stated value by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

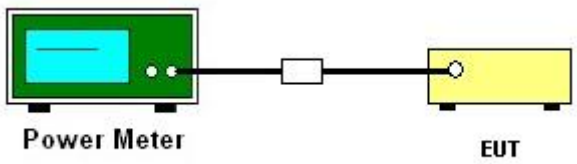
3.1.2 Measuring Instruments

Please refer to the measuring equipment list in this test report.

3.1.3 Test Procedures

1. For Average Power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G
2. The RF output of EUT is connected to the power meter by RF cable and attenuator.
3. The path loss is compensated to the results for each measurement.
4. Set the maximum power setting and enable the EUT to transmit continuously.
5. Measure the conducted output power and record the results in the test report.

3.1.4 Test Setup



3.1.5 Test Result of Average Output Power

Please refer to Appendix A.

3.2 Radiated Band Edges and Spurious Emission Measurement

3.2.1 Limit of Radiated Band Edges and Spurious Emission

In any 100 kHz bandwidth outside the intentional radiator frequency band, all harmonics/spurious must be at least 20 dB below the highest emission level within the authorized band. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required shall be 30 dB instead of 20 dB. In addition, radiated emissions which fall in the restricted bands must also comply with the limits as below.

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
30 – 88	100	3
88 – 216	150	3
216 - 960	200	3
Above 960	500	3

3.2.2 Measuring Instruments

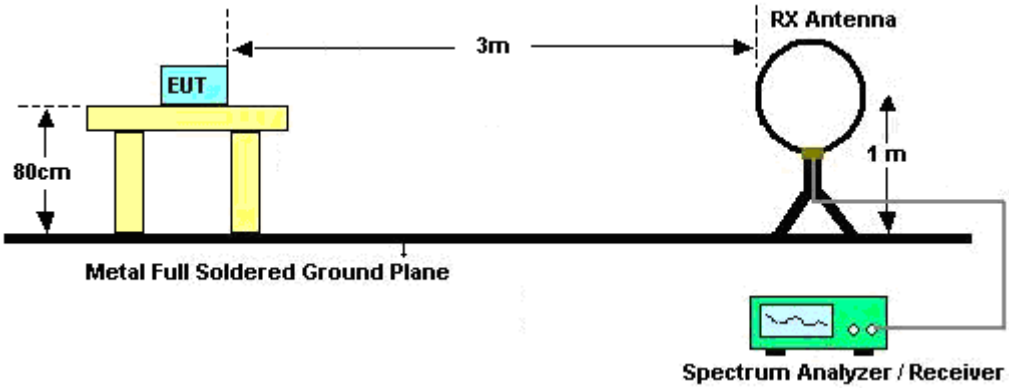
Please refer to the measuring equipment list in this test report.

3.2.3 Test Procedures

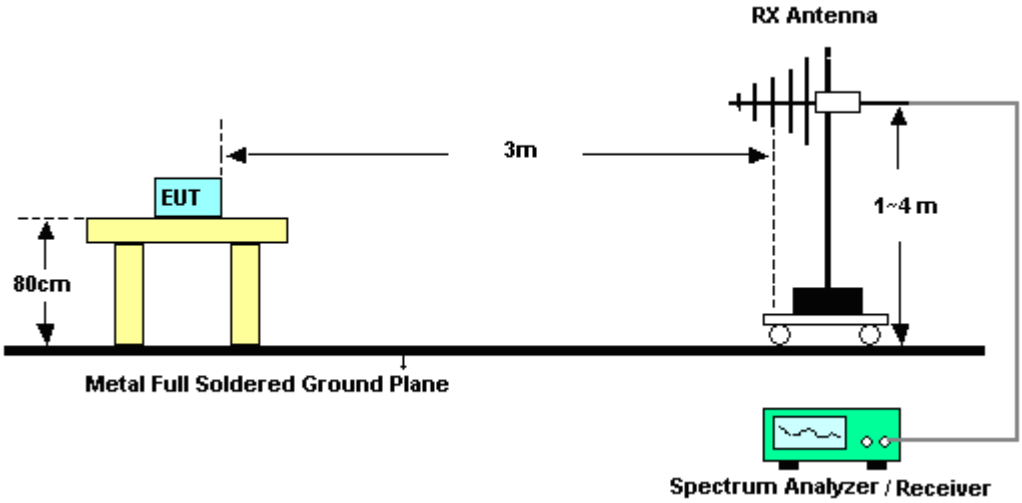
1. The testing follows the ANSI C63.10 Section 11.12.1 Radiated emission measurements.
2. The EUT is arranged to its worst case and then tune the antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level.
3. The EUT is placed on a turntable with 0.8 meter for frequency below 1 GHz and 1.5 meter for frequency above 1 GHz respectively above ground.
4. The EUT is set 3 meters away from the receiving antenna, which is mounted on the top of a variable height antenna tower.
5. Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level
6. Radiated testing below 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading. When there is no suspected emission found and the emission level is with at least 6 dB margin against QP limit line, the position is marked as "-".
7. Radiated testing above 1 GHz is performed by adjusting the antenna tower from 1 m to 4 m and by rotating the turn table from 0 degree to 360 degrees to find the peak maximum hold reading for scanning all frequencies. When there is no suspected emission found and the harmonic emission level is with at least 6 dB margin against average limit line, the position is marked as "-".
8. Use the following spectrum analyzer settings:
   (1) Span shall wide enough to fully capture the emission being measured;
   (2) Set RBW = 100 kHz for f < 1 GHz; VBW ≥ RBW; Sweep = auto; Detector function = peak; Trace = max hold;
   (3) Set RBW = 1 MHz, VBW = 3 MHz for f ≥ 1 GHz for peak measurement.
   For average measurement:
   - VBW = 10 Hz, when duty cycle is no less than 98 percent.
   - VBW ≥ 1/T, when duty cycle is less than 98 percent where T is the minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

3.2.4 Test Setup

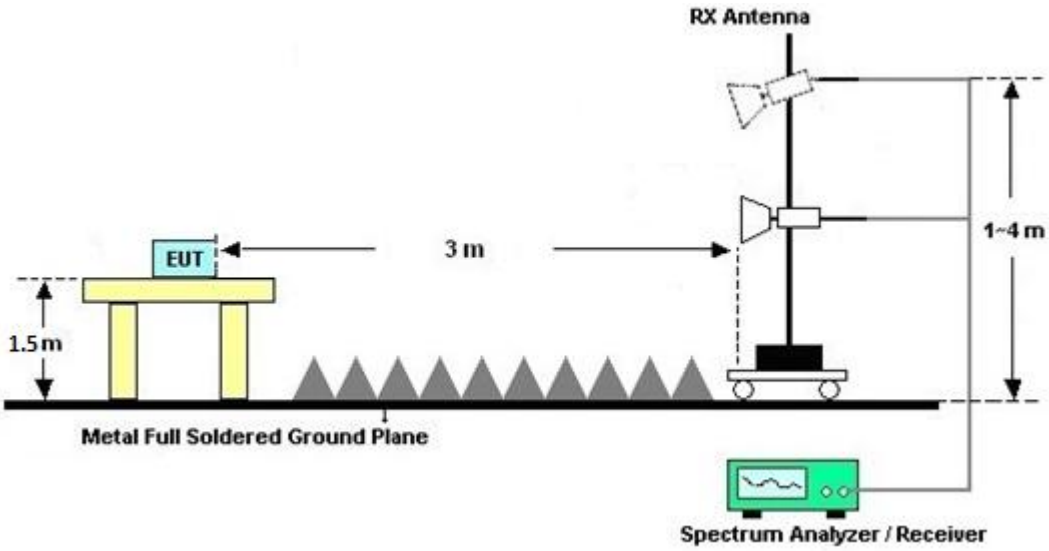
For radiated test below 30MHz



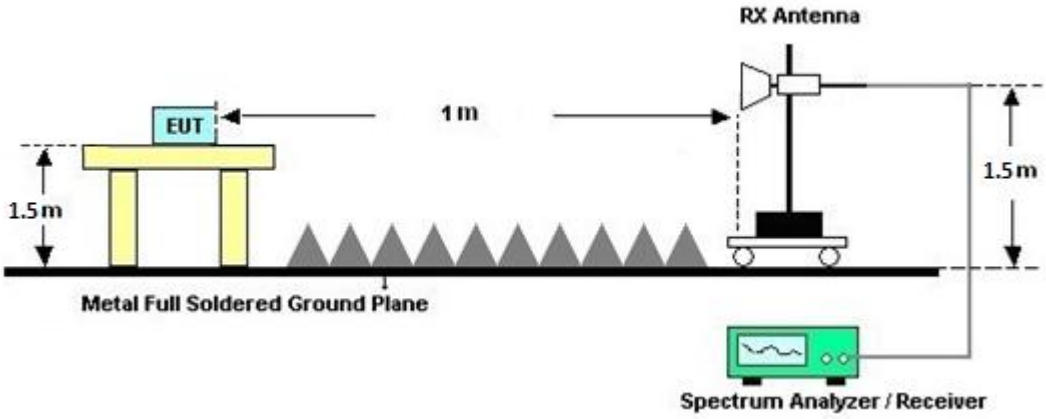
For radiated test from 30MHz to 1GHz



For radiated test from 1GHz to 18GHz



For radiated test above 18GHz



3.2.5 Test Results of Radiated Spurious Emissions (9 kHz ~ 30 MHz)

There is adequate comparison measurement of both open-field test site and alternative test site - semi-Anechoic chamber according to 414788 D01 Radiated Test Site v01r01, and the result comes out very similar.

3.2.6 Test Result of Radiated Spurious at Band Edges

Please refer to Appendix B.

3.2.7 Duty Cycle

Please refer to Appendix C.

3.2.8 Test Result of Radiated Spurious Emission (30 MHz ~ 10th Harmonic)

Please refer to Appendix B.

3.3 Antenna Requirements

3.3.1 Standard Applicable

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, 15.213, 15.217, 15.219, 15.221, or § 15.236. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

3.3.2 Antenna Anti-Replacement Construction

Unique (non-standard) antenna connector.

4 List of Measuring Equipment

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Hygrometer	TECPEL	TR-32	HE17XB2468	N/A	Mar. 13. 2025	Mar. 04. 2026	Mar. 12. 2026	Conducted (TH02-HY)
Power Meter	Agilent	ML2495A	0932001	N/A	Aug.29, 2025	Mar. 04. 2026	Aug.28, 2026	Conducted (TH02-HY)
Power Meter	Agilent	MA2411B	846202	300MHz~40GHz	Aug.29, 2025	Mar. 04. 2026	Aug.28, 2026	Conducted (TH02-HY)
Signal Analyzer	Rohde & Schwarz	FSV3013	101699	10Hz~13.6GHz	Oct. 16, 2025	Mar. 04. 2026	Oct. 15, 2026	Conducted (TH02-HY)
Bilog Antenna	TESEQ	CBL 6111D & 00800N1D01N-06	35419 & 03	30MHz~1GHz	Apr. 21, 2025	Mar. 02, 2026	Apr. 20, 2026	Radiation (03CH07-HY)
Loop Antenna	Rohde & Schwarz	HFH2-Z2	100315	9 kHz~30 MHz	Mar. 06, 2025	Mar. 02, 2026	Mar. 05, 2026	Radiation (03CH07-HY)
Preamplifier	MITEQ	AMF-7D-00101800-30-10P	1590075	1GHz~18GHz	Apr. 18, 2025	Mar. 02, 2026	Apr. 17, 2026	Radiation (03CH07-HY)
Preamplifier	COM-POWER	PA-103A	161241	10MHz~1GHz	Sep. 30, 2025	Mar. 02, 2026	Sep. 29, 2026	Radiation (03CH07-HY)
Preamplifier	Agilent	8449B	3008A02362	1GHz~26.5GHz	Mar. 22, 2025	Mar. 02, 2026	Mar. 21, 2026	Radiation (03CH07-HY)
Preamplifier	EMEC	EM18G40G	0600789	18-40GHz	Aug. 08, 2025	Mar. 02, 2026	Aug. 07, 2026	Radiation (03CH07-HY)
Signal Analyzer	Agilent	N9030A	MY52350276	3Hz~44GHz	Mar. 28, 2025	Mar. 02, 2026	Mar. 27, 2026	Radiation (03CH07-HY)
Double Ridged Guide Horn Antenna	ETS-Lindgren	3117	00075962	1GHz ~ 18GHz	Dec. 09, 2025	Mar. 02, 2026	Dec. 08, 2026	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4 MY24971/4 MY15682/4	30MHz to 18GHz	Feb. 19, 2026	Mar. 02, 2026	Feb. 18, 2027	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 104	MY28655/4 MY24971/4	9kHz to 30MHz	Feb. 19, 2026	Mar. 02, 2026	Feb. 18, 2027	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 126	532078/126E	30MHz~18GHz	Sep. 13, 2025	Mar. 02, 2026	Sep. 12, 2026	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	MY2858/2	18GHz~40GHz	Feb. 19, 2026	Mar. 02, 2026	Feb. 18, 2027	Radiation (03CH07-HY)
RF Cable	HUBER + SUHNER	SUCOFLEX 102	801606/2	9KHz ~ 40GHz	Apr. 23, 2025	Mar. 02, 2026	Apr. 22, 2026	Radiation (03CH07-HY)
Controller	EMEC	EM1000	N/A	Control Ant Mast	N/A	Mar. 02, 2026	N/A	Radiation (03CH07-HY)
Antenna Mast	EMEC	AM-BS-4500E	N/A	Boresight mast 1M~4M	N/A	Mar. 02, 2026	N/A	Radiation (03CH07-HY)
Antenna Mast	MF	MF-7802	N/A	Control Turn table	N/A	Mar. 02, 2026	N/A	Radiation (03CH07-HY)
Turn Table	ChainTek	Chaintek 3000	N/A	0~360 Degree	N/A	Mar. 02, 2026	N/A	Radiation (03CH07-HY)

Instrument	Brand Name	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Software	Audix	E3	RK-002396	N/A	N/A	Mar. 02, 2026	N/A	Radiation (03CH07-HY)
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170251	18GHz~40GHz	Dec. 09, 2025	Mar. 02, 2026	Dec. 08, 2026	Radiation (03CH07-HY)
Hygrometer	TECPEL	DTM-303A	TP211546	N/A	Mar. 28, 2025	Mar. 02, 2026	Mar. 27, 2026	Radiation (03CH07-HY)

5 Measurement Uncertainty

Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	6.3 dB

Uncertainty of Radiated Emission Measurement (1000 MHz ~ 6000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.7 dB

Uncertainty of Radiated Emission Measurement (6000 MHz ~ 18000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	5.5 dB

Uncertainty of Radiated Emission Measurement (18000 MHz ~ 40000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))	4.9 dB

Appendix A. Test Result of Conducted Test Items

Test Engineer:	Tommy Lee	Temperature:	21~25	°C
Test Date:	Mar. 04. 2026	Relative Humidity:	51~54	%

TEST RESULTS DATA
Average Power Table

Mod.	Data Rate	N_{TX}	CH.	Freq. (MHz)	Average Conducted Power (dBm)	Conducted Power Limit (dBm)	DG (dBi)	EIRP Power (dBm)	EIRP Power Limit (dBm)	Pass /Fail	Setting
BLE	2Mbps	1	39	2480	-5.16	30.00	-19.38	-24.54	36.00	Pass	Default

Appendix B. Radiated Spurious Emission Test Data

Test Engineer :	Jesse Wang, Stan Hsieh, Ken Wu	**Temperature :**	21.1~26.6°C
		Relative Humidity :	53.4~71.3%

Note symbol

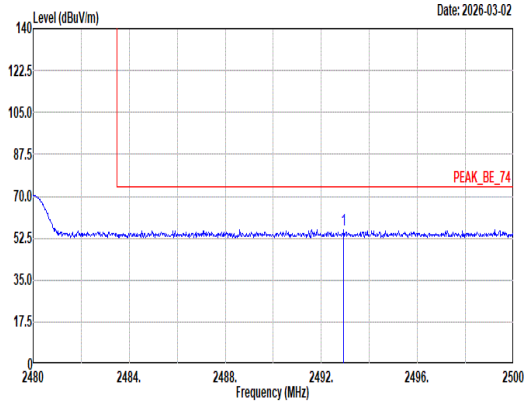
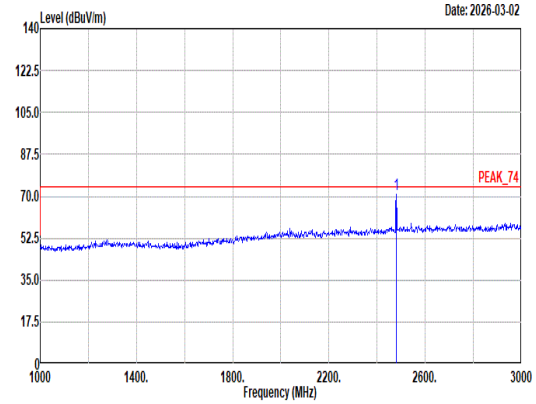
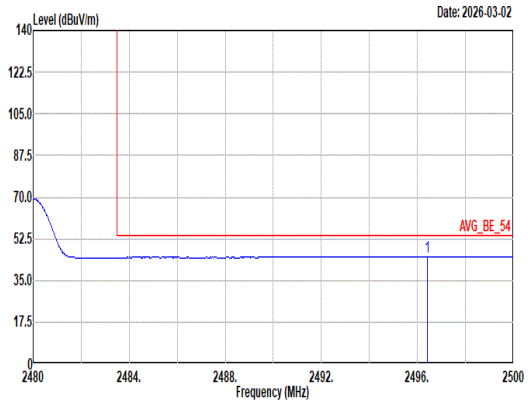
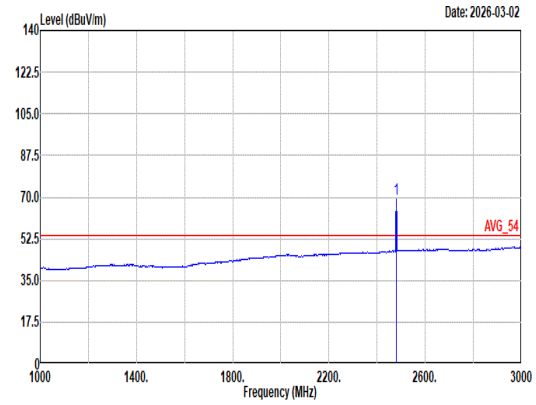
-L	**Low channel location**
-R	**High channel location**

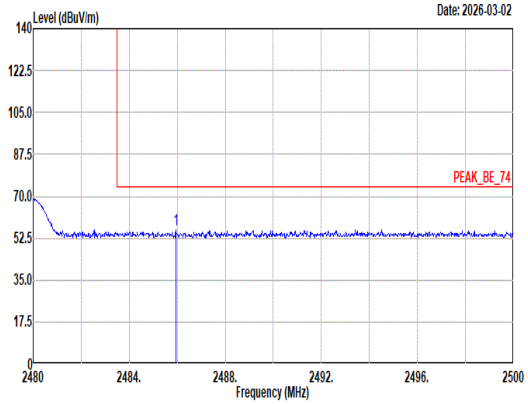
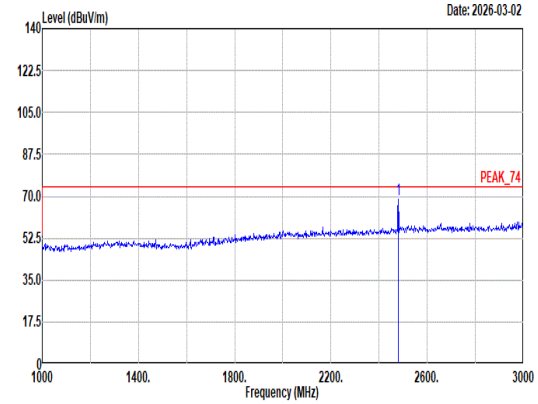
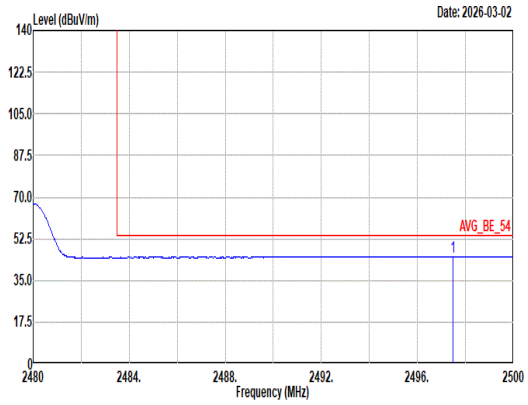
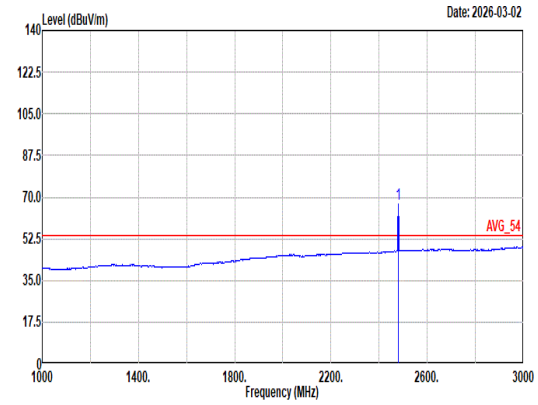
B1.Radiated Spurious Emission Test Modes

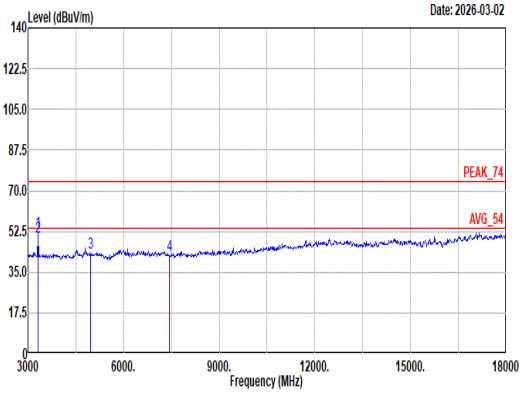
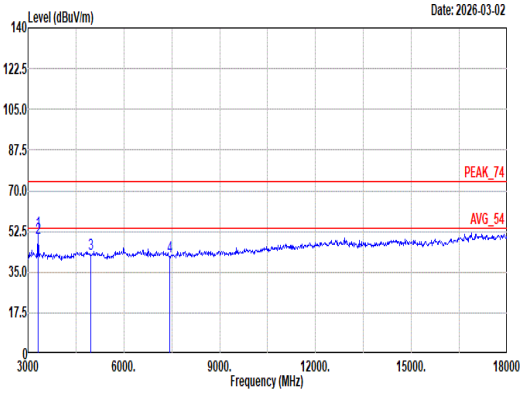
Mode	Band (MHz)	Antenna	Modulation	Channel	Frequency	Data Rate	RU	Remark
Mode 1	2400-2483.5	0	Bluetooth-LE GSFK	39	2480	2Mbps	-	-
Mode 2	2400-2483.5	0	Bluetooth-LE GSFK	39	2480	2Mbps	-	LF
Mode 3	2400-2483.5	0	Bluetooth-LE GSFK	39	2480	2Mbps	-	SHF

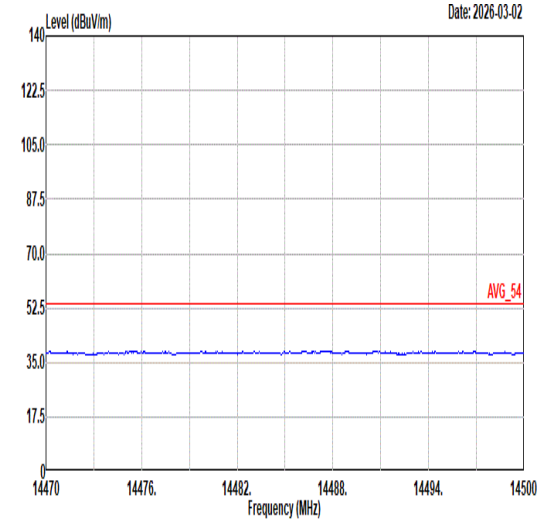
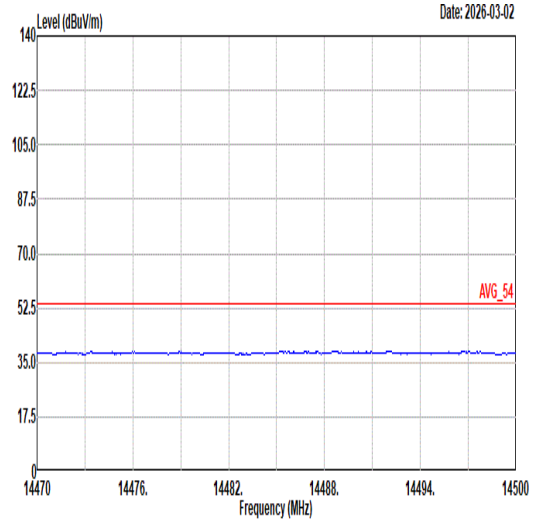
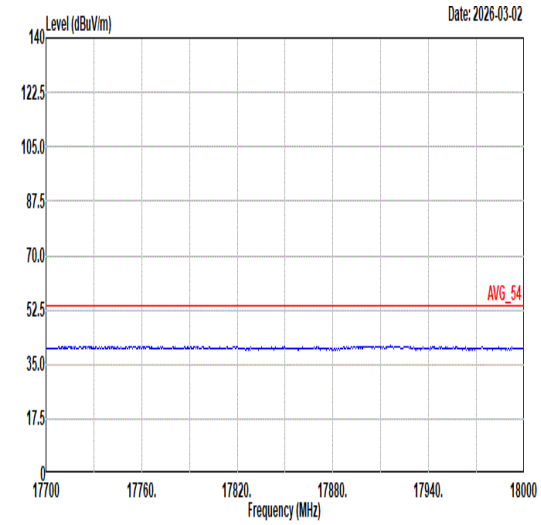
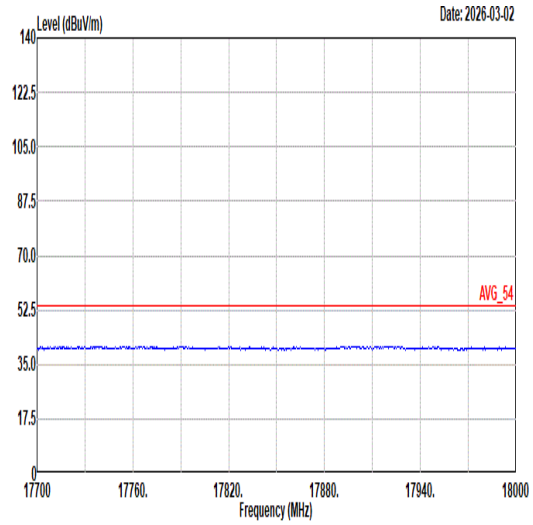
B2.Summary of each worse mode

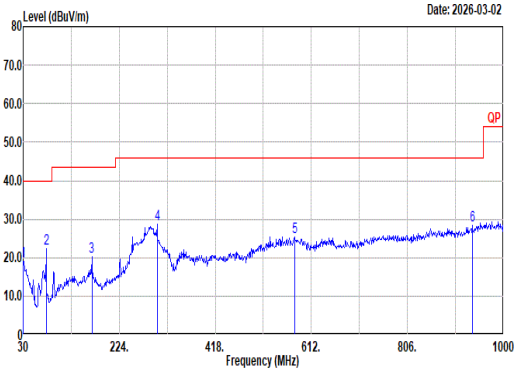
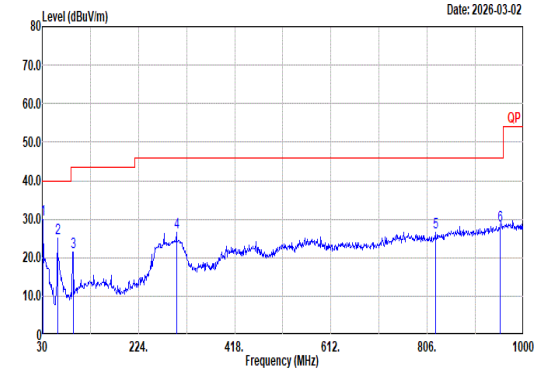
Mode	Modulation	Ch.	Freq. (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol.	Peak Avg.	Result	RU	Remark
1	Bluetooth-LE GSFK	39	2497.48	44.81	54.00	-9.19	V	Avg.	Pass	-	Band Edge
	Bluetooth-LE GSFK	39	3315.00	50.42	54.00	-3.58	H	Avg.	Pass	-	Harmonic
2	LF	39	30.97	29.87	40.00	-10.13	V	Peak	Pass	-	LF
3	SHF	39	24884.68	37.74	74.00	-36.26	H	Peak	Pass	-	SHF

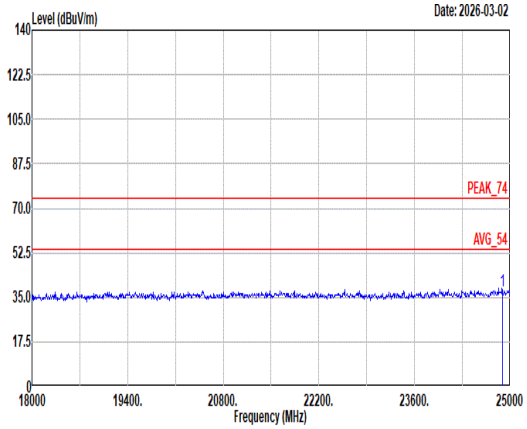
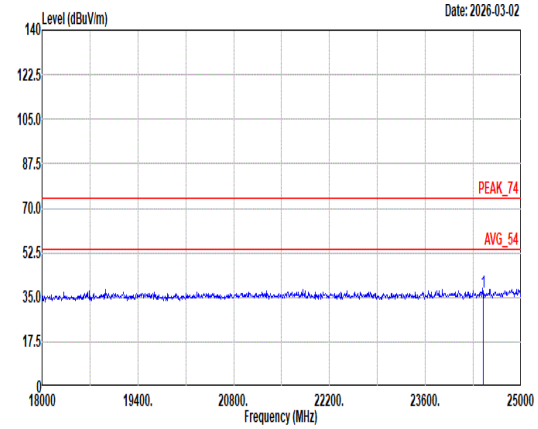
Mode	1	
	Band Edge	
	2400-2483.5_Bluetooth-LE GSFK_CH39_2480MHz	
ANT	0	
Pol.	Horizontal	Fundamental
Peak	 Site : 03CH07-HY Condition: PEAK_BE_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2492.94 56.14 74.00 -17.86 39.16 32.83 8.86 34.68 9.97 300 27 Peak	 Site : 03CH07-HY Condition: PEAK_74 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2480.00 70.61 ------ ------ 53.77 32.70 8.84 34.68 9.98 300 27 Peak
Avg	 Site : 03CH07-HY Condition: AVG_BE_54 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2496.40 44.80 54.00 -9.20 27.79 32.86 8.87 34.68 9.96 300 27 Average	 Site : 03CH07-HY Condition: AVG_54 3m HF_ANT_00075962 HORIZONTAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2480.00 69.35 ------ ------ 52.51 32.70 8.84 34.68 9.98 300 27 Average

Mode	1	
	Band Edge	
	2400-2483.5_Bluetooth-LE GSFK_CH39_2480MHz	
ANT	0	
Pol.	Vertical	Fundamental
Peak	 Site : 03CH07-HY Condition: PEAK_BE_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2485.94 55.86 74.00 -18.14 38.96 32.76 8.85 34.68 9.97 375 354 Peak	 Site : 03CH07-HY Condition: PEAK_74 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:3000.000kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2480.00 68.49 ------ ------ 51.65 32.70 8.84 34.68 9.98 375 354 Peak
Avg	 Site : 03CH07-HY Condition: AVG_BE_54 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2497.48 44.81 54.00 -9.19 27.79 32.87 8.87 34.68 9.96 375 354 Average	 Site : 03CH07-HY Condition: AVG_54 3m HF_ANT_00075962 VERTICAL : RBW:1000.000kHz VBW:0.010kHz SWT:Auto Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 2480.00 67.29 ------ ------ 50.45 32.70 8.84 34.68 9.98 375 354 Average

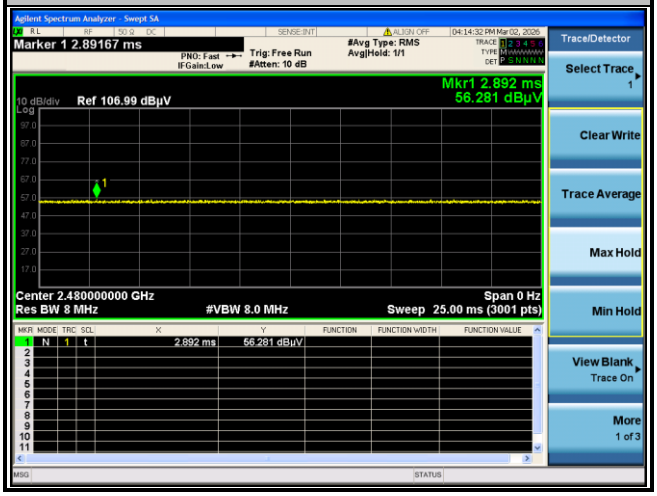
Mode	1	
	Harmonic	
	2400-2483.5_Bluetooth-LE GSFK_CH39_2480MHz	
ANT	0	
Pol.	Horizontal	Vertical
Peak Avg	 Site : 03CH07-HY Condition: PEAK_74 3m HF_ANT_00075962 HORIZONTAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 3315.00 52.54 74.00 -21.46 66.71 33.33 10.26 59.19 1.43 200 138 Peak 2 3315.00 50.42 54.00 -3.58 64.59 33.33 10.26 59.19 1.43 200 138 Average 3 4960.00 43.06 74.00 -30.94 53.18 34.54 12.50 58.08 0.92 -- -- Peak 4 7440.00 42.38 74.00 -31.62 48.15 36.00 15.03 57.91 1.11 -- -- Peak	 Site : 03CH07-HY Condition: PEAK_74 3m HF_ANT_00075962 VERTICAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 3315.00 52.16 74.00 -21.84 66.33 33.33 10.26 59.19 1.43 200 16 Peak 2 3315.00 49.65 54.00 -4.35 63.82 33.33 10.26 59.19 1.43 200 16 Average 3 4960.00 42.75 74.00 -31.25 52.87 34.54 12.50 58.08 0.92 -- -- Peak 4 7440.00 41.80 74.00 -32.20 47.57 36.00 15.03 57.91 1.11 -- -- Peak

Mode	1	
	Harmonic	
	2400-2483.5_Bluetooth-LE GSFK_CH39_2480MHz	
ANT	0	
Pol.	Horizontal	Vertical
14.47G ~14.5G Avg	 Site : 03CH07-HY Condition: AVG_54 3m HF_ANT_00075962 HORIZONTAL	 Site : 03CH07-HY Condition: AVG_54 3m HF_ANT_00075962 VERTICAL
17.7G ~18G Avg	 Site : 03CH07-HY Condition: AVG_54 3m HF_ANT_00075962 HORIZONTAL	 Site : 03CH07-HY Condition: AVG_54 3m HF_ANT_00075962 VERTICAL

Mode	2	
	LF	
	2400-2483.5_Bluetooth-LE GSFK_CH39_2480MHz	
ANT	0	
Pol.	Horizontal	Vertical
QP/ Peak	 Site : 03CH07-HY Condition: QP 3m Bilog_35419 HORIZONTAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark 1 30.00 18.94 40.00 -21.06 24.29 23.68 0.96 29.99 0.00 -- -- PEAK 2 76.56 22.29 40.00 -17.71 37.57 13.10 1.54 29.92 0.00 -- -- PEAK 3 168.71 20.23 43.50 -23.27 32.03 15.77 2.28 29.85 0.00 -- -- PEAK 4 300.63 28.67 46.00 -17.33 36.20 19.22 3.06 29.81 0.00 -- -- PEAK 5 578.05 25.27 46.00 -20.73 24.98 25.86 4.23 29.80 0.00 -- -- PEAK 6 936.95 28.32 46.00 -17.68 21.88 29.90 5.39 28.85 0.00 -- -- PEAK	 Site : 03CH07-HY Condition: QP 3m Bilog_35419 VERTICAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark 1 30.97 29.87 40.00 -10.13 35.25 23.64 0.97 29.99 0.00 -- -- PEAK 2 61.04 25.02 40.00 -14.98 41.69 11.93 1.37 29.97 0.00 -- -- PEAK 3 92.08 21.45 43.50 -22.05 34.67 15.03 1.70 29.95 0.00 -- -- PEAK 4 300.63 26.42 46.00 -19.58 33.95 19.22 3.06 29.81 0.00 -- -- PEAK 5 822.49 26.48 46.00 -19.52 22.87 27.87 5.08 29.34 0.00 -- -- PEAK 6 952.47 28.41 46.00 -17.59 20.97 30.74 5.44 28.74 0.00 -- -- PEAK

Mode	3	
	SHF	
	2400-2483.5_Bluetooth-LE GSFK_CH39_2480MHz	
ANT	0	
Pol.	Horizontal	Vertical
Peak	 Site : 03CH07-HY Condition: PEAK_74 1m SHF-EHF_9170251 HORIZONTAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 24884.68 37.74 74.00 -36.26 46.56 39.23 18.88 57.39 -9.54 -- -- PEAK	 Site : 03CH07-HY Condition: PEAK_74 1m SHF-EHF_9170251 VERTICAL Freq Level Limit Line Margin Read Level Ant Factor Cable Loss Preamp Factor Aux Factor APos TPos Remark MHz dBuV/m dBuV/m dB dBuV dB/m dB dB dB cm deg 1 24444.81 36.85 74.00 -37.15 46.47 38.88 18.76 57.72 -9.54 -- -- PEAK

Appendix C. Duty Cycle Plots

Band	Duty Cycle (%)	T(us)	1/T(kHz)	VBW Setting
Bluetooth - LE for 2Mbps	100.00	2892	0.35	10Hz

Bluetooth - LE for 2Mbps