

# FCC Test Report

# Report No.: AGC01110230925FR01

FCC ID	:	2AOKB-A3320M
APPLICATION PURPOSE	:	Original Equipment
PRODUCT DESIGNATION	:	Wireless microphone
BRAND NAME	:	AnkerWork
MODEL NAME	:	A3320
APPLICANT	:	Anker Innovations Limited
DATE OF ISSUE	:	Oct. 11, 2023
STANDARD(S)	:	FCC Part 15 Subpart C §15.247
REPORT VERSION	:	V1.0







# **Report Revise Record**

<b>Report Version</b>	Revise Time	Issued Date	Valid Version	Notes
V1.0	/	Oct. 11, 2023	Valid	Initial Release



# **Table of Contents**

1. General Information	5
2. Product Information	6
2.1 Product Technical Description	
2.2 Test Frequency List	6
2.3 Related Submittal(S) / Grant (S)	7
2.4 Test Methodology	7
2.5 Special Accessories	7
2.6 Equipment Modifications	7
2.7 Antenna Requirement	7
3. Test Environment	8
3.1 Address of the Test Laboratory	
3.2 Test Facility	
3.3 Environmental Conditions	9
3.4 Measurement Uncertainty	9
3.5 List of Equipment Use	
4.System Test Configuration	
4.1 EUT Configuration	
4.2 EUT Exercise	
4.3 Configuration of Tested System	
4.4 Equipment Used In Tested System	
4.5 Summary of Test Results	
5. Description of Test Modes	14
6. Duty Cycle Measurement	
7. RF Output Power Measurement	
7.1 Provisions Applicable	
7.2 Measurement Procedure	
7.3 Measurement Setup (Block Diagram of Configuration)	
7.4 Measurement Result	
8. 6dB Bandwidth Measurement	
8.1 Provisions Applicable	
8.2 Measurement Procedure	21
8.3 Measurement Setup (Block Diagram of Configuration)	21
8.4 Measurement Results	
9. Power Spectral Density Measurement	
9.1 Provisions Applicable	
9.2 Measurement Procedure	
9.3 Measurement Setup (Block Diagram of Configuration)	
9.4 Measurement Results	
10. Conducted Band Edge And Out-of-Band Emissions	



10.1 Provisions Applicable	
10.2 Measurement Procedure	
10.3 Measurement Setup (Block Diagram of Configuration)	34
10.4 Measurement Results	35
11. Radiated Spurious Emission	
11.1 Measurement Limits	46
11.2 Measurement Procedure	46
11.3 Measurement Setup (Block Diagram of Configuration)	49
11.4 Measurement Result	
12. AC Power Line Conducted Emission Test	68
12.1 Measurement Limits	68
12.2 Measurement Setup (Block Diagram of Configuration)	68
12.3 Preliminary Procedure of Line Conducted Emission Test	
12.4 Final Procedure of Line Conducted Emission Test	69
12.5 Measurement Results	69
Appendix I: Photographs of Test Setup	70
Appendix II: Photographs of Test EUT	



# **1. General Information**

Applicant	Anker Innovations Limited
Address	Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hongkong
Manufacturer	Anker Innovations Limited
Address	Room 1318-19, Hollywood Plaza, 610 Nathan Road, Mongkok, Kowloon, Hongkong
Factory	N/A
Address	N/A
Product Designation	Wireless microphone
Brand Name	AnkerWork
Test Model	A3320
Series Model(s)	N/A
Difference Description	N/A
Date of receipt of test item	Sep. 13, 2023
Date of Test	Sep. 13, 2023 - Oct.11, 2023
Deviation from Standard	No any deviation from the test method
Condition of Test Sample	Normal
Test Result	Pass
Test Report Form No	AGCER-FCC-SRD-V1

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

Prepared By

Cool chen

Cool Cheng (Project Engineer)

Oct. 11, 2023

in ·

Reviewed By

Calvin Liu (Reviewer)

Oct. 11, 2023

Approved By

Iran

Max Zhang (Authorized Officer)

Oct. 11, 2023



# 2. Product Information

## 2.1 Product Technical Description

Frequency Band	2400MHz-2483.5MHz
Operation Frequency Range	2402MHz-2480MHz
Modulation Type	GFSK
Number of channels	79
Channel Separation	1 MHz
Maximum Transmitter Power	Antenna 1: 6.426dBm Antenna 2: 5.977dBm
Hardware Version	V0.7
Software Version	V25.32.38
Antenna Designation	FPC Antenna
Antenna Gain	Antenna 1: 2.27dBi Antenna 2: 3.42dBi
Power Supply	DC 3.85V
Adapter Information	N/A

## 2.2 Test Frequency List

Frequency Band	Channel Number	Frequency			
	0	2402 MHz			
	1	2403 MHz			
2400~2483.5MHz	:	:			
	39	2441MHz			
	:	:			
	77	2479 MHz			
	78	2480 MHz			
Note: $f = 2402 + 1*k$ MHz, $k = 0,, 78$ 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: **2AOKB-A3320M**, 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 1 is 2.27dBi and the gain of the antenna 2 is 3.42dBi.



## 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 3.85V

## 3.4 Measurement Uncertainty

The reported uncertainty of measurement y ±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	$U_c = \pm 2 \%$
Uncertainty of Occupied Channel Bandwidth	U <sub>c</sub> = ±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	2023-06-01	2024-05-31	
$\boxtimes$	AGC-ER-E062	Power Sensor	Agilent	U2021XA	MY54110007	2023-03-03	2024-03-02	
$\boxtimes$	AGC-ER-E063	Power Sensor	Agilent	U2021XA	MY54110009	2023-03-03	2024-03-02	
$\boxtimes$	AGC-EM-A152	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2024-06-08	
$\boxtimes$	AGC-ER-E083	Signal Generator	Agilent	E4421B	US39340815	2023-06-01	2024-05-31	
$\boxtimes$	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)	
$\square$	AGC-EM-E046	EMI Test Receiver	R&S	ESCI	10096	2023-02-18	2024-02-17	
	AGC-EM-E116	EMI Test Receiver	R&S	ESCI	100034	2023-06-03	2024-06-02	
$\boxtimes$	AGC-EM-E061	Spectrum Analyzer	Agilent	N9010A	MY53470504	2023-06-01	2024-05-31	
$\boxtimes$	AGC-EM-E086	Loop Antenna	ZHINAN	ZN30900C	18051	2022-03-12	2024-03-11	
$\boxtimes$	AGC-EM-E001	Wideband Antenna	SCHWARZBECK	VULB9168	D69250	2023-05-11	2025-05-10	
	AGC-EM-E029	Broadband Ridged Horn Antenna	ETS	3117	00034609	2023-03-23	2024-03-22	
$\square$	AGC-EM-E082	Horn Antenna	SCHWARZBECK	BBHA 9170	#768	2021-10-31	2023-10-30	
$\square$	AGC-EM-E146	Pre-amplifier	ETS	3117-PA	00246148	2022-08-04	2024-08-03	
$\square$	AGC-EM-A119	2.4G Filter	SongYi	N/A	N/A	2023-06-01	2024-05-31	
$\square$	AGC-EM-A138	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2024-06-08	
	AGC-EM-A139	6dB Attenuator	Eeatsheep	LM-XX-6-5W	N/A	2023-06-09	2024-06-08	

• A	AC Power Line Conducted Emission						
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal. Date (YY-MM-DD)	Next Cal. Date (YY-MM-DD)
	AGC-EM-E045	EMI Test Receiver	R&S	ESPI	101206	2023-06-03	2024-06-02
	AGC-EM-E023	AMN	R&S	100086	ESH2-Z5	2023-06-03	2024/06/02



Test Software						
Used	Equipment No.	Test Equipment	Manufacturer	Model No.	Version Information	
$\boxtimes$	AGC-EM-S003	RE-Test System	FARA	EZ-EMC	VRA-03A	
$\boxtimes$	AGC-ER-S012	BT/WIFI-Test System	Tonscend	JS1120-2	2.6	
$\square$	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:

☐ Test Accessories Come From The Laboratory

No.	Equipment	Model No.	Manufacturer	Specification Information	Cable		
1	Control Box	N/A	N/A	USB-TTL			
	Test Accessories Come From The Manufacturer						
No.	Equipment	Model No.	Manufacturer	Specification Information	Cable		
1							



## 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)(1)	RF Output Power	Pass
3	§15.247 (a)(1)	6 dB Bandwidth	Pass
4	§15.247 (e)	Power Spectral Density	Pass
4	§15.247 (d)	Conducted Band Edge and Out-of-Band Emissions	Pass
5	§15.209	Radiated Emission& Band Edge	Pass
6	§15.207	AC Power Line Conducted Emission	Not applicable

Note: Typical RF working state, unable to operate normally during charging.



# 5. Description of Test Modes

	Summary Table of Test Cases				
	Data Rate / Modulation				
Test Item	2.4G / GFSK				
Radiated&Conducted Test Cases	Mode 1: 2.4G Tx CH00_2402 MHz (Battery powered) Mode 2: 2.4G Tx CH39_2441 MHz(Battery powered) Mode 3: 2.4G Tx CH78_2480 MHz(Battery powered)				
AC Conducted Emission	N/A				
<ul> <li>2. The battery is full-cha</li> <li>3. For Radiated Emission</li> <li>4. For Conducted Test n</li> <li>Serial</li> <li>Start</li> <li>Uart:-</li> <li>uart:-</li> </ul>	m, 3axis were chosen for testing for each applicable mode.         nethod, a temporary antenna connector is provided by the manufacture.         Software Setting Diagram         al-COM1 - SecureCRT         comput_power neg8dbm         start_tx_carrier         start_tx_carrier				
	~				



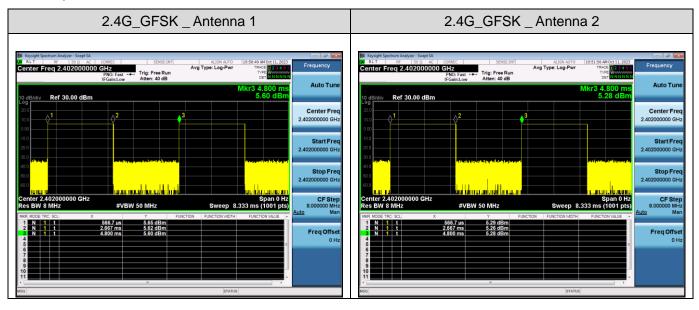
# 6. Duty Cycle Measurement

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)
2.4G_GFSK _ Antenna 1	2100.3	49.61	3.04	0.48
2.4G_GFSK _ Antenna 2	2100.3	49.61	3.04	0.48

Remark:

- 1. Duty Cycle factor =  $10 * \log (1/ \text{Duty cycle})$
- 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.

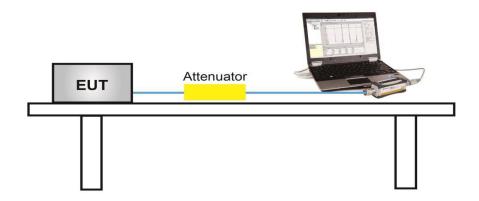
## 7.2 Measurement Procedure

For Peak Power, the testing follows ANSI C63.10 Section 11.9.1.2 Method Integrated band power:

- 1. Connect EUT RF output port to the Spectrum Analyzer through an RF attenuator
- 2. RBW > DTS bandwidth
- 3. VBW≥3\*RBW.
- 4. SPAN≥VBW.
- 5. Sweep: Auto.
- 6. Detector Function: Peak.
- 7. Trace: 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.

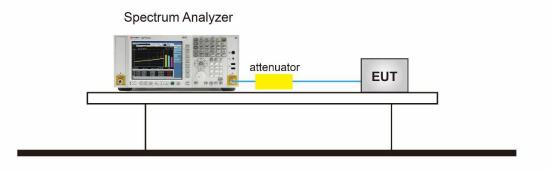
## 7.3 Measurement Setup (Block Diagram of Configuration)

For Average power test setup





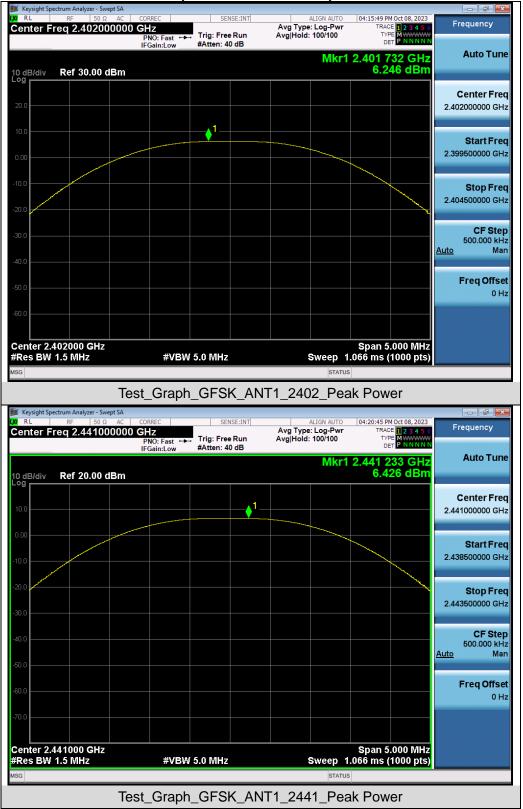
## For peak power test setup



## 7.4 Measurement Result

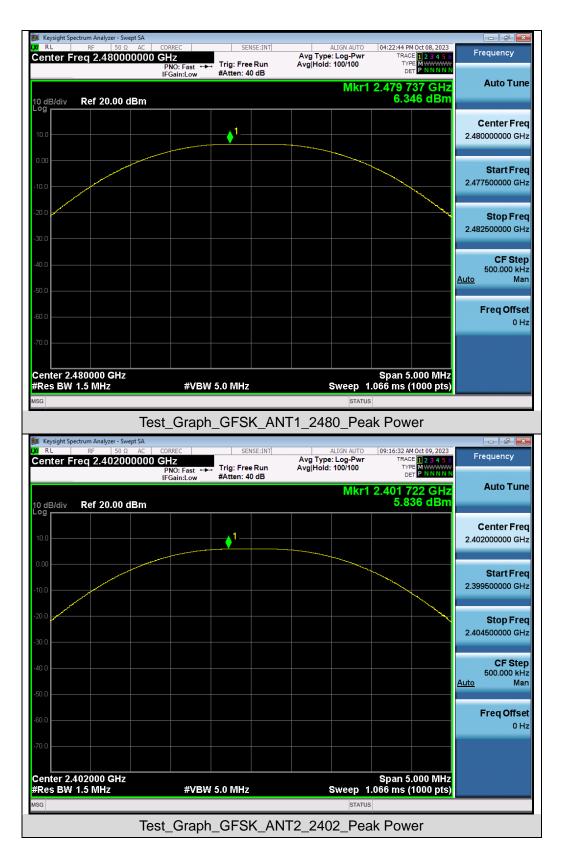
Test Data of Conducted Output Power					
Test Mode	Test Frequency (MHz)	Peak Power (dBm)	Limits (dBm)	Pass or Fail	
0.501/	2402	6.246	≪30	Pass	
GFSK- Antenna 1	2441	6.426	≪30	Pass	
	2480	6.346	≪30	Pass	
0.501/	2402	5.836	≪30	Pass	
GFSK- Antenna 2	2441	5.977	≪30	Pass	
Antenna 2	2480	5.911	≤30	Pass	



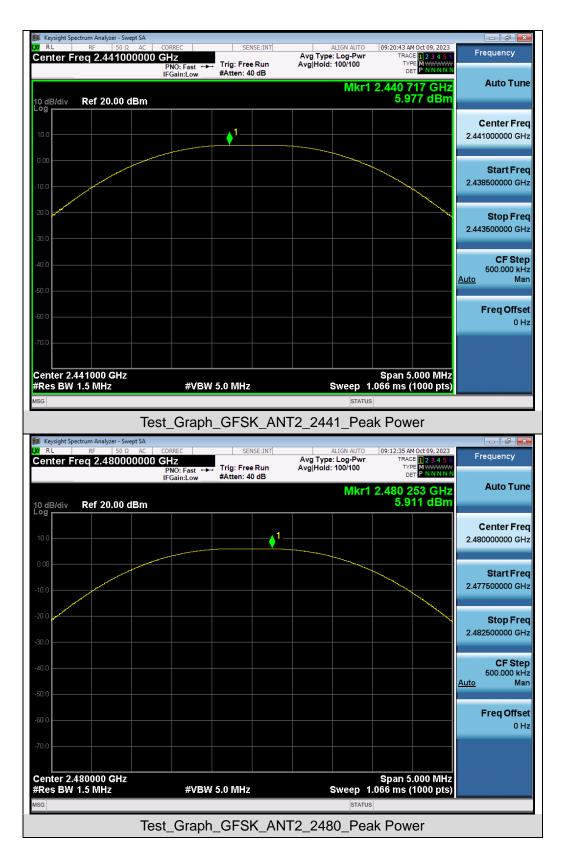


## Test Graphs of Conducted Output Power











## 8. 6dB Bandwidth Measurement

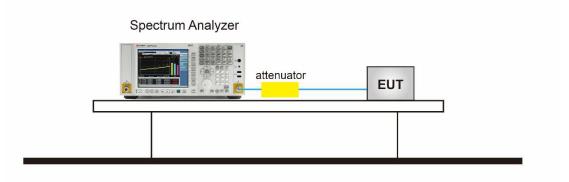
#### 8.1 Provisions Applicable

The minimum 6 dB bandwidth shall be 500 kHz.

## 8.2 Measurement Procedure

- 1. The testing follows the ANSI C63.10 Section 6.9.3 (OBW) and 11.8.1 (6dB BW).
- 2. 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.
- 3. Set to the maximum power setting and enable the EUT transmit continuously.
- 4. 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.
- For 99% Bandwidth Measurement, the spectrum analyzer's resolution bandwidth (RBW) is set 1-5% of the emission bandwidth and set the Video bandwidth (VBW) ≥ 3 \* RBW.
- 6. Measure and record the results in the test report.

## 8.3 Measurement Setup (Block Diagram of Configuration)

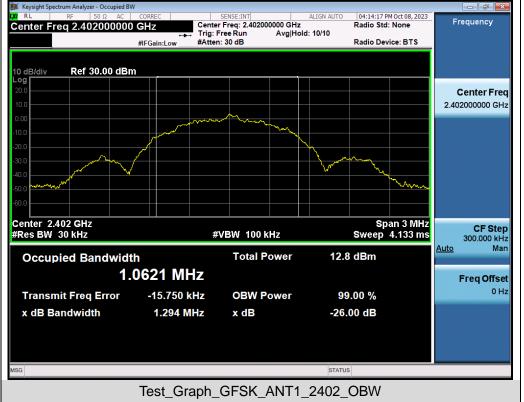




#### **8.4 Measurement Results**

Test Data of Occupied Bandwidth and DTS Bandwidth					
Test Mode	Test Frequency (MHz)	Occupied Bandwidth (MHz)	DTS BW (MHz)	DTS BW Limits	Pass or Fail
0.501/	2402	1.062	0.702	≥0.5	Pass
GFSK_ Antenna 1	2441	1.067	0.714	≥0.5	Pass
	2480	1.063	0.688	≥0.5	Pass
0.501/	2402	1.072	0.693	≥0.5	Pass
GFSK_ Antenna 2	2441	1.068	0.716	≥0.5	Pass
Antenna 2	2480	1.076	0.695	≥0.5	Pass

#### Test Graphs of Occupied Bandwidth





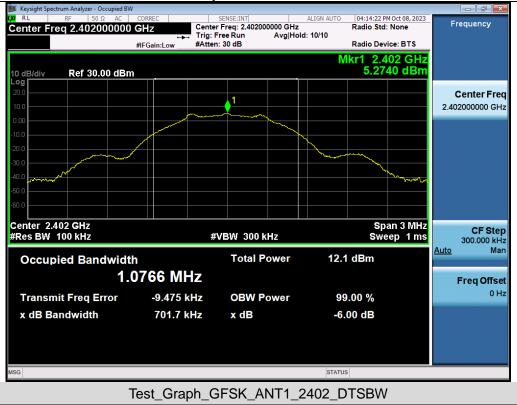




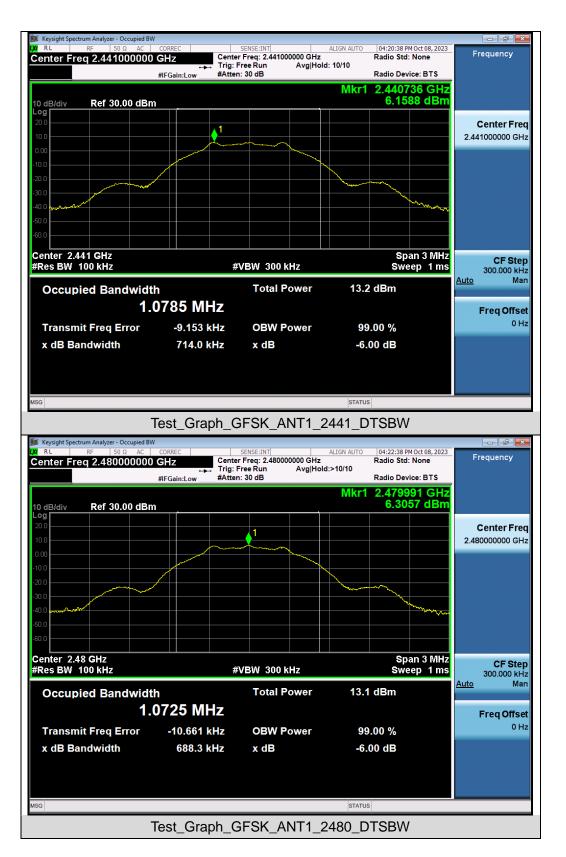




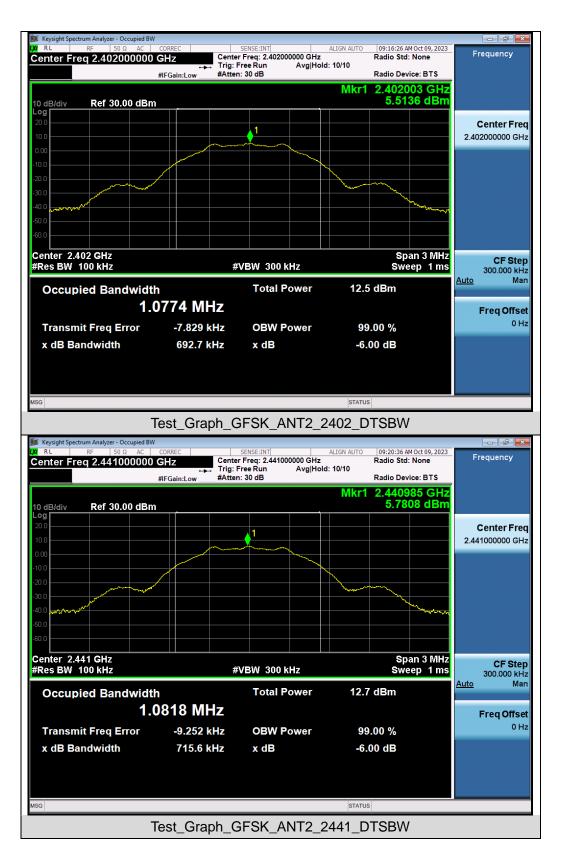




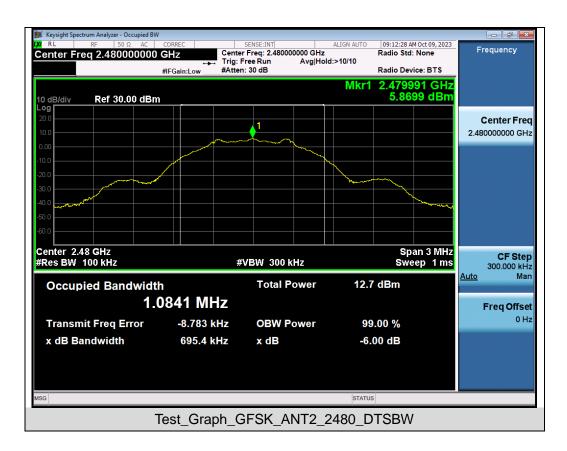














# 9. Power Spectral Density Measurement

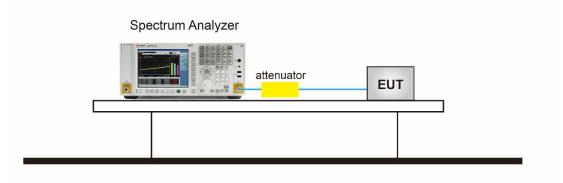
## 9.1 Provisions Applicable

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

- 1. The testing follows the ANSI C63.10 Section 11.10.2 Method PKPSD.
- 2. 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.
- 3. 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)
- 5. 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.
- 6. 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)

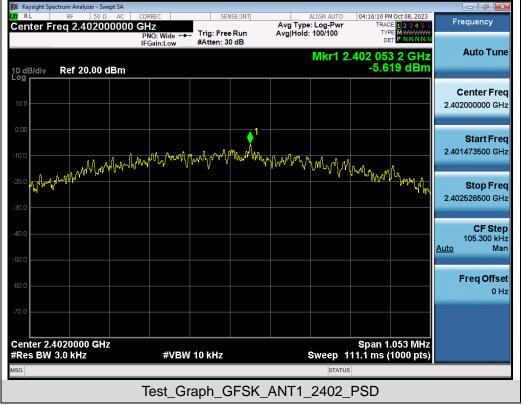




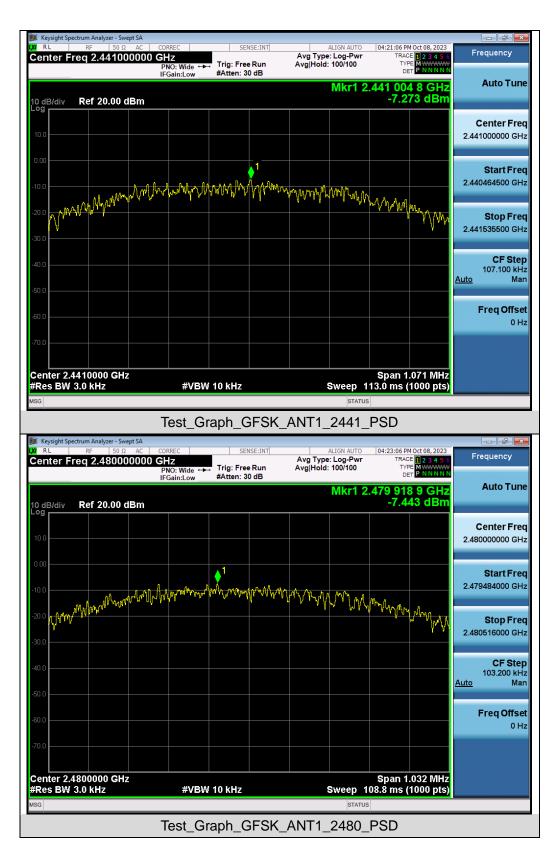
#### 9.4 Measurement Results

	Test Data of Conducted Output Power Spectral Density					
Test Mode	Test Frequency (MHz)	Power density (dBm/3kHz)	Limit (dBm/3kHz)	Pass or Fail		
0.501/	2402	-5.619	≪8	Pass		
GFSK_ Antenna 1	2441	-7.273	≪8	Pass		
	2480	-7.443	≪8	Pass		
	2402	-7.613	≪8	Pass		
GFSK_ Antenna 2	2441	-7.555	≪8	Pass		
Antenna z	2480	-7.425	≪8	Pass		

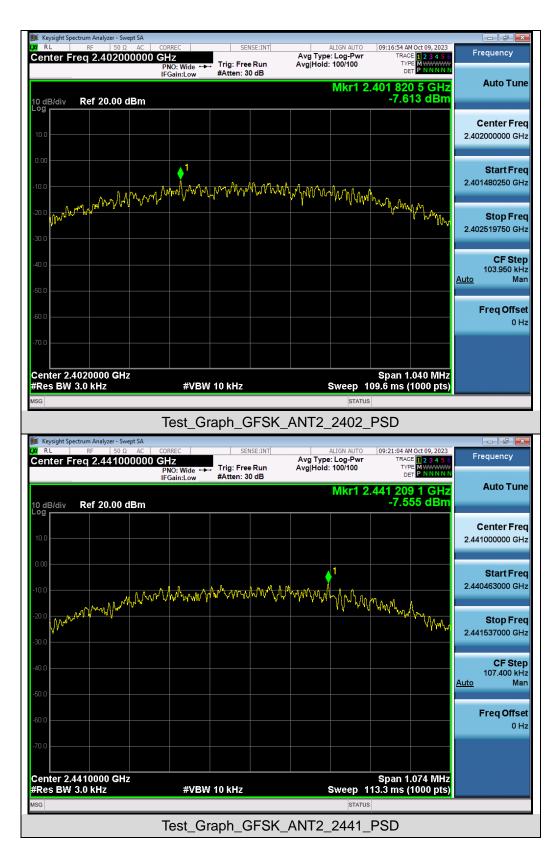
#### Test Graphs of Conducted Output Power Spectral Density



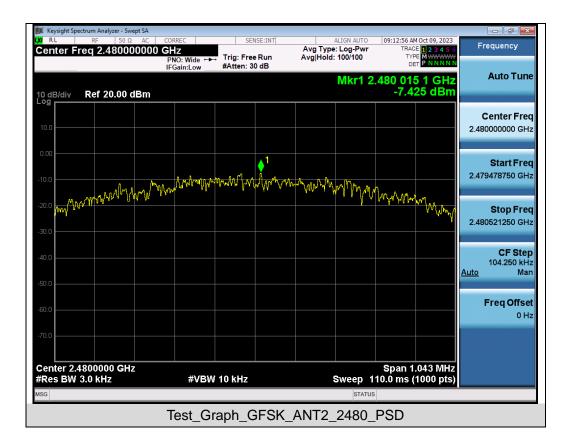














# 10. Conducted Band Edge And Out-of-Band Emissions

## **10.1 Provisions Applicable**

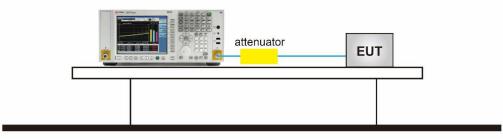
The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the PSD procedure.

#### **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  $\geq$  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

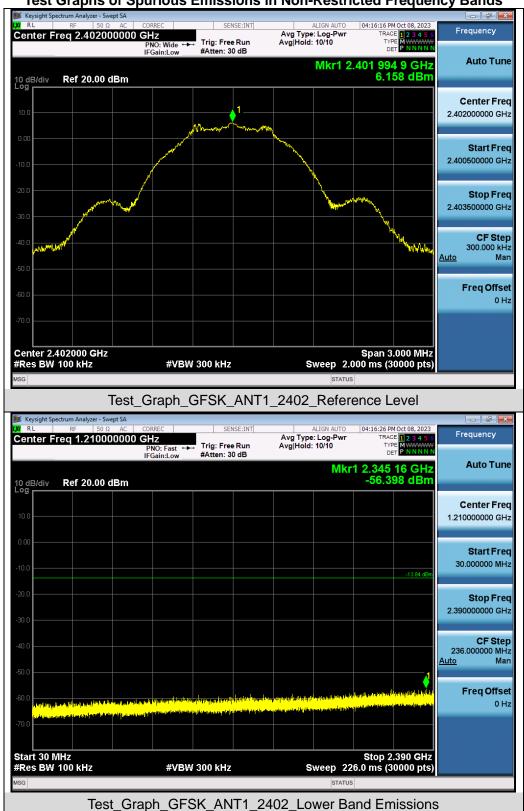
## 10.3 Measurement Setup (Block Diagram of Configuration)

Spectrum Analyzer



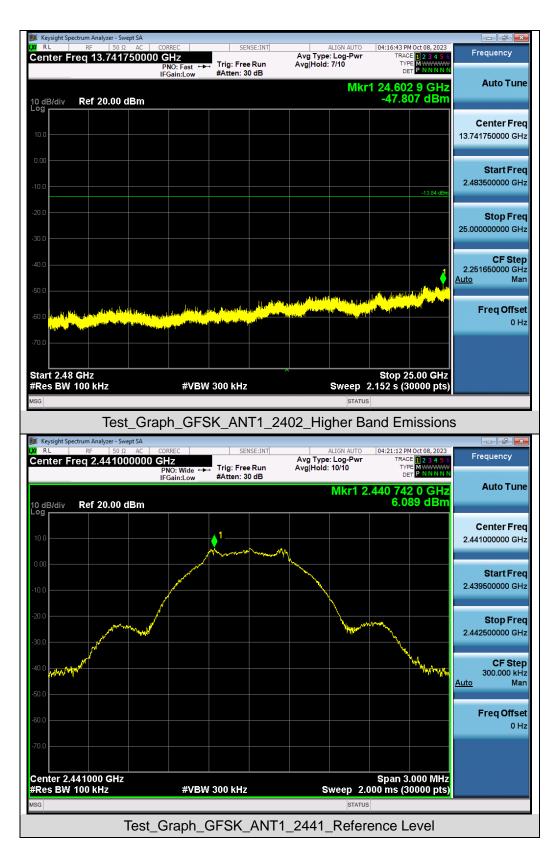


#### **10.4 Measurement Results**

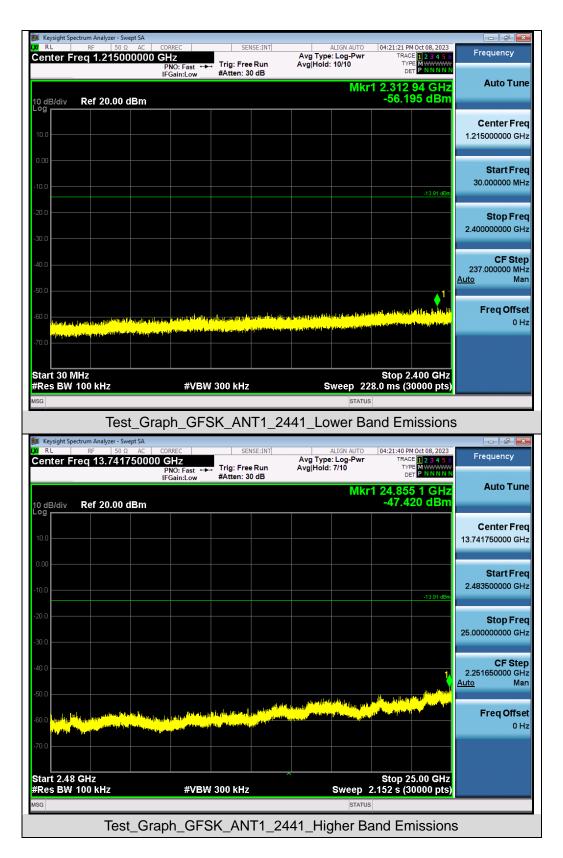


#### Test Graphs of Spurious Emissions in Non-Restricted Frequency Bands

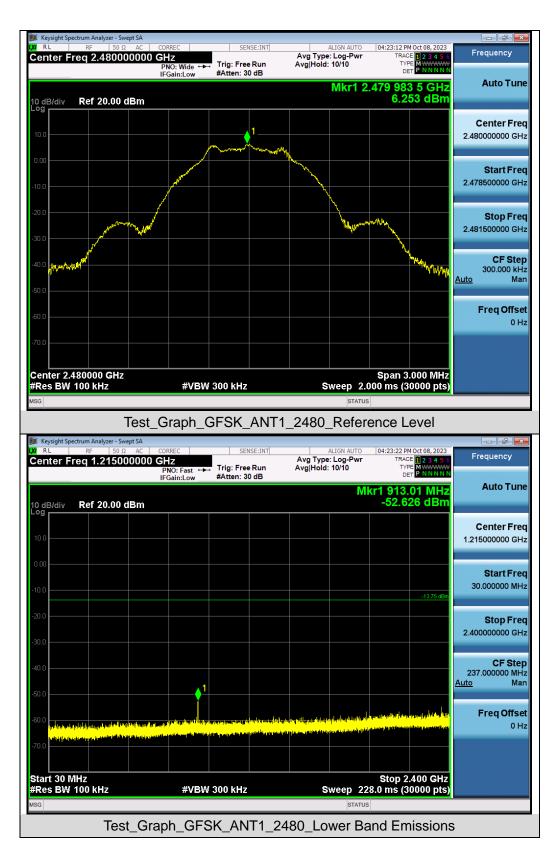




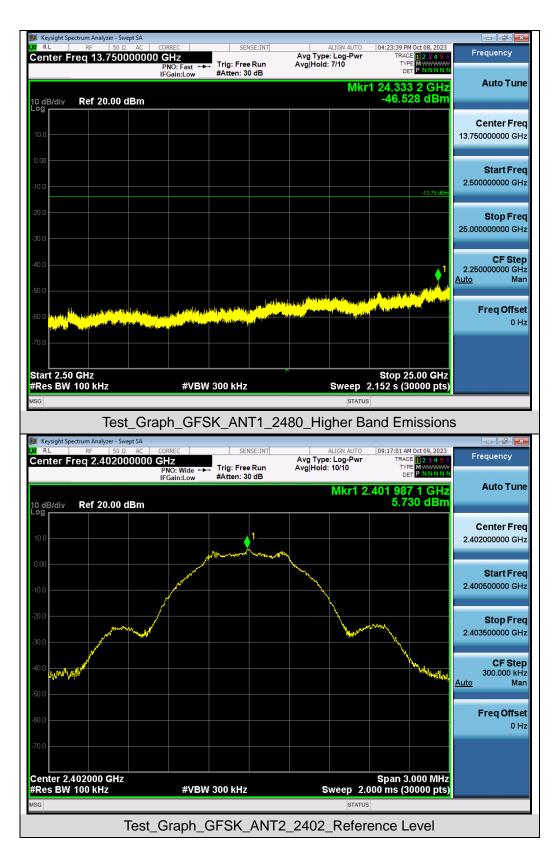




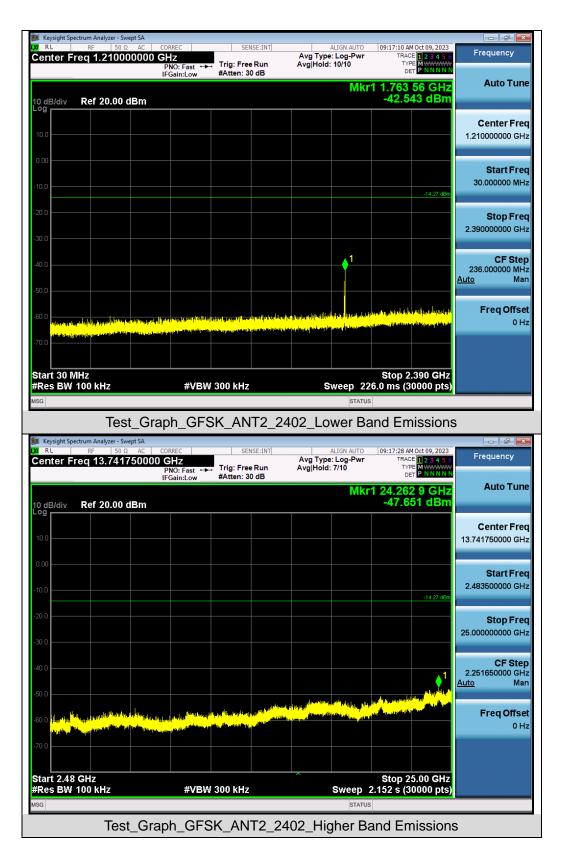




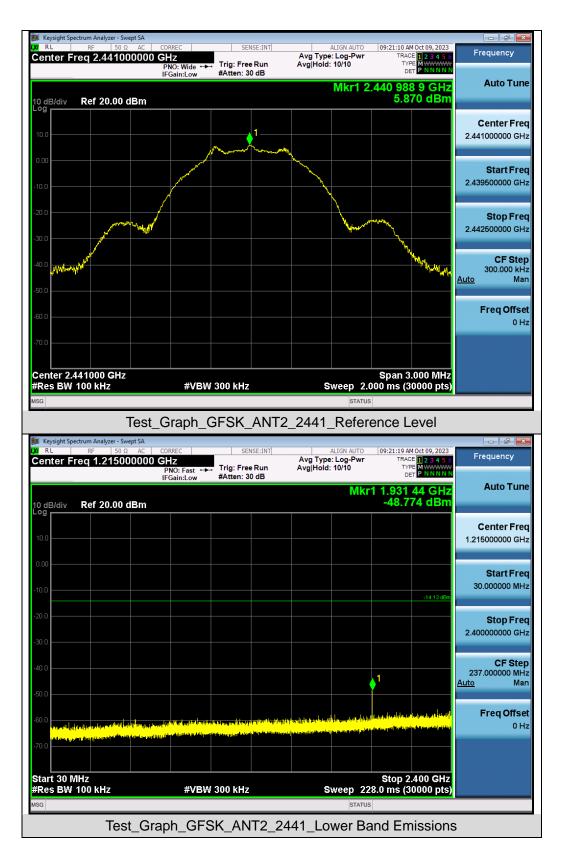




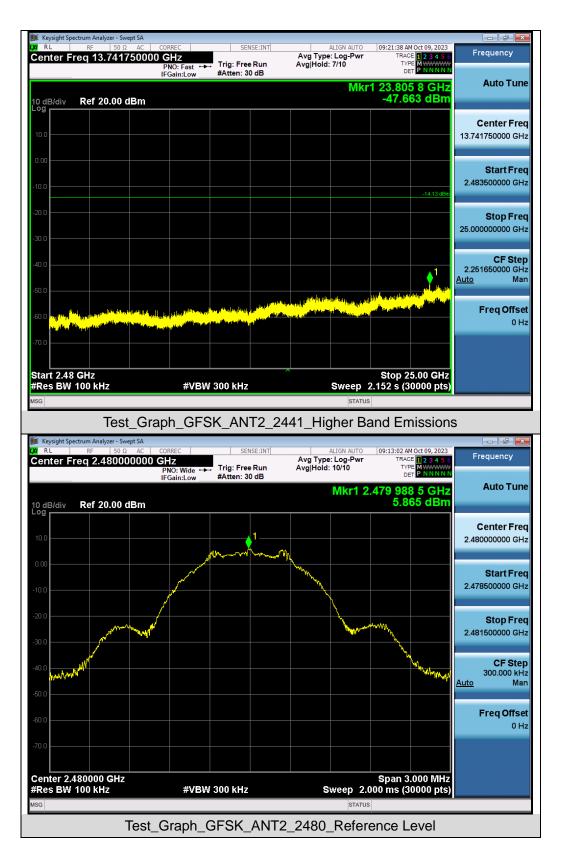




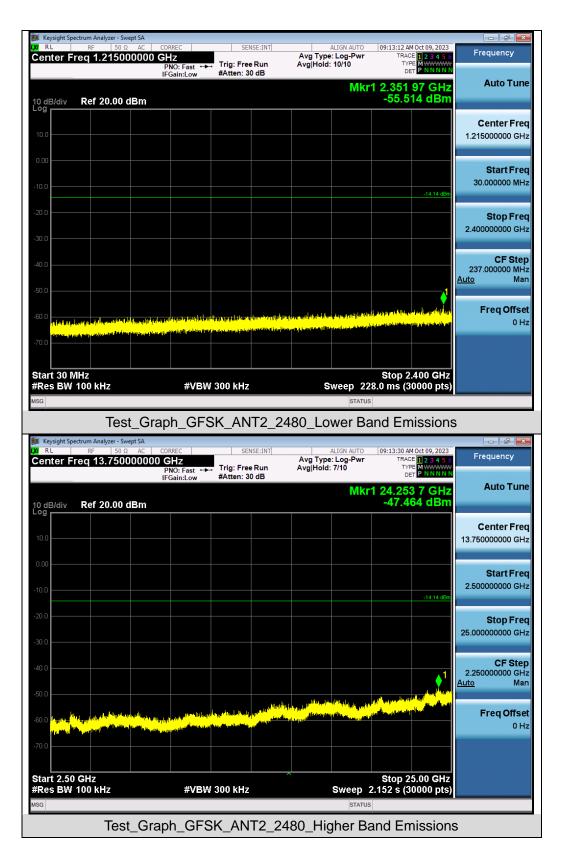




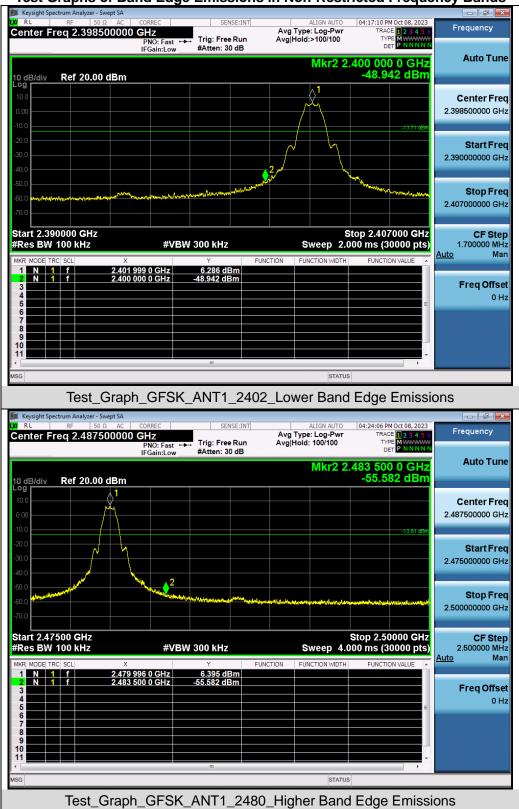






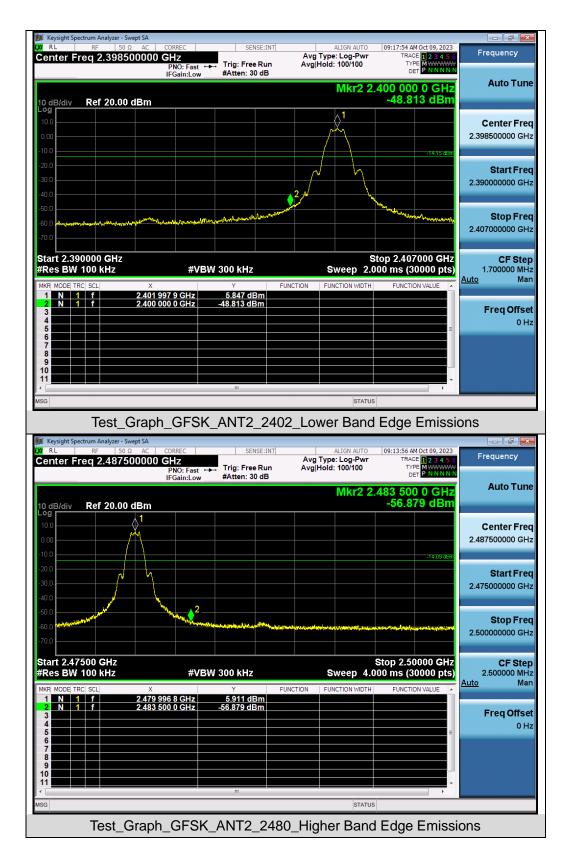






### Test Graphs of Band Edge Emissions in Non-Restricted Frequency Bands







# 11. Radiated Spurious Emission

# **11.1 Measurement Limits**

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.

Any rep Ashang alternative b(provided pther, transmitter aloperates a forrial orget https://www.casesin/whereiothe Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.



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.

- 8. 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.
- 9. 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.

10.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 ParameterSettingStart ~Stop Frequency9KHz~150KHz/RB 200Hz for QPStart ~Stop Frequency150KHz~30MHz/RB 9KHz for QPStart ~Stop Frequency30MHz~1000MHz/RB 120KHz for QPStart ~Stop Frequency1GHz~26.5GHzStart ~Stop Frequency1MHz/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

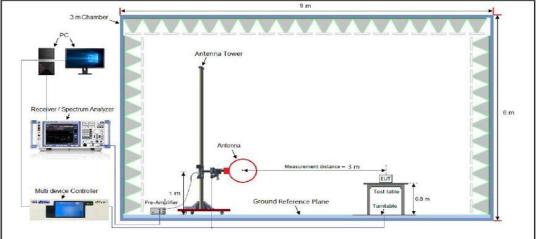
### <u>Average Measurements above 1GHz (Method VB)</u>

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = 1MHz
- 3. VBW setting requirements are as follows:
- 4. If the EUT is configured to transmit with duty cycle  $\ge$  98%, set VBW = 10 Hz.
- 5. If the EUT duty cycle is < 98%, set VBW  $\geq$  1/T. T is the minimum transmission duration.
- 6. Detector = Peak
- 7. Sweep time = auto
- 8. Trace mode = max hold
- 8. Trace was allowed to stabilize

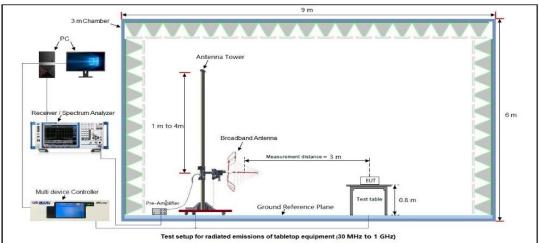


## 11.3 Measurement Setup (Block Diagram of Configuration)

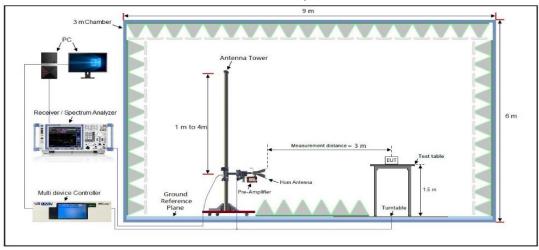




Radiated Emission Test Setup 30MHz-1000MHz



### Radiated Emission Test Setup Above 1000MHz



Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

 Attestation of Global Compliance(Shenzhen)Co., Ltd

 Attestation of Global Compliance(Shenzhen)Std & Tech Co., Ltd

 Tel: +86-755 2523 4088
 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.

						Antenna					
		1	F	Radiat	ed Emiss	ion Test Res	sults at	30MH	z-1GHz		
	lame	Wir	eless mic	cropho	ne		Мс	odel Na	me	A3320	
Temp	erature	24.2	2°C				Re	lative I	Humidity	57.4%	
Press	ure	960	)hPa				Те	st Volta	age	Normal Vo	oltage
Test N	lode	Mo	de 2				Ро	larity:		Horizontal	
	72.0	BuV/m									
	-8 30.000	) 4(			80	(MHz)	  } }	300		Limit: Margin: 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	000
Final	Data List					1			1		
NO.	Freq [MHz		Leve [dBµV		Factor [dB]	Limit [dBµV/m]		rgin IB]	Height [cm]	Angle [°]	Polarity
1	44.74	33	21.0	7	13.57	40.00	18	.93	100	160	Horizontal
2	106.75	87	24.4	0	16.27	43.50	19	9.1	100	170	Horizontal
3	452.71	96	31.3	6	24.65	46.00	14	.64	100	90	Horizontal

Any report having not been signed by authorized approver, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or excerpting portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test results presented in the report apply only to the tested sample. Any objections to report issued by AGC should be submitted to AGC within 15days after the issuance of the test report. Further enquiry of validity or verification of the test report should be addressed to AGC by agc01@agccert.com.

46.00

46.00

46.00

14.58

14.07

8.49

220

160

140

100

100

100

Horizontal

Horizontal

Horizontal

31.42

31.93

37.51

24.77

25.19

31.34

4

5

6

517.2480

618.5367

903.3093



			Radia	ted Emiss	ion Test Res	ults at 30MH	z-1GHz		
	lame	Wir	eless micropho	one		Model Na	ame	A3320	
Temp	erature	24.2	2°C			Relative	Humidity	57.4%	
Press	ure	960	hPa			Test Volta	age	Normal Vo	oltage
Test M	lode	Мо	de 2			Polarity:		Vertical	
	72.0	lBuV/m						-	
								Limit: — Margin: —	
	-								
								F	
								4 E X	
	32					Mala malk rain way say and	3 X	Munner	
			Angener Marine		2	11 martine	where any		
		www.							
	-8 30.000	) 4(	50 60 70	80	(MHz)	300	400 500 6	00 700 1000.	000
Final	Data List								
NO.	Freq [MHz		Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	44.58	67	26.86	16.95	40.00	13.14	100	160	Vertical
2	135.03	19	25.67	18.08	43.50	17.83	100	170	Vertical
3	452.71	96	32.58	25.53	46.00	13.42	100	90	Vertical
4	661.15	03	35.84	27.51	46.00	10.16	100	220	Vertical
5	719.19	92	34.80	28.77	46.00	11.2	100	160	Vertical
6	942.13	04	37.71	30.91	46.00	8.29	100	140	Vertical

# **RESULT: Pass**



					Antenna	2			
		1	Radi	ated Emiss	ion Test Res	ults at 30MH	lz-1GHz	1	
EUT N	lame	Wir	eless microph	none		Model Na	ame	A3320	
Temp	erature	24.2	2° C			Relative	Humidity	57.4%	
Press	ure	960	hPa			Test Volt	age	Normal Vo	oltage
Test N	lode	Mo	de 2			Polarity:		Horizontal	
	72.0	dBuV/m							
								Limit: — Margin: —	
	32						1.41 × 1	worky working	
	have	Whent	1 britterium and any open portants	and the second state of th	and a stand and a stand of the	window down to have been			
	-8								
	30.00	D 40	) 50 60 70	80	(MHz)	300	400 500 60	00 700 1000.	000
Final	Data List								
NO.	Freq [MHz		Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	43.96	58	19.64	13.62	40.00	20.36	100	160	Horizontal
2	112.91	96	22.36	16.33	43.50	21.14	100	170	Horizontal
3	444.85	514	30.93	24.93	46.00	15.07	100	90	Horizontal
4	528.24	58	31.30	24.66	46.00	14.7	100	220	Horizontal
5	616.37	'18	31.55	25.18	46.00	14.45	100	160	Horizontal
6	884.50	)27	34.85	29.86	46.00	11.15	100	140	Horizontal

Antenna 2

			Rad	liated Emiss	ion Test Res	ults at 30M	Hz-1GHz		
EUT N	lame	Wire	eless microp	hone		Model N	lame	A3320	
Temp	erature	24.2	° C			Relative	Humidity	57.4%	
Press	ure	960	hPa			Test Vo	tage	Normal Vo	oltage
Test M	lode	Moc	le 2			Polarity:		Vertical	
	72.0	dBu∀/m							
								Limit: — Margin: —	]
	32 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	wouldenrei	A www.rwaneroduste	Martin and Martin	when you and you have a second state of the se	n n n n n n n n n n n n n n n n n n n	and have a state of the state o		
	-8 30.000		50 60	70 80	(MHz)	300	400 500 6	00 700 1000.	.000
	30.000								
Final NO.	30.000	.	50 60 5	Factor	(MH₂) Limit [dBµV/m]	300 Margin [dB]	400 500 6 Height [cm]	00 700 1000. Angle [°]	Polarity
	30.000 Data List Freq	2]	Level	Factor	Limit	Margin	Height	Angle	
NO.	30.000 Data List Freq [MHz	ː] 33	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
NO. 1	30.000 Data List Freq [MHz 44.743	2] 33 505	Level [dBµV/m] 26.21	Factor [dB] 16.95	Limit [dBµV/m] 40.00	Margin [dB] 13.79	Height [cm] 100	Angle [°] 160	Polarity Vertical
NO. 1 2	30.000 Data List Freq [MHz 44.743 145.35	2] 33 505 425	Level [dBµV/m] 26.21 24.53	Factor [dB] 16.95 18.20	Limit [dBµV/m] 40.00 43.50	Margin [dB] 13.79 18.97	Height [cm] 100 100	Angle [°] 160 170	Polarity Vertical Vertical
NO. 1 2 3	30.000 <b>Data List</b> Freq [MHz 44.743 145.35 441.74	2] 333 505 525 443	Level [dBµV/m] 26.21 24.53 32.78	Factor [dB] 16.95 18.20 26.02	Limit [dBµV/m] 40.00 43.50 46.00	Margin [dB] 13.79 18.97 13.22	Height [cm] 100 100 100	Angle [°] 160 170 90	Polarity Vertical Vertical Vertical

# **RESULT: Pass**

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

2. All test modes had been pre-tested. The mode 2 is the worst case and recorded in the report.



Antenna 1 Radiated Emissions Test Results for Above 1 GHz

EUT Name		Wireless m	nicrophone		Mode	el Name	A3320	
Temperature		24.2°C			Relat	ive Humidity	57.4%	
Pressure		960hPa			Test	Voltage	Normal V	oltage
Test Mode		Mode 1			Anter	nna Polarity	Horizonta	I
Frequency	Mete	er Reading	Factor	Emissio	n Level	Limits	Margin	Value Type
(MHz)		(dBµV)	(dB)	(dBµ\	//m)	(dBµV/m)	(dB)	value Type
4804.000		48.63	0.08	48.7	71	74	-25.29	peak
4804.000		37.94	0.08	38.0	)2	54	-15.98	AVG
7206.000		42.15	2.21	44.3	36	74	-29.64	peak
7206.000		31.67	2.21	33.8	38	54	-20.12	AVG
<u> </u>								
Remark:								
Factor = Anter	ına ⊢a	nctor + ( 'abl	ALACC Dra					
			E LUSS - FIE-	ampiller.				
EUT Name			nicrophone	ampiller.	Mode	I Name	A3320	
						I Name	A3320 57.4%	
EUT Name		Wireless m			Relat			oltage
EUT Name Temperature		Wireless m 24.2°C			Relat	ive Humidity	57.4%	oltage
EUT Name Temperature Pressure Test Mode		Wireless m 24.2° C 960hPa Mode 1			Relat Test V Anter	ive Humidity Voltage nna Polarity	57.4% Normal V Vertical	1
EUT Name Temperature Pressure Test Mode	Mete	Wireless m 24.2°C 960hPa Mode 1 er Reading	nicrophone	Emissio	Relat Test V Anter	ive Humidity Voltage nna Polarity Limits	57.4% Normal V Vertical Margin	oltage Value Type
EUT Name Temperature Pressure Test Mode Frequency (MHz)	Mete	Wireless m 24.2° C 960hPa Mode 1	nicrophone Factor (dB)	Emissio	Relat Test V Anter n Level //m)	ive Humidity Voltage nna Polarity Limits (dBµV/m)	57.4% Normal V Vertical	1
EUT Name Temperature Pressure Test Mode Frequency (MHz) 4804.000	Mete	Wireless m 24.2° C 960hPa Mode 1 er Reading (dBµV) 47.54	Factor (dB) 0.08	Emissio (dBµ\ 47.6	Relat Test V Anter n Level //m)	ive Humidity Voltage nna Polarity Limits	57.4% Normal V Vertical Margin (dB) -26.38	- Value Type
EUT Name Temperature Pressure Test Mode Frequency (MHz) 4804.000 4804.000	Mete	Wireless m 24.2°C 960hPa Mode 1 er Reading (dBµV)	Factor (dB) 0.08 0.08	Emissio (dBµ\	Relat Test V Anter n Level //m) 52 72	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74	57.4% Normal V Vertical Margin (dB)	- Value Type peak
EUT Name Temperature Pressure Test Mode Frequency (MHz) 4804.000	Mete	Wireless m 24.2° C 960hPa Mode 1 er Reading (dBµV) 47.54 37.64	Factor (dB) 0.08	Emissio (dBµ\ 47.6	Relat Test V Anter n Level //m) 52 72 26	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74 54	57.4% Normal V Vertical Margin (dB) -26.38 -16.28	Value Type peak AVG
EUT Name Temperature Pressure Test Mode Frequency (MHz) 4804.000 4804.000 7206.000	Mete	Wireless m 24.2° C 960hPa Mode 1 er Reading (dBµV) 47.54 37.64 42.05	Factor (dB) 0.08 0.08 2.21	Emissio (dBµ\ 47.6 37.7 44.2	Relat Test V Anter n Level //m) 52 72 26	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74 54 74	57.4% Normal V Vertical Margin (dB) -26.38 -16.28 -29.74	- Value Type peak AVG peak
EUT Name Temperature Pressure Test Mode Frequency (MHz) 4804.000 4804.000 7206.000	Mete	Wireless m 24.2° C 960hPa Mode 1 er Reading (dBµV) 47.54 37.64 42.05	Factor (dB) 0.08 0.08 2.21	Emissio (dBµ\ 47.6 37.7 44.2	Relat Test V Anter n Level //m) 52 72 26	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74 54 74	57.4% Normal V Vertical Margin (dB) -26.38 -16.28 -29.74	- Value Type peak AVG peak

# **RESULT: Pass**



EUT Name		Wireless m	nicrophone		Mode	el Name		A3320	
<b>Femperature</b>		24.2°C			Relat	tive Humidi	ty	57.4%	
Pressure		960hPa			Test	Voltage		Normal	Voltage
Fest Mode		Mode 2			Ante	nna Polarity	у	Horizon	tal
								•	
Frequency	M	eter Reading	Factor	Emission	Level	Limits		Margin	Value Type
(MHz)		(dBµV)	(dB)	(dBµV/	m)	(dBµV/m)		(dB)	value Type
4882.000		46.92	0.14	47.06	3	74		-26.94	peak
4882.000		36.28	0.14	36.42	2	54		-17.58	AVG
7323.000		41.05	2.36	43.41	1	74		-30.59	peak
7323.000	$\perp$	32.57	2.36	34.93	3	54		-19.07	AVG
	—		<u> </u>				_		
Remark:			<u> </u>						
	onna [		le Loss – Pre						
					<u> </u>				
EUT Name		Wireless n	nicrophone		Mode	el Name		A3320	
Temperature		24.2°C			Relat	tive Humidi	ty	57.4%	
Pressure		960hPa			Teet	Voltage		Normal	Voltage
1000010					rest	vonage			
Test Mode		Mode 2				nna Polarit	y	Vertical	
Test Mode		Mode 2			Anter	nna Polarit		Vertical	
Frequency		Mode 2	Factor	Emission Le	Anter	nna Polarit	Ma	Vertical	Value Type
Frequency (MHz)	(	Mode 2 r Reading dBµV)	(dB)	Emission Le (dBµV/m)	Anter	Limits (dBµV/m)	Ma (1	Vertical argin dB)	Value Type
Frequency (MHz) 4882.000	(	Mode 2 r Reading dBµV) 47.64	(dB) 0.14	Emission Le (dBµV/m) 47.78	Anter	Limits (dBµV/m) 74	Ma( 2	Vertical argin dB) 6.22	Value Type peak
Frequency           (MHz)           4882.000           4882.000	(	Mode 2 r Reading dBµV) 47.64 37.84	(dB) 0.14 0.14	Emission Le (dBµV/m) 47.78 37.98	Anter	Limits (dBµV/m) 74 54	 	Vertical argin dB) 6.22 6.02	Value Type peak AVG
Frequency           (MHz)           4882.000           4882.000           7323.000	(	Mode 2 r Reading dBµV) 47.64 37.84 41.05	(dB) 0.14 0.14 2.36	Emission Le (dBµV/m) 47.78 37.98 43.41	Anter	Limits (dBµV/m) 74 54 74	Ma (1 -2 -1 -3	Vertical argin dB) 6.22 6.02 0.59	Value Type peak AVG peak
Frequency           (MHz)           4882.000           4882.000	(	Mode 2 r Reading dBµV) 47.64 37.84	(dB) 0.14 0.14	Emission Le (dBµV/m) 47.78 37.98	Anter	Limits (dBµV/m) 74 54	Ma (1 -2 -1 -3	Vertical argin dB) 6.22 6.02	Value Type peak AVG
Frequency           (MHz)           4882.000           4882.000           7323.000	(	Mode 2 r Reading dBµV) 47.64 37.84 41.05	(dB) 0.14 0.14 2.36	Emission Le (dBµV/m) 47.78 37.98 43.41	Anter	Limits (dBµV/m) 74 54 74	Ma (1 -2 -1 -3	Vertical argin dB) 6.22 6.02 0.59	Value Type peak AVG peak
Frequency           (MHz)           4882.000           4882.000           7323.000	(	Mode 2 r Reading dBµV) 47.64 37.84 41.05	(dB) 0.14 0.14 2.36	Emission Le (dBµV/m) 47.78 37.98 43.41	Anter	Limits (dBµV/m) 74 54 74	Ma (1 -2 -1 -3	Vertical argin dB) 6.22 6.02 0.59	Value Type peak AVG peak

# Radiated Emissions Test Results for Above 1GHz

# **RESULT: Pass**



EUT Name	Wireless mi	icrophone		Model	Name	A3320	
Temperature	24.2°C			Relativ	e Humidity	57.4%	
Pressure	960hPa			Test Vo	oltage	Normal V	/oltage
Fest Mode	Mode 3			Anteni	na Polarity	Horizonta	al
Frequency	Meter Reading	Factor	Emission	n Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV	//m)	(dBµV/m)	(dB)	value Type
4960.000	47.64	0.22	47.8	6	74	-26.14	peak
4960.000	37.84	0.22	38.0	)6	54	-15.94	AVG
7440.000	41.06	2.64	43.7	7	74	-30.3	peak
7440.000	30.94	2.64	33.5	68	54	-20.42	AVG
Remark:							
Eactor - Antor	nna Factor + Cab	la Laga Dra	a manalifi a m				
Factor - Arter		<u>ie Loss – Pie-</u>	ampliner.				
EUT Name	Wireless mi			Model	Name	A3320	·
					Name ve Humidity	A3320 57.4%	·
EUT Name	Wireless m				ve Humidity		/oltage
EUT Name Gemperature	Wireless mi			Relativ Test Vo	ve Humidity	57.4%	/oltage
EUT Name Femperature Pressure Fest Mode	Wireless mi 24.2°C 960hPa Mode 3	crophone		Relativ Test Vo Anteni	ve Humidity oltage na Polarity	57.4% Normal V Vertical	
EUT Name Femperature Pressure Fest Mode	Wireless mi 24.2° C 960hPa Mode 3 Meter Reading	Factor	Emission	Relativ Test Vo Anteni	ve Humidity oltage na Polarity Limits	57.4% Normal V Vertical Margin	
EUT Name Femperature Pressure Fest Mode Frequency (MHz)	Wireless mi 24.2° C 960hPa Mode 3 Meter Reading (dBµV)	Factor (dB)	Emission (dBµV	Relativ Test Vo Anteni h Level	ve Humidity oltage na Polarity Limits (dBµV/m)	57.4% Normal V Vertical Margin (dB)	Value Type
EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000	Wireless mi 24.2° C 960hPa Mode 3 Meter Reading (dBµV) 48.64	Factor (dB) 0.22	Emission (dBµV/ 48.8	Relativ Test Vo Anteni n Level (/m) 36	ve Humidity oltage na Polarity Limits (dBµV/m) 74	57.4% Normal V Vertical Margin (dB) -25.14	
EUT Name Temperature Pressure Test Mode Frequency (MHz) 4960.000 4960.000	Wireless mi           24.2° C           960hPa           Mode 3           Meter Reading           (dBµV)           48.64           38.05	Factor (dB) 0.22 0.22	Emission (dBµV/ 48.8 38.2	Relative Test Ve Anteni n Level (/m) 36 27	ve Humidity oltage na Polarity Limits (dBµV/m) 74 54	57.4% Normal V Vertical Margin (dB) -25.14 -15.73	Value Type peak AVG
EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000 4960.000 7440.000	Wireless mi           24.2° C           960hPa           Mode 3           Meter Reading           (dBµV)           48.64           38.05           41.05	Factor (dB) 0.22 0.22 2.64	Emission (dBµV/ 48.8 38.2 43.6	Relative Test Vo Anteni M Level (/m) 36 37 39	ve Humidity oltage na Polarity Limits (dBµV/m) 74 54 74	57.4% Normal V Vertical Margin (dB) -25.14 -15.73 -30.31	Value Type
EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000 4960.000	Wireless mi           24.2° C           960hPa           Mode 3           Meter Reading           (dBµV)           48.64           38.05	Factor (dB) 0.22 0.22	Emission (dBµV/ 48.8 38.2	Relative Test Vo Anteni M Level (/m) 36 37 39	ve Humidity oltage na Polarity Limits (dBµV/m) 74 54	57.4% Normal V Vertical Margin (dB) -25.14 -15.73	- Value Type peak AVG peak
EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4960.000 4960.000 7440.000	Wireless mi           24.2° C           960hPa           Mode 3           Meter Reading           (dBµV)           48.64           38.05           41.05	Factor (dB) 0.22 0.22 2.64	Emission (dBµV/ 48.8 38.2 43.6	Relative Test Vo Anteni M Level (/m) 36 37 39	ve Humidity oltage na Polarity Limits (dBµV/m) 74 54 74	57.4% Normal V Vertical Margin (dB) -25.14 -15.73 -30.31	- Value Type peak AVG peak

# Radiated Emissions Test Results for Above 1GHz

# **RESULT: Pass**



Antenna 2 Radiated Emissions Test Results for Above 1GHz

EUT Name		Wireless m	ncrophone		Mode	i name	A3320	
Temperature		24.2°C			Relat	ive Humidity	57.4%	
Pressure		960hPa			Test	Voltage	Normal V	oltage
Test Mode		Mode 1			Anter	nna Polarity	Horizonta	l
	I							
Frequency	Mete	er Reading	Factor	Emissio	n Level	Limits	Margin	Value Type
(MHz)		(dBµV)	(dB)	(dBµ\	//m)	(dBµV/m)	(dB)	value Type
4804.000		49.64	0.08	49.7	72	74	-24.28	peak
4804.000		37.54	0.08	37.6	62	54	-16.38	AVG
7206.000		42.05	2.21	44.2	26	74	-29.74	peak
7206.000		31.59	2.21	33.	8	54	-20.2	AVG
Remark: Factor = Anter	na Fa	ictor + Cable	e Loss – Pre-	amplifier				
Factor = Anter	nna Fa	Wireless m		amplifier.		I Name	A3320	
Factor = Anter EUT Name Temperature	nna Fa	Wireless m 24.2°C		amplifier.	Relat	ive Humidity	57.4%	oltogo
Factor = Anter	nna Fa	Wireless m		amplifier.	Relat			oltage
Factor = Anter EUT Name Temperature	nna Fa	Wireless m 24.2°C		amplifier.	Relat	ive Humidity	57.4%	oltage
Factor = Anter EUT Name Temperature Pressure Test Mode		Wireless m 24.2°C 960hPa Mode 1	nicrophone		Relat Test V Anter	ive Humidity /oltage nna Polarity	57.4% Normal V Vertical	1
Factor = Anter EUT Name Temperature Pressure Test Mode	Mete	Wireless m 24.2°C 960hPa Mode 1	nicrophone	Emissio	Relat	ive Humidity /oltage nna Polarity	57.4% Normal V Vertical	oltage Value Type
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz)	Mete	Wireless m 24.2° C 960hPa Mode 1 er Reading (dBµV)	nicrophone Factor (dB)	Emissio (dBµ\	Relat Test V Anter n Level //m)	ive Humidity /oltage nna Polarity Limits (dBµV/m)	57.4% Normal V Vertical Margin (dB)	- Value Type
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4804.000	Mete	Wireless m 24.2°C 960hPa Mode 1 er Reading (dBµV) 47.64	Factor (dB) 0.08	Emissio (dBµ\ 47.7	Relat Test V Anter n Level //m) 72	ive Humidity /oltage na Polarity Limits (dBµV/m) 74	57.4% Normal V Vertical Margin (dB) -26.28	1
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4804.000 4804.000	Mete	Wireless m 24.2° C 960hPa Mode 1 er Reading (dBµV) 47.64 37.54	Factor (dB) 0.08 0.08	Emissio (dBµ\ 47.7 37.6	Relat Test V Anter n Level //m) 72 52	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74 54	57.4% Normal V Vertical Margin (dB) -26.28 -16.38	- Value Type peak AVG
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4804.000	Mete	Wireless m 24.2°C 960hPa Mode 1 er Reading (dBµV) 47.64	Factor (dB) 0.08	Emissio (dBµ\ 47.7	Relat Test V Anter n Level //m) 72 52 3	ive Humidity /oltage na Polarity Limits (dBµV/m) 74	57.4% Normal V Vertical Margin (dB) -26.28 -16.38 -30.7	- Value Type peak
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4804.000 4804.000 7206.000	Mete	Wireless m 24.2° C 960hPa Mode 1 er Reading (dBµV) 47.64 37.54 41.09	Factor (dB) 0.08 0.08 2.21	Emissio (dBµ\ 47.7 37.6 43.	Relat Test V Anter n Level //m) 72 52 3	ive Humidity Voltage Inna Polarity Limits (dBµV/m) 74 54 74	57.4% Normal V Vertical Margin (dB) -26.28 -16.38	- Value Type peak AVG peak
Factor = Anter EUT Name Temperature Pressure Test Mode Frequency (MHz) 4804.000 4804.000 7206.000	Mete	Wireless m 24.2° C 960hPa Mode 1 er Reading (dBµV) 47.64 37.54 41.09	Factor (dB) 0.08 0.08 2.21	Emissio (dBµ\ 47.7 37.6 43.	Relat Test V Anter n Level //m) 72 52 3	ive Humidity Voltage Inna Polarity Limits (dBµV/m) 74 54 74	57.4% Normal V Vertical Margin (dB) -26.28 -16.38 -30.7	- Value Type peak AVG peak

# **RESULT: Pass**



EUT Name	Wireless	microphone	r	Model Name		A3320	
<b>Femperature</b>	24.2° C		F	Relative Humic	lity	57.4%	
Pressure	960hPa		٦	Test Voltage		Normal	Voltage
Fest Mode	Mode 2		1	Antenna Polari	ty	Horizon	ital
Frequency	Meter Reading	Factor	Emission L	_evel Limits		Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m	n) (dBµV/m)		(dB)	value Type
4882.000	47.64	0.14	47.78	74		-26.22	peak
4882.000	37.52	0.14	37.66	54		-16.34	AVG
7323.000	41.05	2.36	43.41	74		-30.59	peak
7323.000	31.59	2.36	33.95	54		-20.05	AVG
Domorta							
Remark:							
Contor - Anton	ma Fastar I Ca						
Factor = Anten	na Factor + Ca	ible Loss – Pr	e-amplifier.		-		
Factor = Anten		ible Loss – Pr microphone		Model Name		A3320	
				Model Name Relative Humic	lity	A3320 57.4%	
EUT Name	Wireless		F		lity	57.4%	Voltage
EUT Name Gemperature	Wireless 24.2° C		r F	Relative Humic	-	57.4%	
EUT Name Femperature Pressure Fest Mode	Wireless 24.2° C 960hPa Mode 2	microphone	F 7	Relative Humic Test Voltage Antenna Polari	ty	57.4% Normal Vertical	
EUT Name Femperature Pressure Fest Mode	Wireless 24.2°C 960hPa Mode 2 Meter Reading	microphone	F Emission Leve	Relative Humic Test Voltage Antenna Polari	ty Ma	57.4% Normal Vertical	
EUT Name Femperature Pressure Fest Mode Frequency (MHz)	Wireless 24.2°C 960hPa Mode 2 Meter Reading (dBµV)	microphone Factor (dB)	Emission Leve (dBµV/m)	Relative Humic Test Voltage Antenna Polari el Limits (dBµV/m)	ty Ma	57.4% Normal Vertical argin dB)	Value Type
EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4882.000	Wireless 24.2°C 960hPa Mode 2 Meter Reading (dBµV) 47.64	Factor (dB) 0.14	Emission Leve (dBµV/m) 47.78	Relative Humic Test Voltage Antenna Polari el Limits (dBµV/m) 74	ty Ma ( -2	57.4% Normal Vertical argin dB) 6.22	
EUT Name Femperature Fressure Frequency (MHz) 4882.000 4882.000	Wireless 24.2° C 960hPa Mode 2 Meter Reading (dBµV) 47.64 37.52	Factor (dB) 0.14 0.14	Emission Leve (dBµV/m) 47.78 37.66	Relative Humic Test Voltage Antenna Polari el Limits (dBµV/m) 74 54	ty Ma ( -2	57.4% Normal Vertical argin dB) 6.22 6.34	Value Type peak AVG
EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4882.000	Wireless 24.2°C 960hPa Mode 2 Meter Reading (dBµV) 47.64	Factor (dB) 0.14	Emission Leve (dBµV/m) 47.78	Relative Humic Test Voltage Antenna Polari el Limits (dBµV/m) 74	ty Ma ( -2 -1 -3	57.4% Normal Vertical argin dB) 6.22	Value Type peak
EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4882.000 4882.000 7323.000	Wireless           24.2° C           960hPa           Mode 2           Meter Reading           (dBμV)           47.64           37.52           41.05	Factor           (dB)           0.14           0.14           2.36	Emission Leve (dBµV/m) 47.78 37.66 43.41	Relative Humic Test Voltage Antenna Polari el Limits (dBµV/m) 74 54 74	ty Ma ( -2 -1 -3	57.4% Normal Vertical argin dB) 6.22 6.34 0.59	Value Type peak AVG peak
EUT Name Femperature Pressure Fest Mode Frequency (MHz) 4882.000 4882.000 7323.000	Wireless           24.2° C           960hPa           Mode 2           Meter Reading           (dBμV)           47.64           37.52           41.05	Factor           (dB)           0.14           0.14           2.36	Emission Leve (dBµV/m) 47.78 37.66 43.41	Relative Humic Test Voltage Antenna Polari el Limits (dBµV/m) 74 54 74	ty Ma ( -2 -1 -3	57.4% Normal Vertical argin dB) 6.22 6.34 0.59	Value Type peak AVG peak

# Radiated Emissions Test Results for Above 1GHz

# **RESULT: Pass**



EUT Name	Wireless mi	crophone	Mode	el Name	A3320	
<b>Temperature</b>	24.2°C		Relat	ive Humidity	57.4%	
Pressure	960hPa		Test	Voltage	Normal \	/oltage
Fest Mode	Mode 3		Ante	nna Polarity	Horizonta	al
Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Value Type
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	value Type
4960.000	47.64	0.22	47.86	74	-26.14	peak
4960.000	37.52	0.22	37.74	54	-16.26	AVG
7440.000	40.49	2.64	43.13	74	-30.87	peak
7440.000	31.58	2.64	34.22	54	-19.78	AVG
<u> </u>						
Remark <sup>.</sup>						
Remark: Factor = Anten	na Factor + Cabl	e Loss – Pre-	amplifier.			
Factor = Anten					42220	
Factor = Anten	ma Factor + Cabl			el Name	A3320	
			Mode	el Name ive Humidity	A3320 57.4%	· · · · · · · · · · · · · · · · · · ·
Factor = Anten	Wireless mi		Mode			/oltage
Factor = Anten	Wireless min 24.2° C		Mode Relat Test	ive Humidity	57.4%	/oltage
Factor = Anten	Wireless min 24.2° C 960hPa Mode 3	crophone	Mode Relat Test Ante	ive Humidity Voltage nna Polarity	57.4% Normal V Vertical	/oltage
Factor = Anten	Wireless min 24.2°C 960hPa Mode 3 Meter Reading	crophone	Mode Relat Test Ante Emission Level	ive Humidity Voltage nna Polarity	57.4% Normal V Vertical Margin	/oltage Value Type
Factor = Anten         EUT Name         Temperature         Pressure         Test Mode         Frequency         (MHz)	Wireless min 24.2°C 960hPa Mode 3 Meter Reading (dBµV)	crophone Factor (dB)	Mode Relat Test Ante Emission Level (dBµV/m)	ive Humidity Voltage nna Polarity Limits (dBµV/m)	57.4% Normal V Vertical Margin (dB)	Value Type
Factor = Anten         EUT Name         Temperature         Pressure         Fest Mode         Frequency         (MHz)         4960.000	Wireless mid 24.2° C 960hPa Mode 3 Meter Reading (dBµV) 47.64	Crophone Factor (dB) 0.22	Mode Relat Test Ante Emission Level (dBµV/m) 47.86	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74	57.4% Normal V Vertical Margin (dB) -26.14	Value Type
Factor = Anten         EUT Name         Temperature         Pressure         Test Mode         Frequency         (MHz)         4960.000         4960.000	Wireless min           24.2° C           960hPa           Mode 3           Meter Reading           (dBµV)           47.64           38.52	Factor (dB) 0.22 0.22	Mode Relat Test Ante Emission Level (dBµV/m) 47.86 38.74	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74 54	57.4% Normal V Vertical Margin (dB) -26.14 -15.26	- Value Type peak AVG
Factor = Anten           EUT Name           Temperature           Pressure           Test Mode           Frequency           (MHz)           4960.000           7440.000	Wireless min 24.2° C 960hPa Mode 3 Meter Reading (dBµV) 47.64 38.52 41.05	Factor (dB) 0.22 0.22 2.64	Моde Relat Тest Аnte Еmission Level (dBµV/m) 47.86 38.74 43.69	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74 54 74	57.4% Normal V Vertical Margin (dB) -26.14 -15.26 -30.31	Value Type peak AVG peak
Factor = Anten         EUT Name         Femperature         Pressure         Fest Mode         Frequency         (MHz)         4960.000         4960.000	Wireless min           24.2° C           960hPa           Mode 3           Meter Reading           (dBµV)           47.64           38.52	Factor (dB) 0.22 0.22	Mode Relat Test Ante Emission Level (dBµV/m) 47.86 38.74	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74 54	57.4% Normal V Vertical Margin (dB) -26.14 -15.26	- Value Type peak AVG
Factor = Anten         EUT Name         Femperature         Pressure         Fest Mode         Frequency         (MHz)         4960.000         7440.000	Wireless min 24.2° C 960hPa Mode 3 Meter Reading (dBµV) 47.64 38.52 41.05	Factor (dB) 0.22 0.22 2.64	Моde Relat Тest Аnte Еmission Level (dBµV/m) 47.86 38.74 43.69	ive Humidity Voltage nna Polarity Limits (dBµV/m) 74 54 74	57.4% Normal V Vertical Margin (dB) -26.14 -15.26 -30.31	Value Type peak AVG peak

# **Radiated Emissions Test Results for Above 1GHz**

### **RESULT: Pass**

Note:

- 1. The amplitude of other spurious emissions from 1G to 25 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.

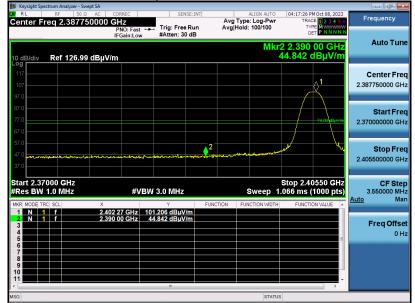


### Antenna 1

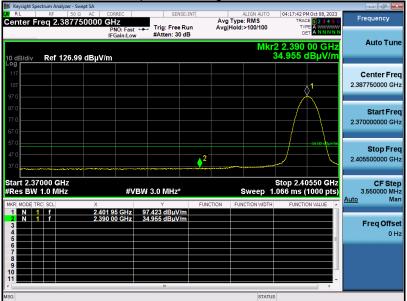
### Band Edge Emission Test Results for Restricted Bands

EUT Name	Wireless microphone	Model Name	A3320
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna Polarity	Horizontal

### Test Graph for Peak Measurement



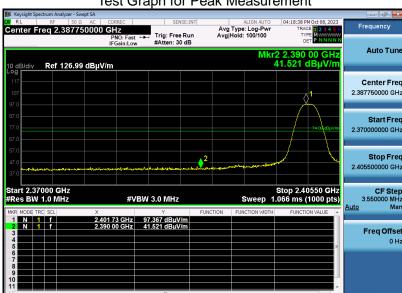
### Test Graph for Average Measurement



### **RESULT: Pass**

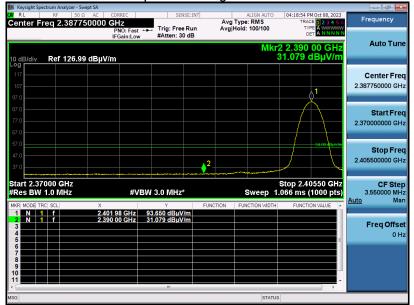


EUT Name	Wireless microphone	Model Name	A3320
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna Polarity	Vertical



# Test Graph for Peak Measurement

Test Graph for Average Measurement

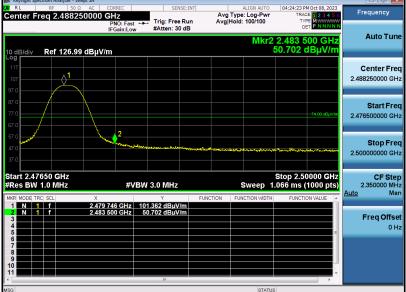


# **RESULT: Pass**

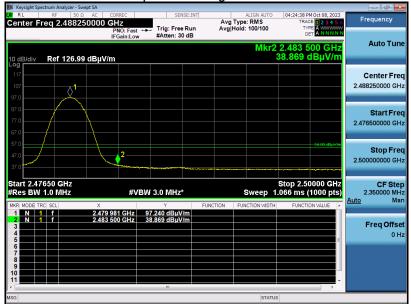


EUT Name	Wireless microphone	Model Name	A3320
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 3	Antenna Polarity	Horizontal

# Test Graph for Peak Measurement



Test Graph for Average Measurement

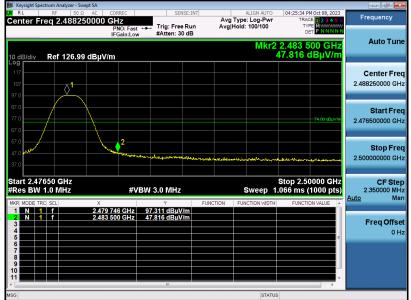


# **RESULT: Pass**



EUT Name	Wireless microphone	Model Name	A3320
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 3	Antenna Polarity	Vertical

### Test Graph for Peak Measurement



Test Graph for Average Measurement



# **RESULT: Pass**

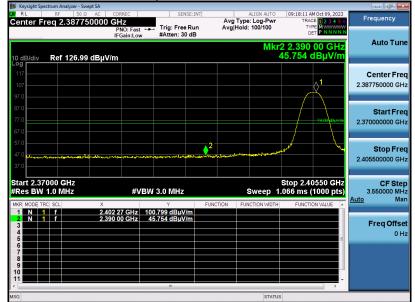


### Antenna 2

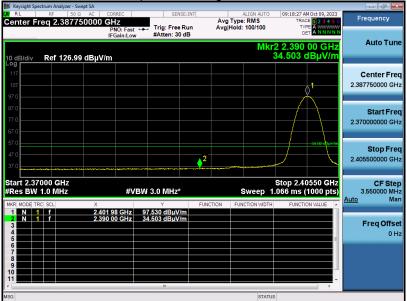
### Band Edge Emission Test Results for Restricted Bands

EUT Name	Wireless microphone	Model Name	A3320
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna Polarity	Horizontal

### Test Graph for Peak Measurement



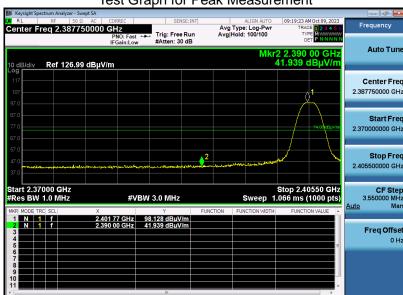
### Test Graph for Average Measurement



### **RESULT: Pass**

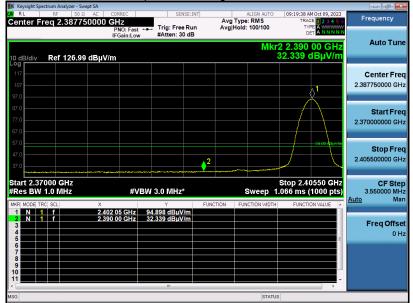


EUT Name	Wireless microphone	Model Name	A3320
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 1	Antenna Polarity	Vertical



### Test Graph for Peak Measurement

Test Graph for Average Measurement

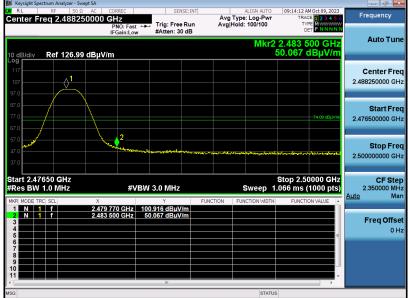


# **RESULT: Pass**

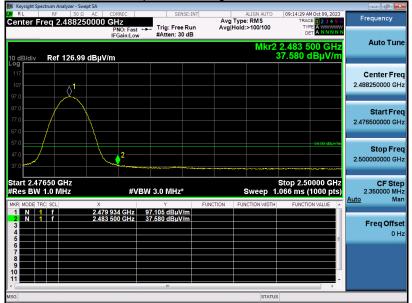


EUT Name	Wireless microphone	Model Name	A3320
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 3	Antenna Polarity	Horizontal

# Test Graph for Peak Measurement



Test Graph for Average Measurement

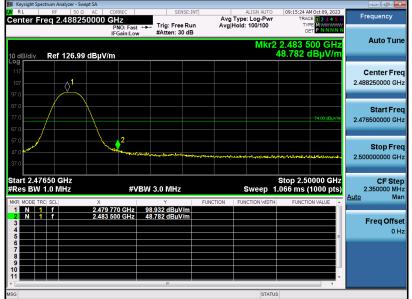


# **RESULT: Pass**

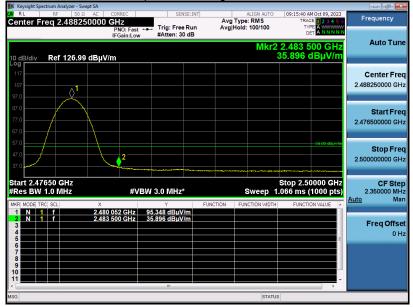


EUT Name	Wireless microphone	Model Name	A3320
Temperature	25° C	Relative Humidity	55.4%
Pressure	960hPa	Test Voltage	Normal Voltage
Test Mode	Mode 3	Antenna Polarity	Vertical





Test Graph for Average Measurement



# **RESULT: Pass**

Note: The factor had been edited in the "Input Correction" of the Spectrum Analyzer.



# 12. AC Power Line Conducted Emission Test

# **12.1 Measurement Limits**

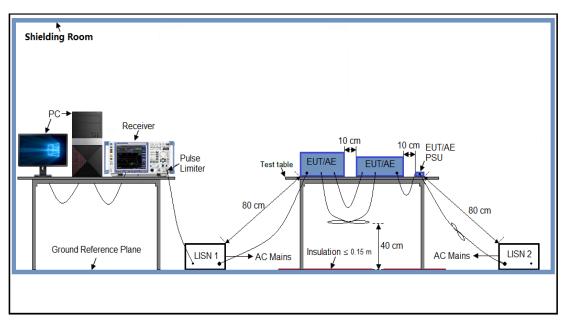
<b>F</b>	Maximum RF Line Voltage		
Frequency	Q.P. (dBµV)	Average (dBµV)	
150kHz~500kHz	66-56	56-46	
500kHz~5MHz	56	46	
5MHz~30MHz	60	50	

Note:

1. The lower limit shall apply at the transition frequency.

2. The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz.

# 12.2 Measurement Setup (Block Diagram of Configuration)





# 12.3 Preliminary Procedure of Line Conducted Emission Test

- The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. When the EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10 (see Test Facility for the dimensions of the ground plane used). When the EUT is a floor-standing equipment, it is placed on the ground plane which has a 3-12 mm non-conductive covering to insulate the EUT from the ground plane.
- 2. Support equipment, if needed, was placed as per ANSI C63.10.
- 3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.
- 4. All support equipment received AC120V/60Hz power from a LISN, if any.
- 5. The EUT received DC 5V power from adapter which received AC120V/60Hz power from a LISN.
- 6. The test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
- 7. Analyzer / Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.
- 8. During the above scans, the emissions were maximized by cable manipulation.
- 9. The test mode(s) were scanned during the preliminary test.

Then, the EUT configuration and cable configuration of the above highest emission level were recorded for reference of final testing.

# 12.4 Final Procedure of Line Conducted Emission Test

- 1. EUT and support equipment was set up on the test bench as per step 2 of the preliminary test.
- A scan was taken on both power lines, Line 1 and Line 2, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. If EUT emission level was less – 2dB to the A.V. limit in Peak mode, then the emission signal was re-checked using Q.P and Average detector.
- 3. The test data of the worst case condition(s) was reported on the Summary Data page.

# **12.5 Measurement Results**

N/A

Note: Typical RF working state, unable to operate normally during charging.



Report No.: AGC01110230925FR01 Page 70 of 70

# Appendix I: Photographs of Test Setup

Refer to the Report No.: AGC01110230925AP01

# Appendix II: Photographs of Test EUT

Refer to the Report No.: AGC01110230925AP02

-----End of Report-----



# Conditions of Issuance of Test Reports

1. All samples and goods are accepted by the Attestation of Global Compliance (Shenzhen) Co., Ltd (the "Company") solely for testing and reporting in accordance with the following terms and conditions. The company provides its services on the basis that such terms and conditions constitute express agreement between the company and any person, firm or company requesting its services (the "Clients").

2. Any report issued by Company as a result of this application for testing services (the "Report") shall be issued in confidence to the Clients and the Report will be strictly treated as such by the Company. It may not be reproduced either in its entirety or in part and it may not be used for advertising or other unauthorized purposes without the written consent of the Company. The Clients to whom the Report is issued may, however, show or send it, or a certified copy thereof prepared by the Company to its customer, supplier or other persons directly concerned. The Company will not, without the consent of the Clients, enter into any discussion or correspondence with any third party concerning the contents of the Report, unless required by the relevant governmental authorities, laws or court orders.

3. The Company shall not be called or be liable to be called to give evidence or testimony on the Report in a court of law without its prior written consent, unless required by the relevant governmental authorities, laws or court orders.

4. In the event of the improper use of the report as determined by the Company, the Company reserves the right to withdraw it, and to adopt any other additional remedies which may be appropriate.

5. Samples submitted for testing are accepted on the understanding that the Report issued cannot form the basis of, or be the instrument for, any legal action against the Company.

6. The Company will not be liable for or accept responsibility for any loss or damage however arising from the use of information contained in any of its Reports or in any communication whatsoever about its said tests or investigations.

7. Clients wishing to use the Report in court proceedings or arbitration shall inform the Company to that effect prior to submitting the sample for testing.

8. The Company is not responsible for recalling the electronic version of the original report when any revision is made to them. The Client assumes the responsibility to providing the revised version to any interested party who uses them.

9. Subject to the variable length of retention time for test data and report stored hereinto as otherwise specifically required by individual accreditation authorities, the Company will only keep the supporting test data and information of the test report for a period of six years. The data and information will be disposed of after the aforementioned retention period has elapsed. Under no circumstances shall we provide any data and information which has been disposed of after retention period. Under no circumstances shall we be liable for damage of any kind, including (but not limited to) compensatory damages, lost profits, lost data, or any form of special, incidental, indirect, consequential or punitive damages of any kind, whether based on breach of contract of warranty, tort (including negligence), product liability or otherwise, even if we are informed in advance of the possibility of such damages.