TEST REPORT

FCC ID: 2AGEB-3503 Product: Mobile intelligent data terminal Model No.: 3503 Additional Model No.: 3506 Trade Mark: ZKC Report No.: TCT171225E081 Issued Date: Mar. 30, 2018

Issued for:

Shenzhen ZKC Software Technology Co., Ltd 1st Floor, No. 1 Block, Zhongkenuo Industry Park, Beiqi Road, Xixiang Town, Bao'an District, Shenzhen, China

Issued By:

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TCT通测检测 TESTING CENTRE TECHNOLOGY

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G)		•					

Test Ce	rtification
Product:	
Model No.:	3503
Additional Model:	3506
Trade Mark:	ZKC
Applicant:	Shenzhen ZKC Software Technology Co., Ltd
Address:	1st Floor, No. 1 Block, Zhongkenuo Industry Park, Beiqi Road, Xixiang Town, Bao'an District, Shenzhen, China
Manufacturer	Shenzhen ZKC Software Technology Co., Ltd
Address:	1st Floor, No. 1 Block, Zhongkenuo Industry Park, Beiqi Road, Xixiang Town, Bao'an District, Shenzhen, China
Date of Test:	Dec. 26, 2017 – Mar. 29, 2018
Applicable Standards:	FCC CFR Title 47 Part 2 FCC CFR Title 47 Part22 FCC CFR Title 47 Part24

The above equipment has been tested by Shenzhen Tongce Testing Lab. and found compliance with the requirements set forth in the technical standards mentioned above. The results of testing in this report apply only to the product/system, which was tested. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Tested Bv:	Tim Wang	Date:	Mar. 29. 2018
	Jin Wang)	
Reviewed By:	Beny TRONGCE TE	Date:	Mar. 30, 2018
	Bery.		
Approved By:	oms	Date:	Mar. 30, 2018
	Tomsin		
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Requirement	CFR 47 Section	Result
Conducted Output Power	§22.913; §2.1046 §24.232;	PASS
Peak-to-Average Ratio	§2.1046; §24.232(d)	PASS
Effective Radiated Power	§2.1046; §22.913(a) §24.232;	PASS
Equivalent Isotropic Radiated Power	§2.1046; §22.913(a) §24.232;	PASS
Occupied Bandwidth	§2.1049	PASS
Band Edge	§2.1051 §22.917(a) §24.238(a)	PASS
Conducted Spurious Emission	§2.1051; §22.917 §24.238;	PASS
Field Strength of Spurious Radiation	§2.1053; §22.917(a) §24.238;	PASS
Frequency Stability for Temperature & Voltage	§2.1055;§22.355 §24.235;	PASS
t e: 1. PASS: Test item meets the requ 2. Fail: Test item does not meet the 3. N/A: Test case does not apply to 4. The test result judgment is decid	irement. e requirement. o the test object. led by the limit of test standard.	

3. EUT Description

Product Name:	Mobile intelligent data terminal	
Model :	3503	
Additional Model:	3506	
Trade Mark:	ZKC	
3G Version:	WCDMA:R99 HSDPA: Release 5 HSUPA: Release 6	
Tx Frequency:	GSM/GPRS/EGPRS 850: 824.2 MHz ~ 848.8 MHz GSM/GPRS/EGPRS 1900: 1850.2 MHz ~ 1909.8MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz	
Rx Frequency:	GSM/GPRS/EGPRS 850: 869.2 MHz ~ 893.8 MHz GSM/GPRS/EGPRS 1900: 1930.2 MHz ~ 1989.8 MHz WCDMA Band V: 871.4 MHz ~ 891.6 MHz WCDMA Band II: 1932.4 MHz ~ 1987.6 MHz	
Maximum Output Power to Antenna:	GSM850: 33.12dBm GSM1900: 29.91dBm GPRS 850: 33.12dBm GPRS 1900: 29.50dBm EGPRS850: 28.87dBm EGPRS1900: 25.82dBm	
	WCDMA Band V: 22.76dBm WCDMA Band II: 22.48dBm	_
99% Occupied Bandwidth:	GSM850. 243KGXM GSM1900: 247KGXM EGPRS850 Class 12: 249KG7W EGPRS1900 Class 12: 244KG7W WCDMA Band V RMC 12.2Kbps: 4M15F9W WCDMA Band II RMC 12.2Kbps: 4M16F9W	
Type of Modulation:	GSM/GPRS: GMSK EGPRS: GMSK/8PSK WCDMA/HSDPA/HSUPA: QPSK	
Antenna Type:	Internal Antenna	
Antenna Gain:	GSM/GPRS/EGPRS 850: 1dBi GSM/GPRS/EGPRS 1900: 1dBi WCDMA Band V: 1dBi WCDMA Band II: 1dBi	
Power Supply:	Rechargeable Li-ion Battery DC3.7V	
AC adapter:	Adapter Information: Model: MX520U	

Re	mark:	Input: 100- Output: 5V All models circuits and names are	240V~ 50/6 / - 2A above are i d componer different fo	0Hz 0.35A dentical in ir its, and just r the market	nterior struc exterior size ing requirer	ture, electric e and model ment.	al
						Page 6 o	f 66

	·····						
E Temperating	nvironment	t:	25.0 °	C			
Humidity			56 %	RH			
Atmosph	eric Pressur	e:	1010	mbar			
Test Mode:							
Operation	ו mode:		Keep CMU2 modu	the EUT in 200 and sel lation	communica ect channe	ation with I with	
Remark: This	s product ha	s a built-in re	echargeable	battery, so	in an inde	pendent te	st,
plane of 3m performed. E continuously Z) and consi interconnect both horizon Results of th	chamber. Mo During the te working, inv dered typica ing cables, ro tal and vertic <u>e following p</u>	easurements st, each emis restigated all l configuratic otating the tu cal polarization ages.	s in both hor ssion was m operating n on to obtain urntable, var ons. The em	izontal and naximized b nodes, rotat worst positi ying antenr nissions wo	vertical pol y: having the ed about a on, manipu na height fro rst-case are	larities wer he EUT II 3 axis (X ulating om 1m to 4 e shown in	I e , Y ∂ ∙m i Tes
plane of 3m performed. E continuously Z) and consi interconnect both horizon <u>Results of th</u>	chamber. Mo During the te working, inv dered typica ing cables, re tal and vertic <u>e following p</u>	easurements st, each emin vestigated all I configuration otating the tu cal polarization oages.	s in both hor ssion was m operating n on to obtain urntable, var ons. The em	izontal and naximized b nodes, rotat worst positi ying antenr nissions wor	vertical pol y: having the ed about a on, manipu na height fro rst-case are	larities wer ne EUT II 3 axis (X ulating om 1m to 4 e shown in	l e mi Tes
plane of 3m performed. E continuously Z) and consi interconnect both horizon Results of th	chamber. Mo During the te working, inv dered typica ing cables, ro tal and vertic <u>e following p</u>	easurements st, each emis restigated all l configuratic otating the tu cal polarizatio oages.	in both hor ssion was m operating n on to obtain urntable, var ons. The em	izontal and naximized b nodes, rotat worst positi ying antenr nissions wor	vertical pol y: having the ed about a on, manipu na height fro rst-case are	larities wer he EUT II 3 axis (X ulating om 1m to 4 e shown in	I e m i Tes
plane of 3m performed. E continuously Z) and consi interconnect both horizon <u>Results of th</u>	chamber. Mo During the te working, inv dered typica ing cables, ro tal and vertic <u>e following p</u>	easurements st, each emis vestigated all l configuratic otating the tu cal polarizatic oages.	in both hor ssion was m operating n on to obtain urntable, var ons. The em	izontal and naximized b nodes, rotat worst positi ying antenr hissions wor	vertical pol y: having the ed about a on, manipu na height fro rst-case are	larities wer ne EUT II 3 axis (X ulating om 1m to 4 e shown in	I e mi Tes
plane of 3m performed. E continuously Z) and consi interconnect both horizon <u>Results of th</u>	chamber. Mo During the te working, invidered typica ing cables, ro tal and vertice <u>e following p</u>	easurements st, each emis vestigated all l configuratic otating the tu cal polarizatic oages.	in both hor ssion was m operating n on to obtain urntable, var ons. The em	izontal and naximized b nodes, rotat worst positi ying antenr nissions wor	vertical pol y: having the ed about a on, manipu na height fro rst-case are	larities wer he EUT II 3 axis (X ulating om 1m to 4 e shown in	I e mi Tes



	GSM 850	F	PCS1900
Channel:	Frequency (MHz)	Channel:	Frequency (MHz)
128	824.20	512	1850.20
129	824.40	513	1850.40
189	836.40	660	1879.80
190	836.60	661	1880.00
191	836.80	662	1880.20
		····	
250	848.60	809	1909.60
251	848.80	810	1909.80

WCDN	IA Band V	WCDM	A Band II
Channel:	Frequency (MHz)	Channel:	Frequency (MHz)
4132	826.40	9262	1852.40
4133	826.60	9263	1852.60
	(20)	$(\mathbf{A}\mathbf{G})$
4182	836.40	9399	1879.80
4183	836.60	9400	1880.00
4184	836.80	9401	1880.20
	(c)	(.G`)	
4233	846.60	9538	1907.60



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4.2. Test Mode

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Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r02 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:

- 1. 30 MHz to 10000 MHz for GSM850 and WCDMA Band V.
- 2. 30 MHz to 20000 MHz for PCS1900, WCDMA Band II.
- All modes and data rates and positions were investigated.

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

	Test Mode	
Band	Radiated TCs	Conducted TCs
GSM 850	GSM Link GPRS class 12 Link EGPRS class 12 Link	GSM Link GPRS class 12 Link EGPRS class 12 Link
PCS 1900	GSM Link GPRS class 12 Link EGPRS class 12 Link	GSM Link GPRS class 12 Link EGPRS class 12 Link
WCDMA Band V	RMC 12.2Kbps Link	RMC 12.2Kbps Link
WCDM Band II	RMC 12.2Kbps Link	RMC 12.2Kbps Link

Note: The maximum power levels are chosen to test as the worst case configuration as follows: GPRS multi-slot class 8 mode for GMSK modulation, EDGE multi-slot class 8 mode for 8PSK modulation. RMC 12.2Kbps mode for WCDMA band V and WCDMA band II, only these modes were used for all tests. In addition to above worst-case test, below investigating on all data rates and all modes are compliance with each FCC test case which has specific test limits. For spurious emissions at antenna port, the EUT was investigated the band edges on low and high channels, and the unwanted spurious emissions on middle channel for all modes, the results are PASS, then only the worst-results were reported in the test report. The Radiated Spurious emissions for GPRS and EDGE modes were investigated on the middle channel and the PASS results were not worst than those data tested from the highest power channels.

4.3. Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Equipment	Model No.	Serial No.	FCC ID	Trade Name
	1	/	<i>I</i>	\sum_{I}

Note:

- 1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
- 2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

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5. Facilities and Accreditations

5.1. Facilities

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

• FCC - Registration No.: 645098

Shenzhen Tongce Testing Lab

The 3m Semi-anechoic chamber has been registered and fully described in a report with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files.

 IC - Registration No.: 10668A-1 The 3m Semi-anechoic chamber of Shenzhen TCT Testing Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing

5.2. Location

Shenzhen Tongce Testing Lab

Address: 1B/F., Building 1, Yibaolai Industrial Park, Qiaotou, Fuyong, Baoan District, Shenzhen, Guangdong, China

TEL: +86-755-27673339

5.3. Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	MU
1	Conducted Emission	±2.56dB
2	RF power, conducted	±0.12dB
3	Spurious emissions, conducted	±0.11dB
4	All emissions, radiated(<1G)	±3.92dB
5	All emissions, radiated(>1G)	±4.28dB
6	Temperature	±0.1°C
7	Humidity	±1.0%

.1. Test Specification	
Test Requirement:	FCC part 22.913(a) and FCC part 24.232(b)
Fest Method:	FCC part 2.1046
Operation mode:	Refer to item 4.1
Limits:	GSM 850 7W PCS 1900 2W WCDMA Band V:7W WCDMA Band II: 2W
Test Setup:	System Simulator EUT
Test Procedure:	 The transmitter output port was connected to the system simulator. Set EUT at maximum power through system simulator. Select lowest, middle, and highest channels for each band and different modulation. Measure the maximum burst average power for GSM and maximum average power for other modulation signal
Test Result:	PASS

6.1.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
System simulator	R&S	CMU200	111382	Sep. 27, 2018
RF cable (9kHz-40GHz)	тст	RE-05	N/A	Sep. 27, 2018
Antenna Connector	тст	RFC-02	N/A	Sep. 27, 2018

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).



6.1.3. Test data

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Average Conducted Power (*Unit: dBm)								
Band	and GSM850 PCS 1900							
Channel	128	190	251	512	661	810		
Frequency(MHz)	824.2	836.6	848.8	1850.2	1880.0	1909.8		
GSM	33.07	33.12	33.06	29.87	29.91	29.89		
GPRS class8	32.62	32.69	32.63	29.43	29.50	29.46		
GPRS class10	31.82	31.88	31.85	28.65	28.71	28.68		
GPRS class11	30.92	30.93	30.85	27.75	27.81	27.68		
GPRS class12	29.81	29.95	29.82	26.64	26.74	26.70		
EGPRS class8	28.82	28.87	28.80	25.75	25.82	25.78		
EGPRS class10	28.05	28.08	28.12	24.97	25.03	25.00		
EGPRS class11	27.12	27.18	27.05	24.07	24.13	24.00		
EGPRS class12	26.00	26.13	26.11	22.96	23.06	23.02		

Average Conducted Power (*Unit: dBm)

Band	WCDMA Band V			w	CDMA Ban	d II
Channel	4132	4183	4233	9262	9400	9538
Frequency(MHz)	826.4	836.6	846.6	1852.4	1880.0	1907.6
WCDMA RMC 12.2K	22.42	22.48	22.41	22.63	22.76	22.69
HSDPA Subtest-1	21.90	22.04	21.93	22.13	22.28	22.22
HSDPA Subtest-2	21.61	21.73	21.66	21.84	21.97	21.92
HSDPA Subtest-3	21.55	21.69	21.62	21.79	21.95	21.86
HSDPA Subtest-4	21.49	21.67	21.61	21.73	21.91	21.83
HSUPA Subtest-1	21.22	21.33	21.28	21.49	21.62	21.52
HSUPA Subtest-2	21.15	21.28	21.22	21.39	21.52	21.45
HSUPA Subtest-3	21.10	20.91	20.88	21.32	21.13	21.12
HSUPA Subtest-4	20.71	20.85	20.73	20.92	21.12	21.00
HSUPA Subtest-5	20.62	20.65	20.67	20.86	20.95	20.91

2. Peak to Average R 2.1. Test Specification	atio
Test Requirement:	FCC part 24.232(d) ; FCC part 22.913;
Test Method:	FCC KDB 971168 D01v03 Section 5.7.1
Operation mode:	Refer to item 4.1
Limit:	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.
Test Setup:	System Simulator EUT Spectrum Analyzer
Test Procedure:	 The testing follows FCC KDB 971168 D01v03 Section 5.7.1. The EUT was connected to spectrum analyzer and system simulator via a power divider. Set EUT to transmit at maximum output power. For GSM/EGPRS operating modes, signal gating is implemented on the spectrum analyzer by triggering from the system simulator. Set the CCDF (Complementary Cumulative Distribution Function) option of the spectrum analyzer. Record the maximum PAPR level associated with a probability of 0.1%.
Test Result:	PASS

6.2.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
System simulator	R&S	CMU200	111382	Sep. 27, 2018
Spectrum Analyzer	Agilent	N9020A	MY49100060	Sep. 27, 2018
RF cable (9kHz-40GHz)	тст	RE-05	N/A	Sep. 27, 2018
Antenna Connector	тст	RFC-02	N/A	Sep. 27, 2018

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

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6.2.3. Test Data

			C 1				
Cellular Band							
Mode		GSM850		(EGI	GSM850 PRS clas	ss 8)	
Channel	128	189	251	128	189	251	
Frequency (MHz)	824.2	836.4	848.8	824.2	836.4	848.8	
Peak-to- Average Ratio (dB)	2.81	2.82	2.83	5.78	5.80	5.80	

PCS Band							
Mode	G	GSM 1900			GSM 190 PRS cla)0 ss 8)	
Channel	512	661	810	512	661	810	
Frequency (MHz)	1850.2	1880	1909.8	1850.2	1880	1909.8	
Peak-to- Average Ratio (dB)	2.87	2.89	2.93	5.89	5.94	6.00	

Cellular Band							
Mode	WCI (RM	DMA Bai C 12.2K	nd V bps)	WCI (RM	DMA Ba C 12.2K	nd II bps)	
Channel	4132	4183	4233	9262	9400	9538	
Frequency (MHz)	826.4	836.6	846.8	1852.4	1880	1907.6	
Peak-to- Average Ratio (dB)	3.07	2.98	2.82	2.91	3.08	2.67	

Test plots as follows:

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6.3. 99% Occupied Bandwidth and 26dB Bandwidth Measurement

6.3.1. Test Specification

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Test Requirement:	FCC part 2.1049
Test Method:	FCC part 2.1049
Operation mode:	Refer to item 4.1
Limit:	N/A
Test Setup:	System Simulator
Test Procedure:	 The testing follows FCC KDB 971168 D01v03 Section 4.2. The EUT was connected to the spectrum analyzer and system simulator via a power divider. The RF output of the EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. The 99% occupied bandwidth were measured, set RBW= 1% of span, VBW= 3*RBW, sample detector, trace maximum hold. The 26dB bandwidth were measured, set RBW= 1% of EBW, VBW= 3*RBW, peak detector, trace maximum hold.
Test Result:	PASS

6.3.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
System simulator	R&S	CMU200	111382	Sep. 27, 2018
Spectrum Analyzer	Agilent	N9020A	MY49100060	Sep. 27, 2018
RF cable (9kHz-40GHz)	тст	RE-05	N/A	Sep. 27, 2018
Antenna Connector	тст	RFC-02	N/A	Sep. 27, 2018

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

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6.3.3. Test data

Cellular Band								
Mode		GSM850		GSI	M 850 (EGP	RS)		
Channel	128	128 189 251 128 189				251		
Frequency (MHz)	824.2	836.4	848.8	824.2	836.4	848.8		
99% OBW (kHz)	243.70	239.34	241.74	238.74	249.02	247.05		
26dB BW (kHz)	313.9	315.8	314.0	308.1	308.8	312.1		

Cellular Band							
Mode		GSM1900		GSM 1900 (EGPRS)			
Channel	512	661	810	512	661	810	
Frequency (MHz)	1850.2	1880.0	1909.8	1850.2	1880.0	1909.8	
99% OBW (kHz)	247.04	245.89	243.68	243.81	241.78	243.29	
26dB BW (kHz)	317.3	311.2	318.8	317.7	309.7	311.2	

Cellular Band						
Mode	WCDMA Band V (RMC 12.2Kbps)					
Channel	4132	4183	3 4233			
Frequency (MHz)	826.4	836.6	846.6			
99% OBW (kHz)	G 4147.1	4132.9	4131.1			
26dB BW (kHz)	4730	4727	4718			

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		Cellular Ban	d	
Mode		WCDMA	Band II (RMC 1	2.2Kbps)
Channel		9262	9400	9538
Frequency (MH	z)	1852.4	1880	1907.6
	<u>z)</u>	4146.1	4163.7	4151.4
st plots as follows) s:	4720	4732	4720

Г









eard: WCUW Eard V rest Wode: (QPSK) 26dB&99% Occupied Bandwidth Plot on Channel 4132	TESTING CENTRE		Test Meder	Report No.: TCT1 RMC 12.2Kbps	71225E081 Link
26dB39% Occupied Bandwidth Plot on Channel 4132 Image: Comparison of the state of t	Band:	WCDMA Band V	lest Mode:	(QPSK)	
<pre>image in the image in the</pre>	26dB	&99% Occupied Bands	width Plot on Channe	el 4132	
<figure></figure>	Cente	r Freq 826.400000 MHz #IFGain:Low #Atten: 36 dB	0000 MHz Radio Std: None Avg Hold>10/10 Radio Device: BTS	quency	
<figure></figure>	10 dB/ Log 30.0	liv Ref 40.00 dBm	Ce	enter Freq	
<figure></figure>	1200 10.0 0.00 10.0		826.4	00000 MH2	
<complex-block></complex-block>	-20.0		have		
	50.0 Cente #Res	r 826.4 MHz #VBW 300	Span 10 MHz kHz Sween 1 267 ms	CF Step	
<figure></figure>	Oc	cupied Bandwidth Total F 4.1471 MHz	Power 33.6 dBm	00000 MHz Man	
<figure></figure>	Tra x d	nsmit Freq Error 5.123 kHz OBW 3 Bandwidth 4.730 MHz x dB	Power 99.00 % -26.00 dB	0 Hz	
<figure></figure>					
	26dB	899% Occupied Bandy	width Plot on Channe	 el 4183	
	Agilent S Cente	ectrum Analyzer - Occupied BW 8F 500 AC SENSE DIT r Freq 836,600000 MHz Center Freq 836,60	ALX24AUTO 10:11:47 AMMar 14, 2018 0000 MHz Radio Std: None Fro	quency	
	10 dB/	#IFGain:Low #Atten: 36 dB	Radio Device: BTS		
<figure></figure>	Log 30.0 20.0		Ce 835.6	enter Freq 00000 MHz	
Corrected Bandwidth 1.727 MHz 1.727 MHz 1	-10.0			(\mathcal{S})	
Center reg 838.6 MHz v UW 300 Hz 4.1329 MHz Transmit Freq Eror 3.34 Hz 3.6 dB Sondwidth 4.727 MHz 3.4 Hz 3.6 dB Sondwidth 4.727 MHz 3.6 dB Sondwidth 4.727 MHz 4.727 MHz 4.727 MHz 4.777 MHz	-30.0 -40.0 -50.0				
Occupied Bandwidth Total Power 33.8 dBm 4.1329 MHz Transmit Freq Error 1.344 Hz OBW Power 99.00 % x dB Bandwidth 4.727 MHz x dB -26.00 dB Center Freq B46.600000 MHz recause Control of the second secon	Cente #Res	r 836.6 MHz 3W 100 kHz #VBW 300	Span 10 MHz kHz Sweep 1.267 ms 1.0	CF Step 00000 MHz	
Transmit Freq Error 1.344 kHz OBW Power 99.00 % x dB Bandwidth 4.727 MHz x dB -26.00 dB Center Freq 846.60000 MHz Center Freq 846.00000 MHz Center Freq 846.60000 MHz Center Freq 846.60000 MHz Center Freq 846.00000 MHz Center	Oc	cupied Bandwidth Total F 4.1329 MHz	Power 33.6 dBm	req Offset	
<text></text>	Tra x d	nsmit Freq Error 1.344 kHz OBW 3 Bandwidth 4.727 MHz x dB	Power 99.00 % -26.00 dB	UHZ	
Constrained Bandwidth Plot on Channel 4233	Mag		STATUS		
Center Freq 346.500000 MHz Bit Galactor Bit Galactor Bi	26dB	899% Occupied Band	width Plot on Channe	el 4233	
Image: constraint of the second se	D Cente	RF 500 AC r Freq 846.600000 MHz #IFGain:Low #IFGain:Low	ALX2VAUTO 10:12:22 AM Nor 14, 2018 0000 MHz Radio Std: None From Avg Hold>10/10 Radio Device: BTS	quency	
Center #46.6 MHz #VBW 300 kHz Center \$46.6 MHz #VBW 300 kHz Span 10 MHz Sweep 1.257 ms CCF Step 1.00000 MHz 1.00000 MHz Auto Man Freq Offset 0 Hz WID X dB Bandwidth 4.718 MHz X dB - 26.00 dB		IV Ref 40.00 dBm			
Center \$46.6 MHz #Res BW 100 kHz #Res BW 100 kHz Center \$46.6 MHz #Res BW 100 kHz #Res BW 100 kHz Transmit Freq Error x dB Bandwidth 4.718 MHz x dB Error x dB Bandwidth 4.718 MHz x dB Error x dB Bandwidth 4.718 MHz x dB Error x dB Bandwidth 4.718 MHz x dB Error x	20.0 10.0 0.00		846.6	000000 MHz	
Span 10 Span 10 MHz PRes BW 100 kHz #VBW 300 kHz Span 10 MHz Cr F Step 1000000 MHz 1000000 MHz Man 4.1311 MHz Transmit Freq Error -11.213 kHz VBW Power 99.00 % x dB Bandwidth 4.718 MHz x dB -26.00 dB	-10.0 -20.0 -30.0	mmmm -			
#Res BW 100 kHz #VBW 300 kHz Sweep 1.267 ms Occupied Bandwidth Total Power 33.7 dBm Auto Man 4.1311 MHz Transmit Freq Error -11.213 kHz OBW Power 99.00 % x dB Bandwidth 4.718 MHz x dB -26.00 dB 0 Hz	-40.0 -50.0	1 846.6 MH7	Span 10 MHz		
4.1311 MHz Freq Offset Transmit Freq Error -11.213 kHz x dB Bandwidth 4.718 MHz x dB -26.00 dB	#Res Oc	W 100 kHz #VBW 300 cupied Bandwidth Total F	kHz Sweep 1.267 ms 1.0 Power 33.7 dBm	CF Step 00000 MHz Man	
	Tra	4.1311 MHz nsmit Freq Error -11.213 kHz OBW 9 3 Bandwidth	Power 99.00 %	req Offset 0 Hz	
MSG STATUS	× d				
	MSG		STATUS		
Pade 30 000				r ugo o	0 01 00

		12 2Kbps Link
Band:	WCDMA Band II Test Mode:	(QPSK)
	26dB&99% Occupied Bandwidth Plot on Channel 9262	
	Center Freq 1.852400000 GHz Freq 1.852400000 GHz Freq 1.852400000 GHz Freq 1.852400000 GHz Frequency Radio Std: None Radio Device: BTS	
	10 dB/div Ref 40.00 dBm	
	20.0 1.852400000 GHz	
	Sol Span 10 MHz Center 1.852 GHz Span 10 MHz "Bac RW 100 kHz Swaan 1 267 mc	
	Occupied Bandwidth Total Power 32.7 dBm	
	Transmit Freq Error 18.319 kHz OBW Power 99.00 % 0Hz x dB Bandwidth 4.726 MHz x dB -26.00 dB	
	26dB&99% Occupied Bandwidth Plot on Channel 9400	
	Aglent Spectrum Analyzer, Occupied BW SPECE BH ALIGNATIO ID14-32 AMM/214, 2018. Frequency Center Freq 1.880000000 GHz Cater Freq 1.880000000 GHz Cater Freq 1.880000000 GHz Frequency	
	#IFGaint.ov #Atten: 35 dB Radio Device: BTS 10 dB/div Ref 40.00 dBm	
	30 0 Center Freq 20 0 1.88000000 GHz	
	Center 1.88 GHZ Span 10 MHz #Res BW 100 kHz #VBW 300 kHz Sweep 1.267 ms Occupied Bandwidth Total Power 32.2 dBm	
	4.1637 MHz Transmit Freg Error 8.979 kHz OBW Power 99.00 %	
	x dB Bandwidth 4.732 MHz x dB -26.00 dB	
	26dB&99% Occupied Bandwidth Plot on Channel 9538	
	Agilinit Spectrum Analyzer - Dicupied DW D	
	FIFGain:Low Trig:Free Run Avg Held>10/10 Radio Device: BTS 10 dB/div Ref 40.00 dBm	
	Log 300 100 100 Center Freq 1.907600000 GHz	
	Center 1.908 GHz Span 10 MHz Span 10 MHz CF Step #Res BW 100 kHz #VBW 300 kHz Sweep 1.267 ms Occupied Bandwidth Total Power 32.6 dBm	
	4.1514 MHz Transmit Freq Error 4.303 kHz OBW Power 99.00 %	
	x dB Bandwidth 4.726 MHz x dB -26.00 dB	

6.4. Band Edge and Conducted Spurious Emission Measurement

6.4.1. Test Specification

TCT通测检测 TESTING CENTRE TECHNOLOGY

FCC part22.917(a) and FCC part24.238(a) FCC part27.53(g)	
FCC part2.1051	
Refer to item 4.1	
-13dBm	
System Simulator EUT EUT	S.
 The testing follows FCC KDB 971168 D01v03 Section 6.0. The EUT was connected to the spectrum analyzer and system simulator via a power divider. The RF output of EUT was connected to the spectrum analyzer by an RF cable and attenuator. The path loss was compensated to the results for each measurement. The band edges of low and high channels for the highest RF powers were measured. The conducted spurious emission for the whole frequency range was taken. The RF fundamental frequency should be excluded against the limit line in the operating frequency band. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts) = P(W) - [43 + 10log(P)] (dB) = [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB) = -13dBm. 	
PASS	1
	 FCC part22.917(a) and FCC part24.238(a) FCC part27.53(g) FCC part2.1051 Refer to item 4.1 -13dBm

6.4.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
System simulator	R&S	CMU200	111382	Sep. 27, 2018
Spectrum Analyzer	Agilent	N9020A	MY49100060	Sep. 27, 2018
RF cable (9kHz-40GHz)	тст	RE-05	N/A	Sep. 27, 2018
Antenna Connector	тст	RFC-02	N/A	Sep. 27, 2018

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

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