

Radio Test Report

Report No.: RJBKDG-WTW-P21040954

Test Model: MR0090

Received Date: Apr. 26, 2021

Test Date: Apr. 29, 2021

Issued Date: May 25, 2021

Applicant: LOGITECH FAR EAST LTD.

Address: #2 Creation Rd. 4, Science-Based Ind. Park Hsinchu Taiwan, R.O.C.

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

Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan

Test Location: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan



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

Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 Summary of Test Results	5
2.1 Test Instruments	6
2.2 Measurement Uncertainty	7
2.3 Modification Record	7
3 General Information	8
3.1 General Description of EUT	8
3.2 Description of Test Modes	9
3.3 Test Conditions	10
3.4 Assembly	11
3.5 Antenna Specifications	11
3.5.1 Antenna Gain	11
3.5.2 Antenna Pattern	11
4 Test Results	12
4.1 Frequency Tolerance Measurement	12
4.1.1 Limits of Frequency Tolerance Measurement	12
4.1.2 Test Setup	12
4.1.3 Test Results	12
4.2 Occupied Bandwidth Measurement (99% power bandwidth)	13
4.2.1 Limits of Occupied Bandwidth Measurement	13
4.2.2 Test Setup	13
4.2.3 Test Results	13
4.3 Spurious Emissions for Transmitter Measurement	17
4.3.1 Limits of Spurious Emissions	17
4.3.2 Test Setup	17
4.3.3 Test Results	18
4.4 Antenna Power Measurement	29
4.4.1 Limits of Antenna Power	29
4.4.2 Test Setup	29
4.4.3 Test Results	30
4.5 Spurious Emissions for Receiver	31
4.5.1 Limits of Spurious Emissions for Receiver	31
4.5.2 Test Setup	31
4.5.3 Test Result	32
4.6 Interference Prevention Function	36
4.6.1 Limits of Interference Prevention Function	36
4.6.2 Test Setup	36
4.6.3 Test Results	36
5 Photographs of the Test Configuration	37
Appendix - Information of the Testing Laboratories	38

Release Control Record

Issue No.	Description	Date Issued
RJBDBG-WTW-P21040954	Original release.	May 25, 2021

1 Certificate of Conformity

Product: Wireless Mouse

Brand: Logicool

Test Model: MR0090

Sample Status: Engineering sample

Applicant: LOGITECH FAR EAST LTD.

Test Date: Apr. 29, 2021

Standards: ARIB STD-T66 (V3.7), MIC notice 88 Appendix 43
Certification Ordinance Article 2-1-19

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : Vivian Huang , **Date:** May 25, 2021
Vivian Huang / Specialist

Approved by : Clark Lin , **Date:** May 25, 2021
Clark Lin / Technical Manager

2 Summary of Test Results

The EUT has been tested according to the following specifications:

Notice 88 Appendix 43 Reference	ARIB STD- T66 Ref.	Report Reference	Parameter	Test Results (Note)
General Provisions				
C	3.2 (4)	4.1	Frequency tolerance	C
D	3.2 (7)	4.2	Occupied bandwidth	C
E	3.2 (6)	4.3	Spurious emissions	C
Transmitting Equipment				
F	--	4.4	Antenna power	C
--	--	--	SAR	NA
Transmitting Antenna				
--	--	3.5	Type, configuration, etc. of transmitting antenna	C
--	--	3.5	Direction pattern of transmitting antenna	C
Receiving Equipment				
G	3.3 (1)	4.5	Spurious emissions of receiver	C
--	--	3.5	Refer to all articles for transmitting antenna	C
Operating Frequency 2400 to 2483.5MHz				
--	3.7-1	3.4	High frequency / modulation section cannot be opened easily	C
--	3.1 (1)	3.1	Communication method	C
--	3.2 (1)a	3.1	Modulation method	C
--	3.2 (1)a	3.1	Spread spectrum method	C
--	3.2 (2)	4.4	Antenna power	C
--	3.6 (2)	4.4	Absolute gain of transmitting antenna	C
--	3.6 (2)	--	Angular width of principal radiation (AWPR)	NA
--	3.2 (10)	--	Number of carriers within 1 MHz bandwidth in OFDM	NA
--	3.2 (8)	--	Spreading bandwidth	NA
--	3.2 (9)	--	Spreading factor	NA
--	3.2 (11)	--	Frequency retention time (FH employed)	NA
--	3.4.1 (1)	4.6	Interference Prevention Function	C
--	3.4.1 (3)	--	Carrier Sense Capability	NA
Note: 1. C = Conform NC = Not Conform NT = Not Tested NA = Not Applicable 2. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.				

2.1 Test Instruments

Description & Manufacturer	Model no.	Serial No.	Calibrated Date	Calibrated Until	Calibration Authority	Calibration Method
Spectrum Analyzer R&S	FSV40	100964	May 29, 2020	May 28, 2021	ETC	(c)
ESG Vector signal generator Agilent	E4438C	MY45094468	Nov. 18, 2020	Nov. 17, 2021	ETC	(c)
Power Meter Anritsu	ML2495A	1529002	July 22, 2020	July 21, 2021	ETC	(c)
Power Sensor Anritsu	MA2411B	1339443	July 22, 2020	July 21, 2021	ETC	(c)
DC Power Supply Topward	6603D	795558	NA	NA	NA	NA
AC Power Source Extech Electronics	6905S	1991551	NA	NA	NA	NA
True RMS Clamp Meter FLUKE	325	31130711WS	June 06, 2020	June 05, 2021	ETC	(c)

- Note:**
- The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 - Calibration method :
 - Calibration conducted by the National Institute of Information and Communications Technology (NICT) or a designated calibration agency under Article 102-18 paragraph (1).
 - Calibration conducted pursuant to the provisions of Article 135 or Article 144 of the Measurement Law (Law No. 51 of 1992) Japan Calibration Service System.
 - 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 other equipment that listed above from a) to c).
 - The power supply no evaluation calibrated, which used the digital multimeter to verify.
 - Tested Date: Apr. 29, 2021

2.2 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in TR 100 028-1.

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Parameter	Uncertainty
Occupied Bandwidth	± 790 Hz
Spurious emissions	± 2.5 dB
Output power density	± 1.2 dB
Out of band radiated power	± 2.5 dB
Frequency Tolerance	± 790 Hz

2.3 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Wireless Mouse
Brand	Logicool
Test Model	MR0090
Status of EUT	Engineering sample
Nominal Voltage	3.7Vdc from battery or 5Vdc from USB interface
Modulation Type	GFSK
Modulation Technology	DTS
Transfer Rate	Up to 2Mbps
Operating Frequency	2.403 ~ 2.479GHz
Number of Channel	77
Rated RF Output Power	5 mW
Conducted RF Output Power	4.943 mW
Radiated RF Output Power	7.834 mW
Antenna Type	Refer to section 3.5
Antenna Connector	Refer to section 3.5
Accessory Device	NA
Cable Supplied	USB cable (Shielded, 1.8m with one core)

Note:

1. The EUT may have a lot of colors for marketing requirement.
2. The EUT could be supplied with one rechargeable battery as the following table:

Item	Brand	Model No.	Spec.
1	SYNERGY	533-000194	3.7V, 500mAh
2	Highpower	533-000195	3.7V, 500mAh

Note: For the input voltage of EUT, the worse case was found at the voltage 3.7Vdc condition. Therefore only the test data of the mode was recorded in this report individually.

3. The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

77 channels are provided to this EUT:

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

Note:

1. The channels which were indicated in bold type of the above channel list were selected as representative test channel. Therefore only the data of the test channels were recorded in this report.

By means of test software (RF Sample with Receiver [Number Lock]) provided by manufacturer, the power levels during the tests were set according to the following codes:

Channel	Power Setting
1	Default
40	Default
77	Default

Test Item	Operation Discussion
Frequency Tolerance Measurement	◆ 1.1 LS2 TX Unmodulated 2403MHz 1.2 LS2 TX Unmodulated 2442MHz 1.3 LS2 TX Unmodulated 2479MHz
Occupied Bandwidth Measurement /Spurious Emissions for Transmitter Measurement / Antenna Power Measurement / Spurious Emissions for Receiver	◆ 1.4 LS2 TX Modulated 2403MHz 1.5 LS2 TX Modulated 2442MHz 1.6 LS2 TX Modulated 2479MHz 1.10 LS2 RX 2403MHz 1.11 LS2 RX 2442MHz 1.12 LS2 RX 2479MHz
Interference Prevention Function	Operation in Normal mode.

3.3 Test Conditions

Test Conditions		Voltage (Vdc)
V_{normal}		3.7
$V_{max.}$	+10%	4.07
$V_{min.}$	-10%	3.5

3.4 Assembly

The EUT is constructed as a Wireless Mouse. The housing consists of two parts, and sealed firmly, separating the two parts was only possible by means of brute force.

3.5 Antenna Specifications

3.5.1 Antenna Gain

Antenna Gain(dBi)	Frequency range (GHz)	Antenna Type	Connector Type
2	2.4 - 2.4835	PIFA	None

The above EUT information is declared by manufacturer and for more detailed features description, please refers to the manufacturer's specifications or user's manual.

3.5.2 Antenna Pattern

Please refer to the attached file (Antenna pattern).

4 Test Results

4.1 Frequency Tolerance Measurement

4.1.1 Limits of Frequency Tolerance Measurement

Tolerance of frequency shall be +/- 50ppm

4.1.2 Test Setup



4.1.3 Test Results

Environmental Conditions		25 deg.C, 60% RH					
Channel	Frequency (MHz)	V _{normal}		V _{max.}		V _{min.}	
		Carrier frequency (MHz)	Frequency tolerance (ppm)	Carrier frequency (MHz)	Frequency tolerance (ppm)	Carrier frequency (MHz)	Frequency tolerance (ppm)
1	2403	2402.999000	-0.416	2402.999000	-0.416	2402.999000	-0.416
40	2442	2441.998680	-0.540	2441.998640	-0.556	2441.998680	-0.540
77	2479	2478.998560	-0.580	2478.998600	-0.564	2478.998600	-0.564

4.2 Occupied Bandwidth Measurement (99% power bandwidth)

4.2.1 Limits of Occupied Bandwidth Measurement

Item	Limit
Occupied bandwidth	<26MHz

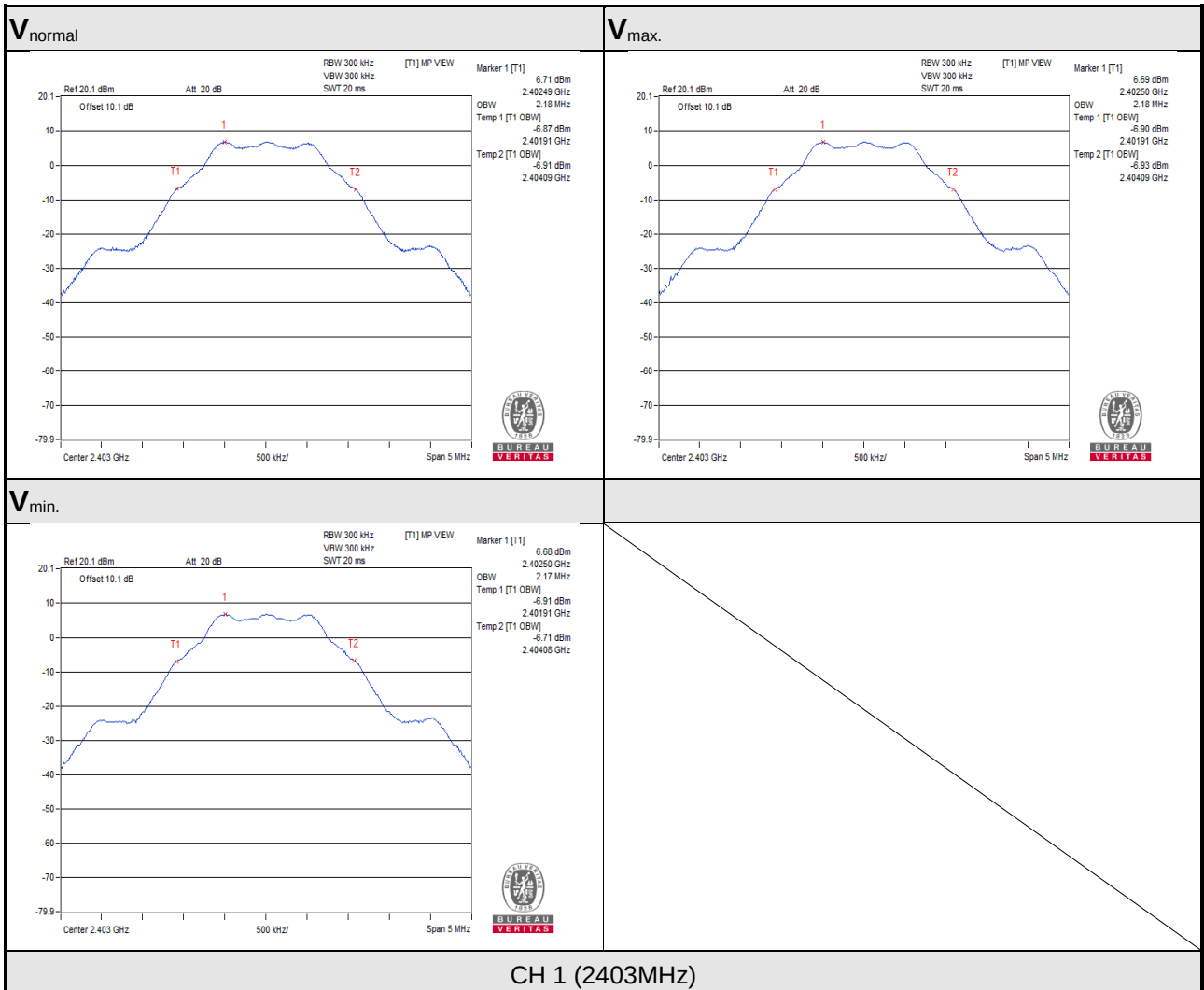
4.2.2 Test Setup



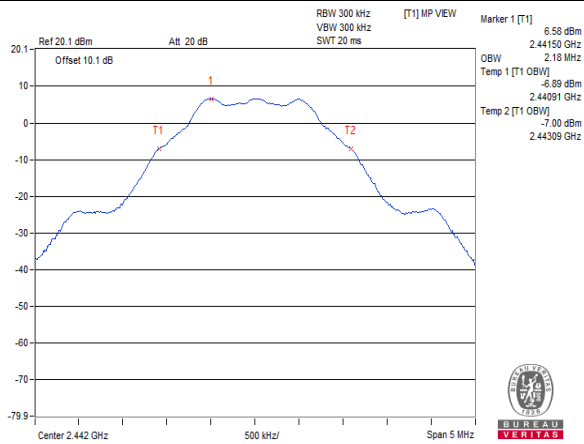
4.2.3 Test Results

Environmental Conditions		25 deg.C, 60% RH		
Channel	Frequency (MHz)	V _{normal}	V _{max.}	V _{min.}
		Occupied Bandwidth (MHz)	Occupied Bandwidth (MHz)	Occupied Bandwidth (MHz)
1	2403	2.18	2.18	2.17
40	2442	2.18	2.18	2.18
77	2479	2.18	2.18	2.18

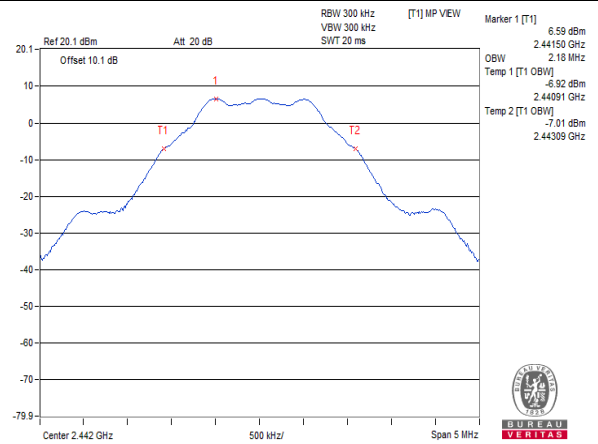
Note: 1. For the test plots please refer to the below pages.



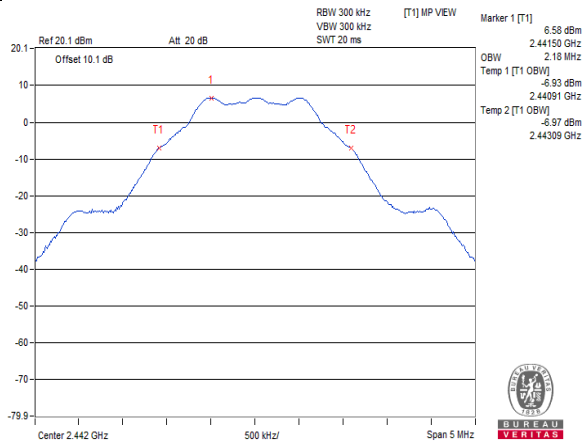
V_{normal}



V_{max}

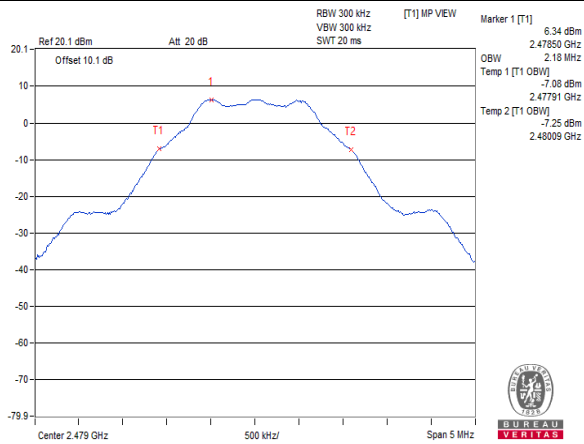


V_{min}

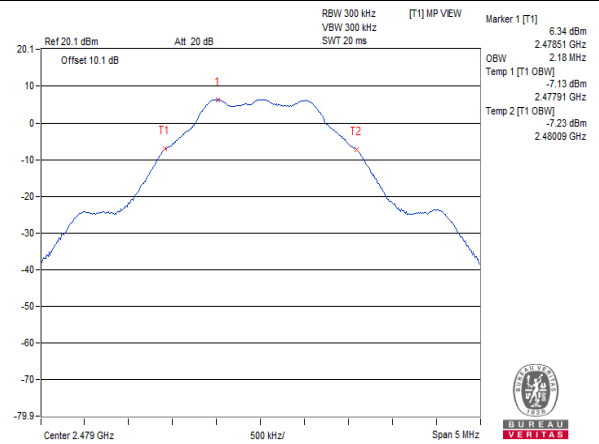


CH 40 (2442MHz)

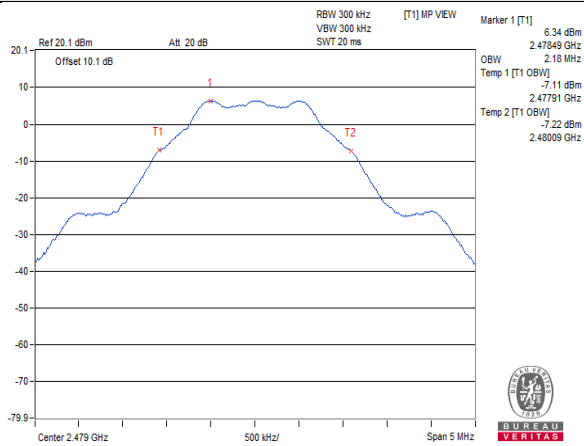
V_{normal}



V_{max}



V_{min}



CH 77 (2479MHz)

4.3 Spurious Emissions for Transmitter Measurement

4.3.1 Limits of Spurious Emissions

Frequencies (MHz)	Limit
Operating frequency 2400 to 2483.5MHz	
30.0MHz to 1000.0MHz	$\leq 0.25 \mu\text{W}/100\text{kHz}$
1000.0MHz to 2387MHz	$\leq 2.5 \mu\text{W}/\text{MHz}$
2387.0MHz to 2400.0MHz	$\leq 25 \mu\text{W}/\text{MHz}$
2483.5MHz to 2496.5MHz	$\leq 25 \mu\text{W}/\text{MHz}$
2496.5MHz to 12500.0MHz	$\leq 2.5 \mu\text{W}/\text{MHz}$

4.3.2 Test Setup



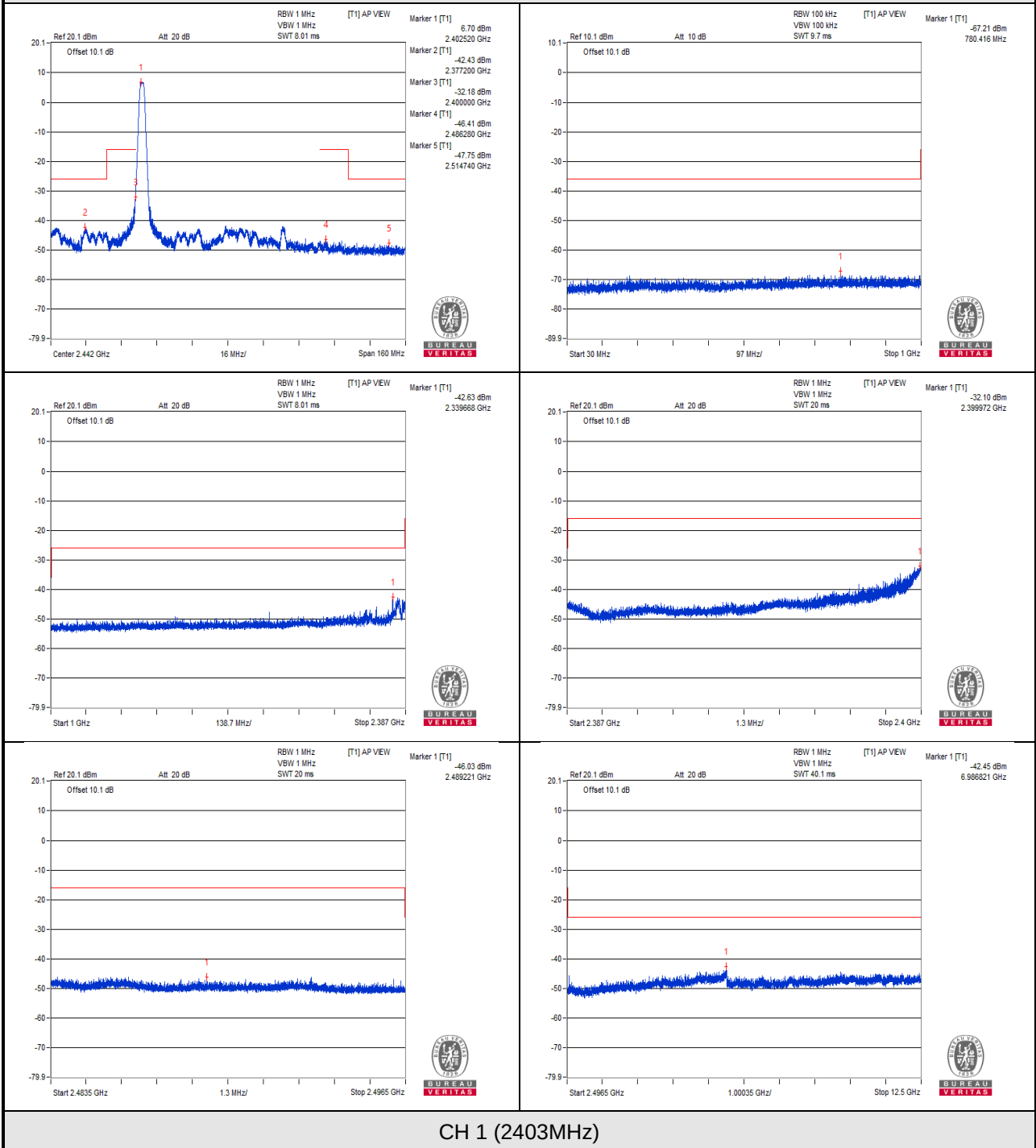
4.3.3 Test Results

TEST CHANNEL		CH 1 (2403MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASURE. VALUE(uW)	LIMIT (uW)	RESULT
V_{normal}	30MHz to 1000MHz	780.416	0.000190	0.25	PASS
	1000MHz to 2387MHz	2339.668	0.054576	2.5	PASS
	2387MHz to 2400MHz	2399.972	0.616595	25	PASS
	2483.5MHz to 2496.5MHz	2489.221	0.024946	25	PASS
	2496.5MHz to 12500MHz	6986.821	0.056885	2.5	PASS
V_{max.}	30MHz to 1000MHz	191.990	0.000166	0.25	PASS
	1000MHz to 2387MHz	2364.808	0.055847	2.5	PASS
	2387MHz to 2400MHz	2399.961	0.668344	25	PASS
	2483.5MHz to 2496.5MHz	2484.208	0.024831	25	PASS
	2496.5MHz to 12500MHz	6984.320	0.050816	2.5	PASS
V_{min.}	30MHz to 1000MHz	882.630	0.000207	0.25	PASS
	1000MHz to 2387MHz	2358.046	0.053333	2.5	PASS
	2387MHz to 2400MHz	2399.910	0.717794	25	PASS
	2483.5MHz to 2496.5MHz	2483.963	0.025586	25	PASS
	2496.5MHz to 12500MHz	6629.195	0.043652	2.5	PASS
TEST CHANNEL		CH 40 (2442MHz)			
V_{normal}	30MHz to 1000MHz	699.178	0.000151	0.25	PASS
	1000MHz to 2387MHz	2378.504	0.049091	2.5	PASS
	2387MHz to 2400MHz	2396.876	0.063533	25	PASS
	2483.5MHz to 2496.5MHz	2486.525	0.066834	25	PASS
	2496.5MHz to 12500MHz	6824.264	0.042462	2.5	PASS
V_{max.}	30MHz to 1000MHz	881.538	0.000171	0.25	PASS
	1000MHz to 2387MHz	2378.851	0.047753	2.5	PASS
	2387MHz to 2400MHz	2397.300	0.069024	25	PASS
	2483.5MHz to 2496.5MHz	2486.641	0.063826	25	PASS
	2496.5MHz to 12500MHz	6930.551	0.047315	2.5	PASS
V_{min.}	30MHz to 1000MHz	967.020	0.000148	0.25	PASS
	1000MHz to 2387MHz	2378.157	0.043351	2.5	PASS
	2387MHz to 2400MHz	2397.162	0.065013	25	PASS
	2483.5MHz to 2496.5MHz	2487.141	0.066222	25	PASS
	2496.5MHz to 12500MHz	6391.612	0.047098	2.5	PASS

TEST CHANNEL		CH 77 (2479MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASURE. VALUE(μ W)	LIMIT (μ W)	RESULT
V_{normal}	30MHz to 1000MHz	870.262	0.000162	0.25	PASS
	1000MHz to 2387MHz	2313.142	0.027606	2.5	PASS
	2387MHz to 2400MHz	2392.084	0.025235	25	PASS
	2483.5MHz to 2496.5MHz	2483.631	0.180302	25	PASS
	2496.5MHz to 12500MHz	6998.075	0.061944	2.5	PASS
V_{max.}	30MHz to 1000MHz	191.990	0.000187	0.25	PASS
	1000MHz to 2387MHz	2273.092	0.025763	2.5	PASS
	2387MHz to 2400MHz	2398.865	0.024774	25	PASS
	2483.5MHz to 2496.5MHz	2483.904	0.143549	25	PASS
	2496.5MHz to 12500MHz	6981.819	0.045709	2.5	PASS
V_{min.}	30MHz to 1000MHz	915.246	0.000150	0.25	PASS
	1000MHz to 2387MHz	2351.284	0.028184	2.5	PASS
	2387MHz to 2400MHz	2398.050	0.027102	25	PASS
	2483.5MHz to 2496.5MHz	2483.566	0.161065	25	PASS
	2496.5MHz to 12500MHz	6854.274	0.043251	2.5	PASS

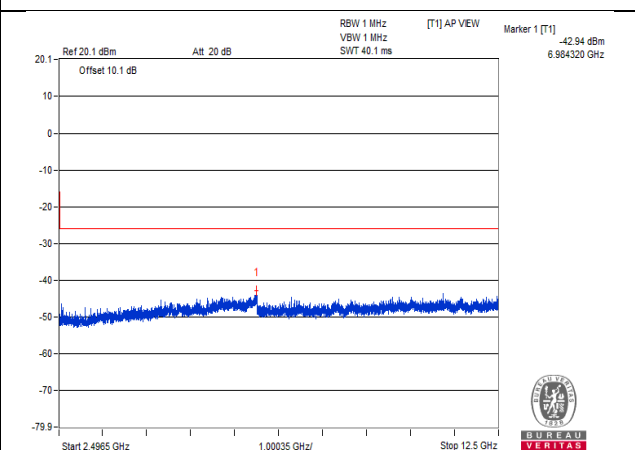
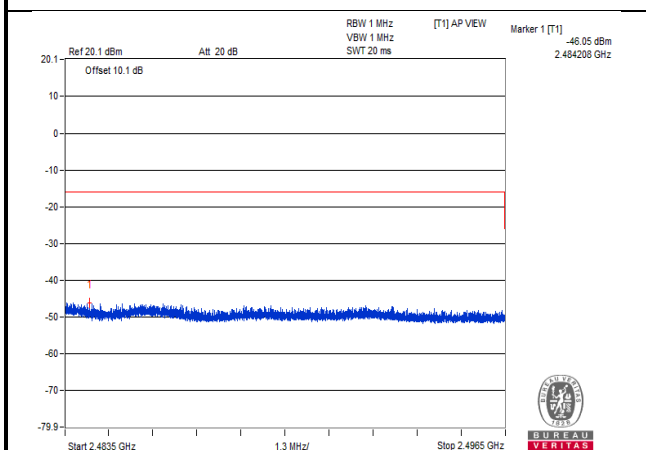
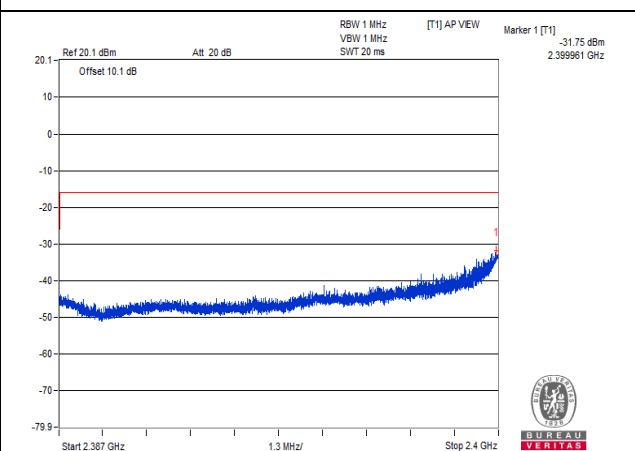
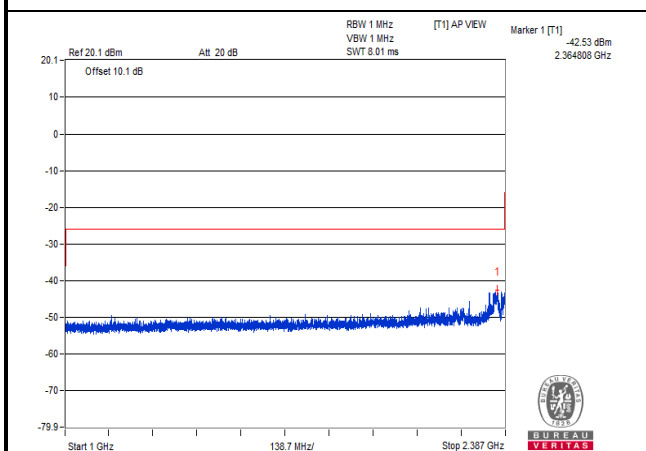
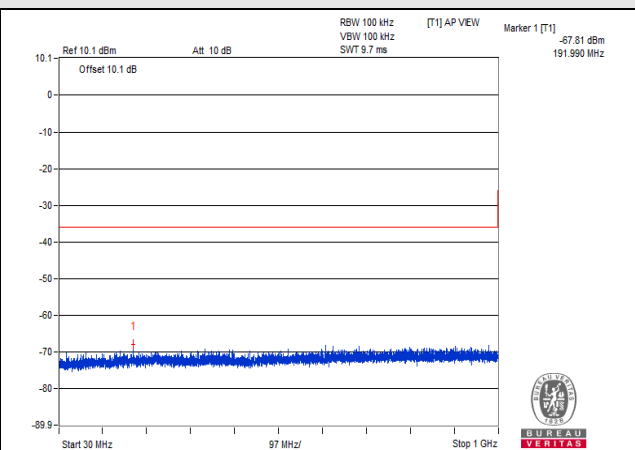
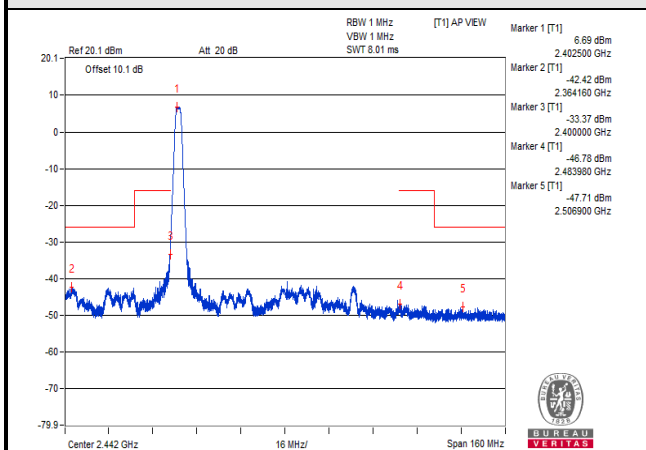
NOTE: 1. The spectrum plots are attached on the following pages.

V normal



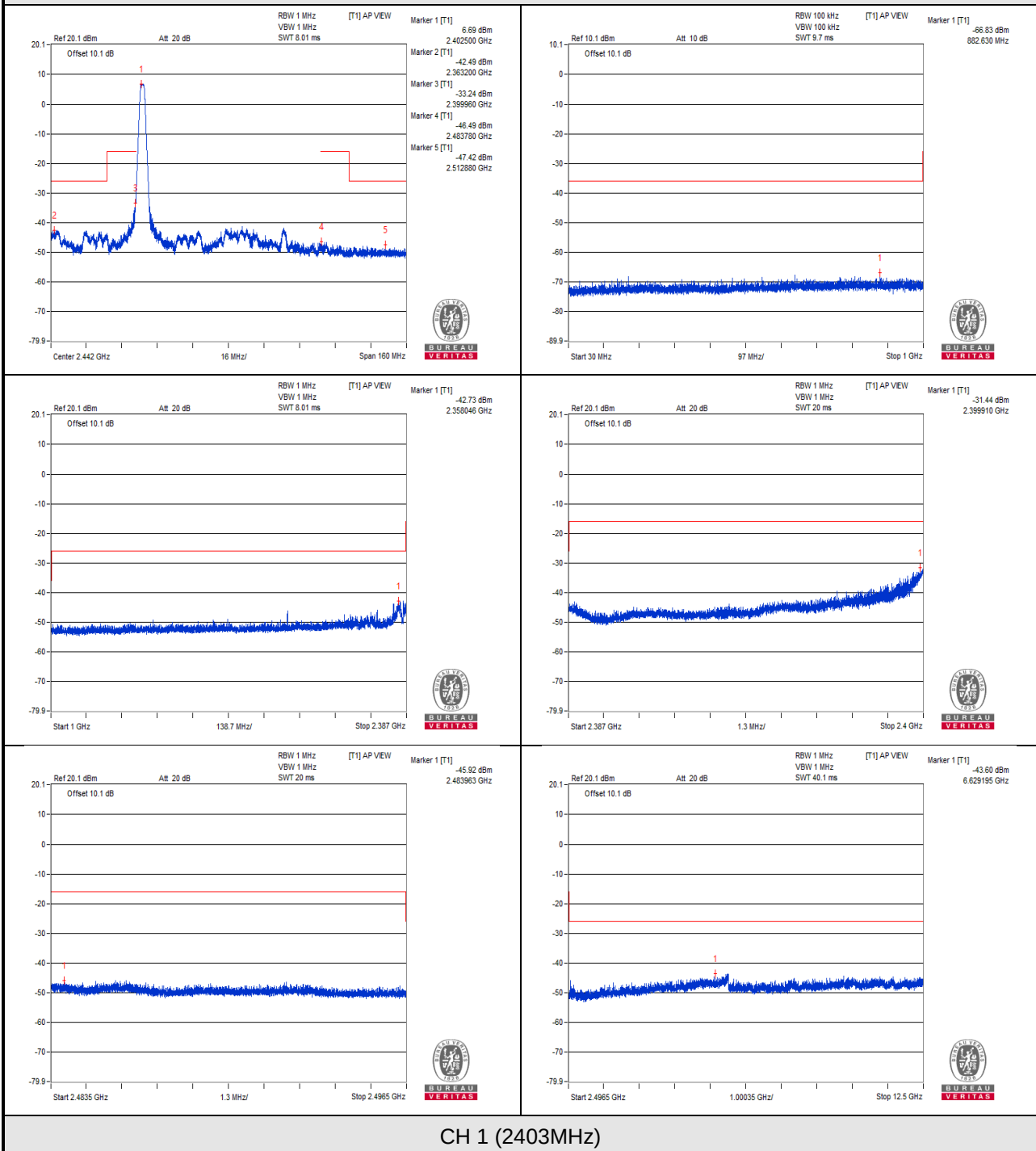
CH 1 (2403MHz)

V max.

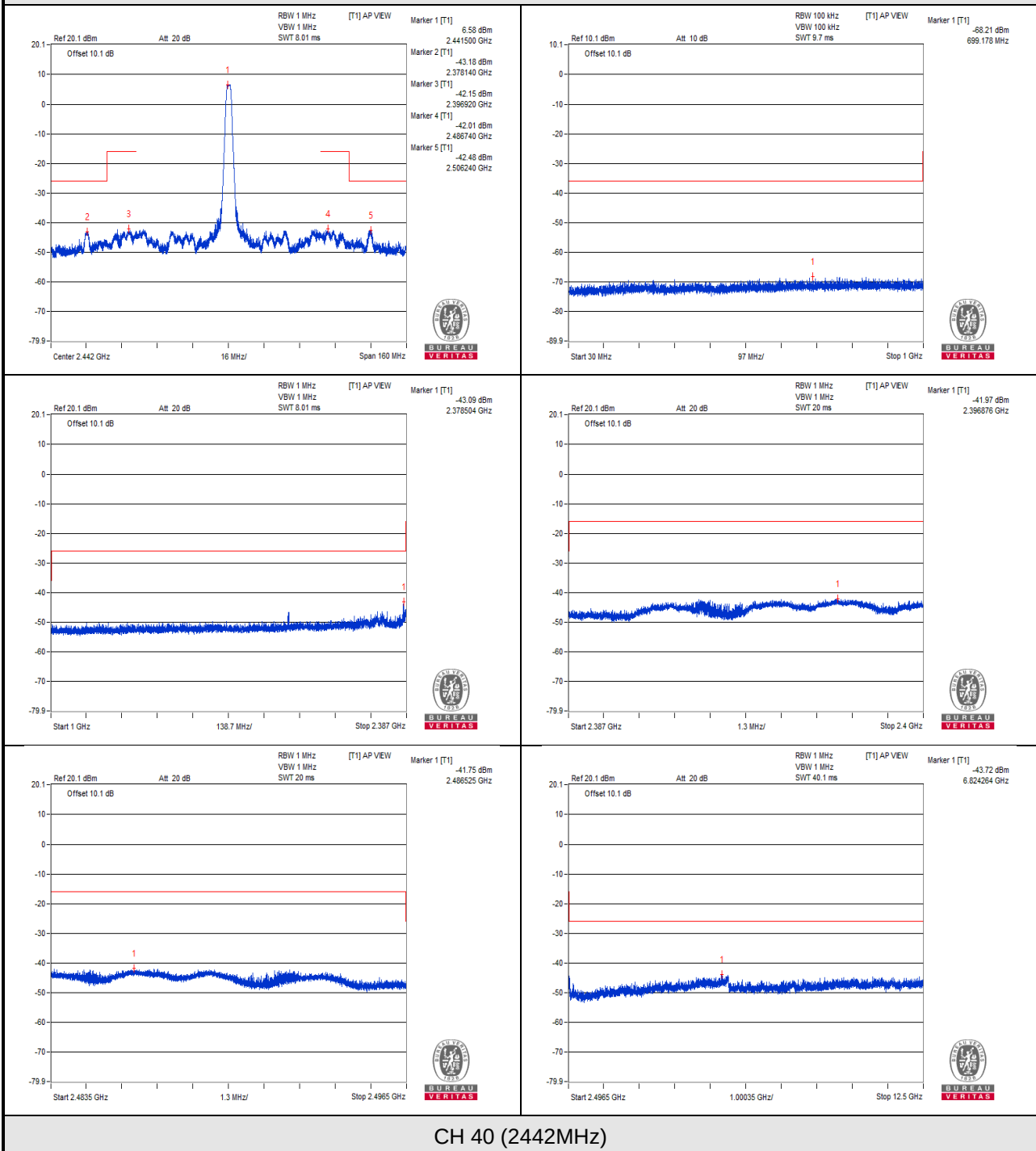


CH 1 (2403MHz)

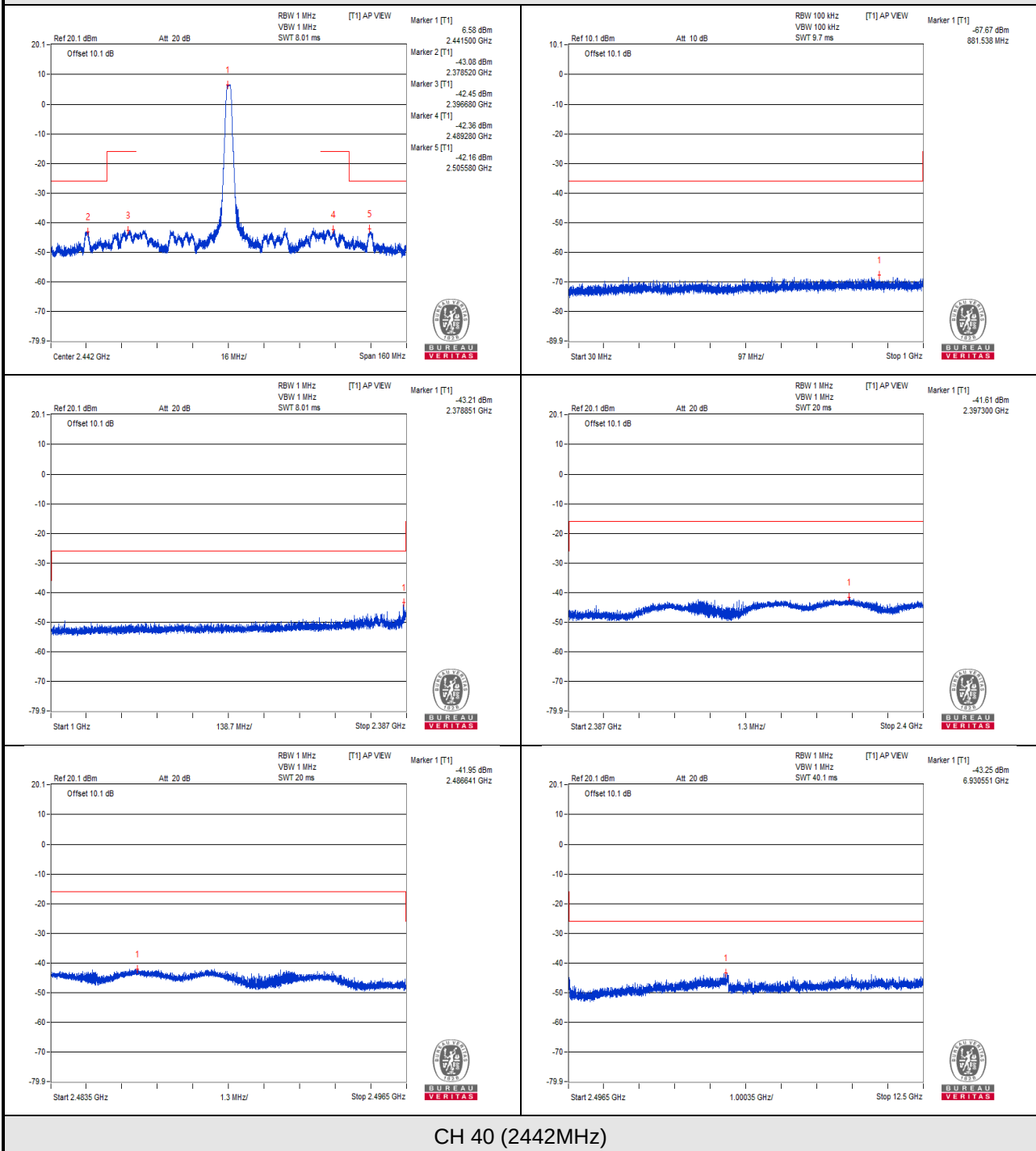
V_{min}.



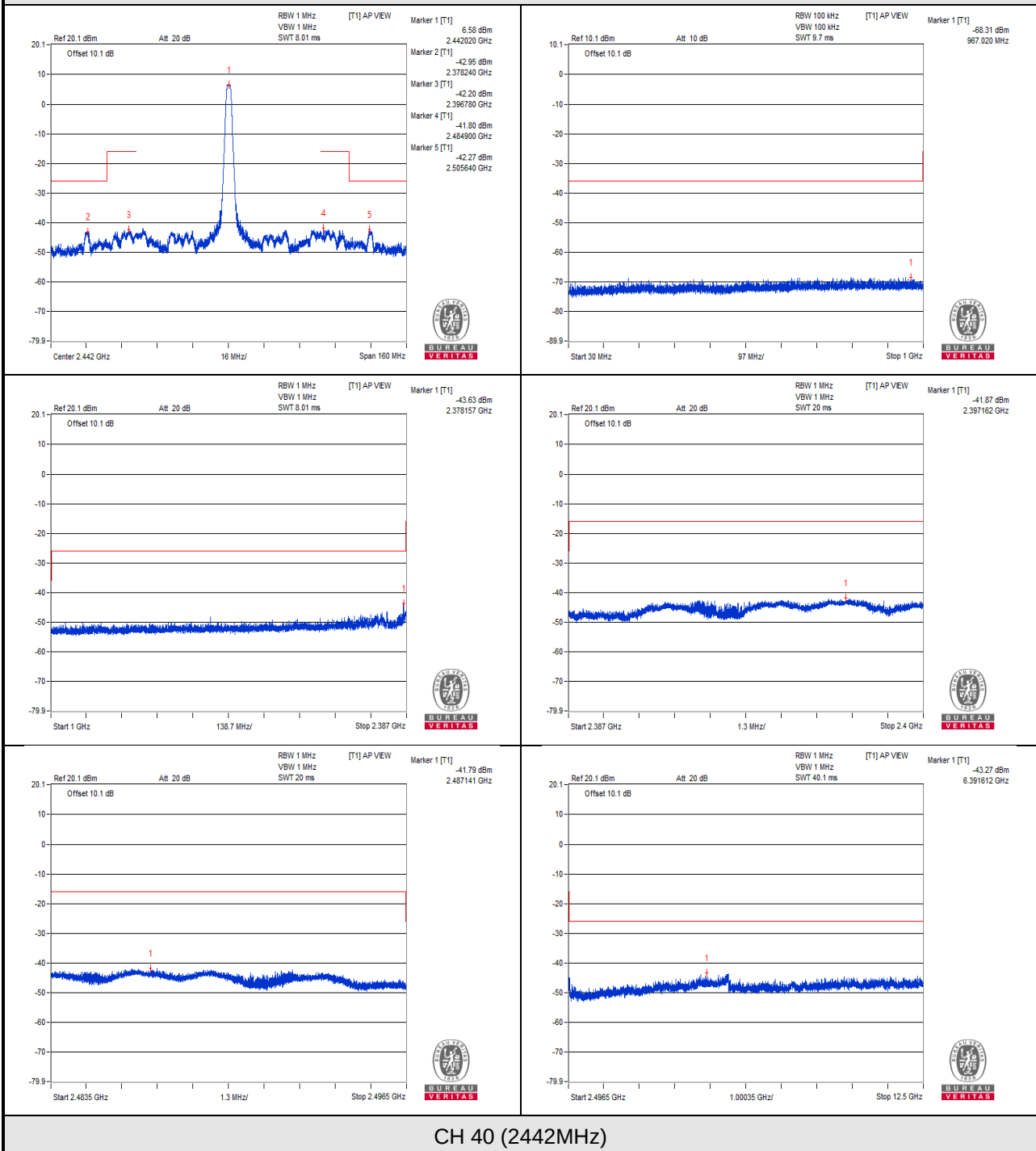
Vnormal



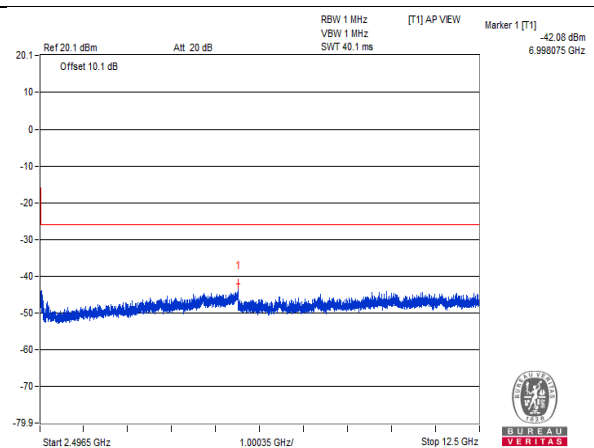
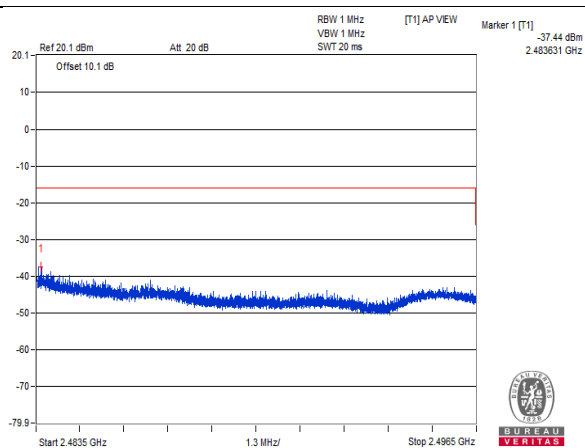
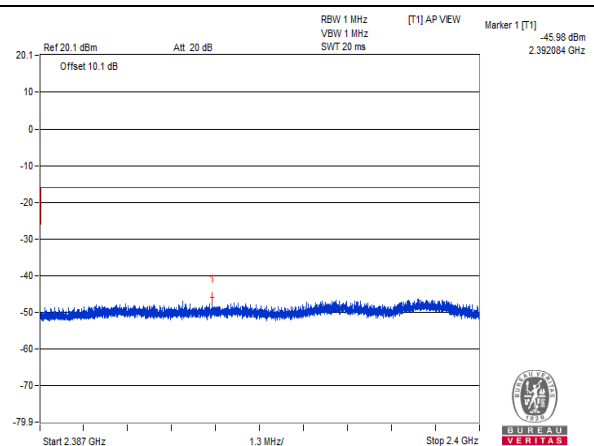
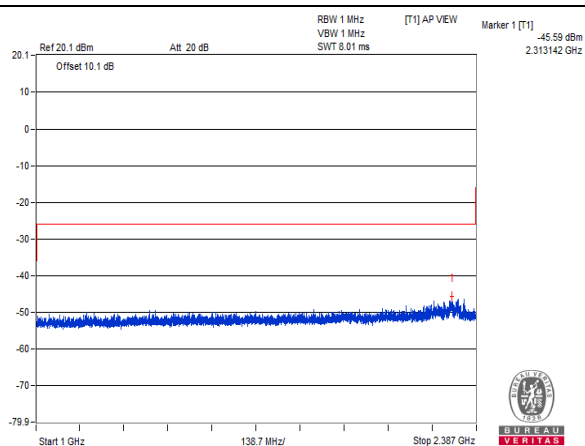
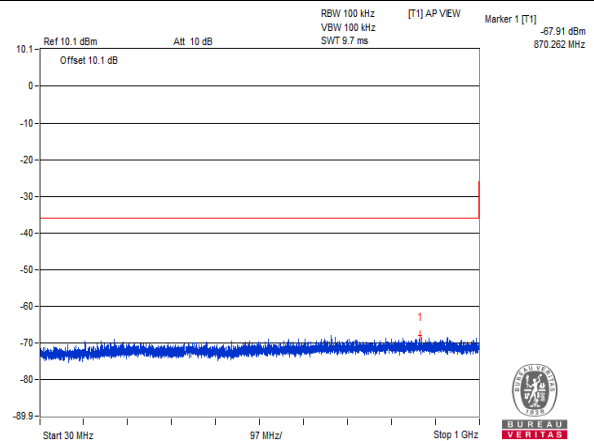
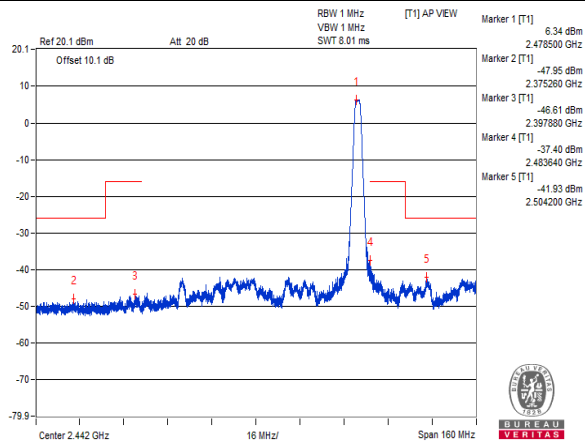
V max.



V min.



Vnormal



CH 77 (2479MHz)

V max.



V min.



4.4 Antenna Power Measurement

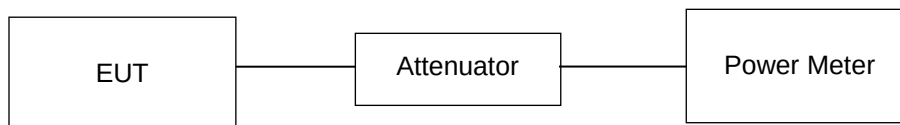
4.4.1 Limits of Antenna Power

Modulation System	Frequency Band Used	Antenna Power (Max.)	EIRP Limit (Note 3)
DS	2400 – 2483.5 MHz	10mW/MHz	12.14 dBm/MHz ~ 22.14 dBm/MHz (16.368 mW/MHz ~ 163.68 mW/MHz)
OFDM (Note 1)	2400 – 2483.5 MHz	10mW/MHz	12.14 dBm/MHz ~ 22.14 dBm/MHz (16.368 mW/MHz ~ 163.68 mW/MHz)
OFDM (Note 2)	2400 – 2483.5 MHz	5mW/MHz	9.13 dBm/MHz ~ 19.13 dBm/MHz (8.184 mW/MHz ~ 81.84 mW/MHz)
Other than the above	2400 – 2483.5 MHz	10 mW	12.14 dBm/MHz ~ 22.14 dBm/MHz (16.368 mW/MHz ~ 163.68 mW/MHz)

Note:

1. Occupied bandwidth is less than 26MHz
2. Occupied bandwidth is more than 26MHz and less than 38MHz
3. The half-power beam width for directional antenna shall be $360/A$ degrees or less, where A is a ratio which causes the EIRP concerned to exceed the omnidirectional EIRP upper limit.
4. Tolerance of antenna power shall be +20% (upper value) and -80% (lower value).

4.4.2 Test Setup



4.4.3 Test Results

Voltage (Vdc)	Channel Number	Frequency (MHz)	Conducted RF Output Power (mW)	Radiated RF Output Power (mW)
3.7	1	2403	4.943	7.834
	40	2442	4.831	7.657
	77	2479	4.581	7.26
4.07	1	2403	4.887	7.745
	40	2442	4.732	7.5
	77	2479	4.416	6.999
3.5	1	2403	4.831	7.657
	40	2442	4.732	7.5
	77	2479	4.406	6.983
Max. Limit (mW):			10	-
Rated Power (mW):			5	-
Tolerance of Antenna Power (mW):			1 ~ 6	-
Max. EIRP Limit (mW):			-	16.368

Note: 1. Antenna gain is 2 dBi.

2. The radiated RF output power density is a "calculated" value derived from the conducted value.

3. Formula: Radiated RF output power = Conducted RF output power + Antenna gain

4.5 Spurious Emissions for Receiver

4.5.1 Limits of Spurious Emissions for Receiver

Frequencies (MHz)	Limit
Below 1GHz	$\leq 4\text{nW}/100\text{kHz}$ (-54dBm)
Above 1GHz	$\leq 20\text{nW}/\text{MHz}$ (-47dBm)

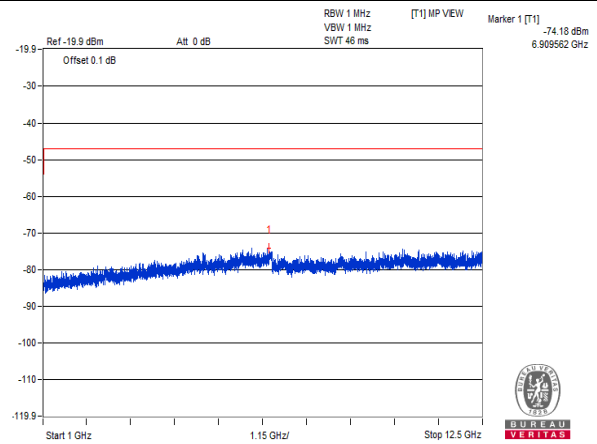
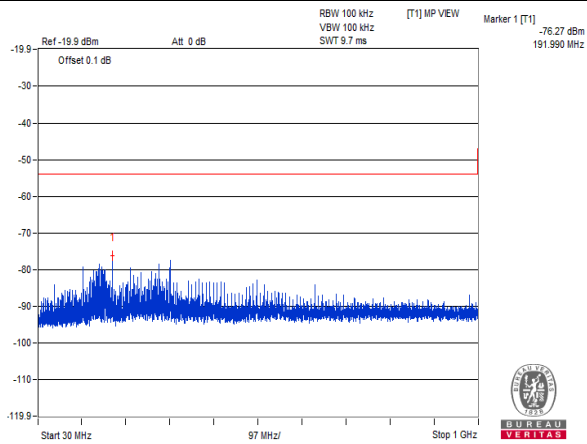
4.5.2 Test Setup



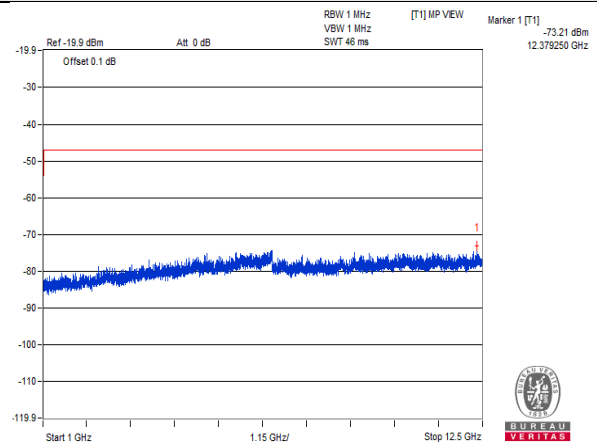
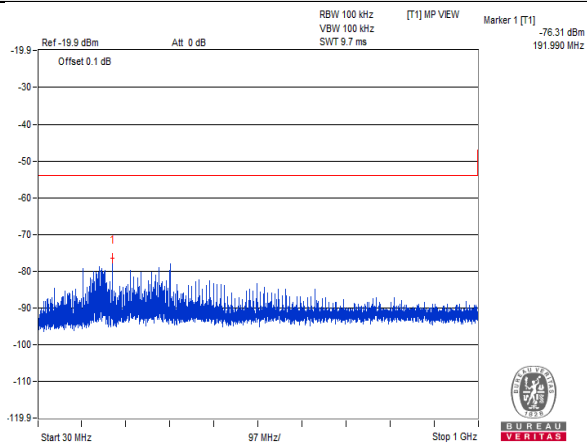
4.5.3 Test Result

TEST CHANNEL		CH 1 (2403MHz)			
TEST CONDITION	FREQUENCY RANGE(MHz)	FREQUENCY (MHz)	MEASURE. VALUE(nW)	LIMIT (nW)	RESULT
V_{normal}	30MHz to 1000MHz	191.990	0.023605	4.0	PASS
	1000MHz to 12500MHz	6909.562	0.038194	20.0	PASS
V_{max.}	30MHz to 1000MHz	191.990	0.023388	4.0	PASS
	1000MHz to 12500MHz	12379.250	0.047753	20.0	PASS
V_{min.}	30MHz to 1000MHz	191.990	0.024266	4.0	PASS
	1000MHz to 12500MHz	6936.875	0.046559	20.0	PASS
TEST CHANNEL		CH 40 (2442MHz)			
V_{normal}	30MHz to 1000MHz	191.990	0.024660	4.0	PASS
	1000MHz to 12500MHz	6978.562	0.041115	20.0	PASS
V_{max.}	30MHz to 1000MHz	191.990	0.023550	4.0	PASS
	1000MHz to 12500MHz	6959.875	0.043152	20.0	PASS
V_{min.}	30MHz to 1000MHz	191.990	0.024604	4.0	PASS
	1000MHz to 12500MHz	6347.500	0.044978	20.0	PASS
TEST CHANNEL		CH 77 (2479MHz)			
V_{normal}	30MHz to 1000MHz	191.990	0.022439	4.0	PASS
	1000MHz to 12500MHz	6212.375	0.045082	20.0	PASS
V_{max.}	30MHz to 1000MHz	191.990	0.024434	4.0	PASS
	1000MHz to 12500MHz	5910.500	0.040832	20.0	PASS
V_{min.}	30MHz to 1000MHz	191.990	0.023659	4.0	PASS
	1000MHz to 12500MHz	12459.750	0.040644	20.0	PASS

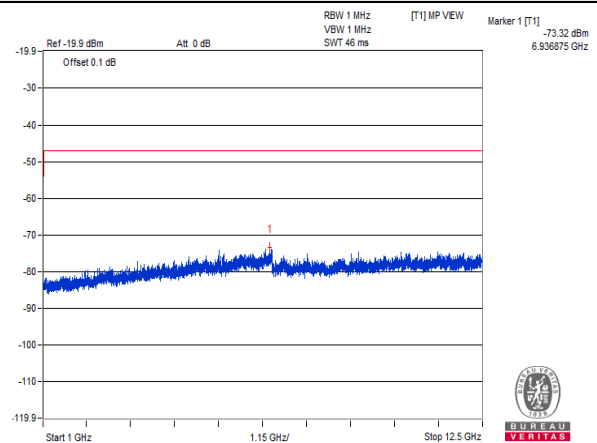
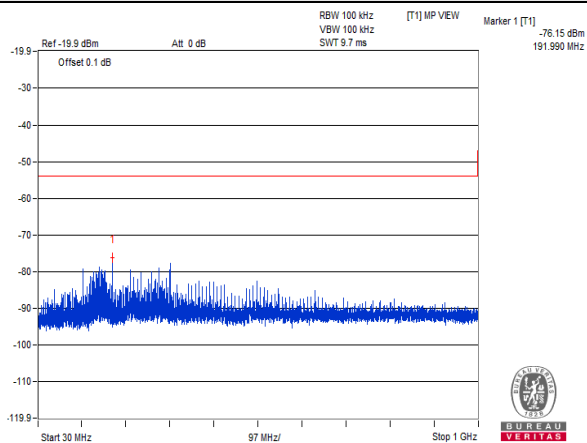
V_{normal}



V_{max}

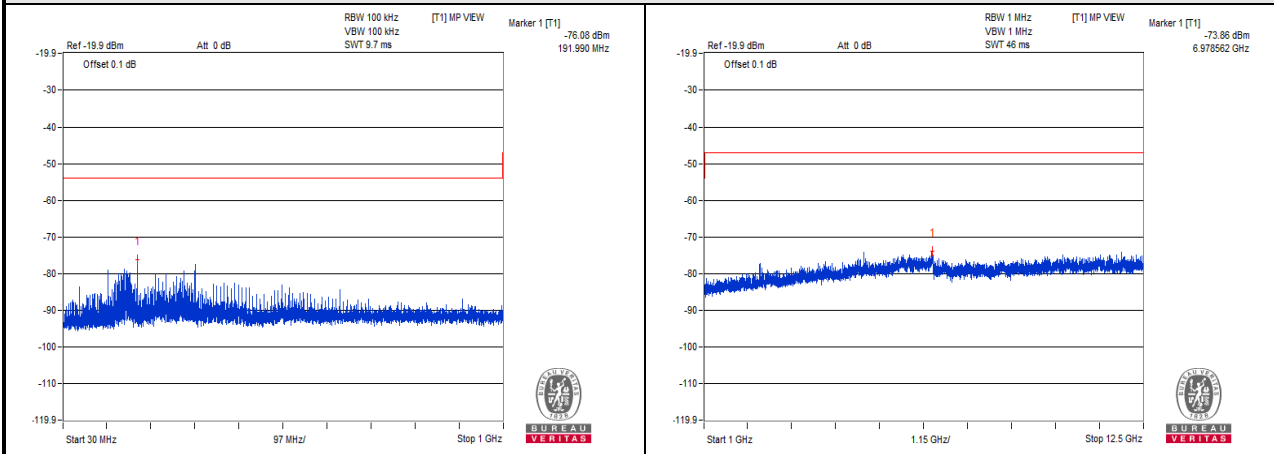


V_{min}

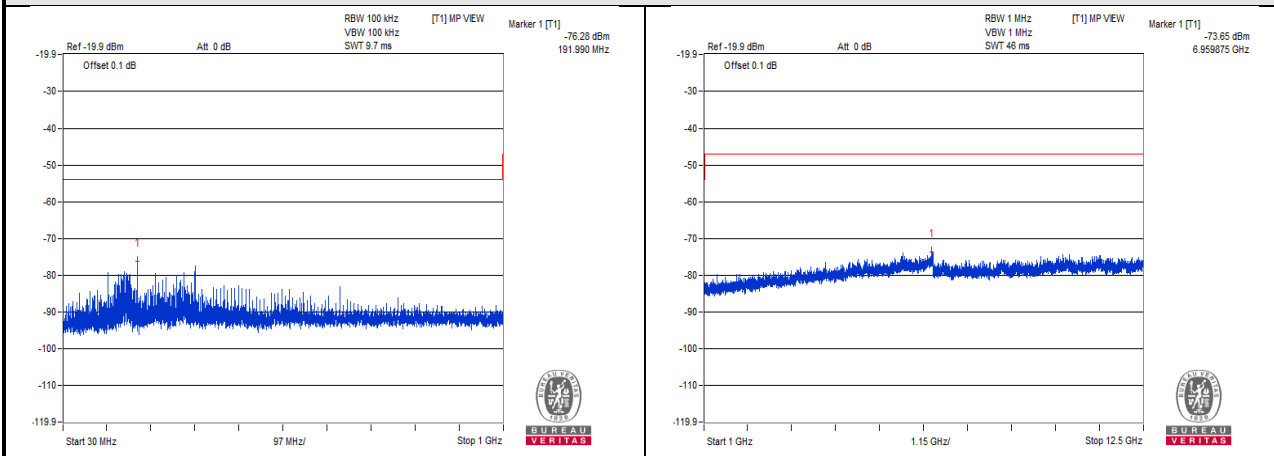


CH 1 (2403MHz)

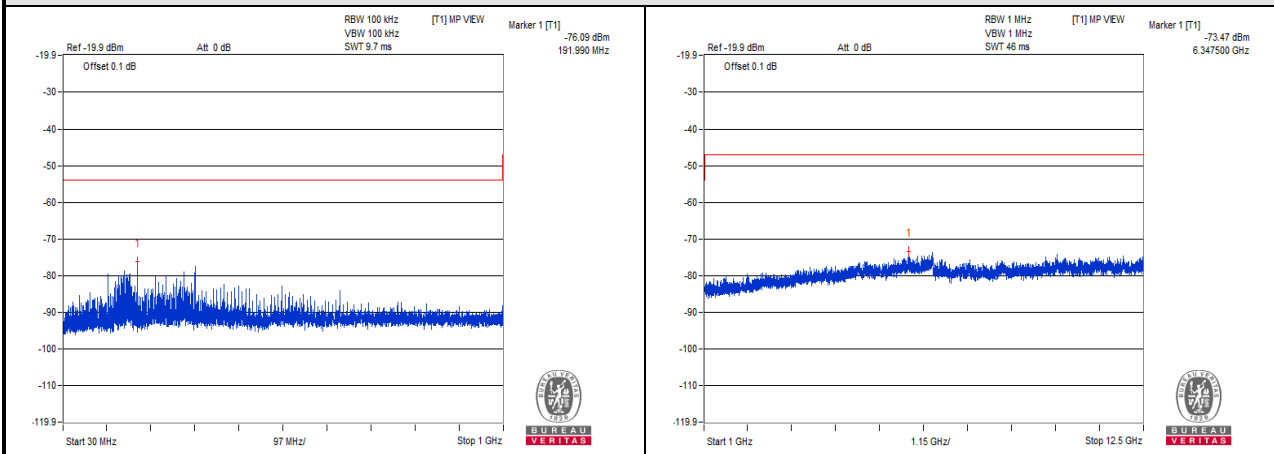
V_{normal}



V_{max}

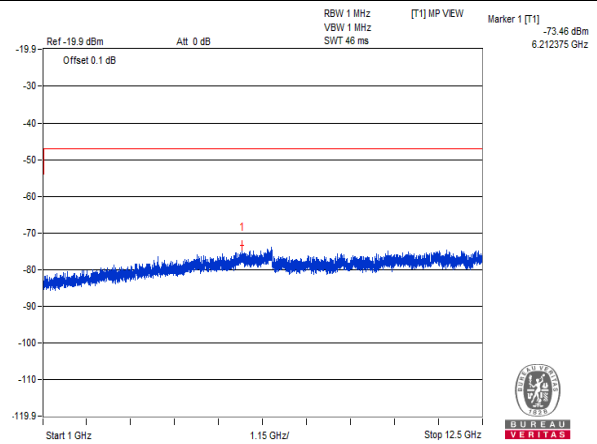
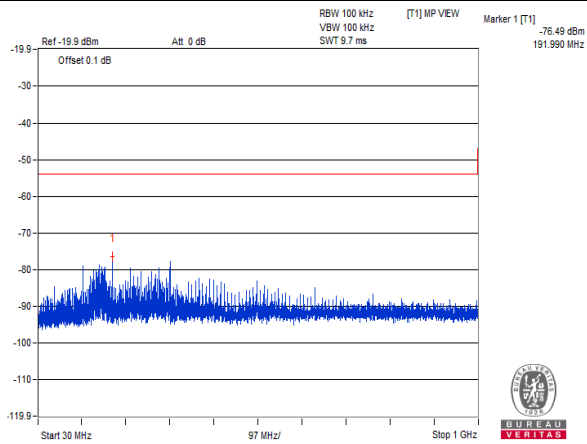


V_{min}

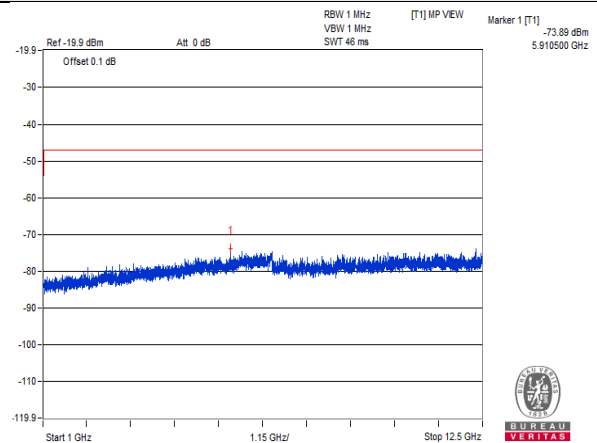
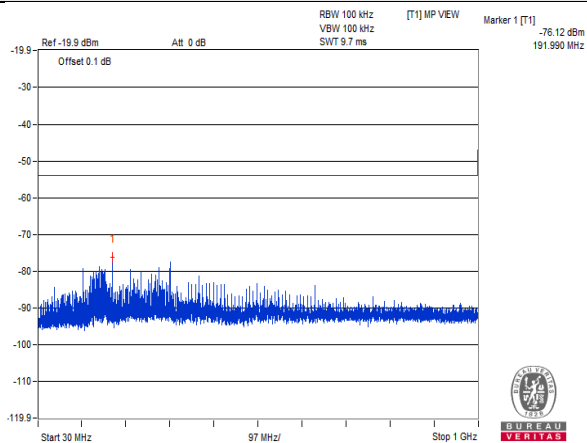


CH 40 (2442MHz)

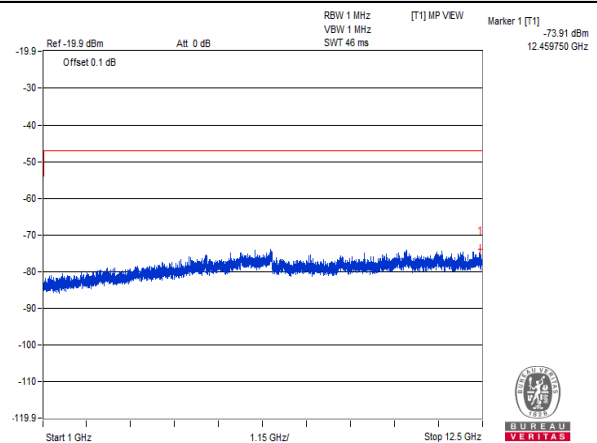
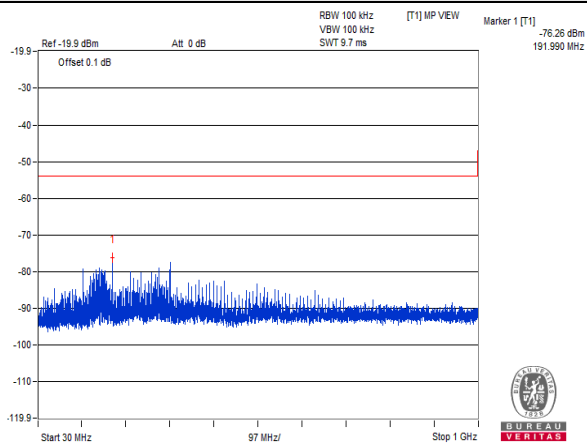
V_{normal}



V_{max}



V_{min}



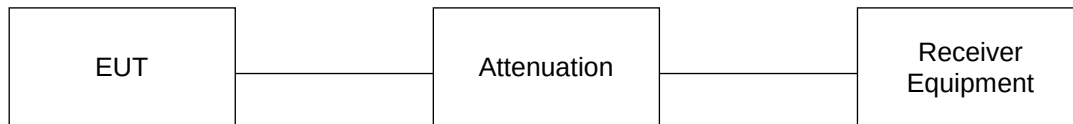
CH 77 (2479MHz)

4.6 Interference Prevention Function

4.6.1 Limits of Interference Prevention Function

Radio equipment used mainly on the same premises and automatically transmits or receives identification code.

4.6.2 Test Setup



4.6.3 Test Results

Environmental Conditions	25 deg.C, 60% RH
Link Mode	Test Result
GFSK	Pass

5 Photographs of the Test Configuration



Appendix - Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

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

Lin Kou EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

--- END ---

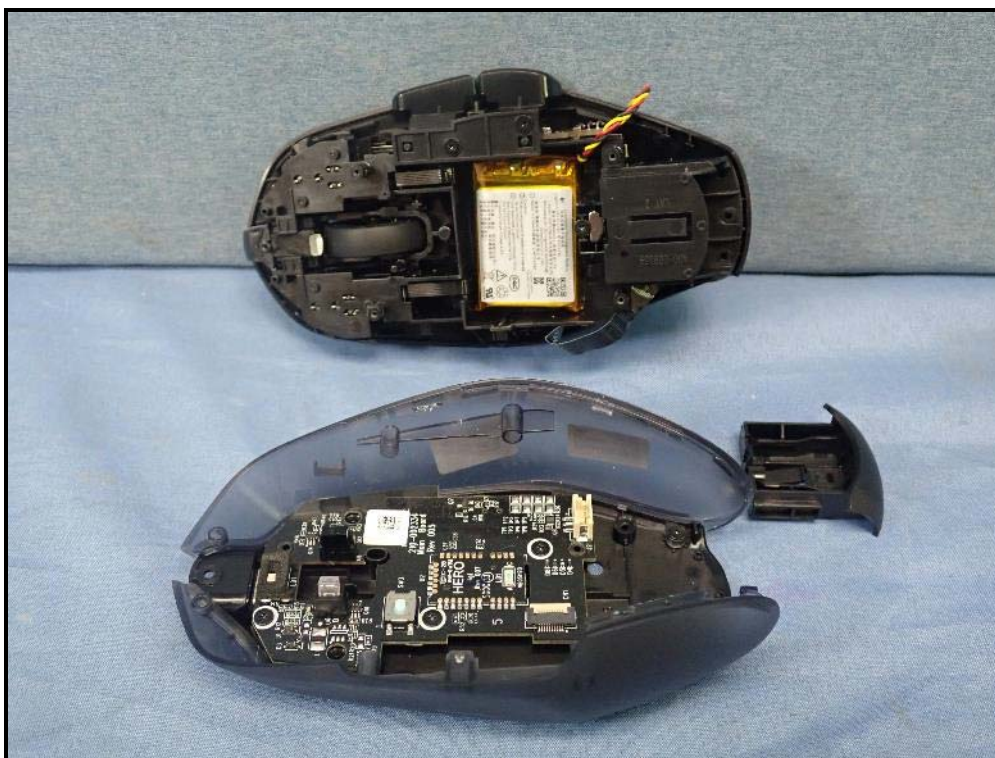
CONSTRUCTION PHOTOS OF EUT

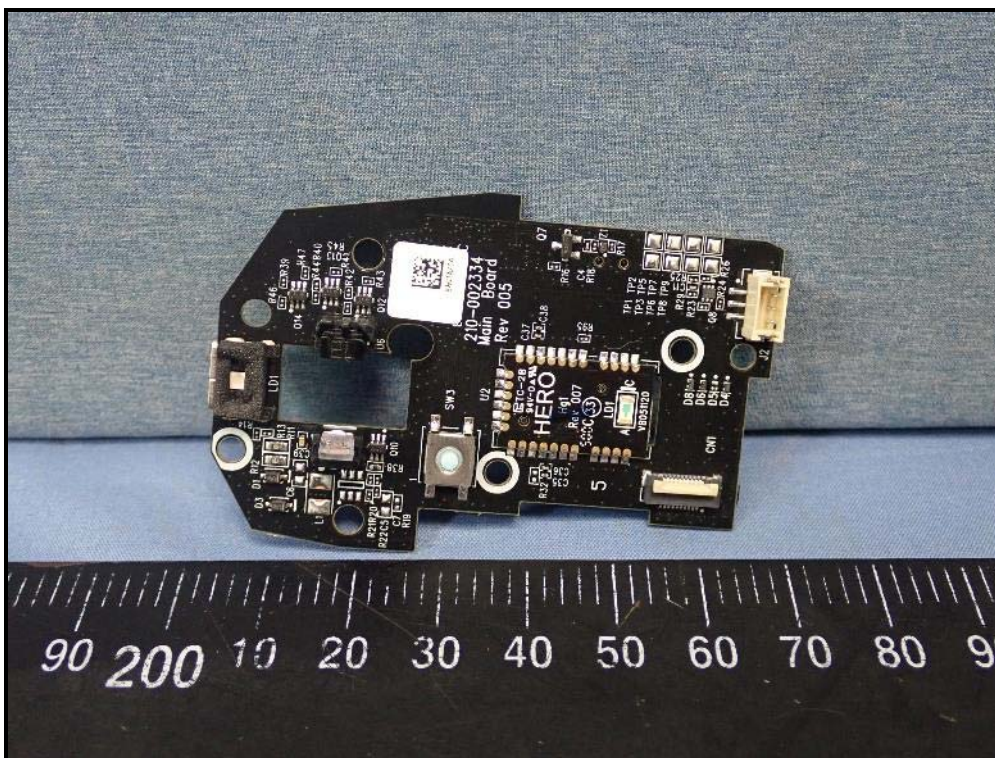


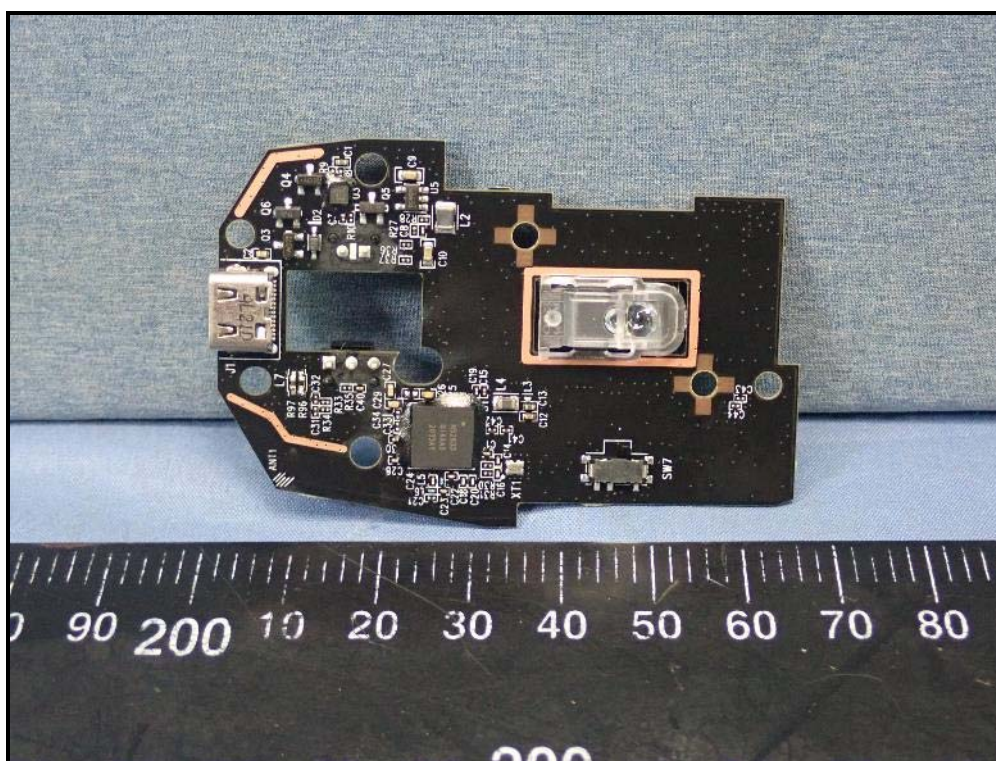
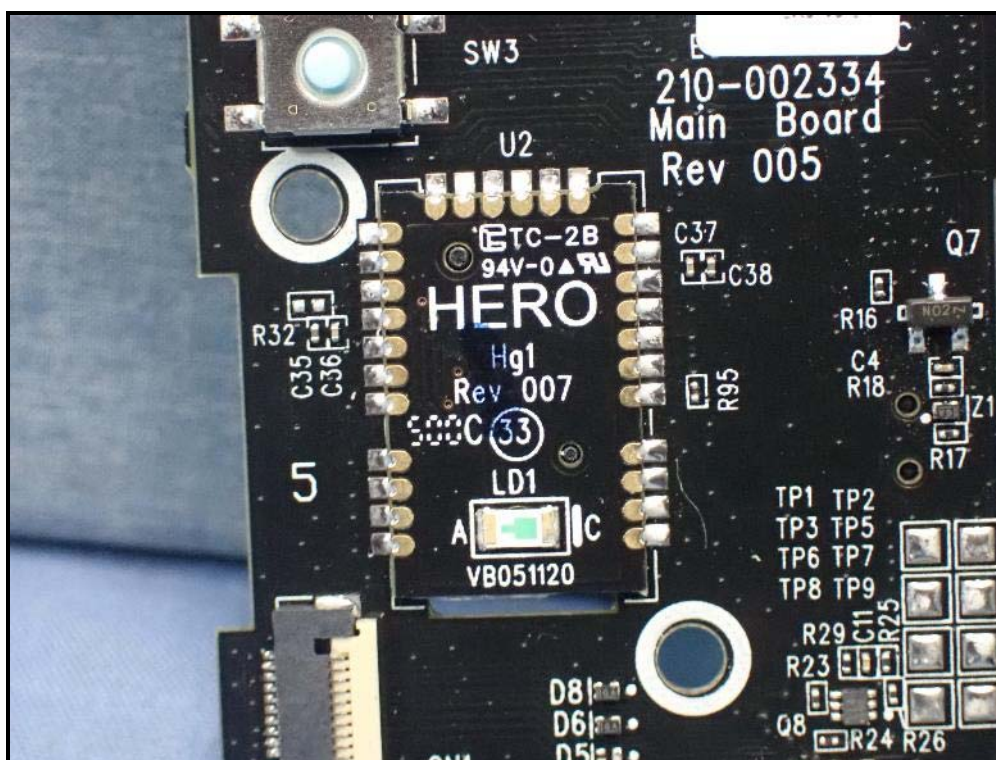


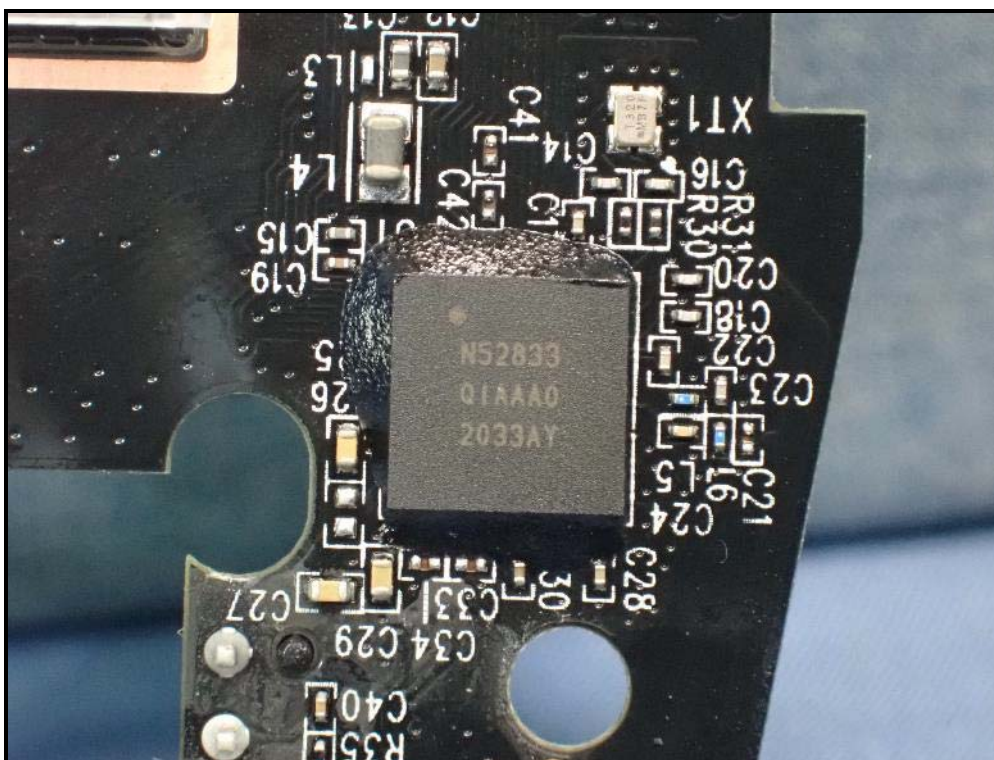


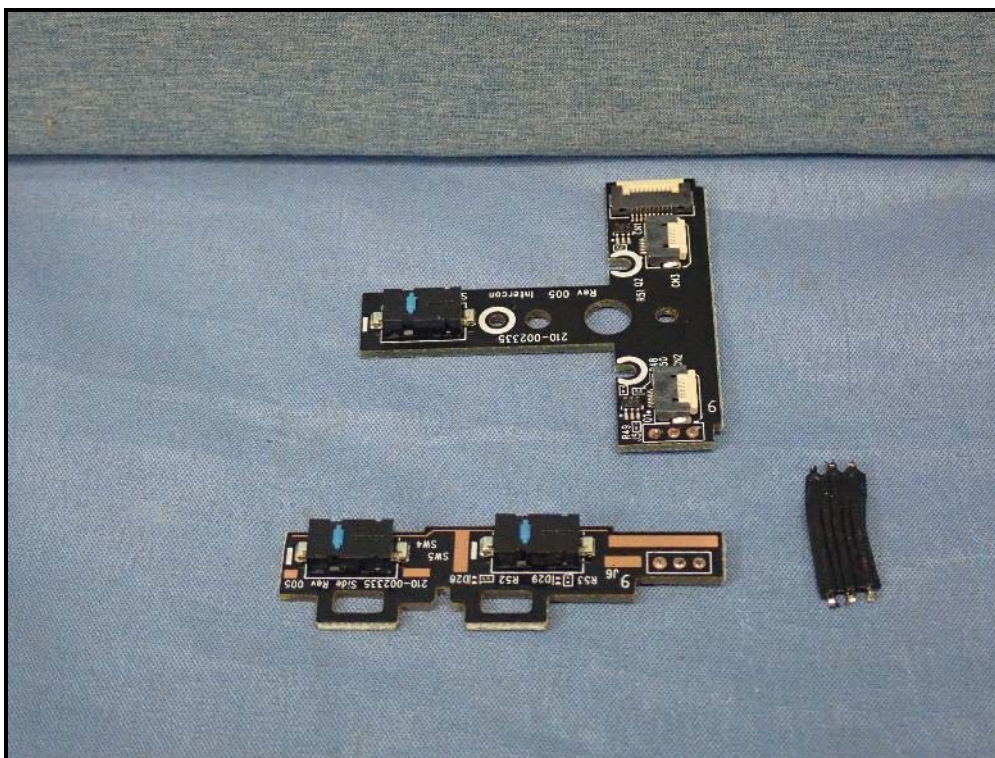


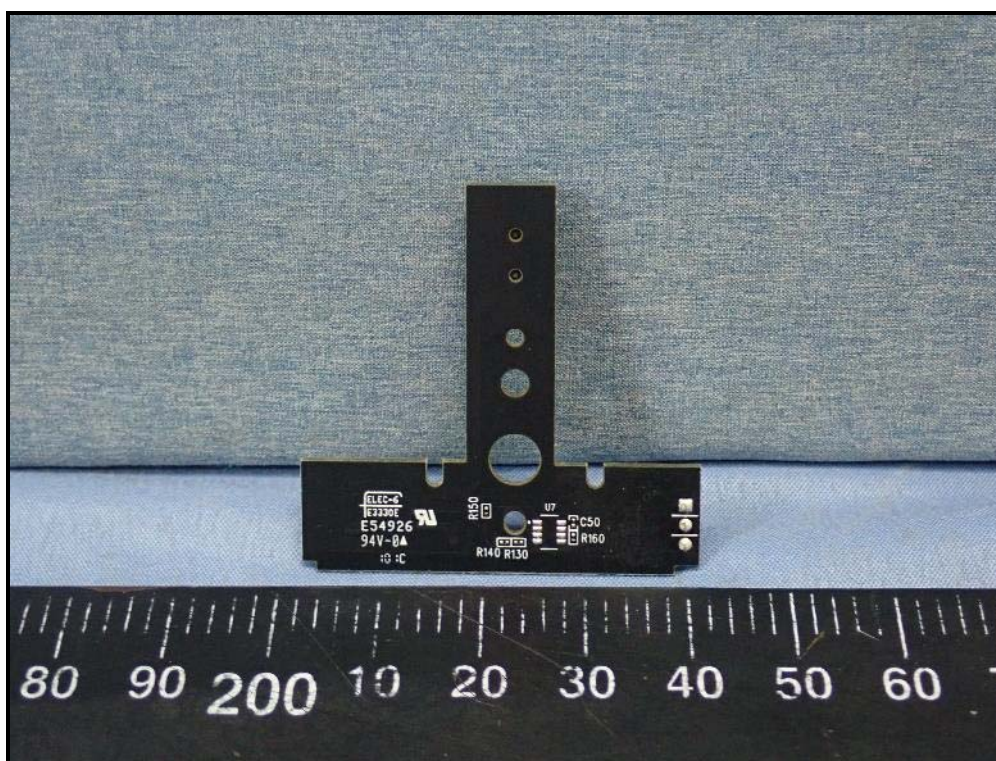
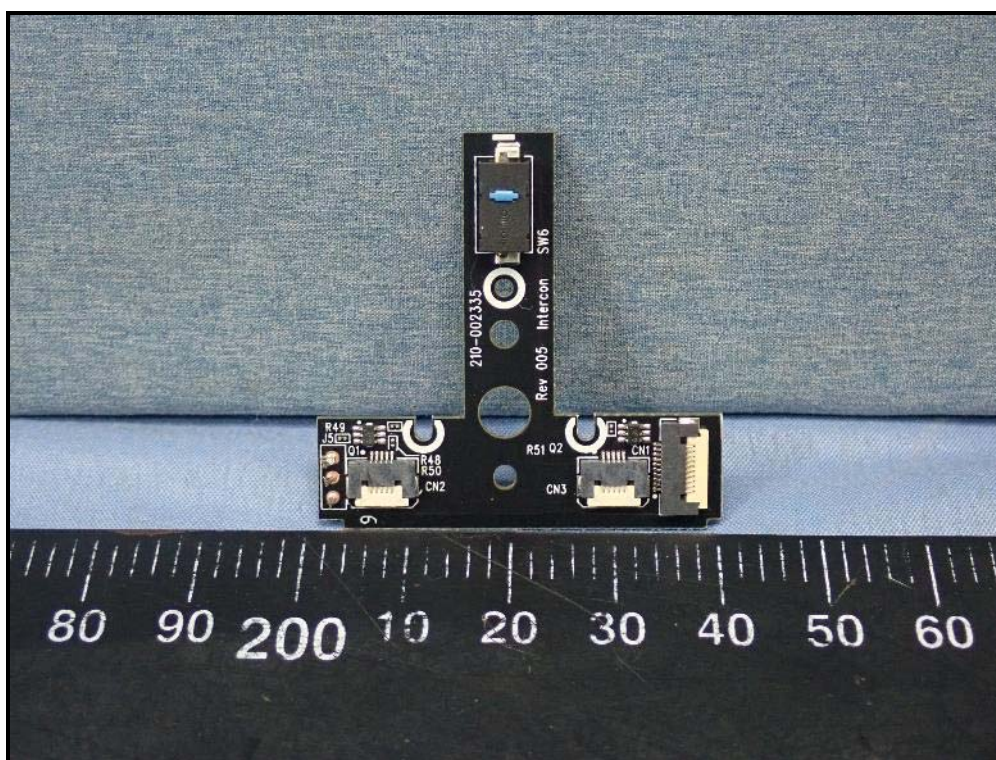


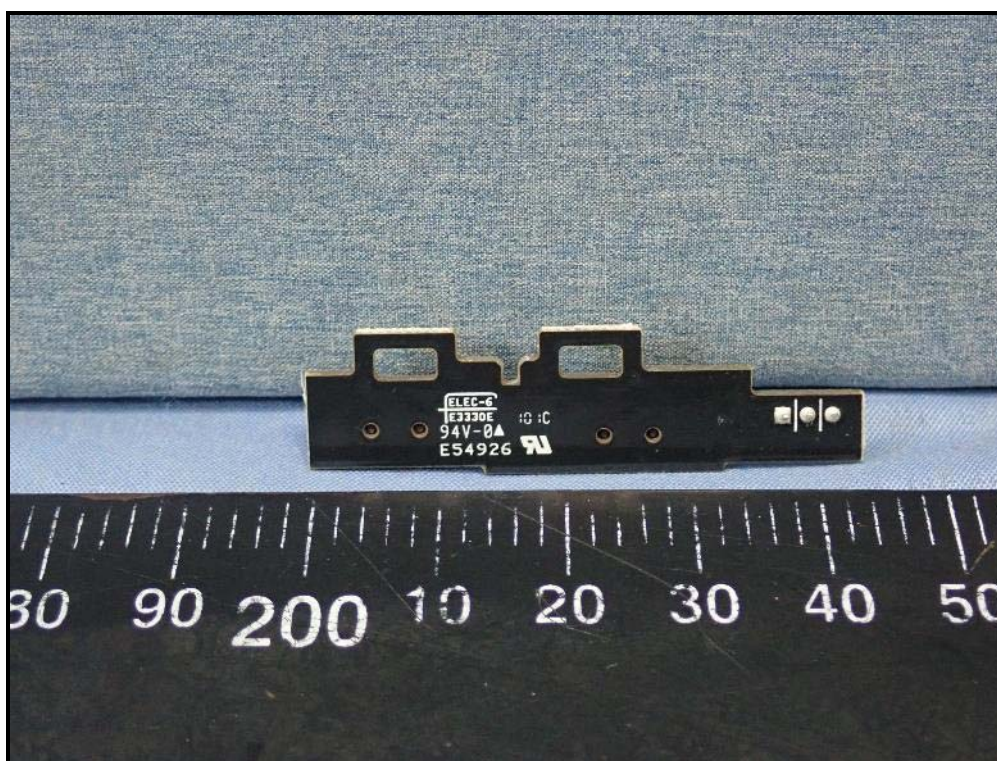
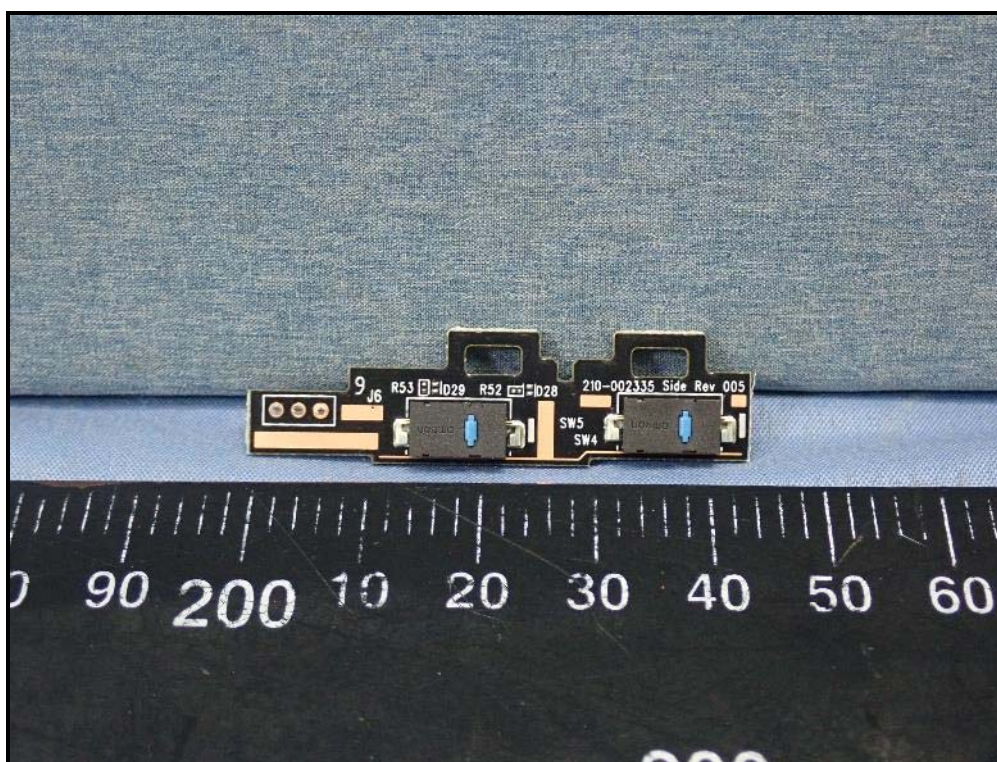


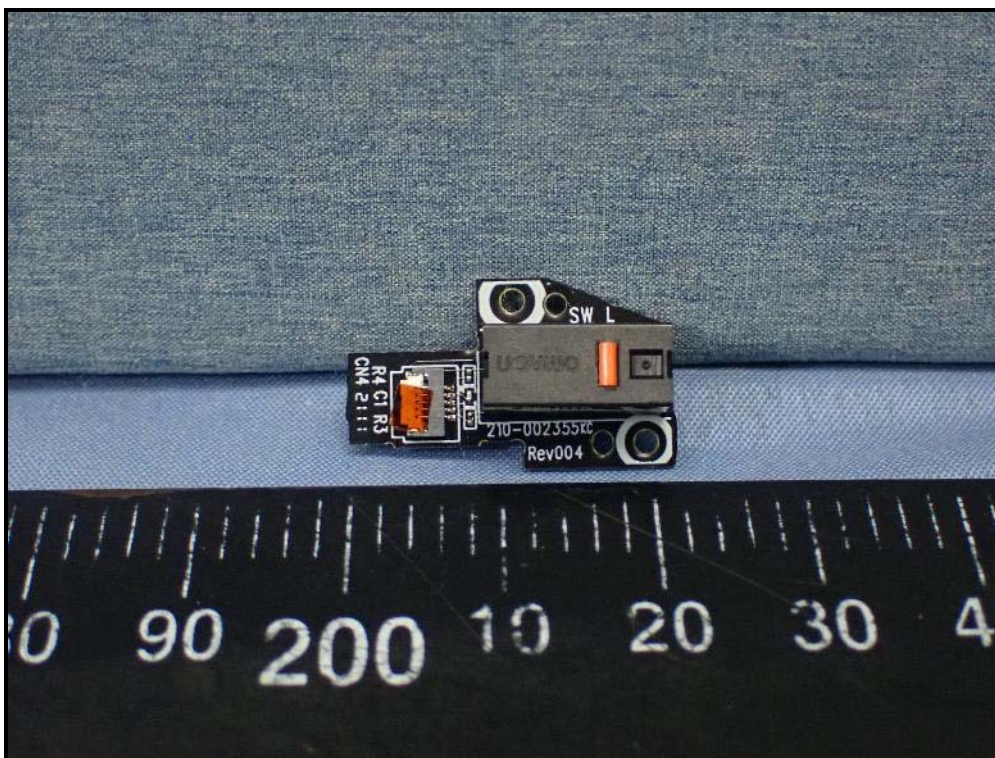
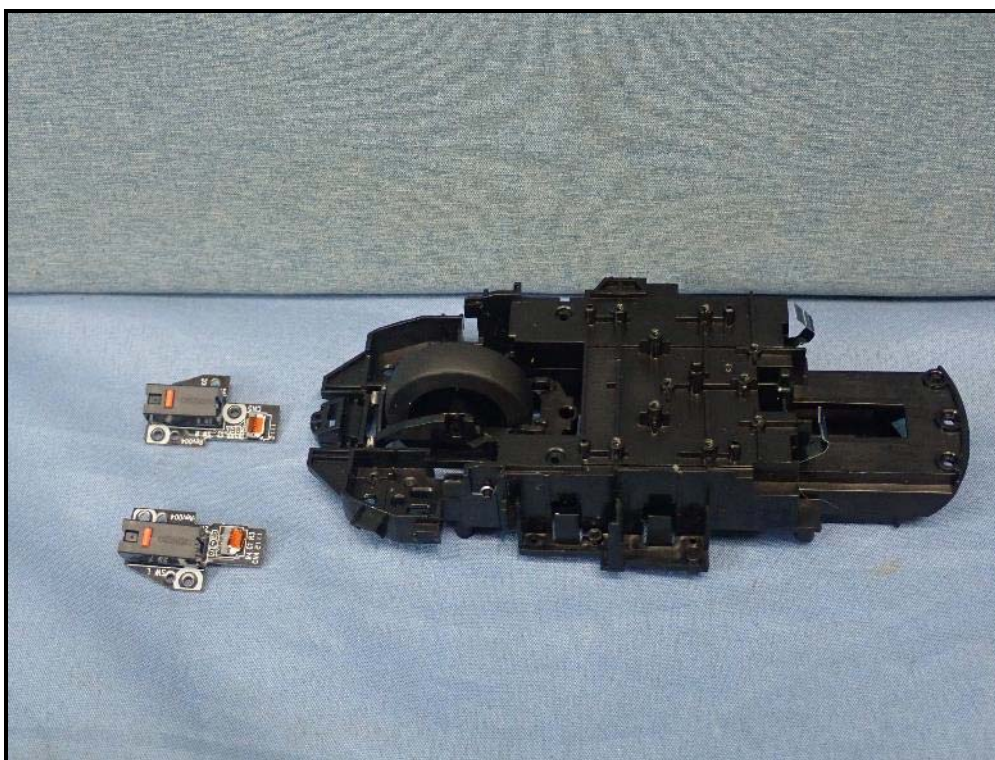


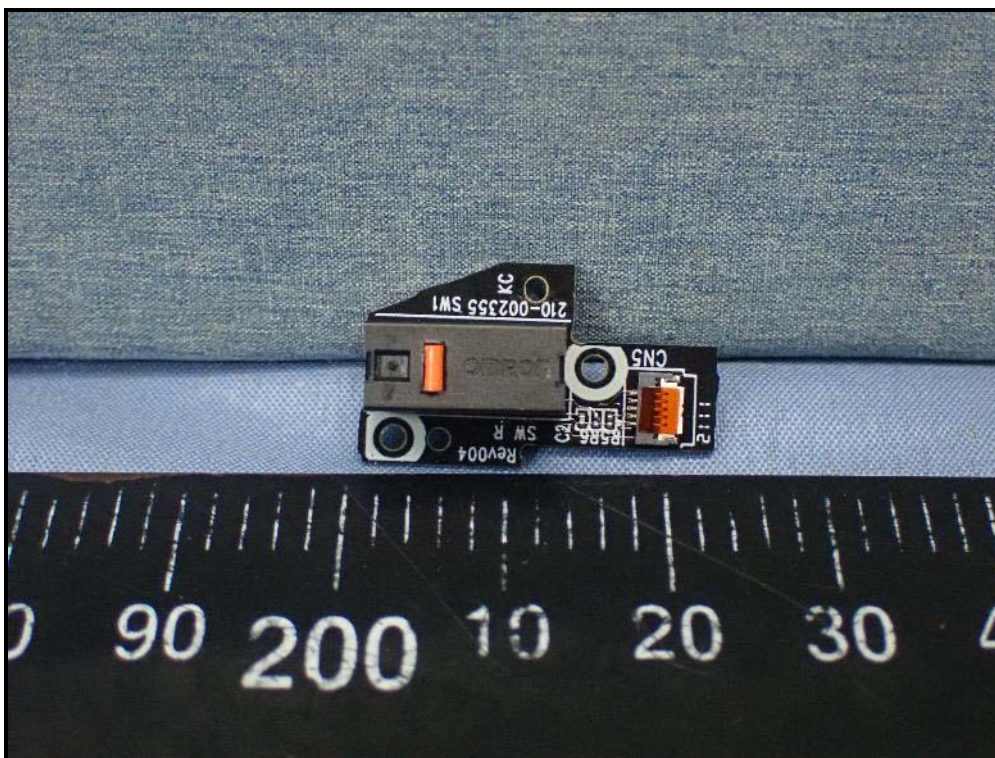
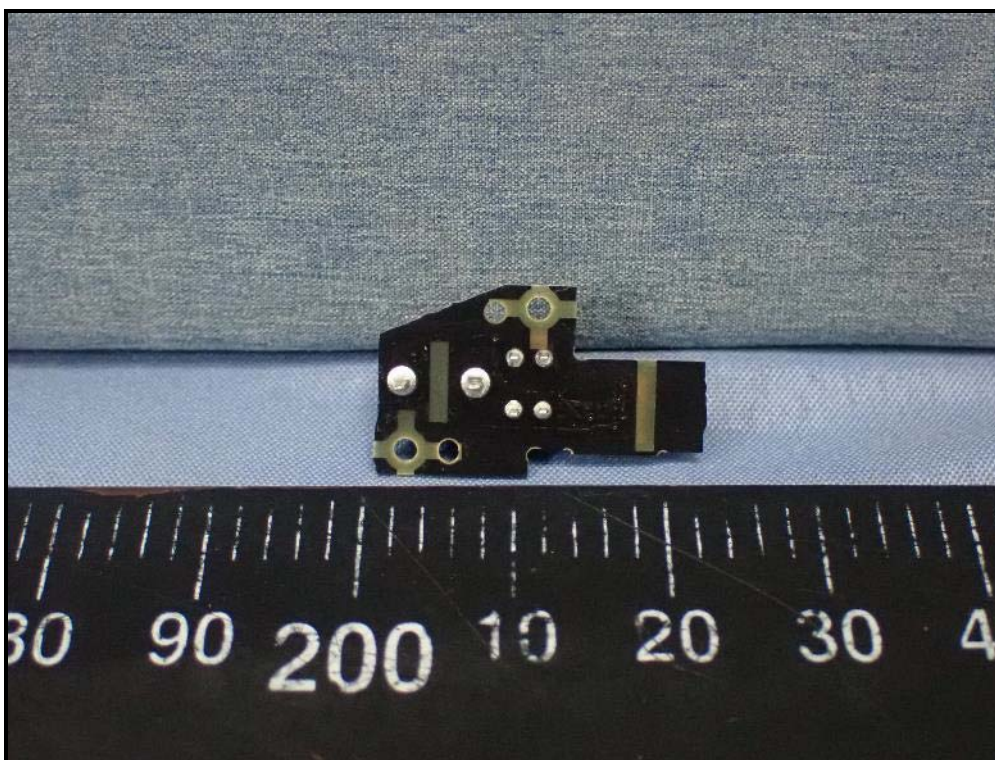


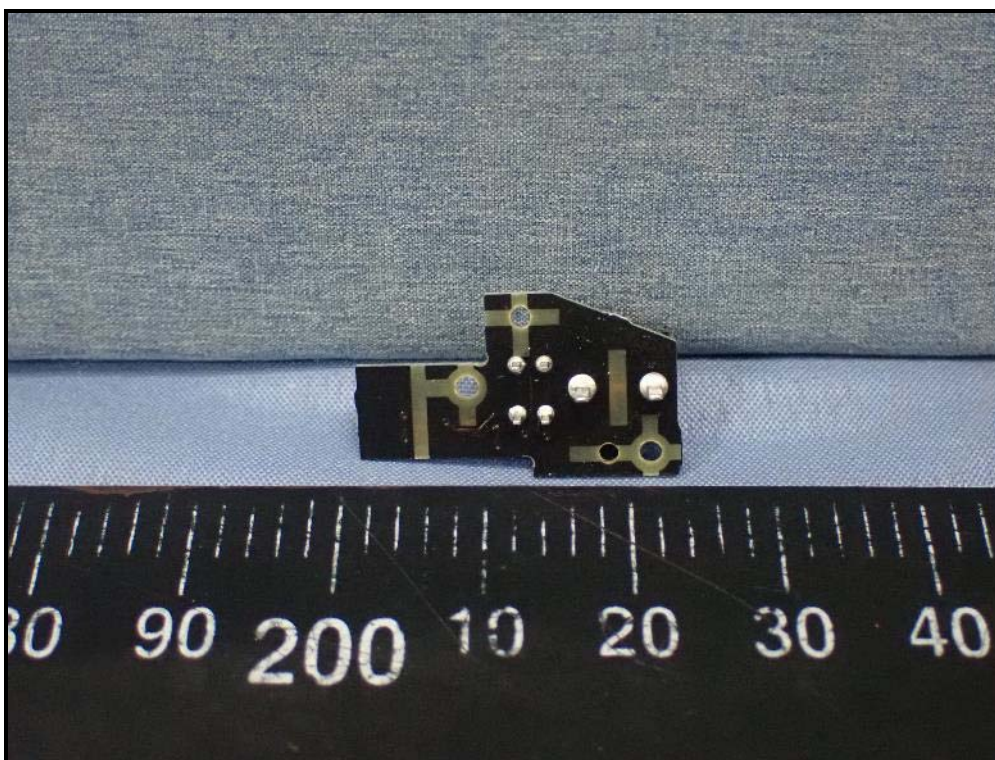




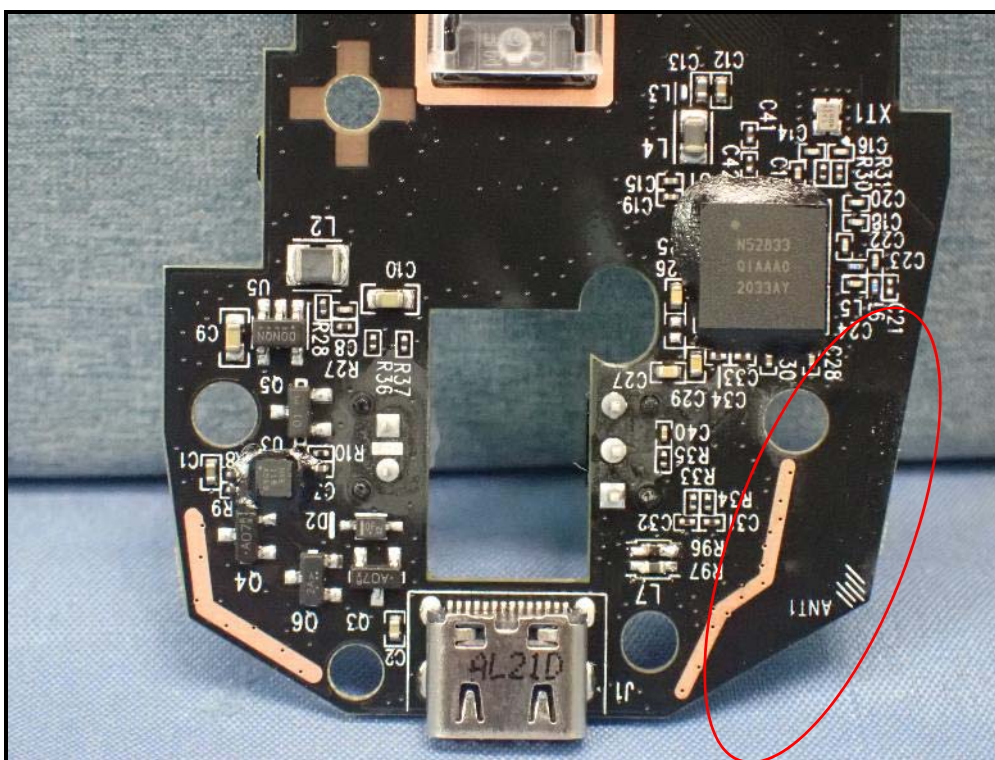




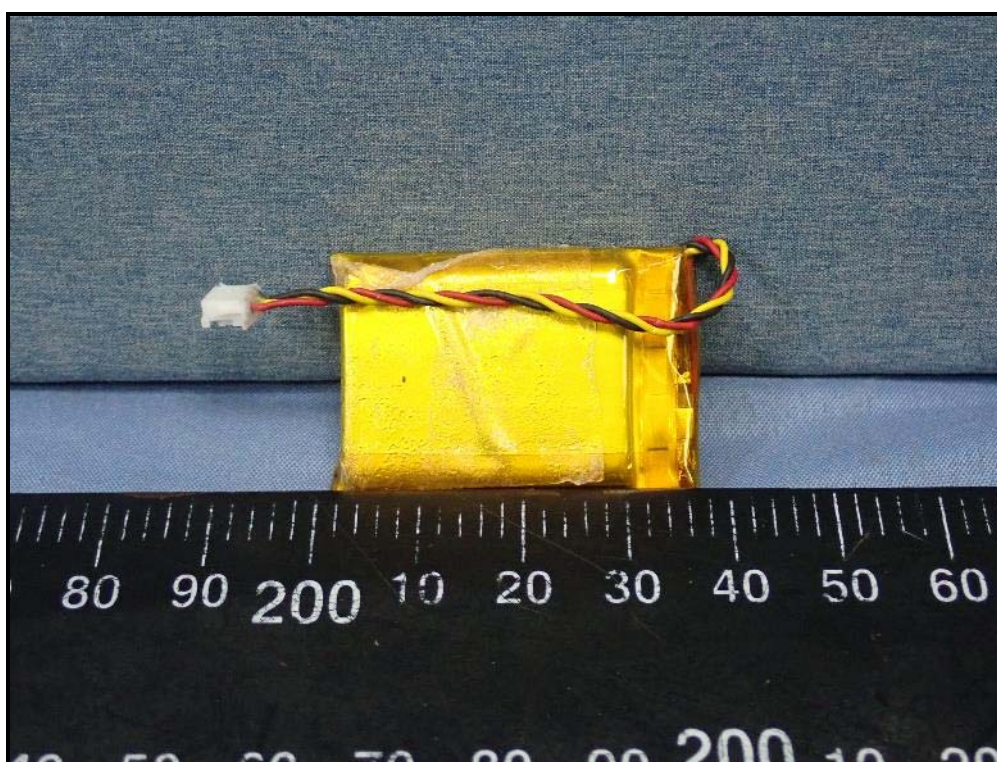




Antenna



Battery 1 (Brand: SYNERGY / Model: 533-000194)





Battery 2 (Brand: Highpower / Model: 533-000195)



