

Report No.: 18220WC40015604 FCC ID: 2BKBF-LITE

# FCC Test Report

**Applicant** Tugu (Huizhou) Technical Service Co., Ltd

401-A1 and 402-B1, Building 9, Phase I of

Intelligent Manufacturing Port, Huicheng Bay Area, Liandong U Valley, Shuikou Street, **Address** 

**Huizhou City, China** 

**Product Name USB** Android Ai box

Sept. 09, 2024 Report Date

Compliance Laboratory

Anbotek

Anbotek Shenzhen Anbotek Compliance Laboratory Limited \* Approved \*









FCC ID: 2BKBF-LITE

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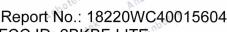
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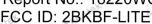
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# TEST REPORT

Applicant · Tuqu (Huizhou) Technical Service Co., Ltd

Manufacturer Tugu (Huizhou) Technical Service Co., Ltd

**Product Name** USB Android Ai box

CPC200-Tbox LITE, CPC200-Tbox MINI2, CPC200-Tbox SE. Model No.

CPC200-Tbox Basic2, CPC200-Clever Box, KPT-STREAM

Trade Mark CarlinKit, Loadkey

Rating(s) Input: 5V-1A

47 CFR Part 15E

ANSI C63.10-2020

Test Standard(s) KDB 789033 D02 General UNII Test Procedures New Rules v02r01

KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02

KDB 662911 D01 Multiple Transmitter Output v02r01

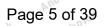
The device described above is tested by Shenzhen Anbotek Compliance Laboratory Limited to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and Shenzhen 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:	Jan. 25, 2024
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Date of Test:	an. 25, 2024 to Mar. 04, 2024
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Prepared By:	Poter Wotek Wholek Wupo
Postek Auporg Al. Otek Aupoten	(Ella Liang)
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Approved & Authorized Signer:	W Week Autobe Aug
ak spokek Aupor Aupo	(Edward Pan)







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# **Revision History**

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# 1. General Information

# 1.1. Client Information

Applicant	: Tuqu (Huizhou) Technical Service Co., Ltd
Address	401-A1 and 402-B1, Building 9, Phase I of Intelligent Manufacturing Port, Huicheng Bay Area, Liandong U Valley, Shuikou Street, Huizhou City, China
Manufacturer	: Tuqu (Huizhou) Technical Service Co., Ltd
Address	401-A1 and 402-B1, Building 9, Phase I of Intelligent Manufacturing Port, Huicheng Bay Area, Liandong U Valley, Shuikou Street, Huizhou City, China
Factory	: Tuqu (Huizhou) Technical Service Co., Ltd
Address	401-A1 and 402-B1, Building 9, Phase I of Intelligent Manufacturing Port, Huicheng Bay Area, Liandong U Valley, Shuikou Street, Huizhou City, China

# 1.2. Description of Device (EUT)

rek Lupo		ok spore Am
Product Name	:	USB Android Ai box
Model No.	:	CPC200-Tbox LITE, CPC200-Tbox MINI2, CPC200-Tbox SE, CPC200-Tbox Basic2, CPC200-Clever Box, KPT- STREAM (Note: All samples are the same except the model number, so we prepare "CPC200-Tbox LITE" for test only.)
Trade Mark	:	CarlinKit, Loadkey
Test Power Supply	••	DC 5V Anbotek Anbotek Anbotek
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)
Adapter	:	NIA Ambore Am abotek Ambore Amborek Ambore
RF Specification		
Operation Frequency	:	802.11a/n(HT20)/ac(VHT20)/ax(HEW20): U-NII Band 2A: 5260MHz to 5320MHz  802.11n(HT40)/ac(VHT40)/ax(HEW40): U-NII Band 2A: 5270MHz to 5310MHz
Number of Channel	:	802.11a/n(HT20)/ac(VHT20)/ax(HEW20): U-NII Band 2A: 4 802.11n(HT40)/ac(VHT40)/ax(HEW40): U-NII Band 2A: 2
Modulation Type	:	802.11a: OFDM(BPSK, QPSK, 16QAM, 64QAM); 802.11n: OFDM (BPSK, QPSK, 16QAM, 64QAM); 802.11ac: OFDM (BPSK, QPSK, 16QAM, 64QAM, 256QAM); 802.11ax: OFDMA (BPSK, QPSK, 16QAM, 64QAM, 256QAM, 1024QAM)
Antenna Type	:	FPC Antenna
Antenna Gain(Peak)		4.24dBiyek Anbotek Anbotek Anbotek Anbotek





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Davis Ton		☐ Outdoor AP ☐ Indoor AP	☐ Point-to-point AP
Device Type	:	⊠ Client	Jolek Anbotek Anbotek
TPC Function	:	☐ With TPC	⊠ Without TPC
DFS Type	:	☑ Slave without radar detection ☐ Master	☐ Slave with radar detection
Remark:		Otek Auport An	sk upole, Aug
		ion are provided by customer.	Kek "Upors.
(2) For a more detailed	l fe	atures description, please refer to the m	anufacturer's specifications or the
User's Manual.	0000	All aboter An	polek Anbo
Yupo Tupo	Anb	olek Vuporg Vupolek	Aupoter Augustek Aupotek

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# 1.3. Auxiliary Equipment Used During Test

Title	M	anufacturer	Model No.		Serial No.
Hyundai Mo	bis HYU	INDAI MOBIS CO.,Ltd	APB12F0CG	VLDOIGK	Anoshotek

# 1.4. Operation channel list

Operation Band: U-NII Band 2A

	Operation band.	O-IVII Dana 271	1000	VII.	FOR VID	
Anb	Bandwidth:	20MHz	Bandwidth:	40MHz	Bandwidth:	80MHz Moore
,e/k	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
rek.	52	5260	hotek 54 Anbo	5270	58,000ek	5290
upo.	56,000ek	5280	62	5310	stek Anbotek	Wpor
Aupor	60 abotek	5300	Aug	Aupotek Ar	or rek / anb	Pick \ Vupor
An	64	5320	V VOIEK	Aupliek	Anbo	mbotek / Anbo



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# 1.5. Description of Test Modes

Pretest Modes	Descriptions
otek Anbotek Anbotek	Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case.  Only the data of worst case is recorded in the report.
Anbotek TM2	Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.
otek Aupotek Aupotek	Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.
Anbotek Anbotek An	Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.
Anbotes TM5 Anbotek	Keep the EUT works in normal operating mode and connect to companion device

# 1.6. Measurement Uncertainty

1.6. Measurement Uncertainty	Anbotek Anbotek Anbotek Anbotek
Parameter	Uncertainty
Conducted Output Power	0.76dB Anbotek Anbotek
Power Spectral Density	0.76dB Ambotek Anbotek Anbotek
Occupied Bandwidth	925Hz
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.









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## 1.7. Test Summary

	N 100 N	
Test Items	Test Modes	Status
Conducted Emission at AC power line	Thooley Aug Olek	AUP Nick
Duty Cycle	Mode1,2,3,4	Pahotek
Maximum conducted output power	Mode1,2,3,4	k P Anb
Power spectral density	Mode1,2,3,4	otek P
Emission bandwidth and occupied bandwidth	Mode1,2,3,4	, oteR
Channel Move Time, Channel Closing Transmission Time	Mode5	Pur Prek
DFS Detection Thresholds	Mode5	And P
Band edge emissions (Radiated)	Mode1,2,3,4	PARIO
Undesirable emission limits (below 1GHz)	Mode1,2,3,4	P An
Undesirable emission limits (above 1GHz)	Mode1,2,3,4	Pole B
Note: P: Pass N: N/A, not applicable	Aupotek Aupotek	Anbotek

# 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.

Sogood Industrial Zone Laboratory & 1/F. of Building D, Sogood Science and Technology Park, Sanwei Community, Hangcheng Subdistrict, Bao'an District, Shenzhen, Guangdong, China.





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#### 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.
- 3. 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.
  - 6. 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.

Tel:(86)0755-26066440



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# 1.10. Test Equipment List

**Duty Cycle** 

Maximum conducted output power

Power spectral density

Emission bandwidth and occupied bandwidth

Channel Move Time, Channel Closing Transmission Time

**DFS Detection Thresholds** 

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1 Ar	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ- KHWS80B	N/A	2023-10-16	2024-10-15
2	DC Power Supply	IVYTECH	IV3605	1804D360 510	2023-10-20	2024-10-19
3	Spectrum Analyzer	Rohde & Schwarz	FSV40-N	101792	2023-05-26	2024-05-25
4	MXA Spectrum Analysis	KEYSIGHT	N9020A	MY505318 23	2023-10-12	2024-10-11
5	Oscilloscope	Tektronix	MDO3012	C020298	2023-10-12	2024-10-11
6	MXG RF Vector Signal Generator	Agilent	N5182A	MY474206 47	2023-02-23	2024-10-22

	edge emissions (Ra sirable emission limi		ek Aupore	Yupo,	tek Vup	otek Anbot
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1 nb	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	2023-10-12	2024-10-11
2	EMI Preamplifier	SKET Electronic	LNPA- 0118G-45	SKET-PA- 002	2023-10-12	2024-10-11
3	Double Ridged Horn Antenna	SCHWARZBECK	BBHA 9120D	02555	2022-10-16	2025-10-15
4	EMI Test Software EZ-EMC	SHURPLE	ek N/A Moo	N/A MA	-botek / Ari	ootek / Aupc
5 nt	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
e* 7	Amplifier	Talent Microwave	TLLA18G40 G-50-30	23022802	2023-05-25	2024-05-24





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Jnde	sirable emission limi	ts (below 1GHz)	abotek A	upor	y. otek	Aupolen
tem	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.Due Date
1	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	2023-10-12	2024-10-11
2	Pre-amplifier	SONOMA	310N	186860	2023-10-12	2024-10-11
3 Orek	Bilog Broadband Antenna	Schwarzbeck	VULB9163	345	2022-10-23	2025-10-22
14 <sup>bo</sup>	Loop Antenna (9K- 30M)	Schwarzbeck	FMZB1519 B	00053	2023-10-12	2024-10-11
5 <sup>A'</sup>	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A	And	Aupliek

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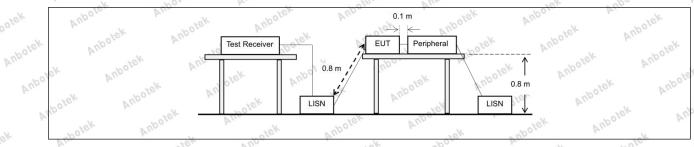
# 2. Conducted Emission at AC power line

*	Aupotek Aupo	Refer to 47 CFR 15.207(a), Except section, for an intentional radiator t public utility (AC) power line, the ra	hat is designed to be conditionally discount in the design of the conditions are the conditions.	nected to the t is conducted
0	Test Requirement:	back onto the AC power line on any band 150 kHz to 30 MHz, shall not	exceed the limits in the fo	ollowing table, as
0	upo otek Aupotek	measured using a 50 μH/50 ohms (LISN).	line impedance stabilization	on network
Ī	Aup	Frequency of emission (MHz)	Conducted limit (dBµV)	polek
	"upoler Yup	k bolek Anbo	Quasi-peak	Average
	+ III rek VUp	0.15-0.5	66 to 56*	56 to 46*
Vs	Test Limit:	0.5-5	56 abover And	46
	ok abotek	5-30 No. 100 N	60	50
10	ore. All	*Decreases with the logarithm of th	e frequency.	botek Anbo
	Test Method:	ANSI C63.10-2020 section 6.2	Potek Aupole	Yun Vek
	Procedure:	Refer to ANSI C63.10-2020 section line conducted emissions from unli		od for ac power-

# 2.1. EUT Operation

10	Operating Environ	ment: nbotek	Aupo	abotek	Aupolo	Polek	Aupole
n'	Test mode: /	k upotek	Anbor	Wolek.	Aupole	And	dna

# 2.2. Test Setup



# 2.3. Test Data

This is a Car device, which is intended to be installed on a vehicle only, not connect to the public utility under normal use.15.207 test is exempted.





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# 3. Duty Cycle

Test Requirement:	All measurements are to be performed with the EUT transmitting at 100% duty cycle at its maximum power control level; however, if 100% duty cycle cannot be achieved, measurements of duty cycle, x, and maximum-power transmission duration, T, are required for each tested mode of operation.
Test Limit:	No limits, only for report use.
Test Method:	ANSI C63.10-2020 section 12.2 (b)
Anbotek Anbotek	i) Set the center frequency of the instrument to the center frequency of the transmission. ii) Set RBW >= EBW if possible; otherwise, set RBW to the largest available value.
Procedure:	iii) Set VBW >= RBW.
Aupotek Aupotek	iv) Set detector = peak. v) The zero-span measurement method shall not be used unless both RBW and VBW are > 50/T, where T is defined in item a1) of 12.2, and the number of sweep points across duration T exceeds 100.

# 3.1. EUT Operation

Operating Environment:
------------------------

1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

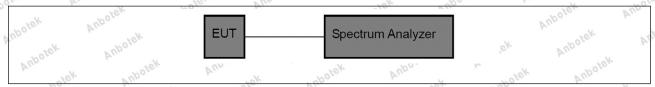
2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

Test mode:

3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

# 3.2. Test Setup



#### 3.3. Test Data

Temperature: 25.3 °C	Humidity: 48 %	Atmospheric Pressure: 101 kPa
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Please Refer to Appendix for Details.







FCC ID: 2BKBF-LITE

# 4. Maximum conducted output power

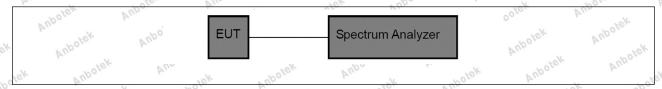
Test Requirement:	47 CFR Part 15.407(a)(2)
Test Limit: Anbotek	For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz.  If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that
Ann rek anbore	the directional gain of the antenna exceeds 6 dBi.
Test Method:	ANSI C63.10-2013, section 12.4
Procedure:	Refer to ANSI C63.10-2020 section 12.4

# 4.1. EUT Operation

Operating Env	ironment: hotek Anbotek Anbotek Anbotek Anbotek Anbotek
Tek Vupotek	1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.
Aupotek Aupoter	2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of
Test mode:	worst case is recorded in the report.  3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only
otek Aupotek	the data of worst case is recorded in the report. 4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and
Aupo Wolfek Aupo	data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

# 4.2. Test Setup

Anbotek



#### 4.3. Test Data

Temperature: 2	25.3 °C	Humidity: 48	3 %	Atmospheric Pressure:	101 kPa
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Please Refer to Appendix for Details.



Hotline

400-003-0500



FCC ID: 2BKBF-LITE

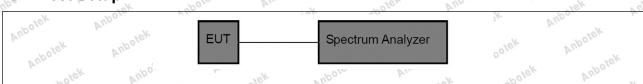
# 5. Power spectral density

Test Requirement:	47 CFR Part 15.407(a)(2)
Test Limit:	For the 5.25-5.35 GHz and 5.47-5.725 GHz bands, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
Test Method:	ANSI C63.10-2020, section 12.6
Procedure:	Refer to ANSI C63.10-2020, section 12.6

# 5.1. EUT Operation

Operating Enviro	onment:	Aupole VIII	Vuporek Vupo
Operating Environment	1: 802.11a mode: Keep the EUT contransmitting mode with 802.11a mod found the data rate @ 6Mbps is the recorded in the report. 2: 802.11n mode: Keep the EUT contransmitting mode with 802.11n mod been tested and found the data rate worst case is recorded in the report. 3: 802.11ac mode: Keep the EUT continuously transmitting mode with data rates has been tested and found the data of worst case is recorded in 4: 802.11ax mode: Keep the EUT continuously transmitting mode with data rates has been tested and found the data of worst case is recorded in 4: 802.11ax mode: Keep the EUT continuously transmitting mode with	ulation type. All data rate worst case. Only the data nect to AC power line are ulation type. All bandwid @ MCS0 is the worst case nect to AC power line as 802.11ac modulation typed the data rate @ MCS0 the report.  Innect to AC power line as 802.11ax modulation typed 802.11ax modulation types	es has been tested and a of worst case is and works in continuously lith and data rates has ase. Only the data of and works in be. All bandwidth and is the worst case. Only and works in be. All bandwidth and be. All bandwidth and
ek upotek	data rates has been tested and foun the data of worst case is recorded in		is the worst case. Only

# 5.2. Test Setup



## 5.3. Test Data

Temperature:	25.3 °C	Humidity: 48 %	Atmospheric Pressure:	101 kPa

Please Refer to Appendix for Details.



Hotline



FCC ID: 2BKBF-LITE

# 6. Emission bandwidth and occupied bandwidth

Test Requirement:	U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use.
Test Limit:	U-NII 1, U-NII 2A, U-NII 2C: No limits, only for report use.
Test Method:	ANSI C63.10-2020, section 6.9 & 12.5
riek Auporen	Emission bandwidth:
oo. Kek	a) Set RBW = approximately 1% of the emission bandwidth.
hotek Anbo	b) Set the VBW > RBW.
And K NO!	c) Detector = peak.
"upole" Aur	d) Trace mode = max hold.
W. Fok	e) Measure the maximum width of the emission that is 26 dB down from the
Aupor	peak of the emission.
r zotek	Compare this with the RBW setting of the instrument. Readjust RBW and
Sr. Vup.	repeat measurement
rek apolek	as needed until the RBW/EBW ratio is approximately 1%.
ipole VIII	Thotek Ando Ando A. tek
otek Anbotek	Occupied bandwidth:
Aupo	a) The instrument center frequency is set to the nominal EUT channel center
hotek Anbo	frequency. The
And	frequency span for the spectrum analyzer shall be between 1.5 times and
"upole" b	5.0 times the OBW.
V. rek	b) The nominal IF filter bandwidth (3 dB RBW) shall be in the range of 1% to
ick aupore	5% of the OBW,
rek	and VBW shall be approximately three times the RBW, unless otherwise
Potek Vupo	specified by the
un Polek	
"upote" Aug	applicable requirement.
E. Lek oup	c) Set the reference level of the instrument as required, keeping the signal
Aupor W.	from exceeding the
Procedure:	maximum input mixer level for linear operation. In general, the peak of the
And	spectral envelope
rek apolen	shall be more than [10 log (OBW/RBW)] below the reference level. Specific
ore VI.	guidance is given
Tek Vupore	in 4.1.5.2.
Ando	d) Step a) through step c) might require iteration to adjust within the
Potek Wupo	specified range.
YUR K	e) Video averaging is not permitted. Where practical, a sample detection an
" upolein Yu	single sweep mode
b. rek	shall be used. Otherwise, peak detection and max hold mode (until the trace
K Aupor	stabilizes) shall be
Clek	used.
otek And	f) Use the 99% power bandwidth function of the instrument (if available) and
ok spotek	report the measured
Anbore All	bandwidth. And the same and the
Fek Vupor	g) If the instrument does not have a 99% power bandwidth function, then the
Aupo	trace data points are
POLEK VL	recovered and directly summed in linear power terms. The recovered
Ann	amplitude data points,
ek abotek	beginning at the lowest frequency, are placed in a running sum until 0.5% o
Y	the total is reached;
otek Aupore	that frequency is recorded as the lower frequency. The process is repeated
1/po	until 99.5% of the
Potek Vupos	total is reached; that frequency is recorded as the upper frequency. The 99°
V UN	power bandwidth is





FCC ID: 2BKBF-LITE

the difference between these two frequencies.
h) The occupied bandwidth shall be reported by providing plot(s) of the measuring instrument display; the plot axes and the scale units per division shall be clearly labeled. Tabular data may be reported in addition to the plot(s).

## 6.1. EUT Operation

## **Operating Environment:**

1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

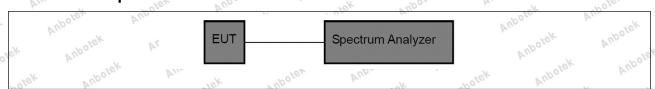
2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

#### Test mode:

3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

# 6.2. Test Setup



#### 6.3. Test Data

Temperature:	25.3 °C	Humidity:	48 %	Atmospheric Pressure:	101 kPa
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Please Refer to Appendix for Details.





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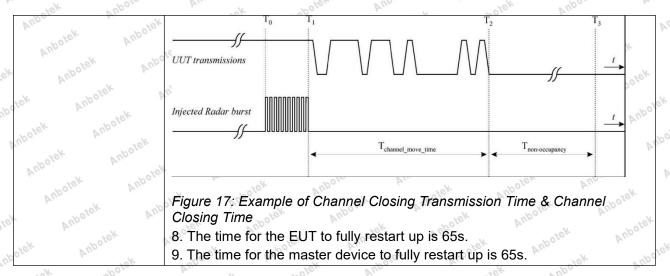
# 7. Channel Move Time, Channel Closing Transmission Time

- Upole VIII	ok hotek tube isk tubes by
Test Requirement:	47 CFR Part 15.407(h)(2)(iii)
Test Limit: Anbotek Anbotek Anbotek Anbotek Anbotek	Channel Move Time: within 10 seconds Channel Closing Transmission Time: 200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. (The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.)
Test Method:	KDB 905462 D02, Clause 7.8.3
otek Anbotek  Anbotek Anbotek  Anbotek Anbotek  Anbotek Anbotek  Anbotek Anbotek	The steps below define the procedure to determine the above-mentioned parameters when a radar <i>Burst</i> with a level equal to the <i>DFS Detection Threshold</i> + 1dB is generated on the <i>Operating Channel</i> of the U-NII device ( <i>In- Service Monitoring</i> ).  1. One frequency will be chosen from the <i>Operating Channels</i> of the UUT within the 5250-5350 MHz or 5470-5725 MHz bands. For 802.11 devices, the test frequency must contain control signals. This can be verified by disabling channel loading and monitoring the spectrum analyzer. If no control signals are detected, another frequency must be selected within the emission bandwidth where control signals are detected.  2. In case the UUT is a U-NII device operating as a <i>Client Device</i> (with or without DFS), a U-NII device operating as a <i>Master Device</i> will be used to
Anbotek Anbotek Anbotek Anbotek Anbotek Arbotek Arbotek	allow the UUT (Client device) to Associate with the Master Device. In case the UUT is a Master Device, a U-NII device operating as a Client Device will be used and it is assumed that the Client will Associate with the UUT (Master). In both cases for conducted tests, the Radar Waveform generator will be connected to the Master Device. For radiated tests, the emissions of the Radar Waveform generator will be directed towards the Master Device. If the Master Device has antenna gain, the main beam of the antenna will be
Anbotek Anbotek  Anbotek Anbotek  Anbotek Anbotek	directed toward the radar emitter. Vertical polarization is used for testing.  3. Stream the channel loading test file from the <i>Master Device</i> to the <i>Client Device</i> on the test <i>Channel</i> for the entire period of the test.  4. At time T0 the <i>Radar Waveform</i> generator sends a <i>Burst</i> of pulses for one of the Radar Type 0 in <b>Table 5</b> at levels defined in <b>Table 3</b> , on the <i>Operating Channel</i> . An additional 1 dB is added to the radar test signal to ensure it is at or above the <i>DFS Detection Threshold</i> , accounting for equipment variations/errors.
Aupotek Aupotek  Ver Votek Vupotek	<ul> <li>5. Observe the transmissions of the UUT at the end of the radar <i>Burst</i> on the <i>Operating Channel</i> for duration greater than 10 seconds. Measure and record the transmissions from the UUT during the observation time (<i>Channel Move Time</i>). Measure and record the <i>Channel Move Time</i> and <i>Channel Closing Transmission Time</i> if radar detection occurs. Figure 17 illustrates <i>Channel Closing Transmission Time</i>.</li> <li>6. When operating as a <i>Master Device</i>, monitor the UUT for more than 30</li> </ul>
Pupotek Vupotek	minutes following instant T2 to verify that the UUT does not resume any transmissions on this <i>Channel</i> . Perform this test once and record the measurement result.  7. In case the UUT is a U-NII device operating as a <i>Client Device</i> with <i>In-Service Monitoring</i> , perform steps 1 to 6.





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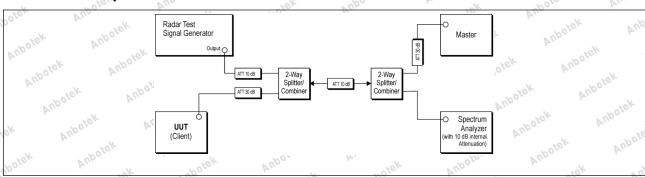
# 8.1. EUT Operation

Operating Environment:

Test mode:

5: Normal Operating: Keep the EUT works in normal operating mode and connect to companion device

## 8.2. Test Setup



#### 8.3. Test Data

	Temperature:	25.3 °C	Humidity:	48 %	Atmospheric Pressure:	101 kPa
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Please Refer to Appendix for Details.





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# 9. DFS Detection Thresholds

Test Requirement:	KDB 905462 D02, Clause 5.2 Table 3	Vupo, rek Vupofek
tek Yupolek Yupolek	Table 3: DFS Detection Thresholds for Master I with Radar Detection  Table 3: DFS Detection Thresholds for Ma and Client Devices with Radar De	ister Devices
uporg tek vuporek	Maximum Transmit Power	Value (See Notes 1, 2, and 3)
Test Limit:	EIRP ≥ 200 milliwatt  EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-64 dBm -62 dBm
Andotek And	EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Otek Aupotek	Note 1: This is the level at the input of the receiver assuming a 0 dl Note 2: Throughout these test procedures an additional 1 dB has be test transmission waveforms to account for variations in measurement the test signal is at or above the detection threshold level to trigger Note3: EIRP is based on the highest antenna gain. For MIMO dev. 662911 D01.	een added to the amplitude of the ent equipment. This will ensure that a DFS response.
Test Method:	KDB 905462 D02, Clause 7.4.1.1	Aupore, Aur Potek
Aupotek Aupo	1) A 50 ohm load is connected in place of the spectrum analyzer is connected to place of the 2) The interference Radar Detection Threshold had been taken into account the output power response.	master Level is TH+ 0dBi +1dB that
Aupotek Aupotek	3) The following equipment setup was used to a waveform. A vector signal generator was utilize level for radar type 0. During this process, there	calibrate the conducted radar d to establish the test signal e were no transmissions by
Procedure:	either the master or client device. The spectrum the zero spans (time domain) at the frequency generator. Peak detection was used. The spect bandwidth (RBW) and video bandwidth (VBW)	of the radar waveform rum analyzer resolution
ek Aupotek Ar	spectrum analyzer had offset -1.0dB to comper 4) The vector signal generator amplitude was s	nsate RF cable loss 1.0dB. et so that the power level
Pope, Vuporek	measured at the spectrum analyzer was TH + 0 the spectrum analyzer plots on short pulse rada Note: TH=-64 dBm or -62 dBm	

# 9.1. EUT Operation

Anbo

4	Operating Envir	onment:	Aupoles	And	rek	anbotek	Aupo	Polek
	Test mode:	5: Normal Ope	rating: Keep	the EUT	works in	normal opera	ting mode and	connect to
0	rest mode.	companion dev	vice And	V	Potek	Anbo	4.	sk "upo,







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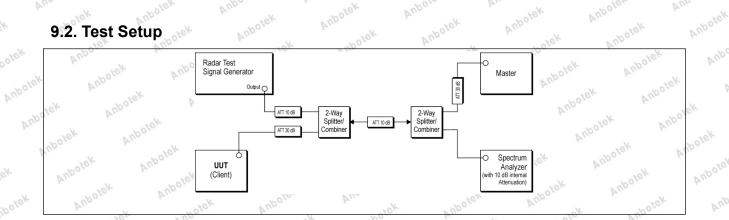
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# 9.2. Test Setup



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## 9.3. Test Data

-		17.7		7.0.4			1	· V	
Г	100 Apr	05.000	Y	10010	40.04	76,	- AND	404 1 5	
10	lemperature:	25.3 °C	POFE	Humidity:	48 %	Atmospheric	: Pressure:	101 kPa	200

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Please Refer to Appendix for Details.

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# 10. Band edge emissions (Radiated)

Aupole, VIII	47 CFR Part 15.407(b	Aupo	sk Vupore	Aug
Test Requirement:	47 CFR Part 15.407(b		potek Aupor	Se Vup
k apolek	For transmitters opera			
by.	of the 5.15-5.35 GHz	band shall not exceed	d an e.i.r.p. of −2	7 dBm/MHz.
otek Anboter	MHz	MHz	MHz	GHz
k holi	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
Anbotek Anbot	10.495-0.505	16.69475- 16.69525	608-614	5.35-5.46
Vuporg V.	2.1735-2.1905	16.80425- 16.80475	960-1240	7.25-7.75
Anbo	4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
K VUPOLEK	4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
rek upotek	4.20725-4.20775	73-74.6	1645.5- 1646.5	9.3-9.5
orek Aupo	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
200	6.26775-6.26825	108-121.94	1718.8- 1722.2	13.25-13.4
Anbor	6.31175-6.31225	123-138	2200-2300	14.47-14.5
hotek	8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
And	8.362-8.366	156.52475-	2483.5-2500	17.7-21.4
k Aupoter	by,	156.52525	2 100:0 2000	hpor. ZIII AII
	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
Dotek Aupore.	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
ou otek Aup.	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
Vupote. Vue	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
- Timitek	12.57675-12.57725	322-335.4	3600-4400	(2)
est Limit:	13.36-13.41	10K 10K	D.0000 1.100	100
hek Anbotek	<sup>1</sup> Until February 1, 199 <sup>2</sup> Above 38.6	99, this restricted banc	i shall be 0.490-	0.510 MHz.
Anbotek Ant		shown in § 15.209. At se with the limits in § 1	frequencies equ 5.209shall be de	ial to or less tha emonstrated
tek Anbotek	using measurement in detector. Above 1000 15.209shall be demor emissions. The provis	MHz, compliance with nstrated based on the	n the emission lin average value o	mits in § of the measured
Anbotek Anbote	Except as provided el intentional radiator sh	sewhere in this subpa	art, the emissions	s from an
k Anbotek	Frequency (MHz)	Field strength (microvolts/me	ter)	Measurement distance (meters)
All	0.000.0.400	2400/E/kH=/	Vupo. V	
otek Anbore	0.009-0.490	2400/F(kHz)	notek	300
, , , , o	0.490-1.705	24000/F(kHz)	Vun	30
aboter Anb	1.705-30.0	30	Vupote.	30 100
b.,	30-88	100 **	W	3 hotek





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VIEW VUD	tok app
Anbe ck hotek	88-216 150 ** 3
Anborer Ans	216-960 200 ** 3
L'ek Anb	Above 960 500 3
Ando	** Except as provided in paragraph (g), fundamental emissions from
ek aboten	intentional radiators operating under this section shall not be located in the
'ek	frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz.
rotek Aupore	However, operation within these frequency bands is permitted under other
ip, otek	sections of this part, e.g., §§ 15.231 and 15.241.
abolek And	In the emission table above, the tighter limit applies at the band edges.
W. Vek "Upole	The emission limits shown in the above table are based on measurements
Aupor A.	employing a CISPR quasi-peak detector except for the frequency bands 9-
Potek Wul	90 kHz, 110–490 kHz and above 1000 MHz. Radiated emission limits in
And	these three bands are based on measurements employing an average
tek upole,	detector. Anbore Anbore Anbore Anbore
Test Method:	ANSI C63.10-2020, section 12.7.4, 12.7.6, 12.7.7
upoles Aug	Above 1GHz:
rek vupote.	a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5
Aupo	meters above the ground at a 3 meter fully-anechoic chamber. The table wa
botek Anbo	rotated 360 degrees to determine the position of the highest radiation.
Alla	b. The EUT was set 3 meters away from the interference-receiving antenna
. Aupore Ai	which was mounted on the top of a variable-height antenna tower.
Otek	c. The antenna height is varied from one meter to four meters above the
Pupe, Yupe	ground to determine the maximum value of the field strength. Both horizonta
eck abover	and vertical polarizations of the antenna are set to make the measurement.
Aupore Air	d. For each suspected emission, the EUT was arranged to its worst case
Polek Vupor	and then the antenna was tuned to heights from 1 meter to 4 meters (for the
And	test frequency of below 30MHz, the antenna was tuned to heights 1 meter)
Augoren Aug	and the rotatable table was turned from 0 degrees to 360 degrees to find the
r. Stek	maximum reading.
Anbo	e. The test-receiver system was set to Peak Detect Function and Specified
ok abotek	Bandwidth with Maximum Hold Mode.  f. If the emission level of the EUT in peak mode was 10dB lower than the
olo VIII	limit specified, then testing could be stopped and the peak values of the EU
- rotek Aupor	would be reported. Otherwise the emissions that did not have 10dB margin
Procedure:	would be re-tested one by one using peak or average method as specified
upoter And	and then reported in a data sheet.
Anbrokek Anbro	g. Test the EUT in the lowest channel, the middle channel, the Highest
Anbo	channel.
ok spokek l	h. The radiation measurements are performed in X, Y, Z axis positioning for
e. VII.	Transmitting mode, and found the X axis positioning which it is the worst
otek Aupore	case. Lok hotek And
los lok	i. Repeat above procedures until all frequencies measured was complete.
abotek And	Remark: And
VI. rek upote,	1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
Aupora	2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low
Hotek And	The points marked on above plots are the highest emissions could be found
AUD	when testing, so only above points had been displayed. The amplitude of
ick "upoler	spurious emissions from the radiator which are attenuated more than 20dB
F. F.	below the limit need not be reported.
potek Aupo.	3. As shown in this section, for frequencies above 1GHz, the field strength
'un apolek	limits are based on average limits. However, the peak field strength of any
Aupore Aus	emission shall not exceed the maximum permitted average limits specified
Today You	above by more than 20 dB under any condition of modulation. For the







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emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

# 10.1. EUT Operation

#### Operating Environment:

1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

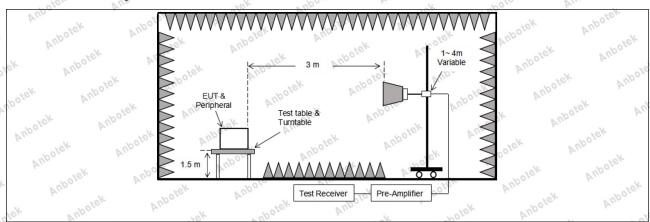
2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

Test mode:

3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

# 10.2. Test Setup





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## 10.3. Test Data

Temperature:	25.3 °C	Humidity:	48 %	Atmospheric Pressure:	101 kPa
20010	Dr.	Poler	VUD	tek vupo.	Yo.

VUD		eek nb	O. P.	- 14	NOLO	VI.	Ter
		TM1 / B	and: 5250-5	350 MHz / BV	V: 20 / L		
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5250.00	36.90	15.99	52.89	68.20	-15.31	iek H Wupe	Peak
5250.00	38.95	15.99	54.94	68.20	-13.26	potek V	Peak
5250.00	26.86	15.99	42.85	54.00	-11.15	- H	AVG
5250.00	28.89	o <sup>vel*</sup> 15.99 🗥	44.88	54.00	Anh-9.12	Vun Aug	AVG
		TM1 / B	and: 5250-5	350 MHz / BV	/: 20 / H		
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5350.00	37.37	16.43	53.80	68.20 M	-14.40 And	H	Peak
5350.00	40.26	16.43	56.69	68.20	300°-11.51	rupo. A	Peak
5350.00	28.66	16.43	45.09	54.00	-8.91	Hong	AVG
5350.00	29.59 N	16.43	46.02	54.00	-7.98	Potek	AVG
	Frequency (MHz) 5250.00 5250.00 5250.00 5250.00 Frequency (MHz) 5350.00 5350.00	Frequency (MHz) (dBuV) 5250.00 36.90 5250.00 38.95 5250.00 26.86 5250.00 28.89  Frequency (MHz) (dBuV) 5350.00 37.37 5350.00 40.26 5350.00 28.66	TM1 / B  Frequency (MHz) (dBuV) (dB/m)  5250.00 36.90 15.99  5250.00 26.86 15.99  5250.00 28.89 15.99  TM1 / B  Frequency (MHz) (dBuV) (dB/m)  5350.00 37.37 16.43  5350.00 28.66 16.43	TM1 / Band: 5250-53  Frequency (MHz) (dBuV) (dB/m) (dBuV/m)  5250.00 36.90 15.99 52.89  5250.00 38.95 15.99 54.94  5250.00 26.86 15.99 42.85  5250.00 28.89 15.99 44.88  TM1 / Band: 5250-53  Frequency (MHz) (dBuV) (dB/m) (dBuV/m)  5350.00 37.37 16.43 53.80  5350.00 40.26 16.43 56.69  5350.00 28.66 16.43 45.09	TM1 / Band: 5250-5350 MHz / BV           Frequency (MHz)         Reading (dBuV)         Factor (dB/m)         Result (dBuV/m)         Limit (dBuV/m)           5250.00         36.90         15.99         52.89         68.20           5250.00         38.95         15.99         54.94         68.20           5250.00         26.86         15.99         42.85         54.00           5250.00         28.89         15.99         44.88         54.00           TM1 / Band: 5250-5350 MHz / BW           Frequency (MHz) (dBuV) (dB/m) (dB/m) (dBuV/m)         Limit (dBuV/m)           5350.00         37.37         16.43         53.80         68.20           5350.00         40.26         16.43         56.69         68.20           5350.00         28.66         16.43         45.09         54.00	TM1 / Band: 5250-5350 MHz / BW: 20 / L           Frequency (MHz)         Reading (dBuV)         Factor (dB/m)         Result (dBuV/m)         Limit (dBuV/m)         Over limit (dB)           5250.00         36.90         15.99         52.89         68.20         -15.31           5250.00         38.95         15.99         54.94         68.20         -13.26           5250.00         26.86         15.99         42.85         54.00         -11.15           5250.00         28.89         15.99         44.88         54.00         -9.12           TM1 / Band: 5250-5350 MHz / BW: 20 / H           Frequency (MHz) (dBuV)         Reading (dBuV)         Result (dBuV/m)         Over limit (dBuV/m)           (MHz)         37.37         16.43         53.80         68.20         -14.40           5350.00         40.26         16.43         56.69         68.20         -11.51           5350.00         28.66         16.43         45.09         54.00         -8.91	TM1 / Band: 5250-5350 MHz / BW: 20 / L           Frequency (MHz)         Reading (dBuV)         Factor (dB/m)         Result (dBuV/m)         Limit (dBuV/m)         Over limit (dB)         Antenna Pol.           5250.00         36.90         15.99         52.89         68.20         -15.31         H           5250.00         38.95         15.99         54.94         68.20         -13.26         V           5250.00         26.86         15.99         42.85         54.00         -11.15         H           5250.00         28.89         15.99         44.88         54.00         -9.12         V           TM1 / Band: 5250-5350 MHz / BW: 20 / H           Frequency (MHz) (dBuV) (dB/m) (dB/m) (dB/m) (dB/m) (dBuV/m) (dB/m) (dB/m)         Over limit (dBuV/m) (dB)         Antenna Pol.           5350.00         37.37         16.43         53.80         68.20         -14.40         H           5350.00         40.26         16.43         56.69         68.20         -11.51         V           5350.00         28.66         16.43         45.09         54.00         -8.91         H

Remark: 1. Result=Reading + Factor

AUD	Yek	VUpo.	٧٠.	· polo	VIII	V ·	OFER AT
		TM2 / B	and: 5250-5	350 MHz / BV	V: 20 / L		
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5250.00	35.87	15.99	51.86	68.20	-16.34	AupH ***	Peak
5250.00	37.24	15.99	53.23	68.20	-14.97	Nipote	Peak
5250.00	26.59	15.99	42.58	54.00	-11.42	H Anbot	AVG
5250.00	27.59	15.99	43.58	54.00	-10.42	otek V A	AVG
		TM2 / B	and: 5250-5	350 MHz / BV	V: 20 / H		
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5350.00	37.68	16.43	54.11	68.20	-14.09	Hupotek	Peak
5350.00	38.73	16.43	55.16	68.20	-13.04	V V	ek Peak Anb
5350.00	27.70	16.43	44.13	54.00	-9.87 <sub>M</sub>	H	AVG
5350.00	29.13	16.43	45.56	54.00	-8.44	POISK A b	AVG

Remark: 1. Result=Reading + Factor







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VI.	181	640		4 200.	1/2		- Ole
		TM2 / B	and: 5250-53	350 MHz / BV	V: 40 / L		
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5250.00 <sup>100</sup>	36.38	15.99	52.37	68.20	-15.83	And Lok	Peak
5250.00	38.24	15.99	54.23	68.20	-13.97	Nupor	Peak
5250.00	26.94	15.99	42.93	54.00	-11.07	iek H Wupe	AVG
5250.00	28.71	15.99	44.70	54.00 nbo	-9.30	botek V I	AVG
		TM2 / B	and: 5250-53	350 MHz / BV	V: 40 / H		
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5350.00	38.02	16.43	54.45	68.20	-13.75	H <sub>upote</sub>	Peak
5350.00	36.91	16.43	53.34	68.20	-14.86	V V	Peak M
5350.00	28.19	16.43	44.62	54.00	-9.38 And	Н	AVG
5350.00	29.38	16.43	45.81	54.00	-8.19	npoterV	AVG

Anbotek Remark: 1. Result=Reading + Factor

	Remark: 1. F	Result=Readi	ng + Factor	-tek	upoter b	'up	Anbotek	Anbo
bolek	, Aug.	otek Ar	potek Vi	16K	anbotek	Aupotek	Am	Anbotek
Ant			TM3 / B	and: 5250-5	350 MHz / BV	V: 20 / L		
	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
	5250.00	36.83	15.99	52.82	68.20	-15.38 And	H	Peak
ek	5250.00	38.57	15.99 <sub>An</sub> bo	54.56	68.20	-13.64	Aupo Auk	Peak
boto	5250.00	26.50	15.99	42.49	54.00	-11.51	Aupor	AVG
	5250.00	28.67	15.99	44.66	54.00	-9.34	Nipole	AVG
VI			TM3 / B	and: 5250-5	350 MHz / BV	V: 20 / H		
	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
rek	5350.00	37.82	16.43	54.25 An	68.20	-13.95	Anbore	Peak
	5350.00	38.08 M	16.43	54.51	68.20	-13.69	"TRICK	Peak
Aupo	5350.00	27.72	16.43	44.15	54.00	-9.85	H hotek	AVG
65	5350.00	28.25	16.43	44.68	54.00	-9.32	V	AVG NO

Remark: 1. Result=Reading + Factor

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16.	VUP	40.	200	A.		DI.	
		TM3 / B	and: 5250-5	350 MHz / BV	V: 40 / L		
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5250.00	35.79	15.99	51.78	68.20	-16.42	Hick	Peak
5250.00	36.27	15.99	52.26	68.20	-15.94	V Potek	Peak
5250.00	25.94	15.99	41.93	54.00	-12.07	H	AVG AND
5250.00	26.71	15.99	42.70	54.00	-11.30 nbo	V And	AVG
		TM3 / B	and: 5250-53	350 MHz / BV	V: 40 / H		
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5350.00	37.95	16.43	54.38	68.20	-13.82	HA CAN	Peak
5350.00	37.12	16.43	53.55	68.20	-14.65	VAnbore	Peak
5350.00	27.43	16.43	43.86	54.00	-10.14	tek H Anb	AVG A
5350.00	27.34	16.43	43.77	54.00	-10.23 And	V	AVG

Remark: 1. Result=Reading + Factor

5555.55	=1.000	. 9/		Si. a man Vun		101	200111
Remark: 1. F	Result=Readi	ng + Factor	ek Anbo	upotek l	'upotek	Auporg	Aupolek
	·	TM4 / B	and: 5250-5	350 MHz / BV	V: 20 / L		V
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5250.00	36.92	15.99	52.91	68.20	-15.29	H H	Peak N
5250.00	38.98	15.99	54.97	68.20	-13.23 An	V	Peak
5250.00	26.87	15.99 NO	42.86	54.00	-11.14	Anbore H	AVG
5250.00	28.91	15.99	44.90	54.00	-9.10	AUGOLO	AVG
	· ·	TM4 / B	and: 5250-53	350 MHz / BV	V: 20 / H		
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
5350.00	37.38	16.43	53.81	68.20	14.39	pose H P	Peak
5350.00	40.29	16.43	56.72 AND	68.20	-11.48	Vojotek.	Peak
5350.00	× 28.68 m	16.43	45.11	54.00	-8.89	Hick	AVG
5350.00	29.60	16.43	46.03	54.00	-7.97	And	AVG
Remark: 1. F	Result=Readi	ng + Factor	Aupole	Yun Vek	Anbotek	Anbo	tek aup
rek	anboten	Ano	botek	Aupor	h.	tek Anbo	Yu.

Remark: 1. Result=Reading + Factor



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rek	Anborek	Anbe	abotek	Anbor	h wor	ak Aupol	Yun Yun	
TM4 / Band: 5250-5350 MHz / BW: 40 / L  Frequency Reading Factor Result Limit Over limit Antenna Detector								
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector	
5250.00	35.89	15.99	51.88	68.20	-16.32	Hick	Peak	
5250.00	37.26	15.99	53.25	68.20	-14.95	V potek	Peak	
5250.00	26.61	15.99	42.60	54.00	-11.40	H	Kel AVG AND	
5250.00	27.60	15.99	43.59	54.00	-10.41 nbo	V And	AVG	
		TM4 / B	and: 5250-5	350 MHz / BV	V: 40 / H			
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector	
5350.00	37.70	16.43	54.13	68.20	-14.07	HA HA	Peak	
5350.00	38.75	16.43	55.18	68.20	-13.02	VAnbore	Peak	
5350.00	27.72	16.43	44.15	54.00	-9.85	Lek H AND	AVG M	
5350.00	29.16	16.43	45.59	54.00	-8.41 M	V	AVG	

Remark: 1. Result=Reading + Factor

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Anbotek

Anbolek





FCC ID: 2BKBF-LITE

# 11. Undesirable emission limits (below 1GHz)

Test Requirement:	47 CFR Part 15.407(b)(9)	Potek Vupos	rotek Aupore
ek Aupotek	Unwanted emissions below strength limits set forth in §	v 1 GHz must comply with the 15.209.	general field
potek Aupotek	intentional radiator shall no	ere in this subpart, the emiss t exceed the field strength lev	
Aupor A.	following table:	Le Moiek Anbo	rek
Anbotek Anbo	Frequency (MHz)	Field strength (microvolts/meter)	Measurement distance (meters)
Anbo	0.009-0.490	2400/F(kHz)	300
ek abotek	0.490-1.705	24000/F(kHz)	30
YII.	1.705-30.0	30	30 10%
otek Anbore	30-88	100 **	3.700
Test Limit:	88-216	150 **	3 abover
apolek And	216-960	200 **	3
Air.	Above 960	500	otek 3 Anbote
Aupore V.	V 1.010 AV	ragraph (g), fundamental em	No.
Polek		ing under this section shall no	
And		lz, 76-88 MHz, 174-216 MHz	
ick upolei		these frequency bands is peri	
Dr. W.	sections of this part, e.g., §		milled under other
Potek Aupor		e, the tighter limit applies at th	e hand edges
'up rote		in the above table are based	
"upoler Aug	10.7	peak detector except for the f	
V. Vek "Up		above 1000 MHz. Radiated e	
Aupor A.	. O	ed on measurements employi	- V
Kotek	detector.	od on medodremento employi	ing an avoluge
T IN II I OK	Vier Pup	40.70 to 40.7 5 Anboro	Vi.
Test Method:	ANSI C63.10-2020, section	1 12.7.4, 12.7.5	Aupor A.
"Otek	Below 1GHz:	anboren And	Viek "
upoler And	a. For below 1GHz, the EU	T was placed on the top of a	200
16.1.			
tok spok		t a 3 meter semi-anechoic ch	amber. The table
Anborek Anbor	was rotated 360 degrees to	at a 3 meter semi-anechoic ch o determine the position of the	amber. The table highest radiation.
Votek Vupor	was rotated 360 degrees to b. The EUT was set 3 or 10	It a 3 meter semi-anechoic ch o determine the position of the o meters away from the interfe	amber. The table highest radiation. erence-receiving
Aupotek Aupot	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount	It a 3 meter semi-anechoic ch o determine the position of the o meters away from the interfe ed on the top of a variable-he	amber. The table highest radiation. erence-receiving ight antenna tower.
Aupotek Aupotek	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is va	It a 3 meter semi-anechoic ch o determine the position of the o meters away from the interfe ed on the top of a variable-he oried from one meter to four m	amber. The table highest radiation. erence-receiving ight antenna tower. neters above the
k Anbotek Anbote	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is vaground to determine the materials.	It a 3 meter semi-anechoic characters are the position of the continuous of the continuous are the continuou	amber. The table highest radiation. erence-receiving ight antenna tower. neters above the ngth. Both horizonta
Anbotek Anbotek	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is variound to determine the mand vertical polarizations or	It a 3 meter semi-anechoic characters are the position of the ordered are the position of the ordered are the top of a variable-hearied from one meter to four maximum value of the field streft the antenna are set to make	amber. The table highest radiation. erence-receiving ight antenna tower. neters above the ngth. Both horizontal the measurement.
Anbotek Anbotek  Anbotek  Anbotek	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is va ground to determine the mand vertical polarizations od. For each suspected emi	It a 3 meter semi-anechoic characteristics of the object of determine the position of the object of the object of the interference on the top of a variable-hearied from one meter to four maximum value of the field stree of the antenna are set to make ssion, the EUT was arranged	amber. The table highest radiation. erence-receiving ight antenna tower, neters above the ngth. Both horizontal the measurement. to its worst case
Anbotek Anbotek Anbotek Procedure:	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is va ground to determine the mand vertical polarizations od. For each suspected emiand then the antenna was	It a 3 meter semi-anechoic characteristic and the determine the position of the determine the position of the determine the position of the determine available and the field street to the field street the antenna are set to make assion, the EUT was arranged tuned to heights from 1 metermine determine the field street to the field street the antenna are set to make assion, the EUT was arranged tuned to heights from 1 metermine the determine the field street field str	amber. The table highest radiation. erence-receiving ight antenna tower. neters above the ngth. Both horizontathe the measurement. to its worst case to 4 meters (for the
Procedure:	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is vaground to determine the mand vertical polarizations od. For each suspected emiand then the antenna was test frequency of below 301	at a 3 meter semi-anechoic che of determine the position of the of meters away from the interfect ed on the top of a variable-he uried from one meter to four m aximum value of the field stre of the antenna are set to make of the sident to heights from 1 meter of the antenna was tuned	amber. The table highest radiation. erence-receiving ight antenna tower. neters above the ngth. Both horizontathe measurement. to its worst case to 4 meters (for the to heights 1 meter)
Anbotek Anbotek  Anbotek Anbotek  Procedure: Anbotek  Anbotek Anbotek	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is varying ground to determine the mand vertical polarizations of d. For each suspected emit and then the antenna was test frequency of below 301 and the rotatable table was	It a 3 meter semi-anechoic characteristic and the determine the position of the determine the position of the determine the position of the determine available and the field street to the field street the antenna are set to make assion, the EUT was arranged tuned to heights from 1 metermine determine the field street to the field street the antenna are set to make assion, the EUT was arranged tuned to heights from 1 metermine the determine the field street field str	amber. The table highest radiation. erence-receiving ight antenna tower. neters above the ngth. Both horizontathe measurement. to its worst case to 4 meters (for the to heights 1 meter)
Anbotek Anbotek Anbotek Anbotek Procedure: Anbotek Anbotek	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is varied ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was test frequency of below 301 and the rotatable table was maximum reading.	at a 3 meter semi-anechoic che determine the position of the determine the position of the determine the position of the determine the top of a variable-hearied from one meter to four maximum value of the field streef the antenna are set to make ssion, the EUT was arranged tuned to heights from 1 meter MHz, the antenna was tuned a turned from 0 degrees to 36 meters.	amber. The table highest radiation. erence-receiving ight antenna tower. neters above the ngth. Both horizontal the measurement. to its worst case to 4 meters (for the to heights 1 meter) degrees to find the
Anbotek Anbotek  Anbotek Anbotek  Procedure: Anbotek  Anbotek Anbotek  Anbotek Anbotek	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is varying ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was test frequency of below 301 and the rotatable table was maximum reading.  e. The test-receiver system	at a 3 meter semi-anechoic characteristic and the position of the orderers away from the interfered on the top of a variable-hearied from one meter to four maximum value of the field streef the antenna are set to make assion, the EUT was arranged tuned to heights from 1 meter MHz, the antenna was tuned as turned from 0 degrees to 36 mass set to Peak Detect Functions.	amber. The table highest radiation. erence-receiving ight antenna tower. neters above the ngth. Both horizontal the measurement. to its worst case to 4 meters (for the to heights 1 meter) degrees to find the
Procedure:	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is varying ground to determine the mand vertical polarizations of d. For each suspected emit and then the antenna was test frequency of below 301 and the rotatable table was maximum reading.  e. The test-receiver system Bandwidth with Maximum I	at a 3 meter semi-anechoic che of determine the position of the of determine the position of the of meters away from the interfeed on the top of a variable-hearied from one meter to four maximum value of the field streef the antenna are set to make assion, the EUT was arranged tuned to heights from 1 meter MHz, the antenna was tuned as turned from 0 degrees to 36 means set to Peak Detect Fund-hold Mode.	amber. The table highest radiation. erence-receiving light antenna tower. neters above the ngth. Both horizontal the measurement. to its worst case to 4 meters (for the to heights 1 meter) degrees to find the etion and Specified
Anbotek	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is varying ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was test frequency of below 301 and the rotatable table was maximum reading.  e. The test-receiver system Bandwidth with Maximum If. If the emission level of the	at a 3 meter semi-anechoic che of determine the position of the of meters away from the interfect ed on the top of a variable-he uried from one meter to four maximum value of the field stre of the antenna are set to make of ssion, the EUT was arranged of tuned to heights from 1 meter of MHz, the antenna was tuned of turned from 0 degrees to 36 of was set to Peak Detect Function of Hold Mode. of EUT in peak mode was 100	amber. The table highest radiation. erence-receiving light antenna tower. neters above the ngth. Both horizontal the measurement. to its worst case to 4 meters (for the to heights 1 meter) degrees to find the etion and Specified IB lower than the
Anbotek Anbotek  Anbotek Anbotek  Procedure: Anbotek  Anbotek Anbotek  Anbotek Anbotek	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is varying ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was test frequency of below 301 and the rotatable table was maximum reading.  e. The test-receiver system Bandwidth with Maximum If. If the emission level of the limit specified, then testing	at a 3 meter semi-anechoic che determine the position of the determine the position of the determine the position of the determine away from the interfeed on the top of a variable-hearied from one meter to four maximum value of the field streef the antenna are set to make ssion, the EUT was arranged tuned to heights from 1 meter MHz, the antenna was tuned a turned from 0 degrees to 36 m was set to Peak Detect Fund Hold Mode.  The EUT in peak mode was 100 could be stopped and the peak determined from 1 meter hold Mode.	amber. The table highest radiation. erence-receiving ight antenna tower. neters above the ngth. Both horizontath the measurement. to its worst case to 4 meters (for the to heights 1 meter) degrees to find the etion and Specified IB lower than the ak values of the EUT
Anbotek	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is varying ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was test frequency of below 301 and the rotatable table was maximum reading.  e. The test-receiver system Bandwidth with Maximum If. If the emission level of the limit specified, then testing would be reported. Otherw	at a 3 meter semi-anechoic che determine the position of the determine the top of a variable-hearied from one meter to four maximum value of the field streef the antenna are set to make ssion, the EUT was arranged tuned to heights from 1 meter MHz, the antenna was tuned a turned from 0 degrees to 36 mass set to Peak Detect Fundal Mode.  The was set to Peak Detect Fundal Mode.  The EUT in peak mode was 100 could be stopped and the perise the emissions that did not	amber. The table highest radiation. erence-receiving hight antenna tower. neters above the ngth. Both horizontal the measurement. to its worst case to 4 meters (for the to heights 1 meter) degrees to find the ction and Specified IB lower than the ak values of the EUT have 10dB margin
Anbotek	was rotated 360 degrees to b. The EUT was set 3 or 10 antenna, which was mount c. The antenna height is varying ground to determine the mand vertical polarizations of d. For each suspected eminand then the antenna was test frequency of below 301 and the rotatable table was maximum reading.  e. The test-receiver system Bandwidth with Maximum If. If the emission level of the limit specified, then testing would be reported. Otherw	at a 3 meter semi-anechoic che determine the position of the determine the top of a variable-hearied from one meter to four maximum value of the field streef the antenna are set to make ssion, the EUT was arranged tuned to heights from 1 meter MHz, the antenna was tuned a turned from 0 degrees to 36 m was set to Peak Detect Fundal Mode.  The EUT in peak mode was 100 could be stopped and the perise the emissions that did not one using quasi-peak method	amber. The table highest radiation. erence-receiving hight antenna tower. neters above the ngth. Both horizontal the measurement. to its worst case to 4 meters (for the to heights 1 meter) degrees to find the ction and Specified IB lower than the ak values of the EUT have 10dB margin







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g. Test the EUT in the lowest channel, the middle channel, the Highest

- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst
- i. Repeat above procedures until all frequencies measured was complete Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 9kHz to 30MHz, the disturbance below 30MHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. The disturbance below 1GHz was very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

#### Above 1GHz:

- a. For above 1GHz, the EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter fully-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters (for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak or average method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel, the middle channel, the Highest
- h. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, and found the X axis positioning which it is the worst
- i. Repeat above procedures until all frequencies measured was complete. Remark:
- 1. Level= Read Level+ Cable Loss+ Antenna Factor- Preamp Factor
- 2. Scan from 18GHz to 40GHz, the disturbance above 18GHz was very low. The points marked on above plots are the highest emissions could be found when testing, so only above points had been displayed. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.
- 3. As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified





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above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

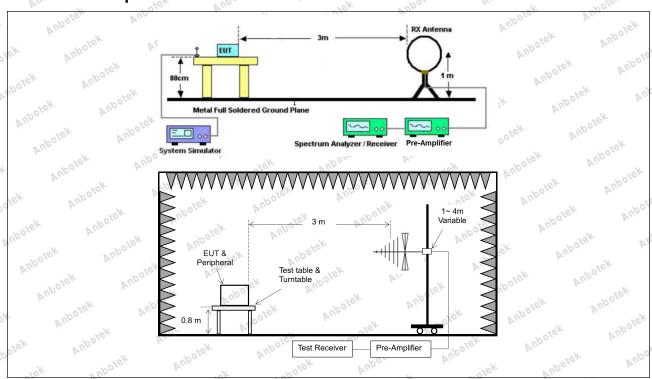
# 11.1. EUT Operation

## Operating Environment:

- 1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.
- 2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.
- 3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.
- 4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

## 11.2. Test Setup

Test mode:





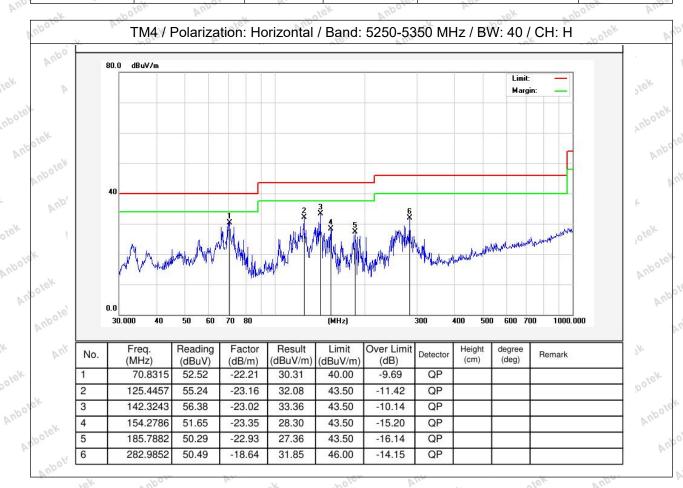


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#### 11.3. Test Data

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: 25.3 °C Humidity: 48 % Atmospheric Pressure: 101 kPa

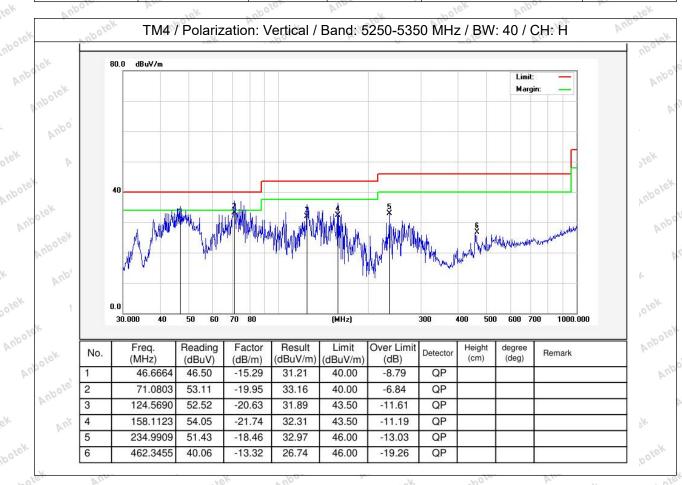






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Temperature: 25.3 °C Humidity: 48 % Atmospheric Pressure: 101 kPa



Note: Only record the worst data 802.11ax(HEW40) in the report.





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# 12. Undesirable emission limits (above 1GHz)

est Requirement:	47 CFR Part 15.407(b 47 CFR Part 15.407(b		poler Yun	abotek Anb
Vun.	For transmitters opera	20:	CHz band: All o	missions outsid
otek Anbore	of the E 1E E 2E CIVE I			
o. ak abotek	- AD-	- V	N.	16.
Anborek Anbore	107	MHz	MHz	GHz
YII.	0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
Auport Air	10.495-0.505	16.69475- 16.69525	608-614	5.35-5.46
Aupor Olek	2.1735-2.1905	16.80425- 16.80475	960-1240	7.25-7.75
K Anbos	4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
ok polek	4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
Ole, Yun	4.20725-4.20775	73-74.6	1645.5-	9.3-9.5
rek "upote,		bolek Anbu	1646.5	Anboro
Aupo. W.	6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
Potek Aup	6.26775-6.26825	108-121.94	1718.8-	13.25-13.4
AUD	0.20110-0.20020	noo 121.04	1722.2	10.20-10.4
upoler	6.31175-6.31225	123-138	2200-2300	14.47-14.5
A. COK	7-0,	767	2310-2390	
k Aupore	8.291-8.294	149.9-150.05	467.	15.35-16.2
potek Anbotek	8.362-8.366	156.52475- 156.52525	2483.5-2500	17.7-21.4
o'c	8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
apolek And	8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
Vi.	12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
Vupore VII	12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
est Limit:	12.57675-12.57725	322-335.4	3600-4400	(2) Ano
Anbo	13.36-13.41	P. C.	"poles Vu	-\-
upotek Aupotek	<sup>1</sup> Until February 1, 199 <sup>2</sup> Above 38.6	9, this restricted band	I shall be 0.490-	0.510 MHz.
A. Tek	The field strength of e	missions appearing w	ithin these frequ	uency bands sh
Aupo	not exceed the limits s			
anbotek	1000 MHz, compliance	30	E .	000
WO.		1/4:		
Anbo	using measurement in	nstrumentation emplo	ying a CISPR qu	
Yupo yek		nstrumentation employ MHz, compliance with		ıasi-peak
tek Aupotek	detector. Above 1000	MHz, compliance with	n the emission li	ıasi-peak mits in §
tek Aupotek		MHz, compliance with estrated based on the	n the emission li average value o	uasi-peak mits in § of the measured
tek Anbotek Anbotek Anbotek	detector. Above 1000 15.209shall be demon emissions. The provis	MHz, compliance with nstrated based on the ions in § 15.35apply t	n the emission li average value o to these measur	uasi-peak mits in § of the measured ements.
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Anbotek Anbotek  Anbotek Anbotek	detector. Above 1000 15.209shall be demonemissions. The provise Except as provided elementational radiator shafollowing table:	MHz, compliance with strated based on the ions in § 15.35apply the sewhere in this subpart all not exceed the field	n the emission li average value on these measur art, the emission	uasi-peak mits in § of the measured ements. s from an s specified in the
Anbotek Anbotek  Anbotek Anbotek	detector. Above 1000 15.209shall be demon emissions. The provis  Except as provided els intentional radiator sha	MHz, compliance with nstrated based on the ions in § 15.35apply the sewhere in this subpart all not exceed the field.  Field strength	n the emission li average value on these measurer, the emission d strength levels	uasi-peak mits in § of the measured ements. s from an s specified in the
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Jek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek	detector. Above 1000 15.209shall be demonemissions. The provise Except as provided elementational radiator shafollowing table:	MHz, compliance with nstrated based on the ions in § 15.35apply the sewhere in this subpart all not exceed the field.  Field strength	n the emission li average value on these measurer, the emission d strength levels	uasi-peak mits in § of the measured ements. s from an s specified in the
otek Anbotek  Anbotek Anbotek  Anbotek  Anbotek  Anbotek  Anbotek	detector. Above 1000 15.209shall be demonemissions. The provise Except as provided elementational radiator shafollowing table:	MHz, compliance with nstrated based on the ions in § 15.35apply the sewhere in this subpart all not exceed the field.  Field strength	n the emission li average value on these measurer, the emission d strength levels	uasi-peak mits in § of the measured ements. s from an s specified in the Measurement distance
tek Anbotek  Anbotek Anbotek  Anbotek Anbotek  Anbotek Anbotek  Anbotek Anbotek	detector. Above 1000 15.209shall be demonemissions. The provise Except as provided elsintentional radiator shafollowing table: Frequency (MHz)	MHz, compliance with a strated based on the ions in § 15.35apply to sewhere in this subparall not exceed the field.  Field strength (microvolts/me)	n the emission li average value on these measurer, the emission d strength levels	mits in § of the measured ements.  s from an s specified in the distance (meters)





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Pole, Vur	Jek Moo	K 200/6	VII.
Aug Wolek	30-88	100 **	3 motek
Vupose. Vup	88-216	150 **	3 Am
Kek oup	216-960	200 **	el3 Nupole
Anbo	Above 960	500 Anb	3
ok potek	** Except as provided in pa	ragraph (g), fundamental emissi	ons from
Je. Vur	intentional radiators operati	ng under this section shall not b	e located in the
rek vupore.		z, 76-88 MHz, 174-216 MHz or	
upo. K.		hese frequency bands is permit	
potek Anbo	sections of this part, e.g., §	§ 15.231 and 15.241.	AUD
And K bote		, the tighter limit applies at the b	and edges.
"Upole" Aur	The emission limits shown	in the above table are based on	measurements
K. VEK VILL	employing a CISPR quasi-r	peak detector except for the freq	uency bands 9–
Anbo	90 kHz, 110-490 kHz and a	above 1000 MHz. Radiated emis	sion limits in
k hotek	these three bands are base	ed on measurements employing	an average
oler Aug	detector.	Lek Vupole	in all all
Test Method:	ANSI C62 10 2020 coction	1274 1276 1277	Vupore VIII
TEST METHOD.	ANSI C63.10-2020, section	1 12.1.4, 12.1.0, 12.1.1	rek
potek Aupor	Above 1GHz:	An abolek	And
And K both		T was placed on the top of a rot	
Aupoles Aug	V	t a 3 meter fully-anechoic chaml	
A. Vek		ermine the position of the highes	
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k hotek	N	top of a variable-height antenna	
ole, Vun		ried from one meter to four meter	
rek supole,	- V	aximum value of the field strengt	16.1.
Aupo. K. Stek		the antenna are set to make the	
hotek Anbo		ssion, the EUT was arranged to	
And of spoi		uned to heights from 1 meter to	
Aupole Alla		MHz, the antenna was tuned to h	
Lek V		turned from 0 degrees to 360 d	egrees to find the
ek Anbo	maximum reading.	was set to Dook Detact Function	n and Cnasified 1001
Sporek	D/	was set to Peak Detect Functio	n and Specilled
pole VIII	Bandwidth with Maximum F	161.	awar thish tha
otek Anbore		e EUT in peak mode was 10dB I	
Procedure:		could be stopped and the peak see the emissions that did not ha	
Anbo	181	V ~ ~ ~	V**
VII.	and then reported in a data	one using peak or average meth	ou as specified
Aupore A.		st channel, the middle channel,	the Highest
" "otek l	channel.	or originies, the initiale originies,	bole tilgilost
ter And	200	ents are performed in X, Y, Z ax	is positioning for
rek upoter		and the X axis positioning which	
Upole Kilk	case.	and the X date positioning which	the the word
Polek Vupor	F	s until all frequencies measured	was complete
And	Remark:	ek vupagestisies il Wassaisa	was somplete.
"upoter Aug	-16	le Loss+ Antenna Factor- Prean	np Factor
B. Tek vip	40 6/11.	GHz, the disturbance above 18G	
Aupor A.		e plots are the highest emission	-
K "olek		e points had been displayed. The	
oter. Yun		e radiator which are attenuated	
rek "upoter	below the limit need not be		Aupor
Yupo. W.		for frequencies above 1GHz, th	e field strength
hotek Aupor		e limits. However, the peak field	
And work		he maximum permitted average	
View Pup	18/4	V 70	W = =:







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above by more than 20 dB under any condition of modulation. For the emissions whose peak level is lower than the average limit, only the peak measurement is shown in the report.

4. The disturbance above 18GHz were very low and the harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.

## 12.1. EUT Operation

## Operating Environment:

1: 802.11a mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11a modulation type. All data rates has been tested and found the data rate @ 6Mbps is the worst case. Only the data of worst case is recorded in the report.

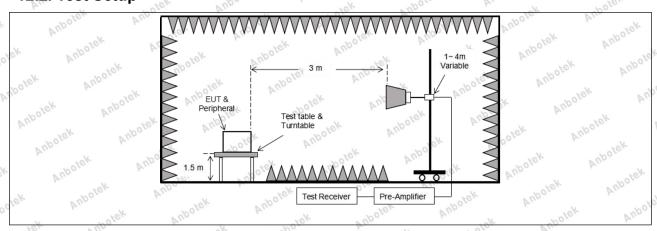
2: 802.11n mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11n modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

Test mode:

3: 802.11ac mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ac modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

4: 802.11ax mode: Keep the EUT connect to AC power line and works in continuously transmitting mode with 802.11ax modulation type. All bandwidth and data rates has been tested and found the data rate @ MCS0 is the worst case. Only the data of worst case is recorded in the report.

### 12.2. Test Setup





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## 12.3. Test Data

Temperature:	25.3 °C	Humidity:	48 %	Atmospheric Pressure:	101 kPa
Anboro	A. cox	" upolet	AUG	polek Aupo	rek

TM4 / Band: 5250-5350 MHz / BW: 40 / L							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
10540.00	27.31	23.83	51.14	68.20	-17.06	lek V And	Peak
15810.00	29.08	30.70	59.78	68.20	-8.42	, <sub>e</sub> , V	Peak
10540.00	27.72	23.83	51.55	68.20	-16.65	Wpo, H	Peak
15810.00	29.10	30.70	59.80 M	68.20	-8.40	AnboH	Peak
10540.00	16.99 And	23.83	40.82	54.00	-13.18	Polek	AVG
15810.00	18.22	30.70	48.92	54.00	-5.08	V vote	AVG
10540.00	17.49	23.83	41.32	54.00	-12.68	Haus	AVG
15810.00	18.45	30.70	49.15	54.00	-4.85	otek H Wul	AVG
TM4 / Band: 5250-5350 MHz / BW: 40 / H							
Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over limit (dB)	Antenna Pol.	Detector
10620.00	28.05	23.90	51.95	68.20	-16.25	Notek	Peak
15930.00	27.82	31.83	59.65	68.20	-8.55	, , , , , , , , , , , , , , , , , , ,	Peak noot
10620.00	28.52	23.90	52.42	68.20	-15.78	H And	Peak
15930.00	28.59	31.83	60.42	68.20	-7.78	olek H Vi	Peak
10620.00	18.28	23.90	42.18	54.00 M	-11.82	Velo	AVG
15930.00	17.57	31.83	49.40	54.00	-4.60	VUD AFEK	AVG
10620.00	18.55	23.90	42.45	54.00	-11.55	AUA,	AVG
15930.00	17.72	31.83	49.55	54.00	-4.45	Huporer	AVG

## Remark:

- 1. Result =Reading + Factor
- 2. Only the worst case 802.11ax(HEW40) is recorded in the report.



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Report No.: 18220WC40015604

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# APPENDIX I -- TEST SETUP PHOTOGRAPH

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

Anbotek

## APPENDIX II -- EXTERNAL PHOTOGRAPH

Please refer to separated files Appendix II -- External Photograph

# APPENDIX III -- INTERNAL PHOTOGRAPH

Anbotek

Anbotek

Anbotek

Anbotek

Anbotek

Anbotek

Please refer to separated files Appendix III -- Internal Photograph



Anbotek

Anbotek

Anbotek

Anbotek

Anbotek

