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For Question, Please Contact with WSCT www.wsct-cert.com

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TEST REPORT

FCC ID: 2AIZN-X6720 Product: Mobile Phone Model No.: X6720 Trade Mark: Infinix Report No.: WSCT-ANAB-R&E240700031A-LE Issued Date: 12 August 2024

Issued for:

INFINIX MOBILITY LIMITED FLAT N 16/F BLOCK B UNIVERSAL INDUSTRIAL CENTRE 19-25 SHAN MEI STREET FOTAN NT HONGKONG

Issued By:

World Standardization Certification & Testing Group(Shenzhen) Co.,Ltd. Building A-B, Baoli'an Industrial Park, No. 58 Tangtou Avenue, Shiyan Street, Bao'an District, Shenzhen, Guangdong, China TEL: +86-755-26996192

FAX: +86-755-86376605

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FCC CFR Title 47 Part 15 Subpart C Section 15.247

Group(Shenzhen)Co., Ltd. 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

&

Testing

KDB 558074 D01 DTS Meas Guidance v04

The above equipment has been tested by World Standardization Certification

17 June 2024 to 09 August 2024

Date of Test:

Applicable

Standards:

measurement uncertainties.

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Tested By:		Checked By:	len ohm /	wation & Testing
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Approved By:	fuen	Date:	12 Angust 2014	* *
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2. Test Result Summary

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7	Requirement	CFR 47 Section	Result	<i>1W5L1</i> K
$\langle \rangle$	Antenna requirement	§15.203/§15.247 (c)	PASS	
<i>[</i> 7	AC Power Line Conducted Emission	§15.207	PASS	\checkmark
	Maximum conducted output power	§15.247 (b)(3) §2.1046	PASS	WSET
	6dB Emission Bandwidth	§15.247 (a)(2) §2.1049	PASS	
	Power Spectral Density	§15.247 (e)	PASS	\checkmark
	Band Edge	1§5.247(d) §2.1051, §2.1057	PASS	WSET
\leq	Spurious Emission	§15.205/§15.209 §2.1053, §2.1057	PASS	

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- 1. PASS: Test item meets the requirement.
- 2. Fail: Test item does not meet the requirement.
- 3. N/A: Test case does not apply to the test object.
- 4. The test result judgment is decided by the limit of test standard.

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3. EUT Description

		$\wedge \wedge \wedge$	www.wsct-cert.com
	Product Name:	Mobile Phone WSCT WSCT	WSET
/	Model :	X6720	
	Trade Mark:	Infinix	
7	Software version:	X6720-H353RS-U-OP-240531V276	SET
	Hardware version:	V1.2	\sim
	Operation Frequency:	2402MHz~2480MHz	WSIT
/	Channel Separation:	2MHz	
	Number of Channel:	40	
7	Modulation Technology:	GFSK WSCT WSCT	SET
	Antenna Type:	FIPA Antenna	X
	Antenna Gain:	-1.62dBi WSET WSET	NSET
		Adapter1: U180XSA Input: 100-240V~50/60Hz 0.6A Output: 5.0V2.4A or 7.5V2.4A 18.0W MAX Adapter2: U100XSA	500
	Operating Voltage:	Input: 100-240V~50/60Hz 0.3A Output: 5.0V2.0A Rechargeable Li-ion Polymer Battery Model: BL-5AB Rated Voltage: 3.87V	< <u>115</u>
		Rated Capacity: 4900mAh/18.97Wh Typical Capacity: 5000mAh/19.35Wh Limited Charge Voltage: 4.45V	
7	Remark:	N/A. WSET WSET	SET A

Note: 1. N/A stands for no applicable. 2. Antenna gain provided by the customer.

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Operation Frequency each of channel

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Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
0	2402MHz	10	2422MHz	20	2442MHz	30	2462MHz
1	2404MHz	11	2424MHz	21	2444MHz	31	2464MHz
					MISE		
8	2418MHz	18	2438MHz	28	2458MHz	38	2478MHz
9	2420MHz	19	2440MHz	29	2460MHz	39	2480MHz
Remark:	Remark: Channel 0, 19 & 39 have been tested.						

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4.

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Certificate Number : AT-395

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Genera Information 4.1. Test environment and mode

Operating Environment:

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Temperature:	25.0 °C
Humidity: 557	56 % RH
Atmospheric Pressure:	1010 mbar

Test Mode:

Engineering mode:

Keep the EUT in continuous transmitting by select channel and modulations(The value of duty cycle is 98.46%) with Fully-charged battery.

The sample was placed (0.1m below 1GHz, 1.5m above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.

4.2. 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

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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3. For conducted measurements (Output Power, 6dB Emission Bandwidth, Power Spectral Density, Spurious Emissions), the antenna of EUT is connected to the test equipment via temporary antenna connector, the antenna connector is soldered on the antenna port of EUT, and the temporary antenna connector is listed in the Test Instruments.

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5. Facilities and Accreditations

5.1.Facilities

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All measurement facilities used to collect the measurement data are located at Building A-B, Baoli'an Industrial Park, No. 58 Tangtou Avenue, Shiyan Street, Bao'an District, Shenzhen, Guangdong, China of the World Standardization Certification & Testing Group (Shenzhen) Co., Ltd.

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22. All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

5.2. ACCREDITATIONS CNAS - Registration Number: L3732

China National Accreditation Service for Conformity Assessment, The test firm Registration Number: L3732

FCC - Designation Number: CN1303

World Standardization Certification & Testing Group(Shenzhen) CO., LTD. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Designation Number: CN1303.

ANAB - Certificate Number: AT-3951

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (ANAB).Certification Number: AT-3951

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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 %.

	connue	The of approximately 95 %.	
	No.	Item	MU
7 °	1	Power Spectral Density WSCT	±3.2dB
	2	Duty Cycle and Tx-Sequence and Tx-Gap	±1%
	3~55	Medium Utilisation Factor	±1.3%
/	4	Occupied Channel Bandwidth	±2.4%
5	5	Transmitter Unwanted Emission in the out-of Band	±1.3%
7 °	6	Transmitter Unwanted Emissions in the Spurious Domain	±2.5%
	7	Receiver Spurious Emissions	±2.5%
	8w5L	Conducted Emission Test	±3.2dB
/	9	RF power, conducted	±0.16dB
2	10	Spurious emissions, conducted	±0.21dB
Γ	11	All emissions, radiated(<1GHz)	±4.7dB
	12	All emissions, radiated(>1GHz)	±4.7dB
_	13/5[Temperature WSCT WSCT WS	±0.5°C
/	14	Humidity	±2.0%
	P		

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5.4. MEASUREMENT INSTRUMENTS

5.4.MEASURE	5.4.MEASUREMENT INSTRUMENTS							
NAME OF EQUIPMENT	MANUFACTURER	MODEL	SERIAL NUMBER	Calibration Date	Calibration Due.	75E1		
Test software	<	EZ-EMC	CON-03A	-	X-			
Test software		MTS8310		-				
EMI Test Receiver	R&S	ESCI	100005	11/05/2023	11/04/2024			
LISN	AFJ	LS16	16010222119	11/05/2023	11/04/2024	Х		
LISN(EUT)	Mestec	AN3016	04/10040	11/05/2023	11/04/2024	1517		
Universal Radio Communication Tester	R&S	CMU 200	1100.0008.02	11/05/2023	11/04/2024			
Coaxial cable	Megalon	LMR400	N/A	11/05/2023	11/04/2024			
GPIB cable	Megalon	GPIB	N/A	11/05/2023	11/04/2024			
Spectrum Analyzer	R&S	FSU	100114	11/05/2023	11/04/2024	$^{\sim}$		
Pre Amplifier	H.P.CT	HP8447E	2945A02715	11/05/2023	11/04/2024	VSET		
Pre-Amplifier	CDSI	PAP-1G18-38		11/05/2023	11/04/2024			
Bi-log Antenna	SCHWARZBECK	VULB9168	01488	7/29/2024	7/28/2025			
9*6*6 Anechoic	C7 /	VSET	W-SET	11/05/2023	11/04/2024			
Horn Antenna	COMPLIANCE ENGINEERING	CE18000		11/05/2023	11/04/2024	\times		
Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-631	11/05/2023	11/04/2024			
Cable	TIME MICROWAVE	LMR-400	N-TYPE04	11/05/2023	11/04/2024			
System-Controller	ccs	N/A	N/A	N.C.R	N.C.R			
Turn Table	CCS	N/A	N/A	N.C.R	N.C.R			
Antenna Tower	CCS	N/A	N/A	N.C.R	N.C.R			
RF cable	Murata	MXHQ87WA300 0	-	11/05/2023	11/04/2024	\wedge		
Loop Antenna	EMCO	6502W5/	00042960	11/05/2023	11/04/2024	V5E1		
Horn Antenna	SCHWARZBECK	BBHA 9170	1123	11/05/2023	11/04/2024			
Power meter	Anritsu	ML2487A	6K00003613	11/05/2023	11/04/2024			
Power sensor	Anritsu	MX248XD	WSET	11/05/2023	11/04/2024			
Spectrum Analyzer	Keysight	N9010B	MY60241089	11/05/2023	11/04/2024	\times		
						/ \		

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6. Test Results and Measurement Data

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6.1. Antenna requirement

15.203 requirement:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(c) (1)(i) requirement:

(i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

E.U.T Antenna:

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The Bluetooth antenna is a FIPA Antenna. it meets the standards, and the best case gain of the antenna is -1.62dBi.

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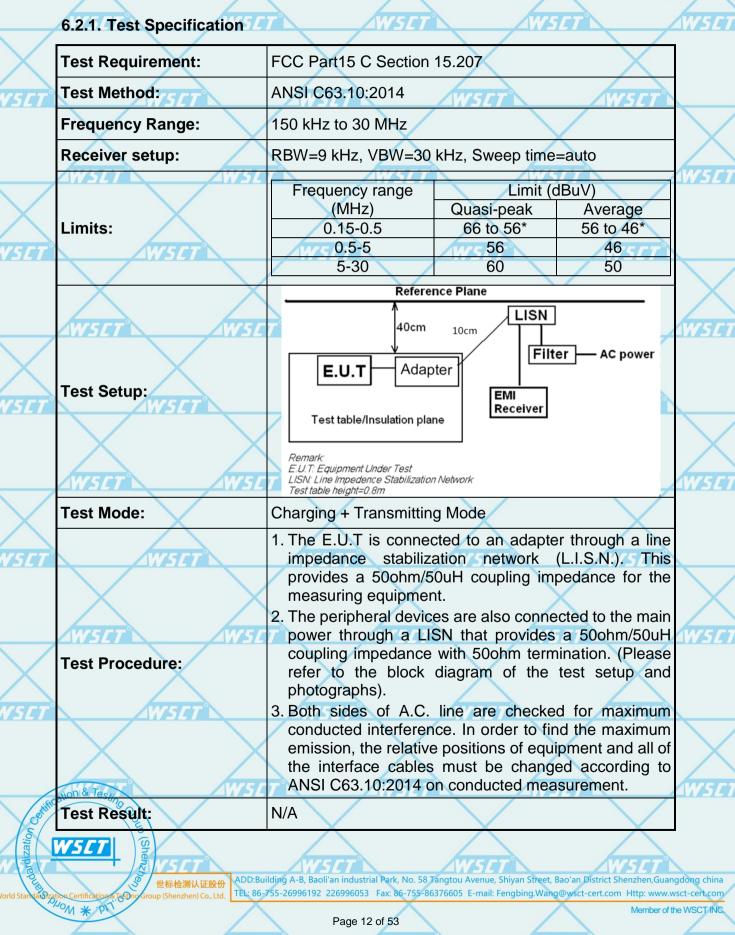




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6.2. Conducted Emission





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EUT OPERATING CONDITIONS 6.2.2.

The EUT is working in the Normal link mode. All modes have been tested and normal link mode is worst.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 60 Hz and 240 VAC, 50 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here. 5

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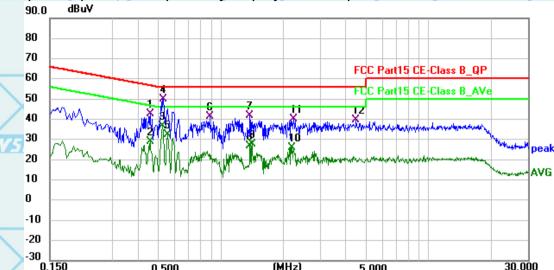
MON * PT

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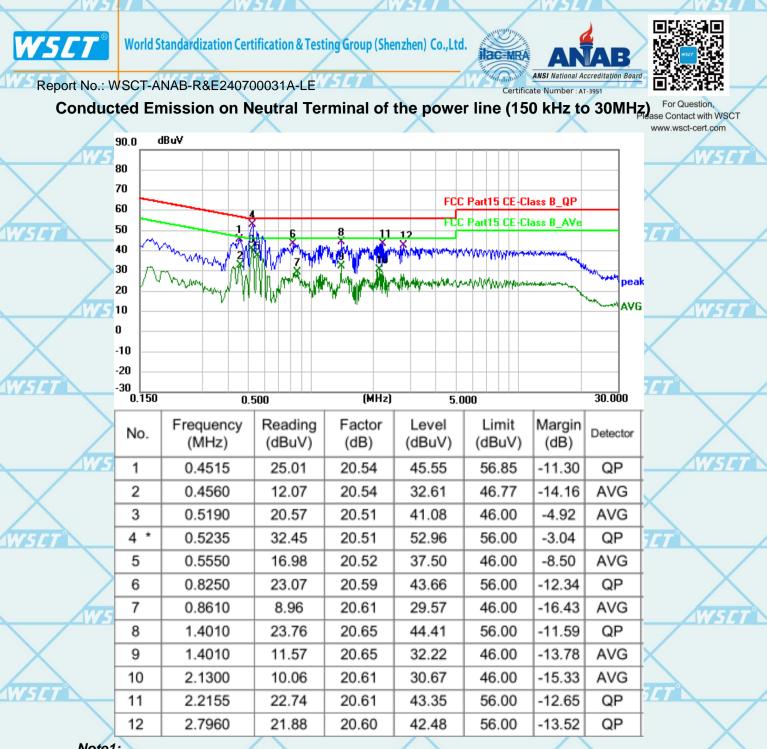
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Conducted Emission on Line Terminal of the power line (150 kHz to 30MHz) For multiple adapters, the report only displays the adapter with the worst data.



/	0.150	U.:	500	(MDZ)	5.0	000		30.000	
	No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	
\times	1	0.4560	22.19	20.54	42.73	56.77	-14.04	QP	X
	2	0.4560	8.36	20.54	28.90	46.77	-17.87	AVG	
WSET	3	0.5235	16.26	20.51	36.77	46.00	-9.23	AVG	527
	4 *	0.5280	29.59	20.51	50.10	56.00	-5.90	QP	
/	5	0.5550	11.75	20.52	32.27	46.00	-13.73	AVG	
W5	6	0.8880	20.65	20.62	41.27	56.00	-14.73	QP	W5
\sim	7	1.3785	21.06	20.65	41.71	56.00	-14.29	QP	
\wedge	8	1.3785	6.26	20.65	26.91	46.00	-19.09	AVG	
WSET	9	1.4144	6.97	20.65	27.62	46.00	-18.38	AVG	SET [®]
	10	2.1975	5.35	20.61	25.96	46.00	-20.04	AVG	
	11	2.2425	19.36	20.61	39.97	56.00	-16.03	QP	
	12	4.4745	19.18	20.58	39.76	56.00	-16.24	QP	ws
				10 m		< / /			

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Freq. = Emission frequency in MHz

Reading level $(dB\mu V) = Receiver reading$

Corr. Factor (dB) = LISN Factor + Cable loss

Measurement $(dB\mu V) = Reading level (dB\mu V) + Corr. Factor (dB)$

Limit ($dB\mu V$) = Limit stated in standard

Margin (dB) = Measurement (dB μ V) – Limits (dB μ V)

Q.P. =Quasi-Peak AVG =average

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* is meaning the worst frequency has been tested in the frequency range 150 kHz to 30MHz.

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Certificate Number : AT-3951

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6.3. Conducted Output Power

6.3.1. Test Specification

Report No.: WSCT-ANAB-R&E240700031A-LE

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)
Test Method:	KDB558074
Limit:	30dBm
Test Setup:	Spectrum Analyzer EUT
Test Mode:	Refer to item 4.1
Test Procedure:	 1. The testing follows the Measurement Procedure of FCC KDB No. 558074 DTS D01 Meas. Guidance v04. 2. Set spectrum analyzer as following: a) Set the RBW ≥ DTS bandwidth. b) Set VBW ≥ 3 × RBW. c) Set span ≥ 3 × RBW. d) Sweep time = auto couple. e) Detector = peak. f) Trace mode = max hold. g) Allow trace to fully stabilize. h) Use peak marker function to determine the peak amplitude level.
Test Result:	PASS
WSET	WSET WSET WSET
AWISET A	
WSET	WSET WSET WSET
and & Tecu	VSET WSET WSET
tion & Testing Cole WSCT WS	WSET WSET WSET
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6.3.2. Test Data

Maximum conducted	
Test channel output power (dBm) Limit (dBm) Result	
Lowest -1.24 30.00 PASS	
Middle -0.03 30.00 PASS	
Highest -1.59 30.00 PASS	

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BLE 2M			
Test channel	Maximum Conducted Output Power (dBm)	Limit (dBm)	Result
Lowest	-1.45527	30.00	PASS
Middle	-0.09	30.00	PASS
Highest	-1.98	30.00	PASS

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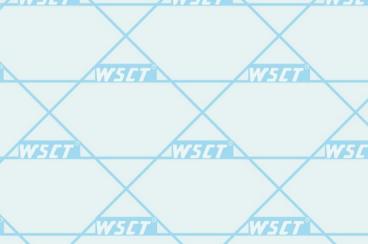
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6.4. Emission Bandwidth

.4.1. Test Specification	T WSET WSET
est Requirement:	FCC Part15 C Section 15.247 (a)(2)
est Method:	KDB558074
imit:	>500kHz
est Setup:	Spectrum Analyzer EUT
est Mode:	Refer to item 4.1
	 The testing follows FCC KDB Publication No. 558074 DTS D01 Meas. Guidance v04. Set to the maximum power setting and enable the EUT transmit continuously.
est Procedure:	3. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. Set the Video bandwidth (VBW) = 300 kHz. In order to make an accurate measurement. The 6dB bandwidth must be greater than 500 kHz.
	4. Measure and record the results in the test report.
est Result:	PASS

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-1	6.4.2. Test data			Certificate Number	F Please (
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	Testsheard		6dB Emission	Bandwidth (kHz)	
\mathbf{X}	Test channel	BT LE	mode	Limit	Result
wser	Lowest	0.6	565	>500k	WSE
	Middle	0.6	677	>500k	PASS
	Highest	0.6	605	>500k	$\langle \rangle$
BI	LE 2M	WSFT	WSFT	1115	
\sim	Test channel			Bandwidth (kHz)	
\wedge		BT LE	mode	Limit	Result
WSET [®]	Lowest	w1	111	>500k	W5E1
	Middle	1.	147	>500k	PASS
	Highest	1.1	232	>500k	
WISIT	Test plots as follows:			WISET WISE	WIST
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	WSET	WSET	WSET		
	WSET			WSET	wist
	\times	WSET	WSET	WIS	$\langle \rangle$
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6.5. Power Spectral Density

6.5.1. Test Specification

	AMERICE AMERIC		WSI
7	Test Requirement:	FCC Part15 C Section 15.247 (e)	
	Test Method:	KDB558074	
70	Limit:	The peak power spectral density shall not be greater than 8dBm in any 3kHz band at any time interval of continuous transmission.	$\overline{}$
7	Test Setup:		ws
		Spectrum Analyzer EUT	
	Test Mode:	Refer to item 4.1	
	Test Procedure:	 Refer to item 4.1 1. The testing follows Measurement Procedure 10.2 Method PKPSD of FCC KDB Publication No.558074 D01 DTS Meas. Guidance v04 2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement. 3. Set to the maximum power setting and enable the EUT transmit continuously. 4. Make the measurement with the spectrum analyzer's resolution bandwidth (RBW): 3 kHz ≤ RBW ≤ 100 kHz. Video bandwidth VBW ≥ 3 x RBW. In order to make an accurate measurement, set the span to 1.5 times DTS Channel Bandwidth. (6dB BW) 5. Detector = peak, Sweep time = auto couple, Trace mode = max hold, Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level. 6. Measure and record the results in the test report. 	
	Test Result:	PASS	\rightarrow
			4

6.5.2. Test Instruments 527

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RF Test Room				
Equipment	Manufacturer	Model	Serial Number	Calibration Due
Spectrum Analyzer	R&S	FSU	200054	Sep. 27, 2018
RF cable (9kHz-26.5GHz)	тст	RE-06	N/A	Sep. 27, 2018
Antenna Connector	тст	RFC-01	N/A	Sep. 27, 2018

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

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6.5.3. Test data

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Test channel	Power Spectral D	ensity (dBm/3kH		
	BLE 1M	Limit	Result	
Lowest	-17.45	8 dBm/3kHz	X	
Middle	-16.29	8 dBm/3kHz	PASS	
Highest	-17.85	8 dBm/3kHz	/	$\overline{\ }$
X	XX		< X	X

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	Test channel	Power Spectral D	Hz)	
7	Test channel	BLE 2M	Limit	Result
	Lowest	-20.13	8 dBm/3kHz	X
-	Middle	-18.76	8 dBm/3kHz	PASS
	Highest	-20.64	8 dBm/3kHz	

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Conducted Band Edge and Spurious Emission Measurement For Question 6.6.

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6.6.1. Test Specificatio	NSET WSET WSET
Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB558074
Limit:	In any 100 kHz bandwidth outside of the authorized frequency band, the emissions which fall in the non-restricted bands shall be attenuated at least 20 dB / 30dB relative to the maximum PSD level in 100 kHz by RF conducted measurement and radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a).
Test Setup:	
	Spectrum Analyzer EUT 7
Test Mode:	
Test Mode: Refer to item 4.1 1. The RF output of EUT was connected to the analyzer by RF cable and attenuator. The pwas compensated to the results for each measurement. 2. Set to the maximum power setting and enable EUT transmit continuously. 3. Set RBW = 100 kHz, VBW=300 kHz, Peak D Unwanted Emissions measured in any 100 bandwidth outside of the authorized frequer shall be attenuated by at least 20 dB relative maximum in-band peak PSD level in 100 kHz maximum peak conducted output power procused. If the transmitter complies with the co power limits based on the use of RMS avera a time interval, the attenuation required und paragraph shall be 30 dB instead of 20 dB p 15.247(d). 4. Measure and record the results in the test re	
Test Result:	PASS
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