

FCC Test Report

Report No.: AGC13729240901FR02

FCC ID	:	2AT8X-NFOKUSREX5
APPLICATION PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	True Wireless Stereo Earphone
BRAND NAME	:	NOBLE
MODEL NAME	:	Noble FoKus Rex5
APPLICANT	:	Noble Hifi. LLC
DATE OF ISSUE	:	Oct. 16, 2024
STANDARD(S)	:	FCC Part 15 Subpart C §15.247
REPORT VERSION	:	V1.0







Report Revise Record

Report Version	Revise Time	Issued Date	Valid Version	Notes	
V1.0	/	Oct. 16, 2024	Valid	Initial Release	



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1. General Information

Applicant	Noble Hifi. LLC
Address	109 State Hwy.110 S, Whitehouse, Texas 75791, United States
Manufacturer	Dongguan Roker Electronics Co., Limited
Address	9 Floor, B Building Guanghui Building, Dongzheng Road, Changping Town, Dongguan City, Guangdong Province, 523570, China
Factory	Dongguan Roker Electronics Co., Limited
Address	9 Floor, B Building Guanghui Building, Dongzheng Road, Changping Town, Dongguan City, Guangdong Province, 523570, China
Product Designation	True Wireless Stereo Earphone
Brand Name	NOBLE
Test Model	Noble FoKus Rex5
Date of receipt of test item	Sep. 26, 2024
Date of Test	Sep. 26, 2024~Oct. 16, 2024
Deviation from Standard	No any deviation from the test method
Condition of Test Sample	Normal
Test Result	Pass
Test Report Form No	AGCER-FCC-BLE-V1

Note: The test results of this report relate only to the tested sample identified in this report.

Bibo zhang Prepared By Bibo Zhang Oct. 16, 2024 (Project Engineer) **Reviewed By** Calvin Liu Oct. 16, 2024 (Reviewer) Max Zhang Approved By

Max Zhang (Authorized Officer)

Oct. 16, 2024



2. Product Information

2.1 Product Technical Description

Frequency Band	2400MHz-2483.5MHz
Operation Frequency Range	2402MHz-2480MHz
Bluetooth Version	V5.4
Modulation Type	BLE GFSK 1Mbps GFSK 2Mbps
Number of channels	40
Carrier Frequency of Each Channel	40 Channels (37 Data channels + 3 advertising channels)
Channel Separation	2 MHz
Maximum Transmitter Power	Left headset:1Mbps: 3.196dBm, 2Mbps: 3.317dBm Right headset:1Mbps: 2.844dBm, 2Mbps: 2.879dBm
Hardware Version	V2.0
Software Version	ADK-24.1-CS-r00851.1
Antenna Designation	FPC Antenna
Antenna Gain	Left headset:-4.02dBi Right headset:-3.50dBi
Power Supply	DC 3.6V by battery
Note:	

Note:

The EUT comprises left and right channel headsets, both of which are the same in SCH but different in PCB layout. Both the headsets were tested. For output power, both the left and right headsets were reflected in the report and the left headset had been recorded in this report as the worst case for other test items.

2.2 Test Frequency List

Frequency Band	Channel Number	Frequency		
	0	2402 MHz		
	1	2404 MHz		
2400~2483.5MHz	:	:		
	19	2440MHz		
	:	:		
	38	2478 MHz		
	39	2480 MHz		
Note: $f = 2402 + 2^{k}$ MHz, $k = 0,, 39$ f is the operating frequency (MHz); k is the operating channel.				



2.3 Related Submittal(S) / Grant (S)

This submittal(s) (test report) is intended for FCC ID: **2AT8X-NFOKUSREX5**, filing to comply with Part 2, Part 15 of the Federal Communication Commission rules.

2.4 Test Methodology

The tests were performed according to following standards:

No.	Identity	Document Title
1	FCC 47 CFR Part 2	Frequency allocations and radio treaty matters; general rules and regulations
2	FCC 47 CFR Part 15	Radio Frequency Devices
3	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices
4	KDB 558074 D01 15.247 Meas Guidance v05r02	Guidance for compliance measurements on Digital Transmission Systems, Frequency Hopping Spread Spectrum system, and Hybrid system devices operating under Section 15.247 of the FCC rules

2.5 Special Accessories

Not available for this EUT intended for grant.

2.6 Equipment Modifications

Not available for this EUT intended for grant.

2.7 Antenna Requirement

Standard Requirement

15.203 requirement:

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, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi

EUT Antenna:

The non-detachable antenna inside the device cannot be replaced by the user at will. The gain of the antenna is -4.02dBi(Left headset), -3.5dBi(Right headset)



3. Test Environment

3.1 Address of the Test Laboratory

Laboratory: Attestation of Global Compliance (Shenzhen) Co., Ltd.

Address: 1-2/F, Building 19, Junfeng Industrial Park, Chongqing Road, Heping Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

3.2 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

CNAS-Lab Code: L5488

Attestation of Global Compliance (Shenzhen) Co., Ltd. has been assessed and proved to follow CNAS-CL01 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories).

A2LA-Lab Cert. No.: 5054.02

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to follow ISO/IEC 17025: 2017 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC-Registration No.: 975832

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The acceptance letter from the FCC is maintained in our files with Registration 975832.

IC-Registration No.: 24842 (CAB identifier: CN0063)

Attestation of Global Compliance (Shenzhen) Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the Certification and Engineering Bureau of Industry Canada. The acceptance letter from the IC is maintained in our files with Registration 24842.



3.3 Environmental Conditions

	Normal Conditions
Temperature range (°C)	15 - 35
Relative humidity range	20 % - 75 %
Pressure range (kPa)	86 - 106
Power supply	DC 3.6V

3.4 Measurement Uncertainty

The reported uncertainty of measurement y \pm U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%.

Item	Measurement Uncertainty
Uncertainty of Conducted Emission for AC Port	$U_c = \pm 2.9 \text{ dB}$
Uncertainty of Radiated Emission below 1GHz	$U_c = \pm 3.9 \text{ dB}$
Uncertainty of Radiated Emission above 1GHz	$U_c = \pm 4.9 \text{ dB}$
Uncertainty of total RF power, conducted	$U_c = \pm 0.8 \text{ dB}$
Uncertainty of RF power density, conducted	$U_c = \pm 2.6 \text{ dB}$
Uncertainty of spurious emissions, conducted	U _c = ±2 %
Uncertainty of Occupied Channel Bandwidth	U _c = ±2 %



3.5 List of Equipment Use

• R	RF Conducted Test System							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
\boxtimes	AGC-ER-E036	Spectrum Analyzer	Agilent	N9020A	MY49100060	2024-05-24	2025-05-23	
\boxtimes	AGC-ER-E062	Power Sensor	Agilent	U2021XA	MY54110007	2024-02-01	2025-01-31	
\boxtimes	AGC-ER-E063	Power Sensor	Agilent	U2021XA	MY54110009	2024-02-01	2025-01-31	
\boxtimes	AGC-ER-A001	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-09-21	2025-09-20	
	AGC-ER-E083	Signal Generator	Agilent	E4421B	US39340815	2024-05-23	2025-05-22	
\boxtimes	N/A	RF Connection Cable	N/A	1#	N/A	Each time	N/A	
\boxtimes	N/A	RF Connection Cable	N/A	2#	N/A	Each time	N/A	

• F	Radiated Spurious Emission							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)	
\boxtimes	AGC-EM-E046	EMI Test Receiver	R&S	ESCI	10096	2024-02-01	2025-01-31	
	AGC-EM-E116	EMI Test Receiver	R&S	ESCI	100034	2024-05-24	2025-05-23	
\boxtimes	AGC-EM-E061	Spectrum Analyzer	Agilent	N9010A	MY53470504	2024-05-28	2025-05-27	
\boxtimes	AGC-EM-E086	Loop Antenna	ZHINAN	ZN30900C	18051	2024-03-05	2026-03-04	
\boxtimes	AGC-EM-E001	Wideband Antenna	SCHWARZBECK	VULB9168	D69250	2023-05-11	2025-05-10	
	AGC-EM-E029	Broadband Ridged Horn Antenna	ETS	3117	00034609	2024-03-31	2025-03-30	
\boxtimes	AGC-EM-E082	Horn Antenna	SCHWARZBECK	BBHA 9170	#768	2023-09-24	2025-09-23	
\boxtimes	AGC-EM-E146	Pre-amplifier	ETS	3117-PA	00246148	2024-07-24	2026-07-23	
\boxtimes	AGC-EM-A119	2.4G Filter	SongYi	N/A	N/A	2024-05-23	2025-05-22	
\square	AGC-EM-A138	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2025-06-08	
	AGC-EM-A139	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2025-06-08	

• Te	Test Software							
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Version Information			
	AGC-EM-S001	CE Test System	R&S	ES-K1	V1.71			
\boxtimes	AGC-EM-S003	RE Test System	FARA	EZ-EMC	VRA-03A			
\boxtimes	AGC-ER-S012	BT/WIFI Test System	Tonscend	JS1120-2	2.6			
\boxtimes	AGC-EM-S011	RSE Test System	Tonscend	TS+-Ver2.1(JS36-RSE)	4.0.0.0			



4.System Test Configuration

4.1 EUT Configuration

The EUT configuration for testing is installed on RF field strength measurement to meet the Commission's requirement and operating in a manner which intends to maximize its emission characteristics in a continuous normal application.

4.2 EUT Exercise

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

4.3 Configuration of Tested System

Radiated Emission Configure:



4.4 Equipment Used In Tested System

The following peripheral devices and interface cables were connected during the measurement: The following peripheral devices and interface cables were connected during the measurement:

☐ Test Accessories Come From The Laboratory

No.	Equipment	Manufacturer	Model No.	Specification Information	Cable
1	Control Box	N/A	USB-TTL	N/A	N/A



4.5 Summary of Test Results

Item	FCC Rules	Description of Test	Result
1	§15.203&15.247(b)(4)	Antenna Equipment	Pass
2	§15.247 (b)(3)	RF Output Power	Pass
3	§15.247 (a)(2)	6 dB Bandwidth	Pass
4	§15.247 (e)	Power Spectral Density	Pass
5	§15.247 (d)	Conducted Band Edge and Out-of-Band Emissions	Pass
6	§15.209	Radiated Emission& Band Edge	Pass
7	§15.207	AC Power Line Conducted Emission	N/A

Note: The BT function cannot transmit when charging.



5. Description of Test Modes

	Summary Table of Test Cases
T	Data Rate / Modulation
Test Item	Bluetooth – LE(1Mbps/2Mbps) / GFSK
Radiated & Conducted Test Cases	Mode 1: Bluetooth Tx CH00_2402 MHz_1Mbps(Battery powered) Mode 2: Bluetooth Tx CH19_2440 MHz_1Mbps(Battery powered) Mode 3: Bluetooth Tx CH39_2480 MHz_1Mbps(Battery powered) Mode 4: Bluetooth Tx CH00_2402 MHz_2Mbps(Battery powered) Mode 5: Bluetooth Tx CH19_2440 MHz_2Mbps(Battery powered) Mode 6: Bluetooth Tx CH39_2480 MHz_2Mbps(Battery powered)
AC Conducted Emission	N/A
 The battery is full-cha For Radiated Emission 	<pre>worst case was recorded in the report, if no other cases. rged during the test. m, 3axis were chosen for testing for each applicable mode. thethod, a temporary antenna connector is provided by the manufacture. Software Setting Diagram</pre>



6. Duty Cycle Measurement

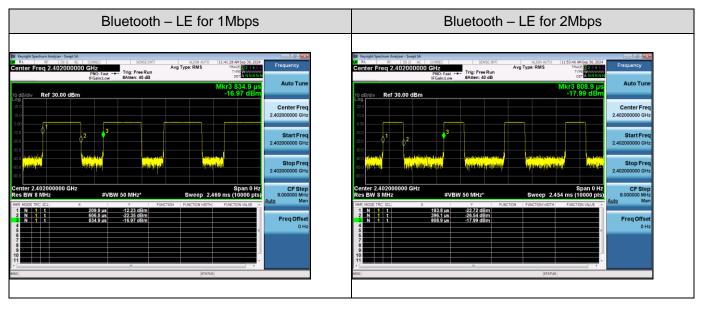
The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz, and detector = Peak. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

Operating mode	T(µs)	Duty Cycle (%)	Duty Cycle Factor (dB)	1/ T Minimum VBW (kHz)
BLE_1Mbps	396.1	63	2.01	2.52
BLE_2Mbps	212.3	34	4.69	4.74

Remark:

- 1. Duty Cycle factor = 10 * log (1/ Duty cycle)
- 2. The duty cycle of each frequency band mode reflects the determination requirements of the low channel measurement value

The test plots as follows:





7. RF Output Power Measurement

7.1 Provisions Applicable

For DTSs employing digital modulation techniques operating in the bands 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1 W.

7.2 Measurement Procedure

For Peak Power, the testing follows ANSI C63.10 Section 11.9.1.1 Method Max peak power:

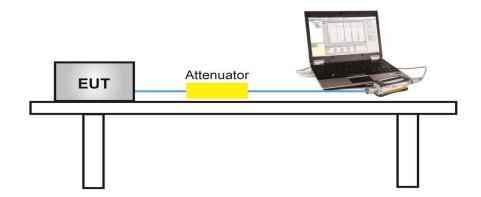
- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. Set the RBW≥DTS bandwidth
- 3. Set the VBW \geq [3 x RBW].
- 4. Span≥[3 × RBW].
- 5. Sweep= auto couple.
- 6. Detector Function= Peak.
- 7. Trace mode= Max hold.
- 8. Allow trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power, after any corrections for external attenuators and cables.

For Average power, the testing follows ANSI C63.10 Section 11.9.2.3.2 Method AVGPM-G:

- 1. The RF output of EUT was connected to the power meter by RF cable and attenuator.
- 2. The path loss was compensated to the results for each measurement.
- 3. Set to the maximum power setting and enable the EUT transmit continuously.
- 4. Measure the conducted output power and record the results in the test report.

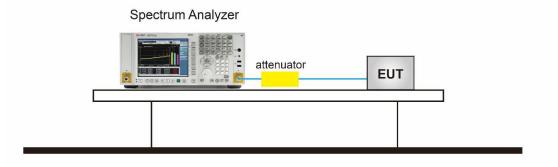
7.3 Measurement Setup (Block Diagram of Configuration)

For Average power test setup





For peak power test setup

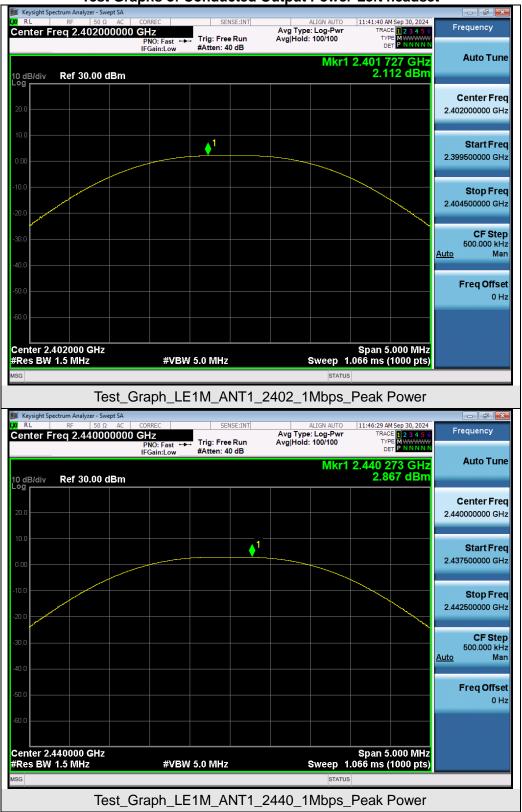


7.4 Measurement Result

Test Data of Conducted Output Power- Left headset					
Test Mode	Test Frequency (MHz)	Peak Power (dBm)	Limits (dBm)	Pass or Fail	
	2402	2.112	≪30	Pass	
GFSK_1Mbps	2440	2.867	≪30	Pass	
	2480	3.196	≪30	Pass	
	2402	2.113	≪30	Pass	
GFSK_2Mbps	2440	2.960	≪30	Pass	
	2480	3.317	≤30	Pass	

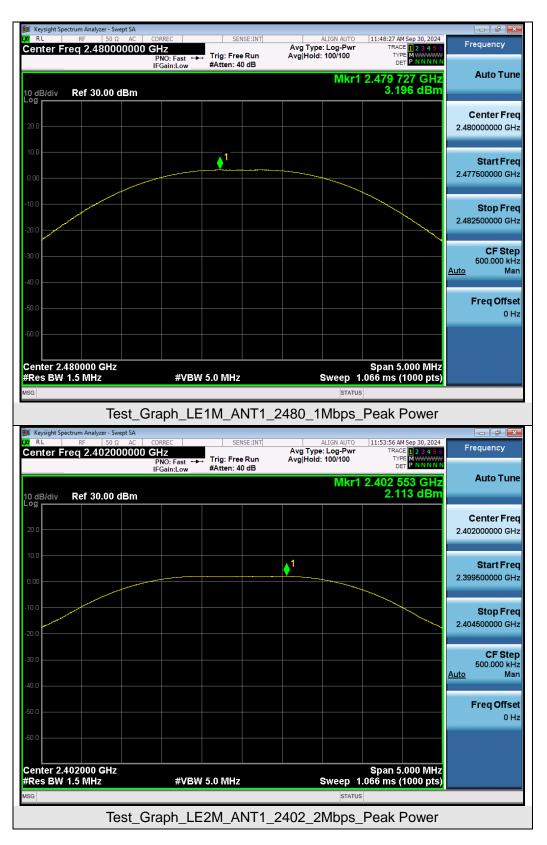
Test Data of Conducted Output Power- Right headset					
Test Mode Test Frequency (MHz)		Peak Power (dBm)	Limits (dBm)	Pass or Fail	
	2402	1.481	≪30	Pass	
GFSK_1Mbps	2440	2.399	≪30	Pass	
	2480	2.844	≪30	Pass	
	2402	1.505	≪30	Pass	
GFSK_2Mbps	2440	2.423	≪30	Pass	
	2480	2.879	≪30	Pass	



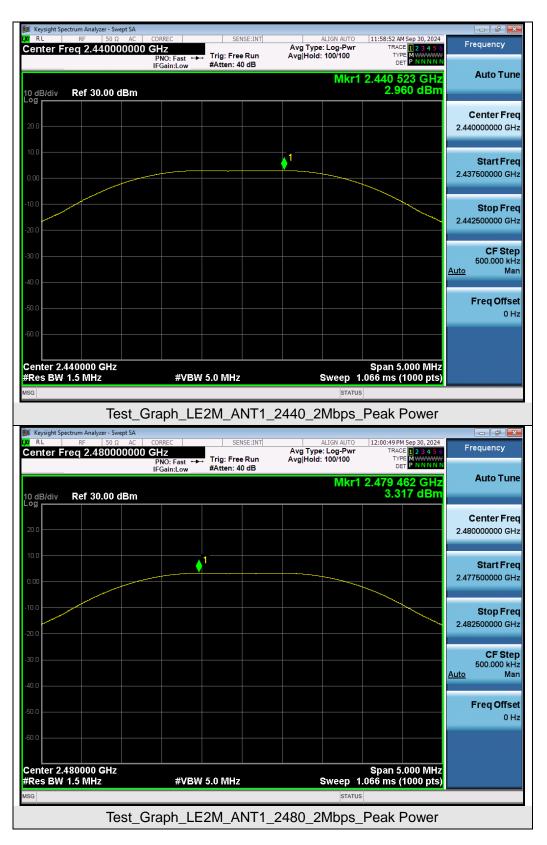


Test Graphs of Conducted Output Power-Left headset

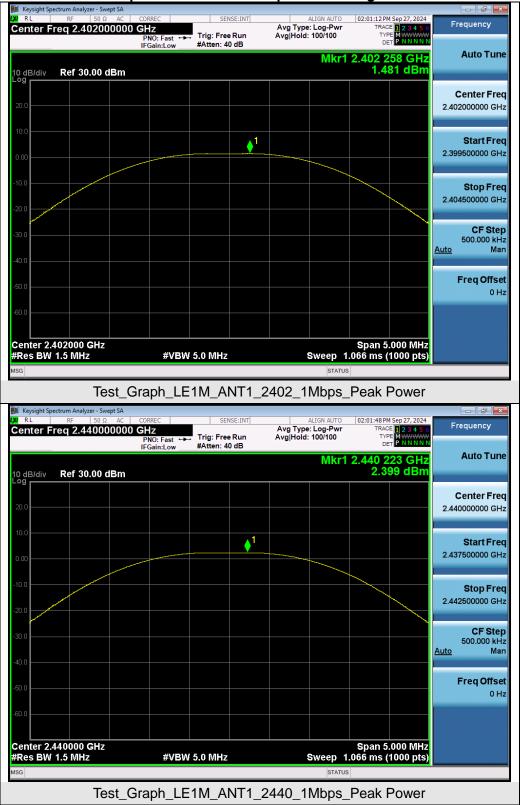






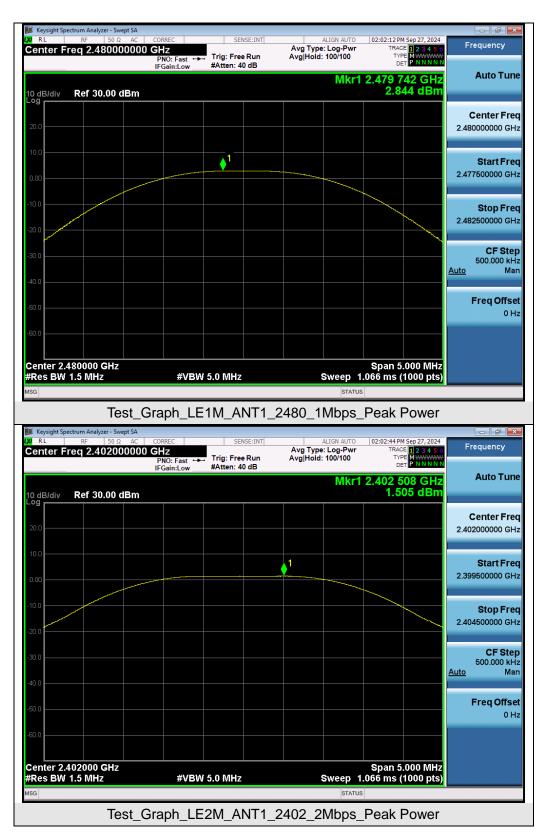




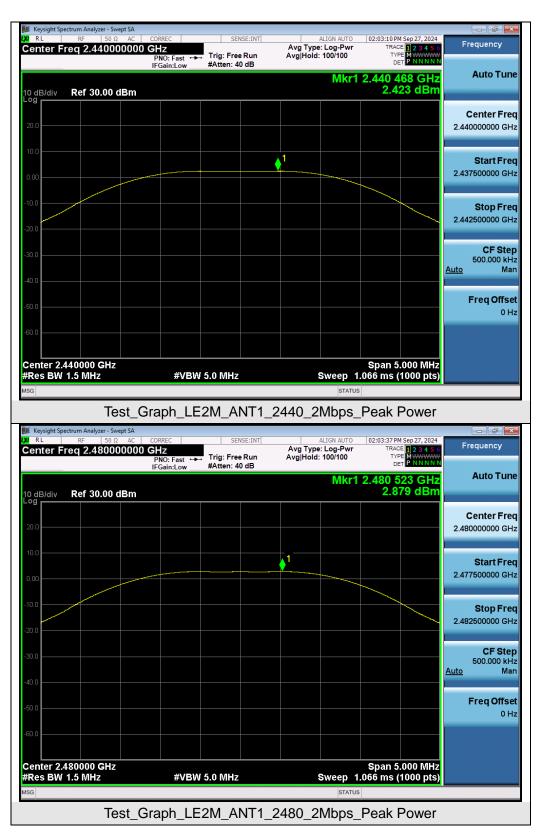


Test Graphs of Conducted Output Power- Right headset











8. 6dB Bandwidth Measurement

8.1 Provisions Applicable

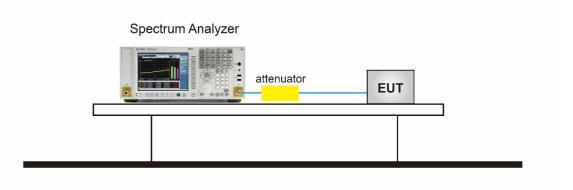
The minimum 6dB bandwidth shall be 500 kHz.

8.2 Measurement Procedure

The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).

- 1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously.
- 3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6 dB bandwidth must be greater than 500 kHz.
- 4. For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the OBW and set the Video bandwidth (VBW) \geq 3 * RBW.
- 5. Measure and record the results in the test report.

8.3 Measurement Setup (Block Diagram of Configuration)

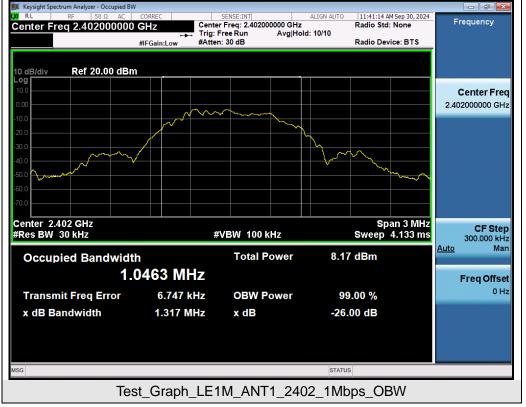




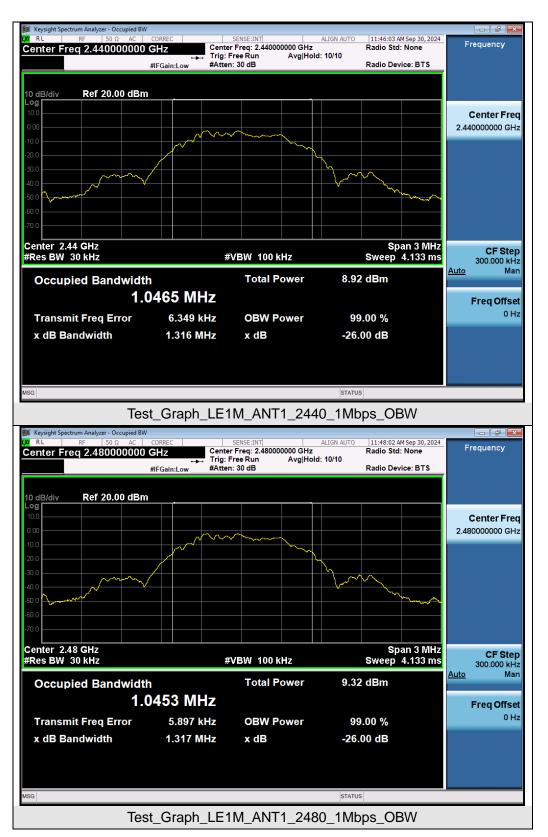
8.4 Measurement Results

Test Data of Occupied Bandwidth and DTS Bandwidth						
Test Mode	Test Frequency (MHz)	Occupied Bandwidth (MHz)	DTS BW (MHz)	DTS BW Limits (MHz)	Pass or Fail	
	2402	1.046	0.716	≥0.5	Pass	
GFSK_1Mbps	2440	1.046	0.718	≥0.5	Pass	
	2480	1.045	0.714	≥0.5	Pass	
GFSK_2Mbps	2402	2.062	1.214	≥0.5	Pass	
	2440	2.061	1.262	≥0.5	Pass	
	2480	2.058	1.254	≥0.5	Pass	

Test Graphs of Occupied Bandwidth







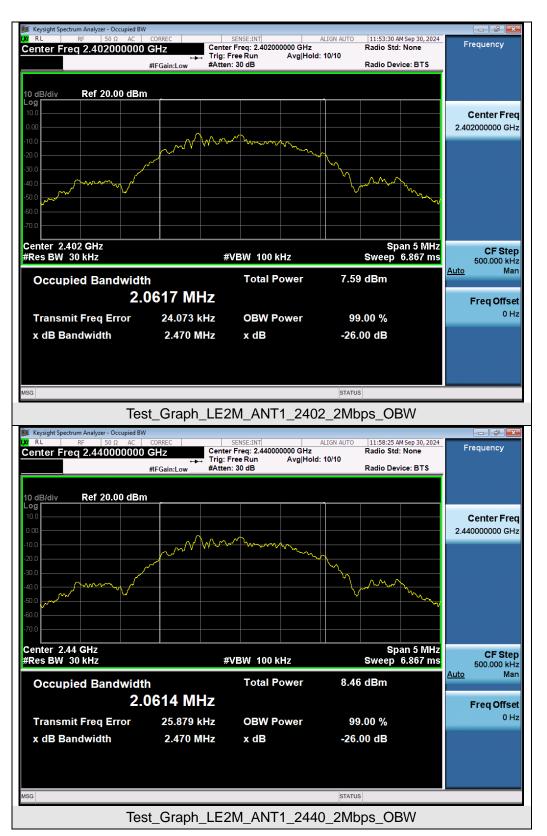
 Attestation of Global Compliance(Shenzhen)Co., Ltd

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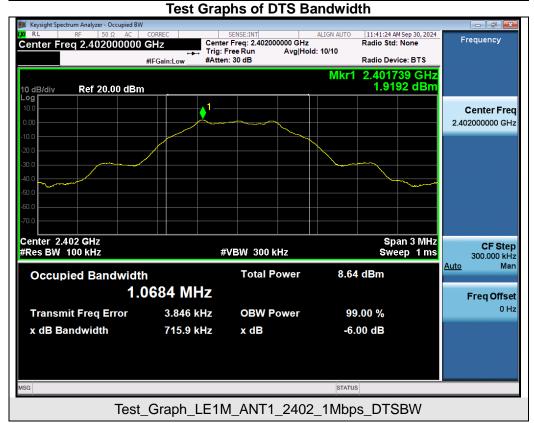




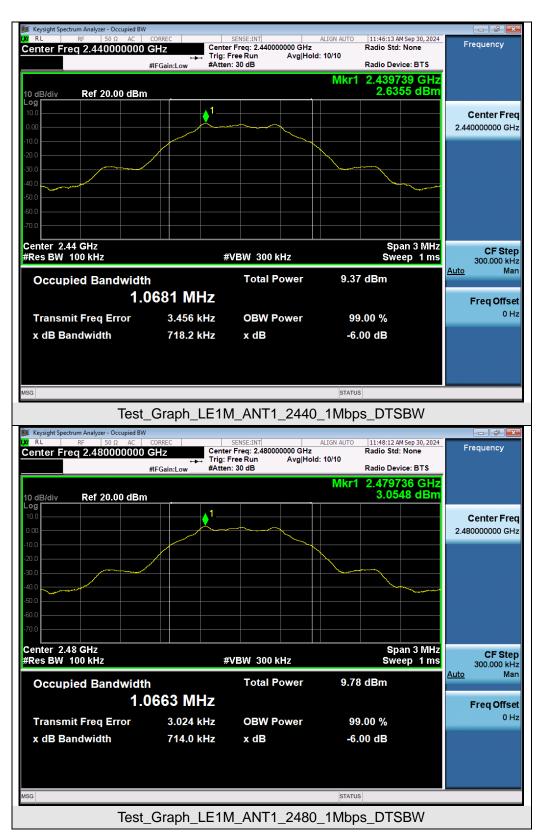




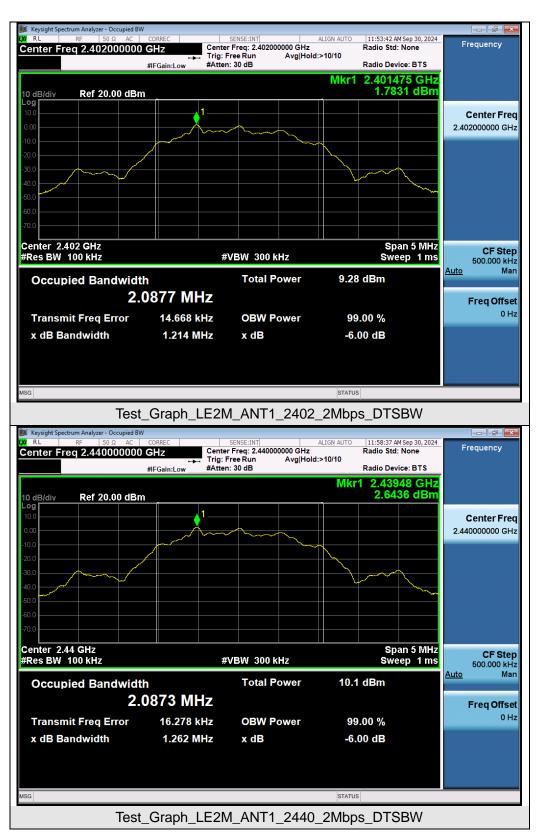
Test_Graph_LE2M_ANT1_2480_2Mbps_OBW











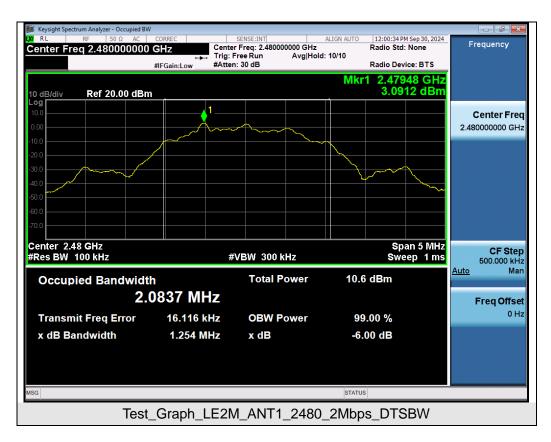
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9. Power Spectral Density Measurement

9.1 Provisions Applicable

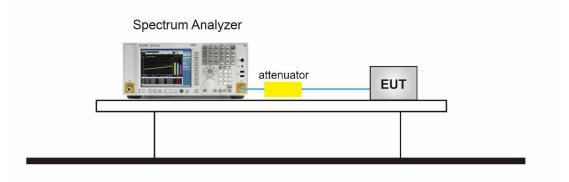
The transmitter power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

9.2 Measurement Procedure

The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.

- 1. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
- 2. Set to the maximum power setting and enable the EUT transmit continuously.
- Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 3 kHz. Video bandwidth VBW = 10 kHz in order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW)
- 4. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level.
- 5. Measure and record the results in the test report.
- The Measured power density (dBm)/ 100kHz is a reference level and used as 20dBc down limit line for Conducted Band Edges and Conducted Spurious Emission.

9.3 Measurement Setup (Block Diagram of Configuration)





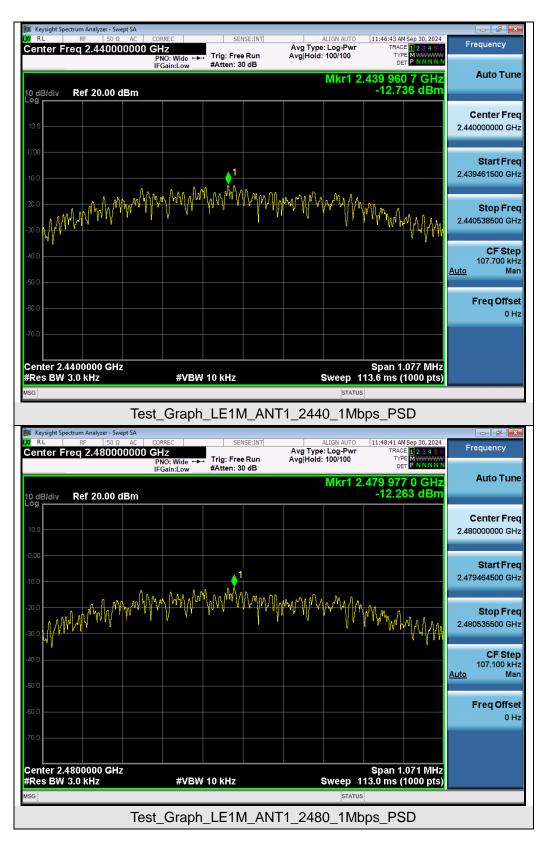
9.4 Measurement Results

Test Data of Conducted Output Power Spectral Density					
Test Mode	Test Frequency (MHz)	Power density (dBm/3kHz)	Limit (dBm/3kHz)	Pass or Fail	
	2402	-13.494	≪8	Pass	
GFSK_1Mbps	2440	-12.736	≪8	Pass	
	2480	-12.263	≪8	Pass	
	2402	-17.028	≪8	Pass	
GFSK_2Mbps	2440	-16.187	≪8	Pass	
	2480	-15.754	≪8	Pass	

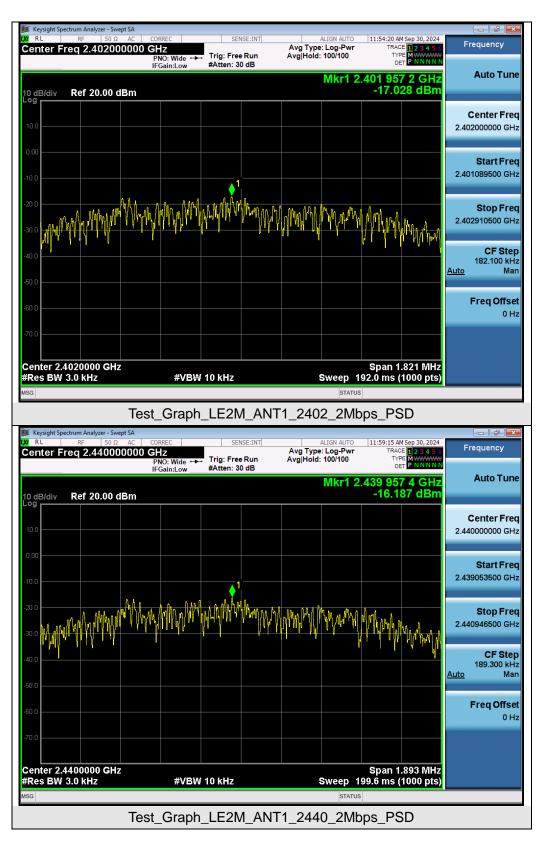
Test Graphs of Conducted Output Power Spectral Density



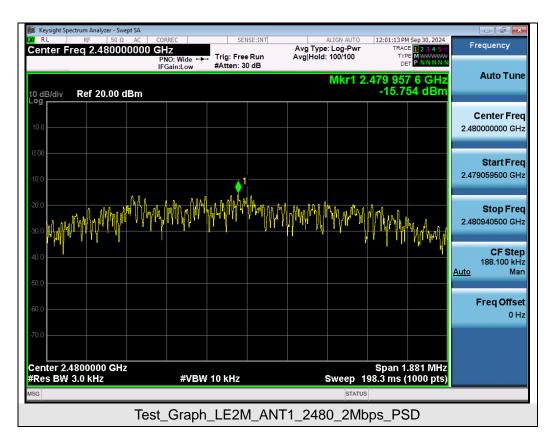














10. Conducted Band Edge and Out-of-Band Emissions

10.1 Provisions Applicable

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the PSD procedure.

10.2 Measurement Procedure

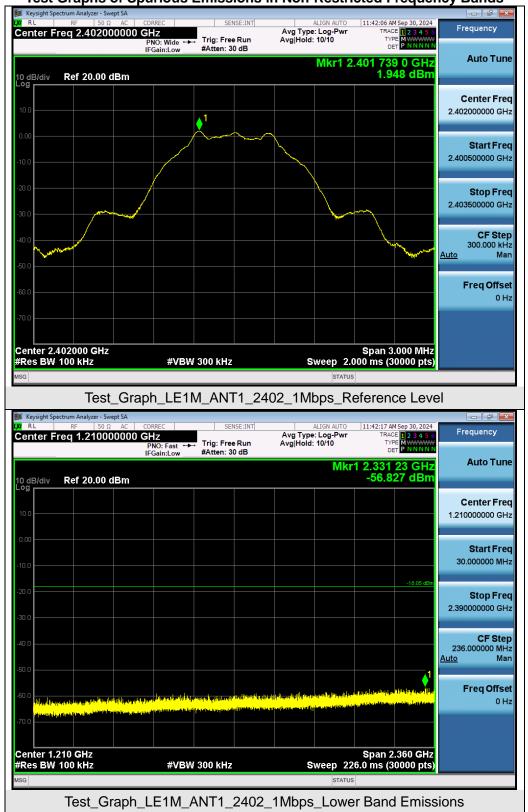
- Reference level measurement
- 1. Set instrument center frequency to DTS channel center frequency
- 2. Set the span to \geq 1.5 times the DTS bandwidth
- 3. Set the RBW = 100 kHz
- 4. Set the VBW \ge 3 x RBW
- 5. Detector = peak
- 6. Sweep time = auto couple
- 7. Trace mode = max hold
- 8. Allow trace to fully stabilize
- Emission level measurement
- 1. Set the center frequency and span to encompass frequency range to be measured
- 2. RBW = 100kHz
- 3. VBW = 300kHz
- 4. Detector = Peak
- 5. Trace mode = max hold
- 6. Sweep time = auto couple
- 7. The trace was allowed to stabilize

10.3 Measurement Setup (Block Diagram of Configuration)

Spectrum Analyzer

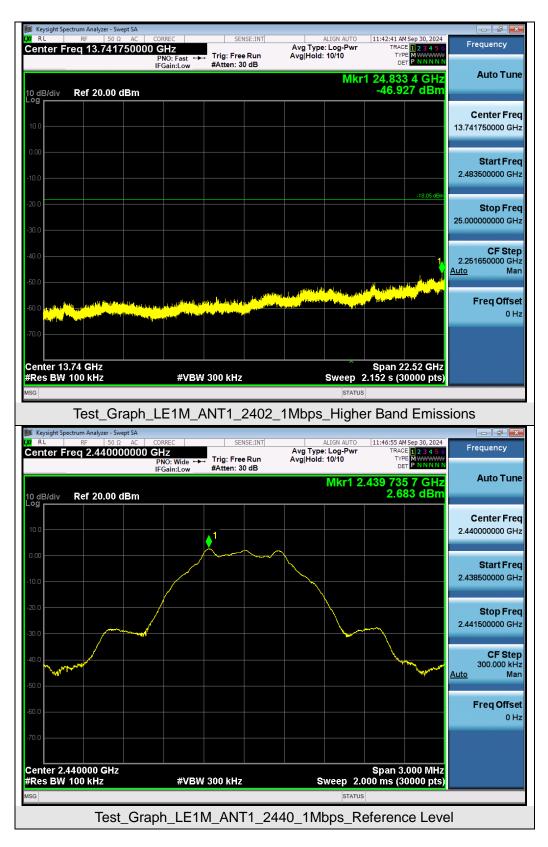


10.4 Measurement Results

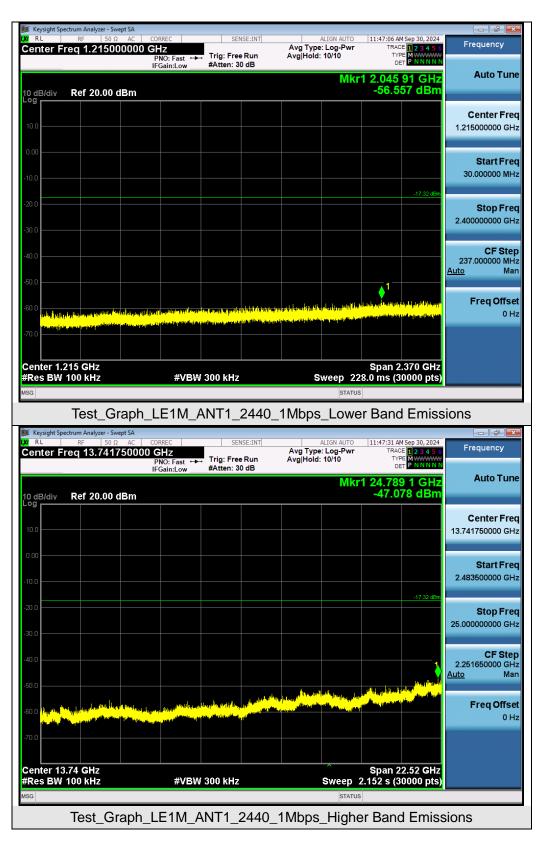


Test Graphs of Spurious Emissions in Non-Restricted Frequency Bands

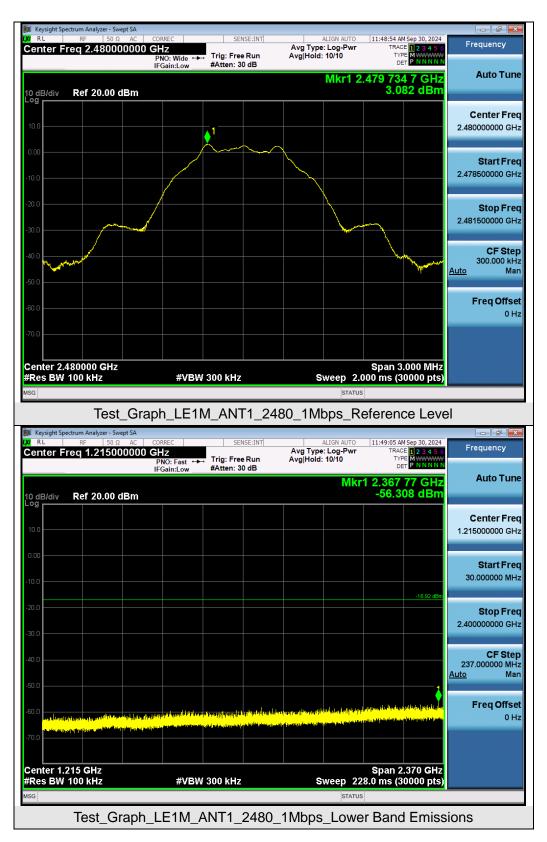




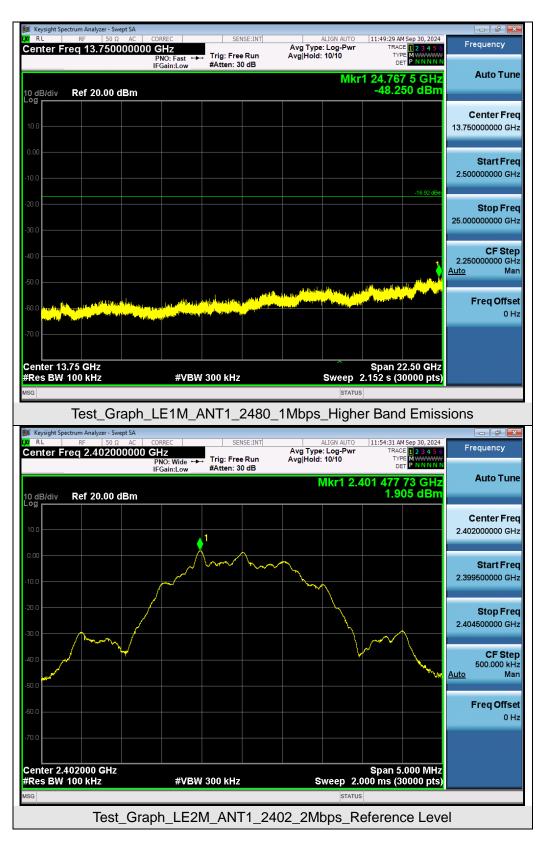




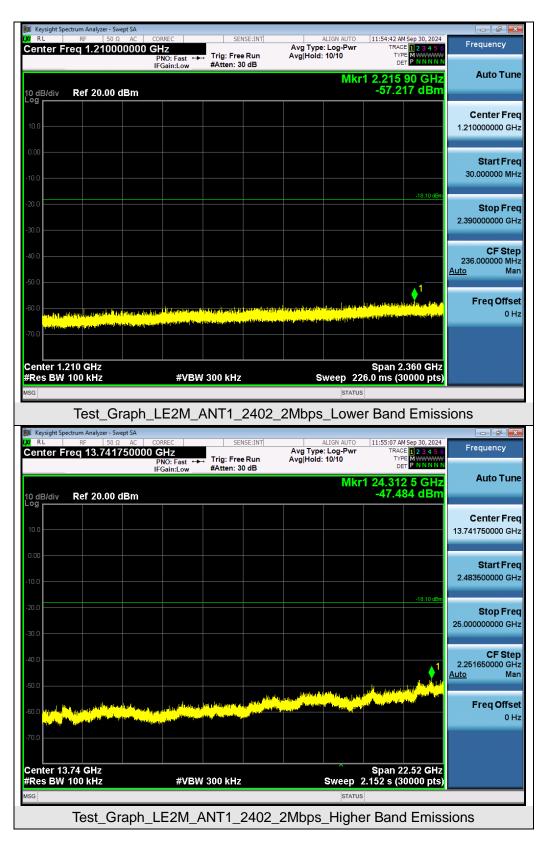








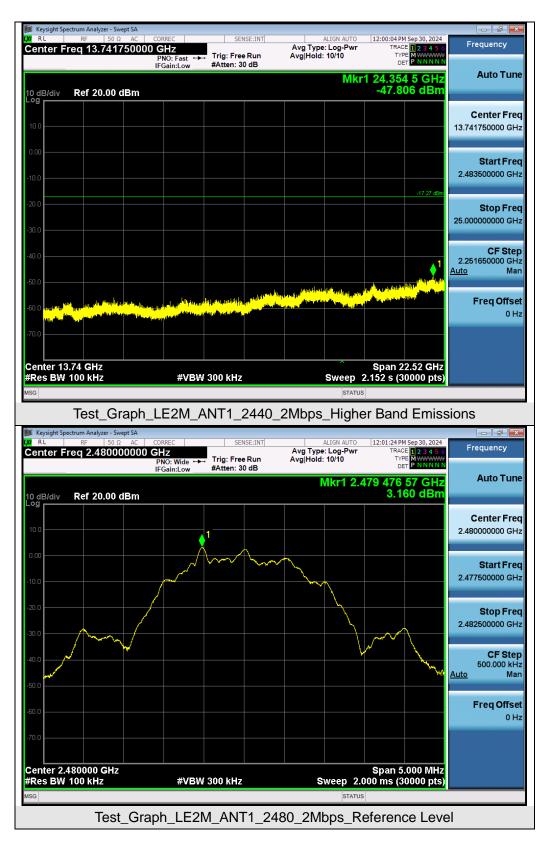




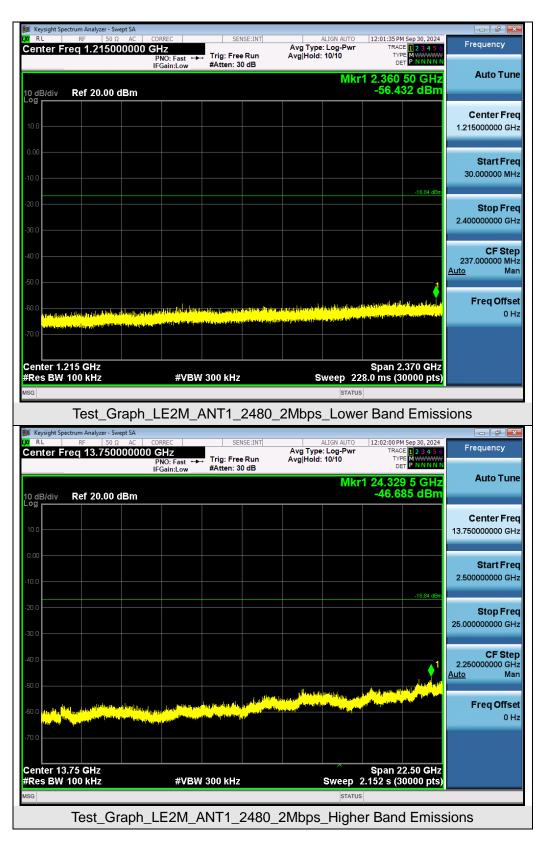




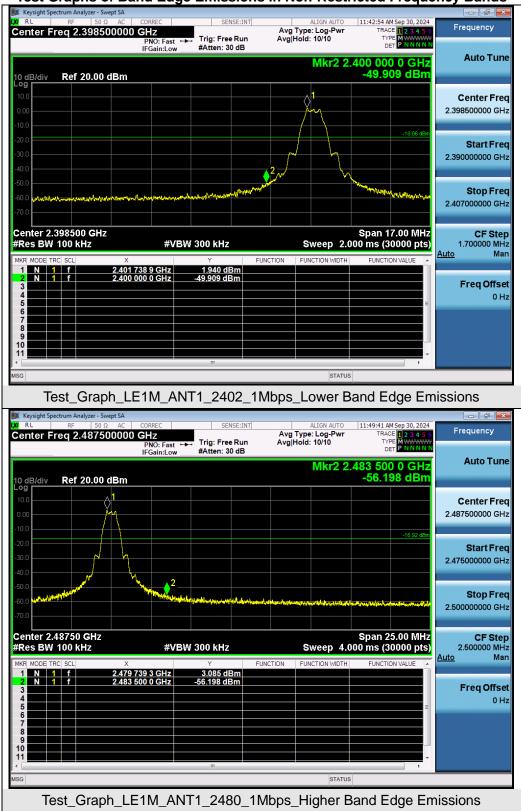












Test Graphs of Band Edge Emissions in Non-Restricted Frequency Bands







11. Radiated Spurious Emission

11.1 Measurement Limit

FCC Part 15.209 Limit in the below table to be followed

Frequencies (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

Note: All modes were tested for restricted band radiated emission, the test records reported below are the worst result compared to other modes.

11.2 Measurement Procedure

- 1. The EUT was placed on the top of the turntable 0.8 or 1.5 meter above ground. The phase center of the receiving antenna mounted on the top of a height-variable antenna tower was placed 3 meters far away from the turntable.
- 2. Power on the EUT and all the supporting units. The turntable was rotated by 360 degrees to determine the position of the highest radiation.
- 3. The height of the broadband receiving antenna was varied between one meter and four meters above ground to find the maximum emissions field strength of both horizontal and vertical polarization.
- 4. For each suspected emission, the antenna tower was scan (from 1 M to 4 M) and then the turntable was rotated (from 0 degree to 360 degrees) to find the maximum reading.
- 5. Set the test-receiver system to Peak or CISPR quasi-peak Detect Function with specified bandwidth under Maximum Hold Mode.
- 6. For emissions above 1GHz, use 1MHz RBW and 3MHz VBW for peak reading. Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.
- 7. When the radiated emissions limits are expressed in terms of the average value of the emissions, and pulsed operation is employed, the measurement field strength shall be determined by averaging over one complete pulse train, including blanking intervals, as long as the pulse train does not exceed 0.1 seconds.
- 8. As an alternative (provided the transmitter operates for longer than 0.1 seconds) or in cases where the



pulse train exceeds 0.1 seconds, the measured field strength shall be determined from the average absolute voltage during a 0.1 second interval during which the field strength is at its maximum values.

- 9. If the emissions level of the EUT in peak mode was 3 dB lower than the average limit specified, then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions which do not have 3 dB margin will be repeated one by one using the quasi-peak method for below 1GHz.
- 10. For testing above 1GHz, the emissions level of the EUT in peak mode was lower than average limit (that means the emissions level in peak mode also complies with the limit in average mode), then testing will be stopped and peak values of EUT will be reported, otherwise, the emissions will be measured in average mode again and reported.
- 11. In case the emission is lower than 30MHz, loop antenna has to be used for measurement and the recorded data should be QP measured by receiver. High Low scan is not required in this case.

Spectrum Parameter	Setting
Start ~Stop Frequency	9kHz~150kHz/RB 200Hz for QP
Start ~Stop Frequency	150kHz~30MHz/RB 9kHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120kHz for QP
Start ~Stop Frequency	1GHz~26.5GHz
Start ~Stop T requency	1MHz/3MHz for Peak, 1MHz/3MHz for Average

The following table is the setting of spectrum analyzer and receiver.

Receiver Parameter	Setting
Start ~Stop Frequency	9kHz~150kHz/RB 200Hz for QP
Start ~Stop Frequency	150kHz~30MHz/RB 9kHz for QP
Start ~Stop Frequency	30MHz~1000MHz/RB 120kHz for QP



• Quasi-Peak Measurements below 1GHz

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. Span was set greater than 1MHz
- 3. RBW = as shown in the table above
- 4. Detector = CISPR quasi-peak
- 5. Sweep time = auto couple
- 6. Trace was allowed to stabilize

• Peak Measurements above 1GHz

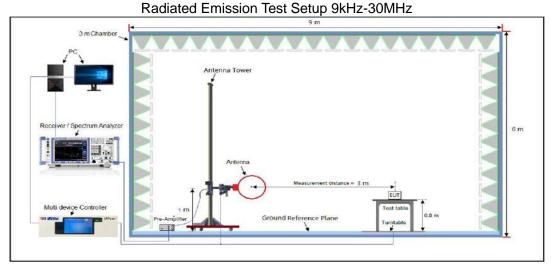
- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

<u>Average Measurements above 1GHz</u>

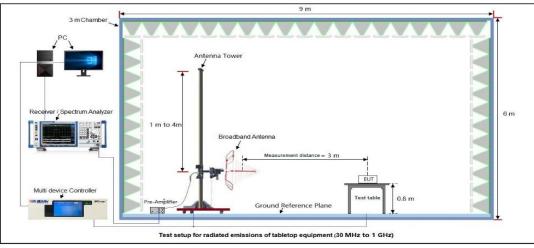
- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW \geq [3 × RBW]
- 4. Detector = Power averaging (rms)
- 5. Averaging type = power (i.e., rms)
- 6. Sweep time = auto
- 7. Perform a trace average of at least 100 traces.
- 8. The applicable correction factor is [10*log (1 / D)], where D is the duty cycle. The factor had been edited in the "Input Correction" of the Spectrum Analyzer.



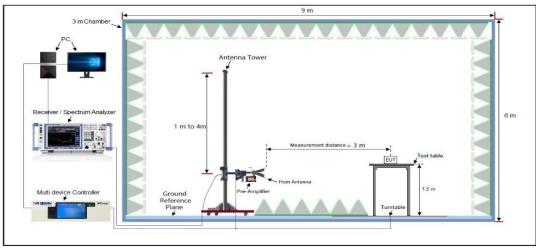
11.3 Measurement Setup (Block Diagram of Configuration)



Radiated Emission Test Setup 30MHz-1000MHz



Radiated Emission Test Setup Above 1000MHz



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 E-mail: agc@agccert.com



11.4 Measurement Result

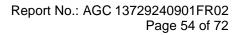
Radiated Emission Below 30MHz

The amplitude of spurious emissions from 9kHz to 30MHz which are attenuated more than 20 dB below the permissible value need not be reported.

			I	Radia	ted Emiss	ion Test Res	sults at	30MHz	-1GHz		
EUT N	lame	True Wireless Stereo Earphone						del Na	me	Noble For	lus Rex5
Tempe	erature	25 ℃						ative H	lumidity	55.4%	
Press	ure	960	960hPa					Test Voltage		Normal Voltage	
Test N	lode	Mode 3					Ant	enna l	Polarity	Horizontal	
	-8 30.00		1 Martinetralian seconda		иничининининининининининининининининини	(MHz)		м ^л ищинани 300	ju mit		00
Final I	Data List	_Pea	ık			•			•	-	
NO.	Freq [MHz		Leve /dBµV		Factor [dB]	Limit [dBµV/m]	Mar [dl		Height [cm]	Angle [°]	Polarity
1	41.712	29	19.70	0	13.78	40.00	20	.3	100	240	Horizontal
2	69.600)5	19.63	3	12.79	40.00	20.	37	100	180	Horizontal
3	101.28	85	21.82	2	16.21	43.50	21.	68	100	220	Horizontal
4	444.85	14	30.50	0	24.93	46.00	15	.5	100	50	Horizontal
5	609.92	17	31.2	5	25.15	46.00	14.	75	100	170	Horizontal
6	900.14	74	36.7	1	31.78	46.00	9.2	9	100	160	Horizontal



			Radia	ted Emiss	ion Test Res	ults at 30MH	z-1GHz		
EUT N	lame	True	e Wireless Ster	eo Earphoi	ne	Model Na	ime	Noble Fok	us Rex5
Temp	erature	25°	2			Relative I	Humidity	55.4%	
Press	ure	960	hPa			Test Volta	age	Normal Voltage	
Test N	lode	Мос	Mode 3 Antenna Polarity Vertical						
	72.0	dBuV/π	1						
								Limit: — Margin: —	
	32	1 			www.www.uk	Maran Walandah	and the second s		
	-8 30.00	10 4	10 50 60 70	80	(MHz)	300	400 500 60	0 700 1000.00	00
Final	Data List	Por							
NO.	Freq.		Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	39.299)1	22.12	16.67	40.00	17.88	100	160	Vertical
2	72.846	6	22.93	16.97	40.00	17.07	100	170	Vertical
3	141.820	62	24.60	18.20	43.50	18.9	100	90	Vertical
4	438.65	54	30.91	25.88	46.00	15.09	100	220	Vertical
-	719.19	~ -	04.04	28.77	46.00	11 10	100	160	Vertical
5	710.10	95	34.81	20.77	40.00	11.19 100 17.51 100		100	ventioai





			Radia	ted Emiss	ion Test Res	ults at 30MH	z-1GHz			
EUT N	lame	True	e Wireless Ster	eo Earphor	ne	Model Na	ime	Noble Fok	lus Rex5	
Tempe	erature	25°C	2			Relative I	Humidity	55.4%		
Press	ure	960hPa Test Voltage Normal Voltage						ltage		
Test N	lode	Мос	le 6			Antenna	Polarity	Horizontal		
	72.0	dBuV/m						imit: —		
								Margin:		
	-8			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	(MHz)	Jun Margada Margara		0 700 1000.00	00	
NO.	Data List ₋ Freq.	_	Level	Factor	Limit	Margin	Height	Angle	Polarity	
	[MHz]		[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]		
1	40.417		19.10	13.87	40.00	20.9	100	100	Horizontal	
2	83.815	6	19.93	13.69	40.00	20.07	100	90	Horizontal	
3	119.855	56	21.45	16.40	43.50	22.05	100	70	Horizontal	
4	444.851	4	30.81	24.93	46.00	15.19	100	210	Horizontal	
5	545.182	26	30.92	23.98	46.00	15.08	100	170	Horizontal	
6	900.147	7/	37.84	31.78	46.00	8.16	100	120	Horizontal	



		Radia	ted Emiss	ion Test Res	ults at 30MHz	z-1GHz			
	Name 7	True Wireless Ster	eo Earphoi	ne	Model Na	me	Noble FoK	us Rex5	
Temp	erature 2	25℃			Relative H	lumidity	55.4%		
Press	ure 9	960hPa			Test Volta	Test Voltage		Normal Voltage	
Test N	/lode	Mode 6 Antenna Polarity Vertical							
	32		80	алан (MHz)	C C C C C C C C C C C C C C C C C C C		.imit: Margin:	00	
Final	Data List _I	Peak							
NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity	
1	46.6664	23.14	16.97	40.00	16.86	100	210	Vertical	
2	117.7725	5 23.67	17.31	43.50	19.83	100	50	Vertical	
3	164.3301	24.03	18.26	43.50	19.47	100	80	Vertical	
4	449.5558	3 31.65	25.67	46.00	14.35	100	240	Vertical	
5	701.7610) 34.69	28.16	46.00	11.31	100	30	Vertical	
			1				1		

RESULT: Pass

Note: 1. Factor=Antenna Factor + Cable loss, Margin=Measurement-Limit.

2. All test modes had been pre-tested. The mode 3/6 are the worst case and recorded in the report.



Radiated Emissions	Test Results for Above 1GHz
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EUT Name	Tru	True Wireless Stereo Earphone			del Name	Noble FoKus Rex5		
Temperature	25°	2		Rel	ative Humidity	55.4%		
Pressure	960	hPa		Tes	t Voltage	Normal Volt	age	
Test Mode	Mo	le 1		Ant	tenna Polarity	Horizontal	Horizontal	
Frequency	Meter Reading	Factor	actor Emissio		Limits	Margin	Value	
(MHz)	(dBµV)	(dB)	(dBµV	/m)	(dBµV/m)	(dB)	Туре	
4804.000	50.14	0.11	50.2	5	74.00	-23.75	peak	
4804.000	40.33	0.11	40.4	4	54.00	-13.56	AVG	
7206.000	48.97	2.45	51.4	2	74.00	-22.58	peak	
7206.000	39.12	2.45	41.5	7	54.00	-12.43	AVG	
Remark:								
	na Factor	- Cable Loss - Pre-	amplifier					
	nna Factor	+ Cable Loss – Pre-	amplifier.					
	nna Factor	+ Cable Loss – Pre-a	amplifier.					
Factor = Anter		+ Cable Loss – Pre-a	·	Mo	del Name	Noble FoKu	ıs Rex5	
Factor = Anter		e Wireless Stereo Ea	·	_	del Name ative Humidity	Noble FoKu 55.4%	us Rex5	
	Tru 25°	e Wireless Stereo Ea	·	Rel				
Factor = Anter EUT Name Temperature	Tru 25°	e Wireless Stereo Ea C hPa	·	Rel Tes	ative Humidity	55.4%		
Factor = Anter EUT Name Temperature Pressure	Tru 25° 960 Mo	e Wireless Stereo Ea C hPa	arphone	Rel Tes Ant	ative Humidity t Voltage	55.4% Normal Volt		
Factor = Anter EUT Name Temperature Pressure	Tru 25% 960	e Wireless Stereo Ea C hPa	·	Rel Tes Ant	ative Humidity t Voltage	55.4% Normal Volt	age Value	
Factor = Anter EUT Name Temperature Pressure Test Mode	Tru 25° 960 Mor Meter Reading (dBµV)	e Wireless Stereo Ea 2 hPa le 1	arphone	Rel Tes Ant	ative Humidity at Voltage tenna Polarity	55.4% Normal Volt Vertical	age	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency	Tru 25° 960 Mo Meter Reading	e Wireless Stereo Ea 2 hPa le 1 Factor	Emiss	Rel Tes Ant ion	ative Humidity at Voltage tenna Polarity Limits	55.4% Normal Volt Vertical Margin	age Value	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz)	Tru 25° 960 Mor Meter Reading (dBµV)	e Wireless Stereo Ea c hPa le 1 Factor (dB)	Emiss Leve	ion (m) 8	t Voltage tenna Polarity Limits (dBµV/m)	55.4% Normal Volt Vertical Margin (dB)	Value Type	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4804.000	Tru 25% 960 Mod Meter Reading (dBμV) 49.97	e Wireless Stereo Ea c hPa le 1 Factor (dB) 0.11	Emiss Leve (dBµV 50.0	ion /m) 8	ative Humidity ative Humidity ative Humidity ative Voltage tenna Polarity Limits (dBµV/m) 74.00	55.4% Normal Volt Vertical Margin (dB) -23.92	Value Type peak	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4804.000 4804.000	Tru 25° 960 Mod Meter Reading (dBμV) 49.97 39.58	e Wireless Stereo Ea hPa le 1 Factor (dB) 0.11 0.11	Emiss Leve (dBµV 50.0 39.6	ion el /m) 8 9 1	ative Humidity bits bits ative Humidity bits bits ative Humidity bits bits	55.4% Normal Volt Vertical Margin (dB) -23.92 -14.31	Value Type peak AVG	

RESULT: Pass



EUT Name		True Wireless Stereo Earphone				reless Stereo Earphone Model Name		Noble FoKus Rex5	
Temperature		25 ℃			Rel	ative Humidity	55.4%		
Pressure		960hP	a		Tes	st Voltage	Normal Vol	tage	
Test Mode	Mode 2 Antenna Polarity			tenna Polarity	Horizontal				
Frequency		eter Factor Emission		-	Limits	Margin	Value		
(MHz)	(dB	βμV)	(dB)	(dBµV/	/m)	(dBµV/m)	(dB)	Туре	
4882.000	49	.89	0.12	50.0	1	74.00	-23.99	peak	
4882.000	40	.25	0.12	40.3	7	54.00	-13.63	AVG	
7323.000	48	.36	2.46	50.82	2	74.00	-23.18	peak	
7323.000	39	.17	2.46	41.6	3	54.00	-12.37	AVG	
Remark:	I I								
	nna Fa	actor + (Cable Loss – Pre-	-amplifier.					
	nna Fa	actor + (Cable Loss – Pre	-amplifier.					
	nna Fa		Cable Loss – Pre Vireless Stereo Ea	•	Мо	del Name	Noble FoK	us Rex5	
Factor = Anter	nna Fa			•		del Name ative Humidity	Noble FoK	us Rex5	
Factor = Anter	nna Fa	True V	Vireless Stereo Ea	•	Rel				
Factor = Anter EUT Name Temperature	nna Fa	True ₩ 25℃	Vireless Stereo Ea a	•	Rel Tes	ative Humidity	55.4%		
Factor = Anter EUT Name Temperature Pressure	Me	True ₩ 25℃ 960hP	Vireless Stereo Ea a	•	Rel Tes Ant	ative Humidity st Voltage	55.4% Normal Vol	tage Value	
Factor = Anter EUT Name Temperature Pressure Test Mode	Me	True V 25°C 960hP Mode	Vireless Stereo Ea a 2	arphone	Rel Tes Ant	ative Humidity at Voltage tenna Polarity	55.4% Normal Vol Vertical	tage	
Factor = Anter	Me Rea (dB	True V 25℃ 960hP Mode a	Vireless Stereo Ea a 2 Factor	arphone Emissi	Rel Tes Ant ion	ative Humidity at Voltage tenna Polarity Limits	55.4% Normal Vol Vertical Margin	tage Value	
Factor = Anter	Me Rea (dB 50	True V 25°C 960hP Mode eter ading 8µV)	Vireless Stereo Ea la 2 Factor (dB)	Emissi Leve	Rel Tes Ant ion el /m) 6	tenna Polarity Limits (dBµV/m)	55.4% Normal Vol Vertical Margin (dB)	tage Value Type	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4882.000	Me Rea (dB 50 39	True V 25℃ 960hP Mode eter ading BµV)	Vireless Stereo Ea a 2 Factor (dB) 0.12	Emissi Leve (dBµV/ 50.20	Rel Tes Ant ion ion ion ion ion ion ion ion ion ion	Ative Humidity It Voltage Itenna Polarity Limits (dBµV/m) 74.00	55.4% Normal Vol Vertical Margin (dB) -23.74	tage Value Type peak	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4882.000 4882.000	Me Rea (dB 50 39 49	True V 25°C 960hP Mode eter ading 3µV) .14	Vireless Stereo Ea la 2 Factor (dB) 0.12 0.12	Emissi Leve (dBµV/ 50.20 39.89	Ant Rel Tes Ant (m) 6 9 2	Limits (dBµV/m) 74.00 54.00	55.4% Normal Vol Vertical Margin (dB) -23.74 -14.11	tage Value Type peak AVG	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4882.000 4882.000 7323.000	Me Rea (dB 50 39 49	True V 25℃ 960hP Mode eter ading 8µV) .14 .77 .36	Vireless Stereo Ea a 2 Factor (dB) 0.12 0.12 2.46	Emissi Leve (dBµV/ 50.20 39.81 51.82	Ant Rel Tes Ant (m) 6 9 2	ative Humidity ative Humidity ative Humidity ative Polarity Limits (dBµV/m) 74.00 54.00 74.00	55.4% Normal Vol Vertical Margin (dB) -23.74 -14.11 -22.18	tage Value Type peak AVG peak	

Radiated Emissions Test Results for Above 1GHz

RESULT: Pass



EUT Name		True Wireless Stereo Earphone			Mod	lel Name Noble FoKus		s Rex5	
Temperature		25 ℃			Rela	ative Humidity	55.4%		
Pressure		960hPa	a		Test	t Voltage	Normal Volta	ige	
Test Mode		Mode 3	3		Ante	enna Polarity	Horizontal	lorizontal	
Frequency		eter ading	Factor	Emiss Lev		Limits	Margin	Value	
(MHz)	(dl	3μV)	(dB)			(dBµV/m)	(dB)	Туре	
4960.000	50).74	0.13	50.8	37	74.00	-23.13	peak	
4960.000	4().57	0.13	40.7	70	54.00	-13.30	AVG	
7440.000	49	9.36	2.51	51.8	37	74.00	-22.13	peak	
7440.000	4′	1.24	2.51	43.7	75	54.00	-10.25	AVG	
Remark:	nna F	$actor \pm 0$	Cable Loss - Pro-a	molifier					
	nna F	actor + (Cable Loss – Pre-a	mplifier.					
	nna F		Cable Loss – Pre-a /ireless Stereo Ear	•	Mod	lel Name	Noble FoKus	s Rex5	
Factor = Anter	nna F			•		lel Name ative Humidity	Noble FoKus	s Rex5	
Factor = Anter	nna F	True W	/ireless Stereo Ear	•	Rela				
Factor = Anter EUT Name Temperature	nna F	True W 25℃	/ireless Stereo Ear a	•	Rela Test	ative Humidity	55.4%		
Factor = Anter EUT Name Temperature Pressure	M	True W 25℃ 960hPa	/ireless Stereo Ear a	•	Rela Test Ante	ative Humidity t Voltage	55.4% Normal Volta	ige Value	
Factor = Anter EUT Name Temperature Pressure Test Mode	M	True W 25°C 960hPa Mode 3 eter	/ireless Stereo Ear a 3	phone	Rela Test Ante	ative Humidity t Voltage enna Polarity	55.4% Normal Volta Vertical	ige	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency	M Rea	True W 25°C 960hPa Mode 3 eter ading	/ireless Stereo Ear a 3 Factor	phone Emiss	Rela Test Ante sion el //m)	ative Humidity t Voltage enna Polarity Limits	55.4% Normal Volta Vertical Margin	ige Value	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz)	M Rea (dl	True W 25℃ 960hPa Mode 3 eter ading 3µV)	/ireless Stereo Ear a 3 Factor (dB)	Emiss Lev (dBµV	Rela Test Ante sion el //m) 20	t Voltage enna Polarity Limits (dBµV/m)	55.4% Normal Volta Vertical Margin (dB)	value Type	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4960.000	M Rea (dl 57	True W 25℃ 960hPa Mode 3 eter ading 3µV) 1.07	/ireless Stereo Ear a 3 Factor (dB) 0.13	Emiss Lev (dBµV 51.2	Rela Test Ante sion el //m) 20	Limits (dBµV/m) 74.00	55.4% Normal Volta Vertical Margin (dB) -22.80	Value Type peak	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4960.000 4960.000	M Rea (dl 57 39 48	True W 25 °C 960hPa Mode 3 eter ading 3μV) 1.07 9.96	/ireless Stereo Ear a 3 Factor (dB) 0.13 0.13	Emiss Lev (dBµV 51.2 40.0	Rela Test Ante sion el //m) 20 09 37	Ative Humidity t Voltage enna Polarity Limits (dBµV/m) 74.00 54.00	55.4% Normal Volta Vertical Margin (dB) -22.80 -13.91	Value Type peak AVG	
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4960.000 4960.000 7440.000 7440.000 Remark:	M Rea (dl 5 ⁻ 39 48 40	True W 25 [°] C 960hPa Mode 3 eter ading 3μV) 1.07 9.96 3.36 0.26	/ireless Stereo Ear a 3 Factor (dB) 0.13 0.13 2.51	Emiss Lev (dBµV 51.2 40.0 50.8 42.7	Rela Test Ante sion el //m) 20 09 37	Ative Humidity Ative Humidity Voltage Enna Polarity Limits (dBµV/m) 74.00 54.00 74.00	55.4% Normal Volta Vertical Margin (dB) -22.80 -13.91 -23.13	value Type peak AVG peak	

Radiated Emissions Test Results for Above 1GHz

RESULT: Pass



Radiated Emissions	Test Results for Above 1GHz
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EUT Name Tru		e Wireless Stereo Ea	rphone	Model Name		Noble FoKus Rex5	
Temperature		25 ℃		Relative Humidity		55.4%	
Pressure 960hPa		nPa		Tes	t Voltage	Normal Volt	age
Test Mode	Test Mode Mode 4			Ant	enna Polarity	Horizontal	
Frequency	Meter Reading	Factor	Emissi Leve	-	Limits	Margin	Value
(MHz)	(dBµV)	(dB)	(dBµV/	′m)	(dBµV/m)	(dB)	Туре
4804.000	51.08	0.11	51.19	9	74.00	-22.81	peak
4804.000	41.89	0.11	42		54.00	-12.00	AVG
7206.000	47.96	2.45	50.41	1	74.00	-23.59	peak
7206.000	40.35	2.45	42.8		54.00	-11.20	AVG
EUT Name	True	e Wireless Stereo Ea	rphone	Мо	del Name	Noble FoKu	ıs Rex5
	True 25°0		rphone		del Name ative Humidity	Noble FoKu 55.4%	is Rex5
EUT Name Temperature Pressure		1	rphone	Rel			
Temperature	25℃	nPa	rphone	Rel Tes	ative Humidity	55.4%	
Temperature Pressure	25°0 960	nPa	rphone Emissi	Rel Tes Ant	ative Humidity t Voltage	55.4% Normal Volt	age Value
Temperature Pressure Test Mode	25°0 960 Moo Meter	nPa le 4	Emissi	Rel Tes Ant	ative Humidity t Voltage enna Polarity	55.4% Normal Volt Vertical	age
Temperature Pressure Test Mode Frequency	25°C 960 Moo Meter Reading	nPa le 4 Factor	Emissie	Rel Tes Ant on	ative Humidity It Voltage Itenna Polarity Limits	55.4% Normal Volt Vertical Margin	age Value
Temperature Pressure Test Mode Frequency (MHz)	25°C 960 Mod Meter Reading (dBµV)	nPa le 4 Factor (dB)	Emissi Leve (dBµV/	Rel Tes Ant on ím) ô	ative Humidity It Voltage Itenna Polarity Limits (dBµV/m)	55.4% Normal Volt Vertical Margin (dB)	vage Value Type
Temperature Pressure Test Mode Frequency (MHz) 4804.000	25°C 960 Mod Meter Reading (dBµV) 49.85	Pa le 4 Factor (dB) 0.11	Emissie Leve (dBµV/ 49.96	Rel Tes Ant on (m) 6 9	ative Humidity t Voltage enna Polarity Limits (dBµV/m) 74.00	55.4% Normal Volt Vertical Margin (dB) -24.04	Value Type peak
Temperature Pressure Test Mode Frequency (MHz) 4804.000 4804.000	25°C 960 Mod Meter Reading (dBµV) 49.85 40.38	Pa le 4 Factor (dB) 0.11 0.11	Emissie Leve (dBµV/ 49.96	Rel Tes Ant on I 'm) D D D<	ative Humidity It Voltage Renna Polarity Limits (dBµV/m) 74.00 54.00	55.4% Normal Volt Vertical Margin (dB) -24.04 -13.51	value Value Type peak AVG

RESULT: Pass



EUT Name True Wireless Stereo Earphone			Model Name		Noble FoKus Rex5			
Temperature	perature 25°C		Relative Humidity		55.4%			
Pressure	ssure 960hPa Test Voltage Normal Vo		Normal Vol	tage				
Test Mode		Mode 5		Ant	tenna Polarity	Horizontal		
Frequency		eter ading	Factor	Emissi Leve		Limits	Margin	Value
(MHz)	(dE	βµV)	(dB)	(dBµV/	/m)	(dBµV/m)	(dB)	Туре
4882.000	51	.07	0.12	51.1	9	74.00	-22.81	peak
4882.000	40	.15	0.12	40.2	7	54.00	-13.73	AVG
7323.000	48	.77	2.46	51.23	3	74.00	-22.77	peak
7323.000	41	.36	2.46	43.8	2	54.00	-10.18	AVG
Remark: Factor = Anter	nna Fa	actor +	Cable Loss – Pre-	-amplifier.				
	nna Fa		Cable Loss – Pre-	•	Мо	del Name	Noble FoK	us Rex5
Factor = Anter	nna Fa			•		del Name ative Humidity	Noble FoK	us Rex5
Factor = Anter	nna Fa	True V	Vireless Stereo Ea	•	Rel			
Factor = Anter EUT Name Temperature	nna Fa	True V 25℃	Vireless Stereo Ea 'a	•	Rel Tes	ative Humidity	55.4%	
Factor = Anter EUT Name Temperature Pressure	M	True V 25℃ 960hP	Vireless Stereo Ea 'a	•	Rel Tes Ant	ative Humidity st Voltage	55.4% Normal Vol	tage Value
Factor = Anter EUT Name Temperature Pressure Test Mode	Me	True V 25℃ 960hP Mode	Vireless Stereo Ea 'a 5	arphone	Rel Tes Ant	ative Humidity at Voltage tenna Polarity	55.4% Normal Vol Vertical	tage
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency	Me Rea (dE	True V 25℃ 960hP Mode eter ading	Vireless Stereo Ea 'a 5 Factor	Emissi Leve	Rel Tes Ant ion	ative Humidity at Voltage tenna Polarity Limits	55.4% Normal Vol Vertical Margin	tage Value
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz)	Me Rea (dE 52	True V 25℃ 960hP Mode eter ading 3µV)	Vireless Stereo Ea Pa 5 Factor (dB)	Emissi Leve	Rel Tes Ant ion al /m) 7	tenna Polarity Limits (dBµV/m)	55.4% Normal Vol Vertical Margin (dB)	tage Value Type
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4882.000	Me Rea (dE 52 41	True V 25℃ 960hP Mode eter ading 3µV)	Vireless Stereo Ea 'a 5 Factor (dB) 0.12	Emissi Leve (dBµV/ 52.1	ion 7 8	tenna Polarity Limits (dBµV/m) 74.00	55.4% Normal Vol Vertical Margin (dB) -21.83	tage Value Type peak
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4882.000 4882.000	Ma Rea (dE 52 41	True V 25℃ 960hP Mode eter ading 3µV) 2.05 .36	Vireless Stereo Ea Pa 5 Factor (dB) 0.12 0.12	Emissi Leve (dBµV/ 52.1 41.4	Rel Tes Ant ion /m) 7 8 6	Limits (dBµV/m) 74.00 54.00	55.4% Normal Vol Vertical Margin (dB) -21.83 -12.52	tage Value Type peak AVG
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4882.000 4882.000 7323.000	Ma Rea (dE 52 41	True V 25℃ 960hP Mode eter ading 3µV) 2.05 .36 .30	Vireless Stereo Ea 'a 5 Factor (dB) 0.12 0.12 2.46	Emissi Leve (dBµV) 52.1 41.4	Rel Tes Ant ion /m) 7 8 6	ative Humidity ative Humidity ative Humidity ative Polarity Limits (dBµV/m) 74.00 54.00 74.00	55.4% Normal Vol Vertical Margin (dB) -21.83 -12.52 -22.24	tage Value Type peak AVG peak

Radiated Emissions Test Results for Above 1GHz

RESULT: Pass



EUT Name True Wireless Stereo Earphone			Model Name		Noble FoKus Rex5				
Temperature Pressure		25 ℃			Relative Humidity		55.4%	55.4%	
		960hPa		Test	Voltage	Normal Volta	Normal Voltage		
Test Mode Mode 6			Ante	enna Polarity	Horizontal				
Frequency		eter ding	Factor	Emiss Leve	-	Limits	Margin	Value	
(MHz)	(dB	μV)	(dB)	(dBµV	′/m)	(dBµV/m)	(dB)	Туре	
4960.000	50.	.12	0.13	50.2	25	74.00	-23.75	peak	
4960.000	39.	.61	0.13	39.7	'4	54.00	-14.26	AVG	
7440.000	48.	.67	2.51	51.1	8	74.00	-22.82	peak	
7440.000	38	.97	2.51	41.4	8	54.00	-12.52	AVG	
Remark:		ictor + (Cable Loss – Pre-	amplifier.					
Remark:	nna Fa		Cable Loss – Pre-		Mod	lel Name	Noble FoKus	Rex5	
Remark: Factor = Anter	nna Fa					lel Name Itive Humidity	Noble FoKus	s Rex5	
Remark: Factor = Anter EUT Name	nna Fa	True W	/ireless Stereo Ea		Rela				
Remark: Factor = Anter EUT Name Temperature	nna Fa	True W 25℃	/ireless Stereo Ea a		Rela Test	tive Humidity	55.4%		
Remark: Factor = Anter EUT Name Temperature Pressure	nna Fa	True W 25℃ 960hPa	/ireless Stereo Ea a		Rela Test Ante	tive Humidity Voltage	55.4% Normal Volta	ige Value	
Remark: Factor = Anter EUT Name Temperature Pressure Test Mode	nna Fa	True W 25℃ 960hPa Mode 6 eter ding	/ireless Stereo Ea a 6	rphone	Rela Test Ante	tive Humidity Voltage enna Polarity	55.4% Normal Volta	ige Value	
Remark: Factor = Anter EUT Name Temperature Pressure Test Mode Frequency	nna Fa	True W 25℃ 960hPa Mode 6 eter ding µV)	/ireless Stereo Ea a 5 Factor	rphone Emiss	Rela Test Ante sion el '/m)	Voltage enna Polarity Limits	55.4% Normal Volta Vertical Margin	lge Value Type	
Remark: Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz)	nna Fa Me Rea (dB 49.	True W 25℃ 960hPa Mode 6 eter ding µV)	/ireless Stereo Ea a 5 Factor (dB)	Emiss Leve	Rela Test Ante sion el (/m) 98	Limits (dBµV/m)	55.4% Normal Volta Vertical Margin (dB)	ge	
Remark: Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4960.000	nna Fa Me Rea (dB 49.	True W 25℃ 960hPa Mode 6 eter ding µV) .85 .12	/ireless Stereo Ea a 5 Factor (dB) 0.13	rphone Emiss Leve (dBµV 49.9	Rela Test Ante sion el (/m) 98	Limits (dBµV/m) 74.00	55.4% Normal Volta Vertical Margin (dB) -24.02	ige Value Type peak	
Remark: Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4960.000 4960.000	nna Fa Me Rea (dB 49. 40. 49.	True W 25℃ 960hPa Mode 6 eter ding µV) .85 .12	/ireless Stereo Ea a 5 Factor (dB) 0.13 0.13	Emiss Leve (dBµV 49.9	Rela Test Ante sion el (/m) 08 25 88	tive HumidityVoltageenna PolarityLimits(dBµV/m)74.0054.00	55.4% Normal Volta Vertical Margin (dB) -24.02 -13.75	lge Value Type peak AVG	

RESULT: Pass

Note:

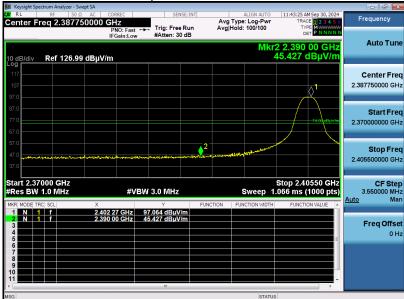
- 1. The amplitude of other spurious emissions from 1G to 40 GHz which are attenuated more than 20 dB below the permissible value need not be reported.
- 2. Factor = Antenna Factor + Cable loss Pre-amplifier gain, Margin = Emission Level-Limit.
- 3. The "Factor" value can be calculated automatically by software of measurement system.



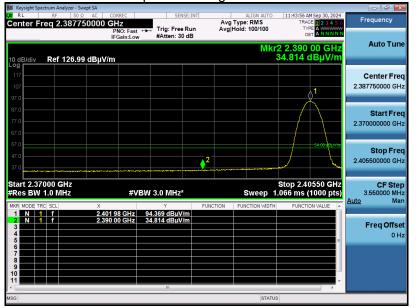
EUT Name	True Wireless Stereo Earphone	Model Name	Noble FoKus Rex5
Temperature	25 ℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna Polarity	Horizontal

Band Edge Emission Test Results for Restricted Bands

Test Graph for Peak Measurement



Test Graph for Average Measurement



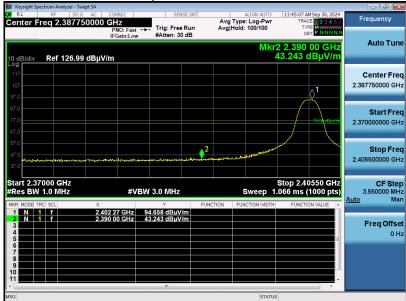
RESULT: Pass



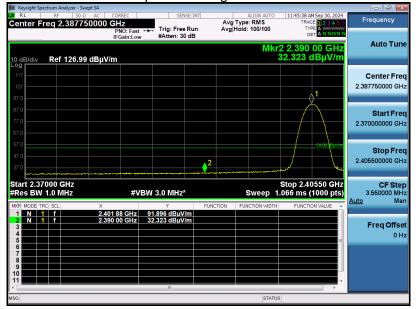
Band Edge Emission	Test Results for Restricted Bands
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EUT Name	True Wireless Stereo Earphone	Model Name	Noble FoKus Rex5
Temperature	25 ℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna Polarity	Vertical

Test Graph for Peak Measurement



Test Graph for Average Measurement



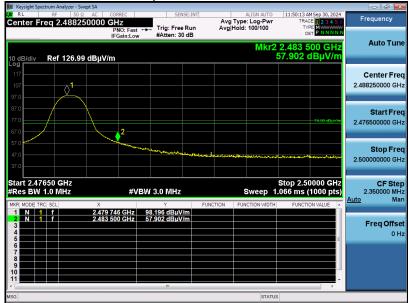
RESULT: Pass



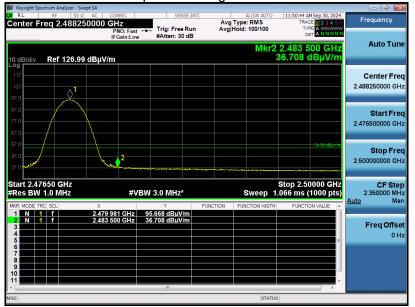
Band Edge Emission	n Test Results for Restricted Band	st
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EUT Name	True Wireless Stereo Earphone	Model Name	Noble FoKus Rex5
Temperature	25 ℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 3	Antenna Polarity	Horizontal

Test Graph for Peak Measurement



Test Graph for Average Measurement



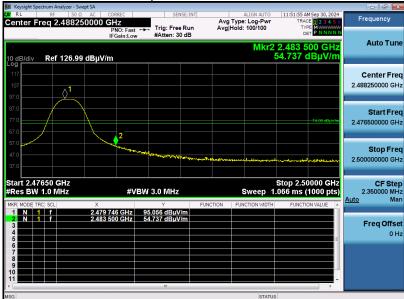
RESULT: Pass



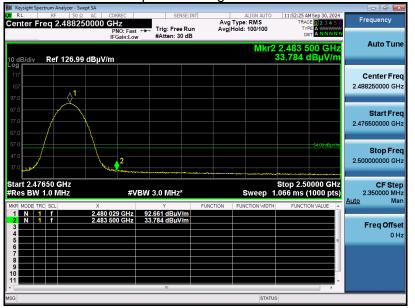
EUT Name	True Wireless Stereo Earphone	Model Name	Noble FoKus Rex5
Temperature	25℃	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 3	Antenna Polarity	Vertical

Band Edge Emission Test Results for Restricted Bands

Test Graph for Peak Measurement



Test Graph for Average Measurement



RESULT: Pass