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FCC Test Report

Applicant : WeHome Technology Company Limited

Address Room 12A, Kiu Fu Comm Building, 300

Lockhart Road, Wan Chai, Hong Kong

Product Name : ROLA PetTracker

Report Date : Jun. 18, 2024

Shenzhen Anbotek

Anbotek

Product Safety

Approved *







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Shenzhen Anbotek Compliance Laboratory Limited

Code:AB-RF-05-b
Hotline
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www.anbotek.com.cn





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TEST REPORT

Applicant : WeHome Technology Company Limited

Manufacturer : Fuzhi Technology (Shenzhen) Co., Ltd.

Product Name : ROLA PetTracker

Test Model No. : ROLA PetTracker

Reference Model No. : N/A

Trade Mark : 🕰 enobot

Rating(s) : Input: 5V=

Battery Capacity: DC 3.85V, 1500mAh

Test Standard(s) : 47 CFR Part 2, 47 CFR Part 22(H), 47 CFR Part 24(E), 47 CFR Part 27(C)

ANSI C63.26-2015

Test Method(s) : KDB 971168 D01 Power Meas License Digital Systems v03r01

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 the 47 CFR Part 22, 47 CFR Part 24, 47 CFR Part 27 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. 03, 2024
Date of Test :	Anbo.	P. Stek	Apr	03 ~ May 07 202

Prepared by:

(Nianxiu Chen)

: John Pan Approved & Authorized Signer :

(Edward Pan)

Code:AB-RF-05-b

Hotline 400-003-0500 www.anbotek.com.cn





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Revision History

Report Version	Description	Issued Date		
R00	Original Issue.	Jun. 18, 2024		
Anbotek Anbotek A	Anbotek Anbotek Anbotek	Anbotek Anbotek Anb		
itek Anbotek Anbo	Anbotek Anbote Anbote	K Anbotest Anbotek		





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1. General Information

1.1. Client Information

Applicant	: WeHome Technology Company Limited
Address	Room 12A, Kiu Fu Comm Building, 300 Lockhart Road, Wan Chai, Hong Kong
Manufacturer	: Fuzhi Technology (Shenzhen) Co., Ltd.
Address	Room 302, Building 10, Qianhai Shengang Youth Dreamworks, No. 35 : Qianwan 1st Road, Qianhai-Hong Kong Cooperation Zone, Shenzhen, China
Factory	: Huizhou HAOCHENG Technology Co.'Ltd
Address	4/F,Building F,No.13Jinda Road,Huinan High-tech Industrial Park,Huiao AvenueZhongkaiHigh-tech one,Huizhou,Guangdong, P.R.China

1.2. Description of Device (EUT)

VL.		All All All
Product Name	:	ROLA PetTracker
Test Model No.	:	ROLA PetTracker
Reference Model No.	:	N/A Anbotek Anbotek Anbotek Anbotek Anbotek Ar
Trade Mark	:	enabot ek Anbotek Anbotek Anbotek Anbotek
Test Power Supply	:	DC 3.85V battery inside
Test Sample No.	:	1-2-1(Normal Sample), 1-2-2(Engineering Sample)
Adapter	:	N/A Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek Anbotek
RF Specification		
Support Band	:	⊠ FDD Band II ⊠ FDD Band V ⊠ FDD Band IV
Transmit Frequency	:	FDD Band II: 1852.40MHz~1907.60MHz FDD Band V: 826.40MHz~846.60MHz FDD Band IV: 1712.40MHz~1752.60MHz
Receive Frequency	:	FDD Band II: 1932.40MHz~1987.60MHz FDD Band V: 871.40MHz~891.60MHz FDD Band IV: 2112.40MHz~2152.60MHz
Modulation Type	:	QPSK, 16QAM
Power Class	:	Class 3 Anborek Anborek Anborek Anborek









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Antenna Type	:	FPC Antenna	Anbotek Anbotek Anbo
Antenna Gain(Peak)	:	FDD Band II: -0.79 dBi FDD Band V: -5.77dBi FDD Band IV: -0.62 dBi	Anbotek Anbotek Anbotek Anbotek Anbotek

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.

tek aboten And

1.3. Auxiliary Equipment Used During Test

Description	Rating(s)			
-And ok hote	- Anbo. A. stek	Anbore. Ans	ok hotek	Anbo

1.4. Operation State

Test frequency list:

1/4	FDD I	Band II	FDD E	Band V	FDD Band IV				
	Channel	Channel Frequency (MHz)		annel Channel		Frequency (MHz)	Channel	Frequency (MHz)	
	9262	1852.40	4132	826.40	1312	1712.40			
	9400	1880.00	4183	836.60	1413	1732.60			
e.	9538	1907.60	4233	846.60	1513	1752.60			

Test mode:

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v03 and ANSI C63.26-2015 with maximum output power.

Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

Radiated emissions were investigated as following frequency range:

30 MHz to 10th harmonic for FDD Band II, Band V, Band IV

All modes and data rates and positions were investigated.

Test modes are chosen to be reported as the worst case configuration below:

	Test modes								
Band	Radiated	Conducted							
FDD Band II	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link							
FDD Band V	■ RMC 12.2Kbps Link	■ RMC 12.2Kbps Link							
WCDMA Band IV	RMC 12.2Kbps Link	■ RMC 12.2Kbps Link							







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1.5. Environmental Conditions

- N	V1.	. 0.5		1.7		17.1.
Temperature range:	21-25 ℃					anbotek
Humidity range:	40-75%	Anbore	Yu. Potek	Anbotek	Anbo	hotek
Pressure range:	86-106kP	a Anbote	Ans	k anbotek	Aupo	ak abote





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1.6. Test Equipment List

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1. _A r	EMI Preamplifier	SKET Electronic	LNPA-0118G-4 5	SKET-PA-002	Jan. 17, 2024	1 Year
2.	EMI Test Receiver	Rohde & Schwarz	ESR26	101481	Jan. 23, 2024	1 Year
3. 3.	Double Ridged Horn Antenna	SCHWARZBECK	BBHA 9120D	02555	Oct. 16, 2022	3 Year
4. _b ot	Bilog Broadband Antenna	Schwarzbeck	VULB9163	345	Oct. 23, 2022	3 Year
5. An	Pre-amplifier	SONOMA	310N	186860	Jan. 17, 2024	1 Year
6.	EMI Test Software EZ-EMC	SHURPLE	N/A	N/A Mood	N/A	N/A
7.ek	MXA Spectrum Analysis	Agilent	N9020A	MY51170037	Oct. 12, 2023	1 Year
8.016	DC Power Supply	LW Moon	TPR-6420D	374470	Oct. 20, 2023	1 Year
9.	Constant Temperature Humidity Chamber	ZHONGJIAN	ZJ-KHWS80B	N/A	Oct. 16, 2023	1 Year
10.	Wideband Radio Communication Tester	Rohde & Schwarz	CMW 500	167336	Feb. 04, 2024	1 Year
11.	High-Pass Filter	CDKMV	ZHPF-BM1100 -4000-0730	B2015094550	Oct. 20, 2023	1 Year
12.	High-Pass Filter	CDKMV	ZHPF-M3.5 -18G-3834	1307006523	Oct. 20, 2023	1 Year
13.	Bilog Broadband Antenna	SCHWARZBECK	VULB 9163	01109	Oct. 16, 2022	3 Year
14.	Double Ridged Horn Antenna	Chengyi Electronics Co., Ltd.	GTH-0118	351600	Nov. 02, 2022	2 Year
15. 🖹	Signal Generator	Anritsu	MG3690A	MY48180749	Oct. 12, 2023	1 Year





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1.7. Measurement Uncertainty

Parameter	Uncertainty				
Occupied Bandwidth	925Hz				
Conducted Output Power	0.76dB				
Conducted Spurious Emission	1.24dB				
Radiated spurious emissions (30MHz~1GHz)	Horizontal: 3.92dB; Vertical: 4.52dB				
Radiated spurious emissions (above 1GHz)	1G-6GHz: 4.78dB; 6G-18GHz: 4.88dB				

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.

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.







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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.





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2. Summary of Test

2.1. Summary of test result

FCC Rules	Description of Test	Result
Part 2.1046	Anboten Anb	abotek Anbor
Part 22.913(a)	Conducted Output Dower	Compliance
Part 24.232(c)	Conducted Output Power	Compliance
Part 27.50(d)	botek Anbotek Anb	Anbor
Part 24.232	Pook Average Potio	Compliance
Part 27.50(d)	Peak-Average Ratio	Compliance
§ 2.1047	Modulation Characteristics	N/A
Part 2.1049	99% Occupied Bandwidth & 26 dB Bandwidth	Compliance
Part 2.1051	otek Anborek Anb	Anbor
Part 22.917	Conducted Spurious Emission	Campliance
Part 24.238	Conducted Spurious Emission	Compliance
Part 27.53(h)	Anbotek Anbotek A	ipore K Pir
Part 2.1051	ek spotek Anbou k sotek	Anbore. And
Part 22.917	Band Edge	Compliance
Part 24.238	band Edge	Compliance
Part 27.53(h)	Anbotek Anbotek Anbotek	Ann
Part 2.1055(a)(1)(b)	botek Anbore All otek Anbor	er Anbo
Part 22.355	Frequency stability VS. temperature	Compliance
Part 24.235	Frequency stability vs. temperature	Compliance
Part 27.54	Anbore Anti-otek Anborek	Aupo rek apo
Part 2.1055(d)(1)(2)	otek Anbotek Anbotek	Aupo, K
Part 22.355	Frequency stability VS. voltage	Compliance
Part 24.235	Trequency stability vo. voltage	Compliance
Part 27.54	Anbotes And tek abotek Anbo.	-k wotek
Part 2.1046	anbotek Anbo ak hotek An	ofer And otek
Part 22.913(a)	ERP and EIRP	Compliance
Part 24.232(c)	ERP and EIRP	Compliance
Part 27.50	otek Anborek Anborek	An otek vo
Part 2.1053	abotek Anbore Am otek Anbotek	Aup
Part 22.917	Radiated Spurious Emission	Compliance
Part 24.238	Radiated Spurious Emission	Compliance
Part 27.53(h)	Anbor Anti-	tek abotek

Note: Testing was performed by configuring EUT to maximum output power status, the declared output power class for different







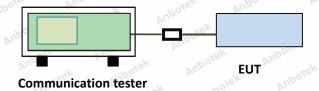
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3. Conducted Output Power Test

3.1. Test Standard and Limit

		N. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		640	The second secon		7.7
7	Applicable	Part 2.1046	Anbore A	'un	anborek	Aupo	hote
	Standard:	Part 22.913(a)					Vive
o'i		Part 24.232(c)					Anb
		Part 27.50(d)					P
	Limit:	N/A	Anbo	100° You	lek Wupos	bu.	iek.

3.2. Test Setup



3.3. Test Procedure

- 1. The EUT output port was connected to communication tester.
- 2. Set EUT at maximum power through communication tester.
- 3. Select lowest, middle, and highest channels for each band and different modulation.
- 4. Measure the maximum burst average power.

3.4. Test Data

Pass

Please refer to Appendix A of the Appendix Test Data.







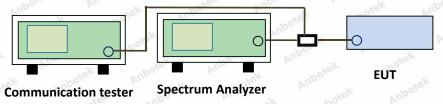
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4. Peak-Average Ratio

4.1. Test Standard and Limit

1	Applicable Standard:	Part 24.232	Anbore	Ann	Anbotek	Aupo	bote
		Part 27.50(d)					Viv
0%	Limit:	13dB	abotek	Anbore	Am	Anboten	Vup

4.2. Test Setup



4.3. Test Procedure

According with KDB 971168 D01 Section 5.7:

- 1. The EUT was connected to the spectrum analyzer and communication tester via a power splitter.
 - 2. Set EUT in maximum power output.
 - 3. Center Frequency = Carrier frequency, RBW > Emission bandwidth of signal.
 - 4. The signal analyzer was set to collect one million samples to generate the CCDF curve.
 - 5. The measurement interval was set depending on the type of signal analyzed.
 - i. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms.
- ii. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power
 - 6. Record the maximum PAPR level associated with a probability of 0.1%.

4.4. Test Data

Pass

Please refer to Appendix B of the Appendix Test Data.







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5. Modulation Characteristic

According to FCC § 2.1047(d), Part 22H, Part 24E, Part 27C there is no specific requirement for digital modulation, therefore modulation characteristic is not presented.





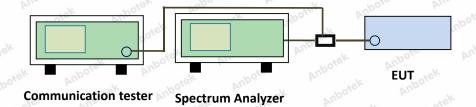
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6. 99% Occupied Bandwidth & 26 dB Bandwidth

6.1. Test Standard and Limit

 Applicable Standard:	Part 2.1049	e/F	Anbore	Vur Viek	Morek	Aupo	-pote
Limit:	N/A	orek	Anbotek	Anbo	abotek	Anboro	bu.

6.2. Test Setup



6.3. Test Procedure

- The EUT was connected to the spectrum analyzer and communication tester via a power splitter.
- 2. Set EUT in maximum power output.
- Spectrum analyzer setting as follow:
 Center Frequency= Carrier frequency, RBW=1% to 5% of anticipated OBW, VBW= 3 * RBW,
 Detector=Peak,
 - Trace maximum hold.
- 4. Record the value of 99% Occupied bandwidth and -26dB bandwidth.

6.4. Test Data

Pass

Please refer to Appendix C of the Appendix Test Data.







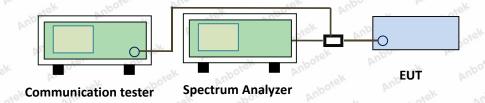
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7. Band Edge

7.1. Test Standard and Limit

N	ATT ATT ATT
Applicable Standard:	Part 2.1051
	Part 22.917
	Part 24.238
	Part 27.53(h)
Limit:	Part 24.238 and Part 22.917 and Part 27.53(h)specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.
	The specification that emissions shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes 43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

7.2. Test Setup



7.3. Test Procedure

- 1. The EUT was connected to the spectrum analyzer and communication tester via a power splitter.
- 2. Set EUT in maximum power output.
- 3. The band edges of low and high channels were measured.
- Spectrum analyzer setting as follow:
 RBW=3KHz, VBW = 10KHz, Sweep time= Auto
- 5. Record the test plot.

7.4. Test Data

Pass

Please refer to Appendix D of the Appendix Test Data.







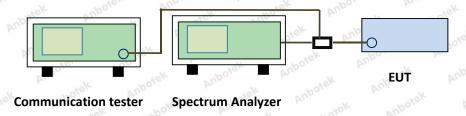
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8. Conducted Spurious Emission

8.1. Test Standard and Limit

	N	
4	Applicable Standard:	Part 2.1051
		Part 22.917
oř.		Part 24.238
n		Part 27.53(h)
	Limit:	Part 24.238 and Part 22.917 and Part 27.53(h) specify that the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB.
16		The specification that emissions shall be attenuated below the transmitter power (P) by at least 43 + 10 log (P) dB, translates in the relevant power range (1 to 0.001 W) to -13 dBm. At 1 W the specified minimum attenuation becomes
1/2		43 dB and relative to a 30 dBm (1 W) carrier becomes a limit of -13 dBm. At 0.001 W (0 dBm) the minimum attenuation is 13 dB, which again yields a limit of -13 dBm. In this way a translation of the specification from relative to absolute terms is carried out.

8.2. Test Setup



8.3. Test Procedure

- 1. The EUT was connected to the spectrum analyzer and communication tester via a power splitter.
- 2. Set EUT in maximum power output.
- Spectrum analyzer setting as follow:
 Below 1GHz, RBW=100KHz, VBW = 300KHz, Detector=Peak, Sweep time= Auto
 Above 1GHz, RBW=1MHz, VBW=3MHz, Detector=Peak, Sweep time= Auto
 Scan frequency range up to 10th harmonic.
- 4. Record the test plot.

8.4. Test Data

Pass

Please refer to Appendix E of the Appendix Test Data.







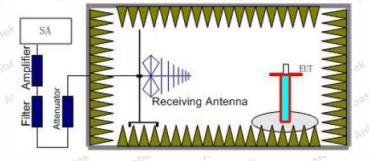
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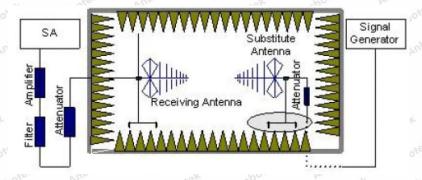
9. Radiated Spurious Emission

9.1. Test Standard and Limit

4	Applicable Standard:	Part 2.1053	. P	nbolo	And	Anbotek	Anbo	bote
121		Part 22.917						Arra
o'i		Part 24.238						Anb
7		Part 27.53(h)						Y- P
	Limit:	-13dBm	Aupoter	Anbo	ode yes	yek Aupor	b//.	otek

9.2. Test Setup





9.3. Test Procedure

- 1. Place the EUT in the center of the turntable.
 - a) For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, the EUT shall be placed on a RF-transparent table at a nominal height of 80 cm above the reference ground plane
 - b) For radiated measurements performed at frequencies above 1 GHz, the EUT shall be placed on an RF transparent table at a nominal height of 1.5 m above the ground plane.
- Unless the EUT uses an integral antenna, the EUT shall be terminated with a non-radiating transmitter load. In cases where the EUT uses an adjustable antenna, the antenna shall be adjusted through typical positions and lengths to maximize emissions levels.
- 3. The EUT shall be tested while operating on the frequency per manufacturer specification. Set the transmitter to operate in continuous transmit mode.
- 4. Receiver or Spectrum set as follow:

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Below 1GHz, RBW=100kHz, VBW=300kHz, Detector=Peak, Sweep time=Auto Above 1GHz, RBW=1MHz, VBW=3MHz, Detector=Peck, Sweep time=Auto

- 5. Each emission under consideration shall be evaluated:
 - a) Raise and lower the measurement antenna from 1 m to 4 m, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.
 - b) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.
 - c) Return the turntable to the azimuth where the highest emission amplitude level was observed.
 - d) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.
 - e) Record the measured emission amplitude level and frequency
- 6. Repeat step 5 for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.
- Set-up the substitution measurement with the reference point of the substitution antenna located as near as possible to where the center of the EUT radiating element was located during the initial EUT measurement.
- 8. Maintain the previous measurement instrument settings and test set-up, with the exception that the EUT is removed and replaced by the substitution antenna.
- 9. Connect a signal generator to the substitution antenna; locate the signal generator so as to minimize any potential influences on the measurement results. Set the signal generator to the frequency where emissions are detected, and set an output power level such that the radiated signal can be detected by the measurement instrument, with sufficient dynamic range relative to the noise floor.
- 10. For each emission that was detected and measured in the initial test
 - a) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude.
 - b) Adjust the signal generator output power level until the amplitude detected by the measurement instrument equals the amplitude level of the emission previously measured directly in step 5 and step 6.
 - c) Record the output power level of the signal generator when equivalence is achieved in step b)
- 11. Repeat step 8 through step 10 with the measurement antenna oriented in the opposite polarization.
- 12. Calculate the emission power in dBm referenced to a half-wave dipole using the following equation:

Pe = Ps(dBm) - cable loss (dB) + antenna gain (dBd)

where

Pe = equivalent emission power in dBm

Ps = source (signal generator) power in dBm

NOTE—dBd refers to the measured antenna gain in decibels relative to a half-wave dipole.

13. Correct the antenna gain of the substitution antenna if necessary to reference the emission power to a half-wave dipole. When using measurement antennas with the gain specified in dBi, the equivalent dipole-referenced gain can be determined from:

gain (dBd) = gain (dBi) - 2.15 dB.

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If necessary, the antenna gain can be calculated from calibrated antenna factor information

14. Provide the complete measurement results as a part of the test report.

9.4. Test Data

Pass

Note: Worst case at WCDMA Band II/ WCDMA Band V/ WCDMA Band IV

			WCDMA	A Band II			
	Frequency		Spurious	Emission		Limit	
Channel	(MHz)	Polarization	Reading (dBm)	Factor (dB)	Level (dBm)	(dBm)	Result
Anbotel	3704.80	Vertical	-49.43	13.26	-36.17	sk Vupo,	VK WILL
tek vip	5557.20	V Ann	-56.56	16.62	-39.94	<-13.00	PASS
O. by	7409.60	pose, A Mus	-58.66	17.84	-40.82		Anboten
9262	3704.80	Horizontal	-50.22	13.26	-36.96	Purplek	Anborek
Anbotek	5557.20	AnbAtek	-57.31	16.62	-40.69	<-13.00	PASS
Vupole,	7409.60	Hootek	-59.29	17.84	-41.45		k Anbote
Anbores	3760.00	Vertical	-48.84	13.27	-35.57	Aug	otek Anb
lek Aupo	5640.00	Jek V NO	-55.87	16.49	-39.38	<-13.00	PASS
orek	7520.00	V	-58.25	17.96	-40.29		Anbo
9400	3760.00	Horizontal	-49.50	13.27	-36.23	Anbotek	Anbo
And	5640.00	Anbor H	-56.59	16.49	-40.10	<-13.00	PASS
Anbo	7520.00	HA HA	-58.85	17.96	-40.89		K Anboro
Augo	3815.20	Vertical	-48.14	13.59	-34.55	de No	otek Pupe
tok Anbo	5722.80	otek V Anbe	-55.14	16.69	-38.45	<-13.00	PASS
botek An	7630.40	A V ^{Votok}	-57.36	17.95	-39.41		botek
9538	3815.20	Horizontal	-49.46	13.59	-35.87	Anbore	Pri - Potek
Anbotek	5722.80	Hotek	-56.46	16.69	-39.77	<-13.00	PASS
A. sbotek	7630.40	H week	-58.56	17.95	-40.61		K Anu

Remark:

- 1. The emission behaviour belongs to narrowband spurious emission.
- 2. The emission levels of not record in the report are very lower than the limit and not show in test report.







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			WCDMA	Band V			
	Fraguenav		Spurious	Emission		Linait	
Channel	Frequency (MHz)	Polarization	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Result
Anbore	1652.80	Vertical	-39.70	5.62	-34.08	K MO	rek Anbo
	2479.20	ek V nbote	-47.98	9.32	-38.66	<-13.00	PASS
otek 4400 Amb	3305.60	Nek V	-53.93	12.69	-41.24	hoten Ar	
4132	1652.80	Horizontal	-40.51	5.62	-34.89	Anborek	Anbo
	2479.20	Aupo Hek	-48.74	9.32	-39.42	<-13.00	PASS
	3305.60	Aupo,	-54.65	12.69	-41.96	Anborek	
Vien	1673.20	Vertical	-41.10	7.69	-33.41	Jek Napot	Sk Vupo
	2509.80	ek V Aupor	-47.49	9.46	-38.03	<-13.00	PASS
tek Anbi	3346.40	botek V Anh	-52.91	12.26	-40.65	upo. kek	
4183	1673.20	Horizontal	-42.02	7.69	-34.33	Aupo,	aborek
	2509.80	Hek	-48.35	9.46	-38.89	<-13.00	PASS
	3346.40	Hotek	-53.73	12.26	-41.47	Anbore	
Anborek	1693.20	Vertical	-40.88	8.26	-32.62	Ask Wupon	Y Dur
	2539.80	V	-46.93	9.65	-37.28	<-13.00	PASS
	3386.40	V And	-52.36	12.41	-39.95	spotek	
4233	1693.20	Horizontal	-41.93	8.26	-33.67	An botek	Anborek
	2539.80	Anb H	-47.92	9.65	-38.27	<-13.00	PASS
	3386.40	A Hotek	-53.30	12.41	-40.89	K Ann	

Remark:

- 1. The emission behaviour belongs to narrowband spurious emission.
- 2. The emission levels of not record in the report are very lower than the limit and not show in test report.





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			WCDMA	Band IV			
	Fraguenav		Spurious	Emission		Linait	
Channel	Frequency (MHz)	Polarization	Reading (dBm)	Factor (dB)	Level (dBm)	Limit (dBm)	Result
Anbore	1652.80	Vertical	-42.53	8.69	-33.84	Y VIII	rek Anb
	2479.20	lek V Mpoli	-47.65	9.23	-38.42	<-13.00	PASS
itek 1010 Amb	3305.60	orek V	-53.59	12.59	-41.00	abover Ar	
1312	1652.80	Horizontal	-43.51	8.69	-34.82	Anbotek	Aupo
	2479.20	Hok Hok	-48.57	9.23	-39.34	<-13.00	PASS
	3305.60	Aupor	-54.45	12.59	-41.86	Anbotek	
Anboatel	1673.20	Vertical	-41.81	8.78	-33.03	lek hupot	Sk Vupe
	2509.80	ek V Anbon	-47.31	9.65	-37.66	<-13.00	PASS
lek Vup.	3346.40	potek V Anh	-52.89	12.61	-40.28	upo. K.	
1413	1673.20	Horizontal	-42.93	8.78	-34.15	Aupor	aborek.
	2509.80	Hek	-48.36	9.65	-38.71	<-13.00	PASS
	3346.40	Hotek	-53.87	12.61	-41.26	Anbore	
Anbotek	1693.20	Vertical	-40.76	8.69	-32.07	Jek Pupor	, but
	2539.80	V	-46.28	9.52	-36.76	<-13.00	PASS
	3386.40	oren V And	-52.13	12.69	-39.44	botek	
1513	1693.20	Horizontal	-42.05	8.69	-33.36	hotek	Anbotek
	2539.80	Anbotek	-47.48	9.52	-37.96	<-13.00	PASS
	3386.40	Hotek	-53.25	12.69	-40.56	Aug	

Remark:

- 1. The emission behaviour belongs to narrowband spurious emission.
- 2. The emission levels of not record in the report are very lower than the limit and not show in test report.





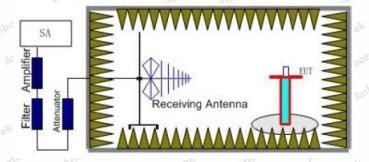
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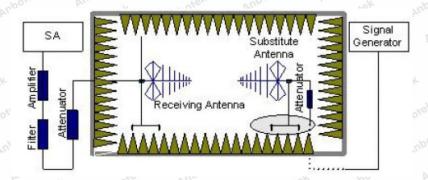
10. ERP and EIRP

10.1. Test Standard and Limit

6	Applicable Standard:	Part 2.1046
		Part 22.913(a)
07		Part 24.232(c)
0		Part 27.50
	Limit:	WCDMA Band II: 2W (33dBm) EIRP
		WCDMA Band V: 7W (38.45dBm) ERP
		WCDMA Band IV: 1W (30dBm) EIRP

10.2. Test Setup





10.3. Test Procedure

- 1. Place the EUT in the center of the turntable.
 - a) For radiated emissions measurements performed at frequencies less than or equal to 1 GHz, the EUT shall be placed on a RF-transparent table at a nominal height of 80 cm above the reference ground plane
 - b) For radiated measurements performed at frequencies above 1 GHz, the EUT shall be placed on an RF transparent table at a nominal height of 1.5 m above the ground plane.
- 2. Unless the EUT uses an integral antenna, the EUT shall be terminated with a non-radiating transmitter load. In cases where the EUT uses an adjustable antenna, the antenna shall be adjusted through typical positions and lengths to maximize emissions levels.



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- 3. The EUT shall be tested while operating on the frequency per manufacturer specification. Set the transmitter to operate in continuous transmit mode.
- 4. Receiver or Spectrum set as follow:

Below 1GHz, RBW=100kHz, VBW=300kHz, Detector=Peak, Sweep time=Auto Above 1GHz, RBW=1MHz, VBW=3MHz, Detector=Peck, Sweep time=Auto

- 5. Each emission under consideration shall be evaluated:
 - a) Raise and lower the measurement antenna from 1 m to 4 m, as necessary to enable detection of the maximum emission amplitude relative to measurement antenna height.
 - b) Rotate the EUT through 360° to determine the maximum emission level relative to the axial position.
 - c) Return the turntable to the azimuth where the highest emission amplitude level was observed.
 - d) Vary the measurement antenna height again through 1 m to 4 m again to find the height associated with the maximum emission amplitude.
 - e) Record the measured emission amplitude level and frequency
- 6. Repeat step 5 for each emission frequency with the measurement antenna oriented in both the horizontal and vertical polarizations to determine the orientation that gives the maximum emissions amplitude.
- 7. Set-up the substitution measurement with the reference point of the substitution antenna located as near as possible to where the center of the EUT radiating element was located during the initial EUT measurement.
- 8. Maintain the previous measurement instrument settings and test set-up, with the exception that the EUT is removed and replaced by the substitution antenna.
- 9. Connect a signal generator to the substitution antenna; locate the signal generator so as to minimize any potential influences on the measurement results. Set the signal generator to the frequency where emissions are detected, and set an output power level such that the radiated signal can be detected by the measurement instrument, with sufficient dynamic range relative to the noise floor.
 - For each emission that was detected and measured in the initial test
 - a) Vary the measurement antenna height between 1 m to 4 m to maximize the received (measured) signal amplitude.
 - b) Adjust the signal generator output power level until the amplitude detected by the measurement instrument equals the amplitude level of the emission previously measured directly in step 5 and step 6.
 - c) Record the output power level of the signal generator when equivalence is achieved in step b).
 - 11. Repeat step 8 through step 10 with the measurement antenna oriented in the opposite polarization.
 - 12. Calculate the emission power in dBm referenced to a half-wave dipole using the following equation:

Pe = Ps(dBm) - cable loss (dB) + antenna gain (dBd)

where

Pe = equivalent emission power in dBm

Ps = source (signal generator) power in dBm

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NOTE—dBd refers to the measured antenna gain in decibels relative to a half-wave dipole.

13. Correct the antenna gain of the substitution antenna if necessary to reference the emission power to a half-wave dipole. When using measurement antennas with the gain specified in dBi, the equivalent dipole-referenced gain can be determined from:

gain (dBd) = gain (dBi) - 2.15 dB.

If necessary, the antenna gain can be calculated from calibrated antenna factor information

14. Provide the complete measurement results as a part of the test report.

10.4. Test Data

Pass

		ERP&EIRF)			
Mada	01	(dB	m)	Lineit (dDne)	Result	
Mode	Channel	Vertical	Horizontal	Limit (dBm)		
ek wonderek	9262	26.15	23.98	pi. botek	Anbore. An	
WCDMA Band II (EIRP)	9400	25.86	21.59	<33.00	PASS	
thore (LINF)	9538	25.36	22.92	ok hotek	Anbotek	
Anbore And D. WOL	4132	19.84	19.47	ie. Yuz	sk Aupotek	
WCDMA Band V (ERP)	4183	19.10	17.52	<38.45	PASS	
Anbo (EIXI)	4233	17.83	18.21	Anboten An	otek ont	
And David	1312	18.36	22.64	Anboren	Aupo	
WCDMA Band IV (EIRP)	1413	18.17	18.12	<30.00	PASS	
	1513	300 17.62 And	20.41	ek Anborek	Anbo.	





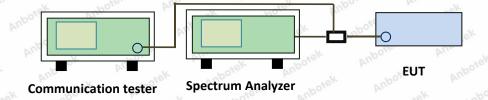
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11. Frequency stability VS Voltage measurement

11.1. Test Standard and Limit

Applicable Standard:	Part 2.1055	(d)(1)(2)	P P	us viek	Anborek	Anbo	-botek
	Part 22.355						Alle
	Part 24.235						Anbo
	Part 27.54	Anbore	Arra	anbotel	Anbo	ek abote	Tr. br
Limit:	2.5ppm	Anboren	Anb	alv do	yek Aupo,	bir.	otek

11.2. Test Setup



11.3. Test Procedure

- 1. The equipment under test was connected to an external DC power supply and input rated voltage.
- 2. The EUT output port was connected to communication tester.
- 3. The EUT was placed inside the temperature chamber at 25°C.
- 4. The power supply voltage to the EUT was varied ±15% of the nominal value measured at the input to the EUT.
- 5. Record the maximum frequency change.

11.4. Test Data

Pass

Please refer to Appendix F of the Appendix Test Data.







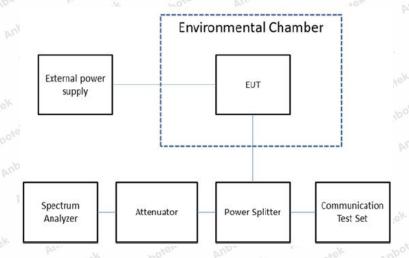
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12. Frequency stability VS Temperature measurement

12.1. Test Standard and Limit

Applicable Standard:	Part 2.1055((a)(1)(b)	Ole V	us of EK	anborek	Anbo	hote
	Part 22.355						
	Part 24.235						Anb
	Part 27.54						
Limit:	2.5ppm	Anbotek	Anbo	ok do	yek Aupor	N. Die	otek

12.2. Test Setup



12.3. Test Procedure

- 1. The equipment under test was connected to an external DC power supply and input rated voltage.
- 2. The EUT output port was connected to communication tester.
- 3. The EUT was placed inside the temperature chamber.
- 4. Turn EUT off and set the chamber temperature to –30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency.
- 5. Repeat step 4 measure with 10°C increased per stage until the highest temperature of +50°C reached.

12.4. Test Data

Pass

Please refer to Appendix G of the Appendix Test Data.







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APPENDIX I -- TEST SETUP PHOTOGRAPH

Please refer to separated files Appendix I -- Test Setup Photograph_Licensed

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





