

TEST REPORT**On behalf of****Shanghai Teraoka Electronic Co., Ltd****Product Name: SMART CARD TERMINAL****Model No.: WB-20****FCC ID: 2ARYWWB-20**

Prepared For: Shanghai Teraoka Electronic Co., Ltd
Tinglin Industry Development Zone, Jinshan District
Shanghai

Prepared By: Audix Technology (Shanghai) Co., Ltd.
3F and 4F, 34Bldg, 680 Guiping Rd., Caohejing Hi-Tech
Park, Shanghai 200233, China

Tel: +86-21-64955500**Fax: +86-21-64955491**

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The statement is based on a single evaluation of one sample of the above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

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TEST REPORT

Applicant : Shanghai Teraoka Electronic Co., Ltd
EUT Description : SMART CARD TERMINAL
(A) Model No. : Refer to Sec.2.1
(B) Power Supply : DC5V
(C) Test Voltage : DC5V (Via Adapter)

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART C
AND ANSI C63.10-2013
AND FCC PUBLIC NOTICE DA 00-705, Mar.2000*

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report also shows that the EUT to be technically compliance with the FCC limits.

This report applies to above tested Sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

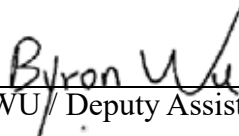
The test results for EUT's BLE/ WIFI (2.4G)/DFS / WIFI (5G) function are contained in No.ACI-F21108, ACI-F21109, ACI-F21123, ACI-F21122 report.

Date of Test : 2020.11.18 – 2021.04.20 Date of Report : 2021.05.30

Producer :

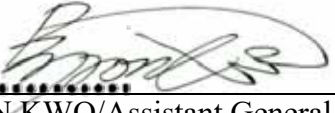

JAREY LU / Supervisor

Reviewer :


BYRON WU / Deputy Assistant Manager

 For and on behalf of
Audix Technology (Shanghai) Co., Ltd.

Signatory :


Authorized Signature(s) BYRON KWO/Assistant General Manager

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

Description / Test Item	Test Standard	Results	Meets Limit
EMISSION			
Conducted Emission Measurement	FCC Rules And Regulations Part 15 Subpart C And ANSI C63.10:2013 And FCC Public Notice DA 00-705, Mar.2000	Pass	15.207
Radiated Emission Measurement	FCC Rules And Regulations Part 15 Subpart C And ANSI C63.10:2013 And FCC Public Notice DA 00-705, Mar.2000	Pass	15.209(a) 15.205(a)(c)
20 dB Bandwidth Measurement	FCC Rules And Regulations Part 15 Subpart C And ANSI C63.10:2013 And FCC Public Notice DA 00-705, Mar.2000	Pass	15.247(a)(1)
Carrier Frequency Separation Measurement	FCC Rules And Regulations Part 15 Subpart C And ANSI C63.10:2013 And FCC Public Notice DA 00-705, Mar.2000	Pass	15.247(a)(1)
Number of Hopping Frequencies Measurement	FCC Rules And Regulations Part 15 Subpart C And ANSI C63.10:2013 And FCC Public Notice DA 00-705, Mar.2000	Pass	15.247(a)(1)(iii)
Dwell Time Measurement	FCC Rules And Regulations Part 15 Subpart C And ANSI C63.10:2013 And FCC Public Notice DA 00-705, Mar.2000	Pass	15.247(a)(1)(iii)
Maximum Peak Output Power Measurement	FCC Rules And Regulations Part 15 Subpart C And ANSI C63.10:2013 And FCC Public Notice DA 00-705, Mar.2000	Pass	15.247(b)(1)
Band Edge Measurement	FCC Rules And Regulations Part 15 Subpart C And ANSI C63.10:2013 And FCC Public Notice DA 00-705, Mar.2000	Pass	15.247(d)
Emission Limitations Measurement	FCC Rules And Regulations Part 15 Subpart C And ANSI C63.10:2013 And FCC Public Notice DA 00-705, Mar.2000	Pass	15.247(d)
N/A is an abbreviation for Not Applicable.			

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description : SMART CARD TERMINAL

Type of EUT : ☒ Production ☐ Pre-product ☐ Pro-type

Model Number : WB-20

Radio Tech : BT 4.2
IEEE 802.11 a/b/g/n/ac

Channel Freq. : BLE: 2402MHz-2480MHz;
BT: 2402MHz-2480MHz
IEEE 802.11a:
5180MHz—5240MHz; 5260MHz—5320MHz
5500MHz—5700MHz; 5745MHz—5825MHz
IEEE 802.11ac VHT20:
5180MHz—5240MHz; 5260MHz—5320MHz
5500MHz—5700MHz; 5745MHz—5825MHz
IEEE 802.11ac VHT40:
5190MHz—5230MHz; 5270MHz—5310MHz
5510MHz—5670MHz; 5755MHz—5795MHz
IEEE 802.11ac VHT80:
5210MHz, 5290MHz; 5530MHz—5610MHz; 5775MHz
IEEE 802.11b: 2412MHz—2462MHz
IEEE 802.11g: 2412MHz—2462MHz
IEEE802.11nHT20:
2412MHz—2462MHz;
5180MHz—5240MHz; 5260MHz—5320MHz
5500MHz—5700MHz; 5745MHz—5825MHz
IEEE802.11nHT40:
5190MHz—5230MHz; 5270MHz—5310MHz
5510MHz—5670MHz; 5755MHz—5795MHz

Modulation : BLE: GFSK;
BT: FHSS, GFSK, DPSK, DQPSK;
802.11b: DSSS (CCK, DQPSK, DBPSK);
802.11a/g/n: OFDM (64QAM, 16QAM, QPSK, BPSK);
802.11ac: OFDM (256QAM, 64QAM, 16QAM, QPSK, BPSK).

Antenna Info : Antenna Type: SMA Antenna
Antenna Gain: 5 dBi
The Antenna was an antenna that uses a unique coupling to the intentional radiator that is comply with 15.203 requirement.

Applicant : Shanghai Teraoka Electronic Co., Ltd
Tinglin Industry Development Zone, Jinshan District,
Shanghai

Manufacturer : same as Applicant

Factory : same as Applicant

2.2 EUT Specifications Assessed in Current Report

Mode	Modulation	Data Rate(Mbps)
DH1	GFSK	Up to3
DH3	$\pi/4$ -DQPSK	Up to3
DH5	8DPSK	Up to3

Channel List			
Channel No.	Frequency (MHz)	Channel No.	Frequency (MHz)
00	2402	40	2442
01	2403	41	2443
02	2404	42	2444
...	...	...	...
...	...	...	...
...	...	...	...
37	2439	76	2478
38	2440	77	2479
39	2441	78	2480

2.3 Test Information

The test software “RFTextTool.apk” was used to control EUT work in TX mode, Power Setting and select test channel.

Modulation	data rate (Mbps)	Power Setting	Test Channel		Frequency (MHz)
DH1	1	Default	Low:	00	2402
		Default	Middle:	39	2441
		Default	High:	78	2480
DH3	1	Default	Low:	00	2402
		Default	Middle:	39	2441
		Default	High:	78	2480
DH5	1	Default	Low:	00	2402
		Default	Middle:	39	2441
		Default	High:	78	2480
3DH1	3	Default	Low:	00	2402
		Default	Middle:	39	2441
		Default	High:	78	2480

3DH3	3	Default	Low:	00	2402
		Default	Middle:	39	2441
		Default	High:	78	2480
3DH5	3	Default	Low:	00	2402
		Default	Middle:	39	2441
		Default	High:	78	2480

2.4 Sample Description

Test Item	Model Number	Sample Number	Date of receipted
Conducted Emission	WB-20	E20111479-04/04	2021.11.02
Radiated Emission	WB-20	E20111479-04/04	2021.11.02
Conducted RF Test	WB-20	E20111479-04/04	2021.11.02

2.5 Supported equipment

Brand : HUAWEI
Product Name: : Adaptor
Model Name : HW-050200C01

2.6 Description of Test Facility

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3F and 4F, 34Bldg, 680 Guiping Rd.,
Caohejing Hi-Tech Park,
Shanghai 200233, China.

Accredited by NVLAP, Lab Code : 200371-0

FCC Designation Number : CN5027

Test Firm Registration Number : 954668

3 CONDUCTED EMISSION MEASUREMENT

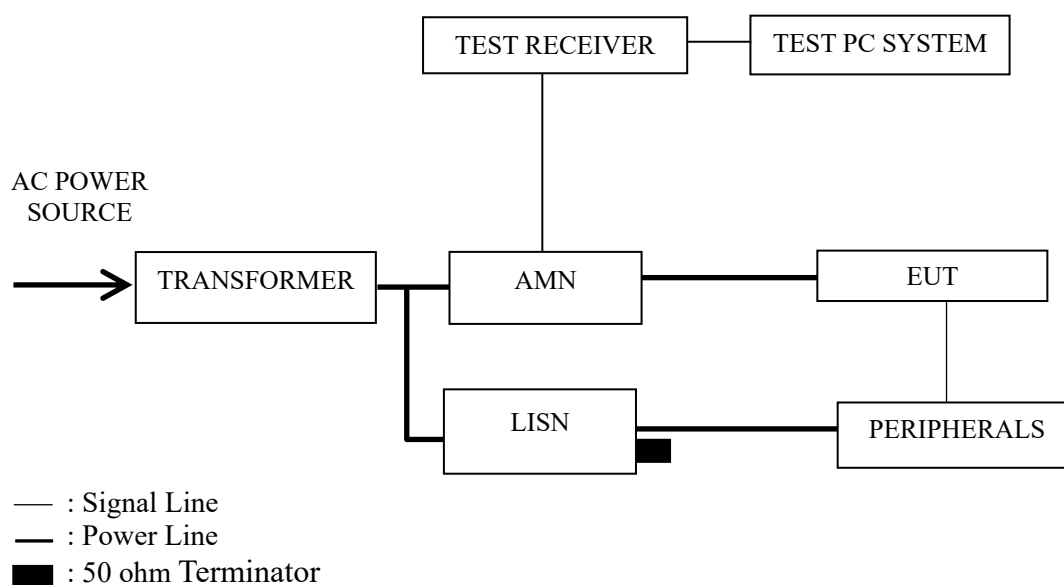
3.1 Test Equipment

The following test equipment are used during the conducted emission test in a shielded room:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Test Receiver	R&S	ESCI	100841	2021.02.11	1 Year
2.	Artificial Mains Network (AMN)	R&S	ESH2-Z5	843890/011	2021.01.06	1 Year
3.	Software	Audix	e3	6.2009-1-15	--	--

3.2 Block Diagram of Test Setup

3.2.1 Conducted Disturbance Test Setup



3.3 Conducted Emission Limits (§15.207)

Frequency (MHz)	Conducted limits (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56 *	56 to 46 *
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE 1 - *Decreases with the logarithm of the frequency.

NOTE 2 - Emission Level dB (μV/m) = 20 log Emission Level (μV/m)

NOTE 3 - The tighter limit applies at the band edges.

3.4 Operating Condition of EUT

3.4.1 Setup the EUT as shown in Sec. 3.2.

3.4.2 Turn on the power of all equipment.

3.4.3 Turn the EUT on the test mode, and then test.

3.5 Test Procedures

The EUT was placed upon a non-metallic table, which is 0.8 m above the horizontal conducting ground plane and 0.4 m from a vertical reference plane. The EUT was connected to the power mains through an Artificial Mains Network (AMN) to provide a 50 Ω coupling impedance for the measuring equipment. Both sides of AC line (Line & Neutral) were checked to find out the maximum conducted emission according to FCC Part 15 Subpart C and ANSI C63.10: 2013 requirements during conducted disturbance test.

The I.F. bandwidth of Test Receiver ESCI was set at 9 kHz.

The frequency range from 150 kHz to 30 MHz was checked.

Test with a dummy load in lieu of the antenna to determine compliance with Section 15.207 limits within the transmitter's fundamental emission band. (According to KDB 174176 D01 Line Conducted FAQ)

The test modes were done on conducted disturbance test and all the test results are listed in Sec. 3.6

3.6 Test Results

<PASS>

The frequency and amplitude of the highest conducted emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Worst case emission:

No.	Operation	Modulation	Channel	Frequency (MHz)	Data Page
1.	Transmitting	--	--	--	P11

NOTE 1 – Level = Read Level + AMN Factor + Cable Loss

NOTE 2 – “QP” means “Quasi-Peak” values

NOTE 3 – The emission levels which not reported are too low against the official limit.

Worst case emission

EUT : SMART CARD TERMINAL Temperature : 22

Model No. : WB-20 Humidity : 51%RH

Test Mode : Transmitting Date of Test : 2020.12.13

Polarization	Frequency (MHz)	Meter Reading dB (μV)	AMN Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Line	0.1565	39.79	0.08	0.08	39.95	65.65	25.7	QP
	0.1565	27.78	0.08	0.08	27.94	55.65	27.71	Average
	0.3712	45.5	0.09	0.18	45.77	58.47	12.7	QP
	0.3712	43.2	0.09	0.18	43.47	48.47	5	Average
	0.743	40.44	0.11	0.16	40.71	56	15.29	QP
	0.743	32.23	0.11	0.16	32.5	46	13.5	Average
	1.065	35.9	0.11	0.14	36.15	56	19.85	QP
	1.065	27.92	0.11	0.14	28.17	46	17.83	Average
	2.707	30.37	0.15	0.17	30.69	56	25.31	QP
	2.707	24.34	0.15	0.17	24.66	46	21.34	Average
	13.989	26	0.18	0.13	26.31	60	33.69	QP
	13.989	16.7	0.18	0.13	17.01	50	32.99	Average
Neutral	0.1549	41.04	0.09	0.08	41.21	65.74	24.53	QP
	0.1549	26.99	0.09	0.08	27.16	55.74	28.58	Average
	0.3465	41.19	0.1	0.17	41.46	59.05	17.59	QP
	0.3465	27.16	0.1	0.17	27.43	49.05	21.62	Average
	0.7274	37.46	0.12	0.16	37.74	56	18.26	QP
	0.7274	27.13	0.12	0.16	27.41	46	18.59	Average
	1.032	35.78	0.13	0.14	36.05	56	19.95	QP
	1.032	23.57	0.13	0.14	23.84	46	22.16	Average
	3.436	27.79	0.19	0.18	28.16	56	27.84	QP
	3.436	20.4	0.19	0.18	20.77	46	25.23	Average
	13.551	34.32	0.41	0.13	34.86	60	25.14	QP
	13.551	23.93	0.41	0.13	24.47	50	25.53	Average

TEST ENGINEER: Jarey

4 RADIATED EMISSION MEASUREMENT

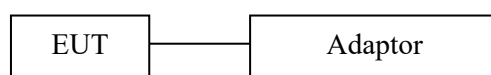
4.1 Test Equipment

The following test equipment are used during the radiated emission test in a semi-anechoic chamber:

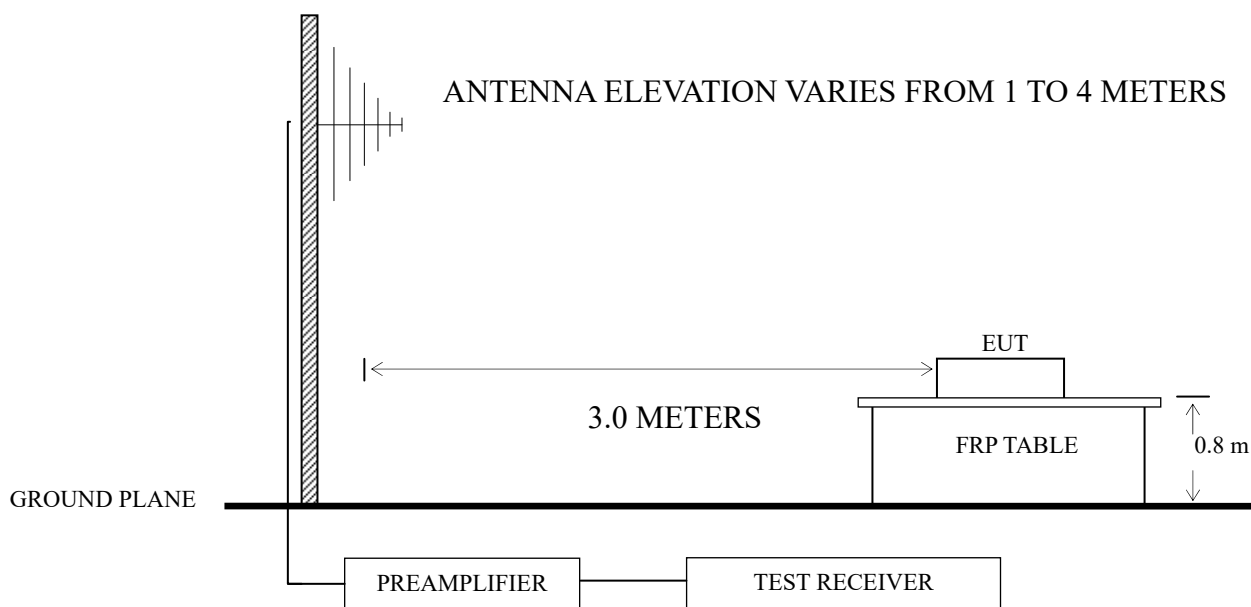
Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Preamplifier	Agilent	8447D	2944A10548	2021.03.08	1 Year
2.	Preamplifier	HP	8449B	3008A00864	2021.03.08	1 Year
3.	Spectrum Analyzer	Agilent	N9010A	MY52221182	2020.09.16	1 Year
4.	Test Receiver	R&S	ESCI	101303	2021.03.08	1 Year
5.	Bilog Antenna+6dB Attenuator	Schwarz beck	VULB 9168+EMCI-N-6-06	708+AT-N0638	2020.07.06	1 Year
6.	Horn Antenna	EMCO	3115	9607-4878	2020.07.13	1 Year
7.	Horn Antenna	EMCO	3116	00062643	2020.09.08	1 Year
8.	Cavity Band Rejection Filter	Microwave	WT-A3882-R-10	WT200312-1-1	2020.07.07	1 Year
9.	Software	Audix	e3	SET00200 9912M295-2	--	--

4.2 Block Diagram of Test Setup

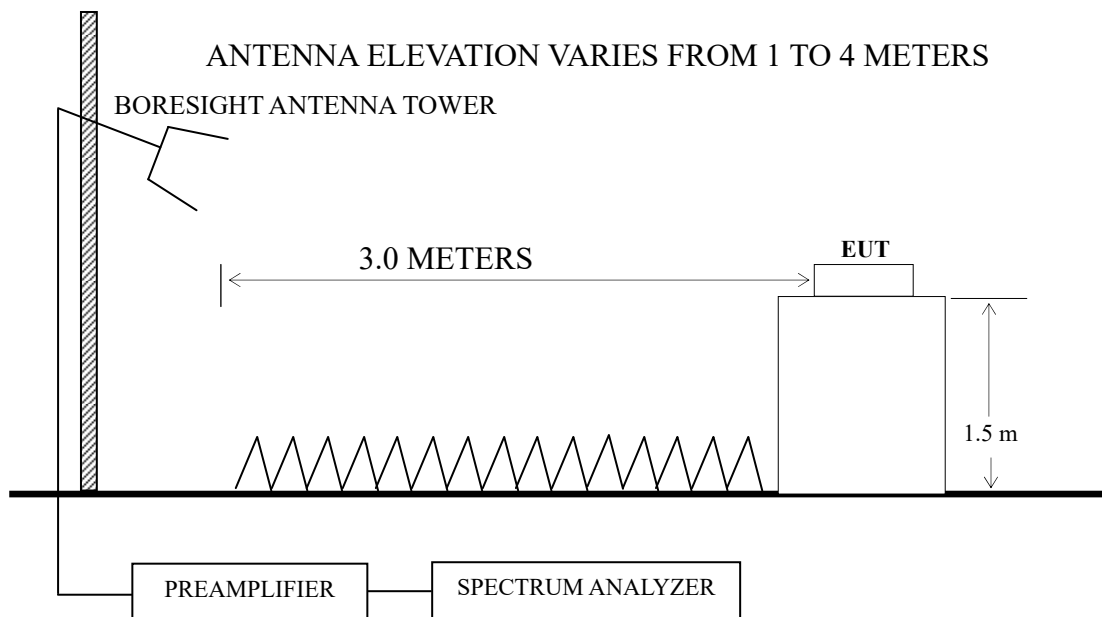
4.2.1 EUT & Peripherals



4.2.2 Below 1GHz



4.2.3 Above 1GHz



4.3 Radiated Emission Limit (§15.209)

Frequency (MHz)	Distance (m)	Field strength limits ($\mu\text{V/m}$)	
		($\mu\text{V/m}$)	$\text{dB}(\mu\text{V/m})$
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0

NOTE 1 - Emission Level $\text{dB}(\mu\text{V/m}) = 20 \log \text{Emission Level}(\mu\text{V/m})$
 NOTE 2 - The tighter limit applies at the band edges.
 NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
 NOTE 4 - The limits shown are based on Quasi-peak value detector below or equal to 1GHz and Average value detector above 1GHz.
 NOTE 5 - Above 1 GHz, the limit on peak emission is 20 dB above the maximum permitted average emission limit applicable to the EUT

4.4 Test Configuration

The EUT (listed in Sec.2.1) and the simulators (listed in Sec.2.2) were installed as shown on Sec.4.2 to meet FCC requirements and operating in a manner that tends to maximize its emission level in a normal application.

4.5 Operating Condition of EUT

4.5.1 Setup the EUT as shown in Sec. 4.2.

4.5.2 Turn on the power of all equipment.

4.5.3 Turn the EUT on the test mode, and then test.

4.6 Test Procedures

Radiated emission test applies to harmonics/spurs that fall in the restricted bands listed in Section 15.205. The maximum permitted average field strength is listed in Section 15.209. A pre-amp is necessary for this measurement. For measurement above 1 GHz, set RBW = 1MHz, VBW = 10 Hz, Sweep: Auto. If the emission is pulsed, modify the unit for continuous operation; use the settings shown above, then correct the reading by subtracting the peak-average correction factor, derived from the appropriate duty cycle calculation.

The EUT was placed on a turntable. Below 1 GHz, the table height is 80 cm above the reference ground plane. Above 1 GHz, the table height is 1.5 m. The turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (Calibrated Bi-log Antenna) or Horn antenna was used as receiving antenna. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to ANSI C63.10: 2013 requirements during radiated emission test.

The bandwidth of Test Receiver R&S ESCI was set at 120 kHz from 30MHz to 1000MHz.

The bandwidth of the VBW was set at 1MHz and RBW was set at 1MHz for peak emission measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emission above 1GHz for Spectrum Agilent N9010A.

The frequency range from 30 MHz to 25 GHz (Up to 10th harmonics from fundamental frequency) was checked.

All the test results are listed in Sec.4.7

4.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

Frequency range: below 1G (Worst case emission)

No.	Operation	Modulation	Channel	Frequency (MHz)	Data Page
1.	Transmitting	--	--	--	P17

Frequency range: above 1G

No.	Operation	Modulation	Channel	Frequency (MHz)	Data Page
1.	Transmitting	BT DH1	00	2402	P18
2.			39	2441	P18
3.			78	2480	P19
4.			Hopping		P19
5.		BT DH3	39	2441	P20
6.			Hopping		P20
5.		BT DH5	39	2441	P21
7.			Hopping		P21
8.		BT 3DH1	39	2441	P22
9.			Hopping		P22
10.		BT 3DH3	39	2441	P23
11.			Hopping		P23
12.		BT 3DH5	39	2441	P24
13.			Hopping		P24

Restricted Frequency bands:

No.	Operation	Modulation	Channel	Frequency	Data Page
1.	Transmitting	BT DH1	00	2402	P25
			78	2480	
2.		BT DH3	00	2402	P26
			78	2480	
3.		BT DH5	00	2402	P27
			78	2480	
4.		BT 3DH1	00	2402	P28
			78	2480	
5.		BT 3DH3	00	2402	P29
			78	2480	
6.		BT 3DH5	00	2402	P30
			78	2480	

NOTE 1 – Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor

NOTE 2 – “QP” means “Quasi-Peak” values

NOTE 3 – 0 ° was the table front facing the antenna. Degree is calculated from 0 ° clockwise facing the antenna.

- NOTE 4 – The emission levels which not reported are too low against the official limit.
- NOTE 5 – The emission levels recorded below is data of EUT configured in Lying direction, for Lying direction was the maximum emission direction during the test. The data of Side & Standing direction are too low against the official limit to be reported.
- NOTE 6 – All reading are Quasi-Peak values below or equal to 1GHz, Peak and Average values above 1GHz.
For above 1GHz test, if the peak measured value complies with the average limit, it is unnecessary to perform an average measurement.
- NOTE 7 – The frequency range 2310-2390MHz & 2483.5-2500MHz were tested for Restricted bands.

Worst case emission < 1GHz

EUT : SMART CARD TERMINAL Temperature : 22

Model No. : WB-20 Humidity : 51%RH

Test Mode : Transmitting Date of Test : 2020.12.20

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	52.76	28.02	19.63	0.45	28.35	19.75	40	20.25	QP
	150.02	37.2	19.1	0.59	27.74	29.15	43.5	14.35	QP
	254.73	37.79	17.77	0.76	27.41	28.91	46	17.09	QP
	300	40.4	19	0.88	27.35	32.93	46	13.07	QP
	450	46.8	22.8	1.17	27.2	43.57	46	2.43	QP
	750	40.9	27.5	1.83	27.44	42.79	46	3.21	QP
Vertical	51.843	41.06	19.69	0.45	28.35	32.85	40	7.15	QP
	66.266	40.11	18.11	0.5	28.25	30.47	40	9.53	QP
	150.01	39.86	19.1	0.59	27.74	31.81	43.5	11.69	QP
	450	42.7	22.8	1.17	27.2	39.47	46	6.53	QP
	600	41.5	25.3	1.51	27.28	41.03	46	4.97	QP
	750	41.9	27.5	1.83	27.44	43.79	46	2.21	QP

TEST ENGINEER: Jarey

Radiated Emission > 1GHz

EUT	:	SMART CARD TERMINAL	Temperature :	22
Model No.	:	WB-20	Humidity :	51%RH
Test Mode	:	Transmitting	Date of Test :	2020.12.30

BT DH1: CH00 (2402 MHz):

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1702	44.41	26.34	3.25	37.37	36.63	74	37.37	Peak
	3565	40.03	31.41	4.57	37.08	38.93	74	35.07	Peak
	5518	35.24	34.2	5.83	37.05	38.22	74	35.78	Peak
	7201	34.22	36.03	6.26	37.01	39.5	74	34.5	Peak
	8479	34.6	38.5	6.62	36.98	42.74	74	31.26	Peak
	9874	34.28	38.4	7.33	36.96	43.05	74	30.95	Peak
Vertical	1612	46.21	25.98	3.14	37.44	37.89	74	36.11	Peak
	3799	39.17	32.06	4.7	37.08	38.85	74	35.15	Peak
	5203	36.75	33.68	5.73	37.05	39.11	74	34.89	Peak
	7030	35.1	35.53	6.21	37.01	39.83	74	34.17	Peak
	8569	34.14	38.47	6.69	36.98	42.32	74	31.68	Peak
	9811	34.55	38.4	7.26	36.96	43.25	74	30.75	Peak

BT DH1: CH39 (2441 MHz):

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1711	44.9	26.37	3.25	37.36	37.16	74	36.84	Peak
	3619	40.29	31.56	4.59	37.08	39.36	74	34.64	Peak
	5518	36.02	34.2	5.83	37.05	39	74	35	Peak
	7165	35.04	35.9	6.24	37.01	40.17	74	33.83	Peak
	8740	34.13	38.4	6.81	36.98	42.36	74	31.64	Peak
	9775	34.84	38.4	7.26	36.96	43.54	74	30.46	Peak
Vertical	1801	43.68	26.72	3.33	37.28	36.45	74	37.55	Peak
	3556	39.44	31.38	4.57	37.08	38.31	74	35.69	Peak
	4996	37.3	33.3	5.66	37.06	39.2	74	34.8	Peak
	7156	34.77	35.9	6.24	37.01	39.9	74	34.1	Peak
	8605	34.27	38.45	6.69	36.98	42.43	74	31.57	Peak
	9685	35.54	38.4	7.2	36.96	44.18	74	29.82	Peak

BT DH1: CH78 (2480 MHz):

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1702	43.91	26.34	3.25	37.37	36.13	74	37.87	Peak
	3430	40.03	31.05	4.51	37.08	38.51	74	35.49	Peak
	5230	36.12	33.71	5.73	37.05	38.51	74	35.49	Peak
	7057	35.72	35.59	6.21	37.01	40.51	74	33.49	Peak
	8416	34.71	38.36	6.62	36.99	42.7	74	31.3	Peak
	9820	34.59	38.4	7.26	36.96	43.29	74	30.71	Peak
Vertical	1837	43.8	26.83	3.39	37.25	36.77	74	37.23	Peak
	3907	39.45	32.33	4.73	37.08	39.43	74	34.57	Peak
	5707	36.46	34.2	5.88	37.04	39.5	74	34.5	Peak
	7741	34.43	37.2	6.36	37	40.99	74	33.01	Peak
	8893	34.35	38.34	6.88	36.98	42.59	74	31.41	Peak
	9829	35.34	38.4	7.26	36.96	44.04	74	29.96	Peak

BT DH1: Hopping:

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1657	43.77	26.16	3.19	37.4	35.72	74	38.28	Peak
	3376	40.13	30.95	4.49	37.09	38.48	74	35.52	Peak
	4906	36.42	33.13	5.6	37.06	38.09	74	35.91	Peak
	6283	34.87	34.37	6.02	37.03	38.23	74	35.77	Peak
	8128	34.26	37.79	6.49	36.99	41.55	74	32.45	Peak
	9649	33.74	38.4	7.2	36.97	42.37	74	31.63	Peak
Vertical	1603	44.21	25.94	3.14	37.45	35.84	74	38.16	Peak
	3430	40.11	31.05	4.51	37.08	38.59	74	35.41	Peak
	5275	36.21	33.79	5.76	37.05	38.71	74	35.29	Peak
	7147	35.08	35.84	6.24	37.01	40.15	74	33.85	Peak
	8605	33.92	38.45	6.69	36.98	42.08	74	31.92	Peak
	9775	35.65	38.4	7.26	36.96	44.35	74	29.65	Peak

BT DH3: CH39 (2441 MHz):

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1801	44.08	26.72	3.33	37.28	36.85	74	37.15	Peak
	3610	39.44	31.53	4.59	37.08	38.48	74	35.52	Peak
	5545	36.43	34.2	5.83	37.04	39.42	74	34.58	Peak
	7237	34.6	36.15	6.26	37.01	40	74	34	Peak
	8920	34.34	38.33	6.88	36.98	42.57	74	31.43	Peak
	9883	34.54	38.4	7.33	36.96	43.31	74	30.69	Peak
Vertical	1756	43.72	26.55	3.31	37.32	36.26	74	37.74	Peak
	3916	38.51	32.36	4.75	37.08	38.54	74	35.46	Peak
	5500	36.93	34.2	5.8	37.05	39.88	74	34.12	Peak
	7273	34.63	36.21	6.26	37.01	40.09	74	33.91	Peak
	8785	34.44	38.38	6.81	36.98	42.65	74	31.35	Peak
	9955	34.49	38.4	7.33	36.96	43.26	74	30.74	Peak

BT DH3: Hopping:

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1279	46.04	24.79	2.71	37.79	35.75	74	38.25	Peak
	3196	41.33	30.56	4.38	37.09	39.18	74	34.82	Peak
	4951	37.93	33.2	5.6	37.06	39.67	74	34.33	Peak
	6967	34.94	35.36	6.19	37.01	39.48	74	34.52	Peak
	8497	34.03	38.5	6.69	36.98	42.24	74	31.76	Peak
	9694	35.03	38.4	7.2	36.96	43.67	74	30.33	Peak
Vertical	1612	44.78	25.98	3.14	37.44	36.46	74	37.54	Peak
	3619	39.43	31.56	4.59	37.08	38.5	74	35.5	Peak
	5356	36.53	33.95	5.78	37.05	39.21	74	34.79	Peak
	7111	34.57	35.78	6.24	37.01	39.58	74	34.42	Peak
	8470	34.45	38.45	6.62	36.98	42.54	74	31.46	Peak
	9739	35.72	38.4	7.26	36.96	44.42	74	29.58	Peak

BT DH5: CH39 (2441 MHz):

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1477	44.8	25.44	2.97	37.58	35.63	74	38.37	Peak
	3574	39.16	31.44	4.57	37.08	38.09	74	35.91	Peak
	5149	35.79	33.57	5.71	37.06	38.01	74	35.99	Peak
	7174	34.11	35.96	6.24	37.01	39.3	74	34.7	Peak
	8416	34.81	38.36	6.62	36.99	42.8	74	31.2	Peak
	9964	35.34	38.4	7.33	36.96	44.11	74	29.89	Peak
Vertical	1792	44.86	26.68	3.33	37.29	37.58	74	36.42	Peak
	3511	40.26	31.26	4.54	37.08	38.98	74	35.02	Peak
	4951	37.73	33.2	5.6	37.06	39.47	74	34.53	Peak
	7093	35.27	35.71	6.24	37.01	40.21	74	33.79	Peak
	8497	35.16	38.5	6.69	36.98	43.37	74	30.63	Peak
	9802	35	38.4	7.26	36.96	43.7	74	30.3	Peak

BT DH5: Hopping:

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1513	45.47	25.56	3.02	37.54	36.51	74	37.49	Peak
	3421	40.39	31.05	4.51	37.08	38.87	74	35.13	Peak
	5077	36.6	33.44	5.68	37.06	38.66	74	35.34	Peak
	6598	34.32	34.68	6.12	37.02	38.1	74	35.9	Peak
	8380	34.5	38.26	6.62	36.99	42.39	74	31.61	Peak
	9784	34.25	38.4	7.26	36.96	42.95	74	31.05	Peak
Vertical	1423	45.35	25.27	2.91	37.63	35.9	74	38.1	Peak
	3187	40.29	30.54	4.38	37.09	38.12	74	35.88	Peak
	4798	37.53	32.96	5.48	37.06	38.91	74	35.09	Peak
	6553	35.01	34.57	6.09	37.02	38.65	74	35.35	Peak
	8452	33.91	38.4	6.62	36.98	41.95	74	32.05	Peak
	9802	35.16	38.4	7.26	36.96	43.86	74	30.14	Peak

BT 3DH1: CH39 (2441 MHz):

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1522	45.34	25.59	3.02	37.53	36.42	74	37.58	Peak
	3187	40.11	30.54	4.38	37.09	37.94	74	36.06	Peak
	4897	36.74	33.13	5.6	37.06	38.41	74	35.59	Peak
	6697	34.22	34.86	6.14	37.02	38.2	74	35.8	Peak
	8407	34.91	38.36	6.62	36.99	42.9	74	31.1	Peak
	9667	35.13	38.4	7.2	36.97	43.76	74	30.24	Peak
Vertical	1567	44.55	25.78	3.08	37.49	35.92	74	38.08	Peak
	4042	37.6	32.58	4.84	37.07	37.95	74	36.05	Peak
	5599	35.72	34.2	5.85	37.04	38.73	74	35.27	Peak
	7291	33.96	36.28	6.26	37.01	39.49	74	34.51	Peak
	8668	34.41	38.43	6.75	36.98	42.61	74	31.39	Peak
	9685	35.33	38.4	7.2	36.96	43.97	74	30.03	Peak

BT 3DH1: Hopping:

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1657	44.16	26.16	3.19	37.4	36.11	74	37.89	Peak
	3475	39.43	31.16	4.54	37.08	38.05	74	35.95	Peak
	5230	36.27	33.71	5.73	37.05	38.66	74	35.34	Peak
	7183	34.68	35.96	6.24	37.01	39.87	74	34.13	Peak
	8533	34.46	38.48	6.69	36.98	42.65	74	31.35	Peak
	9811	34.36	38.4	7.26	36.96	43.06	74	30.94	Peak
Vertical	1468	45.48	25.41	2.97	37.59	36.27	74	37.73	Peak
	3331	40.3	30.85	4.46	37.09	38.52	74	35.48	Peak
	4942	37.03	33.2	5.6	37.06	38.77	74	35.23	Peak
	6823	34.54	35.08	6.17	37.02	38.77	74	35.23	Peak
	8650	34.01	38.44	6.75	36.98	42.22	74	31.78	Peak
	9910	35.69	38.4	7.33	36.96	44.46	74	29.54	Peak

BT 3DH3: CH39 (2441 MHz):

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1792	44.38	26.68	3.33	37.29	37.1	74	36.9	Peak
	3853	37.76	32.21	4.73	37.08	37.62	74	36.38	Peak
	5149	36.49	33.57	5.71	37.06	38.71	74	35.29	Peak
	7129	34.61	35.84	6.24	37.01	39.68	74	34.32	Peak
	8983	35.2	38.3	6.88	36.98	43.4	74	30.6	Peak
	9775	35.03	38.4	7.26	36.96	43.73	74	30.27	Peak
Vertical	1702	44.47	26.34	3.25	37.37	36.69	74	37.31	Peak
	3844	39.26	32.18	4.7	37.08	39.06	74	34.94	Peak
	5545	36.67	34.2	5.83	37.04	39.66	74	34.34	Peak
	7228	34.7	36.09	6.26	37.01	40.04	74	33.96	Peak
	8488	34.79	38.5	6.69	36.98	43	74	31	Peak
	9793	35.22	38.4	7.26	36.96	43.92	74	30.08	Peak

BT 3DH3: Hopping:

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1531	44.5	25.63	3.05	37.52	35.66	74	38.34	Peak
	3808	38.22	32.09	4.7	37.08	37.93	74	36.07	Peak
	5374	35.8	33.98	5.78	37.05	38.51	74	35.49	Peak
	7174	34.74	35.96	6.24	37.01	39.93	74	34.07	Peak
	8803	34.2	38.37	6.81	36.98	42.4	74	31.6	Peak
	9766	34.5	38.4	7.26	36.96	43.2	74	30.8	Peak
Vertical	1468	45.45	25.41	2.97	37.59	36.24	74	37.76	Peak
	3376	40.24	30.95	4.49	37.09	38.59	74	35.41	Peak
	4996	36.58	33.3	5.66	37.06	38.48	74	35.52	Peak
	6850	35.15	35.15	6.17	37.01	39.46	74	34.54	Peak
	8434	34.85	38.4	6.62	36.98	42.89	74	31.11	Peak
	9874	34.59	38.4	7.33	36.96	43.36	74	30.64	Peak

BT 3DH5: CH39 (2441 MHz):

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1324	45.86	24.95	2.77	37.74	35.84	74	38.16	Peak
	3475	39.77	31.16	4.54	37.08	38.39	74	35.61	Peak
	5077	36.82	33.44	5.68	37.06	38.88	74	35.12	Peak
	6796	34.12	35.04	6.17	37.02	38.31	74	35.69	Peak
	8407	34.58	38.36	6.62	36.99	42.57	74	31.43	Peak
	9784	35.28	38.4	7.26	36.96	43.98	74	30.02	Peak
Vertical	1657	44.08	26.16	3.19	37.4	36.03	74	37.97	Peak
	3763	38.76	31.94	4.67	37.08	38.29	74	35.71	Peak
	5572	36.33	34.2	5.83	37.04	39.32	74	34.68	Peak
	7597	35.01	37.04	6.33	37	41.38	74	32.62	Peak
	8866	34.96	38.35	6.81	36.98	43.14	74	30.86	Peak
	9883	35.63	38.4	7.33	36.96	44.4	74	29.6	Peak

BT 3DH5: Hopping:

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	1567	44.62	25.78	3.08	37.49	35.99	74	38.01	Peak
	3610	39.29	31.53	4.59	37.08	38.33	74	35.67	Peak
	5185	36.22	33.63	5.71	37.05	38.51	74	35.49	Peak
	7282	34.42	36.28	6.26	37.01	39.95	74	34.05	Peak
	9010	34.53	38.31	6.94	36.98	42.8	74	31.2	Peak
	9919	33.24	38.4	7.33	36.96	42.01	74	31.99	Peak
Vertical	1711	43.8	26.37	3.25	37.36	36.06	74	37.94	Peak
	3520	40.61	31.26	4.54	37.08	39.33	74	34.67	Peak
	5140	36.44	33.55	5.71	37.06	38.64	74	35.36	Peak
	7615	34.14	37.04	6.33	37	40.51	74	33.49	Peak
	8947	34.65	38.32	6.88	36.98	42.87	74	31.13	Peak
	9883	34.05	38.4	7.33	36.96	42.82	74	31.18	Peak

TEST ENGINEER: Jarey

Emissions in restricted frequency bands:

EUT	:	SMART CARD TERMINAL	Temperature :	22
Model No.	:	WB-20	Humidity :	51%RH
Test Mode	:	Transmitting	Date of Test :	2021.01.28

BT DH1:

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2334.9	46.42	28.16	3.83	37.11	41.3	74	32.7	Peak
	2334.9	32.94	28.16	3.83	37.11	27.82	54	26.18	Average
	2357.3	44.57	28.21	3.85	37.11	39.52	74	34.48	Peak
	2357.3	33.26	28.21	3.85	37.11	28.21	54	25.79	Average
	2389.8	54.71	28.27	3.85	37.11	49.72	74	24.28	Peak
	2389.8	38.67	28.27	3.85	37.11	33.68	54	20.32	Average
	2484.1	47.24	28.47	3.93	37.11	42.53	74	31.47	Peak
	2484.1	35.13	28.47	3.93	37.11	30.42	54	23.58	Average
	2490.1	45.49	28.49	3.93	37.11	40.8	74	33.2	Peak
	2490.1	32.35	28.49	3.93	37.11	27.66	54	26.34	Average
	2496.79	46.68	28.5	3.93	37.11	42	74	32	Peak
	2496.79	32.47	28.5	3.93	37.11	27.79	54	26.21	Average
Vertical	2336	45.23	28.17	3.83	37.11	40.12	74	33.88	Peak
	2336	33.42	28.17	3.83	37.11	28.31	54	25.69	Average
	2359.4	45.12	28.21	3.85	37.11	40.07	74	33.93	Peak
	2359.4	34.42	28.21	3.85	37.11	29.37	54	24.63	Average
	2389	62.27	28.27	3.85	37.11	57.28	74	16.72	Peak
	2389	41.93	28.27	3.85	37.11	36.94	54	17.06	Average
	2484.1	45.81	28.47	3.93	37.11	41.1	74	32.9	Peak
	2484.1	33.49	28.47	3.93	37.11	28.78	54	25.22	Average
	2490.01	45.48	28.49	3.93	37.11	40.79	74	33.21	Peak
	2490.01	32.65	28.49	3.93	37.11	27.96	54	26.04	Average
	2496.28	45.95	28.49	3.93	37.11	41.26	74	32.74	Peak
	2496.28	33.6	28.49	3.93	37.11	28.91	54	25.09	Average

BT DH3:

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2327.2	44.51	28.14	3.83	37.11	39.37	74	34.63	Peak
	2327.2	33.15	28.14	3.83	37.11	28.01	54	25.99	Average
	2359	46.25	28.21	3.85	37.11	41.2	74	32.8	Peak
	2359	32.68	28.21	3.85	37.11	27.63	54	26.37	Average
	2389.4	56.85	28.27	3.85	37.11	51.86	74	22.14	Peak
	2389.4	37.19	28.27	3.85	37.11	32.2	54	21.8	Average
	2483.98	46.82	28.47	3.93	37.11	42.11	74	31.89	Peak
	2483.98	34.79	28.47	3.93	37.11	30.08	54	23.92	Average
	2490.52	45.04	28.49	3.93	37.11	40.35	74	33.65	Peak
	2490.52	32.31	28.49	3.93	37.11	27.62	54	26.38	Average
	2497.21	45.59	28.5	3.93	37.11	40.91	74	33.09	Peak
	2497.21	32.16	28.5	3.93	37.11	27.48	54	26.52	Average
Vertical	2340.7	45.66	28.17	3.83	37.11	40.55	74	33.45	Peak
	2340.7	33.46	28.17	3.83	37.11	28.35	54	25.65	Average
	2368	47.66	28.23	3.85	37.11	42.63	74	31.37	Peak
	2368	34.27	28.23	3.85	37.11	29.24	54	24.76	Average
	2389.6	61.04	28.27	3.85	37.11	56.05	74	17.95	Peak
	2389.6	41.31	28.27	3.85	37.11	36.32	54	17.68	Average
	2483.89	45.81	28.47	3.93	37.11	41.1	74	32.9	Peak
	2483.89	33.49	28.47	3.93	37.11	28.78	54	25.22	Average
	2490.4	45.71	28.49	3.93	37.11	41.02	74	32.98	Peak
	2490.4	33.27	28.49	3.93	37.11	28.58	54	25.42	Average
	2496.34	46.84	28.5	3.93	37.11	42.16	74	31.84	Peak
	2496.34	33.19	28.5	3.93	37.11	28.51	54	25.49	Average

BT DH5:

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2327.2	44.48	28.14	3.83	37.11	39.34	74	34.66	Peak
	2327.2	33.25	28.14	3.83	37.11	28.11	54	25.89	Average
	2362	44.7	28.21	3.85	37.11	39.65	74	34.35	Peak
	2362	33.84	28.21	3.85	37.11	28.79	54	25.21	Average
	2389.8	55.12	28.27	3.85	37.11	50.13	74	23.87	Peak
	2389.8	38.45	28.27	3.85	37.11	33.46	54	20.54	Average
	2483.83	45.61	28.47	3.93	37.11	40.9	74	33.1	Peak
	2483.83	36.27	28.47	3.93	37.11	31.56	54	22.44	Average
	2491.39	44.75	28.49	3.93	37.11	40.06	74	33.94	Peak
	2491.39	32.58	28.49	3.93	37.11	27.89	54	26.11	Average
	2498.35	44.89	28.5	3.93	37.11	40.21	74	33.79	Peak
	2498.35	32.19	28.5	3.93	37.11	27.51	54	26.49	Average
Vertical	2331.4	46.42	28.16	3.83	37.11	41.3	74	32.7	Peak
	2331.4	33.14	28.16	3.83	37.11	28.02	54	25.98	Average
	2366.2	48.71	28.23	3.85	37.11	43.68	74	30.32	Peak
	2366.2	33.57	28.23	3.85	37.11	28.54	54	25.46	Average
	2389.9	60.34	28.27	3.85	37.11	55.35	74	18.65	Peak
	2389.9	42.24	28.27	3.85	37.11	37.25	54	16.75	Average
	2484.25	44.94	28.47	3.93	37.11	40.23	74	33.77	Peak
	2484.25	33.6	28.47	3.93	37.11	28.89	54	25.11	Average
	2490.79	45.42	28.49	3.93	37.11	40.73	74	33.27	Peak
	2490.79	33.14	28.49	3.93	37.11	28.45	54	25.55	Average
	2495.65	44.91	28.49	3.93	37.11	40.22	74	33.78	Peak
	2495.65	33.39	28.49	3.93	37.11	28.7	54	25.3	Average

BT 3DH1:

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2327.1	44.61	28.14	3.83	37.11	39.47	74	34.53	Peak
	2327.1	32.16	28.14	3.83	37.11	27.02	54	26.98	Average
	2351.7	44.51	28.2	3.83	37.11	39.43	74	34.57	Peak
	2351.7	33.25	28.2	3.83	37.11	28.17	54	25.83	Average
	2389.4	55.35	28.27	3.85	37.11	50.36	74	23.64	Peak
	2389.4	37.54	28.27	3.85	37.11	32.55	54	21.45	Average
	2483.92	46.79	28.47	3.93	37.11	42.08	74	31.92	Peak
	2483.92	34.59	28.47	3.93	37.11	29.88	54	24.12	Average
	2491.48	44.31	28.49	3.93	37.11	39.62	74	34.38	Peak
	2491.48	32.23	28.49	3.93	37.11	27.54	54	26.46	Average
	2498.14	44.12	28.5	3.93	37.11	39.44	74	34.56	Peak
	2498.14	33.62	28.5	3.93	37.11	28.94	54	25.06	Average
Vertical	2334.8	45.53	28.16	3.83	37.11	40.41	74	33.59	Peak
	2334.8	33.15	28.16	3.83	37.11	28.03	54	25.97	Average
	2359.3	44.72	28.21	3.85	37.11	39.67	74	34.33	Peak
	2359.3	33.38	28.21	3.85	37.11	28.33	54	25.67	Average
	2389.8	57.15	28.27	3.85	37.11	52.16	74	21.84	Peak
	2389.8	39.52	28.27	3.85	37.11	34.53	54	19.47	Average
	2484.1	49.28	28.47	3.93	37.11	44.57	74	29.43	Peak
	2484.1	35.33	28.47	3.93	37.11	30.62	54	23.38	Average
	2488.12	52.43	28.47	3.93	37.11	47.72	74	26.28	Peak
	2488.12	34.15	28.47	3.93	37.11	29.44	54	24.56	Average
	2494.45	44.86	28.49	3.93	37.11	40.17	74	33.83	Peak
	2494.45	34.49	28.49	3.93	37.11	29.8	54	24.2	Average

BT 3DH3:

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2335.3	46.61	28.16	3.83	37.11	41.49	74	32.51	Peak
	2335.3	34.25	28.16	3.83	37.11	29.13	54	24.87	Average
	2360.5	45.2	28.21	3.85	37.11	40.15	74	33.85	Peak
	2360.5	34.33	28.21	3.85	37.11	29.28	54	24.72	Average
	2388.6	53.98	28.27	3.85	37.11	48.99	74	25.01	Peak
	2388.6	36.5	28.27	3.85	37.11	31.51	54	22.49	Average
	2484.82	43.93	28.47	3.93	37.11	39.22	74	34.78	Peak
	2484.82	33.3	28.47	3.93	37.11	28.59	54	25.41	Average
	2490.37	43.39	28.49	3.93	37.11	38.7	74	35.3	Peak
	2490.37	32.64	28.49	3.93	37.11	27.95	54	26.05	Average
	2495.65	44.5	28.49	3.93	37.11	39.81	74	34.19	Peak
	2495.65	32.25	28.49	3.93	37.11	27.56	54	26.44	Average
Vertical	2334.9	44.93	28.16	3.83	37.11	39.81	74	34.19	Peak
	2334.9	33.19	28.16	3.83	37.11	28.07	54	25.93	Average
	2357.9	44.86	28.21	3.85	37.11	39.81	74	34.19	Peak
	2357.9	33.29	28.21	3.85	37.11	28.24	54	25.76	Average
	2389	60.56	28.27	3.85	37.11	55.57	74	18.43	Peak
	2389	39.36	28.27	3.85	37.11	34.37	54	19.63	Average
	2483.95	45.21	28.47	3.93	37.11	40.5	74	33.5	Peak
	2483.95	33.63	28.47	3.93	37.11	28.92	54	25.08	Average
	2487.49	46.28	28.47	3.93	37.11	41.57	74	32.43	Peak
	2487.49	35.53	28.47	3.93	37.11	30.82	54	23.18	Average
	2496.28	47.97	28.49	3.93	37.11	43.28	74	30.72	Peak
	2496.28	33.5	28.49	3.93	37.11	28.81	54	25.19	Average

BT 3DH5:

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)	Remark
Horizontal	2332.2	45.58	28.16	3.83	37.11	40.46	74	33.54	Peak
	2332.2	33.35	28.16	3.83	37.11	28.23	54	25.77	Average
	2353.8	44.23	28.2	3.83	37.11	39.15	74	34.85	Peak
	2353.8	33.42	28.2	3.83	37.11	28.34	54	25.66	Average
	2388.5	57.24	28.27	3.85	37.11	52.25	74	21.75	Peak
	2388.5	35.63	28.27	3.85	37.11	30.64	54	23.36	Average
	2484.16	46.05	28.47	3.93	37.11	41.34	74	32.66	Peak
	2484.16	34.11	28.47	3.93	37.11	29.4	54	24.6	Average
	2490.04	46.65	28.49	3.93	37.11	41.96	74	32.04	Peak
	2490.04	32.47	28.49	3.93	37.11	27.78	54	26.22	Average
	2495.11	45.02	28.49	3.93	37.11	40.33	74	33.67	Peak
	2495.11	32.45	28.49	3.93	37.11	27.76	54	26.24	Average
Vertical	2339.6	46.8	28.17	3.83	37.11	41.69	74	32.31	Peak
	2339.6	33.48	28.17	3.83	37.11	28.37	54	25.63	Average
	2364.9	44.96	28.23	3.85	37.11	39.93	74	34.07	Peak
	2364.9	33.33	28.23	3.85	37.11	28.3	54	25.7	Average
	2389.6	61.47	28.27	3.85	37.11	56.48	74	17.52	Peak
	2389.6	39.63	28.27	3.85	37.11	34.64	54	19.36	Average
	2484.4	45.34	28.47	3.93	37.11	40.63	74	33.37	Peak
	2484.4	36.14	28.47	3.93	37.11	31.43	54	22.57	Average
	2491.06	46.1	28.49	3.93	37.11	41.41	74	32.59	Peak
	2491.06	32.41	28.49	3.93	37.11	27.72	54	26.28	Average
	2495.74	47.26	28.49	3.93	37.11	42.57	74	31.43	Peak
	2495.74	33.63	28.49	3.93	37.11	28.94	54	25.06	Average

TEST ENGINEER: Jarey

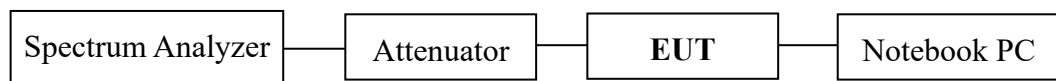
5 20 DB BANDWIDTH MEASUREMENT

5.1 Test Equipment

The following test equipment was used during the Emission Bandwidth measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A	MY52221182	2020.09.16	1 Year
2.	Coaxial Cable	WOKEN	SFL402-105F LEX	F02-150819-045	2021.03.08	1 Year
3.	10 dB Attenuator	Mini-Circuits	VAT-10W2+	001	2020.08.06	1 Year

5.2 Block Diagram of Test Setup



5.3 Specification Limits (§15.247(a)(1))

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, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

5.4 Operating Condition of EUT

The switch ON/OFF was used to enable the EUT to change the channel one by one.

5.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

Use the following spectrum analyzer settings:

- Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel
- RBW $\geq$ 1% of the 20 dB bandwidth
- VBW $\geq$ RBW
- Sweep = auto
- Detector function = peak
- Trace = max hold

The 20 dB bandwidth is defined as the total spectrum the power of which is lower than peak power minus 20 dB .

The test procedure is defined in FCC Public Notice DA 00-705, Mar.2000 (the Procedure “ 20 dB Bandwidth” was used).

5.6 Test Results

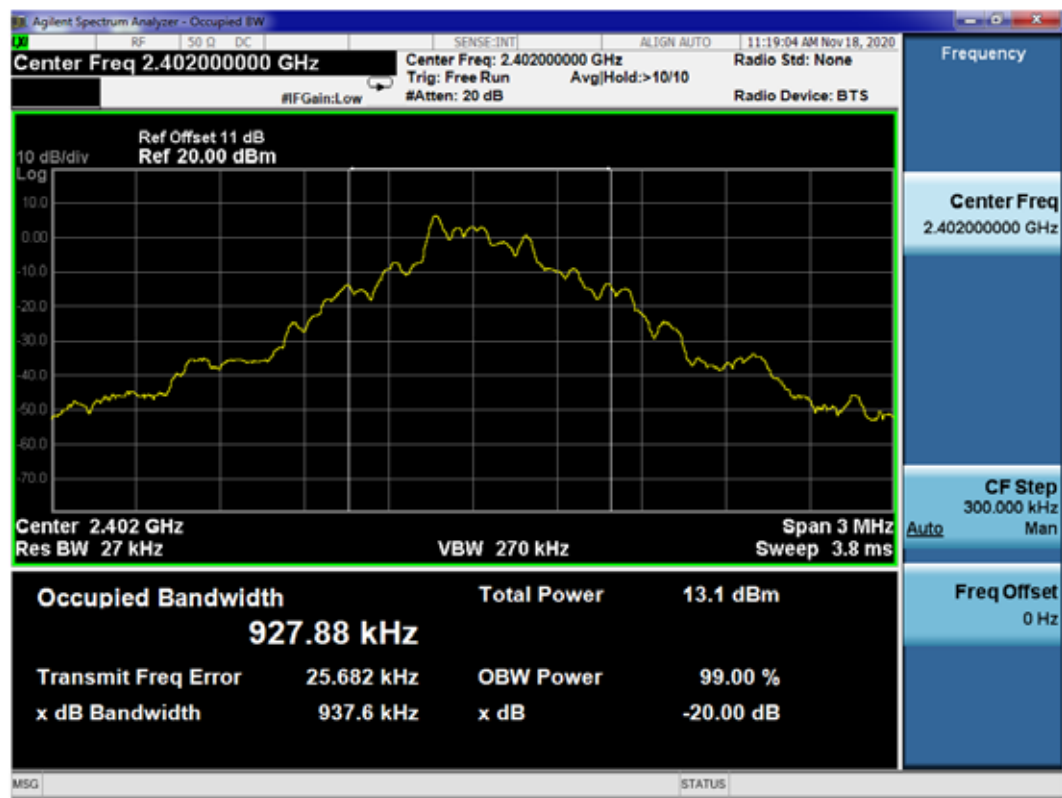
PASSED.

All the test results are attached in next pages.

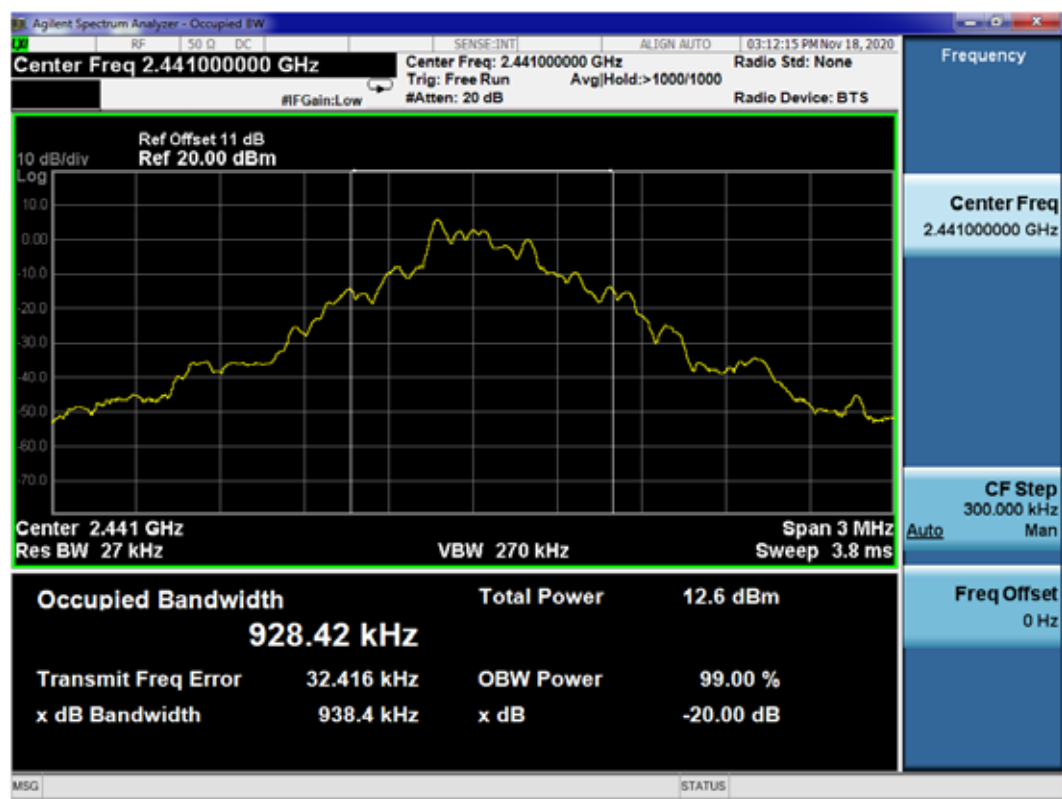
(Test Date: 2020.11.18 Temperature: 23°C Humidity: 51 %)

Modulation	Channel	Frequency (MHz)	20dB Bandwidth (MHz)	2/3 20dB Bandwidth (MHz)
BT DH1	00	2402	937.6	625.1
	39	2441	938.4	625.6
	78	2480	831.3	554.2
BT DH3	00	2402	934.3	622.9
	39	2441	870.6	580.4
	78	2480	872.4	581.6
BT DH5	00	2402	818.1	545.4
	39	2441	818.5	545.7
	78	2480	817.9	545.3
BT 3DH1	00	2402	1159	772.7
	39	2441	1158	772.0
	78	2480	1160	773.3
BT 3DH3	00	2402	1123	748.7
	39	2441	1122	748.0
	78	2480	1125	750.0
BT 3DH5	00	2402	1110	740.0
	39	2441	1110	740.0
	78	2480	1110	740.0

BT DH1: CH00 (2402 MHz)



BT DH1: CH39 (2441 MHz)



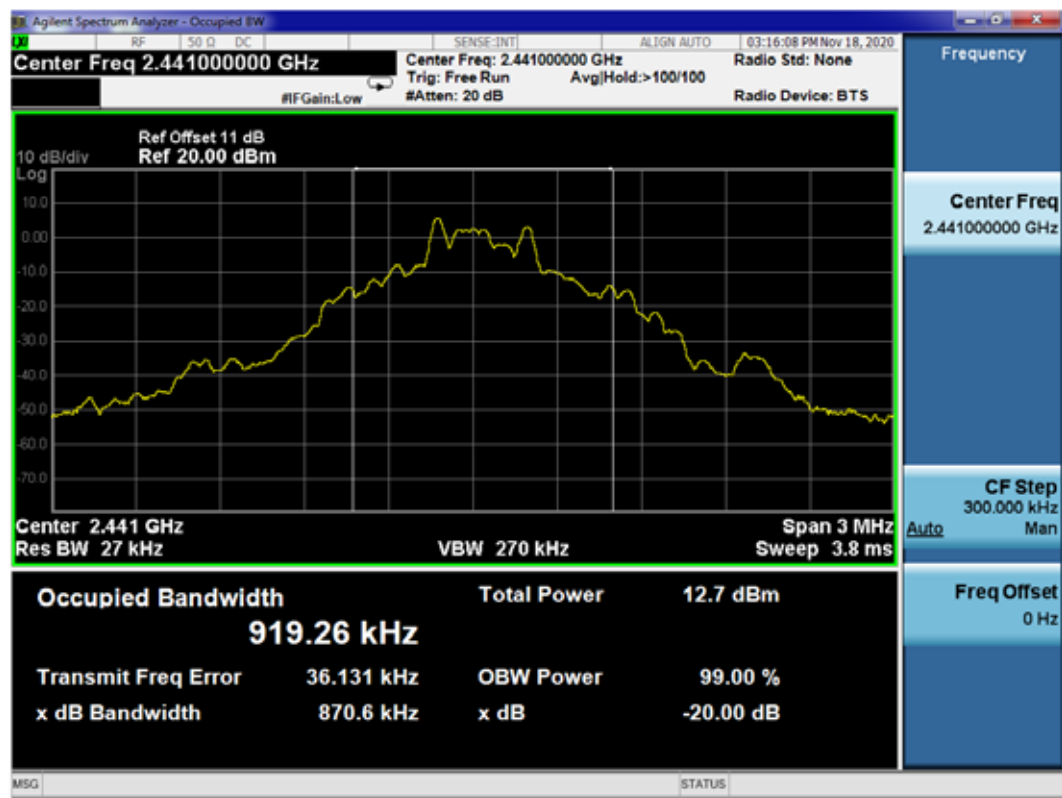
BT DH1: CH78 (2480 MHz)



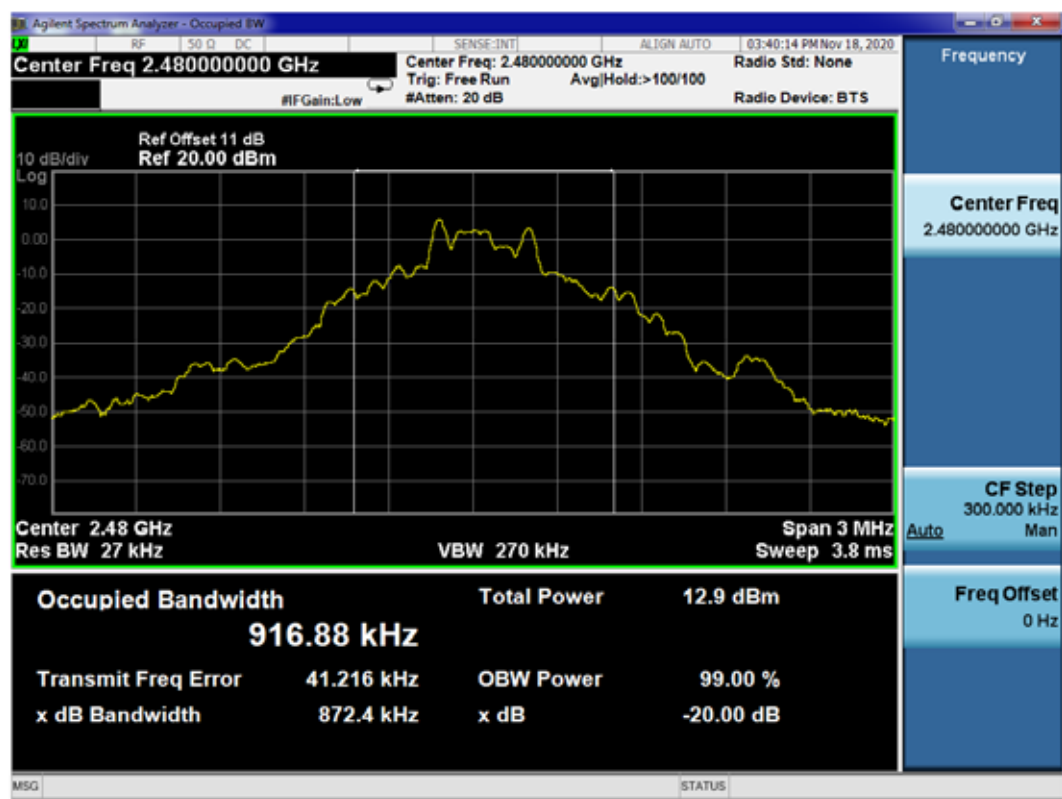
BT DH3: CH00 (2402 MHz)



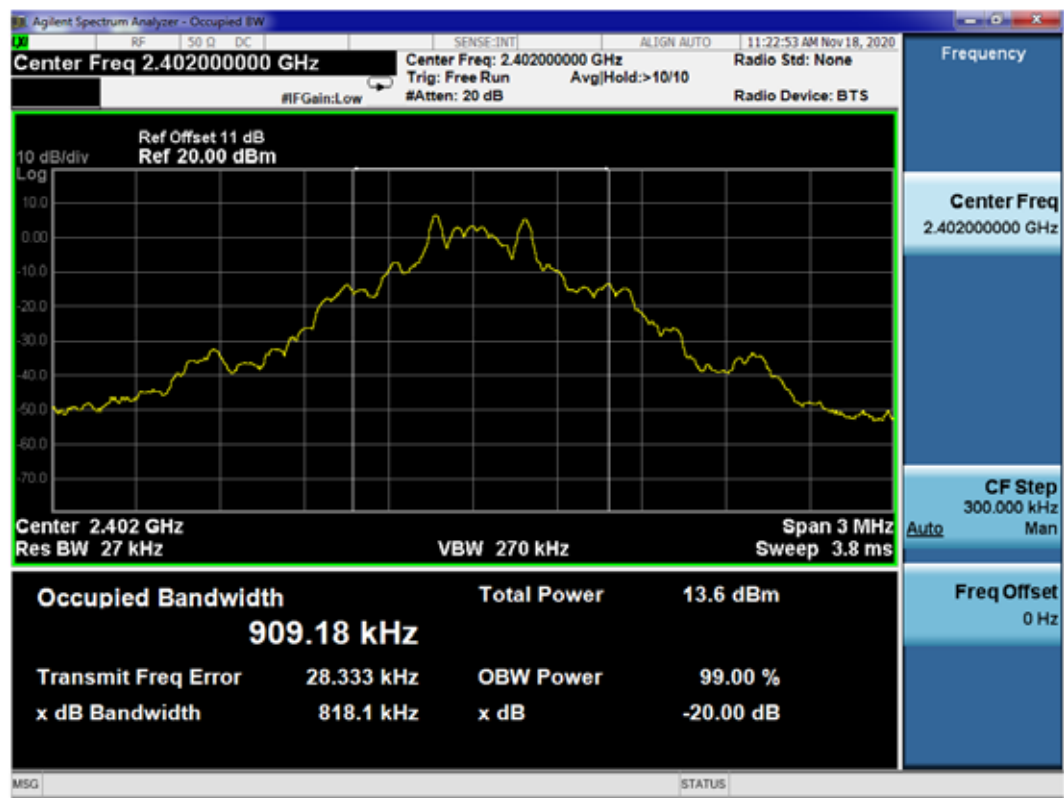
BT DH3: CH39 (2441 MHz)



BT DH3: CH78 (2480 MHz)



BT DH5: CH00 (2402 MHz)



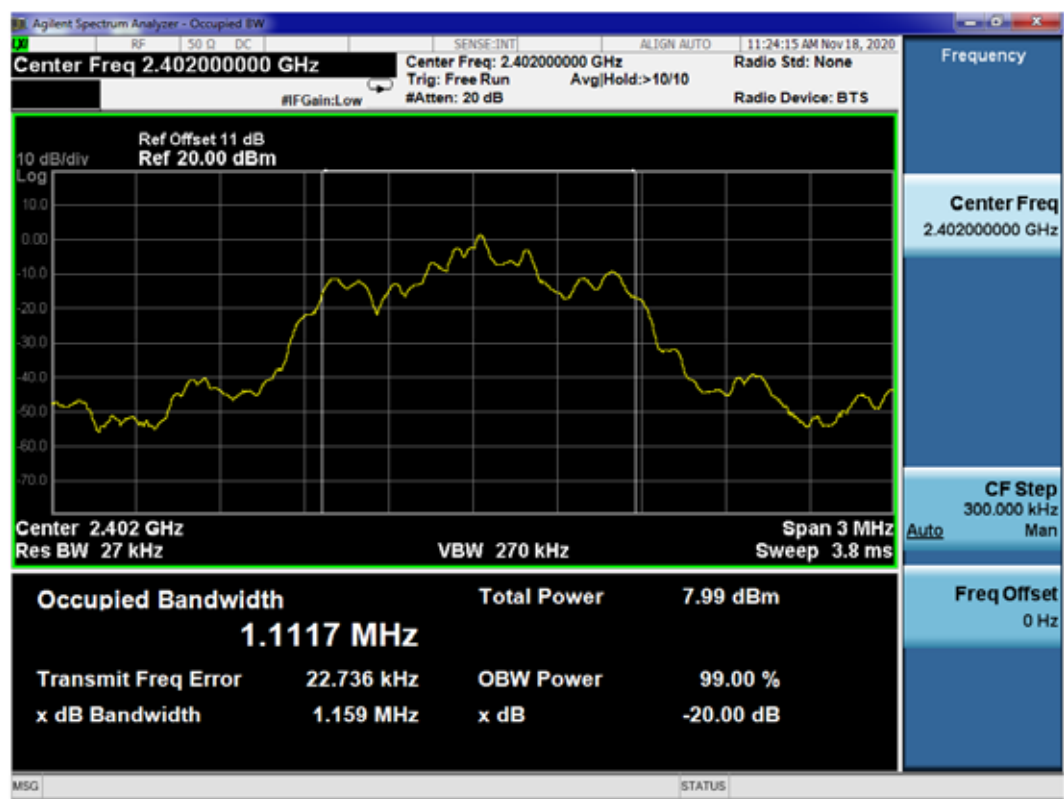
BT DH5: CH39 (2441 MHz)



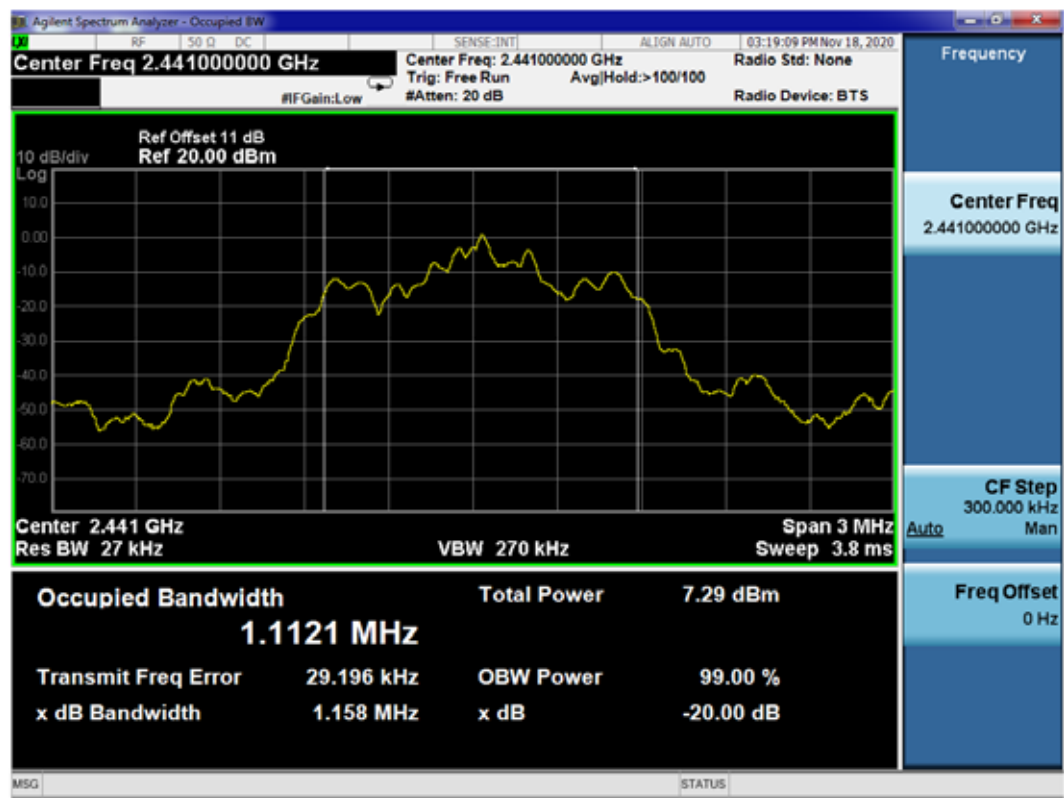
BT DH5: CH78 (2480 MHz)



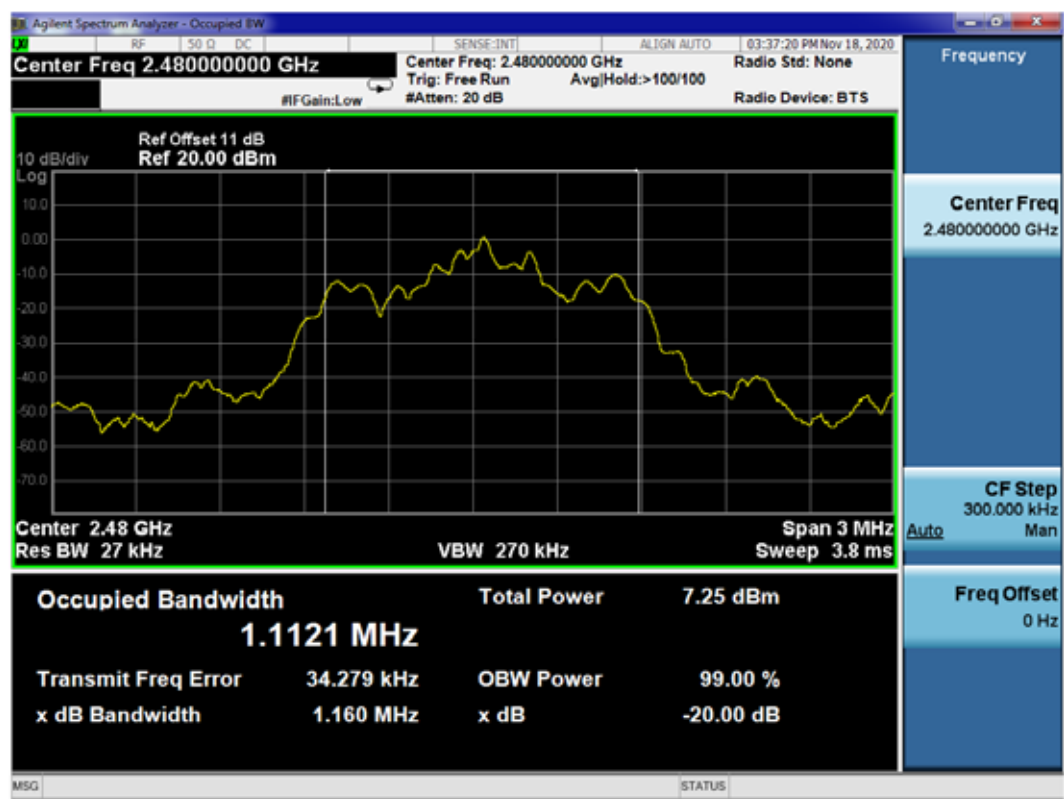
BT 3DH1: CH00 (2402 MHz)



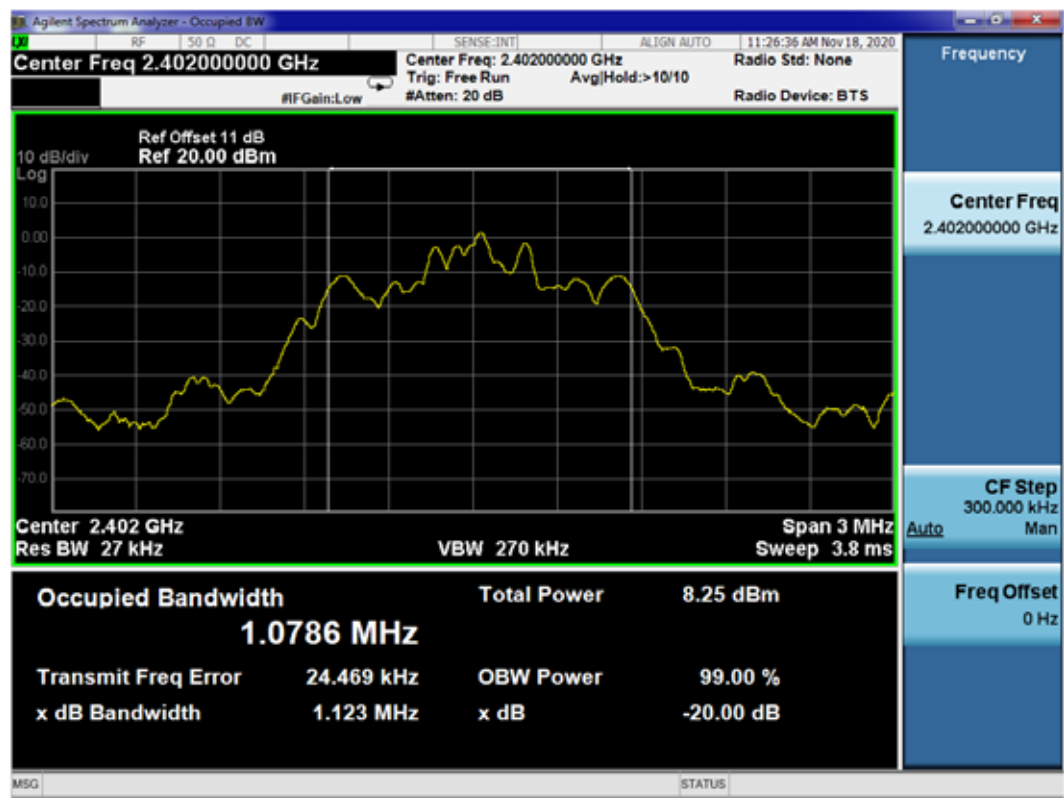
BT 3DH1: CH39 (2441 MHz)



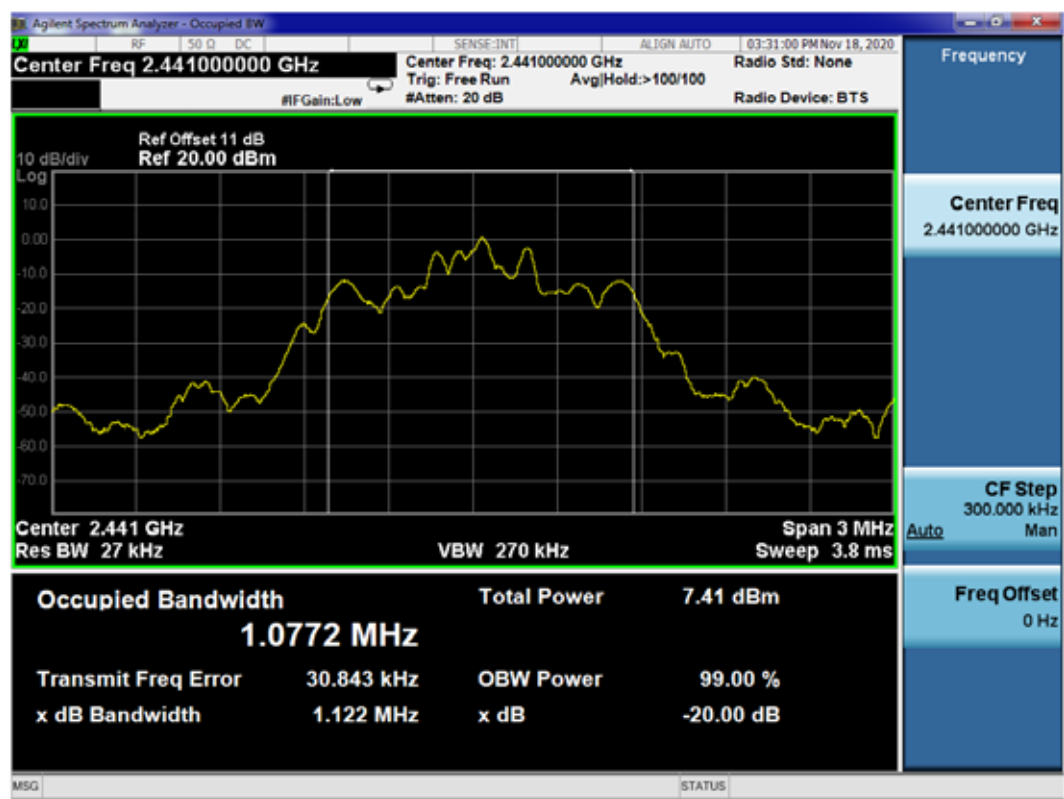
BT 3DH1: CH78 (2480 MHz)



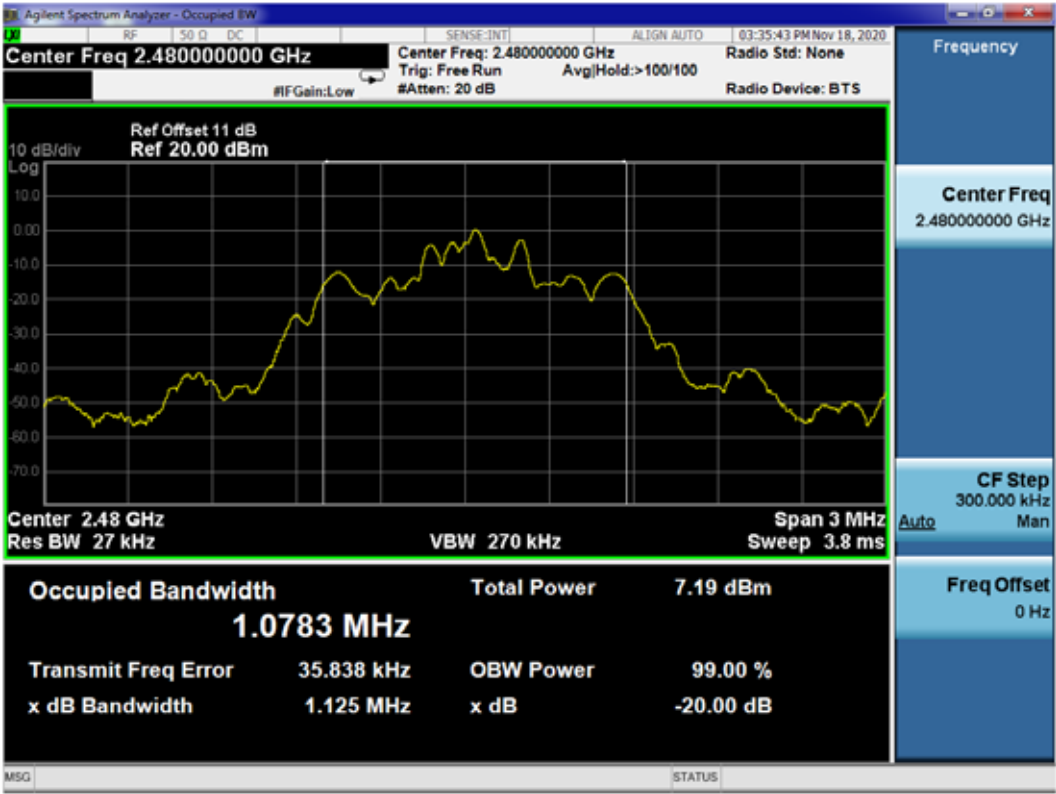
BT 3DH3: CH00 (2402 MHz)



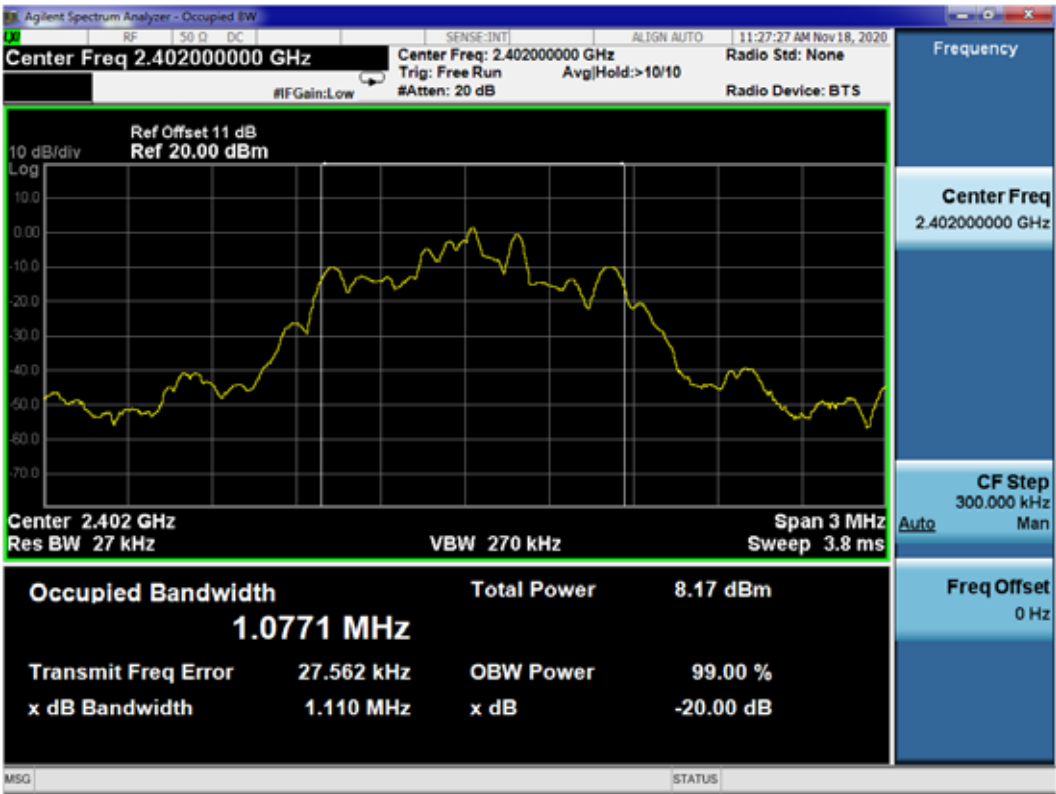
BT 3DH3: CH39 (2441 MHz)



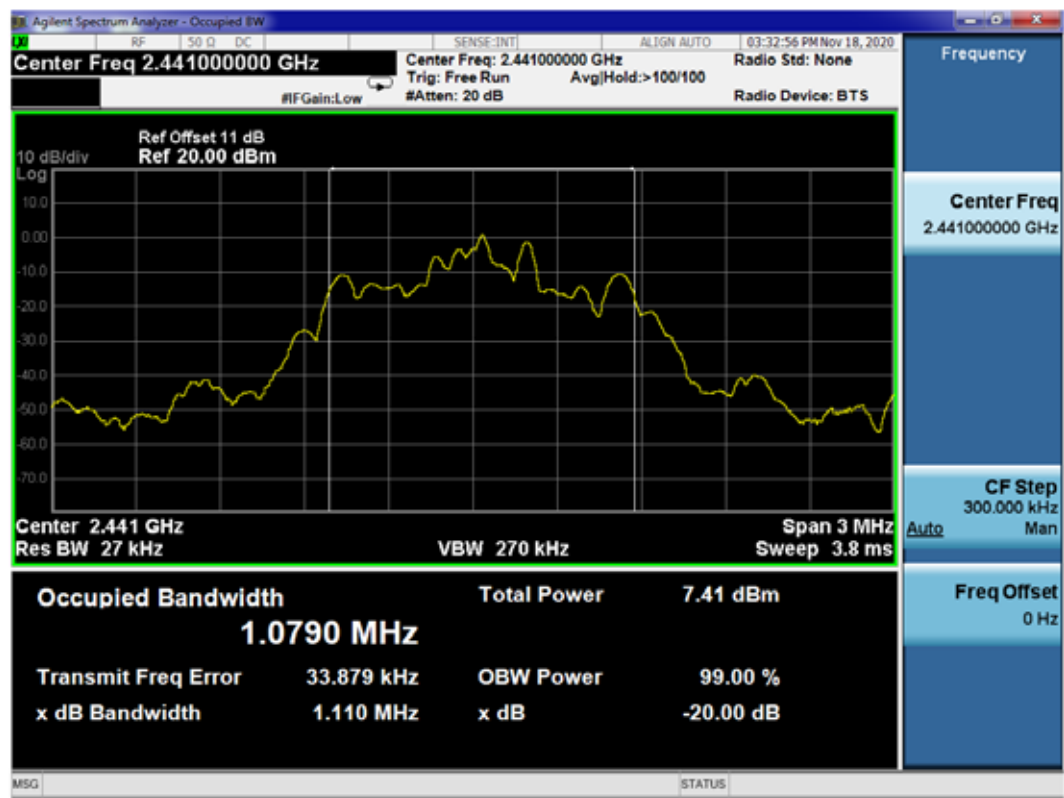
BT 3DH3: CH78 (2480 MHz)



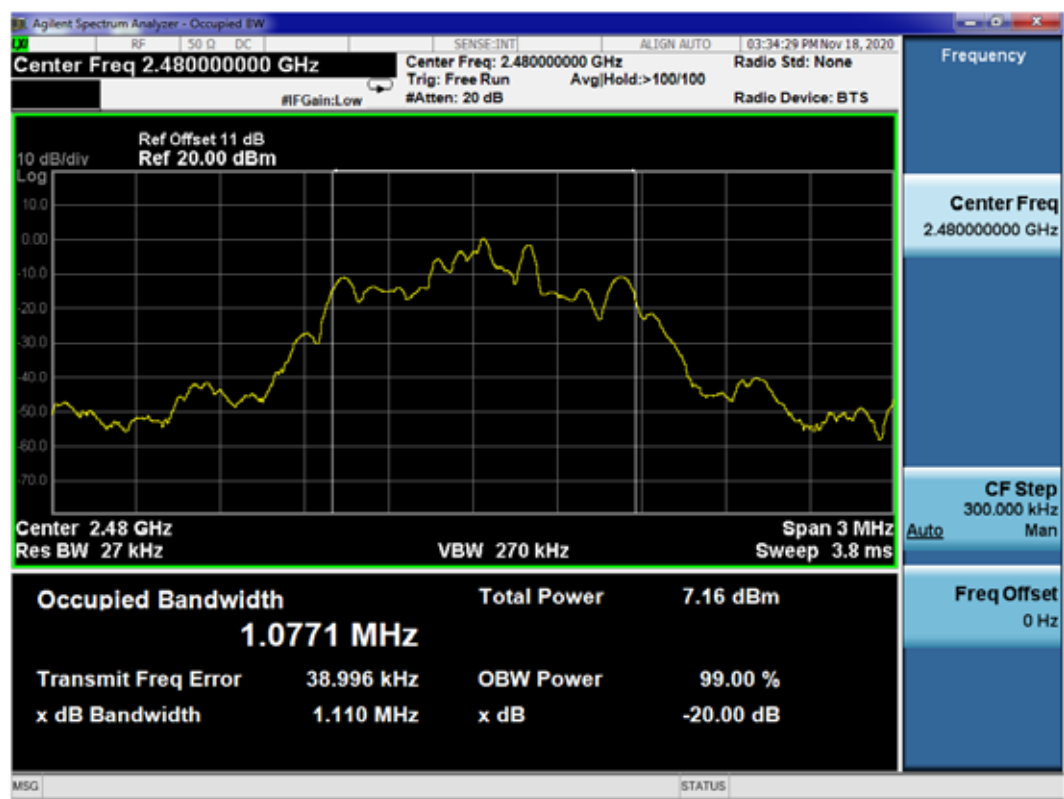
BT 3DH5: CH00 (2402 MHz)



BT 3DH5: CH39 (2441 MHz)



BT 3DH5: CH78 (2480 MHz)



6 CARRIER FREQUENCY SEPARATION

MEASUREMENT

6.1 Test Equipment

The following test equipment was used during the Emission Bandwidth measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A	MY52221182	2020.09.16	1 Year
2.	Coaxial Cable	WOKEN	SFL402-105F LEX	F02-150819-045	2021.03.08	1 Year
3.	10 dB Attenuator	Mini-Circuits	VAT-10W2+	001	2020.08.06	1 Year

6.2 Block Diagram of Test Setup

The Same as Section. 5.2

6.3 Specification Limits (§15.247(a)(1))

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, whichever is greater, provided the systems operate with an output power no greater than 125 mW.

6.4 Operating Condition of EUT

The switch ON/OFF was used to enable the EUT to have its hopping function enabled.

6.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

- Span = wide enough to capture the peaks of two adjacent channels
- RBW $\geq$ 1% of the span
- VBW $\geq$ RBW
- Sweep = auto
- Detector function = peak
- Trace = max hold
- Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. Submit this plot.

The test procedure is defined in FCC Public Notice DA 00-705, Mar.2000 (the Procedure “Carrier Frequency Separation” was used).

6.6 Test Results

PASSED.

All the test results are attached in next pages.

(Test Date: 2020.11.18 Temperature: 23 Humidity: 51 %)

Modulation	Channel	Separation (MHz)
BT DH1	Hopping	1.000
BT DH3	Hopping	1.000
BT DH5	Hopping	1.000
BT 3DH1	Hopping	0.999
BT 3DH3	Hopping	1.000
BT 3DH5	Hopping	1.000

BT DH1: Hopping



BT DH3: Hopping



BT DH5: Hopping



BT 3DH1: Hopping



BT 3DH3: Hopping



BT 3DH5: Hopping



7 NUMBER OF HOPPING FREQUENCIES

MEASUREMENT

7.1 Test Equipment

The following test equipment was used during the Emission Bandwidth measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A	MY52221182	2020.09.16	1 Year
2.	Coaxial Cable	WOKEN	SFL402-105F LEX	F02-150819-045	2021.03.08	1 Year
3.	10 dB Attenuator	Mini-Circuits	VAT-10W2+	001	2020.08.06	1 Year

7.2 Block Diagram of Test Setup

The Same as Section. 5.2

7.3 Specification Limits (§15.247(a)(1)(iii))

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

7.4 Operating Condition of EUT

The switch ON/OFF was used to enable the EUT to have its hopping function enabled.

7.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

- a) Span = the frequency band of operation
- b) RBW $\geq$ 1% of the span
- c) VBW $\geq$ RBW
- d) Sweep = auto
- e) Detector function = peak
- f) Trace = max hold
- g) Allow the trace to stabilize. It may prove necessary to break the span up to sections, in order to clearly show all of the hopping frequencies. Submit this plot(s).

The test procedure is defined in FCC Public Notice DA 00-705, Mar.2000 (the Procedure “Number of Hopping Frequencies” was used).

7.6 Test Results

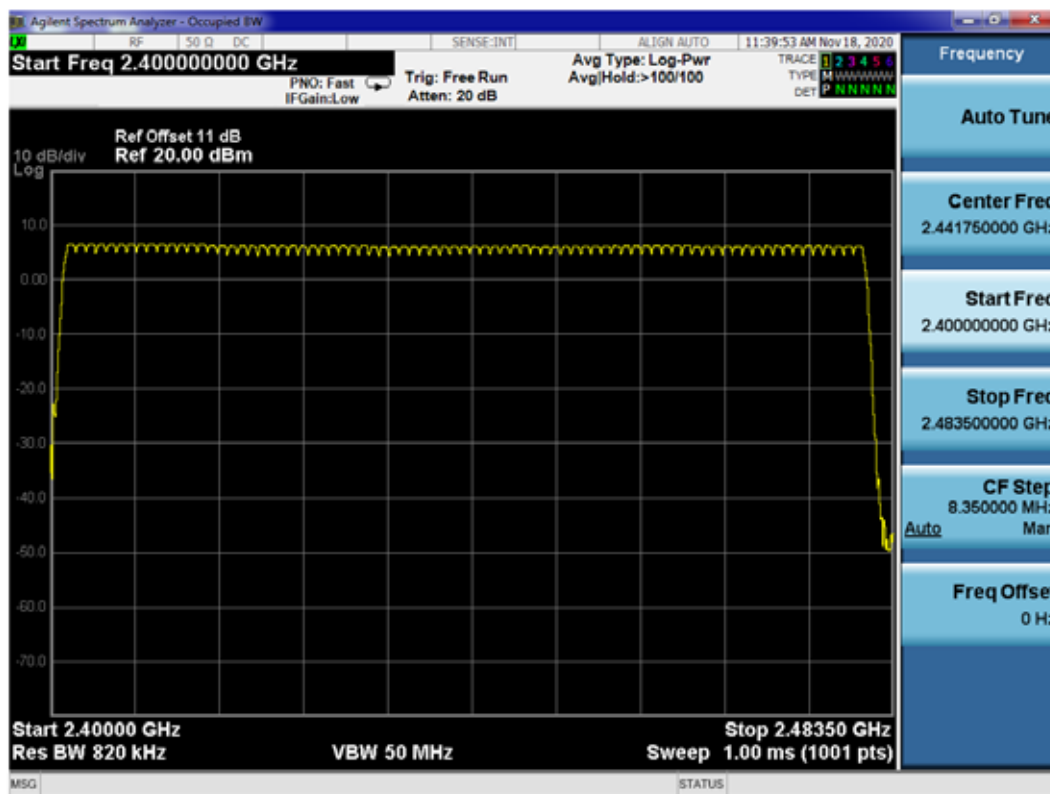
PASSED.

All the test results are attached in next pages.

(Test Date: 2020.11.18 Temperature: 23°C Humidity: 51 %)

Modulation	Number of Hopping Frequencies
BT DH1	79
BT DH3	79
BT DH5	79
BT 3DH1	79
BT 3DH3	79
BT 3DH5	79

BT DH1



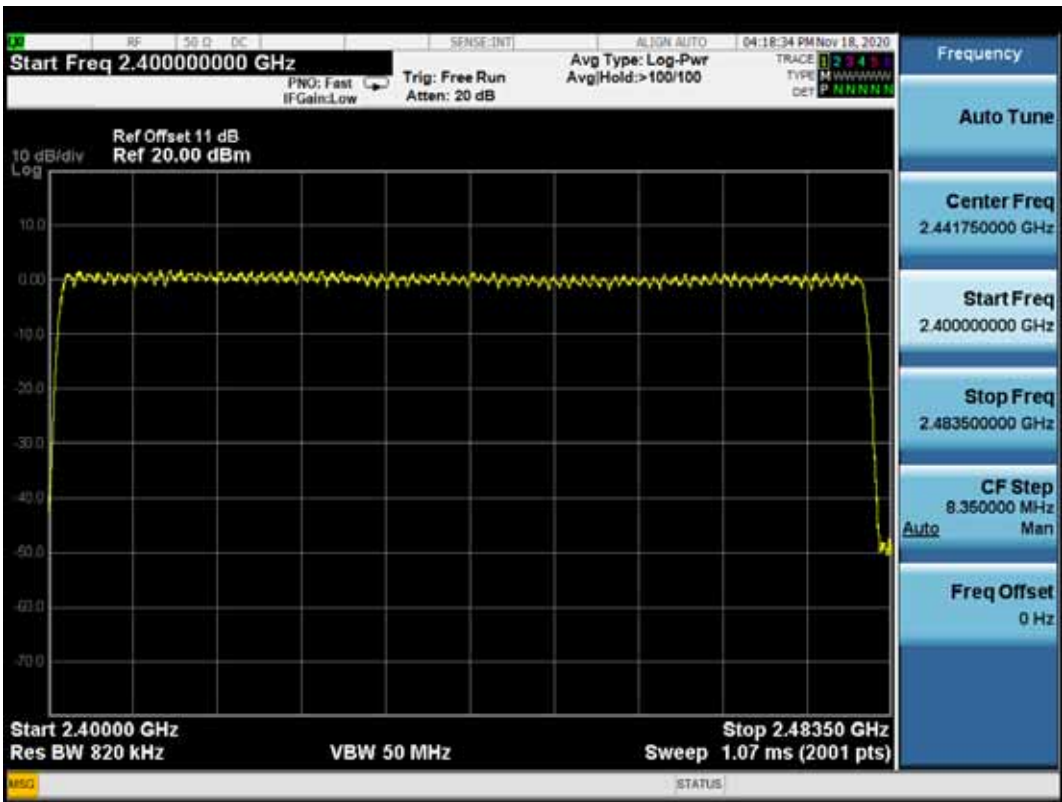
BT DH3



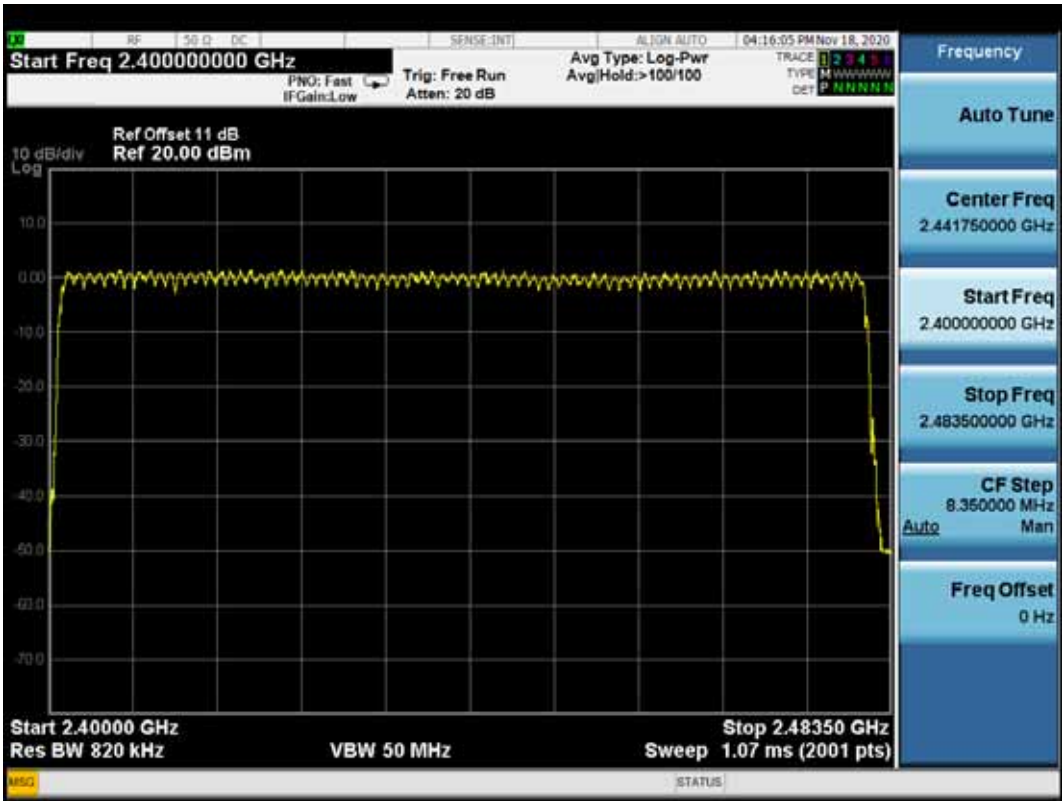
BT DH5



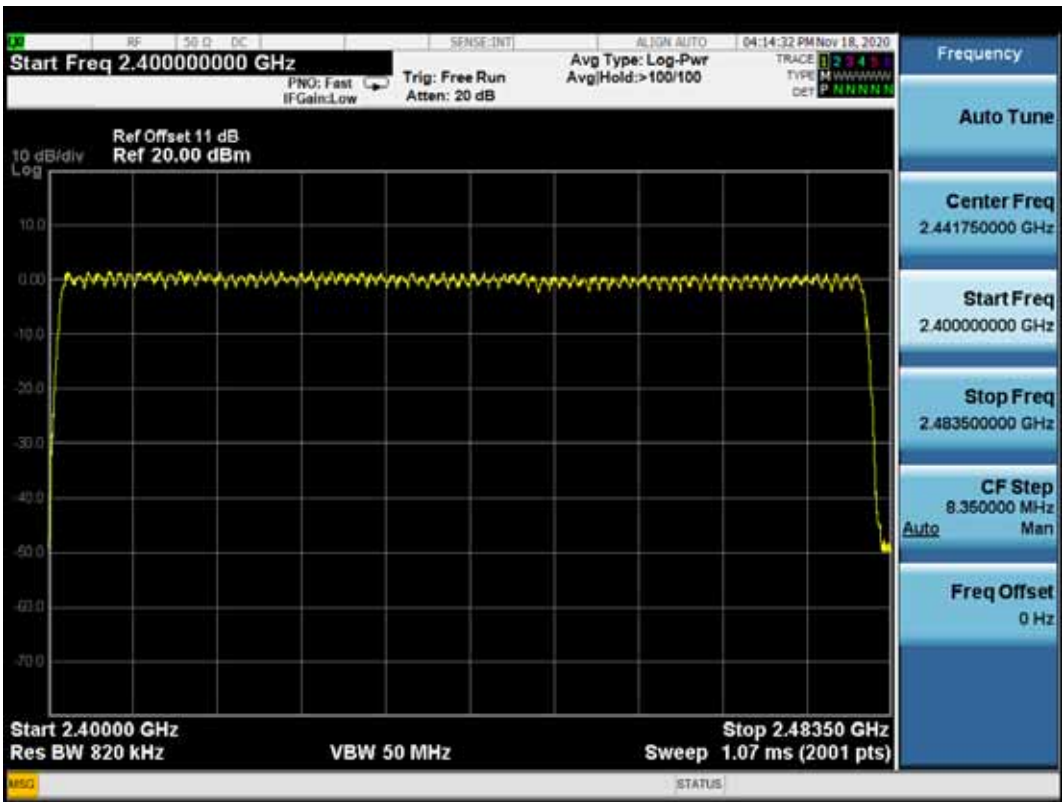
BT 3DH1



BT 3DH3



BT 3DH5



8 DWELL TIME MEASUREMENT

8.1 Test Equipment

The following test equipment was used during the Emission Bandwidth measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A	MY52221182	2020.09.16	1 Year
2.	Coaxial Cable	WOKEN	SFL402-105F LEX	F02-150819-045	2021.03.08	1 Year
3.	10 dB Attenuator	Mini-Circuits	VAT-10W2+	001	2020.08.06	1 Year

8.2 Block Diagram of Test Setup

The Same as Section. 5.2

8.3 Specification Limits (§15.247(a)(1)(iii))

Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. 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.

8.4 Operating Condition of EUT

The switch ON/OFF was used to enable the EUT to have its hopping function enabled.

8.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

- a) Span = zero span, centered on a hopping channel
- b) RBW = 1 MHz
- c) VBW $\geq$ RBW
- d) Sweep = as necessary to capture the entire dwell time per hopping channel
- e) Detector function = peak
- f) Trace = max hold

The test procedure is defined in FCC Public Notice DA 00-705, Mar.2000 (the Procedure “Time of Occupancy (Dwell Time)” was used).

8.6 Test Results

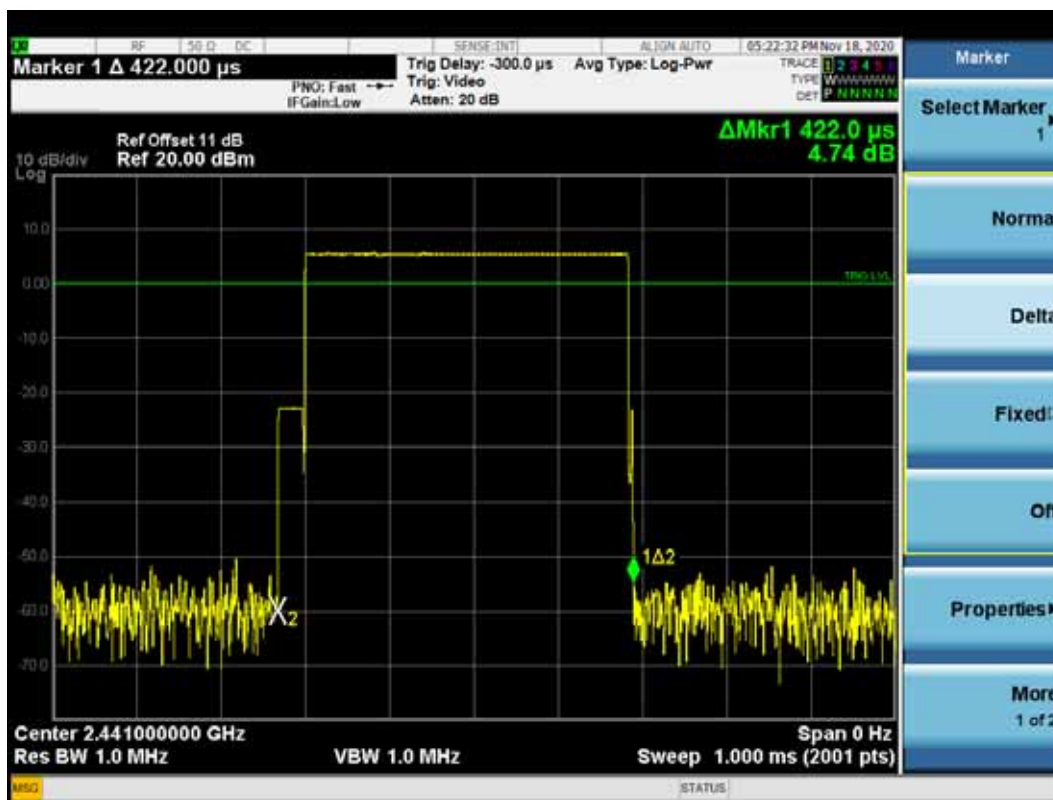
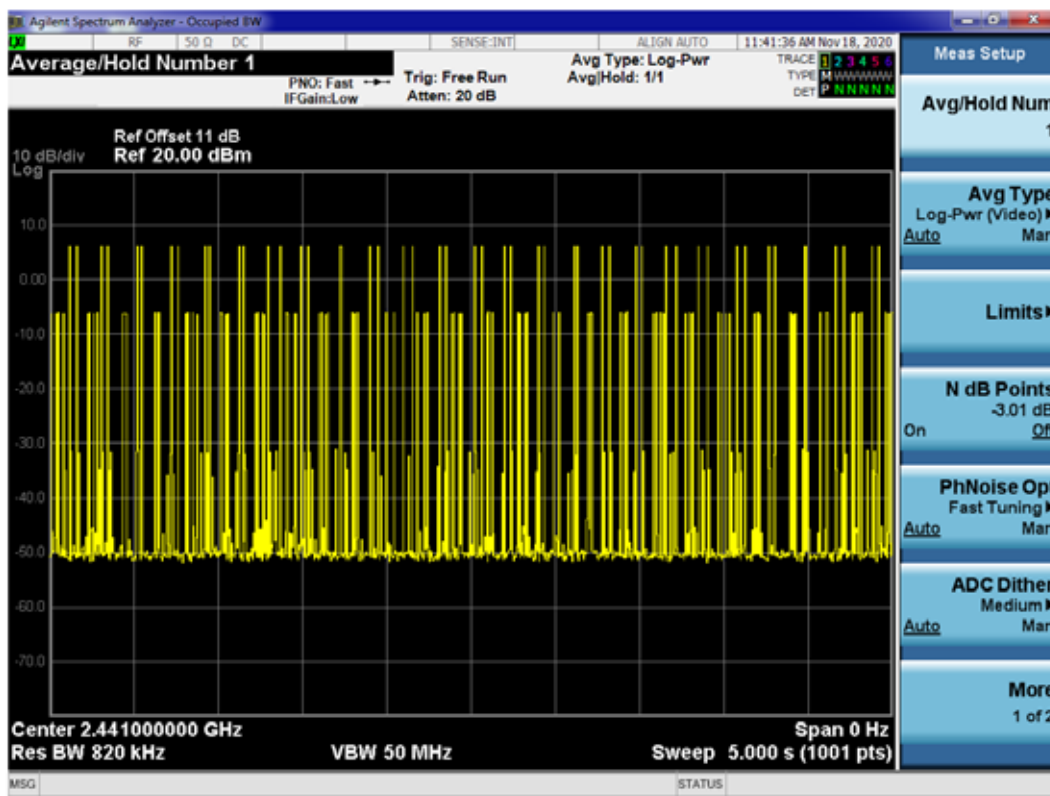
PASSED.

All the test results are attached in next pages.

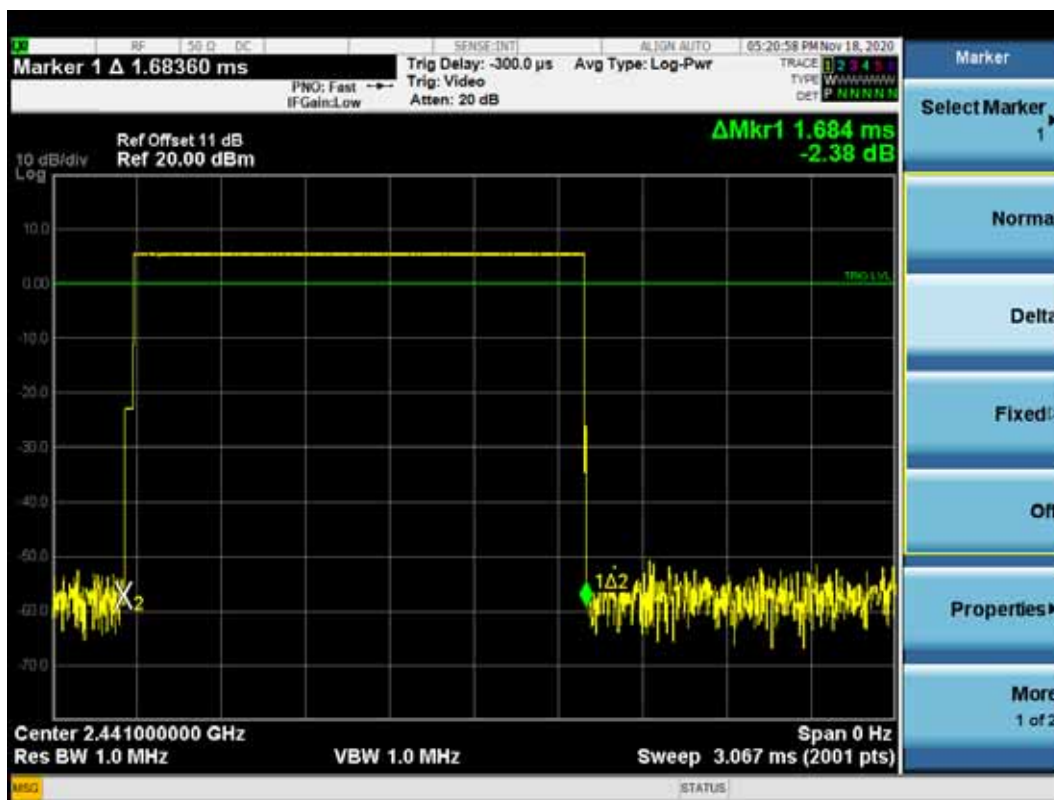
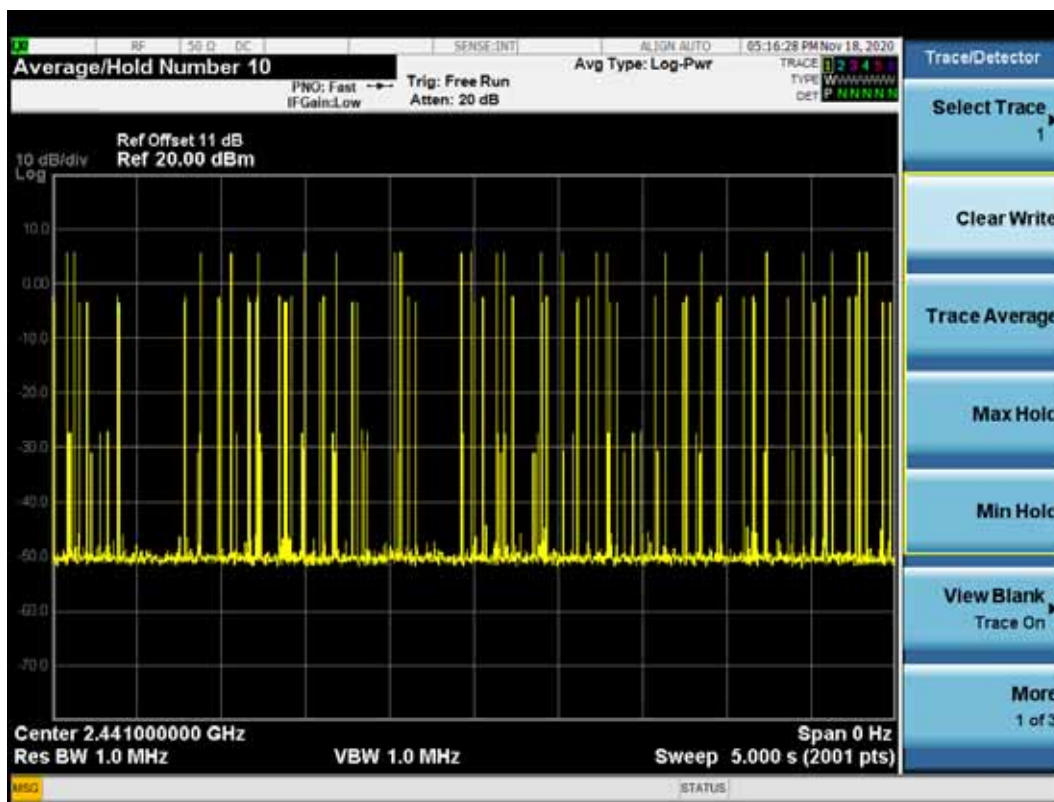
(Test Date: 2020.11.18 Temperature: 23 Humidity: 51 %)

Modulation	Dwell Time	Limit
BT DH1	$48\text{hops}/5\text{s} \times 0.4 \times 79\text{channels} \times 0.422\text{ms} = 128.018\text{ms}$	400 ms
BT DH3	$24\text{hops}/5\text{s} \times 0.4 \times 79\text{channels} \times 1.684\text{ms} = 255.429\text{ms}$	400 ms
BT DH5	$35\text{hops}/5\text{s} \times 0.4 \times 79\text{channels} \times 2.928\text{ms} = 323.837\text{ms}$	400 ms
BT 3DH1	$51\text{hops}/5\text{s} \times 0.4 \times 79\text{channels} \times 0.428\text{ms} = 137.953\text{ms}$	400 ms
BT 3DH3	$26\text{hops}/5\text{s} \times 0.4 \times 79\text{channels} \times 1.681\text{ms} = 276.222\text{ms}$	400 ms
BT 3DH5	$35\text{hops}/5\text{s} \times 0.4 \times 79\text{channels} \times 2.934\text{ms} = 324.500\text{ms}$	400 ms

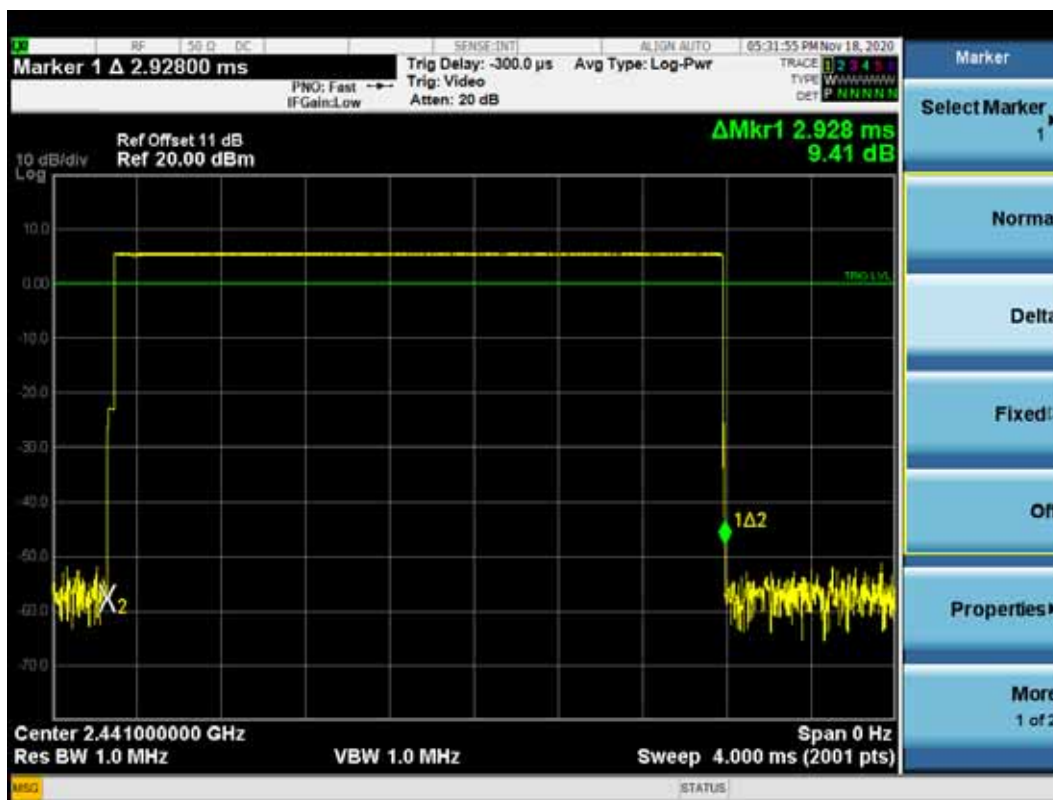
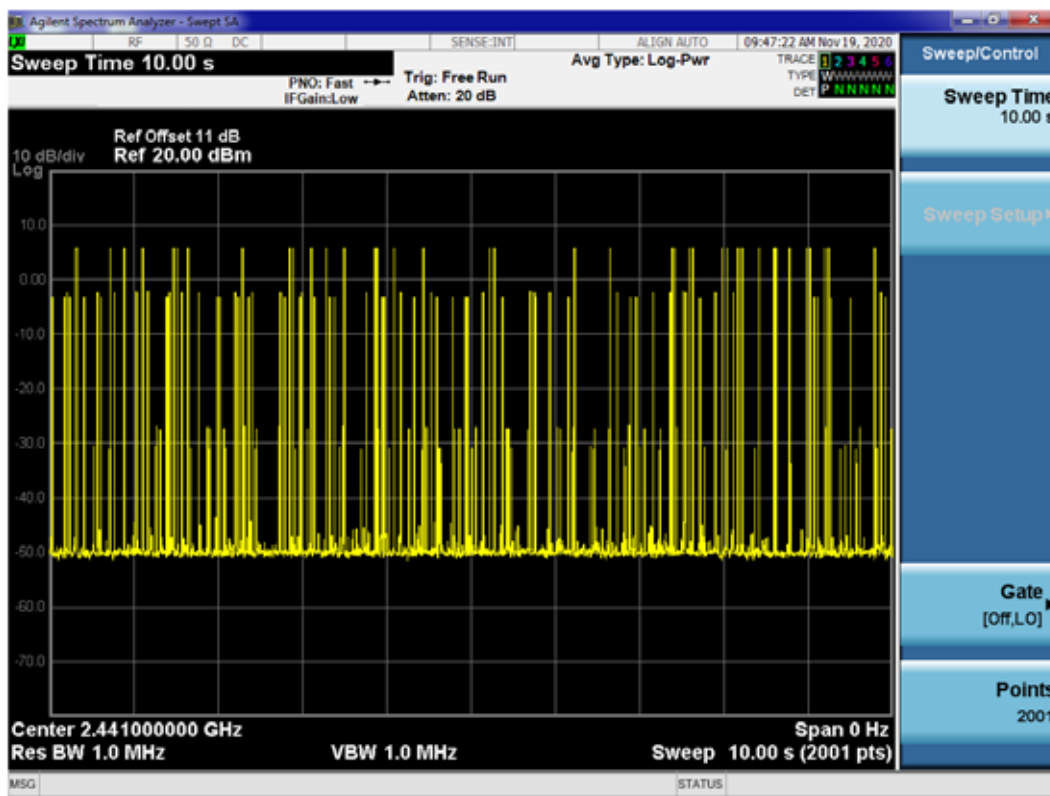
BT DH1



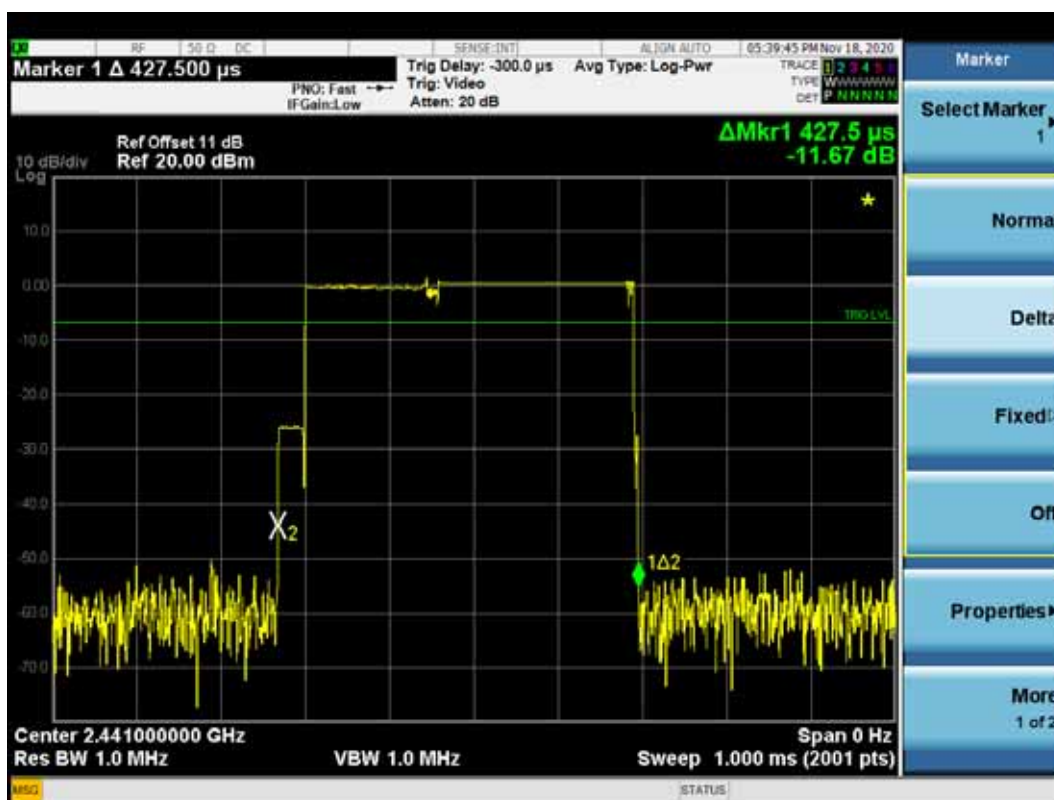
BT DH3



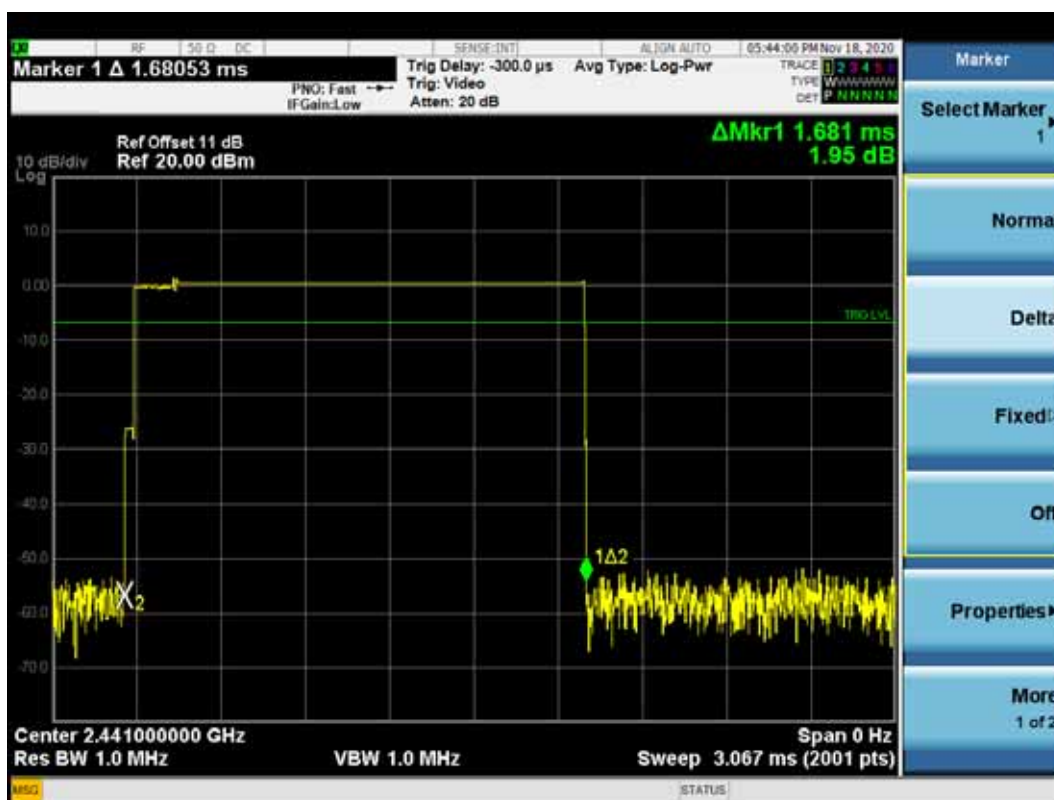
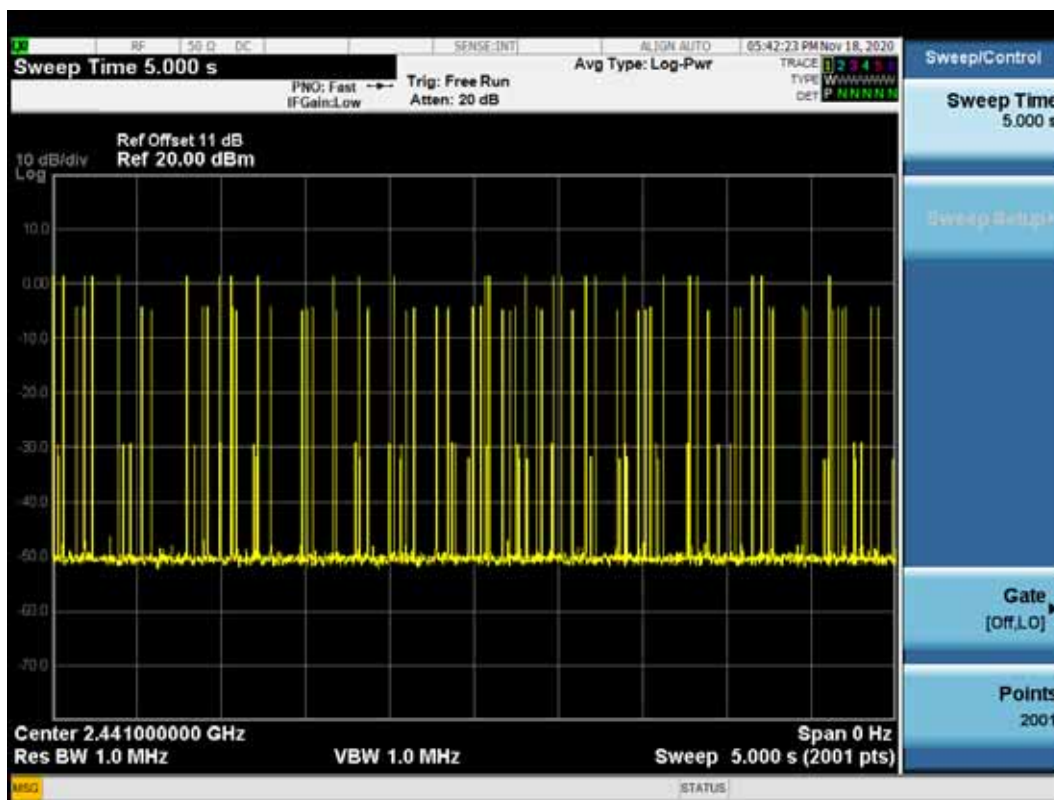
BT DH5



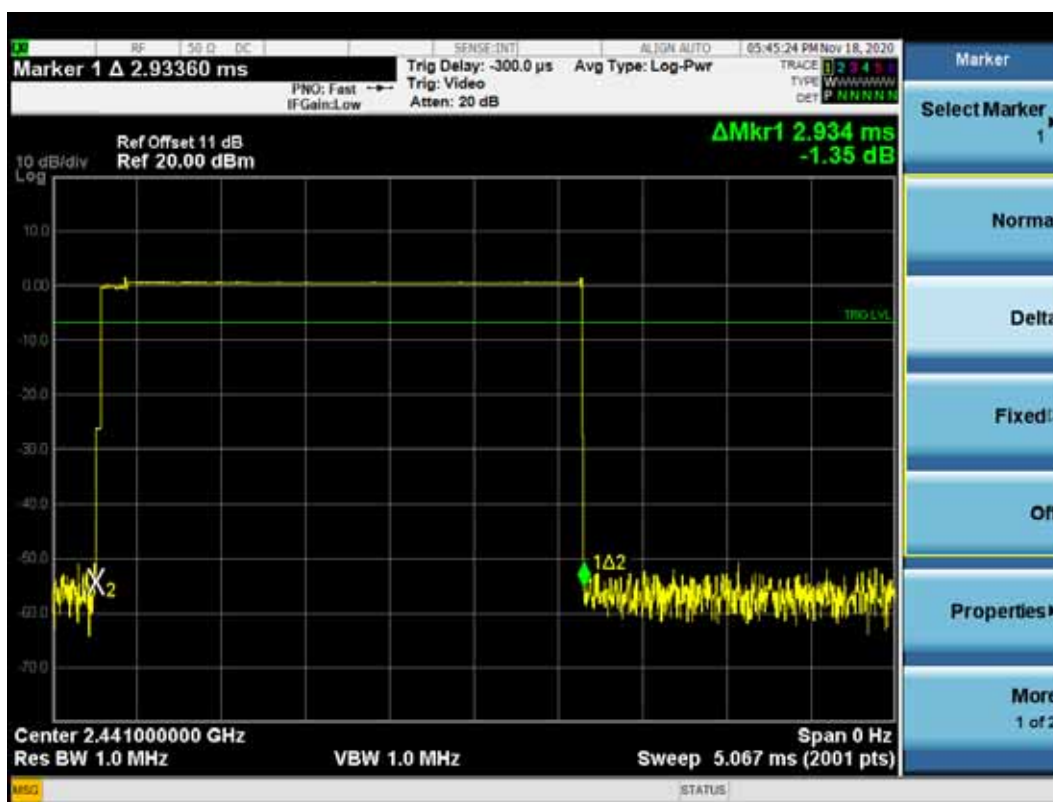
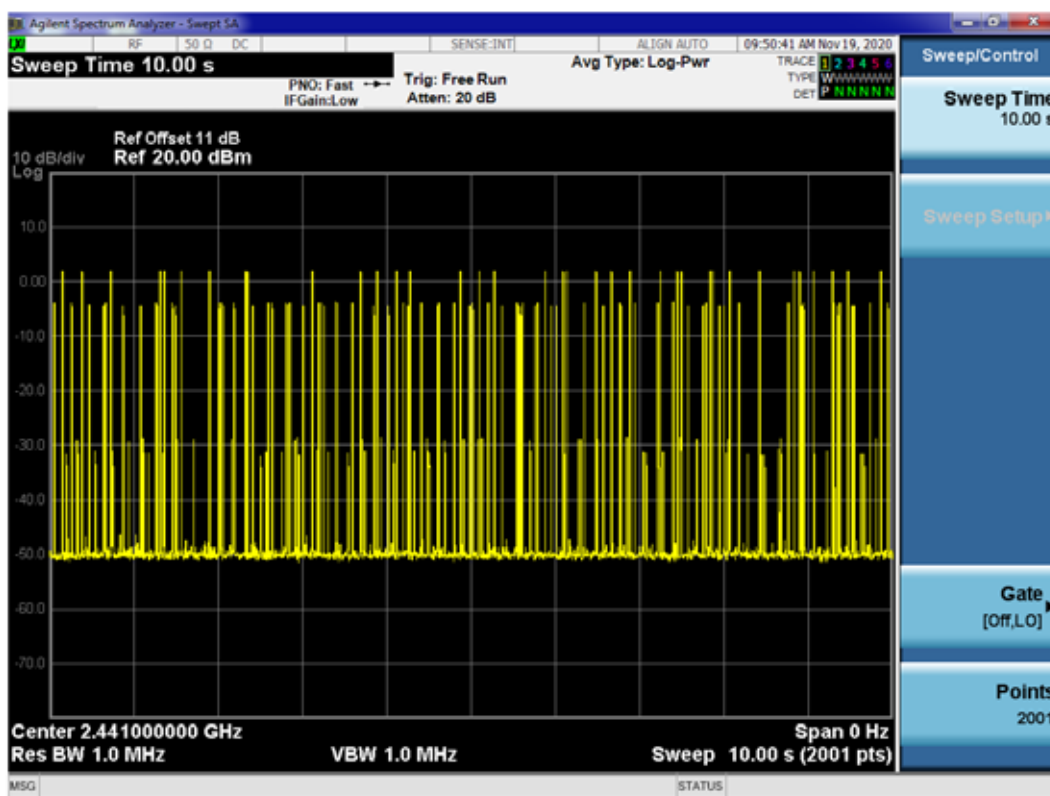
BT 3DH1



BT 3DH3



BT 3DH5



9 MAXIMUM PEAK OUTPUT POWER MEASUREMENT

9.1 Test Equipment

The following test equipment was used during the maximum peak output power measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A	MY52221182	2020.09.16	1 Year
2.	Coaxial Cable	WOKEN	SFL402-105F LEX	F02-150819-0 45	2021.03.08	1 Year
3.	10 dB Attenuator	Mini-Circuits	VAT-10W2+	001	2020.08.06	1 Year

9.2 Block Diagram of Test Setup

The Same as Section. 5.2

9.3 Specification Limits (§15.247(b)(1))

For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

9.4 Operating Condition of EUT

The switch ON/OFF was used to enable the EUT to change the channel one by one.

9.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

Use the following spectrum analyzer settings:

- Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel
- RBW > the 20 dB bandwidth of the emission being measured
- VBW $\geq$ RBW
- Sweep = auto
- Detector function = peak
- Trace = max hold
- Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power. The limit is specified in one of the subparagraphs of this Section. Submit this plot. A peak responding power meter may be used instead of a spectrum analyzer.

The test procedure is defined in FCC Public Notice DA 00-705, Mar.2000 (the Procedure “Peak Output Power” was used).

9.6 Test Results

PASSED.

All the test results are attached in next pages.

(Test Date: 2020.11.19 Temperature: 23°C Humidity: 51 %)

Modulation	Channel	Frequency (MHz)	Peak Output Power (dBm)	Limit
BT DH1	00	2402	6.327	30 dBm
	39	2441	5.900	30 dBm
	78	2480	5.936	30 dBm
BT DH3	00	2402	6.261	30 dBm
	39	2441	5.926	30 dBm
	78	2480	5.954	30 dBm
BT DH5	00	2402	6.290	30 dBm
	39	2441	5.946	30 dBm
	78	2480	5.922	30 dBm
BT 3DH1	00	2402	2.387	30 dBm
	39	2441	1.909	30 dBm
	78	2480	1.906	30 dBm
BT 3DH3	00	2402	2.303	30 dBm
	39	2441	1.820	30 dBm
	78	2480	1.779	30 dBm
BT 3DH5	00	2402	2.349	30 dBm
	39	2441	1.866	30 dBm
	78	2480	1.827	30 dBm

BT DH1: CH00 (2402 MHz)



BT DH1: CH39 (2441 MHz)



BT DH1: CH78 (2480 MHz)



BT DH3: CH00 (2402 MHz)



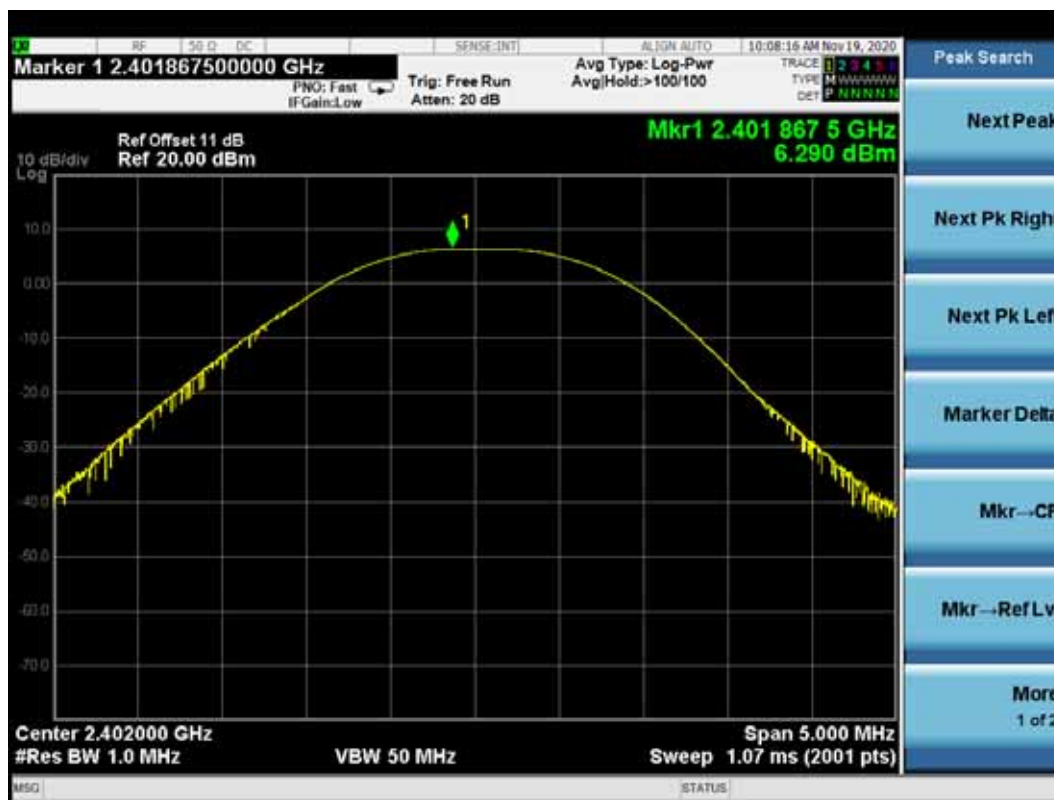
BT DH3: CH39 (2441 MHz)



BT DH3: CH78 (2480 MHz)



BT DH5: CH00 (2402 MHz)



BT DH5: CH39 (2441 MHz)



BT DH5: CH78 (2480 MHz)



BT 3DH1: CH00 (2402 MHz)



BT 3DH1: CH39 (2441 MHz)



BT 3DH1: CH78 (2480 MHz)



BT 3DH3: CH00 (2402 MHz)



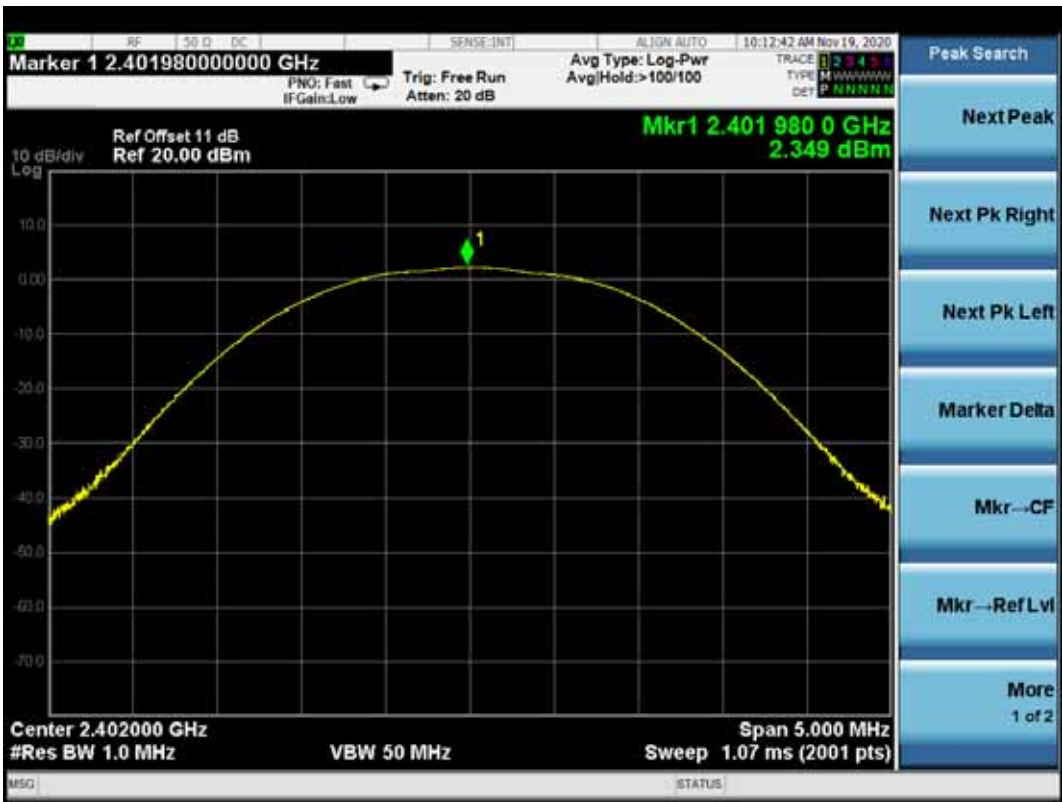
BT 3DH3: CH39 (2441 MHz)



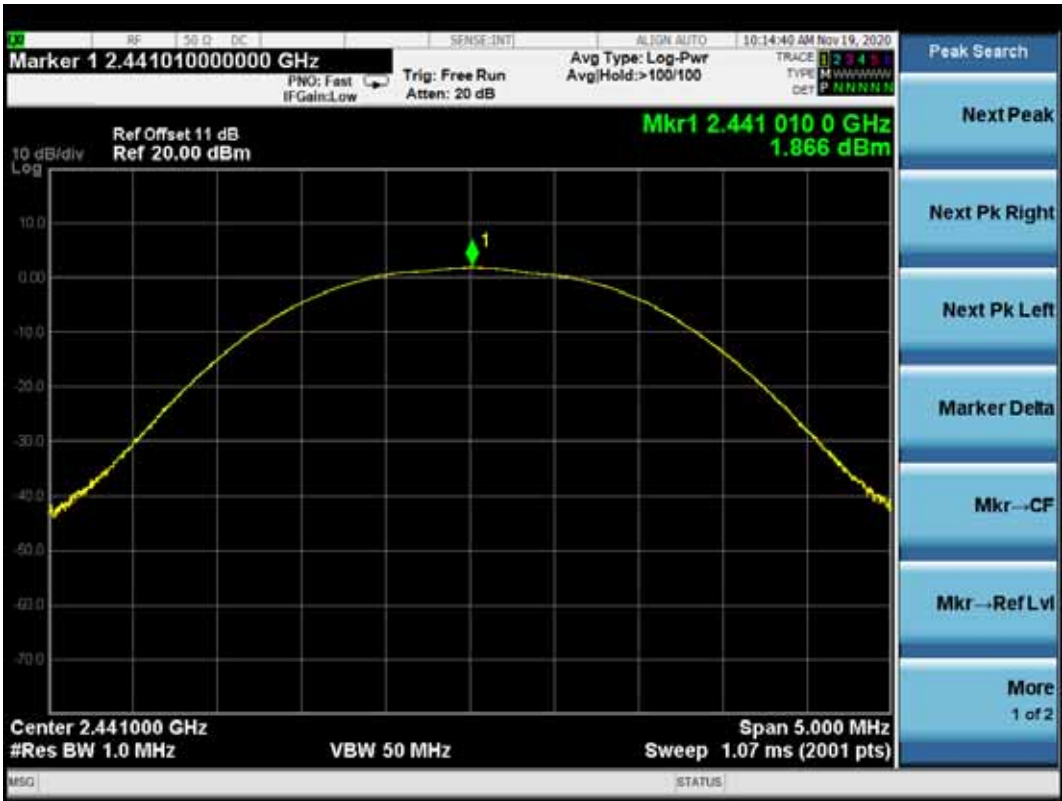
BT 3DH3: CH78 (2480 MHz)



BT 3DH5: CH00 (2402 MHz)



BT 3DH5: CH39 (2441 MHz)



BT 3DH5: CH78 (2480 MHz)



10 BAND EDGE MEASUREMENT

10.1 Test Equipment

The following test equipment was used during the maximum peak output power measurement:

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A	MY52221182	2020.09.16	1 Year
2.	Coaxial Cable	WOKEN	SFL402-105F LEX	F02-150819-045	2021.03.08	1 Year
3.	10 dB Attenuator	Mini-Circuits	VAT-10W2+	001	2020.08.06	1 Year

10.2 Block Diagram of Test Setup

The Same as Section. 5.2

10.3 Specification Limits (§15.247(d))

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see§15.205(c)). (This test result attaching to §4.7)

10.4 Operating Condition of EUT

The switch ON/OFF was used to enable the EUT to change the channel one by one and have its hopping function enabled.

10.5 Test Procedure

The transmitter output was connected to the spectrum analyzer.

Use the following spectrum analyzer settings:

- Span = wide enough to capture the peak level of the emission operating on the channel closest to the band edge, as well as any modulation products which fall outside of the authorized band of operation
- RBW $\geq$ 1% of the span
- VBW $\geq$ RBW
- Sweep = auto
- Detector function = peak
- Trace = max hold
- Allow the trace to stabilize. Set the marker on the emission at the band edge,

or on the highest modulation product outside of the band, if this level is greater than that at the band edge. Enable the marker-delta function, then use the marker-to-peak function to move the marker to the peak of the in-band emission. The marker-delta value now displayed must comply with the limit specified in this Section. Submit this plot.

Now, using the same instrument settings, enable the hopping function of the EUT. Allow the trace to stabilize. Follow the same procedure listed above to determine if any spurious emissions caused by the hopping function also comply with the specified limit. Submit this plot.

The test procedure is defined in FCC Public Notice DA 00-705, Mar.2000 (the Procedure “ Band-edge Compliance of RF Conducted Emissions” was used).

10.6 Test Results

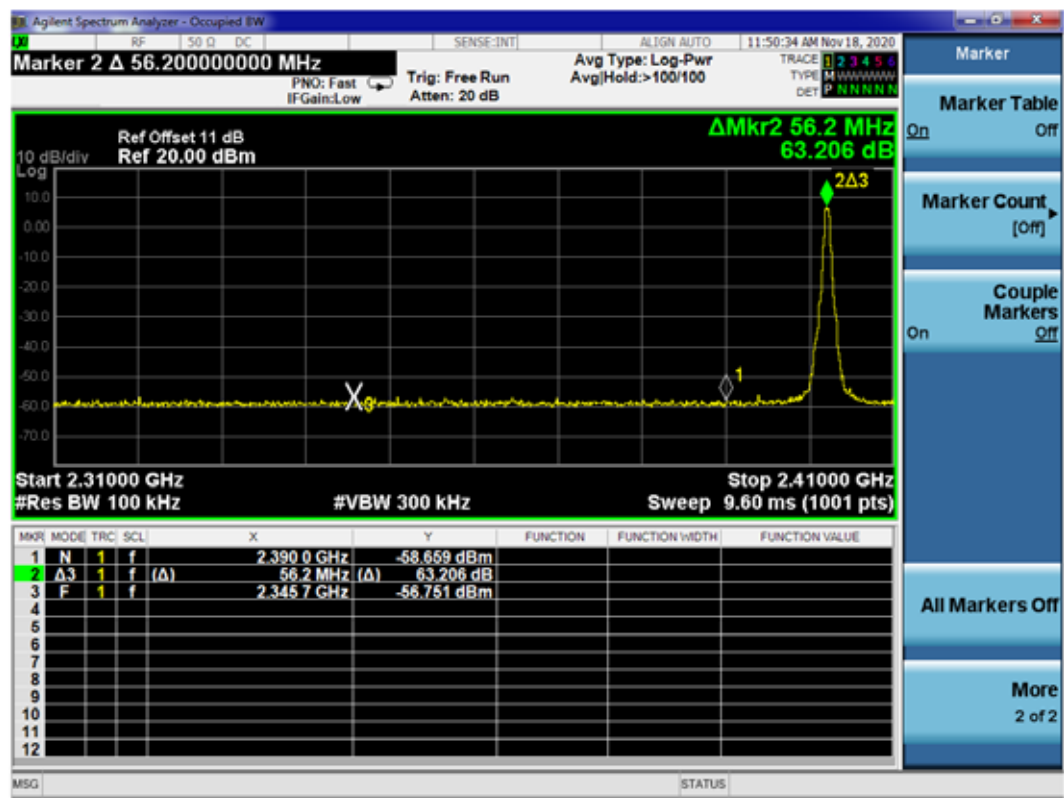
PASSED.

All the test results are attached in next pages.

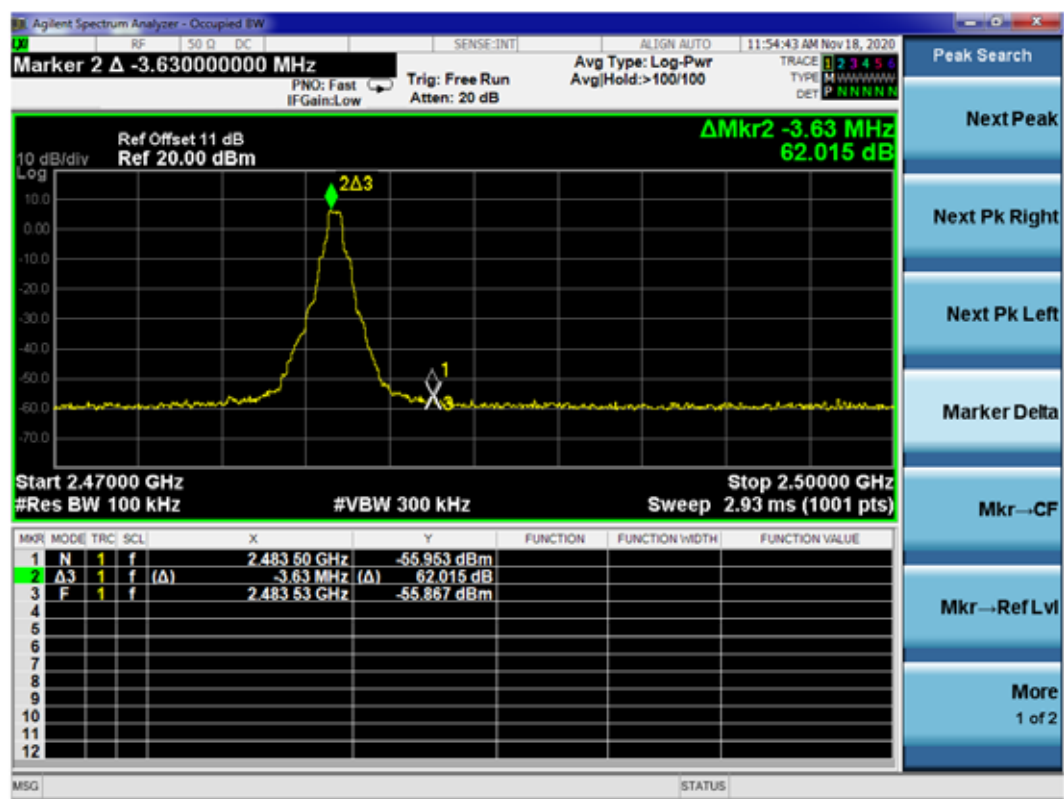
(Test Date: 2020.11.18 Temperature: 23 Humidity: 51 %)

Modulation	Location	Channel	Frequency (MHz)	Delta Marker (dB)
BT DH1	Lower Edge	00	2402	63.206
	Upper Edge	78	2480	62.015
BT DH3	Lower Edge	00	2402	63.157
	Upper Edge	78	2480	62.623
BT DH5	Lower Edge	00	2402	63.045
	Upper Edge	78	2480	61.107
BT 3DH1	Lower Edge	00	2402	58.637
	Upper Edge	78	2480	57.681
BT 3DH3	Lower Edge	00	2402	59.167
	Upper Edge	78	2480	58.650
BT 3DH5	Lower Edge	00	2402	59.091
	Upper Edge	78	2480	58.076
BT DH1 Hopping	Lower Edge	Hopping		63.049
	Upper Edge	Hopping		60.846
BT DH3 Hopping	Lower Edge	Hopping		63.221
	Upper Edge	Hopping		61.210
BT DH5 Hopping	Lower Edge	Hopping		62.829
	Upper Edge	Hopping		60.754
BT 3DH1 Hopping	Lower Edge	Hopping		58.392
	Upper Edge	Hopping		58.046
BT 3DH3 Hopping	Lower Edge	Hopping		58.742
	Upper Edge	Hopping		57.175
BT 3DH5 Hopping	Lower Edge	Hopping		58.074
	Upper Edge	Hopping		57.350

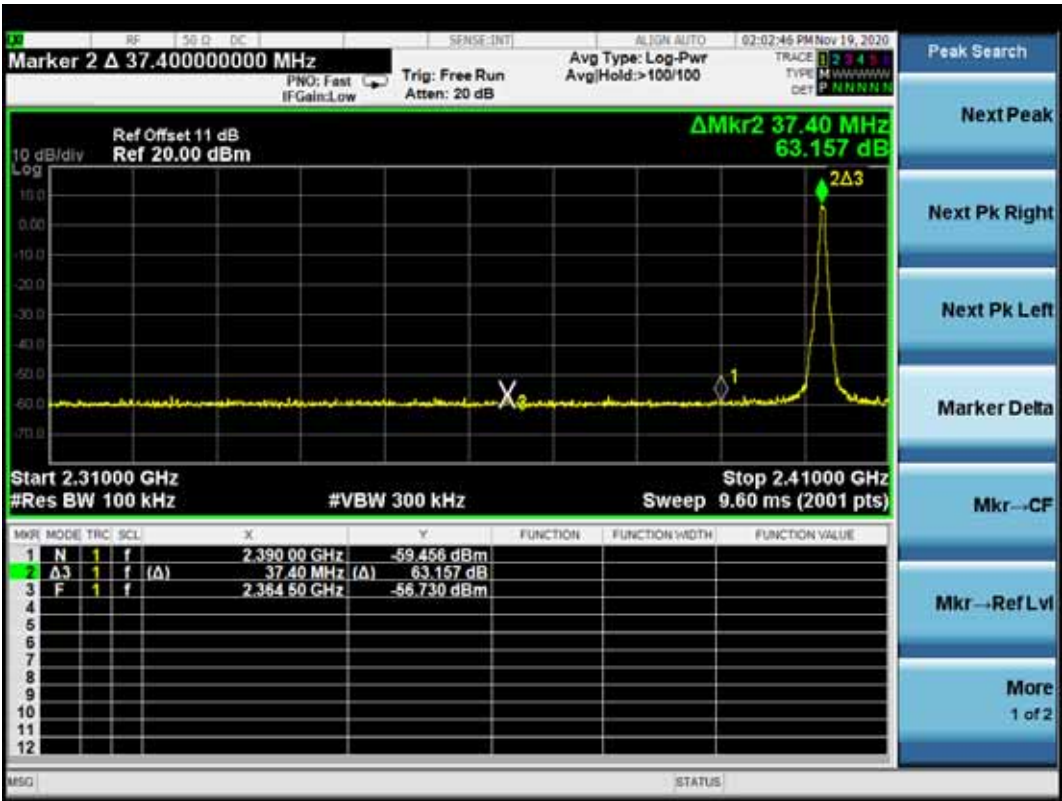
BT DH1: CH00 (2402 MHz)



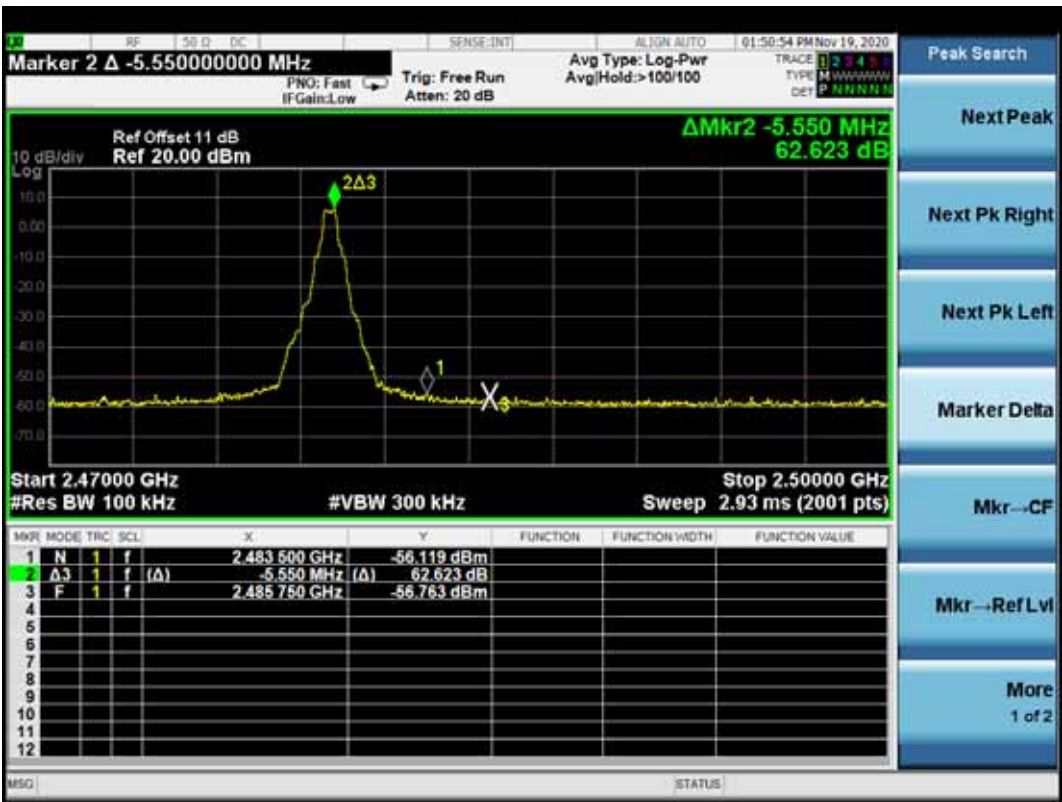
BT DH1: CH79 (2480 MHz)



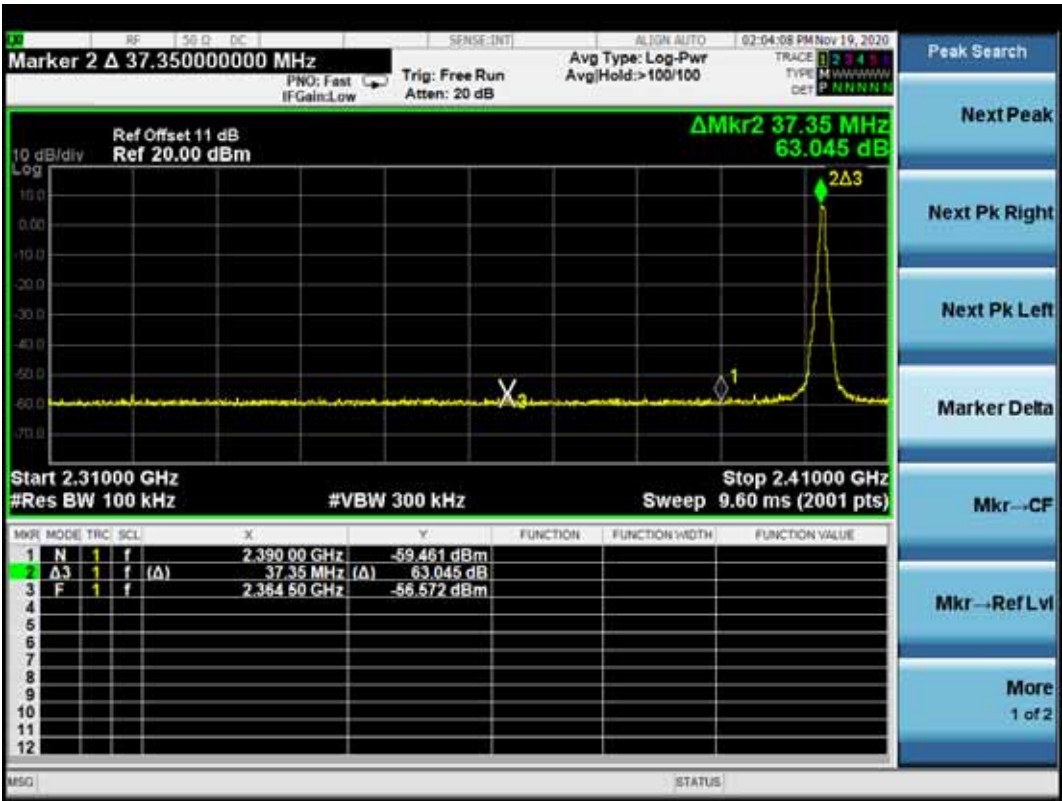
BT DH3: CH00 (2402 MHz)



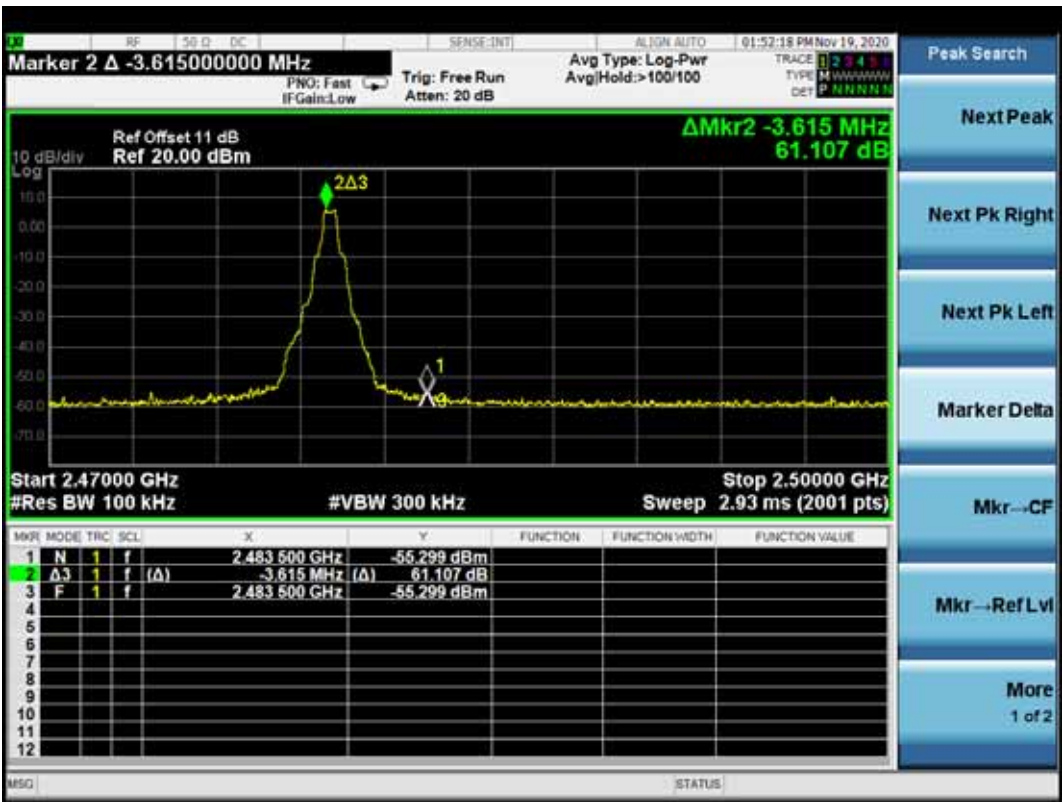
BT DH3: CH79 (2480 MHz)



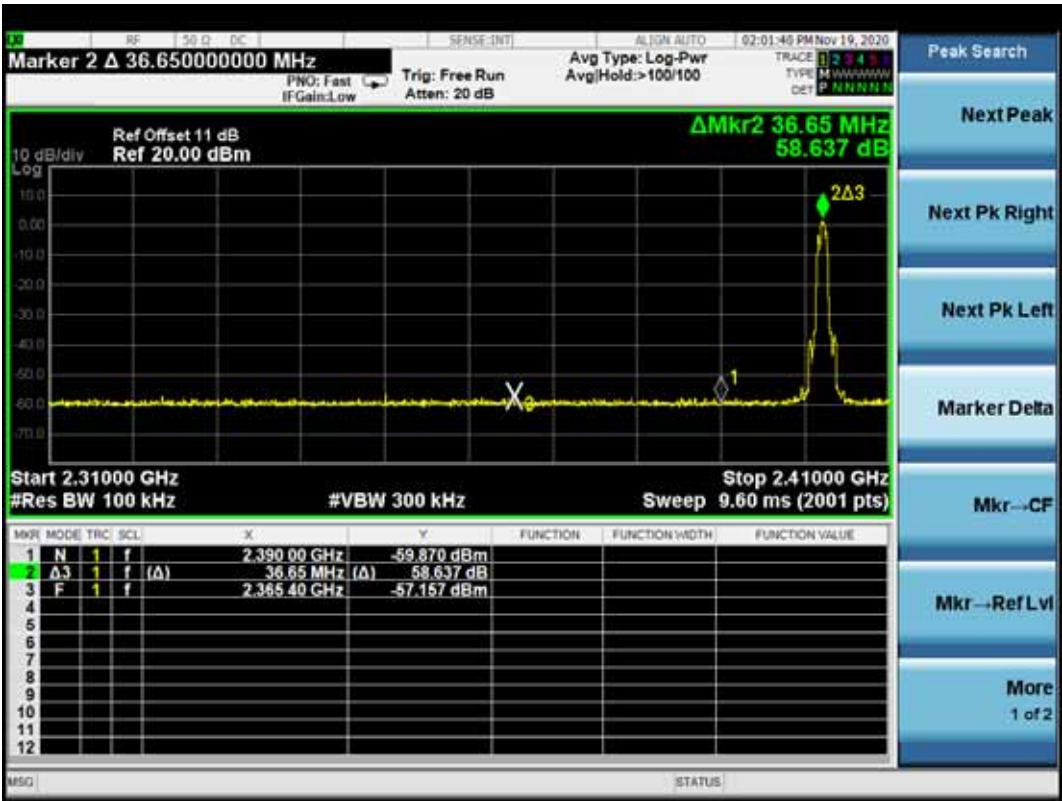
BT DH5: CH00 (2402 MHz)



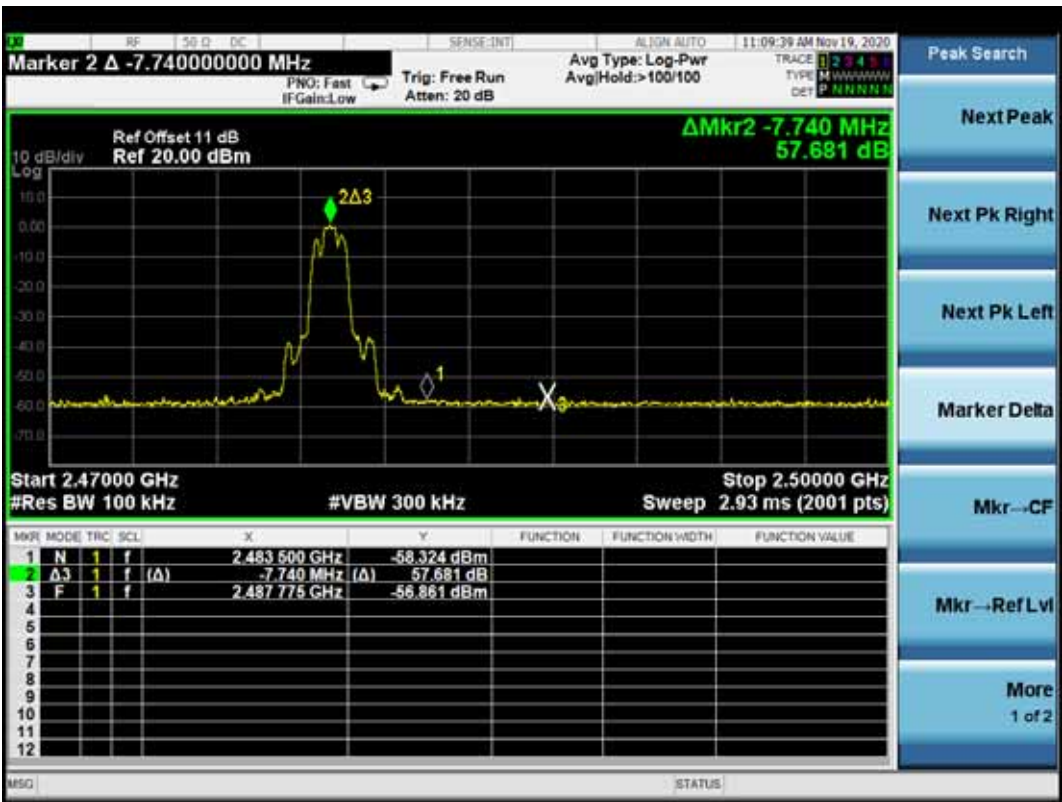
BT DH5: CH79 (2480 MHz)



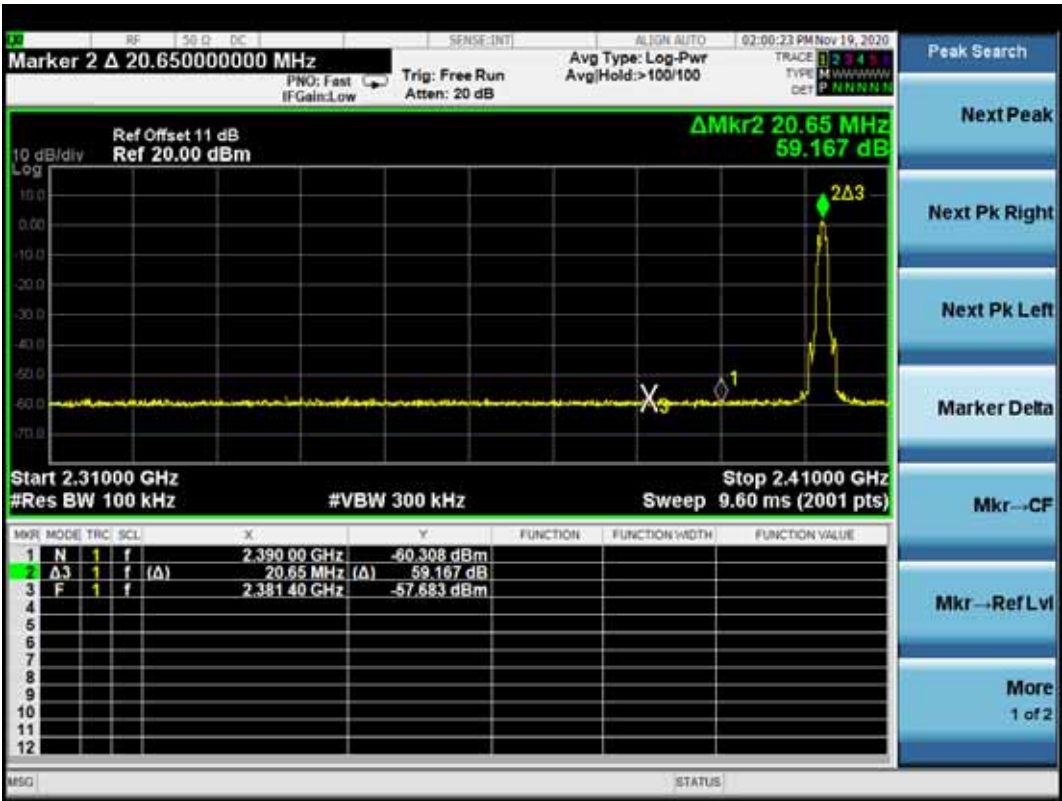
BT 3DH1: CH00 (2402 MHz)



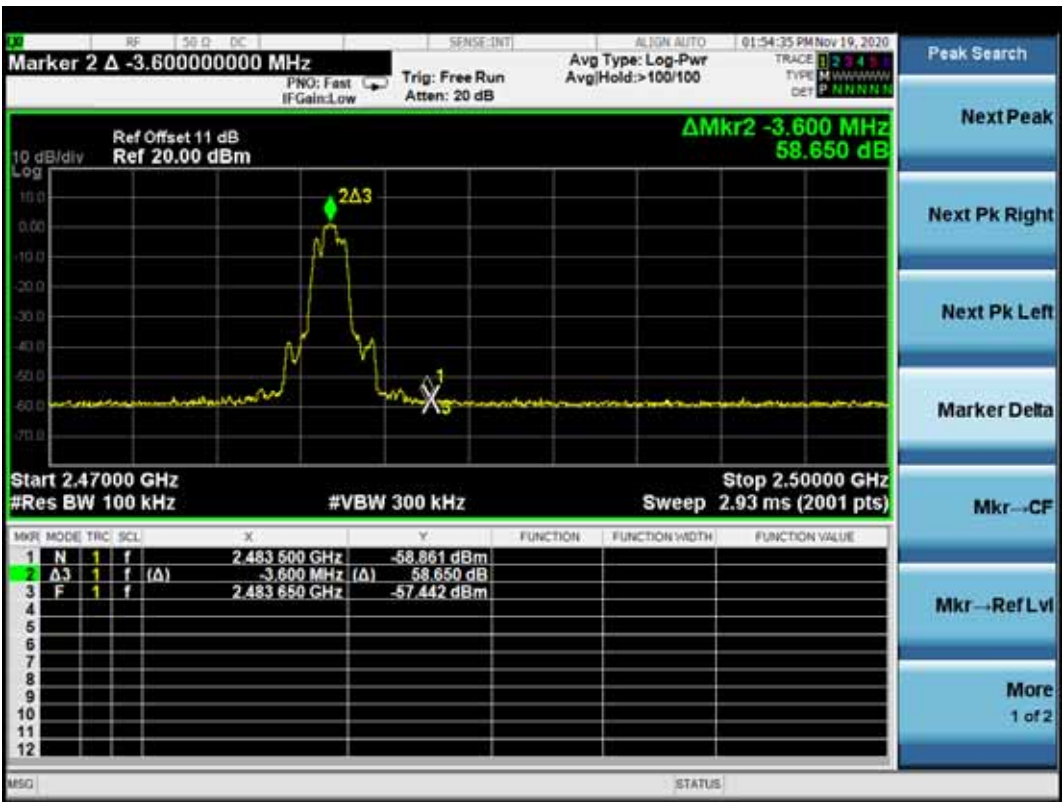
BT 3DH1: CH79 (2480 MHz)



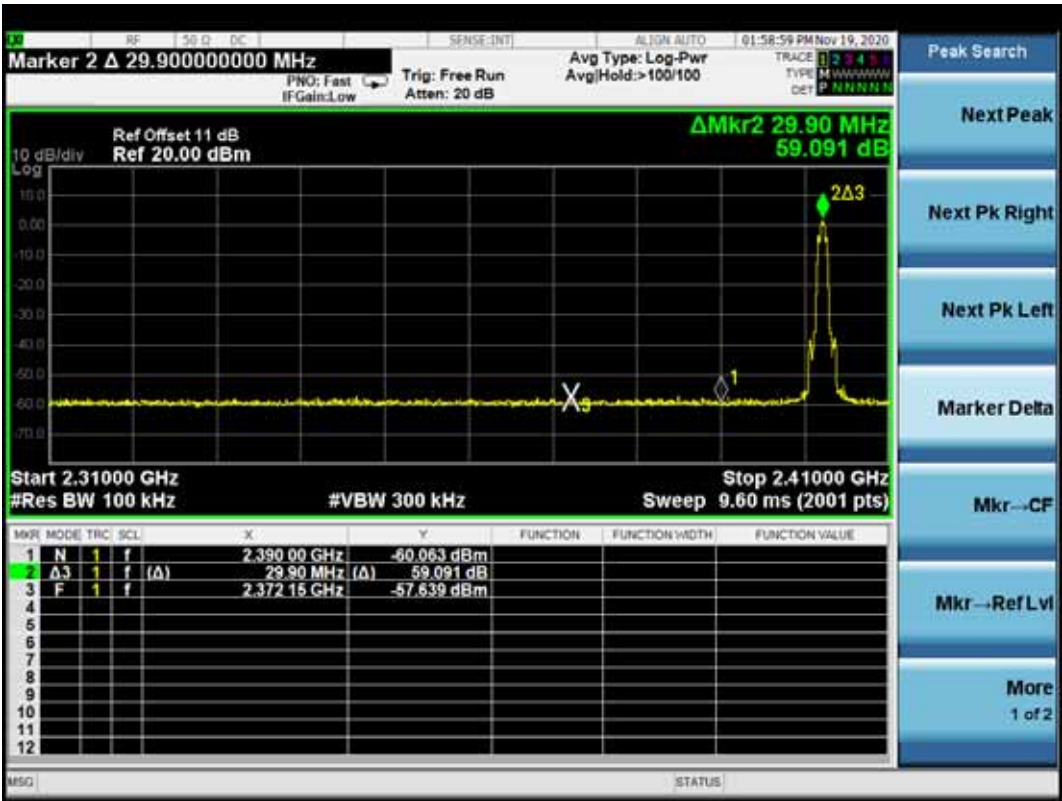
BT 3DH3: CH00 (2402 MHz)



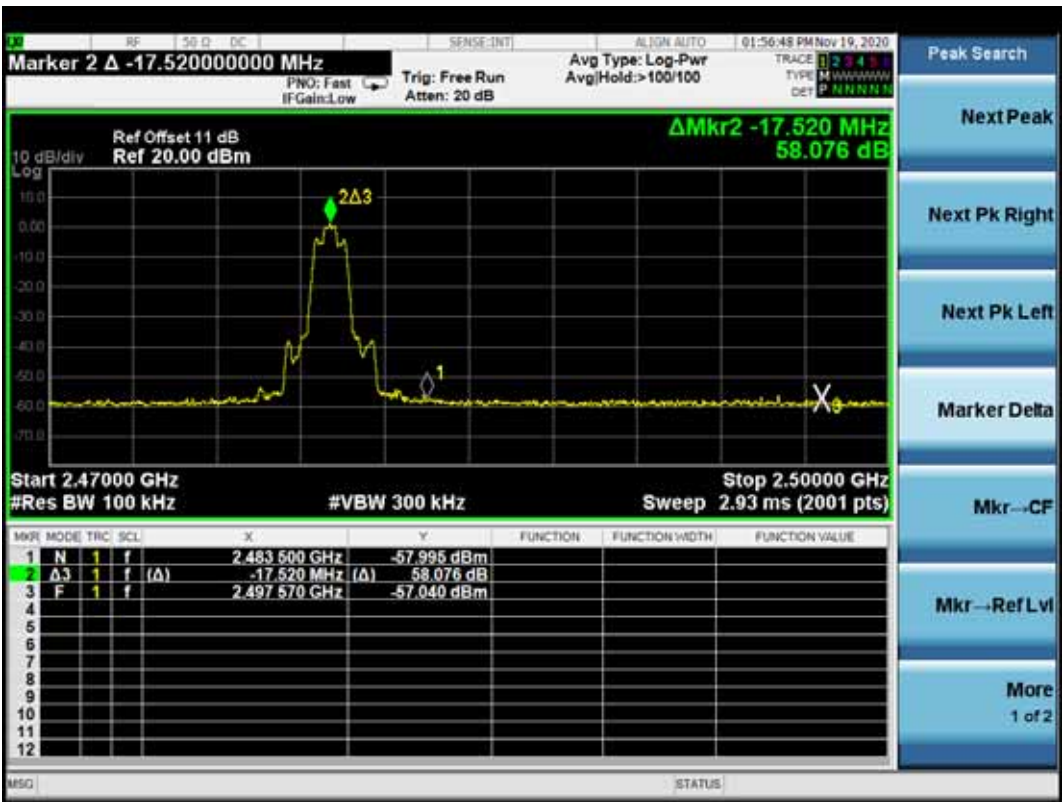
BT 3DH3: CH79 (2480 MHz)



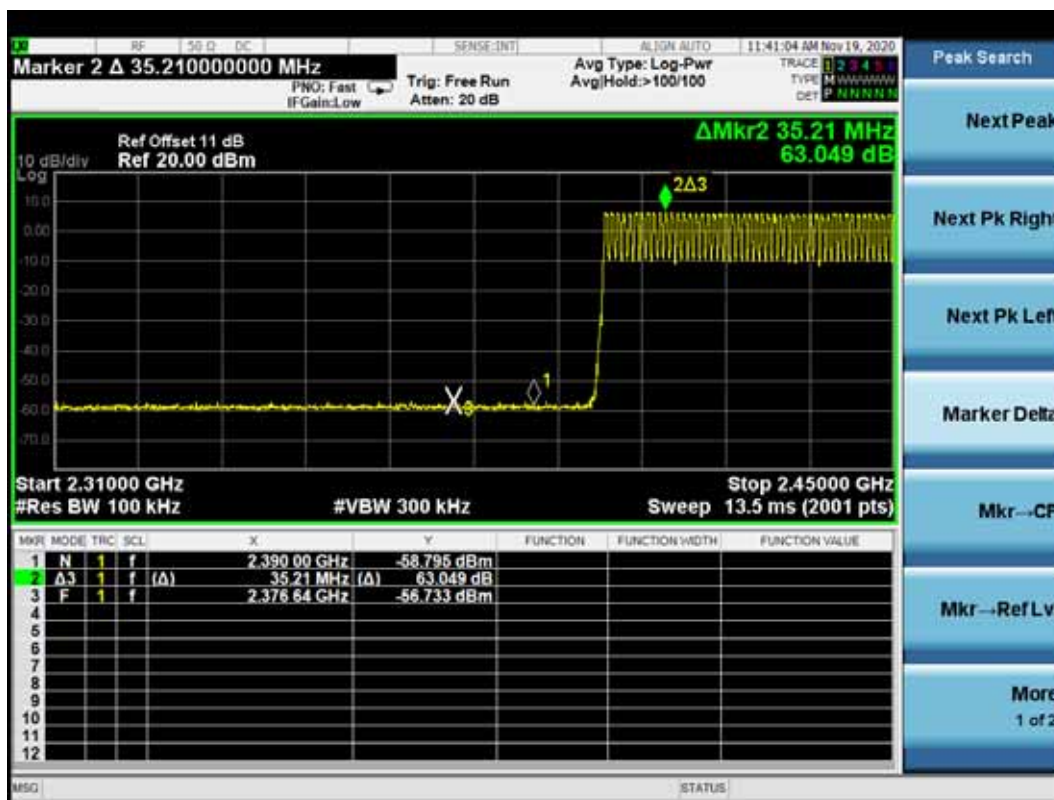
BT 3DH5: CH00 (2402 MHz)



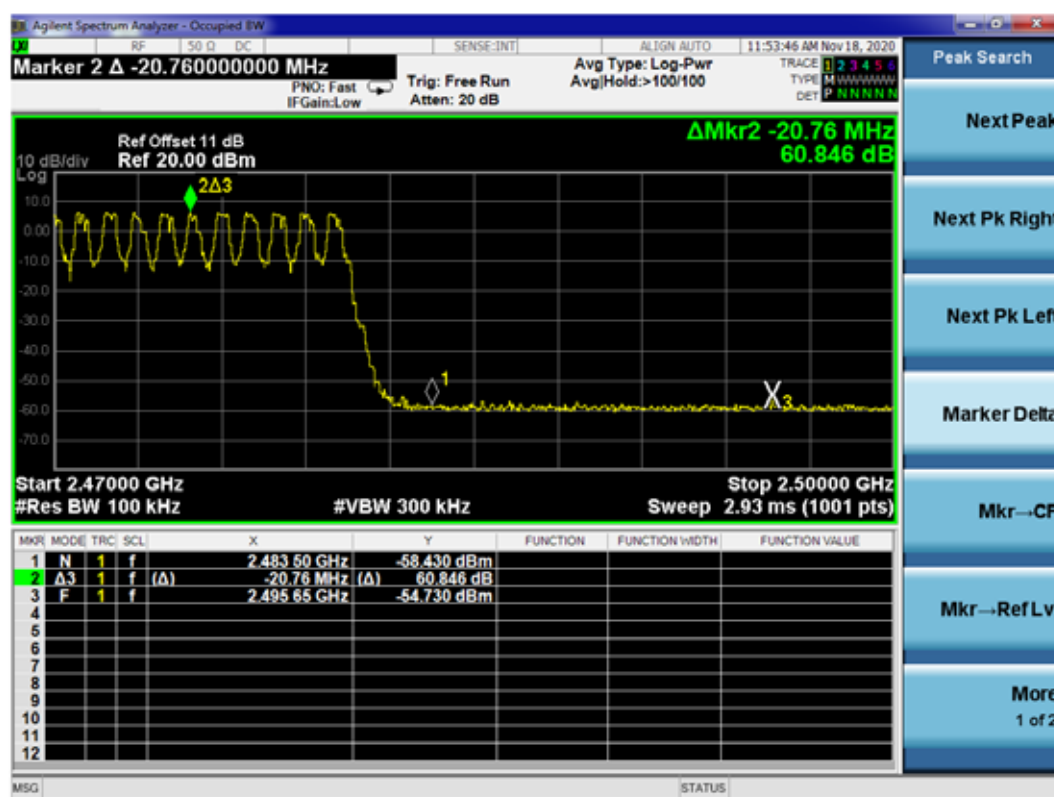
BT 3DH5: CH79 (2480 MHz)



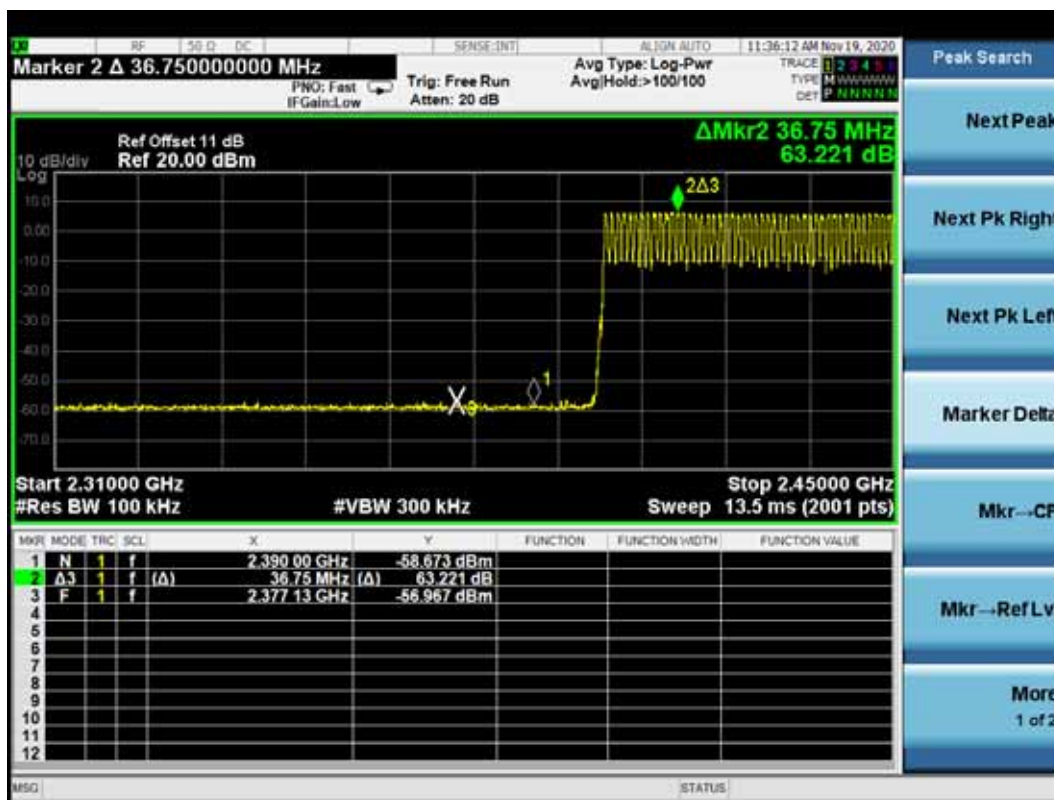
BT DH1: Hopping (Lower edge)



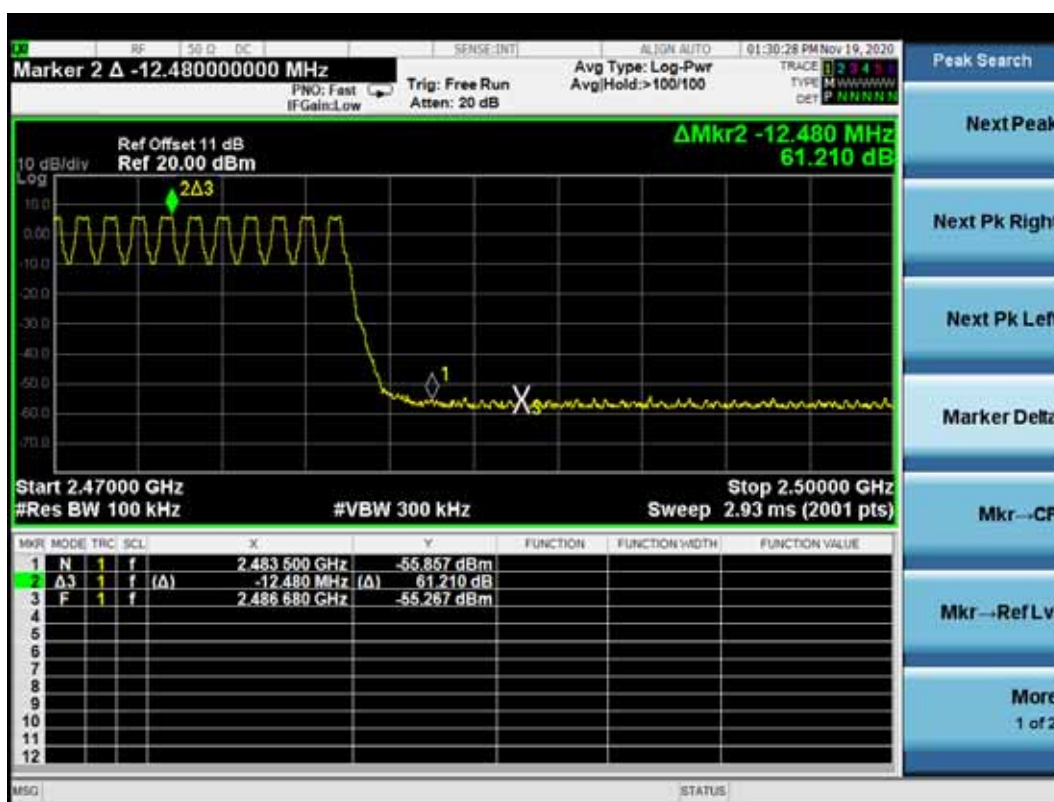
BT DH1: Hopping (Upper edge)



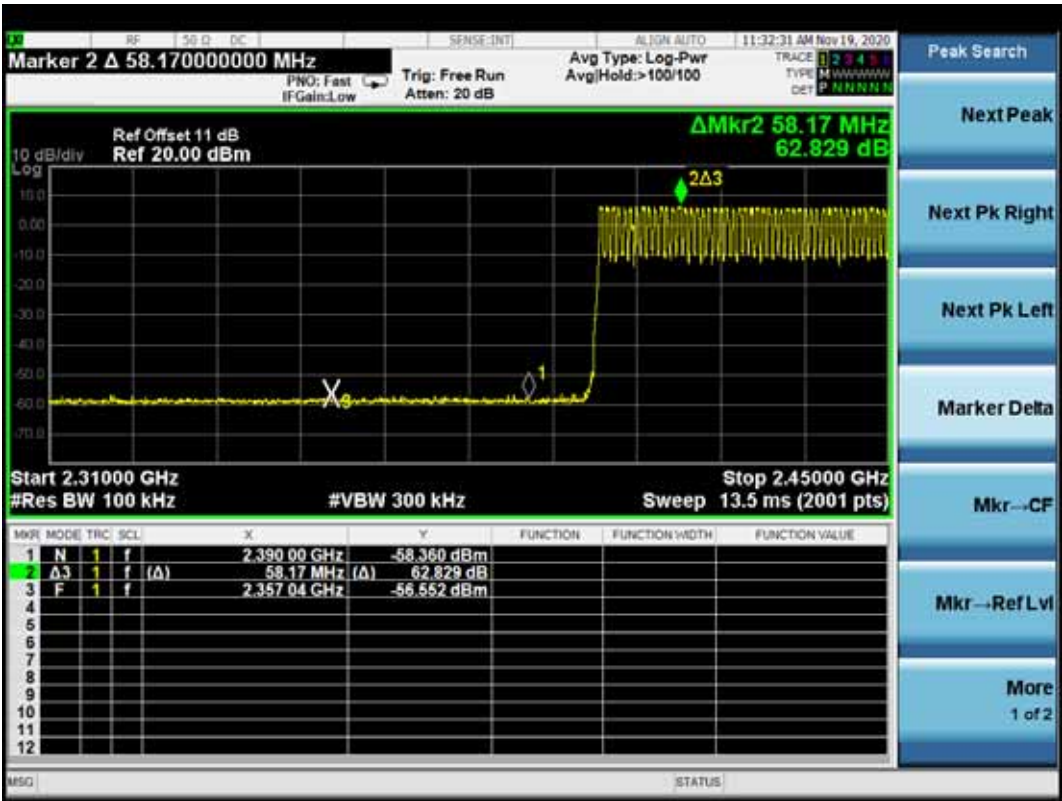
BT DH3: Hopping (Lower edge)



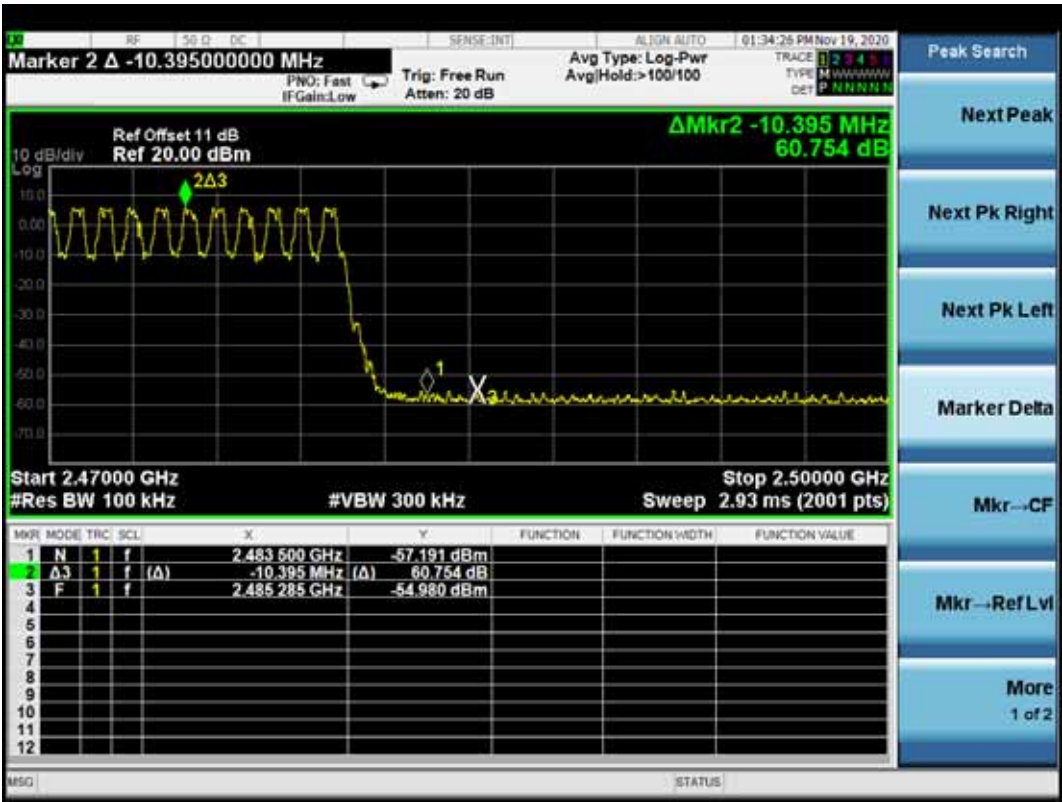
BT DH3: Hopping (Upper edge)



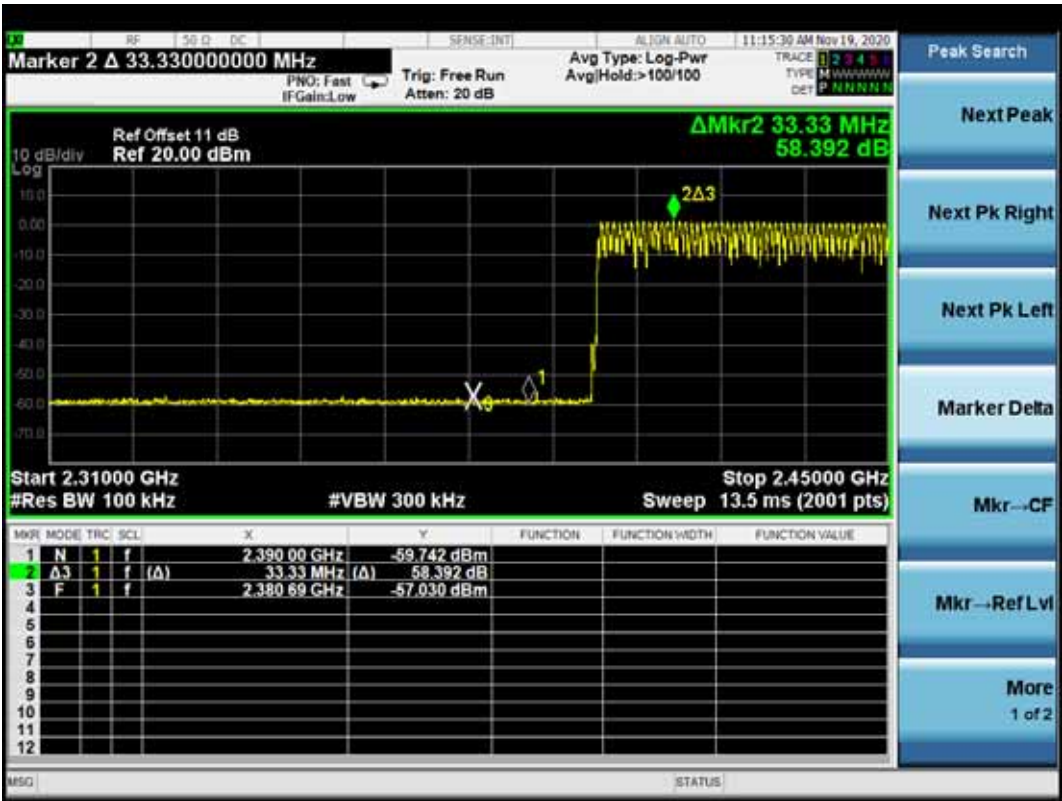
BT DH5: Hopping (Lower edge)



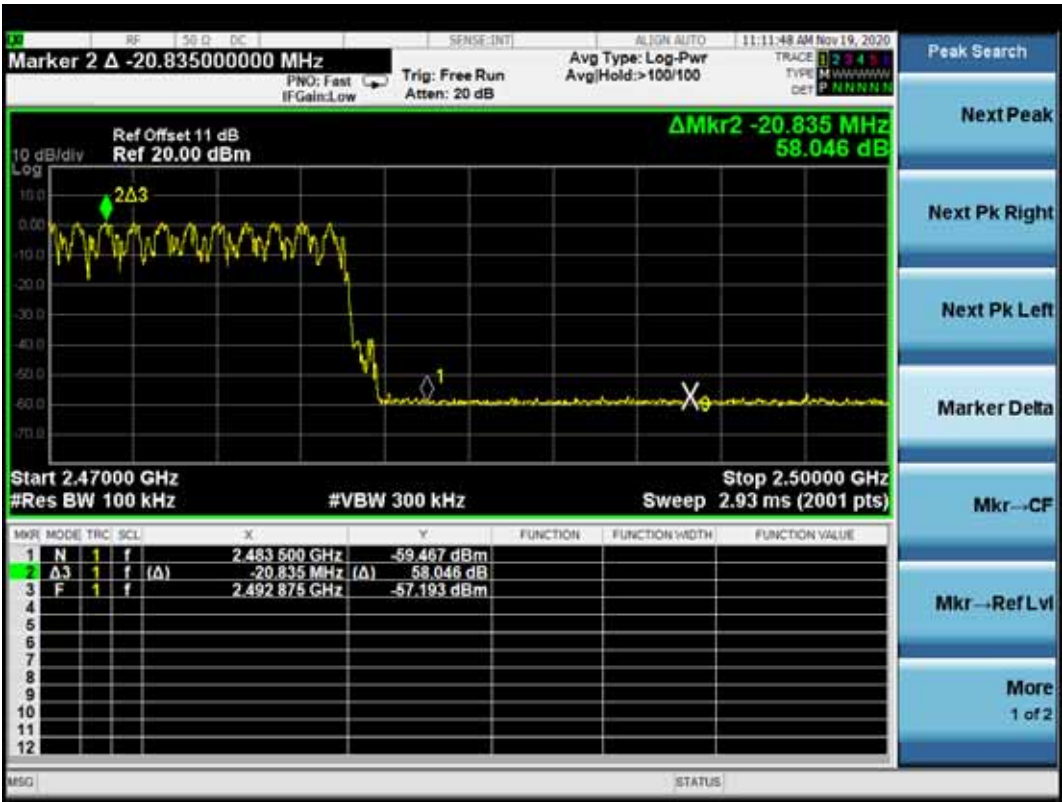
BT DH5: Hopping (Upper edge)



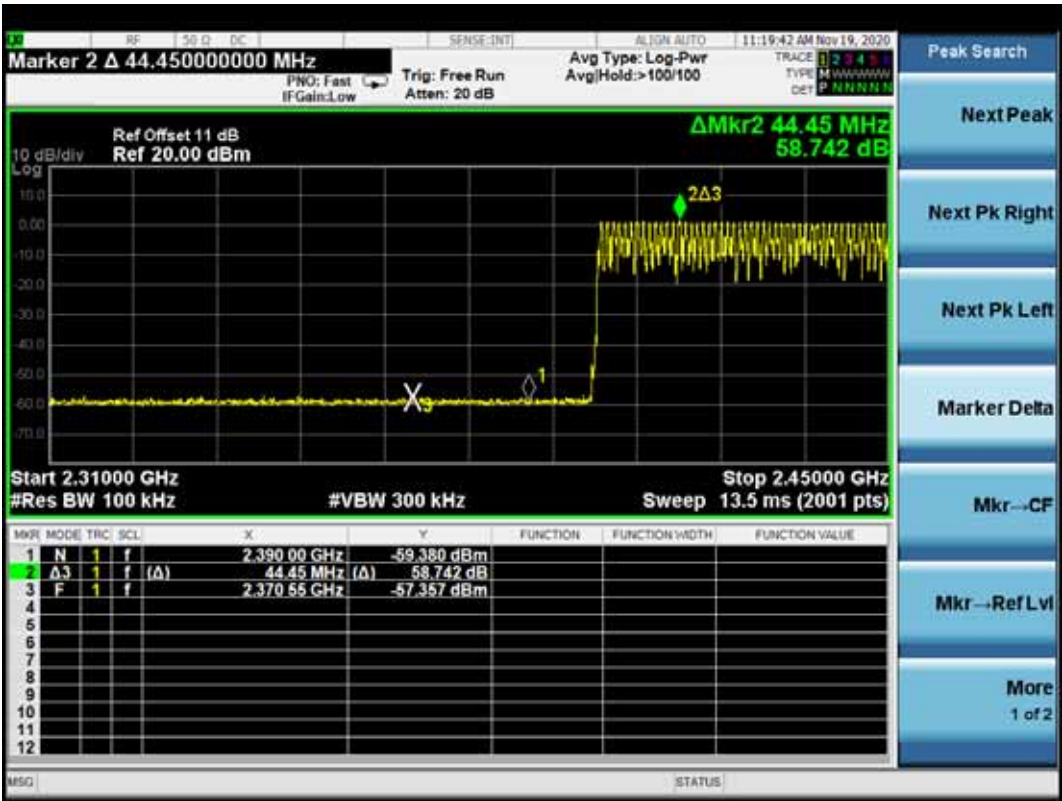
BT 3DH1: Hopping (Lower edge)



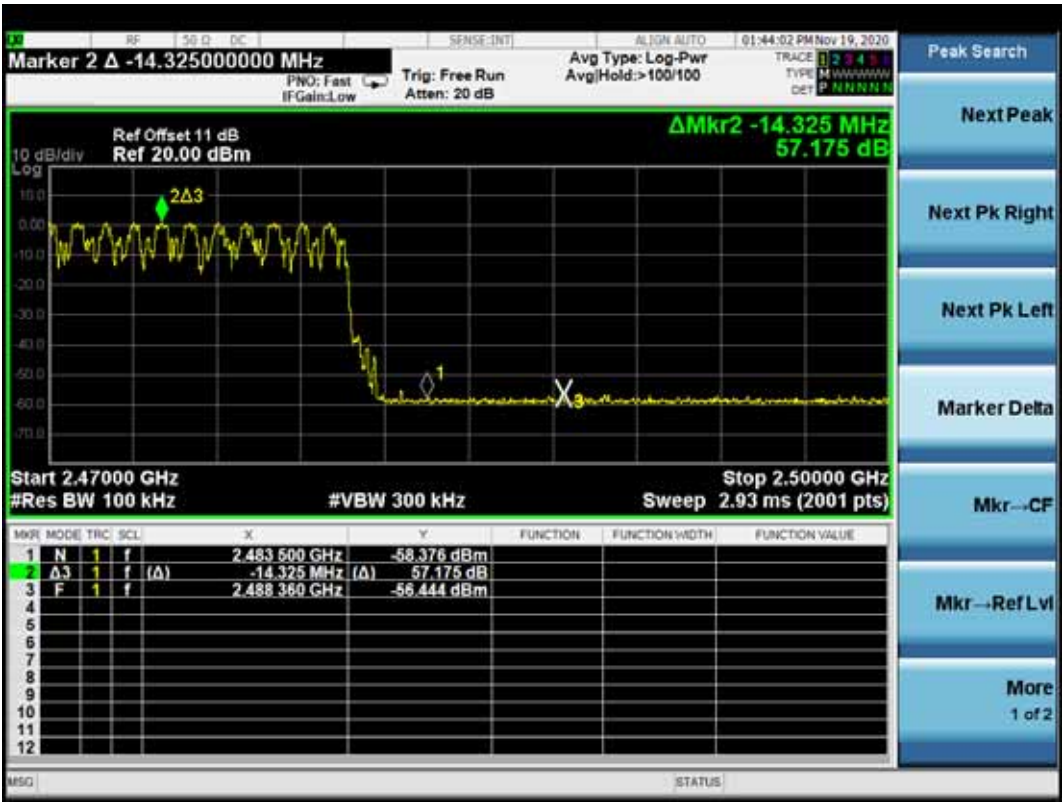
BT 3DH1: Hopping (Upper edge)



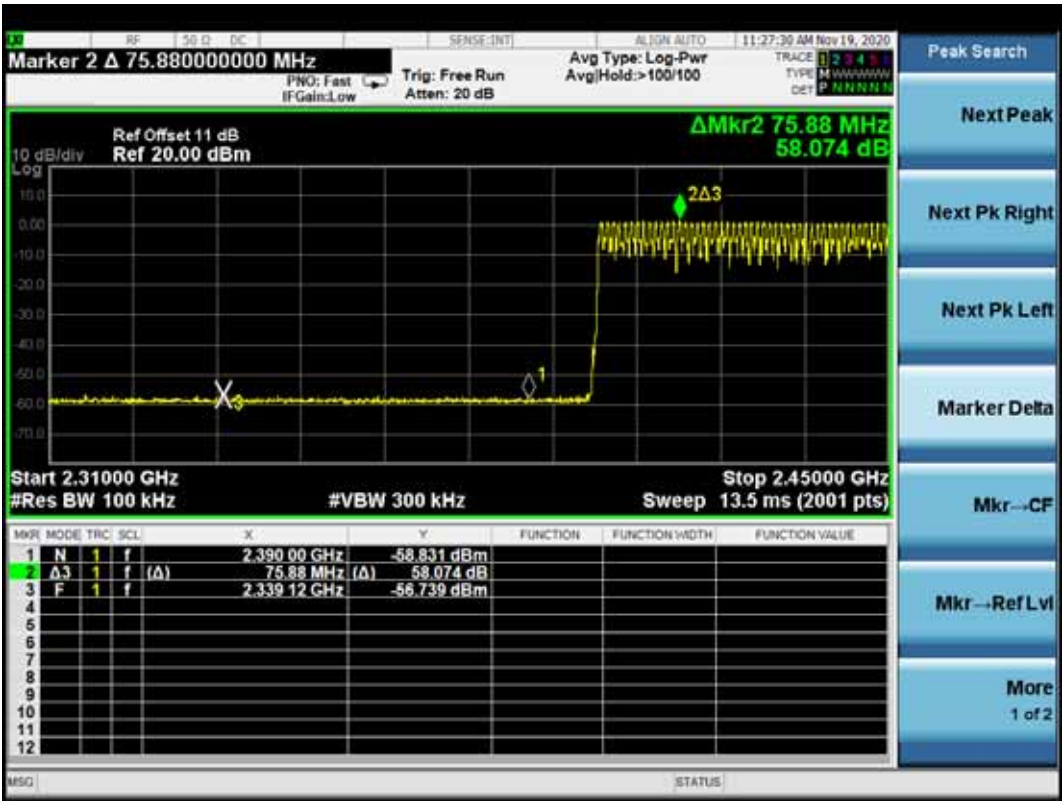
BT 3DH3: Hopping (Lower edge)



BT 3DH3: Hopping (Upper edge)



BT 3DH5: Hopping (Lower edge)



BT 3DH5: Hopping (Upper edge)

