



MRT Technology (Taiwan) Co., Ltd  
Phone: +886-3-3288388  
Fax: +886-3-3288918  
Web: [www.mrt-cert.com](http://www.mrt-cert.com)

Report No.: 2309TW3803-J1  
Report Version: 1.0  
Issue Date: 2024-02-01

## MEASUREMENT REPORT

**Applicant** : AAEON Technology Inc.

**Address** : 5F, No. 135, Lane 235, Pao Chiao Rd., Hsin-Tien Dist.,  
New Taipei City, 231, Taiwan R.O.C.

**Product** : Rugged Tablet

**Model No.** : RTC-1010RK

**Brand Name** : AAEON Technology Inc.

**Standards** : ARIB STD-T66 V3.7

**Result** : Complies

**Received Date** : October 5, 2023

**Test Date** : October 16, 2023~ October 24, 2023

**Tested By** : *Wenlee*  
( Wen Lee )

**Reviewed By** : *Paddy Chen*  
( Paddy Chen )

**Approved By** : *Chenz Ker*  
( Chenz Ker )



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ARIB STD-T66. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Taiwan) Co., Ltd.

## Revision History

Report No.	Version	Description	Issue Date
2309TW3803-J1	1.0	Original Report	2024-02-01

## CONTENTS

Description	Page
<b>§ General Information .....</b>	<b>5</b>
<b>1. INTRODUCTION .....</b>	<b>6</b>
1.1. Scope .....	6
1.2. MRT Test Location .....	6
<b>2. PRODUCT INFORMATION .....</b>	<b>7</b>
2.1. Equipment Description.....	7
2.2. Operation Description .....	8
2.3. Test Mode .....	8
2.4. Frequency / Channel Opreation .....	9
2.5. Device Capabilities .....	10
2.6. Test Configuration .....	10
2.7. Test Software .....	10
2.8. RF and IF section must be tamper requirement .....	11
<b>3. DESCRIPTION OF TEST .....</b>	<b>12</b>
3.1. Evaluation Procedure .....	12
<b>4. TEST EQUIPMENT CALIBRATION DATE .....</b>	<b>12</b>
<b>5. MEASUREMENT UNCERTAINTY .....</b>	<b>13</b>
<b>6. TEST RESULT .....</b>	<b>14</b>
6.1. Summary .....	14
6.2. Output Power Density, Output Power Density Tolerance and E.I.R.P.....	15
6.2.1. Test Limit .....	15
6.2.2. Test Procedure used .....	15
6.2.3. Test Setup.....	15
6.2.4. Test Result .....	16
6.3. Occupied Bandwidth.....	19
6.3.1. Test Limit .....	19
6.3.2. Test Procedure Used .....	19
6.3.3. Test Setup.....	19
6.3.4. Test Result .....	20
6.4. Frequency Tolerance .....	21
6.4.1. Test Limit .....	21
6.4.2. Test Procedure Used .....	21
6.4.3. Test Setup.....	21

6.4.4.	Test Result.....	22
6.5.	Dwell Time.....	23
6.5.1.	Test Limit .....	23
6.5.2.	Test Procedure Used .....	23
6.5.3.	Test Setup.....	23
6.5.4.	Test Result.....	24
6.6.	Transmitter Spurious Emissions .....	25
6.6.1.	Test Limit .....	25
6.6.2.	Test Procedure Used .....	25
6.6.3.	Test Setup.....	26
6.6.4.	Test Result.....	27
6.7.	Receiver Spurious Emissions .....	30
6.7.1.	Test Limit .....	30
6.7.2.	Test Procedure Used .....	30
6.7.3.	Test Setup.....	30
6.7.4.	Test Result.....	31
6.8.	Interference Prevention Function.....	33
6.8.1.	Test Requirment.....	33
6.8.2.	Test Procedure Used .....	33
6.8.3.	Test Setup.....	33
6.8.4.	Test Result.....	33
<b>7.</b>	<b>CONCLUSION.....</b>	<b>34</b>
	<b>Appendix A : Test Photograph .....</b>	<b>35</b>
	<b>Appendix B : External Photograph .....</b>	<b>35</b>
	<b>Appendix C : Internal Photograph .....</b>	<b>35</b>

## § General Information

<b>Applicant</b>	AAEON Technology Inc.
<b>Applicant Address</b>	5F, No. 135, Lane 235, Pao Chiao Rd., Hsin-Tien Dist., New Taipei City, 231, Taiwan R.O.C.
<b>Manufacturer</b>	AAEON Technology Inc.
<b>Manufacturer Address</b>	5F, No. 135, Lane 235, Pao Chiao Rd., Hsin-Tien Dist., New Taipei City, 231, Taiwan R.O.C.
<b>Test Site</b>	MRT Technology (Taiwan) Co., Ltd
<b>Test Site Address</b>	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
<b>Rule Part(s)</b>	MIC Notice No.88 Annex 43
<b>Test Device Serial No.</b>	#1-1 <input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production <input type="checkbox"/> Engineering
<b>Method/System</b>	Frequency Hopping Spread Spectrum (FHSS)

### Test Facility / Accreditations

1. MRT facility is a FCC registered (Reg. No. 291082) test facility with the site description report on file and is designated by the FCC as an Accredited Test Firm.
2. MRT facility is an IC registered (MRT Reg. No. 21723) test laboratory with the site description on file at Industry Canada.
3. MRT Lab is accredited to ISO 17025 by the Taiwan Accreditation Foundation (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC (Designation Number: TW3261), Industry Canada, EU and TELEC Rules.

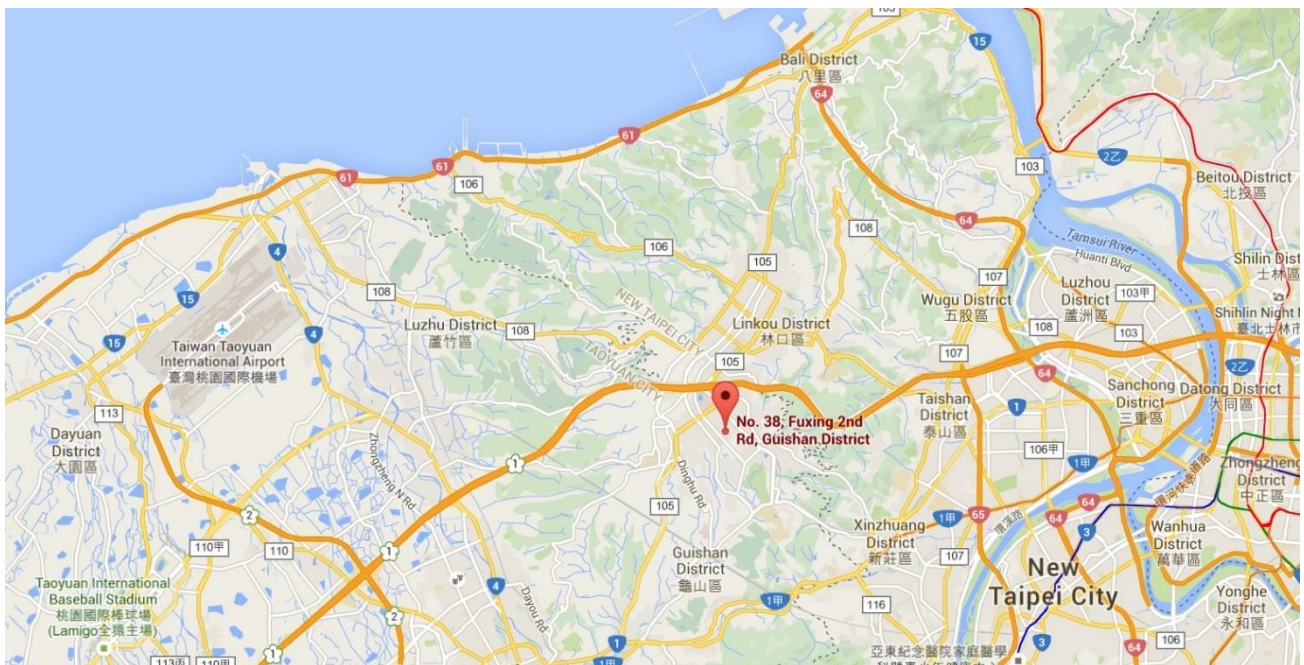
# 1. INTRODUCTION

## 1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Ministry of Internal Affairs and Communications.

## 1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



## 2. PRODUCT INFORMATION

### 2.1. Equipment Description

Product Name	Rugged Tablet
Model No.	RTC-1010RK
Brand Name	AAEON Technology Inc.
Hardware Version	A0.3
Firmware Version	Android 11 kernel 4.19
Supports Radios Spec.	<b>WLAN:</b> 2.4G: 802.11b/g/n-20; 5G: 802.11a/n-20/ac-20/n-40/ac-40/ac-80, Band 1 <b>WPAN:</b> Bluetooth Dual Mode: V5.2 NFC 13.56MHz <b>GNSS:</b> GPS
Frequency Range	2402~2480MHz
Type of Modulation	FHSS
Data Rate	1Mbps(GFSK), 2Mbps ( $\pi/4$ DQPSK), 3Mbps (8DPSK)
Antenna Type / Gain	PCB Antenna: 4.15dBi
Declared Output Power	Normal Operation (79 Channels): 0.05mW/MHz
Accessories	
Power Adapter	Brand: FSP Model No: FSP036-DHAN3 Input: AC 100-240V~1.2A, 50-60Hz Output: DC 12.0V=3.0A 36.0W Cable Out: Non-shielding, 1.5m

## 2.2. Operation Description

This device is a Bluetooth transmitter and receiver in one model. When it worked as a Bluetooth transmitter, the unit could make your regular stereo audio devices into Bluetooth-enabled. When it worked as a Bluetooth receiver, it adds Bluetooth receiving capability to your headphones, home stereo.

## 2.3. Test Mode

Test Mode	Mode 1: Transmitter – Normal – 1Mbps (GFSK)
	Mode 2: Transmitter – Normal – 3Mbps (8DPSK)
	Mode 4: Receiver – Normal – 1Mbps (GFSK)
	Mode 5: Receiver – Normal – 3Mbps (8DPSK)

## 2.4. Frequency / Channel Operation

Channel	Frequency	Channel	Frequency	Channel	Frequency
00	2402 MHz	01	2403 MHz	02	2404 MHz
03	2405 MHz	04	2406 MHz	05	2407 MHz
06	2408 MHz	07	2409 MHz	08	2410 MHz
09	2411 MHz	10	2412 MHz	11	2413 MHz
12	2414 MHz	13	2415 MHz	14	2416 MHz
15	2417 MHz	16	2418 MHz	17	2419 MHz
18	2420 MHz	19	2421 MHz	20	2422 MHz
21	2423 MHz	22	2424 MHz	23	2425 MHz
24	2426 MHz	25	2427 MHz	26	2428 MHz
27	2429 MHz	28	2430 MHz	29	2431 MHz
30	2432 MHz	31	2433 MHz	32	2434 MHz
33	2435 MHz	34	2436 MHz	35	2437 MHz
36	2438 MHz	37	2439 MHz	38	2440 MHz
39	2441 MHz	40	2442 MHz	41	2443 MHz
42	2444 MHz	43	2445 MHz	44	2446 MHz
45	2447 MHz	46	2448 MHz	47	2449 MHz
48	2450 MHz	49	2451 MHz	50	2452 MHz
51	2453 MHz	52	2454 MHz	53	2455 MHz
54	2456 MHz	55	2457 MHz	56	2458 MHz
57	2459 MHz	58	2460 MHz	59	2461 MHz
60	2462 MHz	61	2463 MHz	62	2464 MHz
63	2465 MHz	64	2466 MHz	65	2467 MHz
66	2468 MHz	67	2469 MHz	68	2470 MHz
69	2471 MHz	70	2472 MHz	71	2473 MHz
72	2474 MHz	73	2475 MHz	74	2476 MHz
75	2477 MHz	76	2478 MHz	77	2479 MHz
78	2480 MHz	N/A	N/A	N/A	N/A

## 2.5. Device Capabilities

This device contains the following capabilities:

Bluetooth V5.2

## 2.6. Test Configuration

The **Rugged Tablet** was tested per the guidance of ARIB STD-T66.

The change of the internal voltage of the RF circuits of the EUT is below  $\pm 1\%$ , when input voltage from external power supply to the equipment under test is varied by  $\pm 10\%$ , thus the RF test is tested at rated voltage only.

The EUT obviously has no fluctuation with such voltage, only the rated voltage is supplied. (That to which rated voltage is supplied from the standard interface for international <For example>; USB, MINIPCI, PCMCIA, PCI, etc.)

The EUT Voltage by: By Battery (DC 3.3V)

EUT Test Voltage (AC or DC)	Internal voltage of the RF circuits ( V )
Normal Voltage	DC 3.30V
Low Voltage (-10%)	DC 3.29V
High Voltage (+10%)	DC 3.31V

## 2.7. Test Software

The test utility software used during testing was "Ampak RFTestTool, VER:7.3".

## 2.8. RF and IF section must be tamper requirement

Requirement	Comments	Result
RF, IF and Modulation section must be tamper	<input type="checkbox"/> Use Special Screw <input checked="" type="checkbox"/> Metal Shielding is Soldered <input type="checkbox"/> Use Ball Grid Array (BGA) (Please see Attachment: EUT Detailed Photographs)	Complete
	<input checked="" type="checkbox"/> RF module/Chip pin >10 <input checked="" type="checkbox"/> RF module/Chip pins distance <1.5mm (Please see Attachment: EUT Detailed Photographs)	Complete

### 3. DESCRIPTION OF TEST

#### 3.1. Evaluation Procedure

The measurement procedures described in the Japanese standard for 2.4GHz band wide-band low-power data communication system (ARIB STD-T66) was used in the measurement of the **Rugged Tablet**.

Deviation from measurement procedure.....None

### 4. TEST EQUIPMENT CALIBRATION DATE

Conducted Test Equipment

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date	Calibration Body	Calibration Method
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2023/10/5	ITRI	C
EXA Signal Analyzer	KEYSIGHT	N9010B	MRTTWA00074	1 year	2023/7/19	ITRI	C
USB Wideband Power Sensor	KEYSIGHT	U2021XA	MRTTWA00015	1 year	2023/3/16	ITRI	C

Calibration Method:

- Calibration conducted by the National Institute of Information and Communications Technology (NICT) (hereinafter referred to as "NICT") or a designated calibration agency under Article 102-18 paragraph (1)
- Correction conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992)
- Calibration conducted in foreign countries, which shall be equivalent to the calibration conducted by the NICT or a designated calibration agency under Article 102-18 paragraph (1)
- Calibration conducted by using measuring instruments and other equipment listed in the right column of Table No. 3 attached hereto, which shall have been given any of calibration, etc. listed above from a) to c)

## 5. MEASUREMENT UNCERTAINTY

Frequency Error
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2U_c(y)$ ): $\pm 78.4\text{Hz}$
Conducted Power
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2U_c(y)$ ): $\pm 0.84\text{dB}$
Conducted Spurious Emission
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2U_c(y)$ ): $\pm 2.65\text{ dB}$
Occupied Bandwidth
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2U_c(y)$ ): $\pm 3.3\%$
Temp. / Humidity
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2U_c(y)$ ): $\pm 0.82^\circ\text{C}/\pm 3\%$
DC Voltage
Measuring Uncertainty for a Level of Confidence of 95% ( $U=2U_c(y)$ ): $\pm 0.3\%$

## 6. TEST RESULT

### 6.1. Summary

**Company Name:** AAEON Technology Inc.  
**Product Name** Rugged Tablet  
**Method/System:** Frequency Hopping Spread Spectrum (FHSS)  
**Number of Channels:** 79

Test Description	Test Limit	Test Condition	Test Result	Reference
Output Power Density	3mW/MHz or less	Conducted	PASS	Section 6.2
Output Power Density Tolerance	+20%		PASS	Section 6.2
E.I.R.P	6.91dBm/MHz		PASS	Section 6.2
Occupied Bandwidth	≤ 83.5MHz for FHSS		PASS	Section 6.3
Frequency Tolerance	≤ 50ppm		PASS	Section 6.4
Dwell Time	≤ 400ms		PASS	Section 6.5
Transmitter Spurious Emissions	≤ 2.5uW for 30 ~ 2387MHz ≤ 25uW for 2387 ~ 2400MHz ≤ 25uW for 2483.5 ~ 2496.5MHz ≤ 2.5uW for 2496.5 ~ 12500MHz		PASS	Section 6.6
Receiver Spurious Emissions	≤ 4nW for 10 ~ 1000MHz ≤ 20nW for 1000 ~ 12500MHz		PASS	Section 6.7
Interference Prevention Function	Automatic Transmission or Receiving function of Identification Sign		PASS	Section 6.8

Note1: Determining compliance is based on the test results met the regulation limits or requirements declared by clients, and the test results don't take into account the value of measurement uncertainty.

Note2: The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.

## 6.2. Output Power Density, Output Power Density Tolerance and E.I.R.P

### 6.2.1. Test Limit

Output Power Density must be 3mW/MHz or less;

Output Power Tolerance: +20%

EIRP must be 6.91dBm/MHz or less.

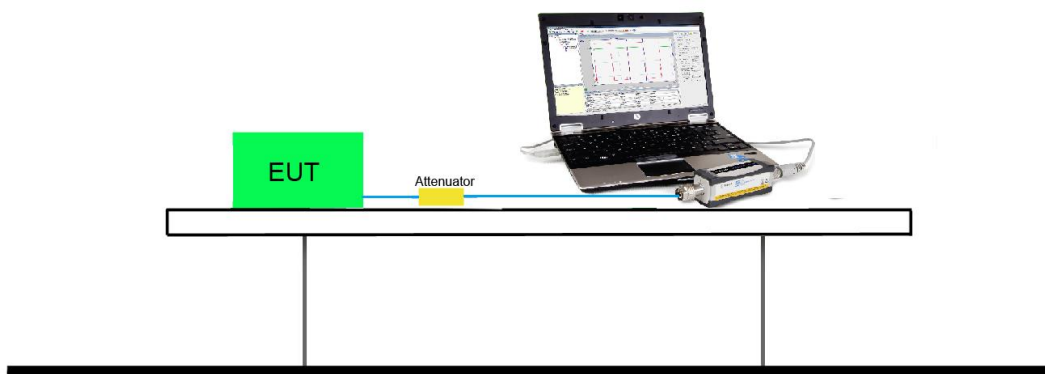
### 6.2.2. Test Procedure used

Measure the total power by Power Meter in a state of hopping mode (with Average Sensor).

If it's the burst wave, please measure the burst ratio. Then calculate the real total power by burst ratio.

Calculate the mean power per 1MHz by dividing the total power by spread bandwidth.

### 6.2.3. Test Setup



#### 6.2.4. Test Result

Product	Rugged Tablet	Temperature	25°C
Test Engineer	Wen	Relative Humidity	50%
Test Site	SR2	Test Date	2023/10/16

#### Output Power Density

Test Mode	Frequency (MHz)	Reading Value (dBm)	Real Value (mW/MHz)	Limit (mW/MHz)	Result
Transmitter - Normal					
GFSK (DH5)	2402~2480	4.740	0.055	3	Pass
8DPSK (3DH5)	2402~2480	2.180	0.031	3	Pass

Note: Real Value (mW/MHz) =  $10^{[\text{Reading Value (dBm)}]/10}$  / Burst Ratio / Spread bandwidth (MHz).

**Output Power Density Tolerance**

Test Mode	Frequency (MHz)	Output Power Density (mW/MHz)	Declared Output Power (mW/MHz)	Tolerance (%)	Limit	Result
Transmitter - Normal						
GFSK (DH5)	2402~2480	0.055	0.05	10.11	+20%	Pass
8DPSK (3DH5)	2402~2480	0.031	0.05	-38.93	+20%	Pass

Note: Tolerance = (Output Power Density - Declared Output Power) / Declared Output Power\*100%

**EIRP**

Test Mode	Frequency (MHz)	Output Power Density (dBm/MHz)	EIRP (dBm/MHz)	Limit (dBm/MHz)	Result
Transmitter - Normal					
GFSK (DH5)	2402~2480	-12.592	-8.442	6.91	Pass
8DPSK (3DH5)	2402~2480	-15.152	-15.152	6.91	Pass

Note: 1.  $EIRP \text{ (dBm/MHz)} = \text{Output Power Density (dBm/MHz)} + \text{Antenna Gain (dBi)}$

2. Antenna Gain = 4.15dBi

## 6.3. Occupied Bandwidth

### 6.3.1. Test Limit

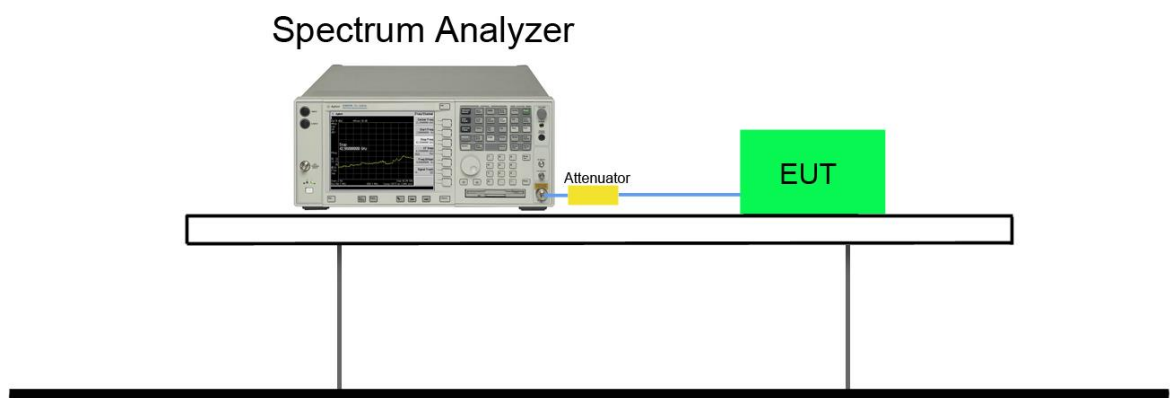
$\leq 83.5$  MHz for FHSS

### 6.3.2. Test Procedure Used

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

- (a) A positive peak detector function must be used.
- (b) A measurement instrument with an integrated 99% power bandwidth function may be used to automate the test process.
- (c) The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
- (d) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

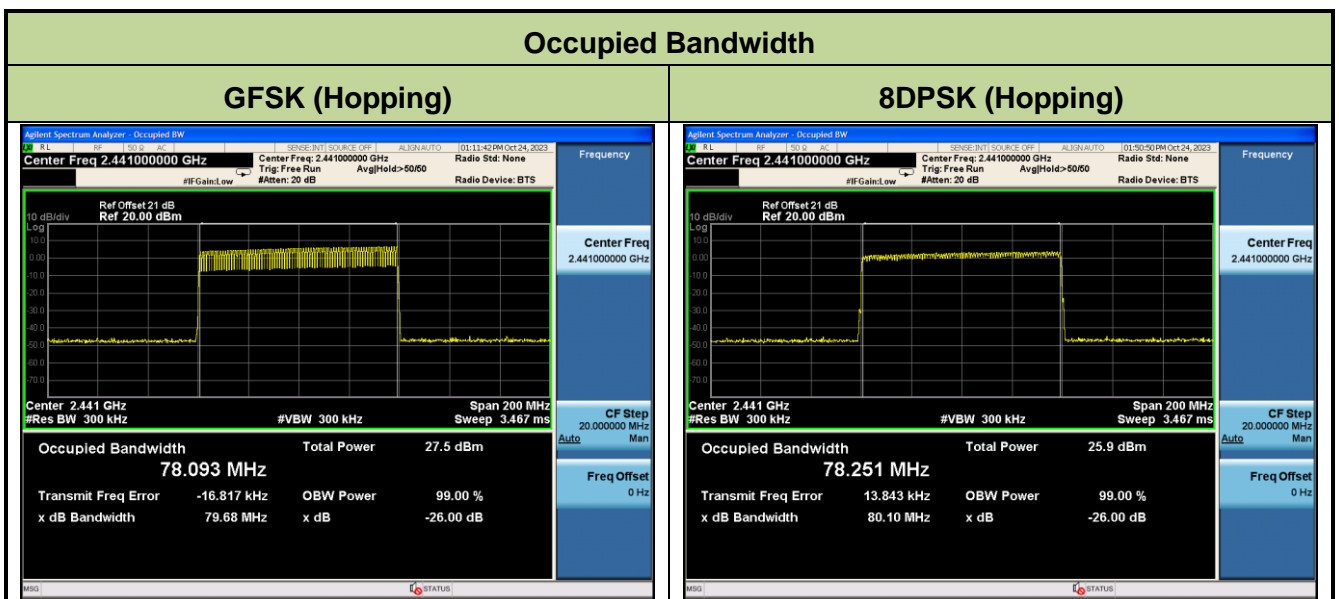
### 6.3.3. Test Setup



### 6.3.4. Test Result

Product	Rugged Tablet	Temperature	25°C
Test Engineer	Wen	Relative Humidity	50%
Test Site	SR2	Test Date	2023/10/24

Test Mode	Frequency (MHz)	Occupied Bandwidth (MHz)	Limit (MHz)	Result
Transmitter - Normal				
GFSK (DH5)	2402~2480	78.093	≤ 83.5	Pass
8DPSK (3DH5)	2402~2480	78.251	≤ 83.5	Pass



## 6.4. Frequency Tolerance

### 6.4.1. Test Limit

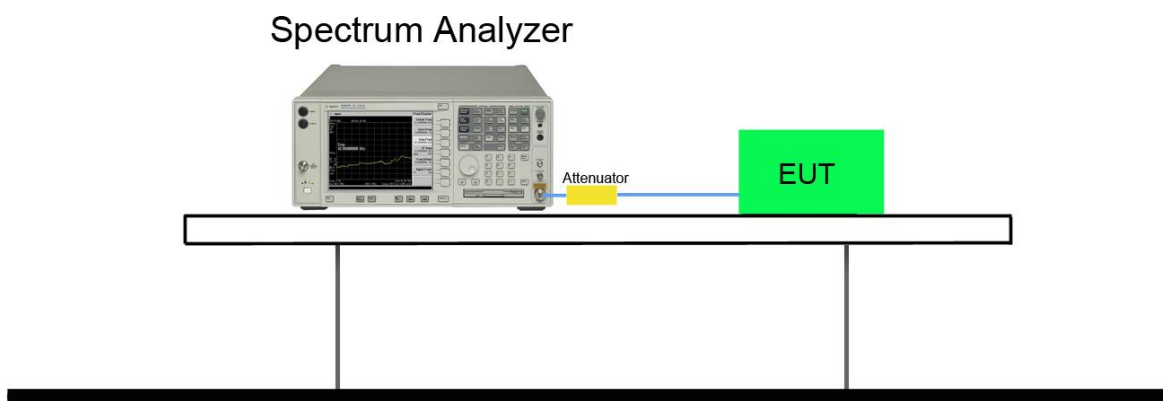
$\leq 50\text{ppm}$

### 6.4.2. Test Procedure Used

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

- (a) A positive peak detector function must be used.
- (b) The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slowly, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
- (c) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

### 6.4.3. Test Setup



#### 6.4.4. Test Result

Product	Rugged Tablet	Temperature	25°C
Test Engineer	Wen	Relative Humidity	50%
Test Site	SR2	Test Date	2023/10/24

Test Mode	Frequency (MHz)	Measurement Frequency (MHz)	Tolerance (ppm)	Limit (ppm)	Result
Transmitter - DC 14.4V					
Carrier Wave	2402	2401.98165	-7.64	≤ 50	Pass
	2441	2440.98573	-5.85	≤ 50	Pass
	2480	2479.98983	-4.10	≤ 50	Pass
Transmitter – DC 15.9V					
Carrier Wave	2402	2401.98153	-7.69	≤ 50	Pass
	2441	2440.98570	-5.86	≤ 50	Pass
	2480	2479.98987	-4.08	≤ 50	Pass
Transmitter – DC 12.9V					
Carrier Wave	2402	2401.98155	-7.68	≤ 50	Pass
	2441	2440.98567	-5.87	≤ 50	Pass
	2480	2479.98978	-4.12	≤ 50	Pass

Note: Tolerance (ppm) = {[Measured Frequency (MHz) – Declared Frequency (MHz)] / Declared Frequency (MHz)} \* 10<sup>6</sup>

## 6.5. Dwell Time

### 6.5.1. Test Limit

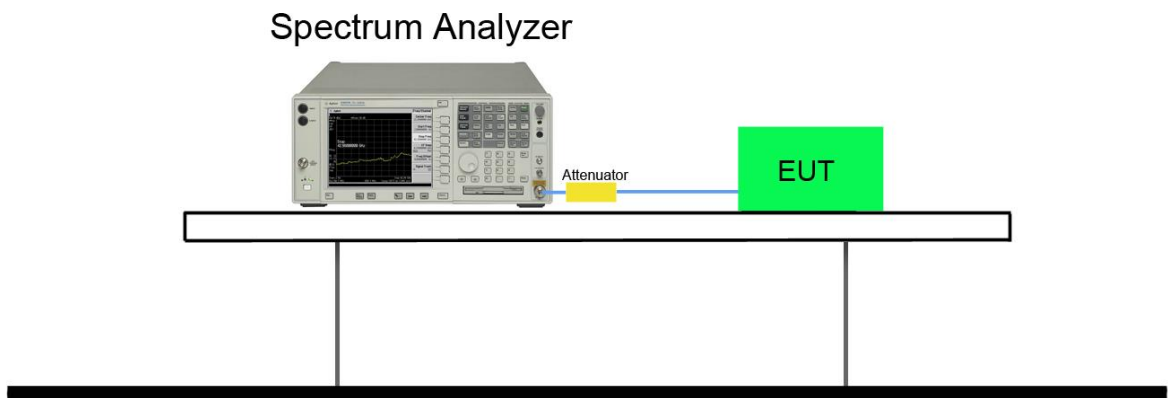
$\leq 0.4s$

### 6.5.2. Test Procedure Used

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

- (a) A positive peak detector function must be used.
- (b) The center frequency is set to the test frequency and the span is switched to zero.
- (c) The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slow, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
- (d) 'Single sweep' mode may be used to capture a packet over a single scan.

### 6.5.3. Test Setup



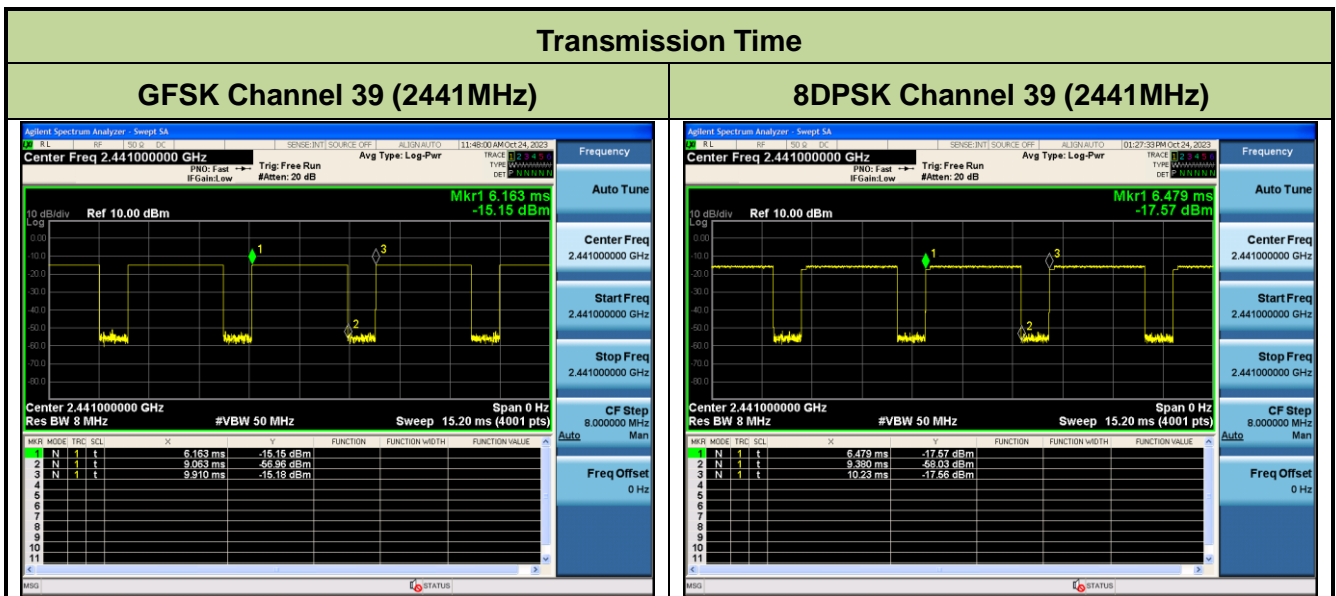
### 6.5.4. Test Result

Product	Rugged Tablet	Temperature	25°C
Test Engineer	Wen	Relative Humidity	50%
Test Site	SR2	Test Date	2023/10/24

Test Mode	Frequency (MHz)	Burst Ratio (Duty cycle) (s)	Dwell Time (s)	Limit (s)	Result
Transmitter - Normal					
GFSK (DH5)	2441	0.77	0.27	≤ 0.4	Pass
8DPSK (3DH5)	2441	0.77	0.28	≤ 0.4	Pass

Note: 1. Burst Ratio = ON Time / (ON Time + OFF Time);

Note: 2. Dwell Time = (Spreading Factor \* 0.4) \* (Duty cycle / 79).



## **6.6. Transmitter Spurious Emissions**

### **6.6.1. Test Limit**

- $\leq 2.5\mu\text{W}$  (-26dBm) for 30 ~ 2387MHz;
- $\leq 25\mu\text{W}$  (-16dBm) for 2387 ~ 2400MHz;
- $\leq 25\mu\text{W}$  (-16dBm) for 2483.5 ~ 2496.5MHz;
- $\leq 2.5\mu\text{W}$  (-26dBm) for 2496.5 ~ 13000MHz;

### **6.6.2. Test Procedure Used**

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

- (a) A positive peak detector function must be used.
- (b) The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slowly, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
- (c) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

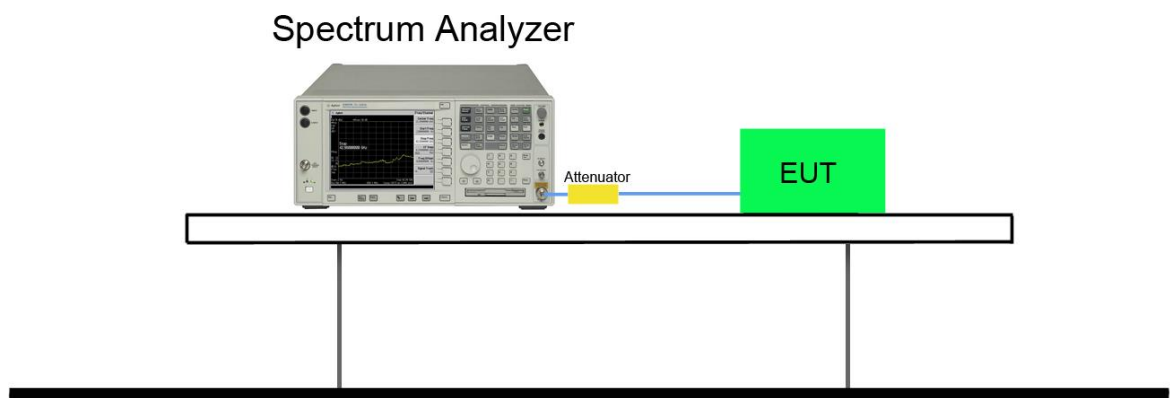
**If the peak power is over the limit, the follow procedure as below shall be used**

**1. Spectrum analyzer setting**

Center Frequency:	Searched Frequency
Span:	0MHz (Zero Span)
RBW:	1MHz(Range above 1GHz), 100 kHz(Range below 1GHz)
VBW:	Same as RBW (1MHz or 100KHz)
Sweep Time:	Auto (Minimum time to ensure measurement accuracy. In case of burst wave, one burst shall be included per data point)
Data Points:	400 points or more
Sweep Mode:	Single Sweep
Detection Mode:	Sample
Y-axis Scale:	10dB/Div
Reference Level:	Enough level for maximum dynamic range

2. Set the spectrum analyzer according to (3.1.3.), and it takes in a value of all data point.
3. Regarding the all data value, it transforms the "dBm" value into "mW" value.
4. It adds the all values and calculates a grand total. <- Define a grand total as "P".
5. It divides "P" by sample data point (ex. 401, 501) and calculates the mean value.
6. It reports the mean value.

**6.6.3. Test Setup**



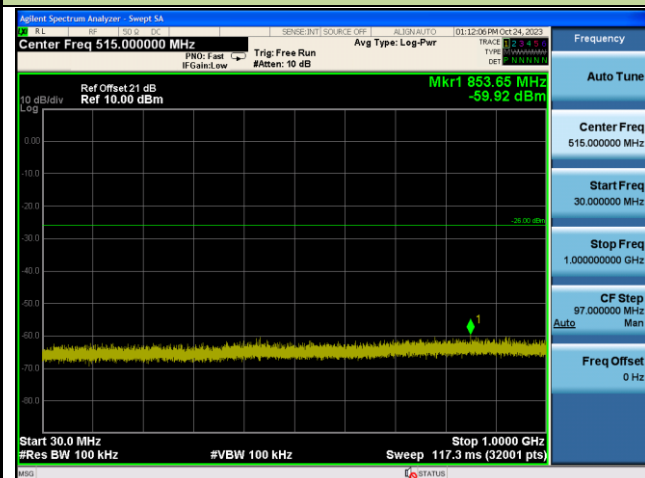
#### 6.6.4. Test Result

Product	Rugged Tablet	Temperature	25°C
Test Engineer	Wen	Relative Humidity	50%
Test Site	SR2	Test Date	2023/10/24

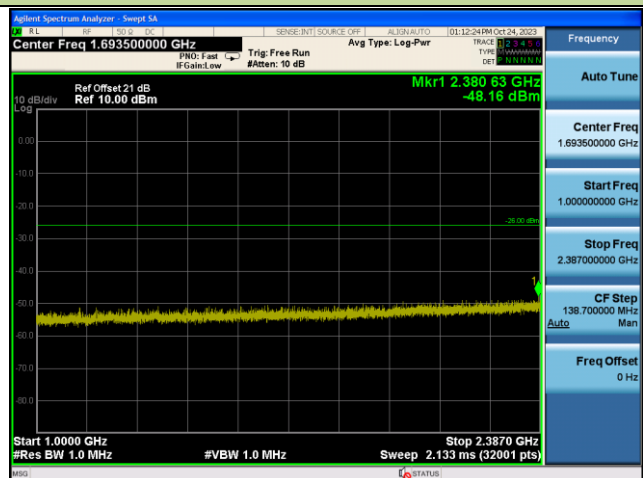
Test Mode	Frequency Range (MHz)	Max Reading Level (dBm)	Limit (dBm)	Result
Transmitter - Normal				
GFSK (DH5)	30 ~1000	-59.92	-26	Pass
	1000 ~2387	-48.16	-26	Pass
	2387 ~ 2400	-37.39	-16	Pass
	2483.5 ~ 2496.5	-44.65	-16	Pass
	2496.5 ~ 13000	-45.03	-26	Pass
8DPSK (3DH5)	30 ~1000	-60.10	-26	Pass
	1000 ~2387	-48.08	-26	Pass
	2387 ~ 2400	-28.72	-16	Pass
	2483.5 ~ 2496.5	-46.27	-16	Pass
	2496.5 ~ 13000	-45.22	-26	Pass

## GFSK Transmitter Spurious Emissions

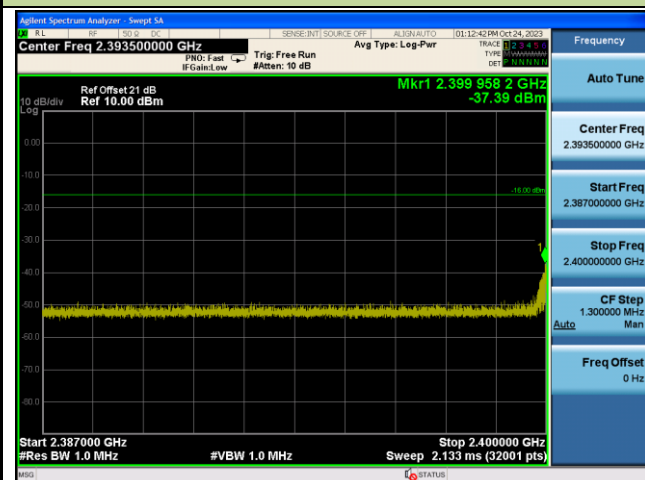
30 ~ 1000MHz



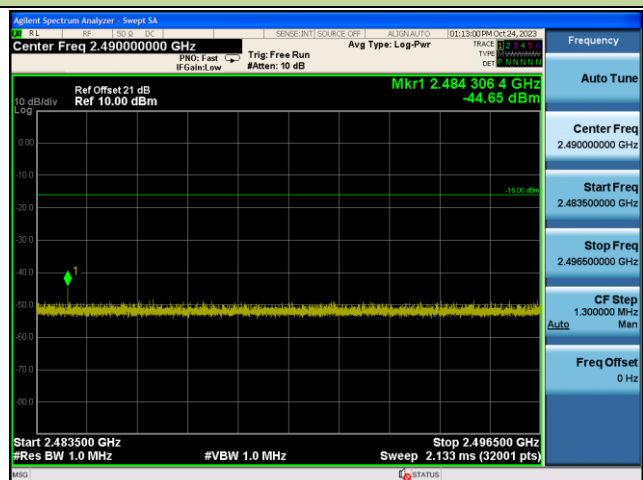
1000 ~ 2387MHz



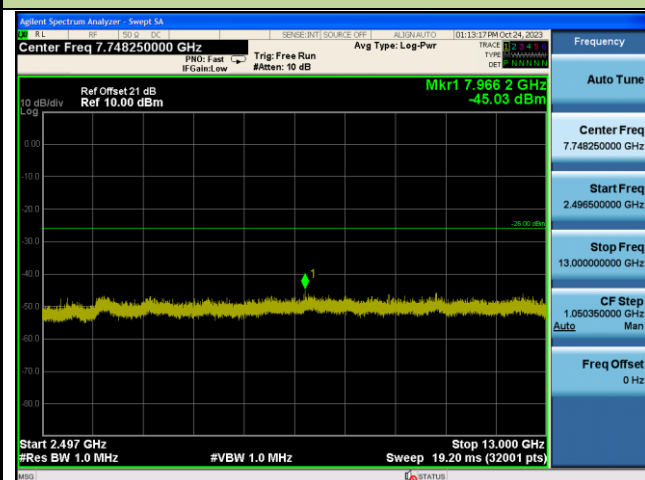
2387 ~ 2400MHz



2483.5 ~ 2496.5MHz

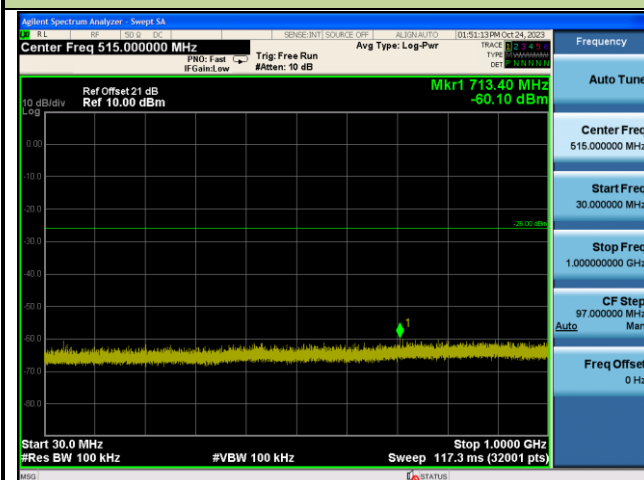


2496.5 ~ 13000MHz

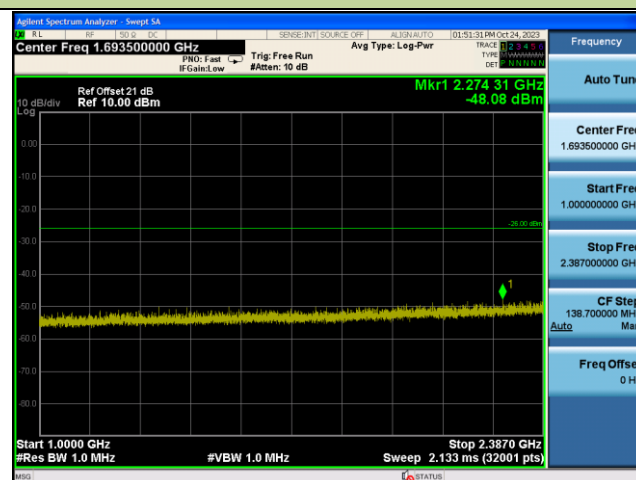


# 8DPSK Transmitter Spurious Emissions

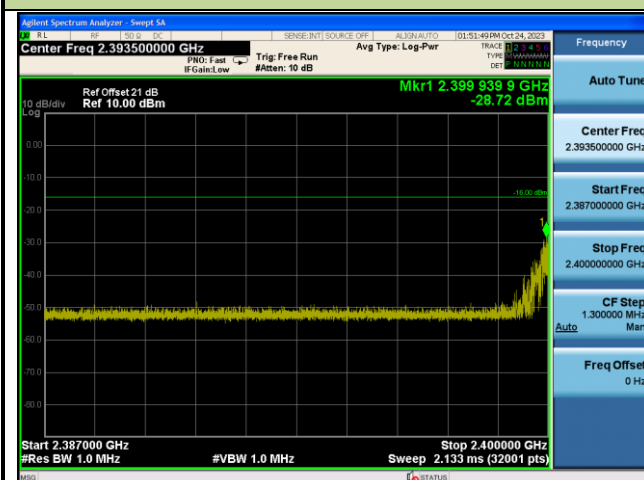
30 ~1000MHz



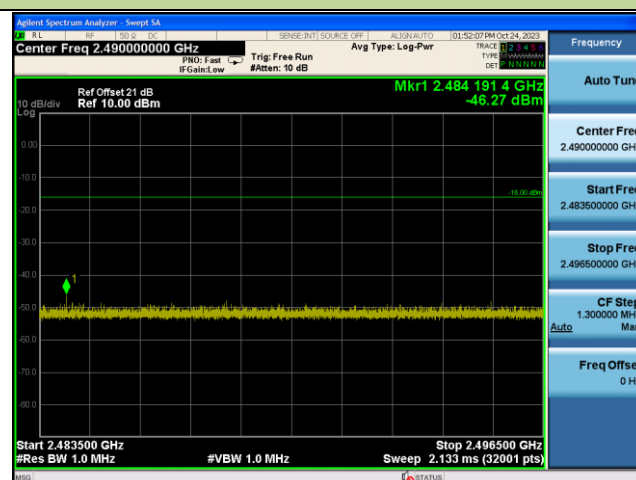
1000 ~ 2387MHz



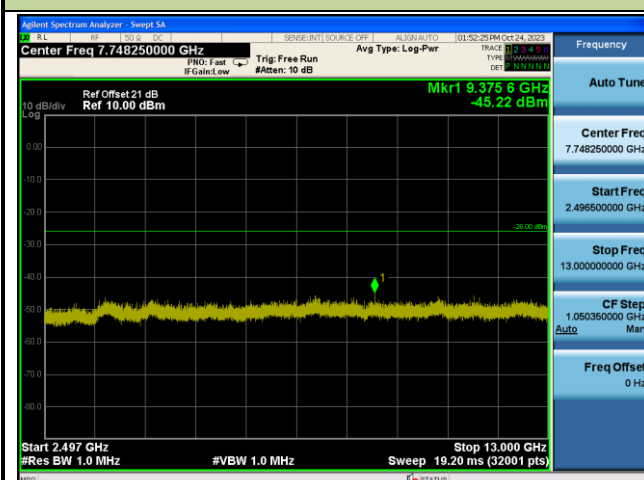
2387 ~ 2400MHz



2483.5 ~ 2496.5MHz



2496.5 ~ 13000MHz



## 6.7. Receiver Spurious Emissions

### 6.7.1. Test Limit

$\leq 4\text{nW}$  (-54dBm) for 30 ~ 1000MHz;

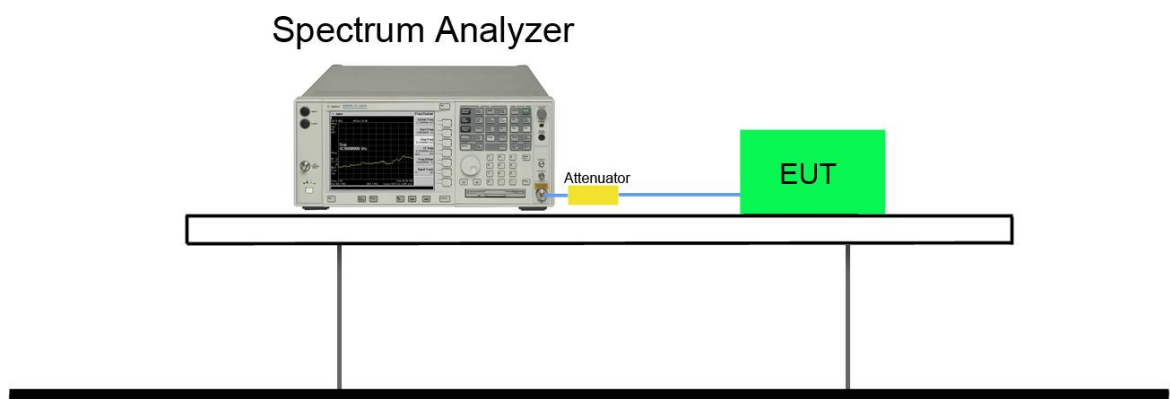
$\leq 20\text{nW}$  (-47dBm) for 1000 ~ 13000MHz;

### 6.7.2. Test Procedure Used

A spectrum analyzer or similar device shall be used to observe a sample of the modulated transmitter's radio frequency power output.

- (a) A positive peak detector function must be used.
- (b) The measurement instrument bandwidth and span must be set sufficiently with, and, the scan time set sufficiently slowly, to ensure all major modulation products are captured. Note that the measurement bandwidth should also be set sufficiently narrow to avoid adding significant error to the test result.
- (c) 'Maximum Hold' mode may be used to accumulate the measurement result over several scans provided the emission is repetitive in nature.

### 6.7.3. Test Setup



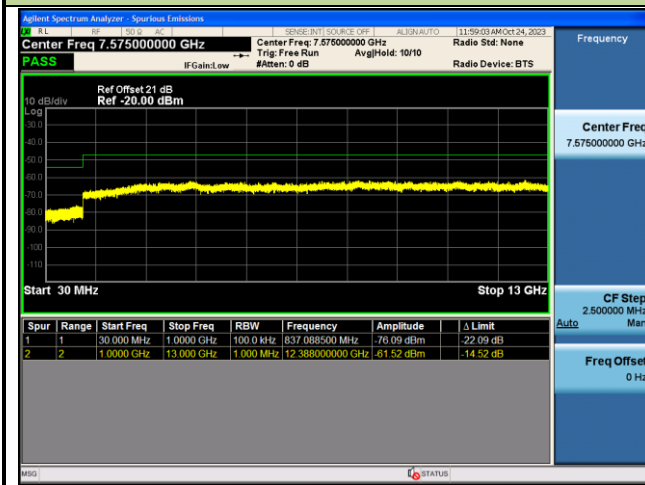
#### 6.7.4. Test Result

Product	Rugged Tablet	Temperature	25°C
Test Engineer	Wen	Relative Humidity	50%
Test Site	SR2	Test Date	2023/10/24

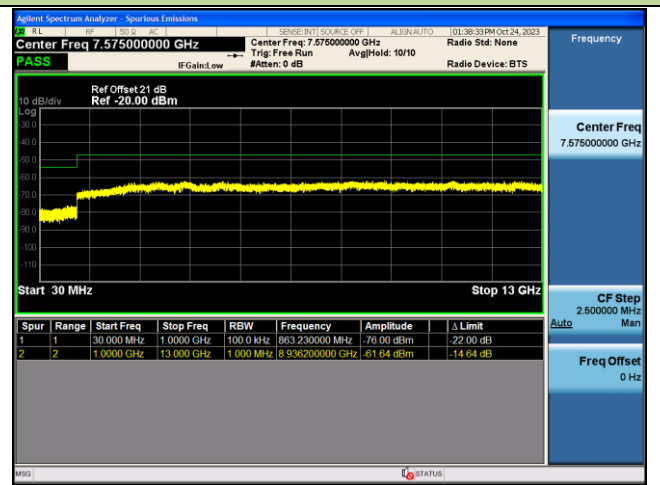
Test Mode	Frequency Range (MHz)	Max Reading Level (dBm)	Limit (dBm)	Result
Receiver - Normal				
GFSK (DH5)	30 ~ 1000	-76.09	-54	Pass
	1000 ~ 13000	-61.52	-47	Pass
8DPSK (3DH5)	30 ~ 1000	-76.00	-54	Pass
	1000 ~ 13000	-61.64	-47	Pass

## Receiver Spurious Emissions

### GFSK\_2402MHz~2480MHz



### 8DPSK\_2402MHz~2480MHz



## 6.8. Interference Prevention Function

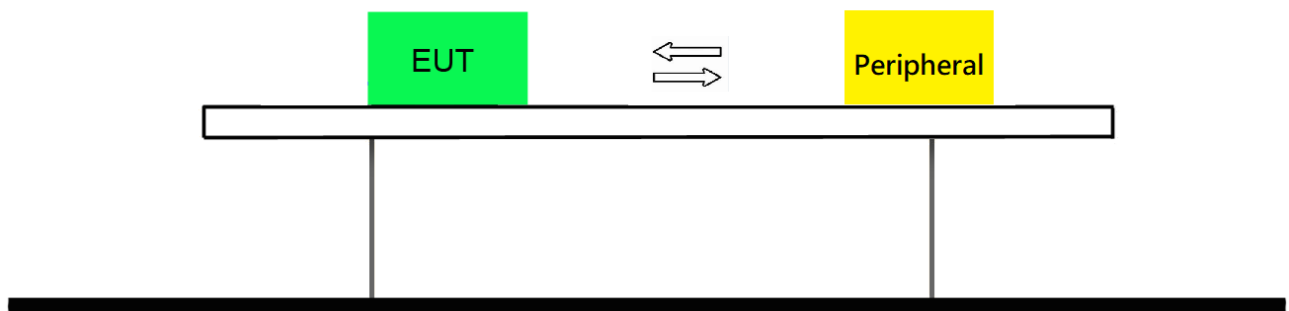
### 6.8.1. Test Requirement

Chiefly, the one automatically to transmit and to receive identification code with the wireless equipment of the wireless station used in the same premises.

### 6.8.2. Test Procedure Used

- (a) Condition of test equipment (EUT): Normal use condition.
- (b) When EUT has a function to automatically transmit an identification code
  - i) Transmit the identification code specified in the Equipment Regulations from the test equipment.
  - ii) Check the identification code sent by the demodulator.
- (c) When the test equipment has a function to automatically receive the identification code
  - i) Transmit the identification code specified in the Equipment Regulations from the counterpart device.
  - ii) Confirm that communication is performed with the EUT using the dedicated jig.
  - iii) Transmit a code different from the identification code specified in the Equipment Regulations from the counterpart device.
  - iv) Confirm that EUT stops transmission or displays that the identification code is different.

### 6.8.3. Test Setup



### 6.8.4. Test Result

When the DUT works on normal operation, we can read the DUT address from Host.

Test Result	Pass
-------------	------

## 7. CONCLUSION

The data collected relate only the item(s) tested and show that the **Rugged Tablet** is in compliance with MIC Notice No.88 Annex 43.

## **Appendix A : Test Photograph**

Refer to “2309TW3803-JT” file.

## **Appendix B : External Photograph**

Refer to “2309TW3803-JE” file.

## **Appendix C : Internal Photograph**

Refer to “2309TW3803-JI” file.

\_\_\_\_\_ The End \_\_\_\_\_