Prüfbericht-Nr.: *Test report no.:*	**60412059 001**	**Auftrags-Nr.:** *Order no.:*	168279623	Seite 1 von 19 *Page 1 of 19*
Kunden-Referenz-Nr.: *Client reference no.:*	N/A	**Auftragsdatum:** *Order date:*	2020-08-26	
Auftraggeber: *Client:*	**CabinAir Tech (Shenzhen) Co., Ltd.** Unit 1A, Building B5, Merchants Guangming Science Park, #3009 Guanguang Road, Guangming, Shenzhen, 518107 Guangdong, P.R. China			
Prüfgegenstand: *Test item:*	Nordzone™ Air Quality Monitor			
Bezeichnung / Typ-Nr.: *Identification / Type no.:*	9001 012 00, 9001 012 01 (Trademark: Nordzone™ System)			
Auftrags-Inhalt: *Order content:*	RED approval			
Prüfgrundlage: *Test specification:*	CFR47 FCC Part 15: Subpart C Section 15.247			

Wareneingangsdatum: *Date of sample receipt:*	2020-08-26	Please refer to photo documents
Prüfmuster-Nr.: *Test sample no.:*	A002898043-001	
Prüfzeitraum: *Testing period:*	2020-08-26 - 2020-09-08	
Ort der Prüfung: *Place of testing:*	TÜV Rheinland (Shenzhen) Co., Ltd.	
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland (Shenzhen) Co., Ltd.	
Prüfergebnis*: *Test result*:*	Pass	

geprüft von: *tested by:*	Ryan Yang	**genehmigt von:** *authorized by:*	Winnie Hou
Datum: *Date:* 2020-10-14		**Ausstellungsdatum:** *Issue date:* 2020-10-14	
Stellung / Position	Assistant Project Manager	**Stellung** / Position	Department Manager

Sonstiges / *Other:*

FCC ID: 2AXCNNZAQM

Zustand des Prüfgegenstandes bei Anlieferung: *Condition of the test item at delivery:*	Prüfmuster vollständig und unbeschädigt *Test item complete and undamaged:*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhalt
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	1 = very good	2 = good	3 = satisfactory	4 = sufficient	5 = poor
	P(ass) = passed a.m. test specifications(s)		F(ail) = failed a.m. test specifications(s)	N/A = not applicable	N/T = not tested

Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.

This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.

TUV Rheinland (Shenzhen) Co., Ltd. 1601 R&D Room, 1602-1604, 17-18F, Building 7 Site C, Vanke Cloud City Phase I, Xingke First Street, Xili Street, Xili Community, Nanshan District, Shenzhen 518052, P.R. China
Mail: service@de.tuv.com http://www.tuv.com

Test Summary

5.1.1 ANTENNA REQUIREMENT
RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER
RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY
RESULT: Pass

5.1.4 6DB BANDWIDTH
RESULT: Pass

5.1.5 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 KHZ BANDWIDTH
RESULT: Pass

5.1.6 RADIATED SPURIOUS EMISSION
RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Photographs of the Test Set-up

Appendix B: Test Results of Bluetooth Low Energy

2 Test Sites

2.1 Test Facilities

TÜV Rheinland (Shenzhen) Co., Ltd.
362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China

FCC Accreditation Designation No.: CN1260
ISED wireless device testing laboratory: 25069

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

TÜV Rheinland (Shenzhen) Co., Ltd.

Radio Spectrum Testing (TS8997)					
Equip. No.	**Equipment**	**Manufacturer**	**Model**	**Serial No.**	**Cal. until**
1825795	Signal Analyzer	R&S	FSV 40	101441	20.08.2020
1825798	OSP	R&S	OSP 150	101017	17.12.2020
1825799	Control PC	DELL	OptiPlex 7050	FTJZ9P2	N/A
1825800	Test Software	R&S	WMS32 (V10.50.10)	N/A	N/A
1825801	Power Meter	R&S	NRP2	107105	17.12.2020
1825802	Wideband Power Sensor	R&S	NRP-Z81	105350	17.12.2020
1826431	Shielding Room 8#	Albatross	SR8	APC17151-SR8	23.07.2020
Unwanted Emission Testing (TS9975)					
Equip. No.	**Equipment**	**Manufacturer**	**Model**	**Serial No.**	**Cal. until**
1826021	EMI Test Receiver	R&S	ESR 7	102021	19.08.2020
1826023	Signal Analyzer	R&S	FSV 40	101439	21.08.2020
1826024	System Controller Interface	R&S	SCI-100	S10010038	N/A
1826025	Filterbank	R&S	Wlan	100759	21.08.2020
1826026	OSP	R&S	OSP 120	102040	N/A
1826028	Pre-amplifier	R&S	SCU08F1	08320031	20.08.2020
1826029	Amplifier	R&S	SCU-18F	180070	20.08.2020
1826030	Amplifier	R&S	SCU40A	100475	20.09.2020
1826031	Trilog Broadband Antenna (30 MHz - 7 GHz)	Schwarzbeck	VULB 9162	193	02.09.2020

1826032	Double-Ridged Antenna (1 -18 GHz)	ETS-LINDGREN	3117	00218717	02.09.2020
1826033	Wideband Ridged Horn Antenna (18-40 GHz)	Steatite	QMS-00880	19067	02.09.2020
1826034	Active Loop Antenna	Schwarzbeck	FMZB 1513	302	01.09.2020
1826035	Wideband Ridged Horn Antenna (12-18 GHz)	Steatite	QMS-00208	18313	02.09.2020
1826036	Test software	R&S	EMC32 (V10.50.40)	N/A	N/A
1826037	Control PC	Dell	OptiPlex 7050	36NV9P2	N/A
1826433	3m Semi-Anechoic Chamber	Albatross	SAC-3m	APC17151-SAC	06.07.2020

2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table.

Parameter	Uncertainty
Radio Frequency	±1 x 10-7
RF Power (conducted)	±2.5 dB
Radiated Emission of Transmitter, valid up to 26.5 GHz	±6 dB
Radiated Emission of Receiver, valid up to 26.5 GHz	±6 dB
Conducted Emission, (9kHz to 150kHz)/(150kHz to 30MHz)	±3.70 dB / ±3.30 dB
Radiated Emission (3m SAC), 30MHz to 1000MHz	±4.52 dB
Radiated Emission (3m SAC), above 1000MHz	±4.37 dB
Temperature	±1 °C
Humidity	±5 %
Voltage (DC)	±1 %
Voltage (AC, <10kHz)	±2 %

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) Co., Ltd.. file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The TÜV Rheinland (Shenzhen) Co., Ltd. Test facility located at 362 Huanguan Road Middle Longhua District, Shenzhen 518110 People's Republic of China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a Nordzone™ Air Quality Monitor which supports Bluetooth 5.0 low energy technology.

According to the declaration of the applicant, the electrical circuit design, PCB layout, HW and FW are identical, only the model number and packaging are different.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

General Information of EUT	Value
Kind of Equipment	Nordzone™ Air Quality Monitor
Type Designation	9001 012 00, 9001 012 01
Trademark	Nordzone™ System
FCC ID	2AXCNNZAQM
Operating Voltage	DC 5.0V via USB port
Testing Voltage	DC 5.0V
Technical Specification of BLE	
Frequency Range	2402 MHz to 2480 MHz
Type of Modulation	GFSK
Channel Number	40 channels
Data Rate	1 Mbps, 2Mbps
Channel Separation	2 MHz
Antenna Type	Chip antenna
Antenna Gain	0.716 dBi

Table 3: RF Channel and Frequency of BLE

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
0	**2402**	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476
8	2418	18	2438	28	2458	38	2478
9	2420	**19**	**2440**	29	2460	**39**	**2480**

Test frequencies are lowest channel: 2402 MHz, middle channel: 2440 MHz and highest channel: 2480 MHz

3.3 Independent Operation Modes

The basic operation modes are:

A. On, Bluetooth transmitting mode
   1. Low channel
   2. Middle channel
   3. High channel

B. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Rating Label
- User Manual

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All tests were performed according to the procedures in ANSI C63.10: 2013.

According to clause 3.1, all tests were performed on model 9001 012 00 in this report.

4.3 Special Accessories and Auxiliary Equipment

None.

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

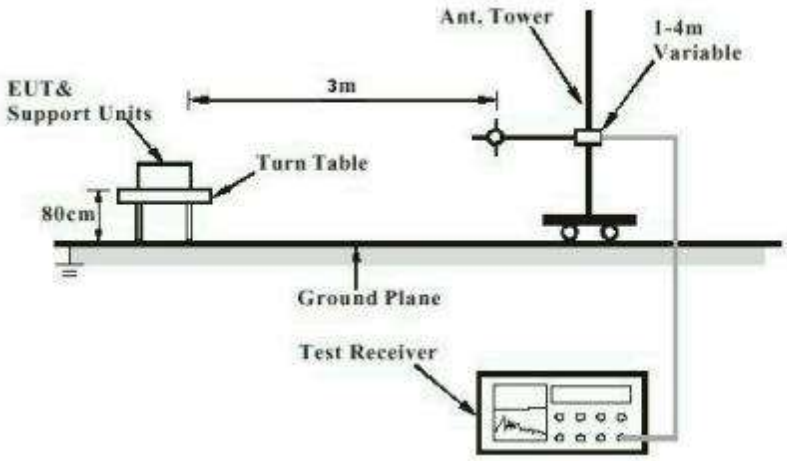


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)

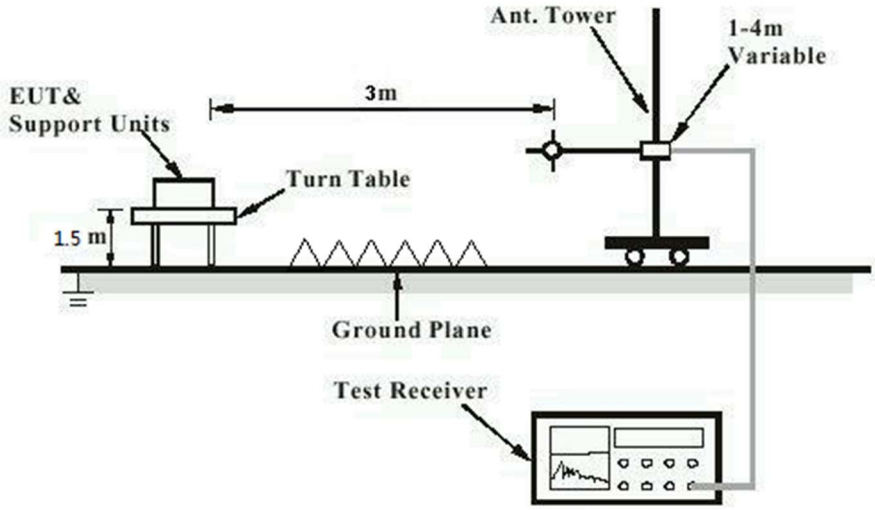
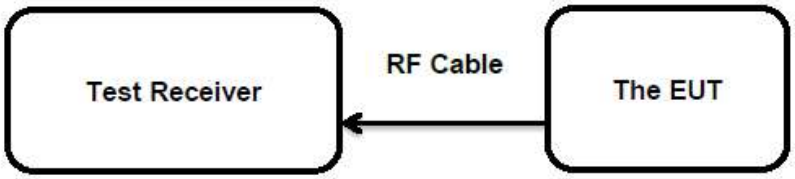


Diagram of Measurement Configuration for Conducted Transmitter Measurement



5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT: **Pass**

Test Specification

Test standard : FCC Part 15.247(b)(4) and Part 15.203

According to the manufacturer declared, the EUT has an internal antenna, the directional gain of antenna is 0.716 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

5.1.2 Maximum Peak Conducted Output Power

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(b)(3)
Basic standard	:	ANSI C63.10: 2013
Limits	:	1.0 Watts
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2020-09-08
Input voltage	:	DC 5.0V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 4: Test Result of Maximum Peak Conducted Output Power

Test Mode	Data Rate	Test Channel (MHz)	Measured Peak Power		Limit (W)
			(dBm)	(W)	
GFSK (BLE)	1 Mbps	2402.00	-9.00	0.0001	< 1.0
		2440.00	-8.80	0.0001	
		2480.00	-8.90	0.0001	
	2 Mbps	2402.00	-9.00	0.0001	
		2440.00	-8.90	0.0001	
		2480.00	-9.00	0.0001	
Maximum Measured Value			-8.80	0.0001	

Note:
1) The cable loss is taken into account in results.
2) Antenna gain(G): 0.716 dBi,

5.1.3 Conducted Power Spectral Density

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(e)
Basic standard	:	ANSI C63.10: 2013
Limits	:	< 8 dBm / 3kHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2020-09-08
Input voltage	:	DC 5.0V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 5: Test Result of Power Spectral Density

Test Mode	Data Rate	Test Channel (MHz)	Measured Peak Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)
GFSK (BLE)	1 Mbps	2402.00	-27.10	8 dBm / 3kHz
		2440.00	-26.88	
		2480.00	-26.49	
	2 Mbps	2402.00	-29.04	
		2440.00	-28.83	
		2480.00	-28.47	
Maximum Measured Value			-26.49	

Note: The cable loss is taken into account in results.

For the measurement records, refer to the appendix B.

5.1.4 6dB Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(a)(2)
Basic standard	:	ANSI C63.10: 2013
Limits	:	> 500 KHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	2020-09-08
Input voltage	:	DC 5.0V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

For details refer to following test result.

Table 6: Test Result of 6dB Bandwidth

Test Mode	Data Rate	Test Channel (MHz)	-6dB Bandwidth (KHz)	Limit (kHz)
GFSK (BLE)	1 Mbps	2402.00	712.87	> 500
		2440.00	712.87	
		2480.00	712.87	
	2 Mbps	2402.00	1227.72	
		2440.00	1267.33	
		2480.00	1267.33	
Minimum Measured Value			712.87	

For the measurement records, refer to the appendix B.

5.1.5 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(d)
Basic standard	:	ANSI C63.10: 2013
Limits	:	20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power); In addition, radiated emissions which fall in the restricted bands, must also comply with the radiated emission limits specified in 15.209(a)
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	Refer to test result
Input voltage	:	DC 5.0V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25 ℃
Relative humidity	:	56 %
Atmospheric pressure	:	101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to test plots, and compliance is achieved as well.

For the measurement records, refer to the appendix B.

5.1.6 Radiated Spurious Emission

RESULT: **Pass**

Test Specification

Test standard	:	FCC Part 15.247(d) & FCC Part 15.205
Basic standard	:	ANSI C63.10: 2013
Limits	:	FCC Part 15.209(a)
Kind of test site	:	3m Semi-anechoic Chamber

Test Setup

Date of testing	:	Refer to test result
Input voltage	:	DC 5.0V
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	23 ℃
Relative humidity	:	47 %
Atmospheric pressure	:	101 kPa

Remark:
Testing was carried out within frequency range 9kHz to the tenth harmonics. Only the worst case spurious emissions configuration of the each mode were reported.

For the measurement records, refer to the appendix B.

6 Photographs of the Test Set-Up

For photographs of the test set-up, refer to the appendix A.

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Appendix B: Test Results of Bluetooth Low Energy

APPENDIX B: TEST RESULTS OF BLUETOOTH LOW ENERGY **1**

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Appendix B.1: Test Results of Maximum Peak Conducted Output Power

GFSK(BLE) Mode, 1Mbps

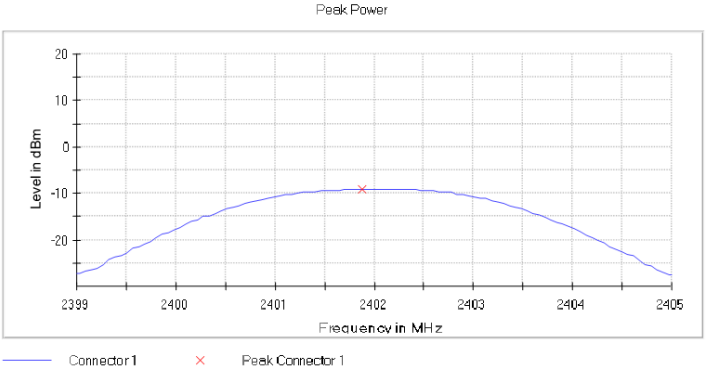
FCC Part 47 §15.247 2400-2483.5 MHz 2017

Peak output power (Sweep) (2402 MHz; 10.000 dBm; 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2402.000000	-9.0	30.0	PASS



Peak Power 1

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39900 GHz	2.39900 GHz
Stop Frequency	2.40500 GHz	2.40500 GHz
Span	6.000 MHz	6.000 MHz
RBW	2.000 MHz	>= 1.000 MHz
VBW	10.000 MHz	>= 6.000 MHz
SweepPoints	101	~ 101
Sweeptime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.19 dB	0.50 dB

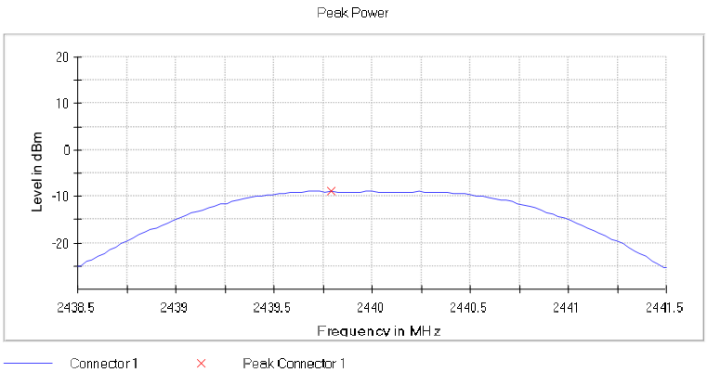
FCC Part 47 §15.247 2400-2483.5 MHz 2017

Peak output power (Sweep) (2440 MHz; 10.000 dBm; 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2440.000000	-8.8	30.0	PASS



Peak Power 1

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43850 GHz	2.43850 GHz
Stop Frequency	2.44150 GHz	2.44150 GHz
Span	3.000 MHz	3.000 MHz
RBW	1.000 MHz	>= 712.873 kHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 101
Sweeptime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.18 dB	0.50 dB

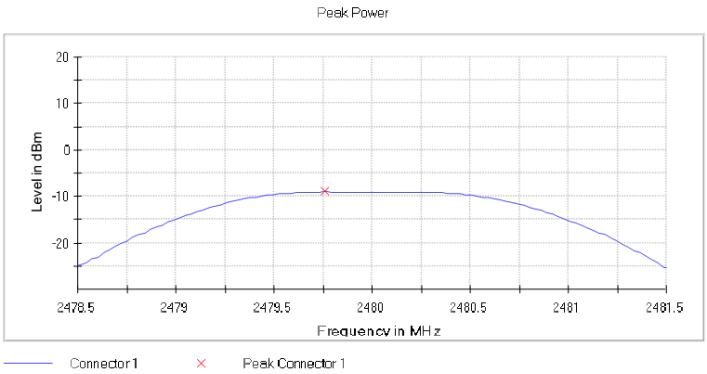
FCC Part 47 §15.247 2400-2483.5 MHz 2017

Peak output power (Sweep) (2480 MHz; 10.000 dBm; 1 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	-8.9	30.0	PASS



Peak Power 1

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47850 GHz	2.47850 GHz
Stop Frequency	2.48150 GHz	2.48150 GHz
Span	3.000 MHz	3.000 MHz
RBW	1.000 MHz	>= 712.873 kHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 101
Sweeptime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.14 dB	0.50 dB

GFSK(BLE) Mode, 2Mbps

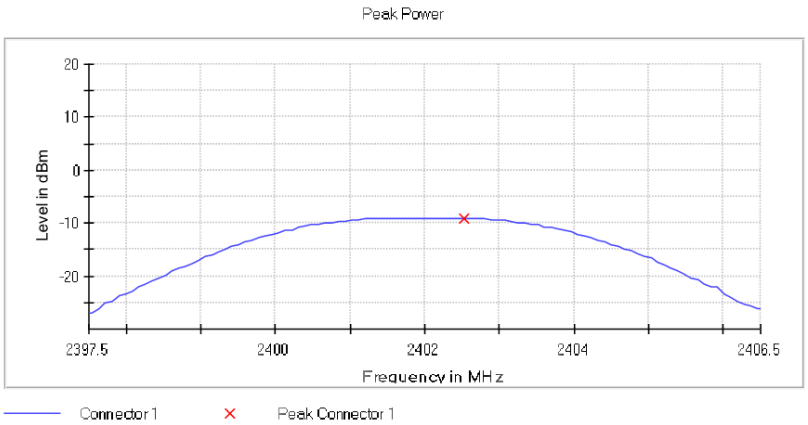
FCC Part 47 §15.247 2400-2483.5 MHz 2017

Peak output power (Sweep) (2402 MHz; 10.000 dBm; 2 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)		Peak Power (dBm)	Limit Max (dBm)	Result
2402.000000		-9.0	30.0	PASS



Peak Power 1

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.39750 GHz	2.39750 GHz
Stop Frequency	2.40650 GHz	2.40650 GHz
Span	9.000 MHz	9.000 MHz
RBW	3.000 MHz	>= 2.000 MHz
VBW	10.000 MHz	>= 9.000 MHz
SweepPoints	101	~ 101
Sweeptime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.09 dB	0.50 dB

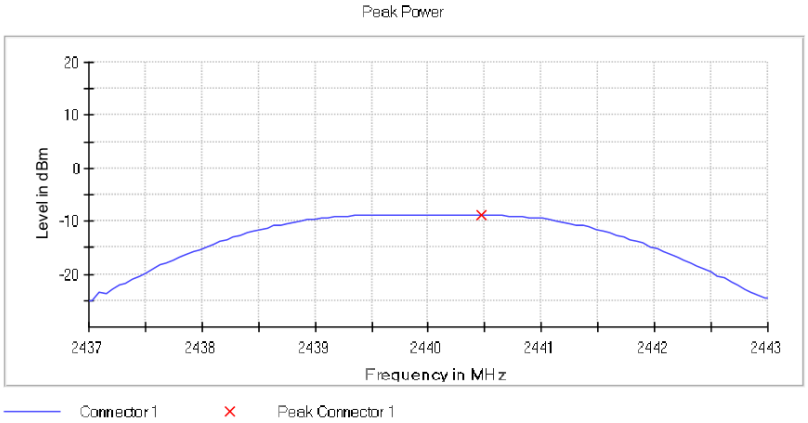
FCC Part 47 §15.247 2400-2483.5 MHz 2017

Peak output power (Sweep) (2440 MHz; 10.000 dBm; 2 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2440.000000	-8.9	30.0	PASS



Peak Power 1

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43700 GHz	2.43700 GHz
Stop Frequency	2.44300 GHz	2.44300 GHz
Span	6.000 MHz	6.000 MHz
RBW	2.000 MHz	>= 1.228 MHz
VBW	10.000 MHz	>= 6.000 MHz
SweepPoints	101	~ 101
Sweeptime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.20 dB	0.50 dB

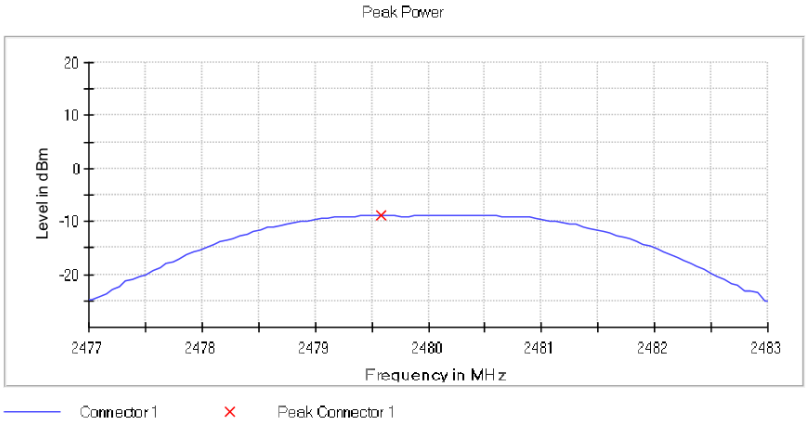
FCC Part 47 §15.247 2400-2483.5 MHz 2017

Peak output power (Sweep) (2480 MHz; 10.000 dBm; 2 MHz)

Test according to FCC title 47 part 15 §15.247(b), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Peak Power (dBm)	Limit Max (dBm)	Result
2480.000000	-9.0	30.0	PASS



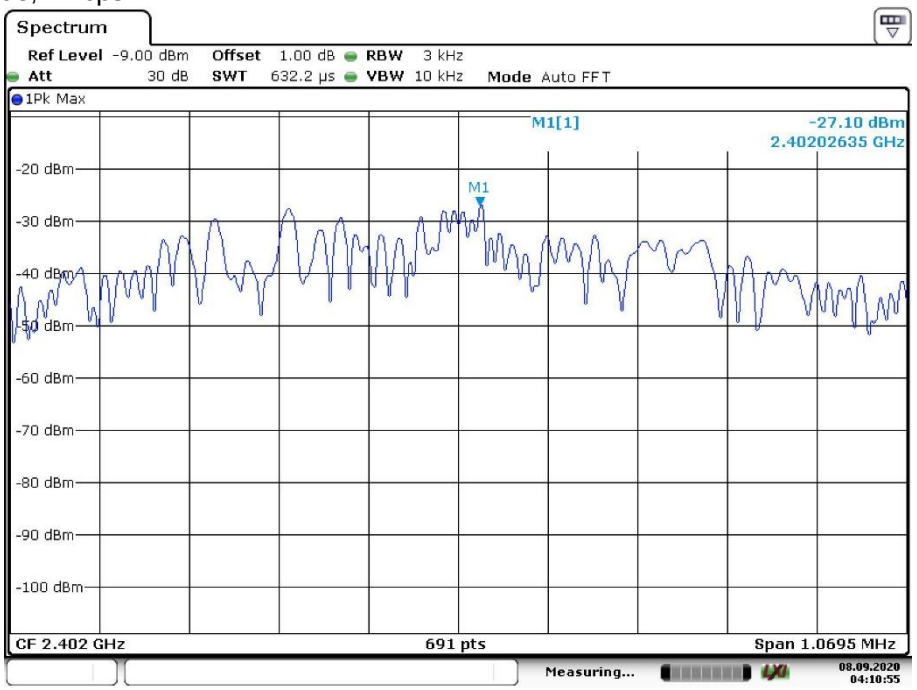
Peak Power 1

Measurement

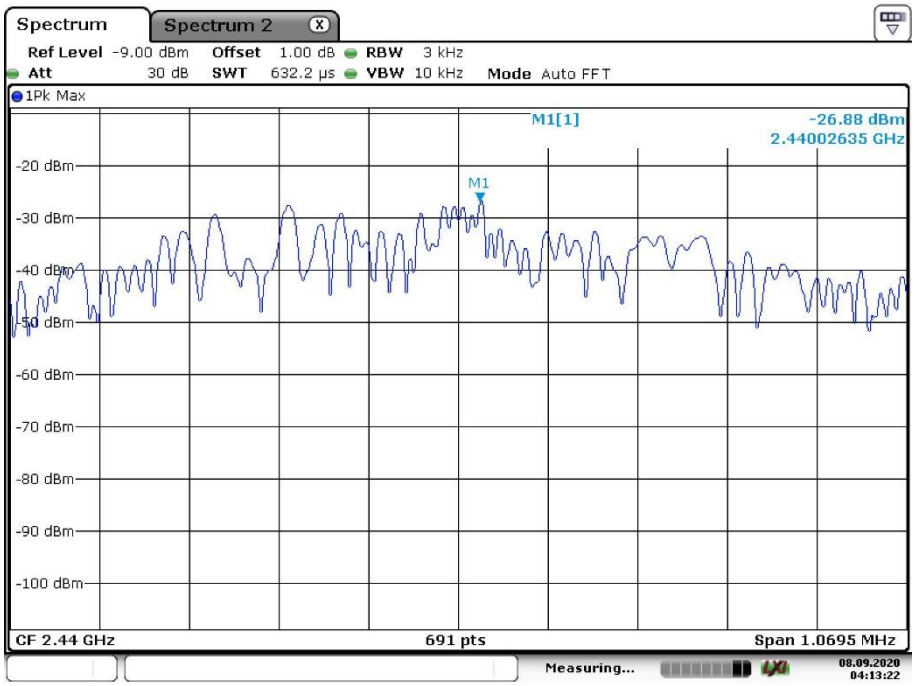
Setting	Instrument Value	Target Value
Start Frequency	2.47700 GHz	2.47700 GHz
Stop Frequency	2.48300 GHz	2.48300 GHz
Span	6.000 MHz	6.000 MHz
RBW	2.000 MHz	>= 1.267 MHz
VBW	10.000 MHz	>= 6.000 MHz
SweepPoints	101	~ 101
Sweeptime	1.000 ms	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	Sweep	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	4 / max. 150	max. 150
Stable	3 / 3	3
Max Stable Difference	0.26 dB	0.50 dB

Appendix B.2: Test Results of Conducted Power Spectral Density

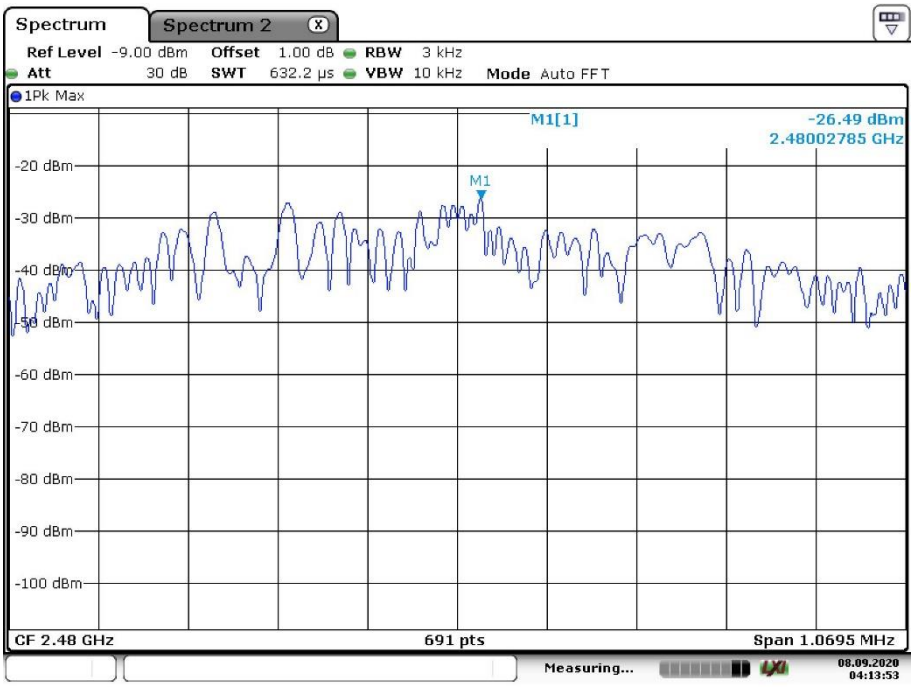
GFSK(BLE) Mode, 1Mbps



Date: 8.SEP.2020 04:10:56

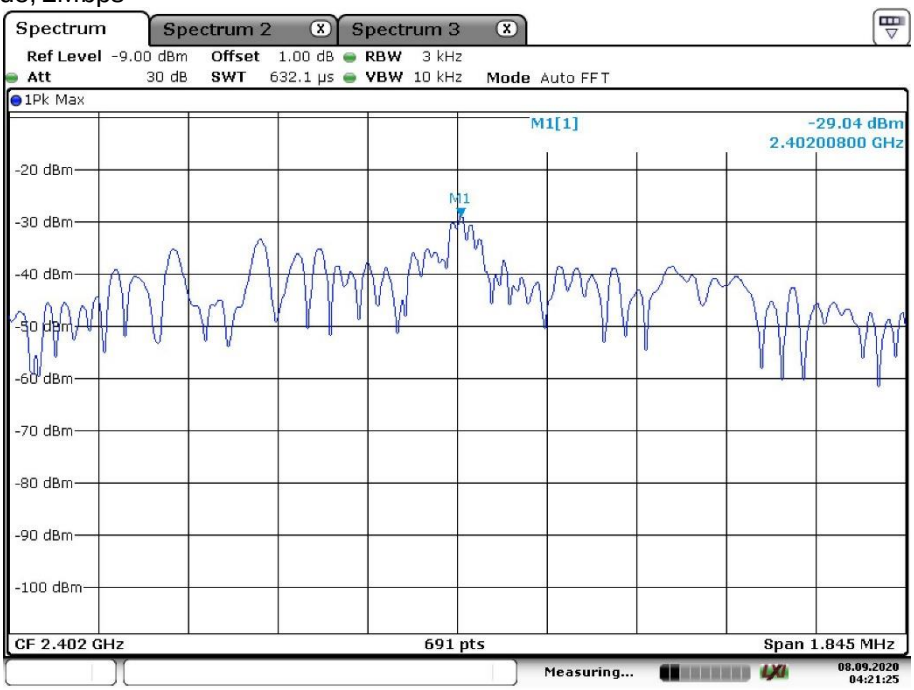


Date: 8.SEP.2020 04:13:23

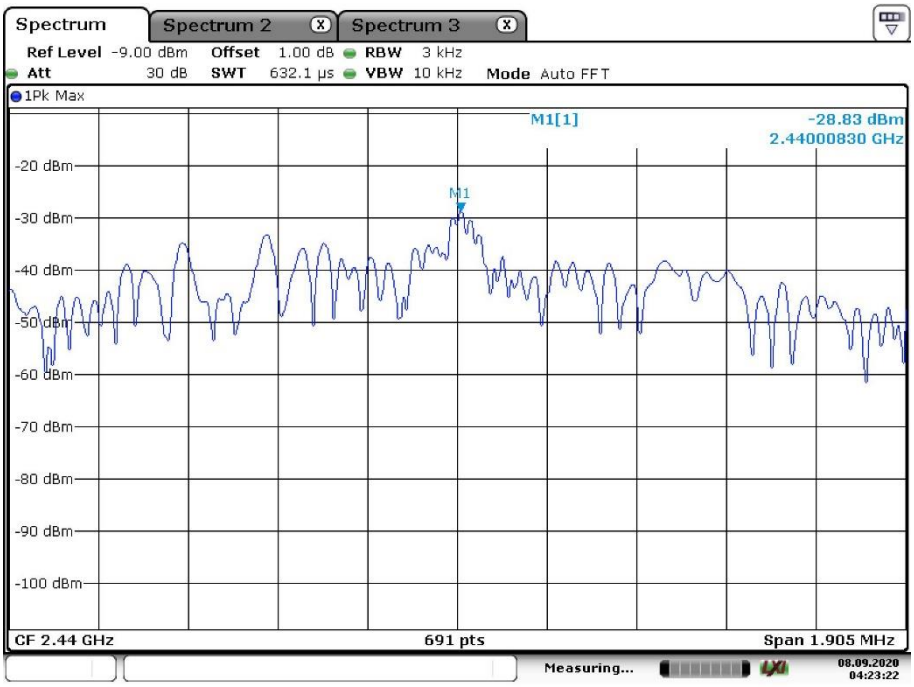


Date: 8.SEP.2020 04:13:53

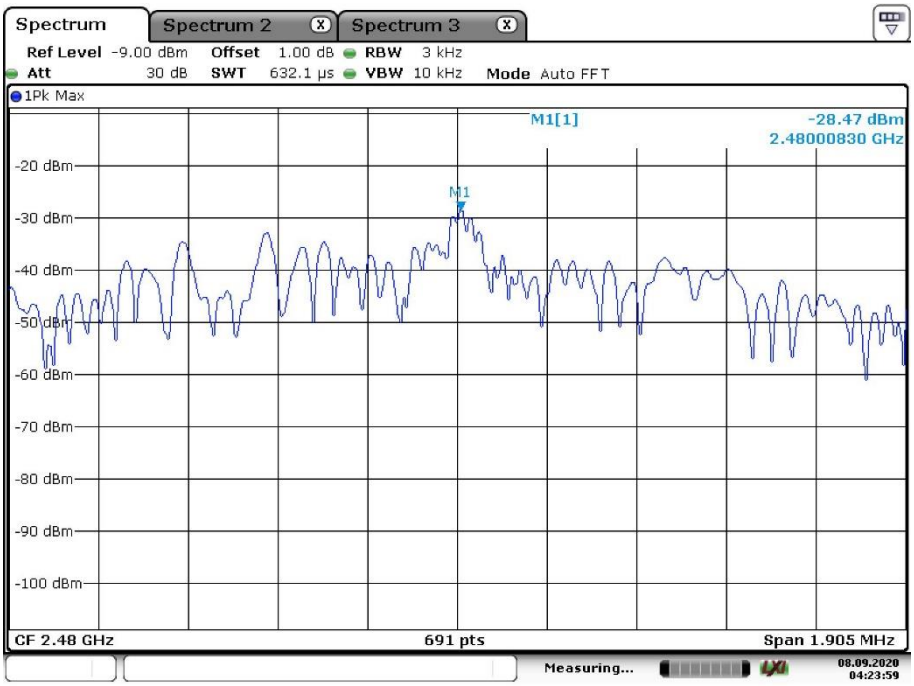
GFSK(BLE) Mode, 2Mbps



Date: 8.SEP.2020 04:21:26



Date: 8.SEP.2020 04:23:23



Date: 8.SEP.2020 04:24:00

Appendix B.3: Test Results of 6dB Bandwidth

GFSK(BLE) Mode, 1Mbps

FCC Part 47 §15.247 2400-2483.5 MHz 2017

Minimum Emission Bandwidth 6 dB (2402 MHz; 10.000 dBm; 1 MHz)

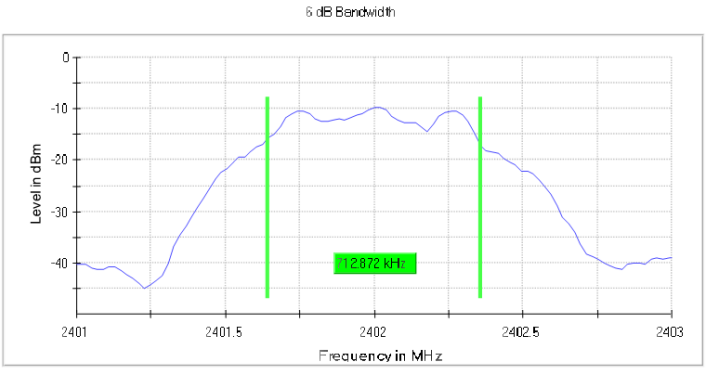
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	0.712872	0.500000	---	2401.643564	2402.356436

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	-9.6	PASS



Bandwidth

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40100 GHz	2.40100 GHz
Stop Frequency	2.40300 GHz	2.40300 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
Sweeptime	18.938 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.08 dB	0.50 dB

FCC Part 47 §15.247 2400-2483.5 MHz 2017

Minimum Emission Bandwidth 6 dB (2440 MHz; 10.000 dBm; 1 MHz)

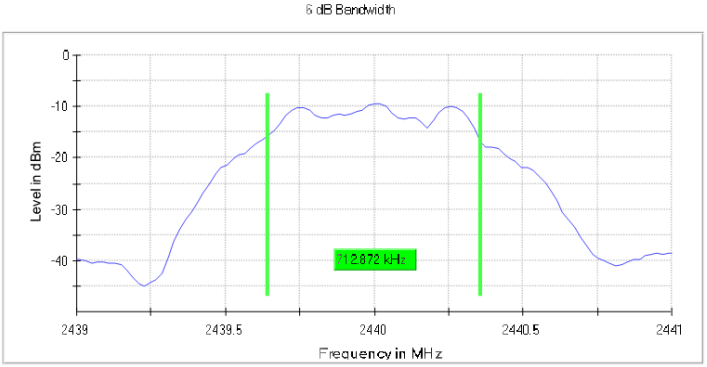
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	0.712872	0.500000	---	2439.643564	2440.356436

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	-9.4	PASS



Bandwidth

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43900 GHz	2.43900 GHz
Stop Frequency	2.44100 GHz	2.44100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
Sweeptime	18.938 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	9 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.07 dB	0.50 dB

FCC Part 47 §15.247 2400-2483.5 MHz 2017

Minimum Emission Bandwidth 6 dB (2480 MHz; 10.000 dBm; 1 MHz)

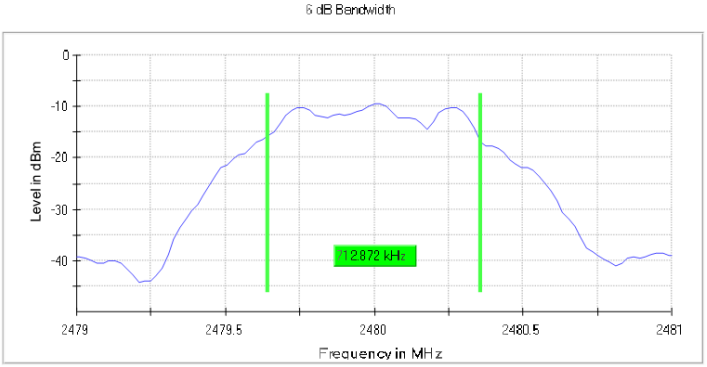
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	0.712872	0.500000	---	2479.643564	2480.356436

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	-9.4	PASS



Bandwidth

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.47900 GHz	2.47900 GHz
Stop Frequency	2.48100 GHz	2.48100 GHz
Span	2.000 MHz	2.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 40
Sweeptime	18.938 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	8 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.14 dB	0.50 dB

GFSK(BLE) Mode, 2Mbps

FCC Part 47 §15.247 2400-2483.5 MHz 2017

Minimum Emission Bandwidth 6 dB (2402 MHz; 10.000 dBm; 2 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

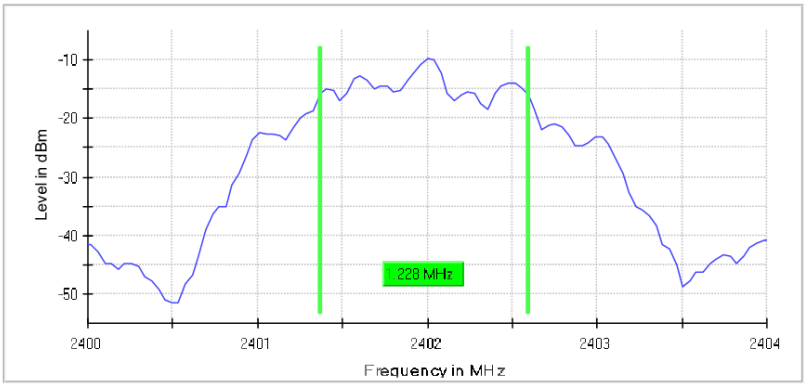
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2402.000000	1.227722	0.500000	---	2401.366337	2402.594059

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2402.000000	-9.6	PASS

6 dB Bandwidth



Bandwidth

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.40000 GHz	2.40000 GHz
Stop Frequency	2.40400 GHz	2.40400 GHz
Span	4.000 MHz	4.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 80
Sweeptime	18.938 µs	AUTO
Reference Level	-20.000 dBm	-20.000 dBm
Attenuation	0.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	11 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.04 dB	0.50 dB

FCC Part 47 §15.247 2400-2483.5 MHz 2017

Minimum Emission Bandwidth 6 dB (2440 MHz; 10.000 dBm; 2 MHz)

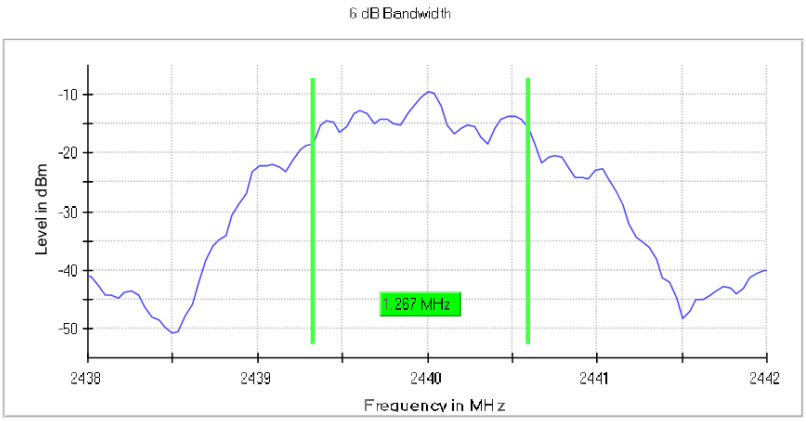
Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2440.000000	1.267326	0.500000	---	2439.326733	2440.594059

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2440.000000	-9.4	PASS



Bandwidth

Measurement

Setting	Instrument Value	Target Value
Start Frequency	2.43800 GHz	2.43800 GHz
Stop Frequency	2.44200 GHz	2.44200 GHz
Span	4.000 MHz	4.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 80
Sweeptime	18.938 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.11 dB	0.50 dB

FCC Part 47 §15.247 2400-2483.5 MHz 2017

Minimum Emission Bandwidth 6 dB (2480 MHz; 10.000 dBm; 2 MHz)

Test according to FCC title 47 part 15 §15.247(a), KDB 558074 D01 DTS Meas Guidance v04 and ANSI C63.10-2013

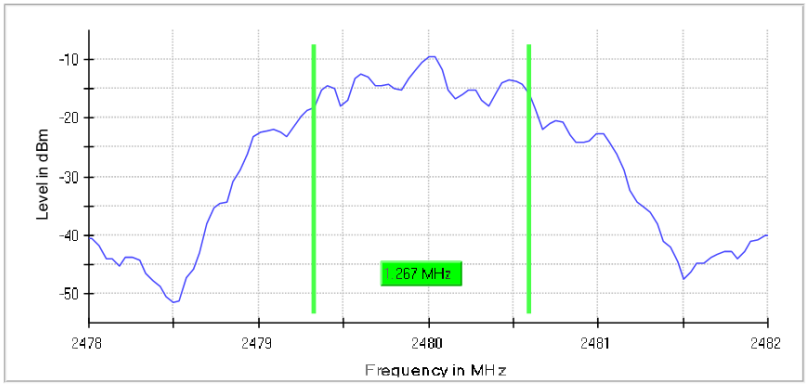
6 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
2480.000000	1.267326	0.500000	---	2479.326733	2480.594059

(continuation of the "6 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
2480.000000	-9.4	PASS

6 dB Bandwidth



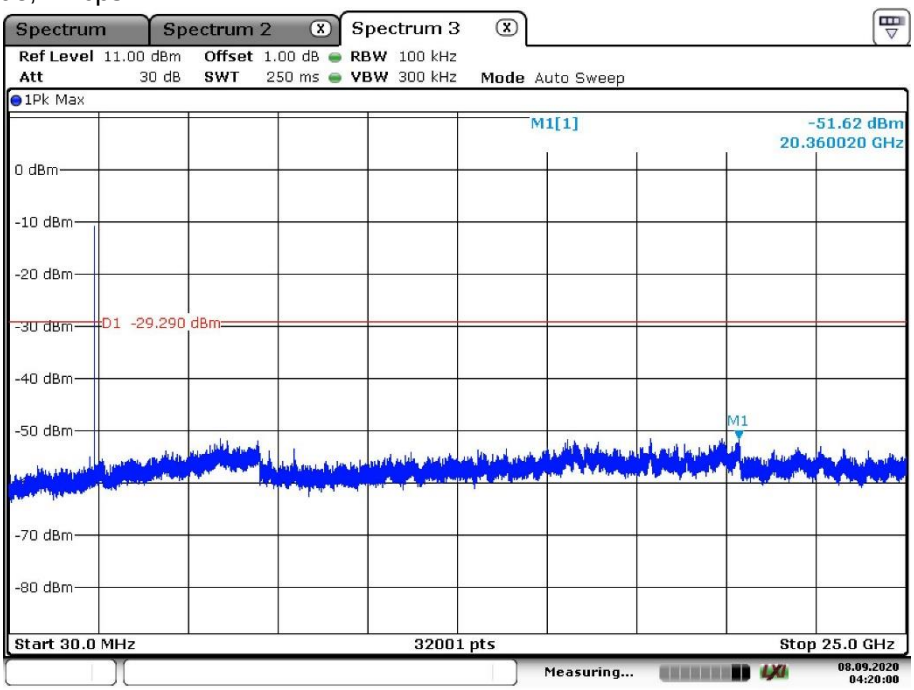
Bandwidth

Measurement

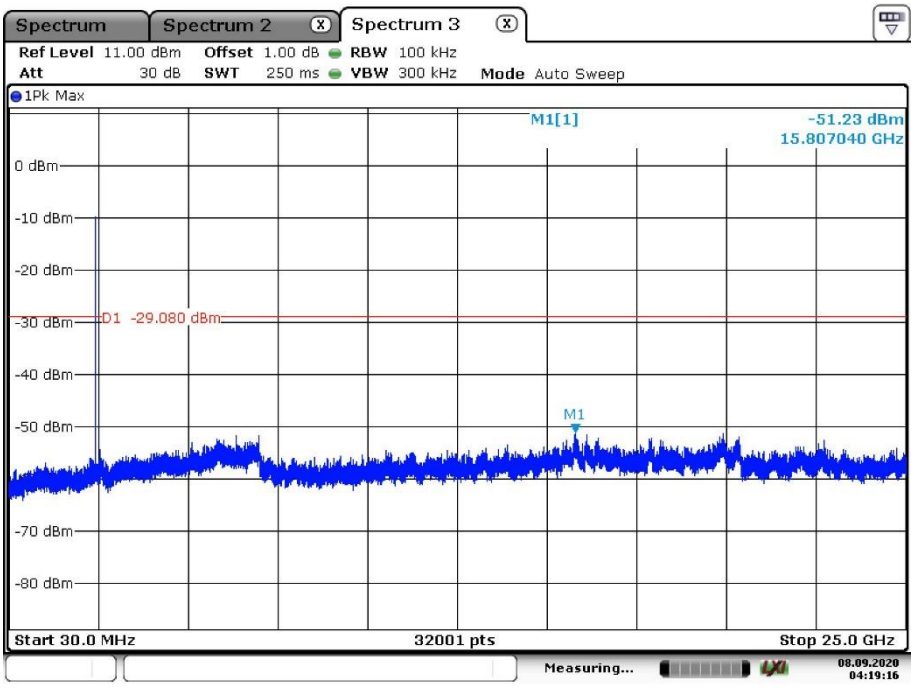
Setting	Instrument Value	Target Value
Start Frequency	2.47800 GHz	2.47800 GHz
Stop Frequency	2.48200 GHz	2.48200 GHz
Span	4.000 MHz	4.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	~ 300.000 kHz
SweepPoints	101	~ 80
Sweeptime	18.938 µs	AUTO
Reference Level	-10.000 dBm	-10.000 dBm
Attenuation	10.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	0.50 dB	0.50 dB
Run	10 / max. 150	max. 150
Stable	5 / 5	5
Max Stable Difference	0.08 dB	0.50 dB

Appendix B.4: Test Results of Conducted Spurious Emissions Measured in 100 kHz Bandwidth

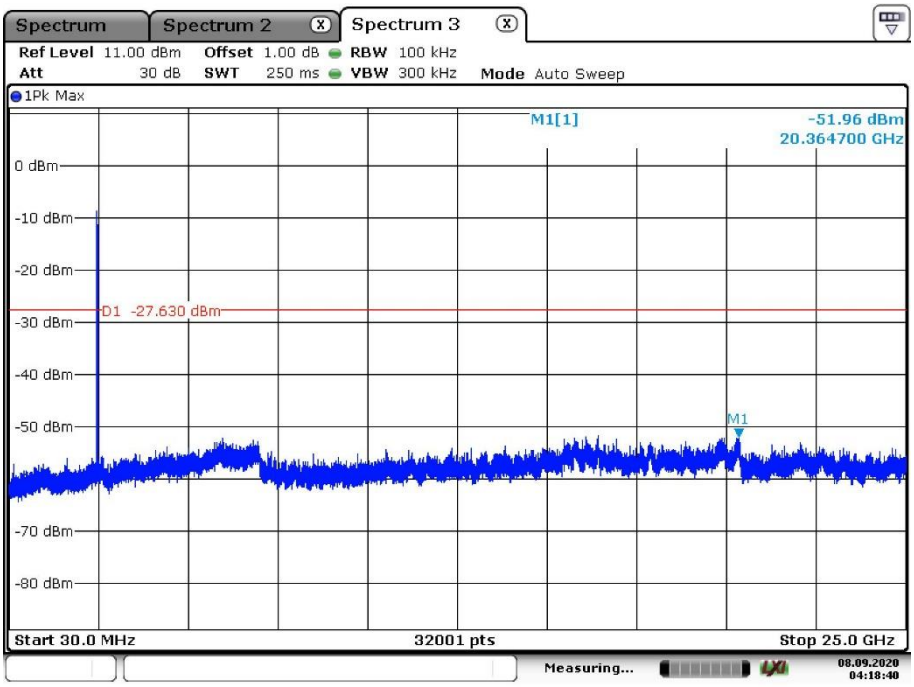
GFSK(BLE) Mode, 1Mbps



Date: 8.SEP.2020 04:20:01

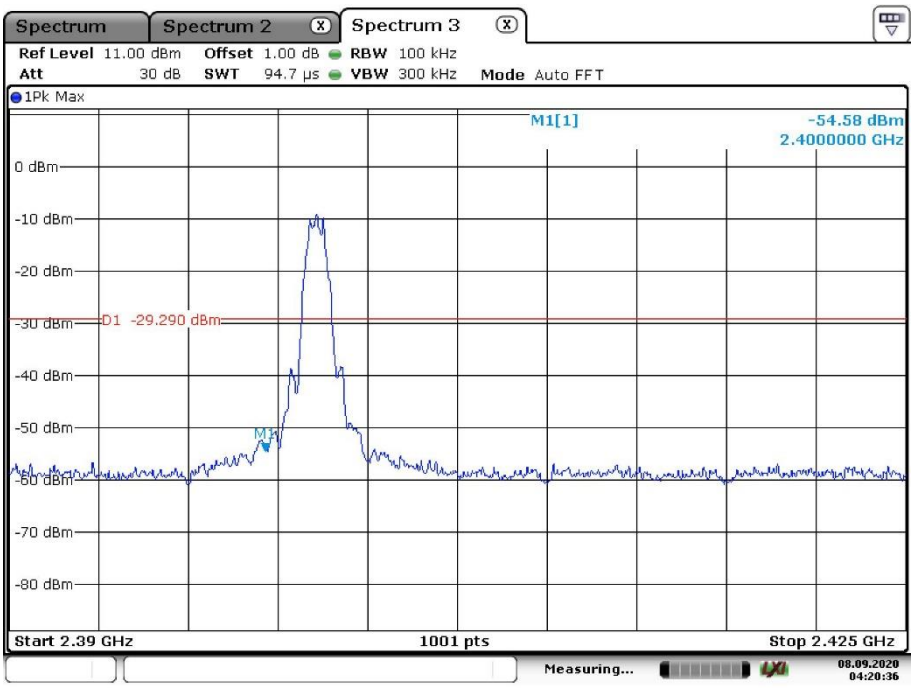


Date: 8.SEP.2020 04:19:17

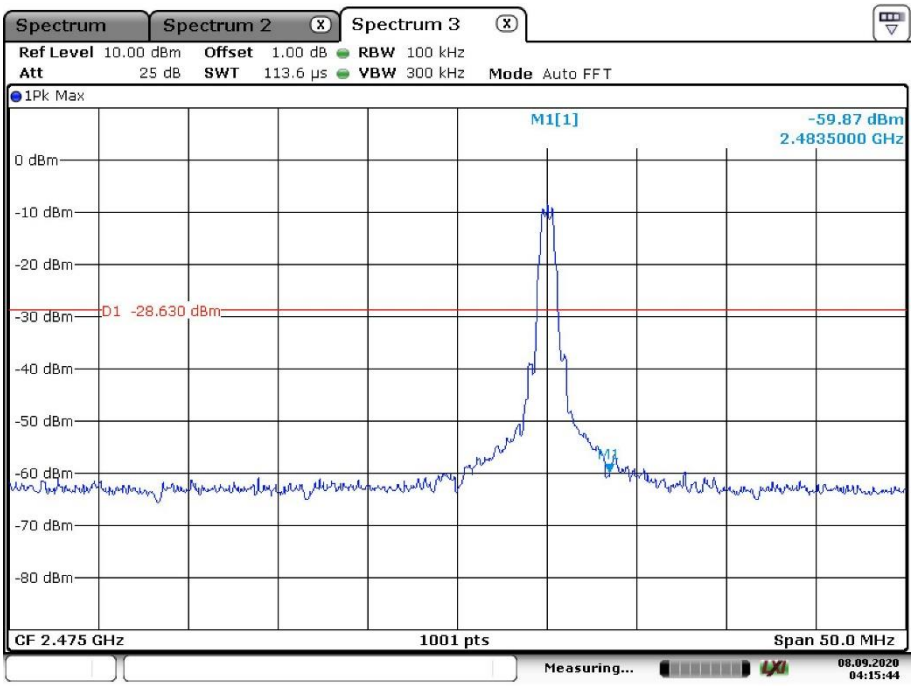


Date: 8.SEP.2020 04:18:41

GFSK(BLE) Mode, 1Mbps, Band Edge

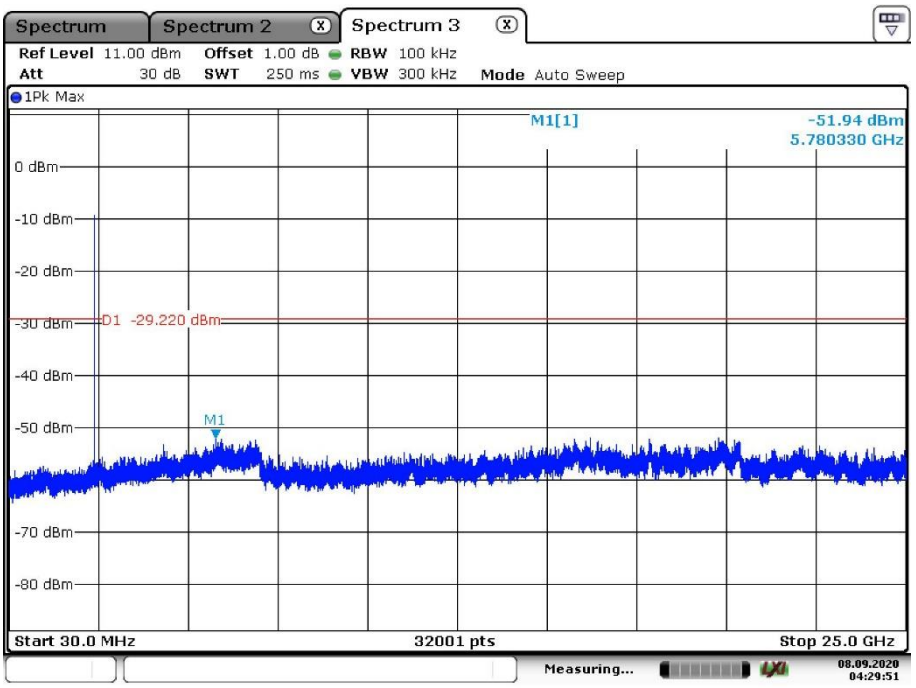


Date: 8.SEP.2020 04:20:37

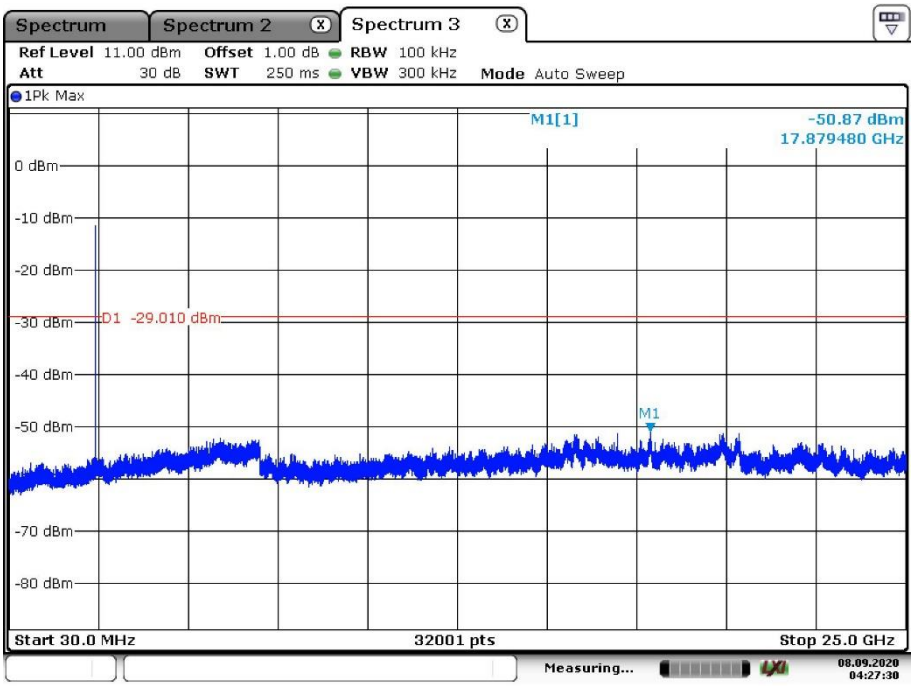


Date: 8.SEP.2020 04:15:45

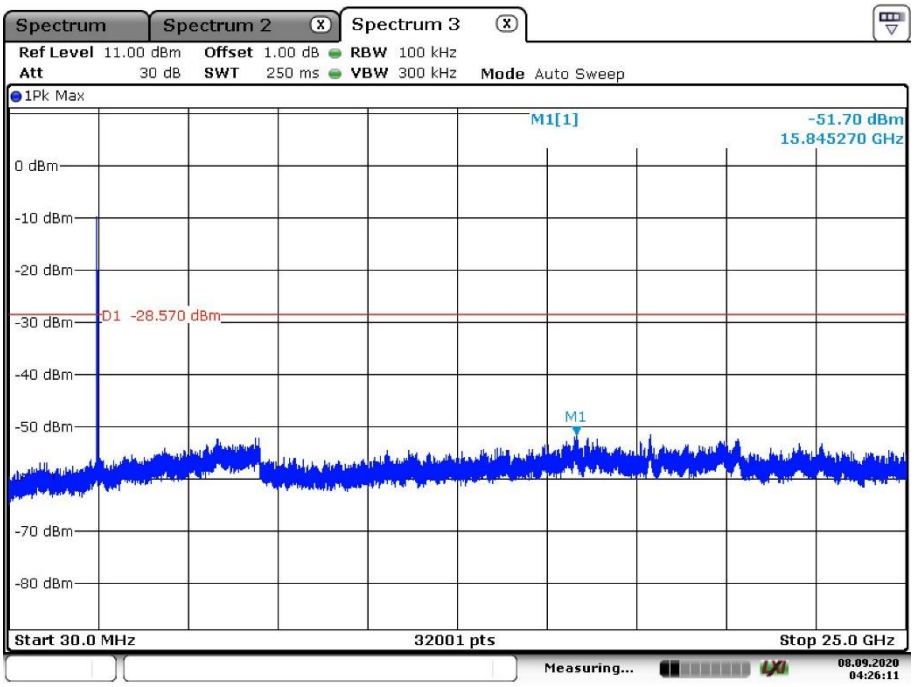
GFSK(BLE) Mode, 2Mbps



Date: 8.SEP.2020 04:29:52

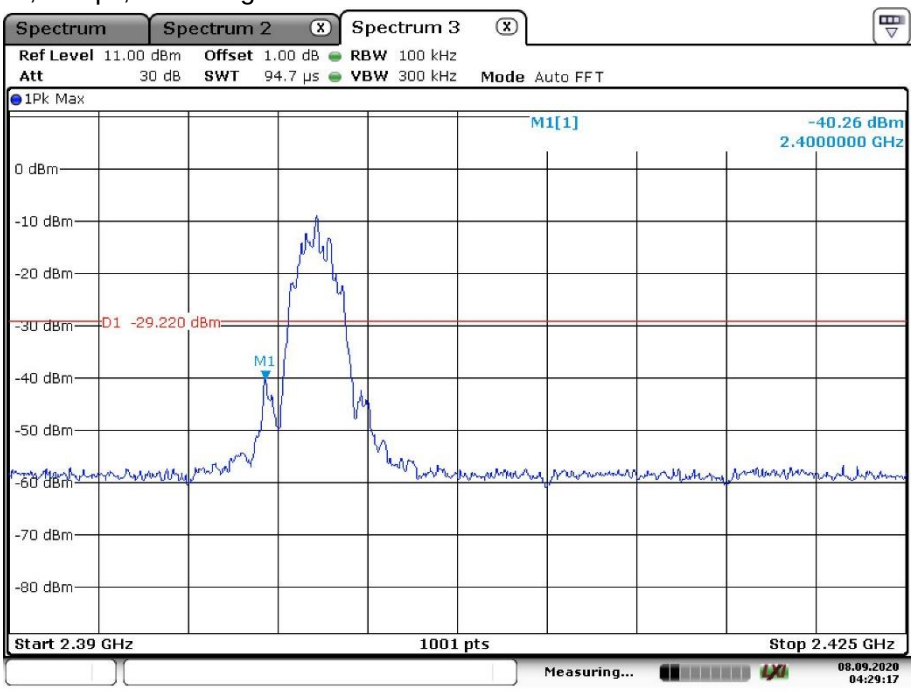


Date: 8.SEP.2020 04:27:30

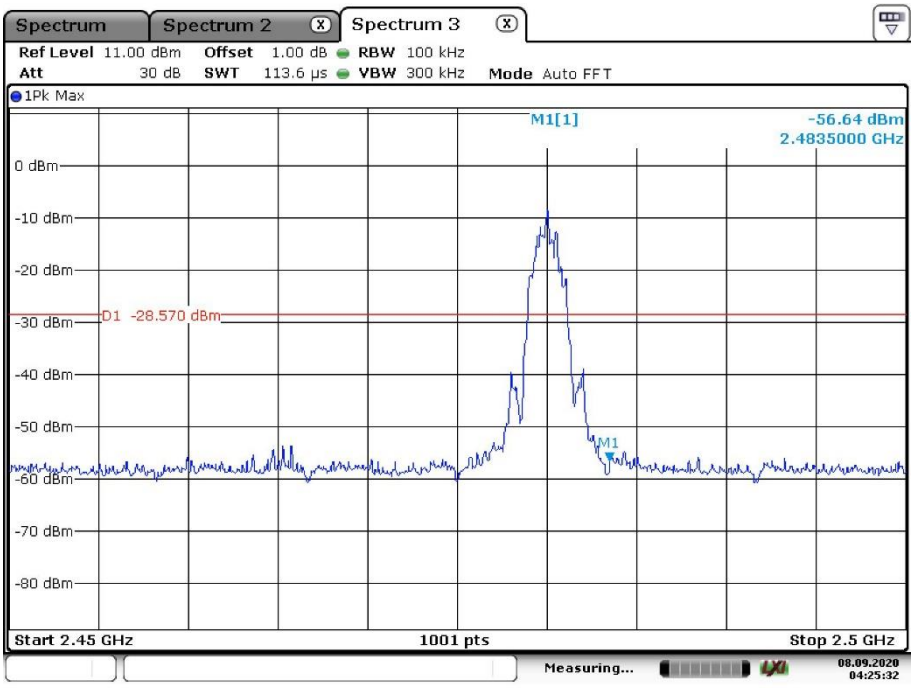


Date: 8.SEP.2020 04:26:12

GFSK(BLE) Mode, 2Mbps, Band Edge



Date: 8.SEP.2020 04:29:18



Date: 8.SEP.2020 04:25:32

Note: Testing was carried out within frequency range 9kHz to the tenth harmonics. The measurement results below 30MHz and 18GHz - 26.5GHz were greater than 20dB below the limit, so only the radiated spurious emissions from 30MHz to 18GHz were reported.

Appendix B.5: Test Results of Radiated Spurious Emissions

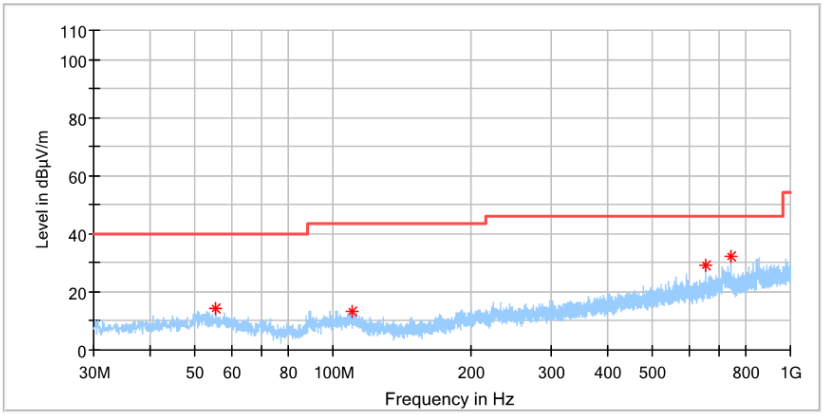
30MHz - 1GHz (Worst case)
GFSK(BLE) Mode, 1Mbps

EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_Low channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
55.511000	14.31	---	40.00	25.69	100.0	H	130.0	-18.8
110.122000	13.40	---	43.50	30.10	100.0	H	151.0	-19.4
653.322000	29.17	---	46.00	16.83	100.0	H	312.0	-9.3
742.465000	32.18	---	46.00	13.82	100.0	H	72.0	-7.7

Final_Result

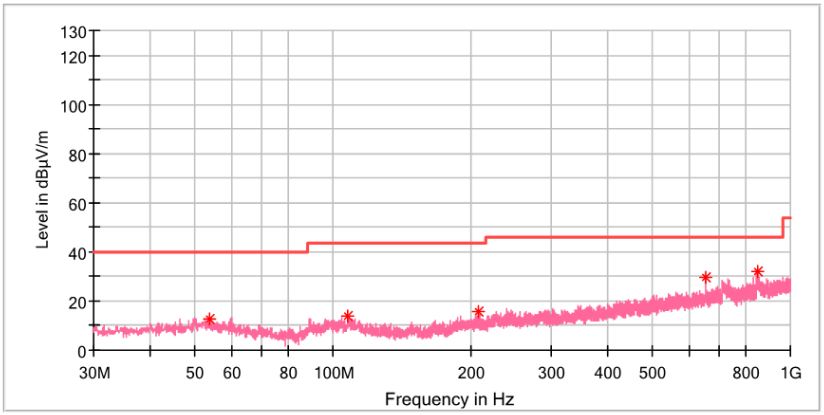
Frequency (MHz)	QuasiPeak (dB磺/m)	MaxPeak (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_Low channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
53.813500	12.88	---	40.00	27.12	100.0	V	173.0	-18.7
108.085000	13.78	---	43.50	29.72	100.0	V	41.0	-19.3
207.898000	16.02	---	43.50	27.48	100.0	V	225.0	-19.2
653.370500	29.38	---	46.00	16.62	100.0	V	287.0	-9.3
845.188000	31.83	---	46.00	14.17	100.0	V	318.0	-6.0

Final_Result

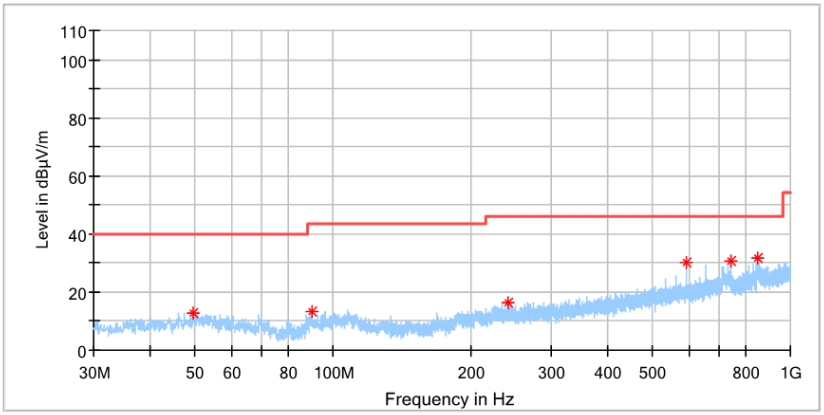
Frequency (MHz)	QuasiPeak (dB磺/m)	MaxPeak (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_High channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
49.497000	12.79	---	40.00	27.21	100.0	H	96.0	-18.6
89.946000	13.07	---	43.50	30.43	100.0	H	249.0	-21.3
242.430000	16.52	---	46.00	29.48	100.0	H	300.0	-17.9
593.958000	29.96	---	46.00	16.04	100.0	H	166.0	-10.3
742.465000	30.80	---	46.00	15.20	100.0	H	156.0	-7.7
845.576000	31.47	---	46.00	14.53	100.0	H	289.0	-6.0

Final_Result

Frequency (MHz)	QuasiPeak (dB磺/m)	MaxPeak (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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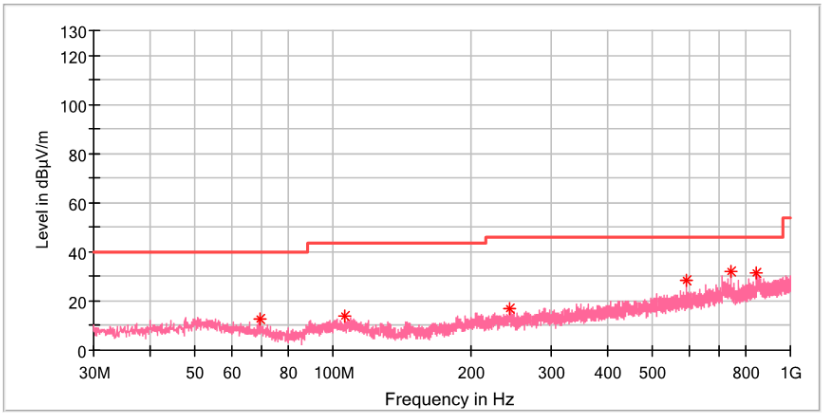
EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_High channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
69.091000	12.99	---	40.00	27.01	100.0	V	294.0	-21.8
105.854000	14.13	---	43.50	29.37	100.0	V	325.0	-19.1
244.127500	16.77	---	46.00	29.23	100.0	V	164.0	-17.9
593.958000	28.59	---	46.00	17.41	100.0	V	194.0	-10.3
742.465000	32.12	---	46.00	13.88	100.0	V	80.0	-7.7
845.042500	31.25	---	46.00	14.75	100.0	V	234.0	-6.0

Final_Result

Frequency (MHz)	QuasiPeak (dB磺/m)	MaxPeak (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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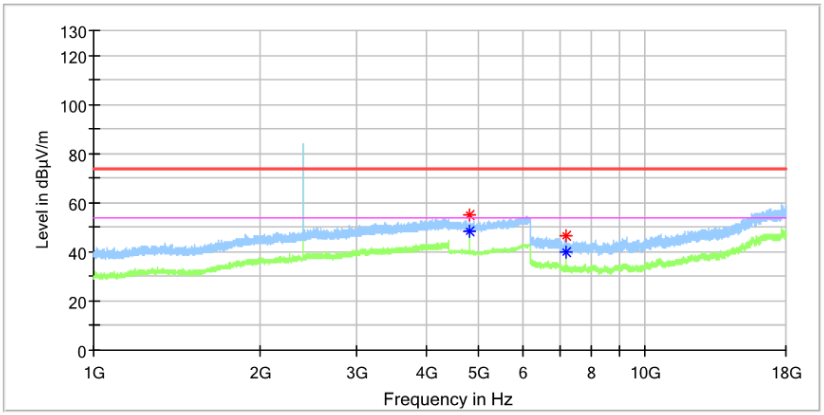
1GHz - 18GHz (Worst case)
GFSK(BLE) Mode, 1Mbps

EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_Low channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4804.000000	---	48.33	54.00	5.67	100.0	H	52.0	13.6
4804.500000	54.73	---	74.00	19.27	100.0	H	61.0	13.6
7204.966667	---	39.62	54.00	14.38	100.0	H	281.0	8.8
7206.933333	46.63	---	74.00	27.37	100.0	H	281.0	8.8

Final_Result

Frequency (MHz)	QuasiPeak (dB磺/m)	MaxPeak (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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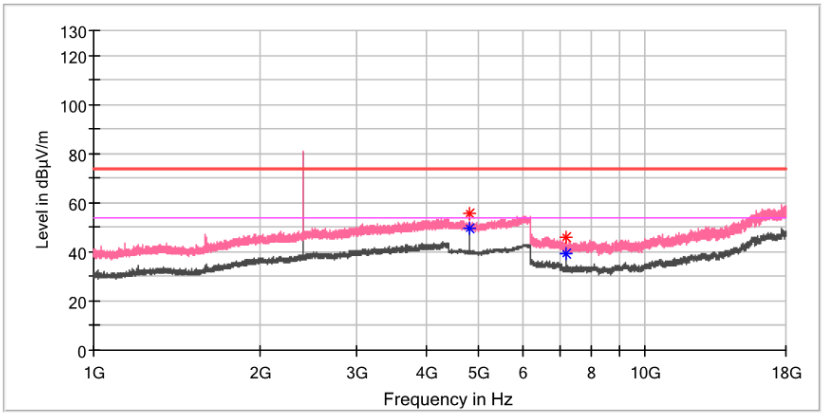
EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_Low channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4804.000000	55.45	---	74.00	18.55	100.0	V	55.0	13.6
4804.000000	---	49.44	54.00	4.56	100.0	V	55.0	13.6
7205.950000	---	39.06	54.00	14.94	100.0	V	213.0	8.8
7206.441667	46.13	---	74.00	27.87	100.0	V	213.0	8.8

Final_Result

Frequency (MHz)	QuasiPeak (dB磺/m)	MaxPeak (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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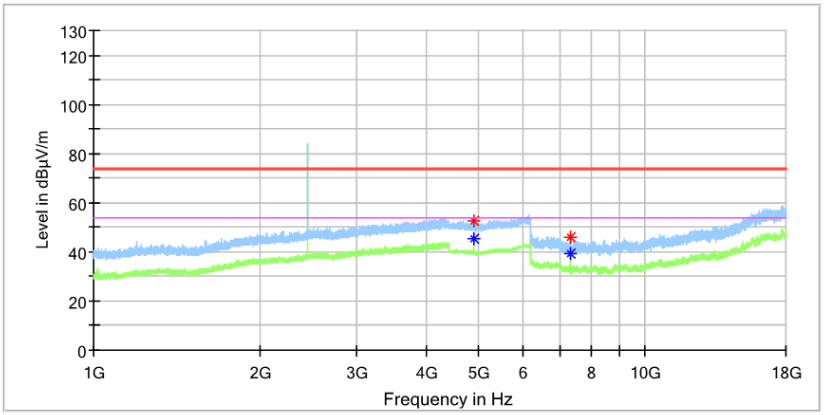
EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_Mid channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4880.000000	---	45.36	54.00	8.64	100.0	H	54.0	13.4
4880.500000	52.85	---	74.00	21.15	100.0	H	194.0	13.4
7319.525000	---	39.23	54.00	14.77	100.0	H	227.0	8.2
7320.016667	45.76	---	74.00	28.24	100.0	H	281.0	8.2

Final_Result

Frequency (MHz)	QuasiPeak (dB磺/m)	MaxPeak (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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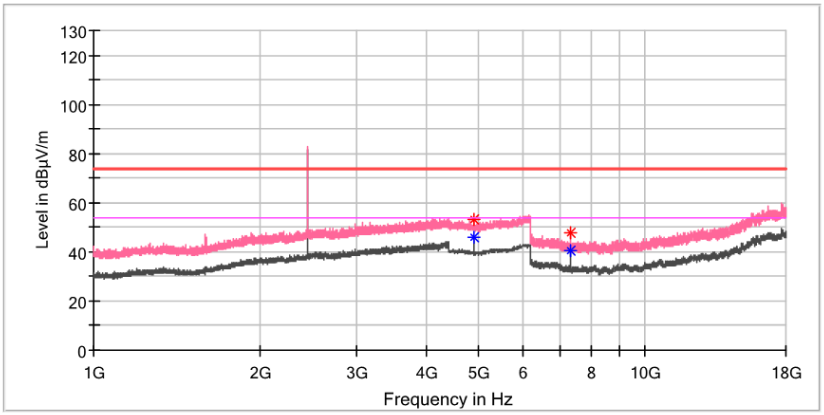
2/9/2020 6:54:09 PM

EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_Mid channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4879.500000	53.01	---	74.00	20.99	100.0	V	124.0	13.4
4880.000000	---	46.06	54.00	7.94	100.0	V	124.0	13.4
7320.016667	---	40.46	54.00	13.54	100.0	V	202.0	8.2
7320.508333	47.50	---	74.00	26.50	100.0	V	188.0	8.2

Final_Result

Frequency (MHz)	QuasiPeak (dB磺/m)	MaxPeak (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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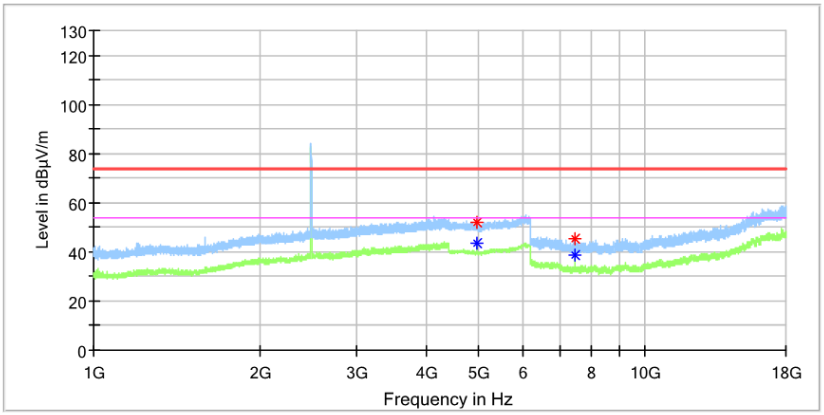
EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_High channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4960.000000	---	43.35	54.00	10.65	100.0	H	233.0	13.2
4960.500000	51.83	---	74.00	22.17	100.0	H	179.0	13.2
7439.000000	45.35	---	74.00	28.65	100.0	H	220.0	8.4
7439.000000	---	38.83	54.00	15.17	100.0	H	220.0	8.4

Final_Result

Frequency (MHz)	QuasiPeak (dB磺/m)	MaxPeak (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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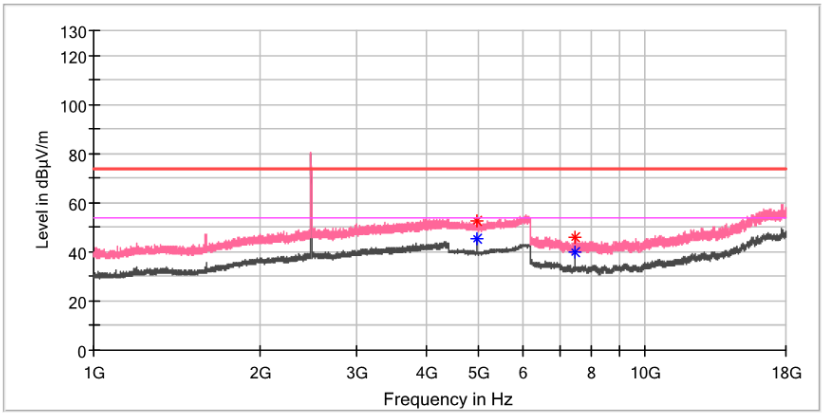
2/9/2020 6:34:21 PM

EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_High channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
4960.000000	---	45.36	54.00	8.64	100.0	V	86.0	13.2
4960.500000	52.60	---	74.00	21.40	100.0	V	86.0	13.2
7439.000000	---	39.89	54.00	14.11	100.0	V	255.0	8.4
7439.491667	46.06	---	74.00	27.94	100.0	V	271.0	8.4

Final_Result

Frequency (MHz)	QuasiPeak (dB磺/m)	MaxPeak (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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Note: The highest waveform in the figure is Wi-Fi Fundamental.

Appendix B.6: Test Results of Radiated Emissions in Restricted Bands

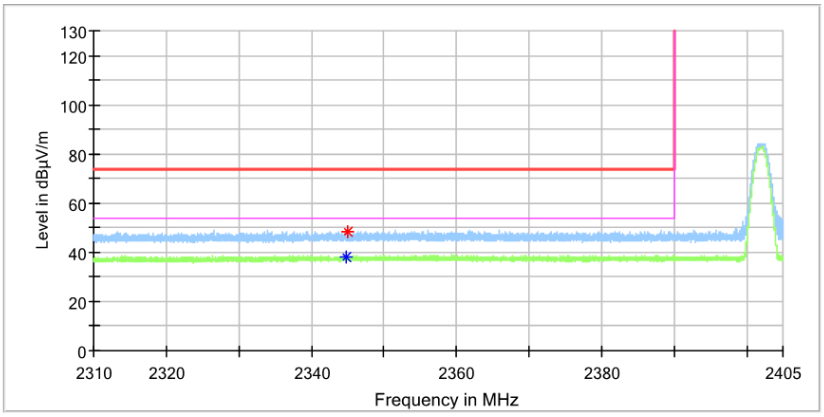
GFSK(BLE) Mode, 1Mbps (Worst case)

EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_Low channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2344.859063	---	38.13	54.00	15.87	100.0	H	354.0	6.9
2344.936250	48.27	---	74.00	25.73	100.0	H	68.0	6.9

Final_Result

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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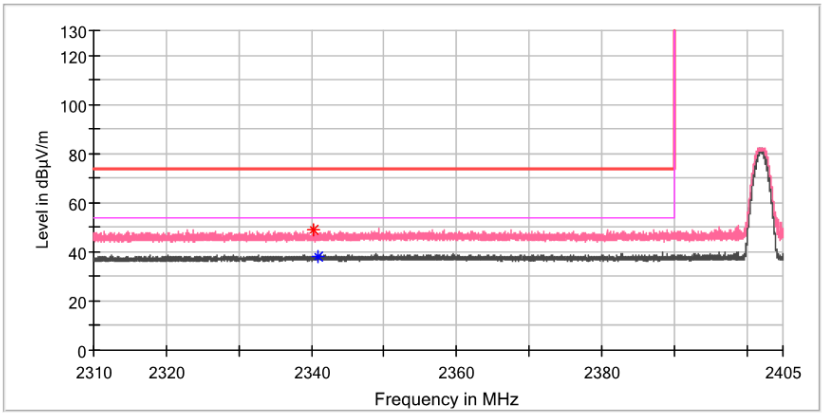
EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_Low channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2340.281250	48.68	---	74.00	25.32	100.0	V	323.0	6.8
2340.934375	---	38.03	54.00	15.97	100.0	V	359.0	6.8

Final_Result

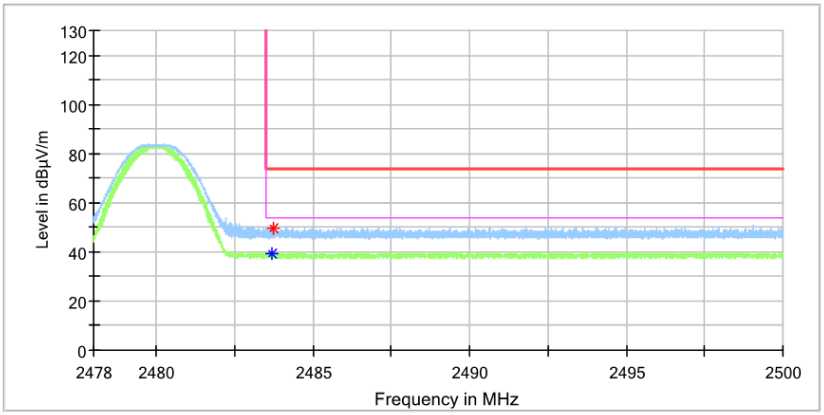
Frequency (MHz)	QuasiPeak (dB磺/m)	MaxPeak (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_High channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2483.706250	---	39.41	54.00	14.59	100.0	H	147.0	7.4
2483.746125	49.48	---	74.00	24.52	100.0	H	82.0	7.4

Final_Result

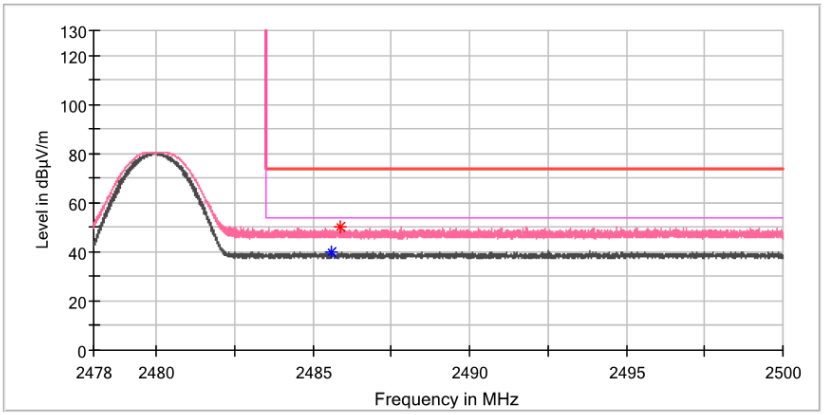
Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
---	---	---	---	---	---		---	---

EMI Auto Test(1) 1 / 1

Test Report

EUT Information

EUT Name:	NordZoneTM System Air Quality Monitor
Model:	9001 012 00
Test Mode:	BLE_High channel
Test Voltage::	Via USB port
Remark:	Temp 22 Humi:52%
Test Standard:	FCC 15.247
Tested By:	Kei Zhang
Reviewed By:	Terry Yin



Critical_Freqs

Frequency (MHz)	MaxPeak (dB磺/m)	Average (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
2485.609250	---	39.65	54.00	14.35	100.0	V	359.0	7.4
2485.859500	50.17	---	74.00	23.83	100.0	V	161.0	7.4

Final_Result

Frequency (MHz)	QuasiPeak (dB磺/m)	MaxPeak (dB磺/m)	Limit (dB磺/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)
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