

Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 1 of 41

# FCC Test Report

Applicant : Superior Communications DBA PureGear

Address : 5082 4th Street Irwindale California USA

Product Name : PureBoom Aura, White Teal

Report Date : May 31, 2024

Shenzhen Anbotek

Shenzhen Anbotek

Anbotek

Product Safety

Approved \*

Appro







Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 2 of 41

# **Contents**

1. Gene	ral Information	notek An	00,0	VII.	1000	66,0	iup. Fk.	otek
1.1. 1.2	. Client Information . Description of Device	e (FUT)	Aupote,	Anbo	ю <sub>у</sub>	botek	Anbo,	k
1.3	Auxiliary Equipment	Used During	Test	.v	oter	OUD.		do You
14	Operation channel I	ist 's						
1.5. 1.5.	Description of Test I  Measurement Unce	viodesrtaintv	arl Arl	Oter.	- 60h	''	D. Copy	
1.7.	. Measurement Unce . Test Summary . Description of Test I	organity		botek	Anbo		Hotek	AUPO16
1.8	Description of Test I	acility				Р		otek
1.9	Disclaimer D. Test Equipment Lis	stoo'e	Anbar		ek an'	ey		s sport
2 Anten	0. Test Equipment Listina requirement	hotek	Anbote	PUR	, ek	Anbotek	Aupo,	.ak .4
2.7(1101	Conclusion	Arr	Vupote	VU)	- e/-	sbotek	Anbe	240
2.1.	ucted Emission at A0 . EUT Operation Test Setup	AMOV		otek	Aupore		tek a	nbotek A
3. Cond	ucted Emission at AC	power line	····················////	50teK	Anboten	bigg.	*ek	1
3.1.	. EUT Operation	hotek And	a'	700 - tek		yr	'po,'	
3.3	. Test Data		**************************************	Aupa;		o'ek	Vipake.	1
4. Occu	rest Setup Test Data pied Bandwidth EUT Operation Test Setup	Anbo. Mek	, Choiek	Anbore		-patek	Anbotek	
4.1.	. EUT Operation	Aup. ok	, botel	k Ant	,ore 1	7U.,	Anbo	ren Anbi
4.2	Test Setup	Aupo,	b.,	.,ek	74poter	AUD	<u>.</u>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
5. Maxir	mum Conducted Out <sub>l</sub>	out Power	,to/p	upo,		K	p015	.A1
5.1	num Conducted Out EUT Operation Test Setup	10°	Opotek	-Pupore	γ ν.		Ariooter	1
5.3	. Test Setup Test Data	N'90,	hotek	Anbote		-tek	orok	2
6 Chan	rest Setupnet Test Datanel Separation	Anbore	Ana	, up	otek p	,nbo	,00%	ek Aupo
O. Orian	TUT Operation	Aupolet	VU.O.	.ek	obořek	Anbow	······································	otek pa
6.1. 6.2.	. Eo i Operation . Test Setup	6/- 700/6/t	AUD	p	wotek.	PUPO4	37	2
6.3	. Test Data		10 m	3 <sup>0</sup>			~O`\~	
7. Numb	per of Hopping Frequ	encies		Wapo <sub>tek</sub>	Anbo.		ojek	2
Anbore 7.1.	. EUT Operation	Vupo <sub>ter</sub> Vu	ek	hotel	Anbo		VII.	anboten 2
7.2	. Test Setup	botek	Vupos	<i>V</i>	,eX	boter	Anb	2
7.3	. Test Data		Anbate.	4		boyek	Kupo,	2
8. Dwell	Time			(C)	100,	-2000 No.	y	2
8.1.	EUT Operation	an Aupo	6/r	botek	Moore	Vu.		2
มก <sup>อง 6</sup> 8.2. ม ว	. Iest Setup Test Data	olok Vilpo,	- N	hotek	AUPOSEK	pa	-10K	2
9 Fmiss	EUT Operation Test Setup Test Data Time EUT Operation Test Setup Test Data  Test Data  Test Data  Sions in non-restricte EUT Operation  Test Setup  Test Data	d frequency ba	ands 4	Anti-otek	Anbo'	iet l	*upo,	botek 2
0. [1113	ELIT Operation	Sales De	Anbores	PU.	ek	botek	Aupo	ວັ
9.1	. ⊑o i Operation . Test Setup	- Kun	. apotek	A/I'o		Jořek	Aupore	2 2
9.3	Test Data	Aupo.		ek pr	bote.	Vur.	٠	ote <sup>k</sup> A.2







Report No 1622000C40069501	FCC ID. ZAIIF-11036PG	Page 3 01 41
10. Band edge emissions (Radiated)	upotek Aupon An	otek
10.1. EUT Operation 10.2. Test Setup 10.3. Test Data	K VIDOLOK VIDOLOK	
11. Emissions in frequency bands (below 1GHz)	otek Anboren Anbo	4Anboro
11.1. EUT Operation 11.2. Test Setup 11.3. Test Data	'up, 'in in i	
12. Emissions in frequency bands (above 1GHz)	Anborek Anbore A	
12.1. EUT Operation 12.2. Test Setup 12.3. Test Data	by, K Poles	
APPENDIX I TEST SETUP PHOTOGRAPH APPENDIX II EXTERNAL PHOTOGRAPH		4·





Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 4 of 41

# TEST REPORT

Applicant : Superior Communications DBA PureGear

Manufacturer : Superior Communications DBA PureGear

Product Name : PureBoom Aura, White Teal

Test Model No. : 11038PG

Reference Model No. : N/A

Trade Mark : PureBoom

Rating(s) : Input: DC 5V/1A (with DC 3.7V, 1200mAh battery inside)

47 CFR Part 15.247

Test Standard(s) : ANSI C63.10-2020

KDB 558074 D01 15.247 Meas Guidance v05r02

The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen Anbotek Compliance Laboratory Limited is assumed full of responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT (Equipment Under Test) is technically compliant with above listed standard(s) requirements. This report applies to above tested sample only and shall not be reproduced in part without written approval of Shenzhen Anbotek Compliance Laboratory Limited.

Date of Receipt:	Apr. 30, 2024
ootek Anbore Anti-	bo Lak - potek Aupore Am
Date of Test:	Apr. 30, 2024 to May 31, 2024
Anborek Anbore Anti-	Anborek Anborek Anborek
	Nian xiu Chen
Prepared By:	And soke Aupoter And
	(Nianxiu Chen)
	potek Anbot Ak Anbote Ar
	Idward pan
Approved & Authorized Signer:	And Anbotek Anbo. A. hotek
hotek Anbote And Otek Anbotek	(Edward Pan)







Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 5 of 41

### **Revision History**

1	Report Version	Description	Issued Date
İ	Anhore R00 borek mi	Original Issue.	May 31, 2024
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Report No.: 18220WC40089501 FCC ID: 2AllF-11038PG Page 6 of 41

### 1. General Information

### 1.1. Client Information

Applicant	:	Superior Communications DBA PureGear
Address	:	5082 4th Street Irwindale California USA
Manufacturer	:	Superior Communications DBA PureGear
Address	:	5082 4th Street Irwindale California USA
Factory	:	Superior Communications DBA PureGear
Address	:	5082 4th Street Irwindale California USA

### 1.2. Description of Device (EUT)

0, 5,		Page Tub Comment of the Comment of t
Product Name	:	PureBoom Aura, White Teal
Test Model No.	:	11038PG Anborek Anborek Anborek
Reference Model No.	:	N/Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek
Trade Mark	:	PureBoom Andrew Andrew Andrew Andrew Andrew
Test Power Supply	:	AC 120V/60Hz for Adapter, DC 3.7V Battery inside
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)
Adapter		N/A otek Anbotek Anbotek Anbotek Anbotek Anbotek
RF Specification		
Operation Frequency		2402MHz to 2480MHz
Number of Channel		79k Anborek Anborek Anborek Anborek Anborek
Modulation Type		GFSK, π/4 DQPSK, 8DPSK
Antenna Type		PCB Antenna
Antenna Gain(Peak)	:	-0.58 dBi Andrek Anborek Anborek Anborek Anborek
Domark:		sk ho, by

#### Remark:

- (1) All of the RF specification are provided by customer.
- (2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.





FCC ID: 2AIIF-11038PG Report No.: 18220WC40089501 Page 7 of 41

### 1.3. Auxiliary Equipment Used During Test

Title Manufacturer		Model No.	Serial No.	
Xiaomi 33W adapter	Xiaomi	MDY-11-EX	SA62212LA04358J	

### 1.4. Operation channel list

Operation Band:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
Ootek Ootek	2402	20 rek	2422	40	2442	60	2462
1 botek	2403	21	2423	41	2443	61.1001e	2463
2 2 bo	2404	22	2424	42 Anbo	2444	rek 62 Anbo	2464
3	bote 2405 Mb	23	2425	o <sup>tel</sup> 43 An	2445	botel 63	2465
4	2406	24	2426	44	2446	64	2466
And 5	2407	Ant 25	2427	45	2447	65	2467
And Grek	2408	26	2428	46	2448	66	2468
7	2409	27. <sup>nb</sup>	2429	47 Anbor	2449	ek 67 <sub>Amb</sub> o	2469
8 And	2410	28 And	2430	otek 48 Ank	2450	68 N	2470
9 An	2411	29	2431	49	2451	69	2471
Anborto	2412	Aug 30	2432	50 <sup>k</sup>	2452	70	2472
Angon	2413	31	2433	51°°k	2453	71 potek	2473
12	2414	32	2434	52 <sub>nb</sub> ote	2454	72	2474
13Anbox	2415	iek 33 Anbo	2435	otek 53 Anb	2455 nbox	73	2475 M
otek 14 Ank	2416	potek 34 N	2436	54	2456 And	74	2476
nbote15	2417	35	2437	55	2457	75 <sub>k</sub>	2477
<sub>An</sub> 16	2418	36	2438	56 rek	2458	An 76	2478
17° tek	2419	37 otek	2439	57 botel	2459	77	2479
18,000°	2420	38 <sub>Mb</sub> o	2440	58	2460, 10016	78	2480 M
otek 19 Anb	2421	39	2441 M	59	2461	Oles - Vill	Jek-



Hotline



FCC ID: 2AIIF-11038PG Report No.: 18220WC40089501 Page 8 of 41

### 1.5. Description of Test Modes

Pretest Modes	Descriptions
Anborek TM1nboren A	Keep the EUT in continuously transmitting mode (non-hopping) with GFSK modulation.
TM2 Anbotek	Keep the EUT in continuously transmitting mode (non-hopping) with π/4 DQPSK modulation.
TM3	Keep the EUT in continuously transmitting mode (non-hopping) with 8DPSK modulation.
mbores TM4 ek Anbo	Keep the EUT in continuously transmitting mode (hopping) with GFSK modulation,.
And TM5	Keep the EUT in continuously transmitting mode (hopping) with $\pi/4$ DQPSK modulation.
Anborek TM6 Anborek	Keep the EUT in continuously transmitting mode (hopping) with 8DPSK modulation.

# 1.6. Measurement Uncertainty

Parameter	Uncertainty
Conducted emissions (AMN 150kHz~30MHz)	3.4dB
Occupied Bandwidth	925Hz rek Anborek Anborek
Conducted Output Power	0.76dB
Conducted Spurious Emission	1.24dB
Radiated spurious emissions (above 1GHz)	1G-6GHz: 4.78dB; 6G-18GHz: 4.88dB 18G-40GHz: 5.68dB
Radiated emissions (Below 30MHz)	3.53dB
Radiated spurious emissions (30MHz~1GHz)	Horizontal: 3.92dB; Vertical: 4.52dB

The measurement uncertainty and decision risk evaluated according to AB/WI-RF-F-032. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.









Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 9 of 41

### 1.7. Test Summary

Test Items	Test Modes	Status
Antenna requirement	Anbotek / Anbote	Ant Potek
Conducted Emission at AC power line	Mode1,2,3	P
Occupied Bandwidth	Mode1,2,3	P P
Maximum Conducted Output Power	Mode1,2,3	P
Channel Separation	Mode4,5,6	Who. Br
Number of Hopping Frequencies	Mode4,5,6	Anb Prick
Dwell Time	Mode4,5,6	P
Emissions in non-restricted frequency bands	Mode1,2,3,4,5,6	Pants
Band edge emissions (Radiated)	Mode1,2,3	P. P.
Emissions in frequency bands (below 1GHz)	Mode1,2,3	upor P
Emissions in frequency bands (above 1GHz)	Mode1,2,3	Anbor P. ek
Note: P: Pass N: N/A, not applicable	Anbotek Anbotek	Anbore

### 1.8. Description of Test Facility

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

#### FCC-Registration No.: 434132

Shenzhen Anbotek Compliance Laboratory Limited, 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. Registration No. 434132.

#### ISED-Registration No.: 8058A

Shenzhen Anbotek Compliance Laboratory Limited, EMC Laboratory has been registered and fully described in a report filed with the (ISED) Innovation, Science and Economic Development Canada. The acceptance letter from the ISED is maintained in our files. Registration 8058A.

#### **Test Location**

Shenzhen Anbotek Compliance Laboratory Limited.

1/F, Building D, Sogood Science and Technology Park, Sanwei community, Hangcheng Street, Bao'an District, Shenzhen, Guangdong, China.





Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 10 of 41

#### 1.9. Disclaimer

- 1. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- 2. The test report is invalid if there is any evidence and/or falsification.
- The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- 4. This document may not be altered or revised in any way unless done so by Anbotek and all revisions are duly noted in the revisions section.
- 5. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- The authenticity of the information provided by the customer is the responsibility of the customer and the laboratory is not responsible for its authenticity.

The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.





FCC ID: 2AIIF-11038PG Report No.: 18220WC40089501 Page 11 of 41

### 1.10. Test Equipment List

Cond	ucted Emission at A	C power line	Anbore	k VIII.	Anboien	Aups Otek
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	L.I.S.N. Artificial Mains Network	Rohde & Schwarz	ENV216	100055	2024-01-18	2025-01-17
žek 2	Three Phase V- type Artificial Power Network	CYBERTEK	EM5040DT	E215040D T001	2024-01-17	2025-01-16
3,0%	Software Name EZ-EMC	Farad Technology	ANB-03A	N/A	Alooiek	Anbor
4	EMI Test Receiver	Rohde & Schwarz	ESPI3	100926	2023-10-12	2024-10-11

Occupied Bandwidth

Maximum Conducted Output Power

Channel Separation

Number of Hopping Frequencies

**Dwell Time** 

Emissions in non-restricted frequency bands

Ite	em	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
ek ojek	1	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ- KHWS80B	N/A M	2023-10-16	2024-10-15
noo'	2	DC Power Supply	IVYTECH	IV3605	1804D360 510	2023-10-20	2024-10-19
DU,	3ે <sup>ર</sup> ે	Spectrum Analyzer	Rohde & Schwarz	FSV40-N	101792	2023-05-26	2024-05-25
4	4.n <sup>b</sup>	MXA Spectrum Analysis	KEYSIGHT	N9020A	MY505318 23	2024-02-22	2025-02-21
	5	Oscilloscope	Tektronix	MDO3012	C020298	2023-10-12	2024-10-11
* e*	6	MXG RF Vector Signal Generator	Agilent	N5182A	MY474206 47	2024-02-04	2025-02-03

Hotline



Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 12 of 41

ote.	And	stek npo.	N. Ok	pote.	AUS	- dek
	edge emissions (Ra sions in frequency ba		Auporg	Anbotek	Aupotek	Anbotek
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1 00	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	2024-01-23	2025-01-22
2	EMI Preamplifier	SKET Electronic	LNPA- 0118G-45	SKET-PA- 002	2024-01-17	2025-01-16
3	Double Ridged Horn Antenna	SCHWARZBECK	BBHA 9120D	02555	2022-10-16	2025-10-15
nbote 4	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	Anbotek	Aupolek
5	Horn Antenna	A-INFO	LB-180400- KF	J21106062 8	2023-10-12	2024-10-11
6	Spectrum Analyzer	Rohde & Schwarz	FSV40-N	101792	2023-05-26	2024-05-25
re <sup>k</sup> 7	Amplifier	Talent Microwave	TLLA18G40 G-50-30	23022802	2023-05-25	2024-05-24

Emiss	sions in frequency ba	ands (below 1GHz)				
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	2024-01-23	2025-01-22
. 2	Pre-amplifier	SONOMA	310N	186860	2024-01-17	2025-01-16
34	Bilog Broadband Antenna	Schwarzbeck	VULB9163	345	2022-10-23	2025-10-22
Anistel	Loop Antenna (9K- 30M)	Schwarzbeck	FMZB1519 B	00053	2023-10-12	2024-10-11
5,00	EMI Test Software EZ-EMC	SHURPLE	N/A nbor	N/A door	y Aupon	k Anbotek



Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 13 of 41

### 2. Antenna requirement

Test Requirement:

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

#### 2.1. Conclusion

The antenna is a **PCB Antenna** which permanently attached, and the best case gain of the antenna is **-0.58 dBi**. It complies with the standard requirement.





FCC ID: 2AIIF-11038PG Report No.: 18220WC40089501 Page 14 of 41

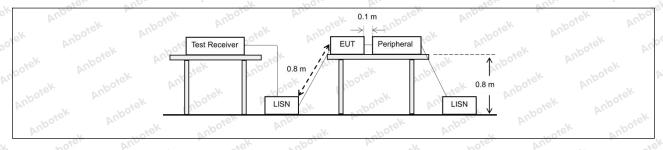
# 3. Conducted Emission at AC power line

Test Requirement:	Refer to 47 CFR 15.207(a), Exce section, for an intentional radiator public utility (AC) power line, the back onto the AC power line on a band 150 kHz to 30 MHz, shall no measured using a 50 µH/50 ohms (LISN).	that is designed to be cor radio frequency voltage tha ny frequency or frequencie ot exceed the limits in the f	nnected to the at is conducted es, within the following table, as		
boick Anbor	Frequency of emission (MHz)	Conducted limit (dBµV)			
Anbotek Anbotek	Anbor Anbor	Quasi-peak	Average		
	0.15-0.5	66 to 56*	56 to 46*		
Test Limit:	0.5-5	56 NOTE AT	46		
Vu. Vol	5-30 And San	60	50 ren And		
Aupor K Air	*Decreases with the logarithm of	the frequency.			
Test Method:	ANSI C63.10-2020 section 6.2	Anborek Anbore	Ann		
Procedure:	Refer to ANSI C63.10-2020 section line conducted emissions from ur				

# 3.1. EUT Operation

Operating Envi	ronment:	Anbo	botek .	Aupote	Ann	Anborek	Anbo.
Test mode:	hopping) w 2: TX-π/4-[ (non-hoppi 3: TX-8DPS	ith GFSK model of the GFSK (Norng) with $\pi/4$	odulation. n-Hopping): K DQPSK mod oping): Keep	eep the EU <sup>-</sup> ulation.	ontinuously trans T in continuousl continuously trai	y transmitting	g mode

### 3.2. Test Setup





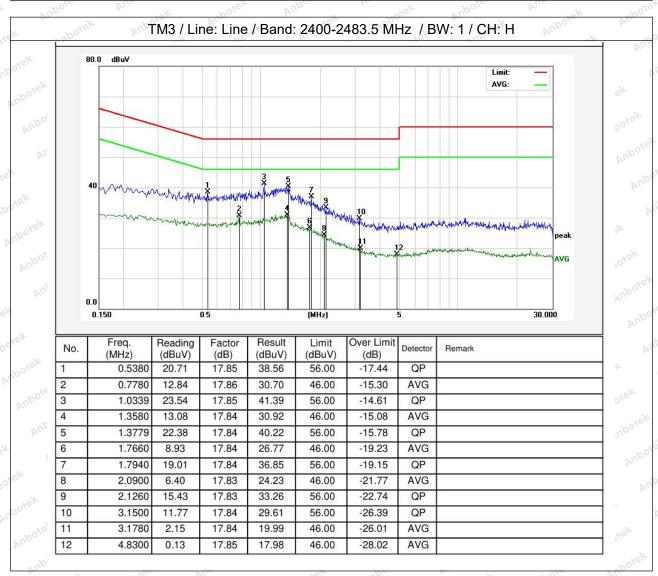
Hotline



Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 15 of 41

#### 3.3. Test Data

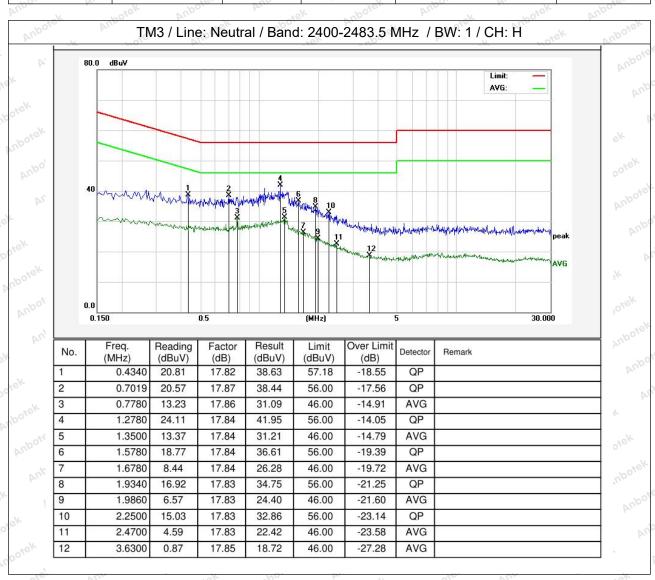
Temperature:	21.4 °C	Humidity:	52 %	Atmospheric Pressure:	101 kPa
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Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 16 of 41

Temperature: 21.4 °C Humidity: 52 % Atmospheric Pressure: 101 kPa



Note:Only record the worst data in the report.







Report No.: 18220WC40089501 FCC ID: 2AllF-11038PG Page 17 of 41

# 4. Occupied Bandwidth

Use the procedure in 6.9.3. Frequency hopping shall be disabled for this te KDB 558074 D01 15.247 Meas Guidance v05r02  The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equit o 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:  a) The instrument center frequency is set to the nominal EUT channel cent frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.  b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% 5% of the OBW, and VBW shall be at least three times the RBW, unless otherwise specified by the applicable requirement.  c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.6.2.  d) Step a) through step c) might require iteration to adjust within the specified range.  e) Video averaging is not permitted. Where practical, a sample detection a single sweep mode shall be used. Otherwise, peak detection and max-hole mode (until the trace stabilizes) shall be used.  f) Use the 99% power bandwidth function of the instrument (if available) ar report the measured bandwidth.  g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, a placed in a running sum until 0.5% of the total is reached; that frequency is	Test Requirement:	47 CFR 15.215(c)
Test Method:  use the procedure in 6.9.3. Frequency hopping shall be disabled for this te KDB 558074 D01 15.247 Meas Guidance v05r02  The occupied bandwidth is the frequency limits, the mean powers are each equito 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:  a) The instrument center frequency is set to the nominal EUT channel cent frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.  b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% 5% of the OBW, and VBW shall be at least three times the RBW, unless otherwise specified by the applicable requirement.  c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.6.2.  d) Step a) through step c) might require iteration to adjust within the specified range.  e) Video averaging is not permitted. Where practical, a sample detection a single sweep mode shall be used. Otherwise, peak detection and max-hole mode (until the trace stabilizes) shall be used. f) Use the 99% power bandwidth function of the instrument (if available) ar report the measured bandwidth. g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, a placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The process is repeated until 99.5% of the total is reached; that frequency is rec	Test Limit:	alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission, or whatever bandwidth may otherwise be specified in the specific rule section under which the equipment operates, is contained within the frequency band designated in
lower and above its upper frequency limits, the mean powers are each eque to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:  a) The instrument center frequency is set to the nominal EUT channel cent frequency. The frequency span for the spectrum analyzer shall be between 1.5 times and 5.0 times the OBW.  b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% 5% of the OBW, and VBW shall be at least three times the RBW, unless otherwise specified by the applicable requirement.  c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.6.2.  d) Step a) through step c) might require iteration to adjust within the specified range.  e) Video averaging is not permitted. Where practical, a sample detection as single sweep mode shall be used. Otherwise, peak detection and max-hole mode (until the trace stabilizes) shall be used. f) Use the 99% power bandwidth function of the instrument (if available) ar report the measured bandwidth. g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, a placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 95 and the process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 95 and 10 and	Test Method:	ANSI C63.10-2020, section 7.8.6, For occupied bandwidth measurements, use the procedure in 6.9.3. Frequency hopping shall be disabled for this test KDB 558074 D01 15.247 Meas Guidance v05r02
b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% 5% of the OBW, and VBW shall be at least three times the RBW, unless otherwise specified by the applicable requirement. c) Set the reference level of the instrument as required, keeping the signal from exceeding the maximum input mixer level for linear operation. In general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.6.2. d) Step a) through step c) might require iteration to adjust within the specified range. e) Video averaging is not permitted. Where practical, a sample detection a single sweep mode shall be used. Otherwise, peak detection and max-hole mode (until the trace stabilizes) shall be used. f) Use the 99% power bandwidth function of the instrument (if available) ar report the measured bandwidth. g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, a placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the upper frequency. The 95 total is reached; that frequency is recorded as the upper frequency. The 95 total is reached; that frequency is recorded as the upper frequency. The 95 total is reached; that frequency is recorded as the upper frequency. The 95 total is reached; that frequency is recorded as the upper frequency. The 95 total is reached; that frequency is recorded as the upper frequency. The 95 total is reached; that frequency is recorded as the upper frequency. The 95 total is reached; that frequency is recorded as the upper frequency. The 95 total is reached; that frequency is recorded as the upper frequency. The 95 total is reached; that frequency is recorded as the upper frequency. The 95 total is reached; that frequency is recorded as the upper frequency.	ek Anbotek Anbotek  botek Anbotek  Anbotek	lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission. The following procedure shall be used for measuring 99% power bandwidth:  a) The instrument center frequency is set to the nominal EUT channel center frequency. The frequency span for the spectrum analyzer shall be between
general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.6.2.  d) Step a) through step c) might require iteration to adjust within the specified range. e) Video averaging is not permitted. Where practical, a sample detection a single sweep mode shall be used. Otherwise, peak detection and max-hole mode (until the trace stabilizes) shall be used. f) Use the 99% power bandwidth function of the instrument (if available) ar report the measured bandwidth. g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, a placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99.5% of the total is reached; that frequency is recorded as the upper frequency.	Anbotek Anbotek Anbotek Anbotek	b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to 5% of the OBW, and VBW shall be at least three times the RBW, unless otherwise specified by the applicable requirement.
Procedure:  specified range. e) Video averaging is not permitted. Where practical, a sample detection a single sweep mode shall be used. Otherwise, peak detection and max-hole mode (until the trace stabilizes) shall be used. f) Use the 99% power bandwidth function of the instrument (if available) ar report the measured bandwidth. g) If the instrument does not have a 99% power bandwidth function, then the trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, a placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99.5% of the total is reached; that frequency is recorded as the upper frequency.	otek Anbotek A	general, the peak of the spectral envelope shall be more than [10 log (OBW/RBW)] below the reference level. Specific guidance is given in 4.1.6.2.
f) Use the 99% power bandwidth function of the instrument (if available) ar report the measured bandwidth. g) If the instrument does not have a 99% power bandwidth function, then to trace data points are recovered and directly summed in linear power terms. The recovered amplitude data points, beginning at the lowest frequency, a placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99	Procedure:	specified range. e) Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max-hold
The recovered amplitude data points, beginning at the lowest frequency, a placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the total is reached; that frequency is recorded as the upper frequency. The 99.5% of the total is reached; that frequency is recorded as the upper frequency.	otek Aupotek Au	f) Use the 99% power bandwidth function of the instrument (if available) and report the measured bandwidth. g) If the instrument does not have a 99% power bandwidth function, then the
	Anbotek Anbotek	The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5% of the
the measuring instrument display; the plot axes and the scale units per	tek Anbotek And	power bandwidth is the difference between these two frequencies.  h) The occupied bandwidth shall be reported by providing spectral plot(s) of







18220WC40089501 FCC ID: 2AIIF-11038PG Page 18 of 41 Report No.:

### 4.1. EUT Operation

Operating Environment:

1: TX-GFSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-

hopping) with GFSK modulation.

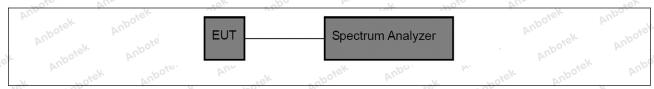
2: TX-π/4-DQPSK (Non-Hopping): Keep the EUT in continuously transmitting mode Test mode:

(non-hopping) with  $\pi/4$  DQPSK modulation.

3: TX-8DPSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-

hopping) with 8DPSK modulation.

### 4.2. Test Setup



#### 4.3. Test Data

Temperature. 20.0 C   Humany.   47 /6   Aumospheric Fressure.   101 kFa	P.	Temperature:	25.5 °C	Humidity:	47 %	Atmospheric Pressure:	101 kPa
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Please Refer to Appendix for Details.







Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 19 of 41

# 5. Maximum Conducted Output Power

Test Requirement:	47 CFR 15.247(b)(1)
Test Limit: Anborek	Refer to 47 CFR 15.247(b)(1), For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.
Test Method:	ANSI C63.10-2020, section 7.8.5 KDB 558074 D01 15.247 Meas Guidance v05r02
Anbotek	This is an RF-conducted test to evaluate maximum peak output power. Use a direct connection between the antenna port of the unlicensed wireless device and the spectrum analyzer, through suitable attenuation. Frequency hopping shall be disabled for this test. Use the following spectrum analyzer settings:  a) Span: Approximately five times the 20 dB bandwidth, centered on a hopping channel. b) RBW > 20 dB bandwidth of the emission being measured. c) VBW ≥ RBW. d) Sweep: No faster than coupled (auto) time. e) Detector function: Peak.
Procedure:	f) Trace: Max-hold. g) Allow trace to stabilize.
	h) Use the marker-to-peak function to set the marker to the peak of the emission.
Poper Aupotek	<ul><li>i) The indicated level is the peak output power, after any corrections for external attenuators and cables.</li><li>j) A spectral plot of the test results and setup description shall be included in the test report.</li></ul>
	NOTE—A peak responding power meter may be used, where the power meter and sensor system video bandwidth is greater than the occupied bandwidth of the unlicensed wireless device, rather than a spectrum
	analyzer.

# 5.1. EUT Operation

Operating Envi	ronment:	Anbore	Pur Polek	Anborek	Aup	abotek
Test mode:	1: TX-GFSK (No hopping) with GF 2: TX-π/4-DQPS (non-hopping) wi 3: TX-8DPSK (No hopping) with 8D	SK modulation K (Non-Hoppir th π/4 DQPSK on-Hopping): k	n. ng): Keep the E modulation. Keep the EUT in	UT in contin	uously transm	itting mode

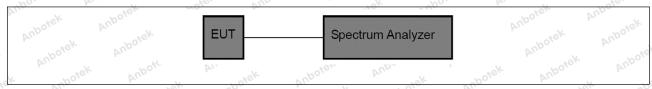






Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 20 of 41

### 5.2. Test Setup



#### 5.3. Test Data

10	Tomporaturo	25.5 °C	Humidita	47 %	Atmospheric Pressure:	101 kPa
	Temperature:	25.5 6	Humidity:	47 70	Aunosphenc Flessure.	101 kPa

Please Refer to Appendix for Details.





Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 21 of 41

# 6. Channel Separation

July K. Sk	70010	VI		2000	V	N 2010
Test Requirement:	47 CFR 15.	.247(a)(1)	Anba	k abore	k Aupor	All
Test Limit:  Anbotek  Anbotek  Anbotek  Anbotek  Anbotek	hopping chathe 20 dB b Alternativel band may h 25 kHz or to	annel carrier pandwidth of y, frequency nave hopping wo-thirds of t s greater, pro	the hopping on hopping systom channel car he 20 dB bar	separated by channel, which which which which will be considered by the separation of the constant with the constant wit	y a minimum chever is grong in the 240 ies that are e hopping c	n of 25 kHz or eater. 00-2483.5 MHz separated by
Test Method:		10-2020, sec '4 D01 15.24	tion 7.8.2 7 Meas Guid	ance v05r02	tek Aup	otek Aupot
tek Anbotek Anbotek Anbotek Anbotek Anbotek	spectrum a a) Span: W b) RBW: St spacing; ad channel.	nalyzer settir ide enough t art with the F ljust as nece	o capture the RBW set to a ssary to best	e peaks of tw pproximately identify the o	o adjacent o 30% of the	channels. channel
Procedure:  Anbored  Anbored  Anbored  Anbored  Anbored	d) Sweep: I e) Detector f) Trace: Ma	No faster tha function: Pe				
potek Anbotek Anbotek Anbotek	peaks of the regulatory l	e adjacent cl	determined.	npliance of a	n EUT with	the appropriate

# 6.1. EUT Operation

Operating Env	ironment:
Test mode:	<ul> <li>4: TX-GFSK (Hopping): Keep the EUT in continuously transmitting mode (hopping) with GFSK modulation,.</li> <li>5: TX-π/4-DQPSK (Hopping): Keep the EUT in continuously transmitting mode (hopping) with π/4 DQPSK modulation.</li> <li>6: TX-8DPSK (Hopping): Keep the EUT in continuously transmitting mode (hopping) with 8DPSK modulation.</li> </ul>

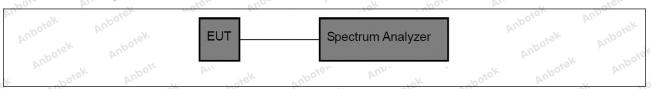






Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 22 of 41

### 6.2. Test Setup



#### 6.3. Test Data

10	Tomporaturo	25.5 °C	Humidita	47 %	Atmospheric Pressure:	101 kPa
	Temperature:	25.5 6	Humidity:	47 70	Aunosphenc Flessure.	101 kPa

Please Refer to Appendix for Details.





Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 23 of 41

# 7. Number of Hopping Frequencies

ap	20,			- 000°		
Test Requirement:	47 CFR 15	5.247(a)(1)(iii)	Anbo.	h. shotek	Anbore	Ansotek
Test Limit:	2483.5 MF occupancy period of 0 employed. transmissi	T CFR 15.247( Iz band shall u on any chanr 0.4 seconds mu Frequency ho ons on a particuls are used.	ise at least 15 nel shall not be ultiplied by the opping system	channels. The greater than number of he may avoid o	ne average ti n 0.4 seconds opping chan or suppress	me of s within a nels
Test Method:		.10-2020, sect 74 D01 15.247		nce v05r02	Aupotek	Anbotek
Anbotek	spectrum a a) Span: T channels t range of o be clearly b) RBW: T	o identify clear channel spac	gs: pand of operatorits, it could s multiple spa	tion. Dependi be necessary ns, to allow th al channels,	ng on the nu to divide the ne individual set the RBW	mber of e frequency channels to to less than
Procedure:	d) Sweep: e) Detecto f) Trace: M	No faster than r function: Pea	ak.ek Anbo	o) time.		
Anbotek Anbotek Anbotek Anbotek	all of the h regulatory	ove necessary opping freque limit shall be o ot of the datas	ncies. Complia letermined for	ance of an El the number	JT with the a of hopping ch	ppropriate

# 7.1. EUT Operation

Operating Envi	conment: otek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek
Test mode:	<ul> <li>4: TX-GFSK (Hopping): Keep the EUT in continuously transmitting mode (hopping) with GFSK modulation,.</li> <li>5: TX-π/4-DQPSK (Hopping): Keep the EUT in continuously transmitting mode (hopping) with π/4 DQPSK modulation.</li> <li>6: TX-8DPSK (Hopping): Keep the EUT in continuously transmitting mode (hopping) with 8DPSK modulation.</li> </ul>

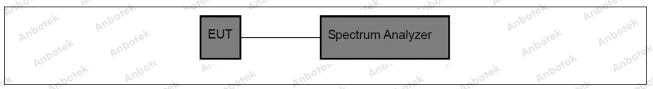






Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 24 of 41

### 7.2. Test Setup



### 7.3. Test Data

10	Tomporaturo	25.5 °C	Humidita	47 %	Atmospheric Pressure:	101 kPa
	Temperature:	25.5 6	Humidity:	47 70	Aunosphenc Flessure.	101 kPa

Please Refer to Appendix for Details.





Report No.: 18220WC40089501 FCC ID: 2AllF-11038PG Page 25 of 41

### 8. Dwell Time

Aupor Ali	- Shotek	Anbe	York	Pupo,	DI	Poles.
Test Requirement:	47 CFR 15.2	247(a)(1)(iii)	Anba	k spojek	Aupor	W. Otek
Test Limit:	2483.5 MHz occupancy of period of 0.4 employed. F	band shall on any chan seconds m requency h ns on a parti	use at least nel shall not ultiplied by tl opping syste	quency hoppir 15 channels. T be greater than ne number of h ms may avoid g frequency pr	he average ting 0.4 seconds nopping chanror suppress	ne of within a nels
Test Method:	ANSI C63.1 KDB 558074			ance v05r02	k Anborek	Anborek
hbotek Anbotek Anbotek	transmission a single tran transmission	n to the end ismission pe n. If the devi is measured	of the last tra er hop then th ce has a mul	is the time fro ansmission for ne dwell time is tiple transmiss t of the first tra	that hop. If the the the thick the t	e device has of that then the
	over an obsidetermine the measure bo	ervation per ne time of oo th the dwell	iod specified ccupancy the	ne that the devine the regulator spectrum ana and the numb given period.	ory requireme lyzer will be c	nt. To onfigured to
Anborek Anborek Anborek Anborek Anborek Procedure:	requirement number of c the number based on the dwell times for 1, 3 or 5	s shall be m hannels ena of channels e minimum per channel time slots) t	nade with the abled. If the of than complianumber of ch (example Bl hen measure	tion enabled. O minimum and well time per cance with the re annels. If the cannels device ements can be of channels.	with the maxi channel does equirements r device suppor s can dwell or	mum not vary with nay be ts different n a channel
	Use the follo	owing specti	um analyzer	settings to def	termine the dv	vell time per
	a) Span: Ze b) RBW sha	ll be ≤ chan	nel spacing a	opping channe and where pos transmission t	sible RBW sh	ould be
	c) Sweep tir last transmis	ne: Set so the	nat the start on the hop are clea	of the first trans arly captured. S	smission and Setting the sw	eep time to
	1/hopping ra d) Use a vid the transmis	ate) should a eo trigger, v ssion is clea	achieve this. where possiblerly observed.	eriod per chan e with a trigge The trigger leven the system	r delay, so tha vel might need	t the start of adjustment
	channel. e) Detector f) Trace: Cle	function: Pe ear-write, sin	ak. gle sweep.	rst transmissio	otek Yupo	iek Vupo,









Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 26 of 41

the end of the last transmission. The dwell time per hop is the time between these two markers.

To determine the number of hops on a channel in the regulatory observation period repeat the measurement using a longer sweep time. When the device uses a single hopping sequence the period of measurement should be sufficient to capture at least 2 hops. When the device uses a dynamic hopping sequence, or the sequence varies, the period of measurement may need to capture multiple hops to better determine the average time of occupancy. Count the number of hops on the channel across the sweep time.

The average number of hops on the same channel within the regulatory observation period is calculated from the number of hops on the channel divided by the spectrum analyzer sweep time multiplied by the regulatory observation period. For example, if three hops are counted with an analyzer sweep time of 500 ms and the regulatory observation period is 10 s, then the number of hops in that ten seconds is  $3/0.5 \times 10$ , or 60 hops.

The average time of occupancy is calculated by multiplying the dwell time per hop by the number of hops in the observation period.

### 8.1. EUT Operation

#### Operating Environment:

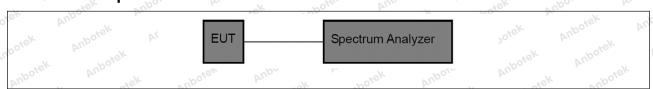
4: TX-GFSK (Hopping): Keep the EUT in continuously transmitting mode (hopping) with GFSK modulation..

Test mode:

5: TX- $\pi$ /4-DQPSK (Hopping): Keep the EUT in continuously transmitting mode (hopping) with  $\pi$ /4 DQPSK modulation.

6: TX-8DPSK (Hopping): Keep the EUT in continuously transmitting mode (hopping) with 8DPSK modulation.

#### 8.2. Test Setup



#### 8.3. Test Data

	Temperature:	25.5 °C	Humidity:	47 %	Atmospheric Pressure:	101 kPa
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Please Refer to Appendix for Details.





Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 27 of 41

# 9. Emissions in non-restricted frequency bands

you was a self	- Abore	V11.	- CASE	anbo	- Yor	- 100°C
Test Requirement:	47 CFR 15.	247(d), 15.20	9, 15.205	botek	Aupor	A. Otek
Anbotek	band in whi is operating radiator sha the band the either an R demonstrat transmitter RMS avera this section instead of 2	CFR 15.247(c) ch the spread property of the radio free all be at least 2 at contains the conducted compliance complies with ging over a tire, the attenuation of the contains of the attenuation of the contains of the contai	spectrum or quency powe 20 dB below to e highest level or a radiated re with the pea the conducte ne interval, as on required u	digitally mod r that is prod that in the 10 le of the desir neasurement conducted do power limits permitted under this par	ulated intent uced by the 0 kHz bandw ed power, ba t, provided th power limits is based on t nder paragra agraph shall	ional radiator intentional vidth within ased on the transmitter . If the the use of aph (b)(3) of be 30 dB
Test Method:	1.6.77	10-2020 section 4 D01 15.247		nce v05r02	upotek A	Aupotek W.
Anbotek	To demons requiremen transmit fre Frequency	neral considerate compliants conducted quencies, per hopping shall ents at the alloabled.	ce with the re spurious emis 5.5 and 5.6, be disabled f	ssions shall b and at the ma or this test w	e measured aximum trans ith the excep	for the smit powers. tion of
botek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek	analyzer in wireless de testing shal be done in The resolut	e primary ante out; in the resi vice output ar I span 30 MH: a single swee ion bandwidth eep time with	ults, account to d the spectru z to 10 times p or, to aid re- shall be 100	for all losses im analyzer. the operating solution, acro kHz, video b	between the The frequency of frequency a oss a numbe	unlicensed by range of and this may r of sweeps.
Procedure: orek	using the sa bandwidth of help clearly required off highest in-b	based on the ame instrument of 300 kHz, and demonstrate set (typically 2 pand level is needs a separat	nt settings (re nd a coupled s compliance a 20 dB) below ot clearly ider	solution band sweep time water display line the highest in tified in the c	dwidth of 100 vith a peak domay be set a n-band level. out-of-band	) kHz, video etector). To at the Where the
otek Anbotek An otek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek	When cond integrated, The reference maximizing using the redescribed a restricted-b below the h	ucted measur non-removablace level for de the field strent esolution and valove. The field ands shall the ighest in-band	e antenna) ra etermining the ogth from the video bandwid d strength lim n be set at th d level. Radia	idiated meas e limit shall be highest powed th settings a nit for spuriou e required of ted measure	urements she established er channel ar and peak detus emissions fset (typically ments will fo	all be used. I by Id measuring ector as outside of / 20 dB) Ilow the









Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 28 of 41

exception that the resolution bandwidth shall be 100 kHz, video bandwidth 300 kHz, and a coupled sweep time with a peak detector. Note that use of wider measurement bandwidths are acceptable for measuring the spurious emissions provided that the peak detector is used and that the measured value of spurious emissions are compared to the highest in-band level measured with the 100 kHz / 300 kHz bandwidth settings to determine compliance.

#### 7.8.7.2 Band-edges

Compliance with a relative limit at the band-edges (e.g., -20 dBc) shall be made on the lowest and on the highest channels with frequency hopping disabled and repeated with frequency hopping enabled. For the latter test the hopping sequence shall include the lowest and highest channels.

For measurements with the hopping disabled the analyzer screen shall clearly show compliance with the requirement within 10 MHz of the allocated band-edge.

For measurements with the hopping enabled the analyzer screen shall clearly show compliance with the requirement within 10 MHz of both of the allocated band-edges. This could require separate spectral plots for each band-edge.

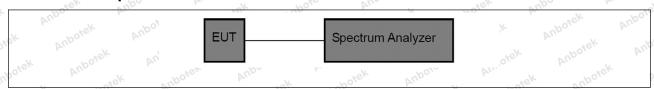
### 9.1. EUT Operation

### Operating Environment:

- 1: TX-GFSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-hopping) with GFSK modulation.
- 2: TX- $\pi$ /4-DQPSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-hopping) with  $\pi$ /4 DQPSK modulation.
- 3: TX-8DPSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-hopping) with 8DPSK modulation.
- 4: TX-GFSK (Hopping): Keep the EUT in continuously transmitting mode (hopping) with GFSK modulation.
- 5: TX- $\pi$ /4-DQPSK (Hopping): Keep the EUT in continuously transmitting mode (hopping) with  $\pi$ /4 DQPSK modulation.
- 6: TX-8DPSK (Hopping): Keep the EUT in continuously transmitting mode (hopping) with 8DPSK modulation.

#### 9.2. Test Setup

Test mode:



#### 9.3. Test Data

Please Refer to Appendix for Details.







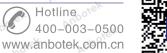
FCC ID: 2AIIF-11038PG Report No.: 18220WC40089501 Page 29 of 41

# 10. Band edge emissions (Radiated)

Test Requirement:	restricted bands, as defined	, In addition, radiated emissions d in § 15.205(a), must also comp ecified in § 15.209(a)(see § 15.2	oly with the 📈
tek Anbotek Anbot	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
	0.009-0.490	2400/F(kHz)	300 00000
boier And	0.490-1.705	24000/F(kHz)	30 otek
	1.705-30.0	30	30
And K hotek	30-88	100 **	3 ek Anbore
	88-216	150 **	3
	216-960	200 **	3botes Ant
70	Above 960	500 Sofek Ambo	3
Test Limit:	** Except as provided in pa intentional radiators operati	ragraph (g), fundamental emissing under this section shall not b	e located in the
Test Limit: orek Antorek Anborek Anborek Anborek Anborek Anborek Anborek Anborek	** Except as provided in partitional radiators operation frequency bands 54-72 MH However, operation within the sections of this part, e.g., § In the emission table above The emission limits shown employing a CISPR quasi-page kHz, 110–490 kHz and a	ragraph (g), fundamental emissing under this section shall not b z, 76-88 MHz, 174-216 MHz or hese frequency bands is permit	pe located in the 470-806 MHz. ted under other pand edges. measurements quency bands 9– ssion limits in
Test Method:	** Except as provided in partitional radiators operated frequency bands 54-72 MH However, operation within the sections of this part, e.g., § In the emission table above The emission limits shown employing a CISPR quasi-page 100 kHz, 110–490 kHz and a these three bands are base	ragraph (g), fundamental emissing under this section shall not be z, 76-88 MHz, 174-216 MHz or hese frequency bands is permit § 15.231 and 15.241.  The tighter limit applies at the bein the above table are based on beak detector except for the frequency above 1000 MHz. Radiated emisted on measurements employing 6.10	pe located in the 470-806 MHz. ted under other pand edges. measurements quency bands 9– ssion limits in

# 10.1. EUT Operation

Operating Envir	onment:
Test mode:	<ol> <li>TX-GFSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-hopping) with GFSK modulation.</li> <li>TX-π/4-DQPSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-hopping) with π/4 DQPSK modulation.</li> <li>TX-8DPSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-hopping) with 8DPSK modulation.</li> </ol>

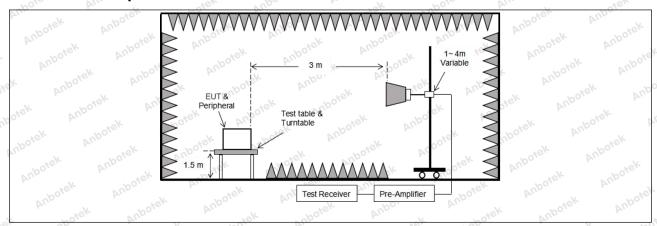






Report No.: 18220WC40089501 FCC ID: 2AllF-11038PG Page 30 of 41

### 10.2. Test Setup



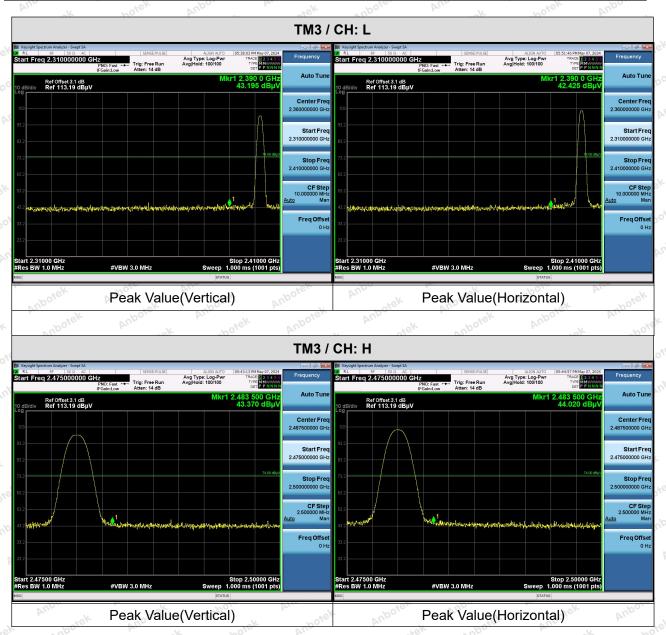




Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 31 of 41

### 10.3. Test Data

Temperature: 25.5 °C Humidity: 47 % Atmospheric Pressure: 101 kPa



#### Remark:

- 1. When the PK measure result value is less than the AVG limit value, the AV measure result values test not applicable.
- 2. During the test, pre-scan all modes, the report only record the worse case mode.







Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 32 of 41

# 11. Emissions in frequency bands (below 1GHz)

100 K	"OJO	" Ser Valor	-K 2010			
Test Requirement:	restricted bands, as defined	, In addition, radiated emissions d in § 15.205(a), must also comp ecified in § 15.209(a)(see § 15.2	oly with the			
otek Aupotek Aupol	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)			
o. A. Siek	0.009-0.490	2400/F(kHz)	300 00000			
abotek Anbe	0.490-1.705	24000/F(kHz)	30			
All.	1.705-30.0	30	30			
Aupo, A. A.	30-88	100 **	3,ek abore			
shotek Anbo	88-216	150 **	3			
Arm rek abore	216-960	200 **	3 boten Ant			
V Vipor Vi	Above 960	500 Andrew	3 rek ab			
** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this section shall not be located in th frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under othe sections of this part, e.g., §§ 15.231 and 15.241. In the emission table above, the tighter limit applies at the band edges. The emission limits shown in the above table are based on measurement employing a CISPR quasi-peak detector except for the frequency bands 90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.						
Posts But	ANSI C63.10-2020 section	6.6 A Anbore	ak abotek			
Test Method:	KDB 558074 D01 15.247 M		Ar. shotek			
Procedure:	ANSI C63.10-2020 section	6.6.4 Miles	oo, Ai, Potek			

# 11.1. EUT Operation

Operating Envir	ronment: tek hotek Anbotek Anbotek Anbotek
Test mode:	<ol> <li>TX-GFSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-hopping) with GFSK modulation.</li> <li>TX-π/4-DQPSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-hopping) with π/4 DQPSK modulation.</li> <li>TX-8DPSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-hopping) with 8DPSK modulation.</li> </ol>

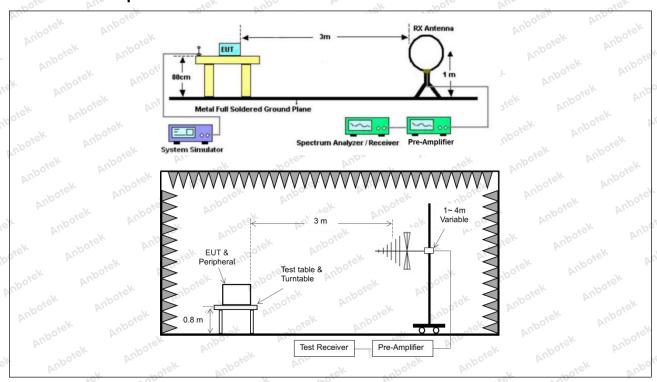






Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 33 of 41

### 11.2. Test Setup





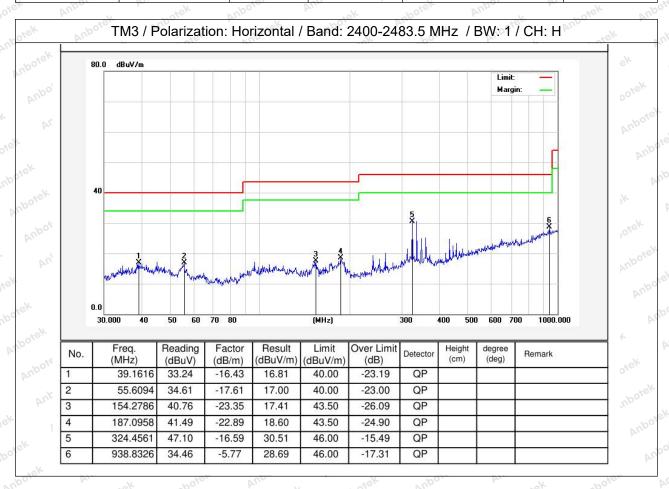


FCC ID: 2AIIF-11038PG Report No.: 18220WC40089501 Page 34 of 41

#### 11.3. Test Data

The test results of 9kHz-30MHz was attenuated more than 20dB below the permissible limits, so the results don't record in the report.

Temperature:	20.3 °C	Humi	iditv: 46 %	Atmospheric P	ressure: 101 kPa
	-1.00			Training princing is	(

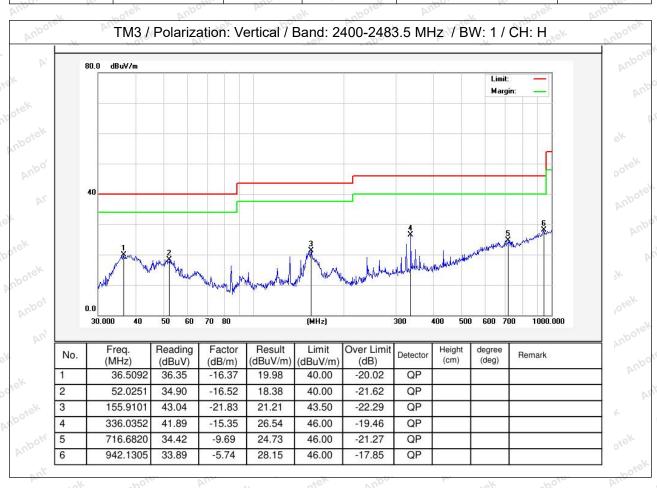






Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 35 of 41

Temperature: 20.3 °C Humidity: 46 % Atmospheric Pressure: 101 kPa



Note:Only record the worst data in the report.







Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 36 of 41

# 12. Emissions in frequency bands (above 1GHz)

Test Requirement:		ons which fall in the restricted background by with the radiated emission $\overline{b}(c)$ .	
k Aupotek Aupot	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
or hotek	0.009-0.490	2400/F(kHz)	300 Mbore
Anbore, Anb	0.490-1.705	24000/F(kHz)	30
hotek Anbore	1.705-30.0	30	30
Ann sek shotek	30-88	100 **	3,ek Anbore
Anbore And	88-216	150 **	3
botek Anbor	216-960	200 **	3 bores Ant
Test Limit:	Above 960	500 ragraph (g), fundamental emissi	3 potek pri
nbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek	frequency bands 54-72 MH However, operation within to sections of this part, e.g., § In the emission table above The emission limits shown employing a CISPR quasi-page 110-490 kHz, 110-490 kHz and a section of the se	ing under this section shall not be z, 76-88 MHz, 174-216 MHz or hese frequency bands is permitted in the tighter limit applies at the bein the above table are based on beak detector except for the frequency above 1000 MHz. Radiated emisted on measurements employing	470-806 MHz. sed under other band edges. measurements uency bands 9– ssion limits in
Test Method:	ANSI C63.10-2020 section KDB 558074 D01 15.247 M		sk Vupotek
Procedure:	ANSI C63.10-2020 section	6.6.4	ore Au

# 12.1. EUT Operation

Operating Envir	onment:
Test mode:	<ol> <li>TX-GFSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-hopping) with GFSK modulation.</li> <li>TX-π/4-DQPSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-hopping) with π/4 DQPSK modulation.</li> <li>TX-8DPSK (Non-Hopping): Keep the EUT in continuously transmitting mode (non-hopping) with 8DPSK modulation.</li> </ol>

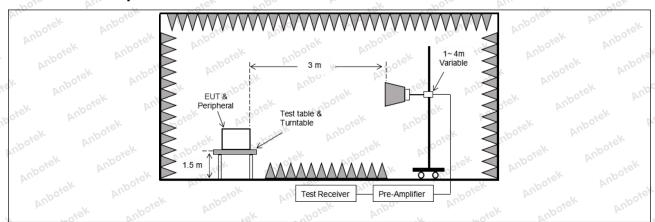






Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 37 of 41

### 12.2. Test Setup







Report No.: 18220WC40089501 FCC ID: 2AllF-11038PG Page 38 of 41

### 12.3. Test Data

Temperature: 20.3 °C	Humidity: 46 %	Atmospheric Pressure:	101 kPa
----------------------	----------------	-----------------------	---------

And	Potek Vup.		rek noboti	Ans	ok hotek	Anbo.
		·	TM3 / CH: L			
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4804.00	29.77	15.27	45.04	74.00	-28.96	Vertical
7206.00	30.49	18.09	48.58	74.00	-25.42	Vertical
9608.00	32.21	23.76	55.97	74.00	-18.03	Vertical
12010.00	Aupoter* A	49:	abořek Anb	74.00	otek Anbott	Vertical
14412.00	*Upo*ele	Anbo	hoisk b	74.00	rick ont	Vertical
4804.00	29.93	15.27	45.20	74.00	-28.80	Horizontal
7206.00	31.63	18.09	49.72	74.00	-24.28	Horizontal
9608.00	29.35	23.76	53.11	74.00	-20.89	Horizontal
12010.00	otek * Aupo	-V	ick Wipote	74.00	r upotek	Horizontal
14412.00	notek*	oole Viin	tek ab	74.00	ok hore	Horizontal
Average value: Frequency	Reading	Factor	Result	Limit	Over Limit	polarization
(MHz)	(dBuV)	(dB/m)	(dBuV/m)	(dBuV/m)	(dB)	polarization
4804.00	19.15	15.27	34.42	54.00	-19.58	Vertical
7206.00	19.52	18.09	37.61	54.00	-16.39	Vertical
9608.00	21.23	23.76	44.99	54.00	-9.01	Vertical
12010.00	No tok	Aupote, Au	- sek	54.00	-M Pri	Vertical
14412.00	Ant *	nboiek	Aupo, ok	54.00	Pure Visco	Vertical
4804.00	18.28	15.27	33.55	54.00	-20.45	Horizontal
7206.00	20.69	18.09	38.78	54.00	-15.22	Horizontal
9608.00	18.66	23.76	42.42	54.00	-11.58	Horizontal
12010.00	- sek *	otek Aupor	-K MO,	54.00	YUP "FEK	Horizontal
14412.00	(p) *	botek Ant	ors. Aug	54.00	ek Vupo,	Horizontal



Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 39 of 41

ek Anbore	Ann	anbotek	Aupo	hoiek	Anbore A	'As alek
		٦	ГМ3 / СН: М			
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4882.00	29.79	15.42	45.21	74.00	-28.79	Vertical
7323.00	30.34	18.02	48.36	74.00	-25.64	Vertical
9764.00	31.22	23.80	55.02	74.00	-18.98	Vertical
12205.00	ek * nbotek	Anbo.	hojek.	74.00	And	Vertical
14646.00	* * *	ick Aupole	Aug	74.00	Anbo	Vertical
4882.00	29.63	15.42	45.05	74.00	-28.95	Horizontal
7323.00	31.62	18.02	49.64	74.00	-24.36	Horizontal
9764.00	29.05	23.80	52.85	74.00	-21.15	Horizontal
12205.00	* otek	Anboie	And	74.00	YUPO, CK	Horizontal
14646.00	Ant.	Anbotek	Aupo	74.00	Anbore	Horizontal
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4882.00	18.88	15.42	34.30	54.00 M	-19.70	Vertical
7323.00	19.62	18.02	37.64	54.00	-16.36	Vertical
9764.00	21.09	23.80	44.89	54.00	-9.11	Vertical
12205.00	k *nbore	N Diek	anboten	54.00	botek	Vertical
14646.00	otek * Anbot	And	ek Spojek	54.00	pi. cotek	Vertical
4882.00	18.19	15.42	33.61	54.00	-20.39	Horizontal
7323.00	20.25	18.02	38.27	54.00	-15.73	Horizontal
9764.00	19.17	23.80	42.97	54.00	11.03	Horizontal
12205.00	anbtotek	Aupo 'Ck	abořek	54.00	otek	Horizontal
14646.00	* "otek	Aupor	A. rek	54.00	AUD	Horizontal



Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 40 of 41

Le. AUD	- rek	Vupo,	Dr.	hoie.	VUR.	rek
		•	TM3 / CH: H			
Peak value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4960.00	30.06	15.58	45.64	74.00	-28.36	Vertical
7440.00	30.35	17.93	48.28	74.00	-25.72	Vertical
9920.00	31.77	23.83	55.60	74.00	-18.40	Vertical
12400.00	* work	Aupoter	YUP.	74.00	Aupo,	Vertical
14880.00	* And	rek Spotel	Aupo.	74.00	Aupore.	Vertical
4960.00	29.70	15.58	45.28	74.00	-28.72	Horizontal
7440.00	31.65	17.93	49.58	74.00	-24.42	Horizontal
9920.00	29.73	23.83	53.56	74.00	-20.44	Horizontal
12400.00	Anb * *ek	abotek	Aupo, K	74.00	Anbote, An	Horizontal
14880.00	W.Apo.	hotek hotek	Anbores	74.00	anbotek	Horizontal
Average value:						
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over Limit (dB)	polarization
4960.00	20.00	15.58	35.58	54.00	-18.42	Vertical
7440.00	20.63	17.93	38.56	54.00	15.44 M	Vertical
9920.00	21.64	23.83	45.47	54.00	-8.53	Vertical
12400.00	* * hotek	Anbo	hotek	54.00	Andrick	Vertical
14880.00	* * *	sk Pupole	And	54.00	Aupo	Vertical
4960.00	19.63	15.58	35.21	54.00	-18.79	Horizontal
7440.00	21.62	17.93	39.55 NO	54.00	-14.45	Horizontal
9920.00	19.07	23.83	42.90	54.00	±11.10	Horizontal
12400.00	* tek	Aupoles	Aur	54.00	ipo. bis	Horizontal
14880 00	An*	hotek	Anbo	54 00	Vupotes b	Horizontal

#### Remark:

- 1. Result =Reading + Factor
- "\*" means the test results were attenuated more than 20dB below the permissible limits, so the results don't record in the report.
- 3. Only the worst case is recorded in the report.







Report No.: 18220WC40089501 FCC ID: 2AIIF-11038PG Page 41 of 41

### APPENDIX I -- TEST SETUP PHOTOGRAPH

Please refer to separated files Appendix I -- Test Setup Photograph\_RF

#### APPENDIX II -- EXTERNAL PHOTOGRAPH

Please refer to separated files Appendix II -- External Photograph

### APPENDIX III -- INTERNAL PHOTOGRAPH

Please refer to separated files Appendix III -- Internal Photograph

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

