Test Report

Report No.	:	**MTi260715003-0101E1**
Date of issue	:	**2026-07-22**
Applicant	:	**Dongguan Glanto Electronic Technology Co., LTD**
Product	:	**Bluetooth EarBuds**
Model(s)	:	**GRG-ME00**
FCC ID	:	**2BAQE-GRG-ME00**

Shenzhen Microtest Co., Ltd.

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Test Result Certification	
Applicant	Dongguan Glanto Electronic Technology Co., LTD
Applicant Address	No.3, Liangtou Wei Road, Qingxi Town, Dongguan,Guangdong Province, China
Manufacturer	Dongguan Glanto Electronic Technology Co., LTD
Manufacturer Address	No.3, Liangtou Wei Road, Qingxi Town, Dongguan,Guangdong Province, China
Factory	Dongguan Glanto Electronic Technology Co., LTD
Factory Address	No.3, Liangtou Wei Road, Qingxi Town, Dongguan,Guangdong Province, China
Product description	
Product name	Bluetooth EarBuds
Trademark	N/A
Model name	GRG-ME00
Series Model(s)	N/A
Standards	47 CFR Part 15.247
Test Method	KDB 558074 D01 15.247 Meas Guidance v05r02 ANSI C63.10-2020+Cor.1-2023+C63.10a-2024+Errata to C63.10a-2024
Testing Information	
Date of test	2026-07-17 to 2026-07-21
Test result	Pass

Prepared by:	Letter Lan	Letter. Lan.
Reviewed by:	David Lee	David. Lee
Approved by:	Lewis Lian	Lewis Lian

1 General Description

1.1 Description of the EUT

Product name:	Bluetooth EarBuds
Model name:	GRG-ME00
Series Model(s):	N/A
Model difference:	N/A
Electrical rating:	Input: DC 5V/400mA Box Battery: 3.7VDC 400mAh Earbuds Battery: 3.7VDC 35mAh
Accessories:	N/A
Hardware version:	v1.2
Software version:	V40
Test sample(s) number:	MTi260715003-01-R001
RF specification	
Bluetooth version:	V6.0
Operating frequency range:	2402-2480MHz
Channel number:	79
Modulation type:	GFSK, π/4-DQPSK,8DPSK
Antenna(s) type:	ceramic
Antenna(s) gain:	2.5dBi

1.2 Description of test modes

No.	Emission test modes
Mode1	TX-GFSK
Mode2	TX-π/4-DQPSK
Mode3	TX-8DPSK

1.2.1 Operation channel list

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	20	2422	40	2442	60	2462
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	78	2480
19	2421	39	2441	59	2461	-	-

Test Channel List
Operation Band: 2400-2483.5 MHz

Bandwidth (MHz)	Lowest Channel (LCH) (MHz)	Middle Channel (MCH) (MHz)	Highest Channel (HCH) (MHz)
1	2402	2441	2480

Note: The test software provided by manufacturer is used to control EUT for working in engineering mode, that enables selectable channel, and capable of continuous transmitting mode.

Test Software: BT_Tool
For power setting, refer to below table.

Mode	2402MHz	2441MHz	2480MHz
GFSK	6	6	6
π/4-DQPSK	6	6	6
8DPSK	6	6	6

1.3 Environmental Conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15°C ~ 35°C
Humidity:	20% RH ~ 75% RH
Atmospheric pressure:	98 kPa ~ 101 kPa

1.4 Description of support units

Support equipment list			
Description	Model	Serial No.	Manufacturer
/	/	/	/
Support cable list			
Description	Length (m)	From	To
/	/	/	/

1.5 Measurement uncertainty

Measurement	Uncertainty
Occupied channel bandwidth	±3 %
RF output power, conducted	±1 dB
Time	±1 %
Unwanted Emissions, conducted	±1 dB
Radiated spurious emissions (above 1GHz)	±5.3dB
Radiated spurious emissions (9kHz~30MHz)	±4.3dB
Radiated spurious emissions (30MHz~1GHz)	±4.7dB
Temperature	±1 °C
Humidity	± 5 %

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

2 Summary of Test Result

No.	Item	Standard	Requirement	Result
1	Antenna requirement	47 CFR Part 15.247	47 CFR 15.203	Pass
2	20dB Bandwidth	47 CFR Part 15.247	47 CFR 15.247(a)(1)	Pass
3	Maximum Conducted Output Power	47 CFR Part 15.247	47 CFR 15.247(b)(1)	Pass
4	Channel Separation	47 CFR Part 15.247	47 CFR 15.247(a)(1)	Pass
5	Number of Hopping Frequencies	47 CFR Part 15.247	47 CFR 15.247(a)(1)(iii)	Pass
6	Dwell Time	47 CFR Part 15.247	47 CFR 15.247(a)(1)(iii)	Pass
7	RF conducted spurious emissions and band edge measurement	47 CFR Part 15.247	47 CFR 15.247(d)	Pass
8	Band edge emissions (Radiated)	47 CFR Part 15.247	47 CFR 15.247(d), 15.209, 15.205	Pass
9	Radiated emissions (below 1GHz)	47 CFR Part 15.247	47 CFR 15.247(d), 15.209, 15.205	Pass
10	Radiated emissions (above 1GHz)	47 CFR Part 15.247	47 CFR 15.247(d), 15.209, 15.205	Pass

Note: The device is a DC power supply and does not apply to conducted emissions.

3 Test Facilities and accreditations

3.1 Test laboratory

Test laboratory:	Shenzhen Microtest Co., Ltd.
Test site location:	101, No.7, Zone 2, Xinxing Industrial Park, Fuhai Avenue, Xinhe Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China
Telephone:	(86-755)88850135
Fax:	(86-755)88850136
CNAS Registration No.:	CNAS L5868
FCC Registration No.:	448573
IC Registration No.:	21760
CABID:	CN0093

4 List of test equipment

No.	Equipment	Manufacturer	Model	Serial No.	Cal. date	Cal. Due
20dB Bandwidth Maximum Conducted Output Power Channel Separation Number of Hopping Frequencies Dwell Time Emissions in non-restricted frequency bands						
1	Wideband Radio Communication Tester	Rohde&schwarz	CMW500	149155	2026-03-09	2027-03-08
2	ESG Series Analog Ssignal Generator	Agilent	E4421B	GB40051240	2026-03-09	2027-03-08
3	PXA Signal Analyzer	Agilent	N9030A	MY51350296	2026-03-10	2027-03-09
4	Synthesized Sweeper	Agilent	83752A	3610A01957	2026-03-10	2027-03-09
5	MXA Signal Analyzer	Agilent	N9020A	MY50143483	2026-03-09	2027-03-08
6	RF Control Unit	Tonscend	JS0806-1	19D8060152	2026-03-11	2027-03-10
7	Band Reject Filter Group	Tonscend	JS0806-F	19D8060160	2026-03-11	2027-03-10
8	ESG Vector Signal Generator	Agilent	N5182A	MY50143762	2026-03-10	2027-03-09
9	DC Power Supply	Agilent	E3632A	MY40027695	2026-03-09	2027-03-08
10	RF Test System	Tonscend	JS1120-3 Test System	V3.6.21	/	/
Band edge emissions (Radiated) Emissions in frequency bands (above 1GHz)						
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2026-03-10	2027-03-09
2	Double Ridged Broadband Horn Antenna	schwarabeck	BBHA 9120 D	2278	2025-05-27	2027-05-26
3	Amplifier	Agilent	8449B	3008A01120	2026-03-10	2027-03-09
4	MXA signal analyzer	Agilent	N9020A	MY54440859	2026-03-10	2027-03-09
5	PXA Signal Analyzer	Agilent	N9030A	MY51350296	2026-03-10	2027-03-09
6	Horn antenna	Schwarzbeck	BBHA 9170	00987	2025-05-27	2027-05-26
7	Pre-amplifier	Space-Dtronics	EWLAN1840G	210405001	2026-03-11	2027-03-10
8	EMI Test Software	Farad	EZ-EMC	Ver. EMEC-3A1	/	/
Emissions in frequency bands (below 1GHz)						
1	EMI Test Receiver	Rohde&schwarz	ESCI7	101166	2026-03-10	2027-03-09
2	TRILOG Broadband Antenna	schwarabeck	VULB 9163	9163-1338	2025-05-23	2027-05-22

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No.	Equipment	Manufacturer	Model	Serial No.	Cal. date	Cal. Due
3	Active Loop Antenna	Schwarzbeck	FMZB 1519 B	00066	2026-03-08	2028-03-07
4	Amplifier	Hewlett-Packard	8447F	3113A06184	2026-03-10	2027-03-09
5	EMI Test Software	Farad	EZ-EMC	Ver. EMEC-3A1	/	/

5 Evaluation Results (Evaluation)

5.1 Antenna requirement

Test Requirement:	Refer to 47 CFR Part 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.
Test Method:	---

5.1.1 Conclusion:

The antenna of the EUT is permanently attached. The EUT complies with the requirement of FCC PART 15.203.

6 Radio Spectrum Matter Test Results (RF)

6.1 20dB Bandwidth

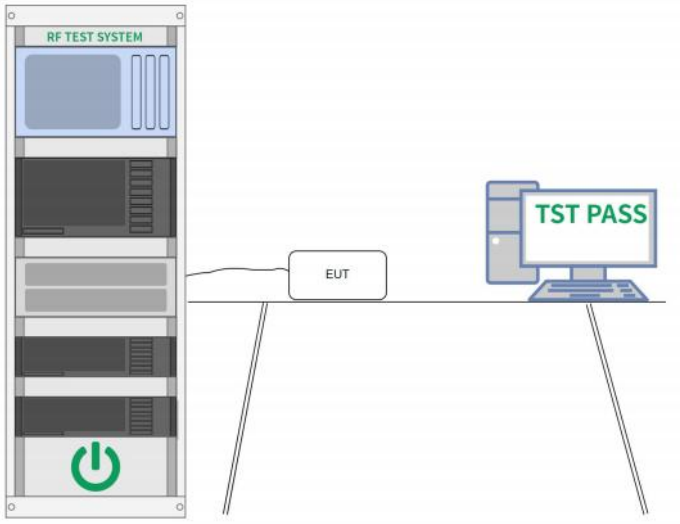
Test Requirement:	47 CFR 15.247(a)(1)
Test Limit:	Refer to 47 CFR 15.215(c), intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in the rule section under which the equipment is operated.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 7.8.6, For occupied bandwidth measurements, use the procedure in 6.9.2. Frequency hopping shall be disabled for this test. KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	A dBc bandwidth is measured as the width of the spectral envelope of the modulated signal, at an amplitude level reduced from a reference value by a specified ratio (or in decibels, a specified number of dB down from the reference value). Typical ratios, expressed in dB, are −6 dB, −20 dB, and −26 dB, corresponding to 6 dB BW, 20 dB BW, and 26 dB BW, respectively. In this subclause, the ratio is designated by "−xx dB." The reference value is either the level of the unmodulated carrier or the highest level of the spectral envelope of the modulated signal, as stated by the applicable requirement. Some requirements might specify a specific maximum or minimum value for the "−xx dB" bandwidth; other requirements might specify that the "−xx dB" bandwidth be entirely contained within the authorized or designated frequency band.51 a) The spectrum analyzer center frequency is set to the nominal EUT channel center frequency. The span range for the EMI receiver or spectrum analyzer shall be between two times and five times the OBW. b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW and video bandwidth (VBW) shall be at least three times RBW, unless otherwise specified by the applicable requirement. c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.6.2. d) Steps a) through c) might require iteration to adjust within the specified tolerances. e) The dynamic range of the instrument at the selected RBW shall be more than 10 dB below the target "−xx dB down" requirement; that is, if the requirement calls for measuring the −20 dB OBW, the instrument noise floor at the selected RBW shall be at least 30 dB below the reference value. f) Set detection mode to peak and trace mode to max-hold. g) Determine the reference value: Set the EUT to transmit an unmodulated carrier or modulated signal, as applicable. Allow the trace to stabilize. Set the spectrum analyzer marker to the highest level of the displayed trace (this is the reference value). h) Determine the "−xx dB down amplitude" using [(reference value) - xx]. Alternatively, this calculation may be made by using the marker-delta function of the instrument. i) If the reference value is determined by an unmodulated carrier, then turn the

	EUT modulation ON, and either clear the existing trace or start a new trace on the spectrum analyzer and allow the new trace to stabilize. Otherwise, the trace from step g) shall be used for step j). j) Place two markers, one at the lowest frequency and the other at the highest frequency of the envelope of the spectral display, such that each marker is at or slightly below the "−xx dB down amplitude" determined in step h). If a marker is below this "−xx dB down amplitude" value, then it shall be as close as possible to this value. The dBc bandwidth is the frequency difference between the two markers. Alternatively, set a marker at the lowest frequency of the envelope of the spectral display, such that the marker is at or slightly below the "−xx dB down amplitude" determined in step h). Reset the marker-delta function and move the marker to the other side of the emission until the delta marker amplitude is at the same level as the reference marker amplitude. The marker-delta frequency reading at this point is the specified emission bandwidth. k) The dBc bandwidth shall be reported by providing spectral plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

6.1.1 E.U.T. Operation:

Operating Environment:					
Temperature:	21 °C	Humidity:	40 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3				
Final test mode:	Mode1, Mode2, Mode3				

6.1.2 Test Setup Diagram:



6.1.3 Test Data:

Please Refer to Appendix for Details.

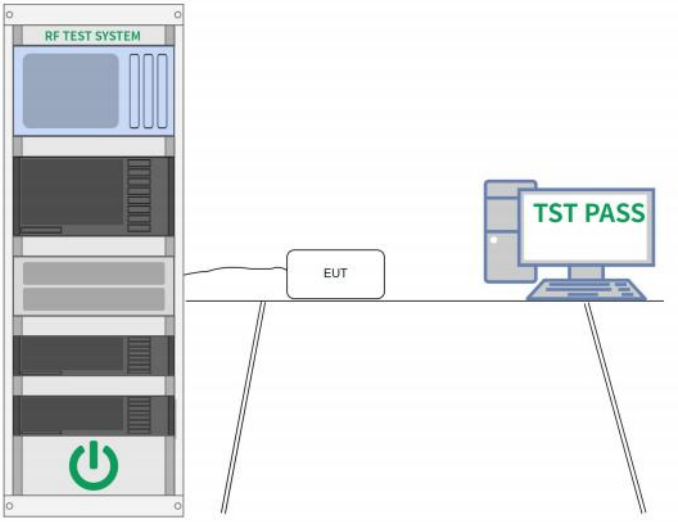
6.2 Maximum Conducted Output Power

Test Requirement:	47 CFR 15.247(b)(1)
Test Limit:	Refer to 47 CFR 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.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 7.8.5 KDB 558074 D01 15.247 Meas Guidance v05r02

6.2.1 E.U.T. Operation:

Operating Environment:					
Temperature:	21 °C	Humidity:	40 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3				
Final test mode:	Mode1, Mode2, Mode3				

6.2.2 Test Setup Diagram:



6.2.3 Test Data:

Please Refer to Appendix for Details.

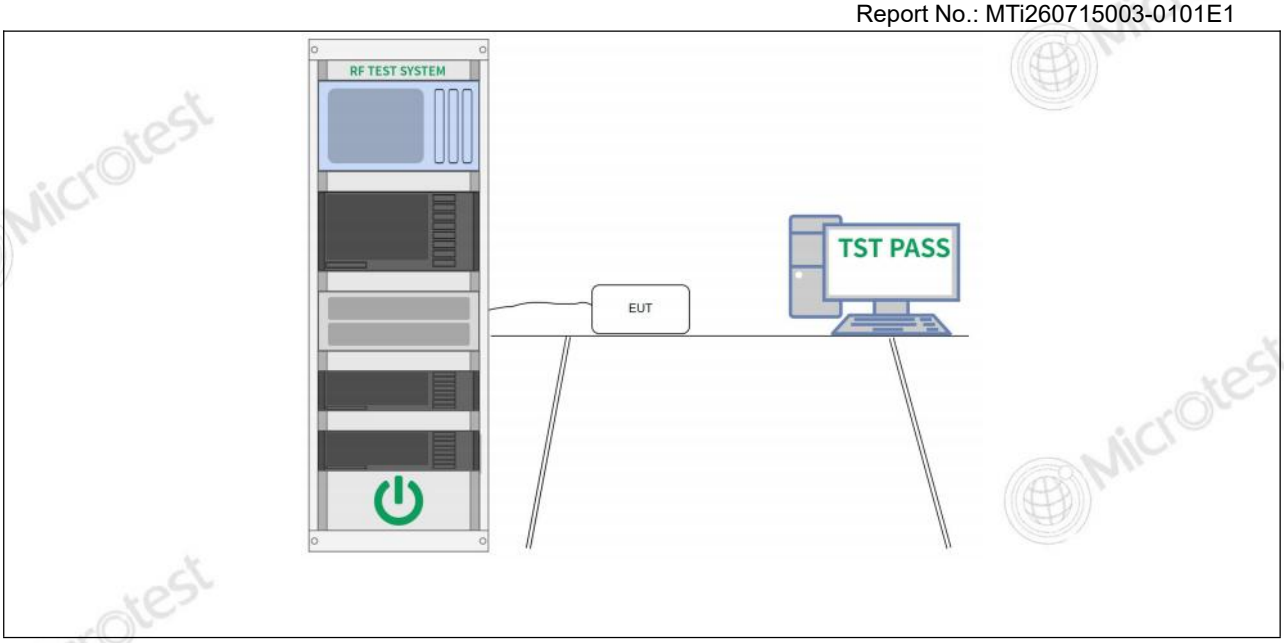
6.3 Channel Separation

Test Requirement:	47 CFR 15.247(a)(1)
Test Limit:	Refer to 47 CFR 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.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 7.8.2 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings: a) Span: Wide enough to capture the peaks of two adjacent channels. b) RBW: Start with the RBW set to approximately 30% of the channel spacing; adjust as necessary to best identify the center of each individual channel. c) Video (or average) bandwidth (VBW) ≥ RBW. d) Sweep: No faster than coupled (auto) time. e) Detector function: Peak. f) Trace: Max-hold. g) Allow the trace to stabilize. Use the marker-delta function to determine the separation between the peaks of the adjacent channels. Compliance of an EUT with the appropriate regulatory limit shall be determined. A spectral plot of the data shall be included in the test report.

6.3.1 E.U.T. Operation:

Operating Environment:					
Temperature:	21 °C	Humidity:	40 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3				
Final test mode:	Mode1, Mode2, Mode3				

6.3.2 Test Setup Diagram:



6.3.3 Test Data:

Please Refer to Appendix for Details.

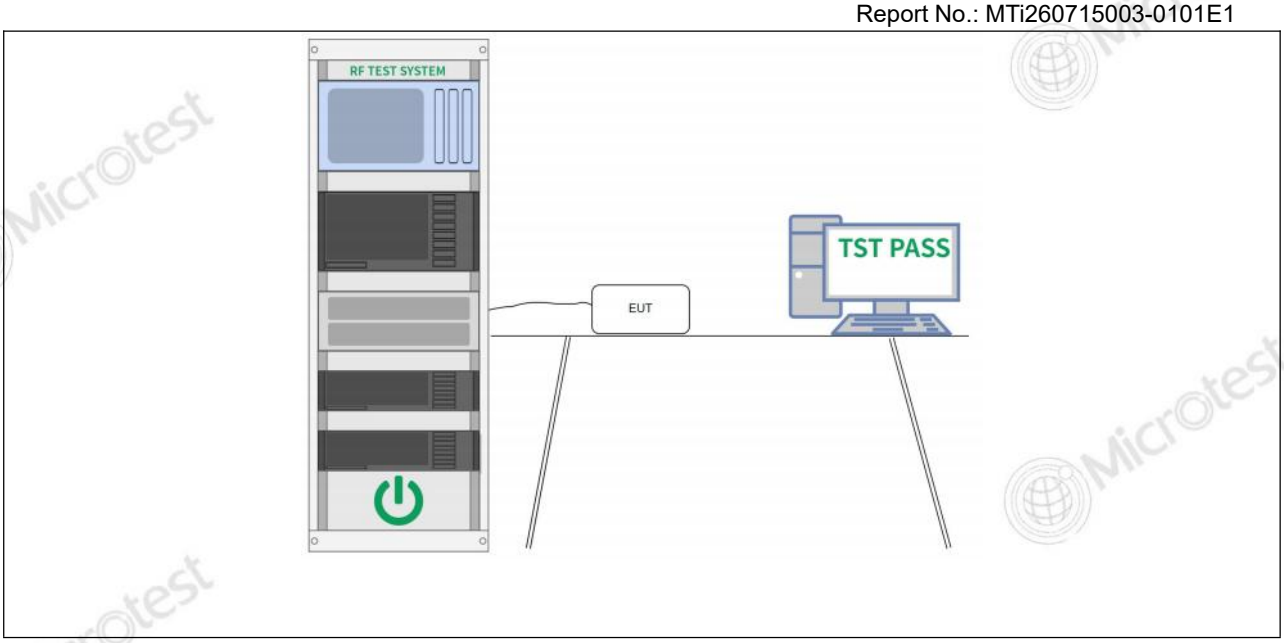
6.4 Number of Hopping Frequencies

Test Requirement:	47 CFR 15.247(a)(1)(iii)
Test Limit:	Refer to 47 CFR 15.247(a)(1)(iii), Fequency 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. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 7.8.3 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings: a) Span: The frequency band of operation. Depending on the number of channels the device supports, it could be necessary to divide the frequency range of operation across multiple spans, to allow the individual channels to be clearly seen. b) RBW: To identify clearly the individual channels, set the RBW to less than 30% of the channel spacing or the 20 dB bandwidth, whichever is smaller. c) VBW ≥ RBW. d) Sweep: No faster than coupled (auto) time. e) Detector function: Peak. f) Trace: Max-hold. g) Allow the trace to stabilize. It might prove necessary to break the span up into subranges to show clearly all of the hopping frequencies. Compliance of an EUT with the appropriate regulatory limit shall be determined for the number of hopping channels. A spectral plot of the data shall be included in the test report.

6.4.1 E.U.T. Operation:

Operating Environment:					
Temperature:	21 °C	Humidity:	40 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3				
Final test mode:	Mode1, Mode2, Mode3				

6.4.2 Test Setup Diagram:



6.4.3 Test Data:

Please Refer to Appendix for Details.

6.5 Dwell Time

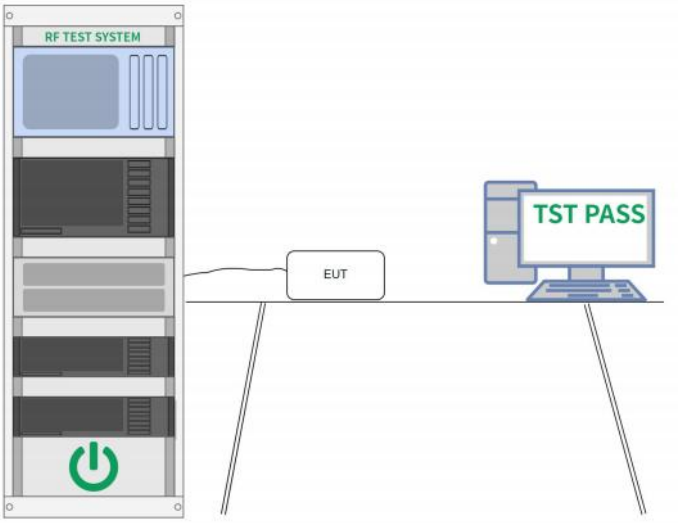
Test Requirement:	47 CFR 15.247(a)(1)(iii)
Test Limit:	Refer to 47 CFR 15.247(a)(1)(iii), Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024, section 7.8.4 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	The dwell time per hop on a channel is the time from the start of the first transmission to the end of the last transmission for that hop. If the device has a single transmission per hop then the dwell time is the duration of that transmission. If the device has a multiple transmissions per hop then the dwell time is measured from the start of the first transmission to the end of the last transmission. The time of occupancy is the total time that the device dwells on a channel over an observation period specified in the regulatory requirement. To determine the time of occupancy the spectrum analyzer will be configured to measure both the dwell time per hop and the number of times the device transmits on a specific channel in a given period. The EUT shall have its hopping function enabled. Compliance with the requirements shall be made with the minimum and with the maximum number of channels enabled. If the dwell time per channel does not vary with the number of channels than compliance with the requirements may be based on the minimum number of channels. If the device supports different dwell times per channel (example Bluetooth devices can dwell on a channel for 1, 3 or 5 time slots) then measurements can be limited to the longest dwell time with the minimum number of channels. Use the following spectrum analyzer settings to determine the dwell time per hop: a) Span: Zero span, centered on a hopping channel. b) RBW shall be ≤ channel spacing and where possible RBW should be set >> 1 / T, where T is the expected transmission time per hop. c) Sweep time: Set so that the start of the first transmission and end of the last transmission for the hop are clearly captured. Setting the sweep time to be slightly longer than the hopping period per channel (hopping period = 1/hopping rate) should achieve this. d) Use a video trigger, where possible with a trigger delay, so that the start of the transmission is clearly observed. The trigger level might need adjustment to reduce the chance of triggering when the system hops on an adjacent channel. e) Detector function: Peak. f) Trace: Clear-write, single sweep. g) Place markers at the start of the first transmission on the channel and at the end of the last transmission. The dwell time per hop is the time between these two markers.

	To determine the number of hops on a channel in the regulatory observation period repeat the measurement using a longer sweep time. When the device uses a single hopping sequence the period of measurement should be sufficient to capture at least 2 hops. When the device uses a dynamic hopping sequence, or the sequence varies, the period of measurement may need to capture multiple hops to better determine the average time of occupancy. Count the number of hops on the channel across the sweep time. The average number of hops on the same channel within the regulatory observation period is calculated from the number of hops on the channel divided by the spectrum analyzer sweep time multiplied by the regulatory observation period. For example, if three hops are counted with an analyzer sweep time of 500 ms and the regulatory observation period is 10 s, then the number of hops in that ten seconds is 3 / 0.5 × 10, or 60 hops. The average time of occupancy is calculated by multiplying the dwell time per hop by the number of hops in the observation period.

6.5.1 E.U.T. Operation:

Operating Environment:					
Temperature:	21 °C	Humidity:	40 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3				
Final test mode:	Mode1, Mode2, Mode3				

6.5.2 Test Setup Diagram:



6.5.3 Test Data:

Please Refer to Appendix for Details.

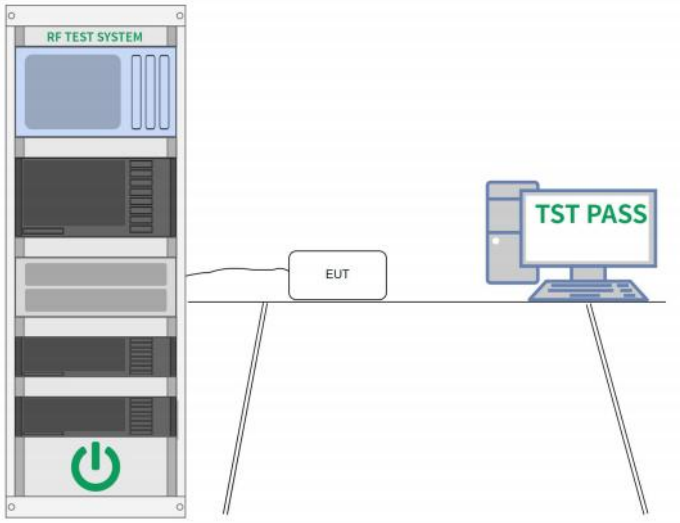
6.6 RF conducted spurious emissions and band edge measurement

Test Requirement:	47 CFR 15.247(d)
Test Limit:	Refer to 47 CFR 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.
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 7.8.7 KDB 558074 D01 15.247 Meas Guidance v05r02

6.6.1 E.U.T. Operation:

Operating Environment:					
Temperature:	21 °C	Humidity:	40 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3				
Final test mode:	Mode1, Mode2, Mode3				

6.6.2 Test Setup Diagram:



6.6.3 Test Data:

Please Refer to Appendix for Details.

6.7 Band edge emissions (Radiated)

Test Requirement:	Refer to 47 CFR 15.247(d), 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)).
Test Limit:	

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100 **	3
88-216	150 **	3
216-960	200 **	3
Above 960	500	3

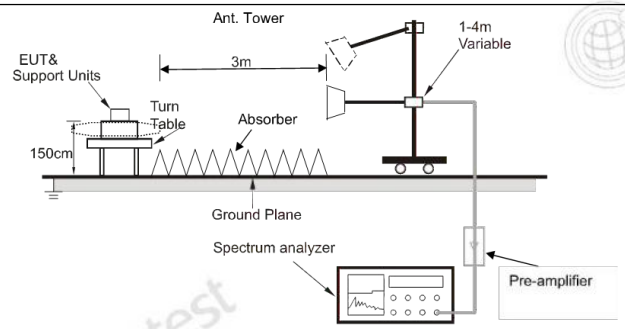
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.
In the emission table above, the tighter limit applies at the band edges.
The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.10 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.10.5.2

6.7.1 E.U.T. Operation:

Operating Environment:					
Temperature:	23 °C	Humidity:	45 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3				
Final test mode:	All of the listed pre-test mode were tested, only the data of the worst mode (Mode3) is recorded in the report				
Note: The amplitude of spurious emissions which are attenuated more than 20 dB below the limits are not reported.					

6.7.2 Test Setup Diagram:



6.7.3 Test Data:

Measurement (dBμV/m) = Reading Level (dBμV) + Correct Factor (dB)
Over (dB) = Measurement (dBμV/m) – Limit (dBμV/m)

Left Earphone:

Mode3 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		2310.000	48.50	-4.50	44.00	74.00	-30.00	peak
2		2310.000	37.73	-4.50	33.23	54.00	-20.77	AVG
3		2390.000	48.15	-4.31	43.84	74.00	-30.16	peak
4	*	2390.000	38.03	-4.31	33.72	54.00	-20.28	AVG

Mode3 / Polarization: Vertical / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		2310.000	46.56	-4.50	42.06	74.00	-31.94	peak
2		2310.000	37.36	-4.50	32.86	54.00	-21.14	AVG
3		2390.000	47.64	-4.31	43.33	74.00	-30.67	peak
4	*	2390.000	37.38	-4.31	33.07	54.00	-20.93	AVG

Mode3 / Polarization: Horizontal / CH: H

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		2483.500	52.17	-4.23	47.94	74.00	-26.06	peak
2	*	2483.500	39.17	-4.23	34.94	54.00	-19.06	AVG
3		2500.000	48.46	-4.15	44.31	74.00	-29.69	peak
4		2500.000	38.11	-4.15	33.96	54.00	-20.04	AVG

Mode3 / Polarization: Vertical / CH: H

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		2483.500	47.40	-4.23	43.17	74.00	-30.83	peak
2	*	2483.500	38.05	-4.23	33.82	54.00	-20.18	AVG
3		2500.000	46.80	-4.15	42.65	74.00	-31.35	peak
4		2500.000	37.78	-4.15	33.63	54.00	-20.37	AVG

Right Earphone:

Mode3 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		2310.000	46.59	-4.50	42.09	74.00	-31.91	peak
2		2310.000	37.48	-4.50	32.98	54.00	-21.02	AVG
3		2390.000	47.49	-4.31	43.18	74.00	-30.82	peak
4	*	2390.000	37.82	-4.31	33.51	54.00	-20.49	AVG

Mode3 / Polarization: Vertical / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		2310.000	47.37	-4.50	42.87	74.00	-31.13	peak
2		2310.000	37.12	-4.50	32.62	54.00	-21.38	AVG
3		2390.000	48.07	-4.31	43.76	74.00	-30.24	peak
4	*	2390.000	37.35	-4.31	33.04	54.00	-20.96	AVG

Mode3 / Polarization: Horizontal / CH: H

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		2483.500	54.43	-4.23	50.20	74.00	-23.80	peak
2	*	2483.500	38.86	-4.23	34.63	54.00	-19.37	AVG
3		2500.000	47.32	-4.15	43.17	74.00	-30.83	peak
4		2500.000	37.77	-4.15	33.62	54.00	-20.38	AVG

Mode3 / Polarization: Vertical / CH: H

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		2483.500	47.59	-4.23	43.36	74.00	-30.64	peak
2	*	2483.500	38.37	-4.23	34.14	54.00	-19.86	AVG
3		2500.000	47.75	-4.15	43.60	74.00	-30.40	peak
4		2500.000	37.93	-4.15	33.78	54.00	-20.22	AVG

6.8 Radiated emissions (below 1GHz)

Test Requirement:	Refer to 47 CFR 15.247(d), 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)).
Test Limit:	

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100 **	3
88-216	150 **	3
216-960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.
In the emission table above, the tighter limit applies at the band edges.
The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

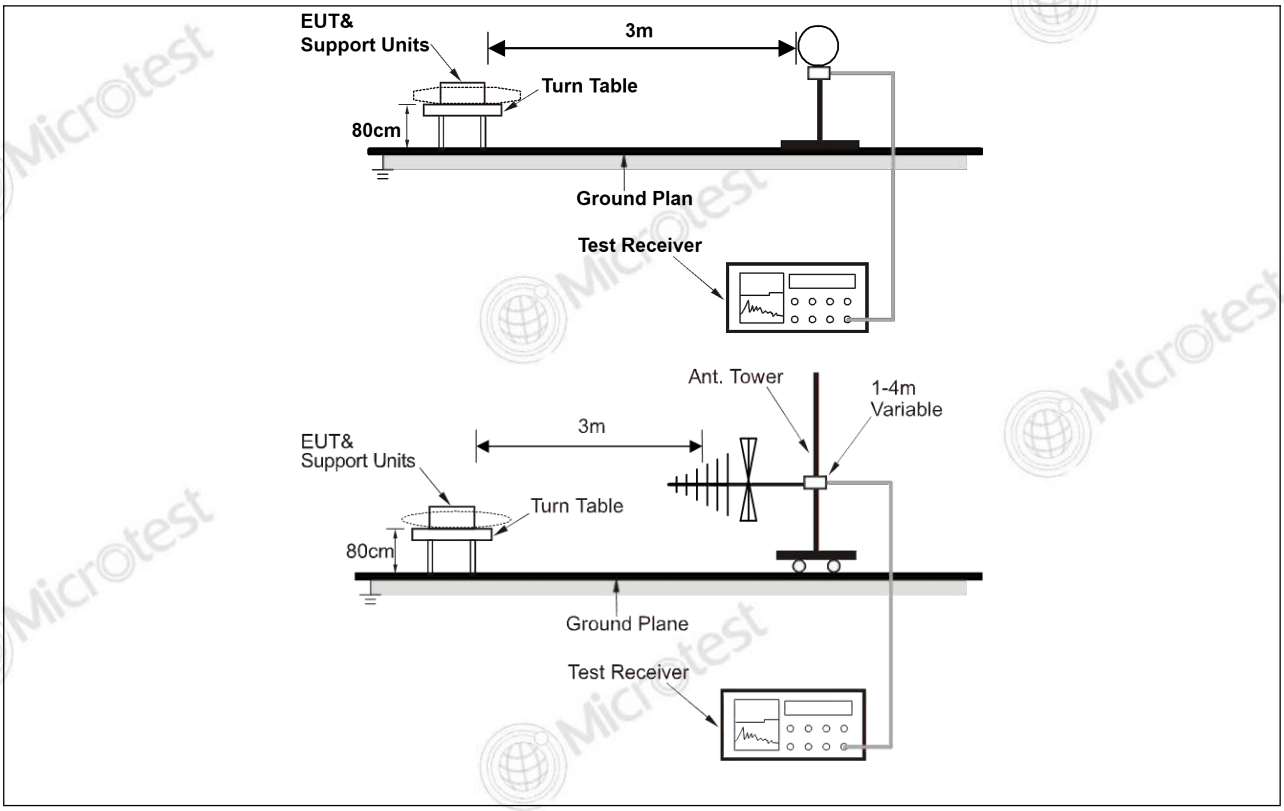
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4

6.8.1 E.U.T. Operation:

Operating Environment:					
Temperature:	23 °C	Humidity:	45 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3				
Final test mode:	All of the listed pre-test mode were tested, only the data of the worst mode (Mode3) is recorded in the report				

Note:
The amplitude of spurious emissions which are attenuated more than 20 dB below the limits are not reported.
All modes of operation of the EUT were investigated, and only the worst-case results are reported. There were no emissions found below 30MHz within 20dB of the limit.

6.8.2 Test Setup Diagram:

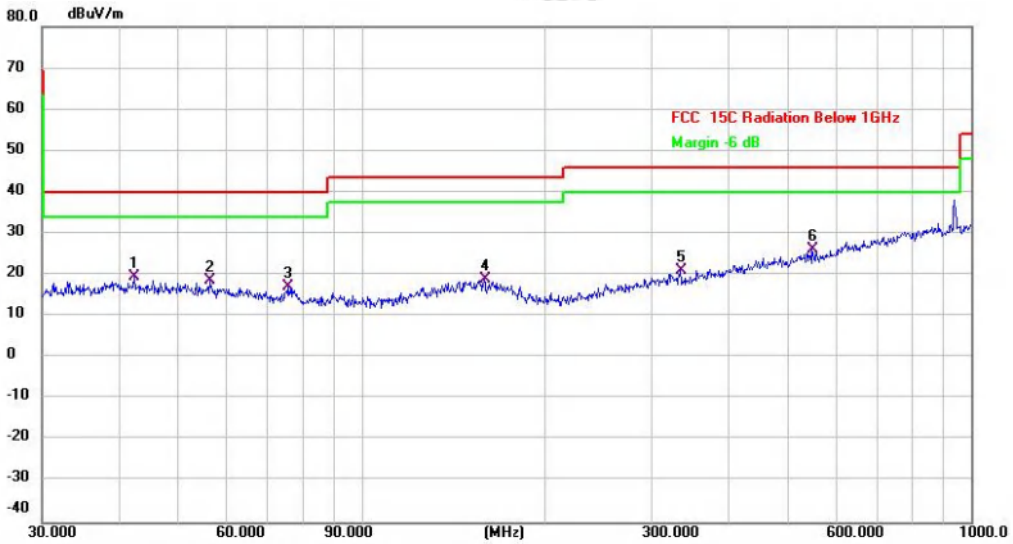


6.8.3 Test Data:

Measurement (dBμV/m) = Reading Level (dBμV) + Correct Factor (dB)
Over (dB) = Measurement (dBμV/m) – Limit (dBμV/m)

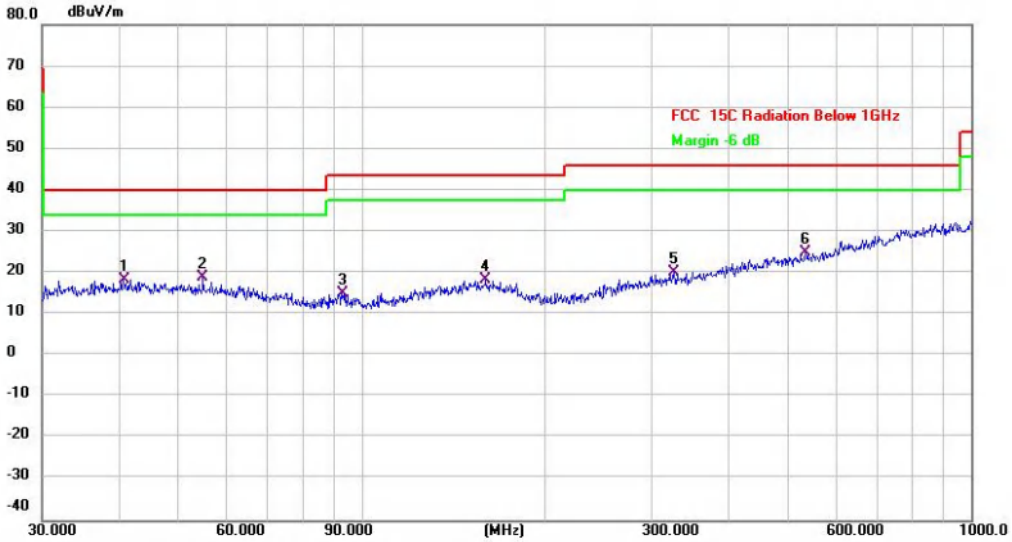
Left Earphone:

Mode3 / Polarization: Horizontal / CH: H



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		42.4508	27.96	-8.40	19.56	40.00	-20.44	QP	
2		56.3948	27.89	-9.14	18.75	40.00	-21.25	QP	
3		75.7114	28.64	-11.54	17.10	40.00	-22.90	QP	
4		158.6677	26.63	-7.56	19.07	43.50	-24.43	QP	
5		333.6867	27.13	-6.06	21.07	46.00	-24.93	QP	
6	*	549.0195	28.09	-2.07	26.02	46.00	-19.98	QP	

Mode3 / Polarization: Vertical / CH: H



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		40.7016	26.69	-8.27	18.42	40.00	-21.58	QP	
2		55.0274	27.90	-9.02	18.88	40.00	-21.12	QP	
3		92.7871	27.54	-12.57	14.97	43.50	-28.53	QP	
4		159.7844	25.87	-7.58	18.29	43.50	-25.21	QP	
5		326.7395	26.44	-6.18	20.26	46.00	-25.74	QP	
6	*	535.7073	27.26	-2.28	24.98	46.00	-21.02	QP	

Right Earphone:

Mode3 / Polarization: Horizontal / CH: H

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		60.0691	28.65	-9.47	19.18	40.00	-20.82	QP	
2		92.1388	29.20	-12.70	16.50	43.50	-27.00	QP	
3		158.1123	26.37	-7.51	18.86	43.50	-24.64	QP	
4		252.0627	27.00	-8.64	18.36	46.00	-27.64	QP	
5		422.0577	27.08	-4.02	23.06	46.00	-22.94	QP	
6	*	609.9217	27.63	-0.32	27.31	46.00	-18.69	QP	

Mode3 / Polarization: Vertical / CH: H

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over		
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	Comment
1		42.3022	27.74	-8.38	19.36	40.00	-20.64	QP	
2		75.1822	27.89	-11.45	16.44	40.00	-23.56	QP	
3		122.4040	25.92	-9.79	16.13	43.50	-27.37	QP	
4		155.9101	25.91	-7.31	18.60	43.50	-24.90	QP	
5		325.5958	25.46	-6.19	19.27	46.00	-26.73	QP	
6	*	545.1826	28.01	-2.16	25.85	46.00	-20.15	QP	

6.9 Radiated emissions (above 1GHz)

Test Requirement:	Refer to 47 CFR 15.247(d), 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)).
Test Limit:	

Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100 **	3
88-216	150 **	3
216-960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this part, e.g., §§ 15.231 and 15.241.
In the emission table above, the tighter limit applies at the band edges.
The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9–90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

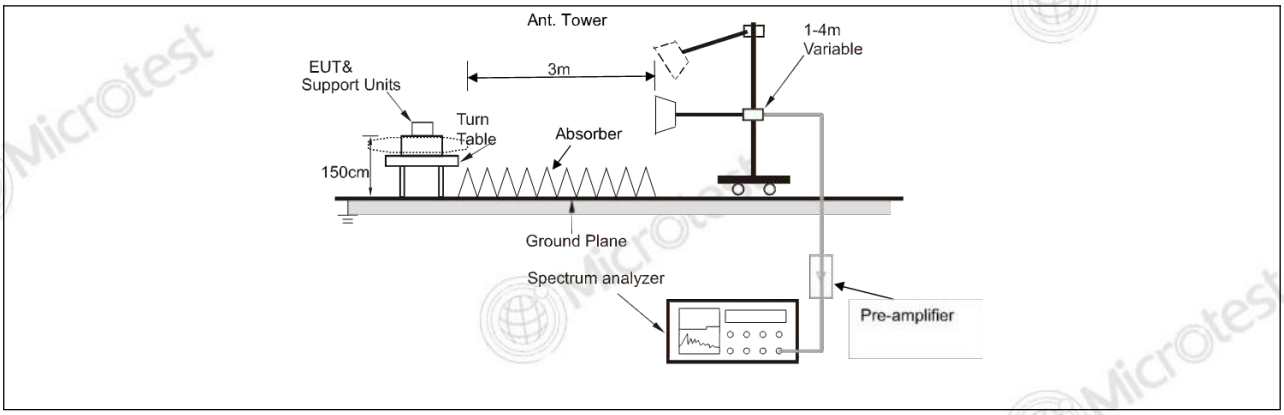
Test Method:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4 KDB 558074 D01 15.247 Meas Guidance v05r02
Procedure:	ANSI C63.10-2020 + Cor. 1-2023+C63.10a-2024 + Errata to C63.10a-2024 section 6.5.4

6.9.1 E.U.T. Operation:

Operating Environment:					
Temperature:	23 °C	Humidity:	45 %	Atmospheric Pressure:	101 kPa
Pre test mode:	Mode1, Mode2, Mode3				
Final test mode:	All of the listed pre-test mode were tested, only the data of the worst mode (Mode3) is recorded in the report				

Note: Test frequency are from 1GHz to 25GHz, the amplitude of spurious emissions which are attenuated more than 20 dB below the limits are not reported.
All modes of operation of the EUT were investigated, and only the worst-case results are reported.

6.9.2 Test Setup Diagram:



6.9.3 Test Data:

Measurement (dBμV/m) = Reading Level (dBμV) + Correct Factor (dB)
Over (dB) = Measurement (dBμV/m) – Limit (dBμV/m)

Left Earphone:

Mode3 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4804.000	46.67	2.70	49.37	74.00	-24.63	peak
2	*	4804.000	44.00	2.70	46.70	54.00	-7.30	AVG
3		7206.000	43.66	7.46	51.12	74.00	-22.88	peak
4		7206.000	38.11	7.46	45.57	54.00	-8.43	AVG
5		9608.000	43.65	8.79	52.44	74.00	-21.56	peak
6		9608.000	37.68	8.79	46.47	54.00	-7.53	AVG

Mode3 / Polarization: Vertical / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4804.000	45.42	2.70	48.12	74.00	-25.88	peak
2	*	4804.000	43.71	2.70	46.41	54.00	-7.59	AVG
3		7206.000	43.01	7.46	50.47	74.00	-23.53	peak
4		7206.000	38.28	7.46	45.74	54.00	-8.26	AVG
5		9608.000	43.83	8.79	52.62	74.00	-21.38	peak
6		9608.000	37.54	8.79	46.33	54.00	-7.67	AVG

Mode3 / Polarization: Horizontal / CH: M

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4882.000	47.64	2.74	50.38	74.00	-23.62	peak
2	*	4882.000	44.82	2.74	47.56	54.00	-6.44	AVG
3		7323.000	42.24	7.81	50.05	74.00	-23.95	peak
4		7323.000	38.39	7.81	46.20	54.00	-7.80	AVG
5		9764.000	43.62	9.88	53.50	74.00	-20.50	peak
6		9764.000	35.86	9.88	45.74	54.00	-8.26	AVG

Mode3 / Polarization: Vertical / CH: M

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4882.000	46.29	2.74	49.03	74.00	-24.97	peak
2		4882.000	43.64	2.74	46.38	54.00	-7.62	AVG
3		7323.000	42.36	7.81	50.17	74.00	-23.83	peak
4	*	7323.000	39.34	7.81	47.15	54.00	-6.85	AVG
5		9764.000	41.95	9.88	51.83	74.00	-22.17	peak
6		9764.000	35.86	9.88	45.74	54.00	-8.26	AVG

Mode3 / Polarization: Horizontal / CH: H

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4960.000	46.04	3.10	49.14	74.00	-24.86	peak
2		4960.000	42.88	3.10	45.98	54.00	-8.02	AVG
3		7440.000	43.23	7.65	50.88	74.00	-23.12	peak
4		7440.000	38.55	7.65	46.20	54.00	-7.80	AVG
5		9920.000	43.76	9.23	52.99	74.00	-21.01	peak
6	*	9920.000	37.92	9.23	47.15	54.00	-6.85	AVG

Mode3 / Polarization: Vertical / CH: H

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4960.000	46.65	3.10	49.75	74.00	-24.25	peak
2		4960.000	44.33	3.10	47.43	54.00	-6.57	AVG
3		7440.000	42.48	7.65	50.13	74.00	-23.87	peak
4		7440.000	39.20	7.65	46.85	54.00	-7.15	AVG
5		9920.000	43.01	9.23	52.24	74.00	-21.76	peak
6	*	9920.000	38.37	9.23	47.60	54.00	-6.40	AVG

Right Earphone:

Mode3 / Polarization: Horizontal / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4804.000	44.94	2.70	47.64	74.00	-26.36	peak
2		4804.000	42.54	2.70	45.24	54.00	-8.76	AVG
3		7206.000	43.37	7.46	50.83	74.00	-23.17	peak
4		7206.000	38.63	7.46	46.09	54.00	-7.91	AVG
5		9608.000	42.65	8.79	51.44	74.00	-22.56	peak
6	*	9608.000	38.32	8.79	47.11	54.00	-6.89	AVG

Mode3 / Polarization: Vertical / CH: L

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4804.000	46.65	2.70	49.35	74.00	-24.65	peak
2	*	4804.000	43.77	2.70	46.47	54.00	-7.53	AVG
3		7206.000	43.31	7.46	50.77	74.00	-23.23	peak
4		7206.000	37.79	7.46	45.25	54.00	-8.75	AVG
5		9608.000	42.98	8.79	51.77	74.00	-22.23	peak
6		9608.000	36.49	8.79	45.28	54.00	-8.72	AVG

Mode3 / Polarization: Horizontal / CH: M

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4882.000	45.33	2.74	48.07	74.00	-25.93	peak
2		4882.000	43.43	2.74	46.17	54.00	-7.83	AVG
3		7323.000	42.18	7.81	49.99	74.00	-24.01	peak
4		7323.000	37.47	7.81	45.28	54.00	-8.72	AVG
5		9764.000	44.13	9.88	54.01	74.00	-19.99	peak
6	*	9764.000	36.62	9.88	46.50	54.00	-7.50	AVG

Mode3 / Polarization: Vertical / CH: M

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4882.000	45.08	2.74	47.82	74.00	-26.18	peak
2		4882.000	42.32	2.74	45.06	54.00	-8.94	AVG
3		7323.000	42.44	7.81	50.25	74.00	-23.75	peak
4		7323.000	38.77	7.81	46.58	54.00	-7.42	AVG
5		9764.000	43.30	9.88	53.18	74.00	-20.82	peak
6	*	9764.000	37.53	9.88	47.41	54.00	-6.59	AVG

Mode3 / Polarization: Horizontal / CH: H

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4960.000	45.29	3.10	48.39	74.00	-25.61	peak
2		4960.000	42.87	3.10	45.97	54.00	-8.03	AVG
3		7440.000	42.54	7.65	50.19	74.00	-23.81	peak
4		7440.000	38.70	7.65	46.35	54.00	-7.65	AVG
5		9920.000	43.36	9.23	52.59	74.00	-21.41	peak
6	*	9920.000	37.21	9.23	46.44	54.00	-7.56	AVG

Mode3 / Polarization: Vertical / CH: H

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
1		4960.000	45.16	3.10	48.26	74.00	-25.74	peak
2		4960.000	42.65	3.10	45.75	54.00	-8.25	AVG
3		7440.000	41.82	7.65	49.47	74.00	-24.53	peak
4		7440.000	38.65	7.65	46.30	54.00	-7.70	AVG
5		9920.000	43.60	9.23	52.83	74.00	-21.17	peak
6	*	9920.000	37.88	9.23	47.11	54.00	-6.89	AVG

Photographs of the test setup

Refer to Appendix - Test Setup Photos

Photographs of the EUT

Refer to Appendix - EUT Photos

Appendix

Appendix A: 20dB Emission Bandwidth

Test Result

Test Mode	Antenna	Frequency [MHz]	20db EBW [MHz]
DH5	Ant1	2402	0.954
	Ant2	2402	0.963
	Ant1	2441	0.969
	Ant2	2441	0.963
	Ant1	2480	0.951
	Ant2	2480	0.963
2DH5	Ant1	2402	1.257
	Ant2	2402	1.287
	Ant1	2441	1.275
	Ant2	2441	1.287
	Ant1	2480	1.260
	Ant2	2480	1.320
3DH5	Ant1	2402	1.269
	Ant2	2402	1.293
	Ant1	2441	1.290
	Ant2	2441	1.296
	Ant1	2480	1.263
	Ant2	2480	1.299

Test Graphs

DH5_Ant1_2402

DH5_Ant2_2402

DH5_Ant1_2441

DH5_Ant2_2441

DH5_Ant1_2480

DH5_Ant2_2480

2DH5_Ant1_2402

2DH5_Ant2_2402

2DH5_Ant1_2441

2DH5_Ant2_2441

2DH5_Ant1_2480

2DH5_Ant2_2480

3DH5_Ant1_2402

3DH5_Ant2_2402

3DH5_Ant1_2441

3DH5_Ant2_2441

3DH5_Ant1_2480

3DH5_Ant2_2480

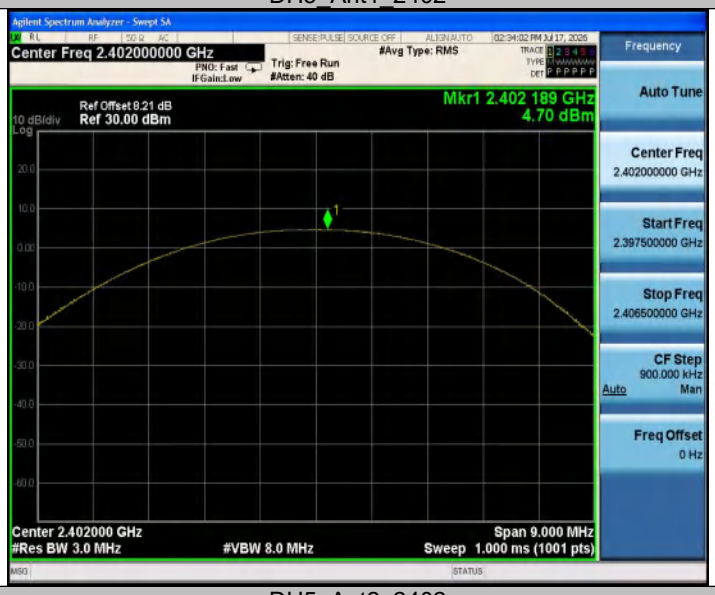
Appendix B: Maximum conducted output power

Test Result Peak

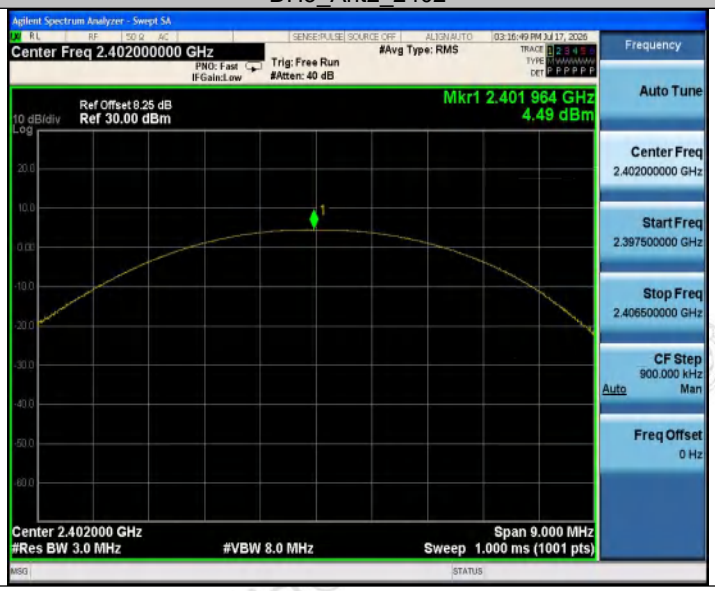
Test Mode	Antenna	Frequency [MHz]	Conducted Peak Power [dBm]	Limit [dBm]	Verdict
DH5	Ant1	2402	4.70	≤30	PASS
	Ant2	2402	4.49	≤30	PASS
	Ant1	2441	4.61	≤30	PASS
	Ant2	2441	4.43	≤30	PASS
	Ant1	2480	4.82	≤30	PASS
	Ant2	2480	4.56	≤30	PASS
2DH5	Ant1	2402	5.39	≤20.97	PASS
	Ant2	2402	5.31	≤20.97	PASS
	Ant1	2441	5.41	≤20.97	PASS
	Ant2	2441	5.31	≤20.97	PASS
	Ant1	2480	5.58	≤20.97	PASS
	Ant2	2480	5.39	≤20.97	PASS
3DH5	Ant1	2402	5.88	≤20.97	PASS
	Ant2	2402	6.03	≤20.97	PASS
	Ant1	2441	5.84	≤20.97	PASS
	Ant2	2441	5.92	≤20.97	PASS
	Ant1	2480	6.02	≤20.97	PASS
	Ant2	2480	6.13	≤20.97	PASS

Test Graphs

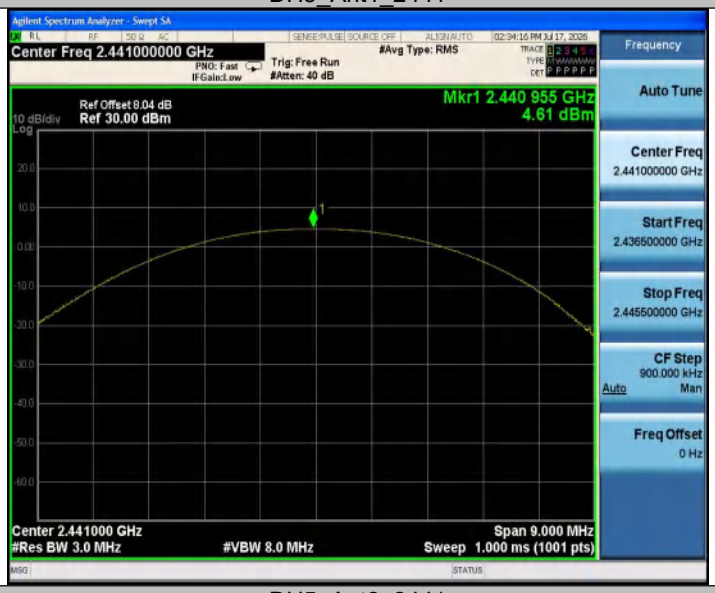
DH5_Ant1_2402



DH5_Ant2_2402

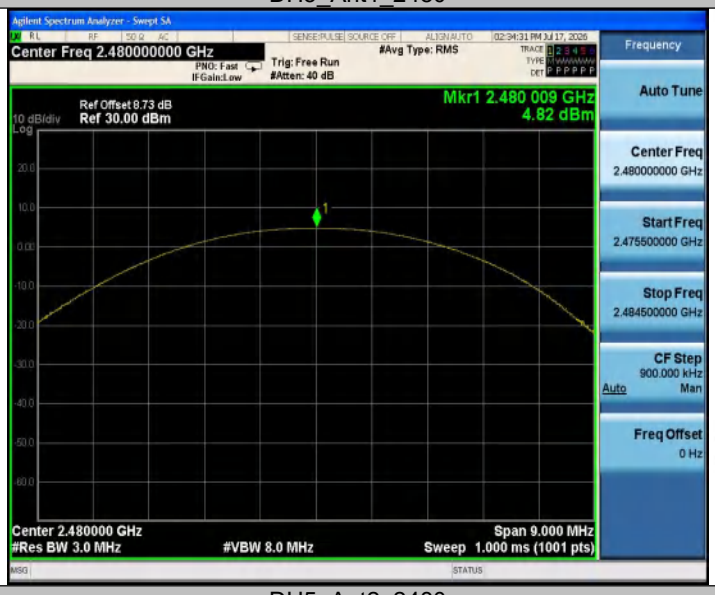


DH5_Ant1_2441

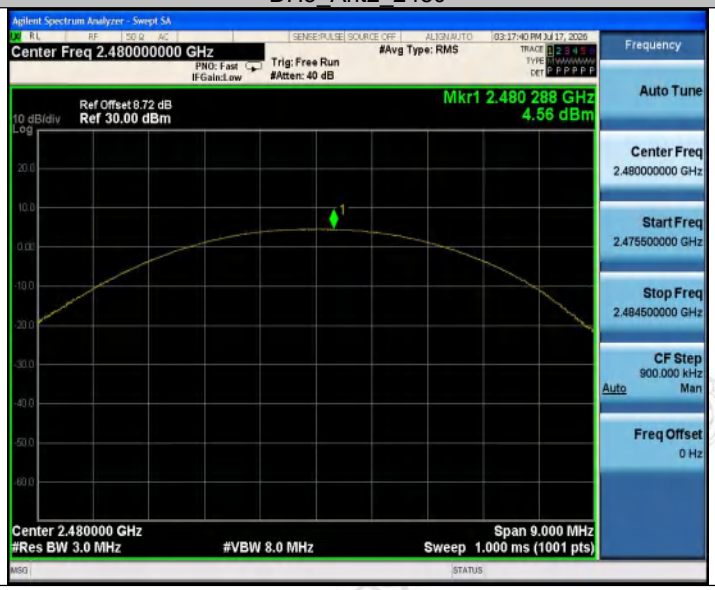


DH5_Ant2_2441

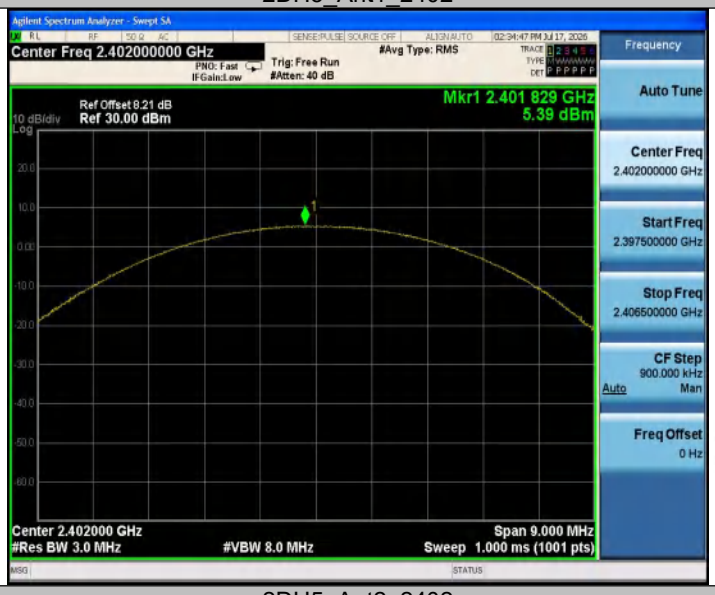
DH5_Ant1_2480



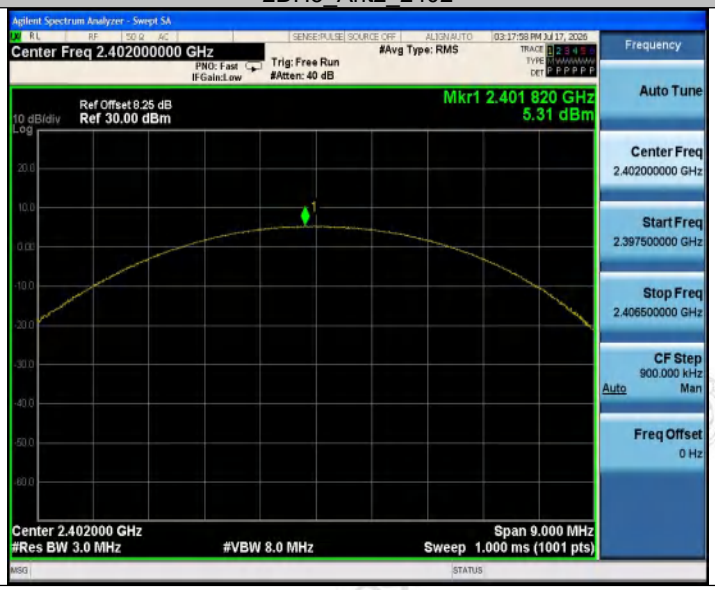
DH5_Ant2_2480



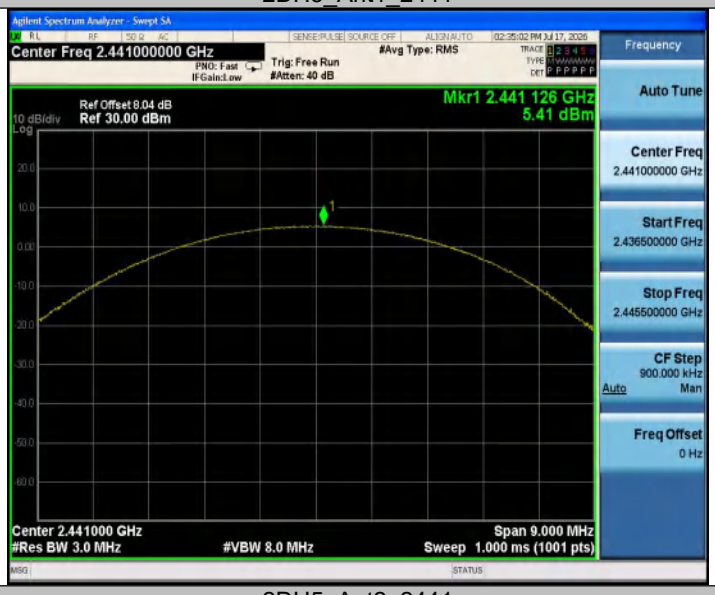
2DH5_Ant1_2402



2DH5_Ant2_2402



2DH5_Ant1_2441



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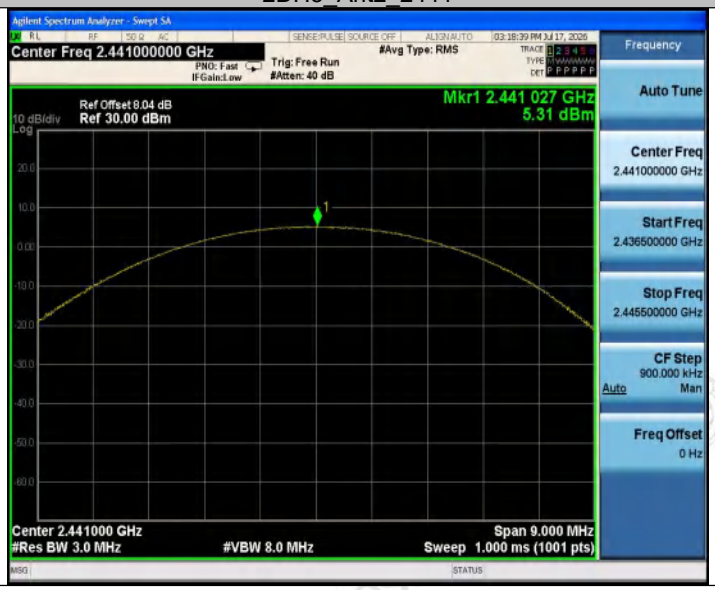
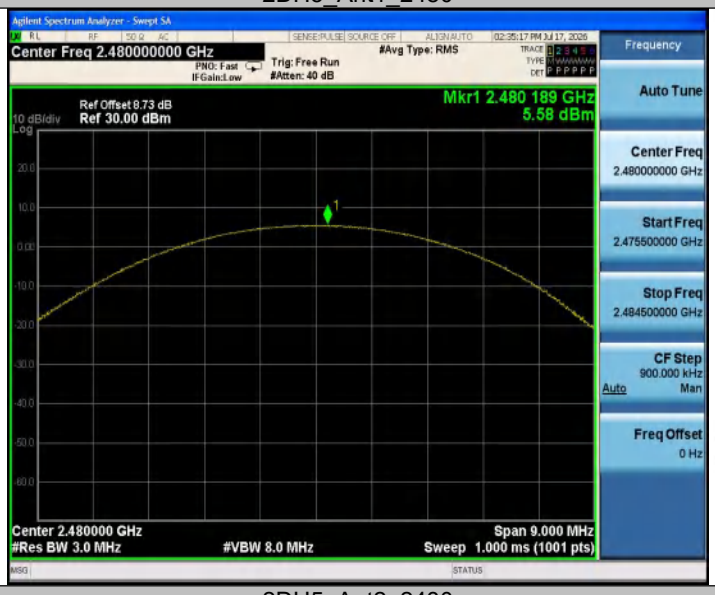


2DH5_Ant1_2480



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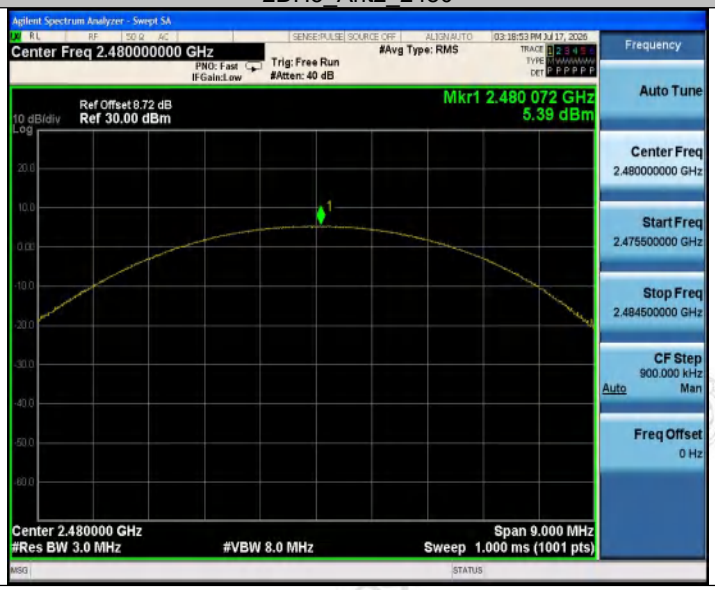
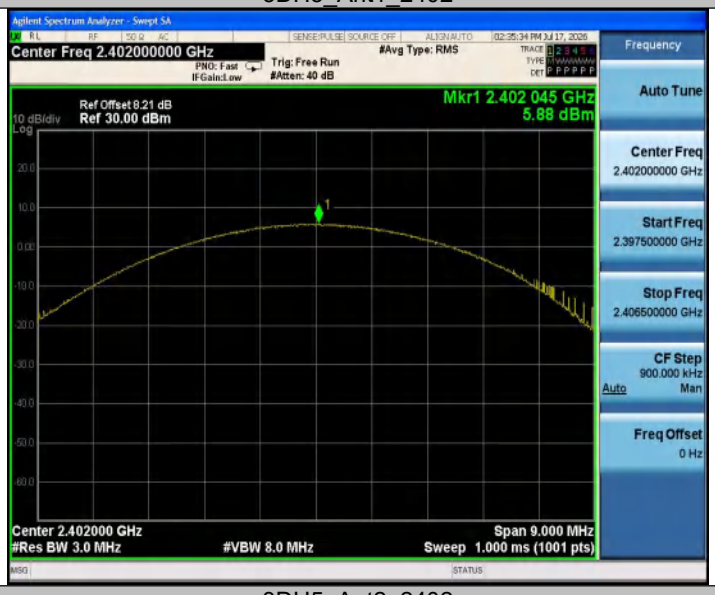
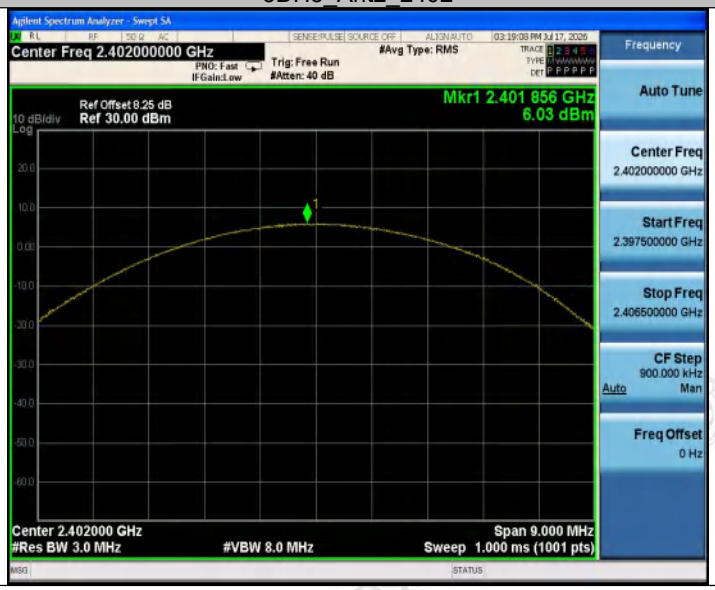


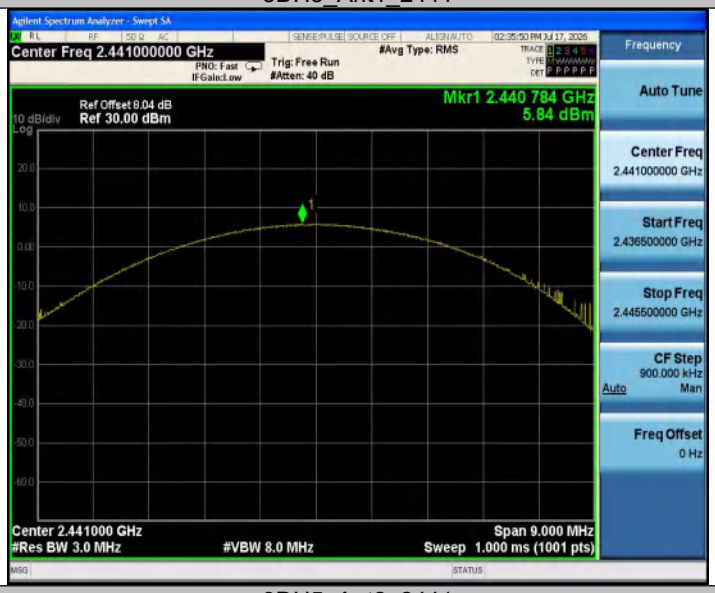
3DH5_Ant1_2402



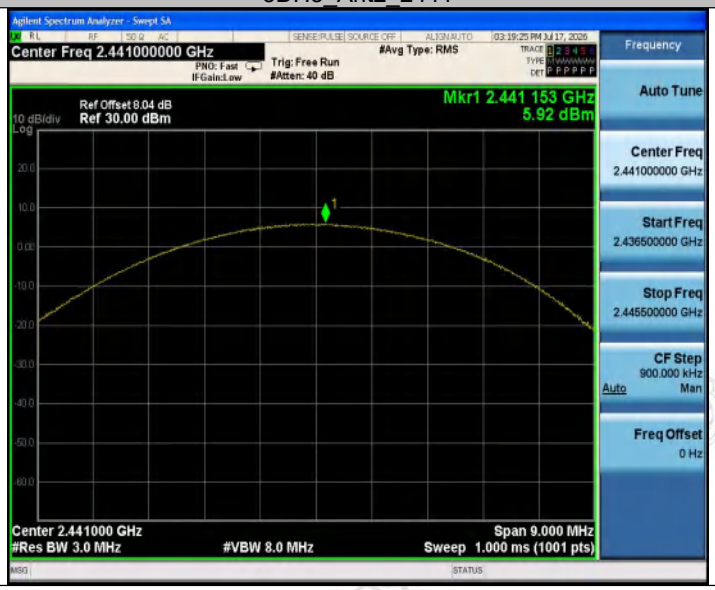
3DH5_Ant2_2402



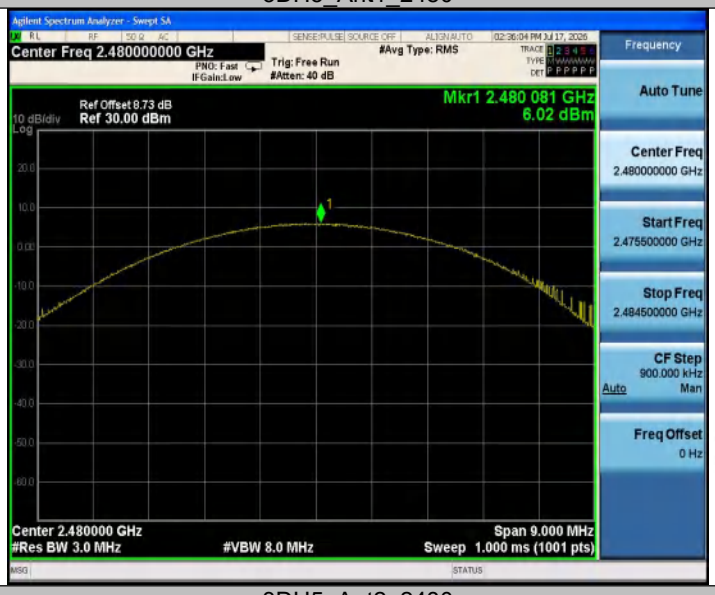
3DH5_Ant1_2441



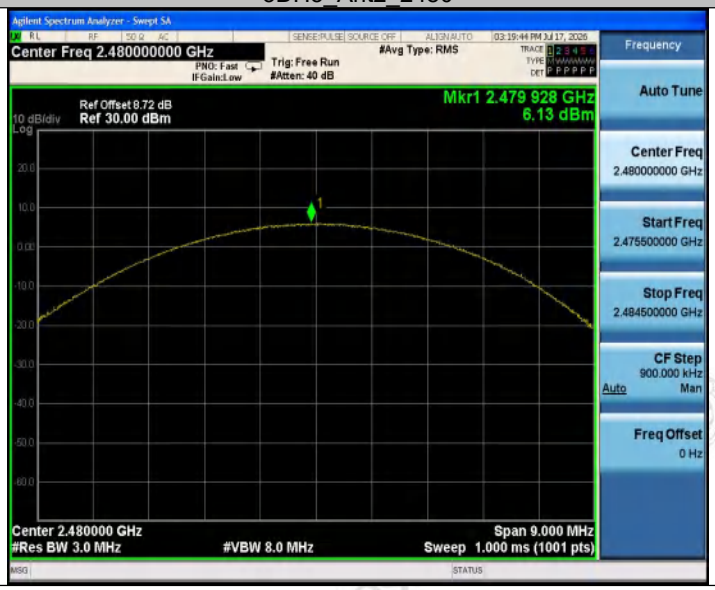
3DH5_Ant2_2441



3DH5_Ant1_2480



3DH5_Ant2_2480



Appendix C: Carrier frequency separation

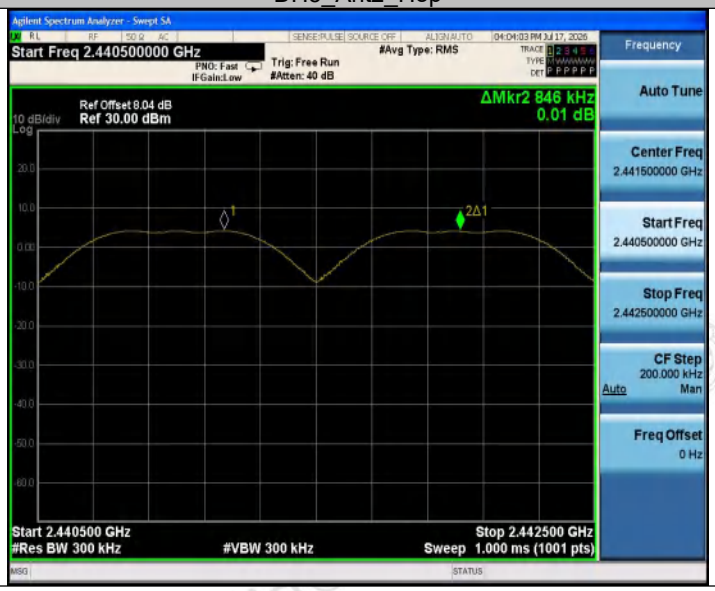
Test Result

Test Mode	Antenna	Frequency [MHz]	Result [MHz]	Limit [MHz]	Verdict
DH5	Ant1	Hop	1.01	≥0.969	PASS
	Ant2	Hop	0.846	≥0.642	PASS
2DH5	Ant1	Hop	1.004	≥0.850	PASS
	Ant2	Hop	1.024	≥0.880	PASS
3DH5	Ant1	Hop	1.01	≥0.860	PASS
	Ant2	Hop	1.15	≥0.866	PASS

Test Graphs

DH5_Ant1_Hop

DH5_Ant2_Hop



2DH5_Ant1_Hop

2DH5_Ant2_Hop

3DH5_Ant1_Hop

3DH5_Ant2_Hop

Appendix D: Time of occupancy

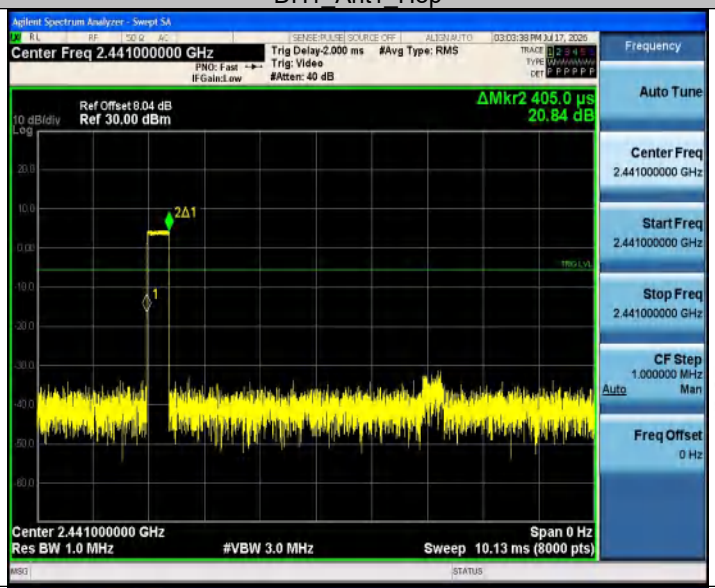
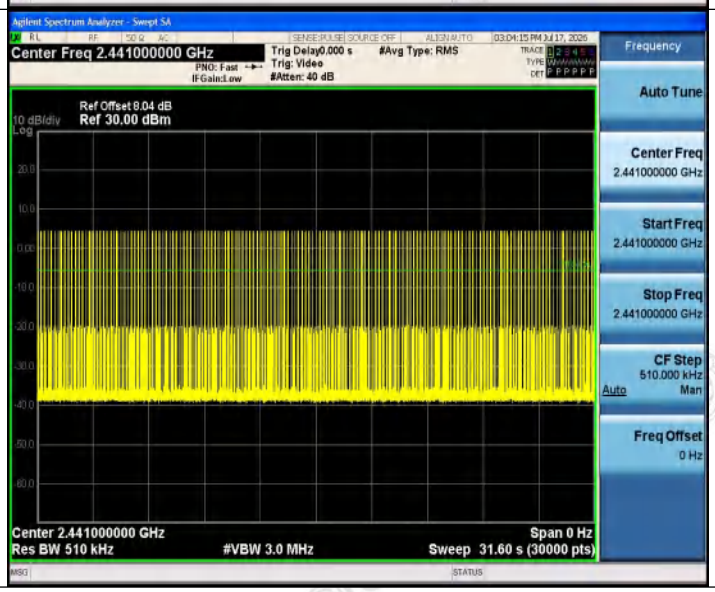
Test Result

Test Mode	Antenna	Frequency [MHz]	BurstWidth [ms]	Hops in 31.6s [Num]	Result [s]	Limit [s]	Verdict
DH1	Ant1	Hop	0.405	318	0.129	≤0.4	PASS
	Ant2	Hop	0.405	318	0.129	≤0.4	PASS
DH3	Ant1	Hop	1.661	163	0.271	≤0.4	PASS
	Ant2	Hop	1.661	161	0.267	≤0.4	PASS
DH5	Ant1	Hop	2.910	100	0.291	≤0.4	PASS
	Ant2	Hop	2.908	119	0.346	≤0.4	PASS
2DH1	Ant1	Hop	0.414	319	0.132	≤0.4	PASS
	Ant2	Hop	0.415	318	0.132	≤0.4	PASS
2DH3	Ant1	Hop	1.667	159	0.265	≤0.4	PASS
	Ant2	Hop	1.667	152	0.253	≤0.4	PASS
2DH5	Ant1	Hop	2.915	118	0.344	≤0.4	PASS
	Ant2	Hop	2.916	98	0.286	≤0.4	PASS
3DH1	Ant1	Hop	0.417	319	0.133	≤0.4	PASS
	Ant2	Hop	0.417	317	0.132	≤0.4	PASS
3DH3	Ant1	Hop	1.667	163	0.272	≤0.4	PASS
	Ant2	Hop	1.667	162	0.27	≤0.4	PASS
3DH5	Ant1	Hop	2.918	106	0.309	≤0.4	PASS
	Ant2	Hop	2.918	114	0.333	≤0.4	PASS

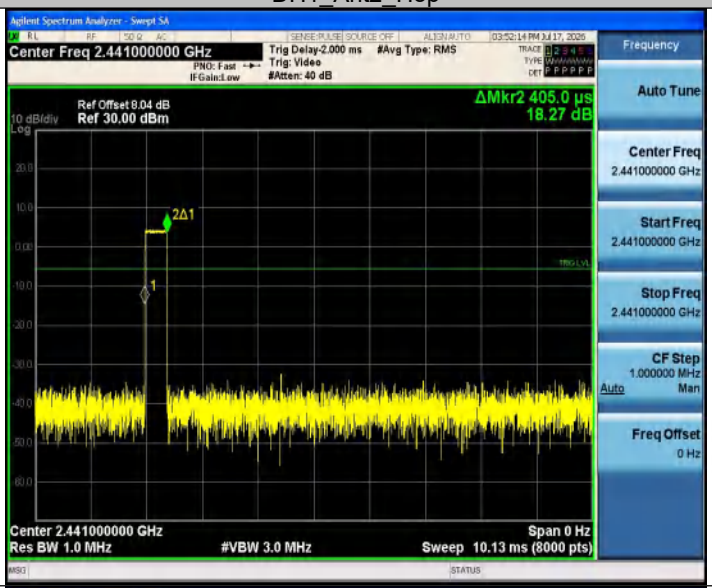
Notes:

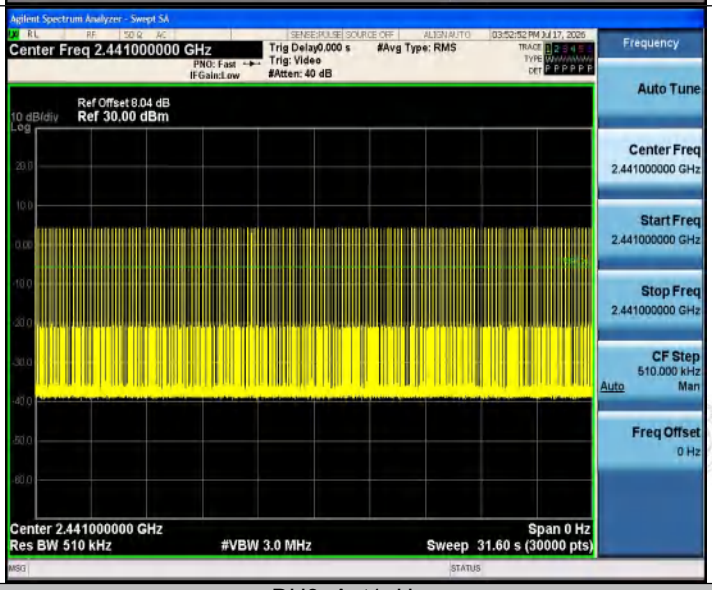
1. Period time = 0.4s * 79 = 31.6s
2. Result (Time of occupancy) = BurstWidth[ms] * Hops in 31.6s [Num]

Test Graphs

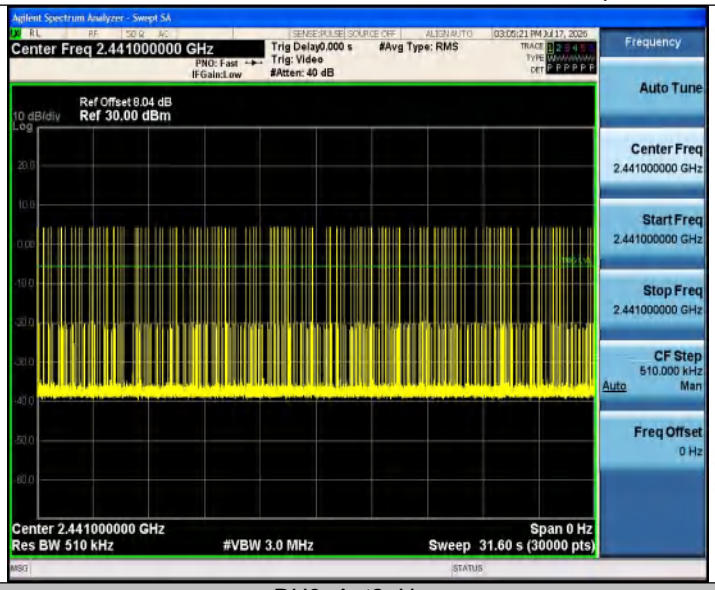
DH1_Ant1_Hop		
		
		

DH1_Ant2_Hop





DH3_Ant1_Hop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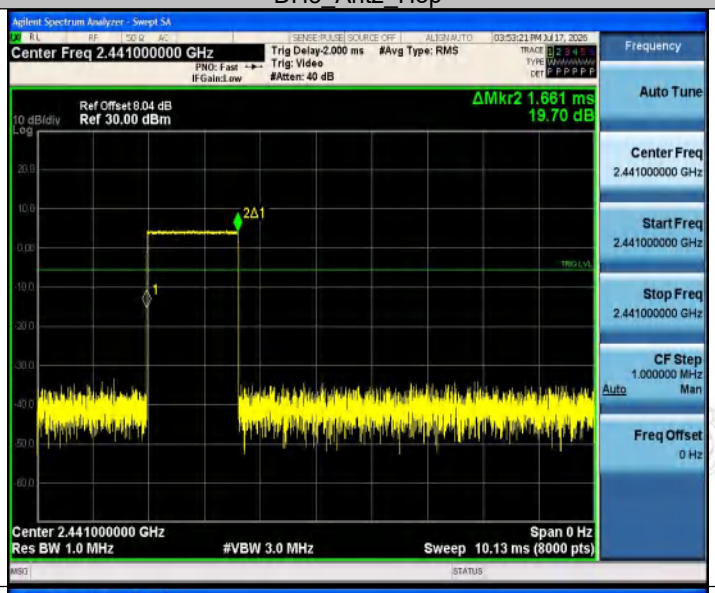
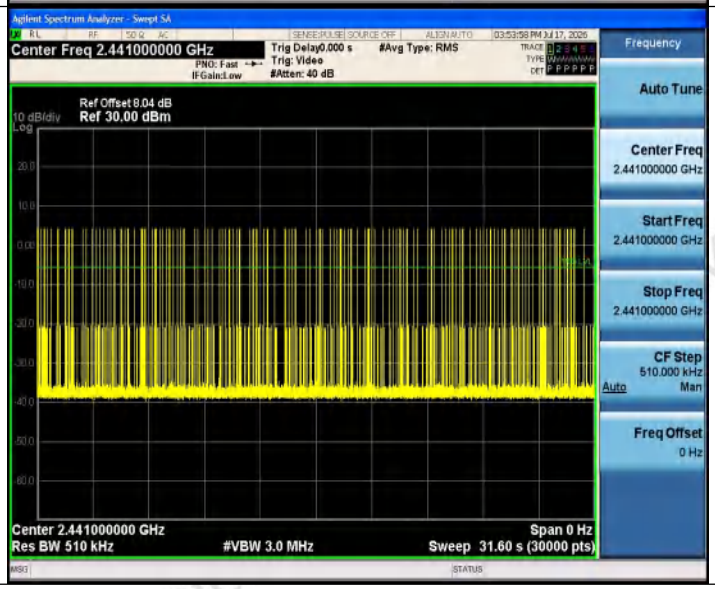
Center Freq 2.441000000 GHz
Trig Delay0.000 s
#Avg Type: RMS
Trig: Video
#Atten: 40 dB
Ref Offset 8.04 dB
10 dB/div Ref 30.00 dBm
Center 2.441000000 GHz
Span 0 Hz
Res BW 510 kHz
#VBW 3.0 MHz
Sweep 31.60 s (30000 pts)
Frequency
Auto Tune
Center Freq 2.441000000 GHz
Start Freq 2.441000000 GHz
Stop Freq 2.441000000 GHz
CF Step 510.000 kHz
Auto Man
Freq Offset 0 Hz

DH3_Ant2_Hop


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
Trig Delay-2.000 ms
#Avg Type: RMS
Trig: Video
#Atten: 40 dB
ΔMkr2 1.661 ms
19.70 dB
Ref Offset 8.04 dB
10 dB/div Ref 30.00 dBm
2Δ1
1
Center 2.441000000 GHz
Span 0 Hz
Res BW 1.0 MHz
#VBW 3.0 MHz
Sweep 10.13 ms (8000 pts)
Frequency
Auto Tune
Center Freq 2.441000000 GHz
Start Freq 2.441000000 GHz
Stop Freq 2.441000000 GHz
CF Step 1.000000 MHz
Auto Man
Freq Offset 0 Hz


Agilent Spectrum Analyzer - Swept SA
Center Freq 2.441000000 GHz
Trig Delay0.000 s
#Avg Type: RMS
Trig: Video
#Atten: 40 dB
Ref Offset 8.04 dB
10 dB/div Ref 30.00 dBm
Center 2.441000000 GHz
Span 0 Hz
Res BW 510 kHz
#VBW 3.0 MHz
Sweep 31.60 s (30000 pts)
Frequency
Auto Tune
Center Freq 2.441000000 GHz
Start Freq 2.441000000 GHz
Stop Freq 2.441000000 GHz
CF Step 510.000 kHz
Auto Man
Freq Offset 0 Hz