TEST REPORT

FCC ID: 2ARP6KDC- 5737

Product: NB-IoT Wireless Data Terminal

Model No.: KDC- 5737

Additional Model No.: KDC-6754, KDC-7756, KDC-8104, KDC-8110 , KDC-9114, KDC-3146, KDC-8120

Trade Mark: KNOWYOU

Report No.:

Issued Date: Nov. 07, 2018

Issued for:

Knowyou Technologies Co.,Ltd.
RmA-C, 14th Floor, Beiling Building, No.810, Yishan Road, Xuhui District, Shanghai 200233 P.R.China

Issued By:

Shenzhen United Testing Technology Co., Ltd.
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1. Test Certification

Product:	NB-IoT Wireless Data Terminal
Model No.:	KDC- 5737
Additional Model:	KDC-6754, KDC-7756, KDC-8104, KDC-8110 , KDC-9114, KDC-3146, KDC-8120
Trade Mark:	**KNOWYOU**
Applicant:	Knowyou Technologies Co.,Ltd.
Address:	RmA-C, 14th Floor, Beiling Building, No.810, Yishan Road, Xuhui District, Shanghai 200233 P.R.China
Manufacturer:	Knowyou Technologies Co.,Ltd.
Address:	RmA-C, 14th Floor, Beiling Building, No.810, Yishan Road, Xuhui District, Shanghai 200233 P.R.China
Date of Test:	Oct. 15, 2018 - Nov. 06, 2018
Applicable Standards:	FCC CFR Title 47 Part 2 FCC CFR Title 47 Part22 FCC CFR Title 47 Part24 FCC CFR Title 47 Part27

The above equipment has been tested by Shenzhen United Testing Technology 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 measurement uncertainties.

Prepared by: Kahn yang/Editor

Reviewer: Sherwin Qian/Supervisor

Approved & Authorized Signer: Liuze/Manager

2. Test Result Summary

Requirement	CFR 47 Section	Result
Conducted Output Power	§2.1046; §22.913; §24.232(c); §27.50(d); §27.50(c); §27.50(b);	PASS
Peak-to-Average Ratio	§2.1046; §24.232(d) §27.50(d); §27.50(c); §27.50(b);	PASS
Effective Radiated Power	§2.1046; §22.913; §24.232(c); §27.50(d); §27.50(c); §27.50(b);	PASS
Equivalent Isotropic Radiated Power	§2.1046; §22.913; §24.232(c); §27.50(d); §27.50(c); §27.50(b);	PASS
Occupied Bandwidth	§2.1049; §24.238(b); §27.53;	PASS
Band Edge	§2.1051; §22.917(a); §27.53(h); §27.53(c); §27.53(g); §24.238(a);	PASS
Conducted Spurious Emission	§2.1051; §22.917(a); §27.53(h); §27.53(g); §27.53(c); §24.238(a);	PASS
Field Strength of Spurious Radiation	§2.1053; §22.917(a); §27.53(g) ; §27.53(c); §27.53(h); §24.238(a);	PASS
Frequency Stability for Temperature & Voltage	§2.1055;§22.355; §27.54; §24.235;	PASS

Note:

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.

3. EUT Description

Product:	NB-IoT Wireless Data Terminal
Model No.:	KDC- 5737
Additional Model:	KDC-6754, KDC-7756, KDC-8104, KDC-8110 , KDC-9114, KDC-3146, KDC-8120
Trade Mark:	**KNOWYOU**
Hardware Version:	V2.0
Software Version:	V2.0
Tx Frequency:	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz
Rx Frequency:	LTE Band 2: 1930MHz ~ 1990 MHz LTE Band 4: 2110 MHz ~ 2155 MHz LTE Band 5: 869 MHz ~ 894 MHz
Bandwidth:	LTE Band 2: 1.4MHz /3MHz /5MHz /10MHz /15MHz / 20MHz LTE Band 4: 1.4MHz /3MHz /5MHz /10MHz /15MHz / 20MHz LTE Band 5: 1.4MHz /3MHz /5MHz /10MHz
Maximum Output Power to Antenna:	LTE Band 2: 23.49dBm LTE Band 4: 23.33dBm LTE Band 5: 23.53dBm
99% Occupied Bandwidth:	LTE Band 2: 17M9G7D LTE Band 4: 17M9G7D LTE Band 5: 8M95G7D
Type of Modulation:	QPSK / 16QAM
Antenna Type:	Rubber bar Antenna
Antenna Gain:	LTE Band 2: 1.9dBi LTE Band 4: 1.9dBi LTE Band 5: 1.9dBi
Power Supply:	DC 5V via USB

Emission Designator

LTE Band 2	QPSK		16QAM	
BW(MHz)	**Emission Designator (99%OBW)**	**Maximum EIRP(W)**	**Emission Designator (99%OBW)**	**Maximum EIRP(W)**
1.4	1M08G7D	0.169	1M08W7D	0.163
3	2M69G7D	0.169	2M69W7D	0.165
5	4M48G7D	0.175	4M49W7D	0.161
10	8M96G7D	0.201	8M95W7D	0.194
15	13M4G7D	0.187	13M4W7D	0.174

20	17M9G7D	0.182	17M9W7D	0.171

LTE Band 4	**QPSK**		**16QAM**	
BW(MHz)	**Emission Designator (99%OBW)**	**Maximum EIRP(W)**	**Emission Designator (99%OBW)**	**Maximum EIRP(W)**
1.4	1M08G7D	0.213	1M08W7D	0.200
3	2M69G7D	0.212	2M69W7D	0.198
5	4M48G7D	0.213	4M49W7D	0.203
10	8M96G7D	0.248	8M95W7D	0.234
15	13M4G7D	0.231	13M4W7D	0.233
20	17M9G7D	0.254	17M9W7D	0.242

LTE Band 5	**QPSK**		**16QAM**	
BW(MHz)	**Emission Designator (99%OBW)**	**Maximum EIRP(W)**	**Emission Designator (99%OBW)**	**Maximum EIRP(W)**
1.4	1M08G7D	0.198	1M08W7D	0.191
3	2M69G7D	0.201	2M69W7D	0.190
5	4M48G7D	0.204	4M48W7D	0.208
10	8M95G7D	0.230	8M95W7D	0.213

4. General Information

4.1. Test environment and mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010 mbar
Test Mode:	
Operation mode:	Keep the EUT in continuous transmitting with modulation
The sample was placed 0.8m 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.	

Description Operation Frequency

LTE Band 2(1.4MHz)		LTE Band 2(3MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
18607	1850.7	18615	1851.5
18900	1880	18900	1880
19193	1909.3	19185	1908.5
LTE Band 2(5MHz)		LTE Band 2(10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
18625	1852.5	18650	1855
18900	1880	18900	1880
19175	1907.5	19150	1905
LTE Band 2(15MHz)		LTE Band 2(20MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
18675	1857.5	18700	1860
18900	1880	18900	1880
19125	1902.5	19100	1900

LTE Band 4(1.4MHz)		LTE Band 4(3MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
19957	1710.7	19965	1711.5
20175	1732.5	20175	1732.5
20393	1754.3	20385	1753.5
LTE Band 4(5MHz)		LTE Band 4(10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
19975	1712.5	20000	1715
20175	1732.5	20175	1732.5
20375	1752.5	20350	1750
LTE Band 4(15MHz)		LTE Band 4(20MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
20025	1717.5	20050	1720
20175	1732.5	20175	1732.5
20325	1747.5	20300	1745

LTE Band 5(1.4MHz)		LTE Band 5(3MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
20407	824.7	20415	825.5
20525	836.5	20525	836.5
20643	848.3	20635	847.5
LTE Band 5(5MHz)		LTE Band 5(10MHz)	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
20425	826.5	20450	829
20525	836.5	20525	836.5
20625	846.5	20600	844

4.2. Test Mode

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**
LTE Band 2	QPSK Link (1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz)	16QAM Link (1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz)
LTE Band 4	QPSK Link (1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz)	16QAM Link (1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz)
LTE Band 5	QPSK Link (1.4MHz / 3MHz / 5MHz / 10MHz)	16QAM Link (1.4MHz / 3MHz / 5MHz / 10MHz)

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas License Digital Systems v03 with maximum output power.
Radiated measurements were performed with rotating EUT in different three orthogonal test planes to find the maximum emission.

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Max. Output Power	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v
26dB and 99% Bandwidth	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Conducted Band Edge	2	v	v	v	v	v	v	v	v	v	v	v	v	-	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	-	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	-	v
Conducted Spurious Emission	2	v	v	v	v	v	v	v	v	v	-	-	v	v	v
	4	v	v	v	v	v	v	v	v	v	-	-	v	v	v
	5	v	v	v	v	-	-	v	v	v	-	-	v	v	v
Frequency Stability	2	v	-	-	-	-	-	v	v	v	-	-	v	v	v
	4	v	-	-	-	-	-	v	v	v	-	-	v	v	v
	5	v	-	-	-	-	-	v	v	v	-	-	v	v	v
E.R.P./ E.I.R.P.	2	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	4	v	v	v	v	v	v	v	v	v	v	v	v	v	v
	5	v	v	v	v	-	-	v	v	v	v	v	v	v	v
Radiated Spurious Emission	2	v	-	-	-	-	-	v	v	v	-	-	v	v	v
	4	v	-	-	-	-	-	v	v	v	-	-	v	v	v
	5	v	-	-	-	-	-	v	v	v	-	-	v	v	v
Note	1. The mark "**v** " means that this configuration is chosen for testing 2. The mark "-" means that this bandwidth is not supported.														

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.

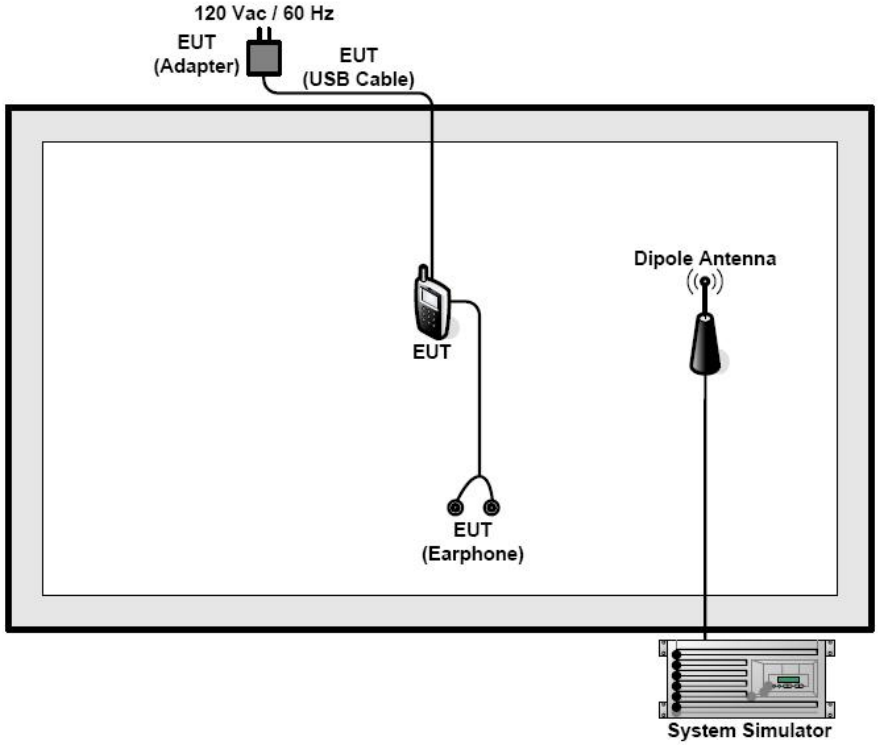
Equipment	Model No.	Serial No.	FCC ID	Trade Name

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.

4.4. Configuration of Tested System



4.5. Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between RF conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level will be exactly the RF output level. The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

Offset = RF cable loss + attenuator factor.

5. Facilities and Accreditations

5.1. Facilities

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

- FCC - Designation Number: CN1227

  Shenzhen United Testing Technology Co., Ltd.

  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.

5.2. Location

Shenzhen United Testing Technology Co., Ltd.
Address: 2F, Annex Bldg, Jiahuangyuan Tech Park, #365 Baotian 1 Rd, Tiegang Community, Xixiang Str, Bao'an District, Shenzhen, China
TEL: +86-755-86180996

5.3. Measurement Uncertainty

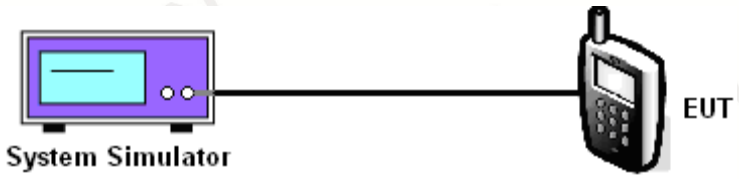
The reported uncertainty of measurement y ± U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

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%

6. Test Results and Measurement Data

6.1. Conducted Output Power Measurement

6.1.1. Test Specification

Test Requirement:	FCC part 27.50(c), FCC part 27.50(d) and FCC part 27.50(h), FCC part 24.232(c), FCC part 22.913;
Test Method:	FCC part 2.1046
Limits:	LTE Band 2: 2W LTE Band 4: 1W LTE Band 5: 7W
Test Setup:	
Test Procedure:	1. The transmitter output port was connected to the system simulator. 2. Set EUT at maximum power through system simulator. 3. Select lowest, middle, highest channels for each band and different modulation. 4. Measure and record the power level from the system simulator.
Test Result:	PASS

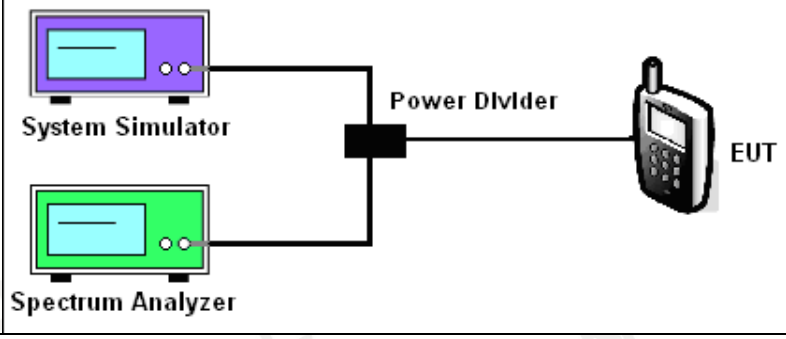
6.1.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Wideband Radio Communication Tester	R&S	CMW500	114220	Sep. 27, 2019
RF cable (9kHz-40GHz)	TCT	RE-05	N/A	Sep. 27, 2019
Antenna Connector	TCT	RFC-02	N/A	Sep. 27, 2019

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

6.2. Peak to Average Ratio

6.2.1. Test Specification

Test Requirement:	FCC part 2.1046; 22.913; 24.232; 27.50(d); 27.50(c); 27.50(b)
Test Method:	FCC KDB 971168 D01v03
Limit:	The peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.
Test Setup:	
Test Procedure:	1. The testing follows FCC KDB 971168 D01v03 Section 5.7.1. 2. The EUT was connected to spectrum analyzer and system simulator via a power divider. 3. Set EUT to transmit at maximum output power. 4. 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

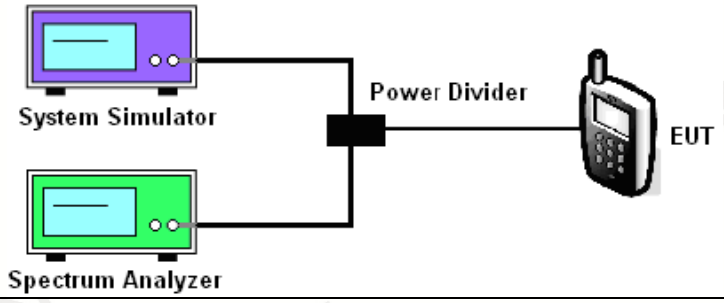
6.2.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Wideband Radio Communication Tester	R&S	CMW500	114220	Sep. 27, 2019
Spectrum Analyzer	Agilent	N9020A	MY49100060	Sep. 27, 2019
RF cable (9kHz-40GHz)	TCT	RE-05	N/A	Sep. 27, 2019
Antenna Connector	TCT	RFC-02	N/A	Sep. 27, 2019

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

6.3. 99% Occupied Bandwidth and 26dB Bandwidth Measurement

6.3.1. Test Specification

Test Requirement:	FCC part 27.53(h)(3) and FCC part 27.53(m)(6), FCC part 24.238(b)
Test Method:	FCC part 2.1049
Limit:	N/A
Test Setup:	
Test Procedure:	1. The testing follows FCC KDB 971168 D01v03 Section 4.2. 2. The EUT was connected to the spectrum analyzer and system simulator via a power divider. 3. 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. 4. The 99% occupied bandwidth were measured, set RBW= 1% of OBW, VBW= 3*RBW, sample detector, trace maximum hold. 5. The 26dB bandwidth were measured, set RBW= 1% of EBW, VBW= 3*RBW, peak detector, trace maximum hold.
Test Result:	PASS

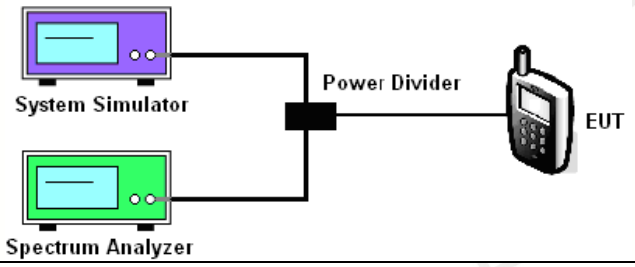
6.3.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Wideband Radio Communication Tester	R&S	CMW500	114220	Sep. 27, 2019
Spectrum Analyzer	Agilent	N9020A	MY49100060	Sep. 27, 2019
RF cable (9kHz-40GHz)	TCT	RE-05	N/A	Sep. 27, 2019
Antenna Connector	TCT	RFC-02	N/A	Sep. 27, 2019

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

6.4. Band Edge and Conducted Spurious Emission Measurement

6.4.1. Test Specification

Test Requirement:	FCC part 27.53(h), FCC part 27.53(g) , FCC part 27.53(m)(4), FCC part 24.238(a), 22.917(a)
Test Method:	FCC part2.1051
Limit:	-13dBm
Test Setup:	
Test Procedure:	1. The testing follows FCC KDB 971168 D01v03 Section 6.0. 2. The EUT was connected to the spectrum analyzer and system simulator via a power divider. 3. 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. 4. The band edges of low and high channels for the highest RF powers were measured. 5. The conducted spurious emission for the whole frequency range was taken. 6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band. 7. 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. For Band 17, he limit line is derived from 55 + 10log(P) dB below the transmitter power
Test Result:	PASS

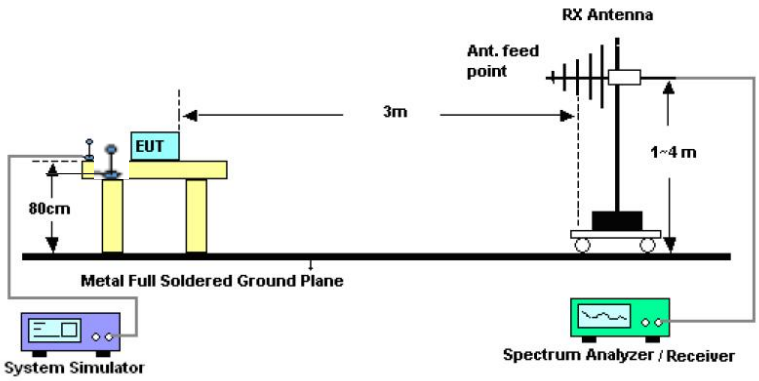
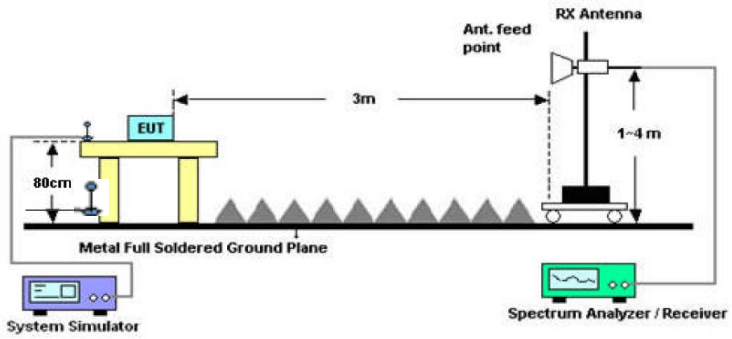
6.4.2. Test Instruments

Equipment	Manufacturer	Model	Serial Number	Calibration Due
Wideband Radio Communication Tester	R&S	CMW500	114220	Sep. 27, 2019
Spectrum Analyzer	Agilent	N9020A	MY49100060	Sep. 27, 2019
RF cable (9kHz-40GHz)	TCT	RE-05	N/A	Sep. 27, 2019
Antenna Connector	TCT	RFC-02	N/A	Sep. 27, 2019

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

6.5. Field Strength of Spurious Radiation Measurement

6.5.1. Test Specification

Test Requirement:	FCC part 27.53(g) ,FCC part 27.53(h), FCC part 27.53(m)(4), FCC part 22.917(a), 24.238(b)
Test Method:	FCC part 2.1053
Limit:	30MHz~20GHz -13dBm
Test setup:	From 30MHz to 1GHz  Above 1GHz 
Test Procedure:	1. The testing follows FCC KDB 971168 D01v03 Section 5.8 and ANSI / TIA-603-D-2010Section 2.2.12. 2. The EUT was placed on a rotatable wooden table 0.8 meters above the ground. 3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower. 4. The table was rotated 360 degrees to determine the position of the highest spurious emission. 5. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations. 6. Make the measurement with the spectrum analyzer's

	RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission. 7. A horn antenna was substituted in place of the EUT and was driven by a signal generator. 8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission. 9. Taking the record of output power at antenna port. 10. Repeat step 7 to step 8 for another polarization. 11. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain 12. ERP (dBm) = EIRP - 2.15 13. The RF fundamental frequency should be excluded against the limit line in the operating frequency band. 14. 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. For Band 17, he limit line is derived from 55 + 10log(P) dB below the transmitter power
Test results:	PASS

6.5.2. Test Instruments

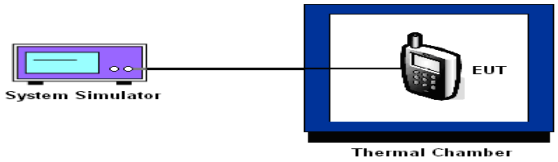
Radiated Emission Test Site (966)				
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Due**
System simulator	R&S	CMU200	111382	Sep. 27, 2019
Spectrum Analyzer	ROHDE&SCHWARZ	R&S	FSQ	Sep. 27, 2019
Signal Generator	HP	83623B	3614A00396	Sep. 27, 2019
Broadband Antenna	Schwarzbeck	VULB9163	340	Sep. 27, 2019
Horn Antenna	Schwarzbeck	BBHA 9120D	631	Sep. 27, 2019
Broadband Antenna	Schwarzbeck	VULB9163	412	Sep. 27, 2019
Horn Antenna	Schwarzbeck	BBHA 9120D	1201	Sep. 27, 2019
Horn Antenna	Schwarzbeck	BBH 9170	582	Sep. 27, 2019
Dipole Antenna	TCT	TCT-RF	N/A	Sep. 27, 2019
Coax cable (9kHz-1GHz)	TCT	RE-low-01	N/A	Sep. 27, 2019
Coax cable (9kHz-40GHz)	TCT	RE-high-02	N/A	Sep. 27, 2019

Coax cable (9kHz-1GHz)	TCT	RE-low-03	N/A	Sep. 27, 2019
Coax cable (9kHz-40GHz)	TCT	RE-High-04	N/A	Sep. 27, 2019
Antenna Mast	Keleto	CC-A-4M	N/A	N/A
EMI Test Software	Shurple Technology	EZ-EMC	N/A	N/A

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

6.6. Frequency Stability Measurement

6.6.1. Test Specification

Test Requirement:	FCC part 27.54, FCC part 22.355, 24.235
Test Method:	FCC Part 2.1055
Limit:	±2.5 ppm
Test Setup:	
Test Procedure:	**Test Procedures for Temperature Variation** 1. The testing follows FCC KDB 971168 D01v03 Section 9.0. 2. The EUT was set up in the thermal chamber and connected with the system simulator. 3. With power OFF, the temperature was decreased to -30°C and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute. 4. With power OFF, the temperature was raised in 10°C steps up to 50°C. The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute. **Test Procedures for Voltage Variation** 1. The testing follows FCC KDB 971168 D01v03 Section 9.0. 2. The EUT was placed in a temperature chamber at 25±5° C and connected with the system simulator. 3. The power supply voltage to the EUT was varied from BEP to 115% of the nominal value measured at the input to the EUT. 4. The variation in frequency was measured for the worst case.
Test Result:	PASS

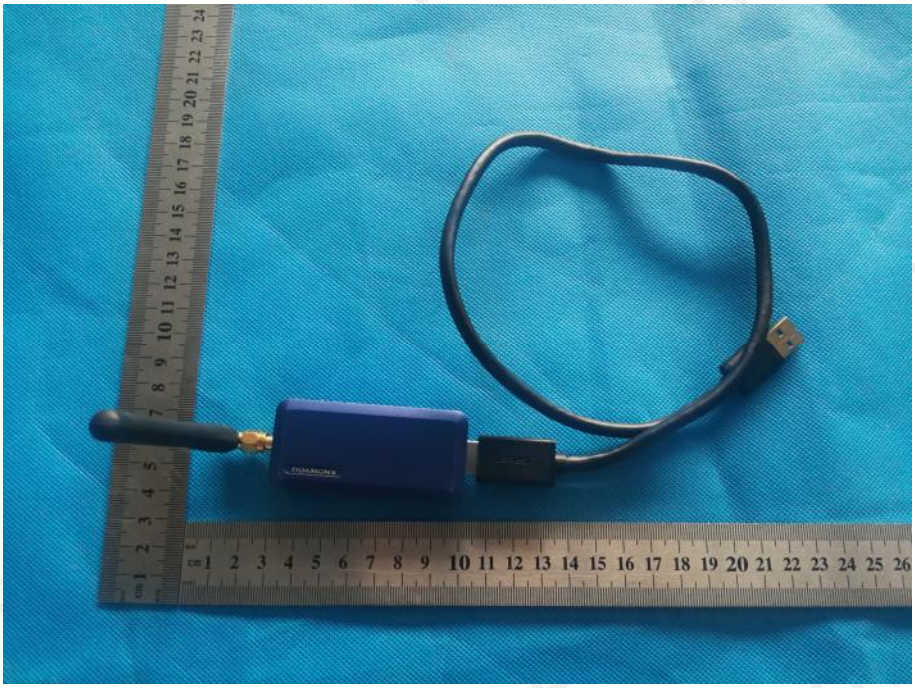
6.6.2. Test Instruments

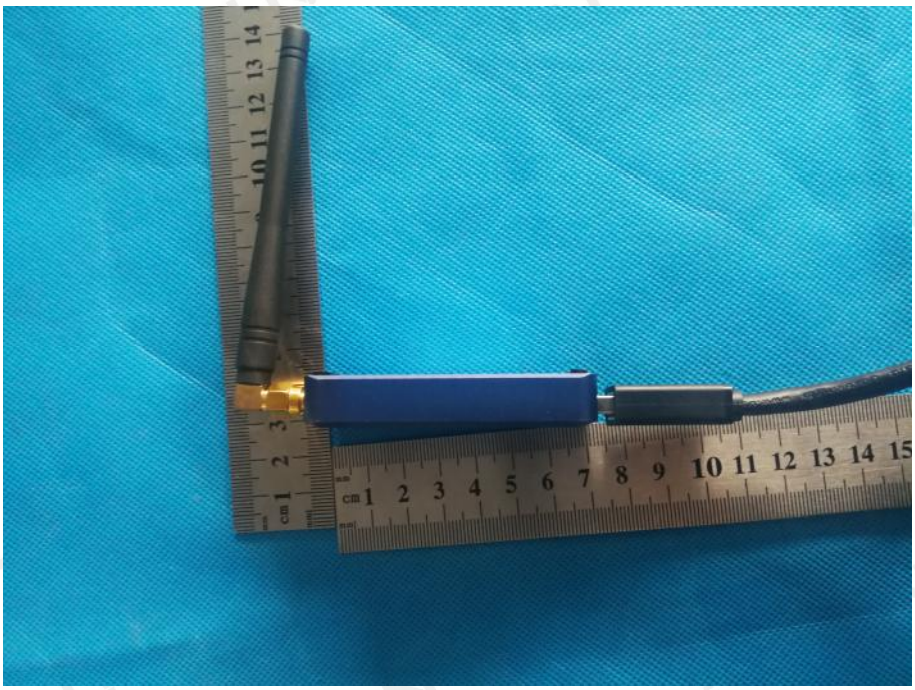
Equipment	Manufacturer	Model	Serial Number	Calibration Due
Wideband Radio Communication Tester	R&S	CMW500	114220	Sep. 27, 2019
Programable tempratuce and humidity chamber	JQ	JQ-2000	N/A	Sep. 27, 2019
DC power supply	Kingrang	KR3005K 30V/5A	N/A	Sep. 27, 2019
RF cable (9kHz-40GHz)	TCT	RE-04	N/A	Sep. 27, 2019
Antenna Connector	TCT	RFC-03	N/A	Sep. 27, 2019

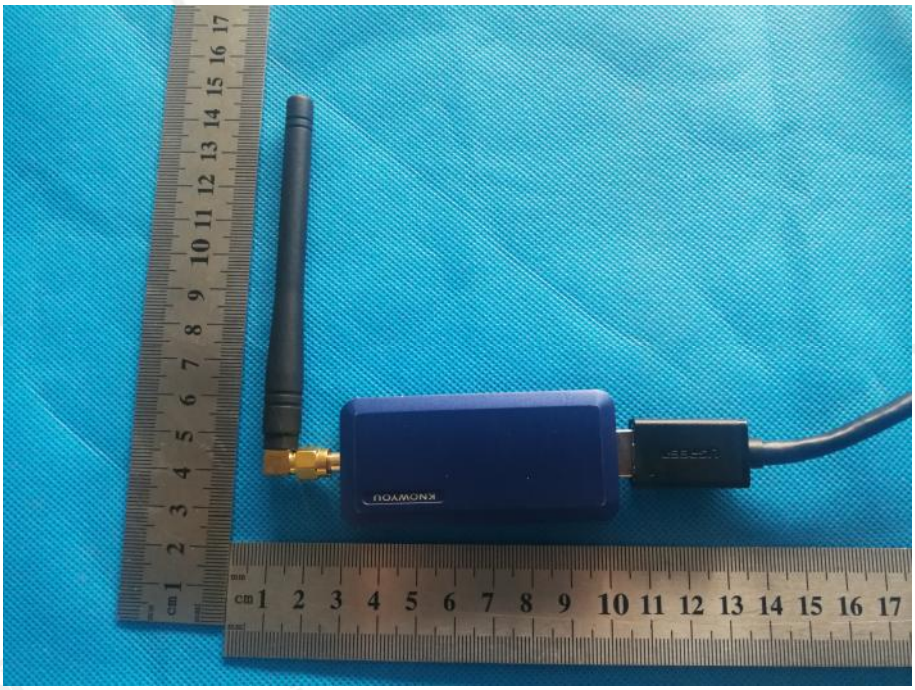
Note: *The calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).*

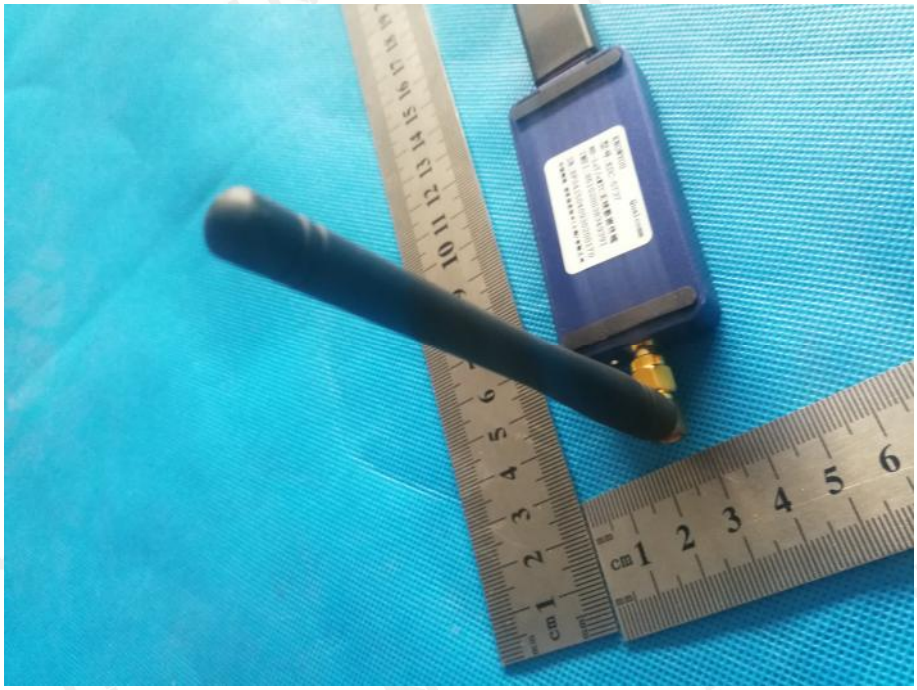
Appendix A: Photographs of Test Setup

Appendix B: Photographs of EUT

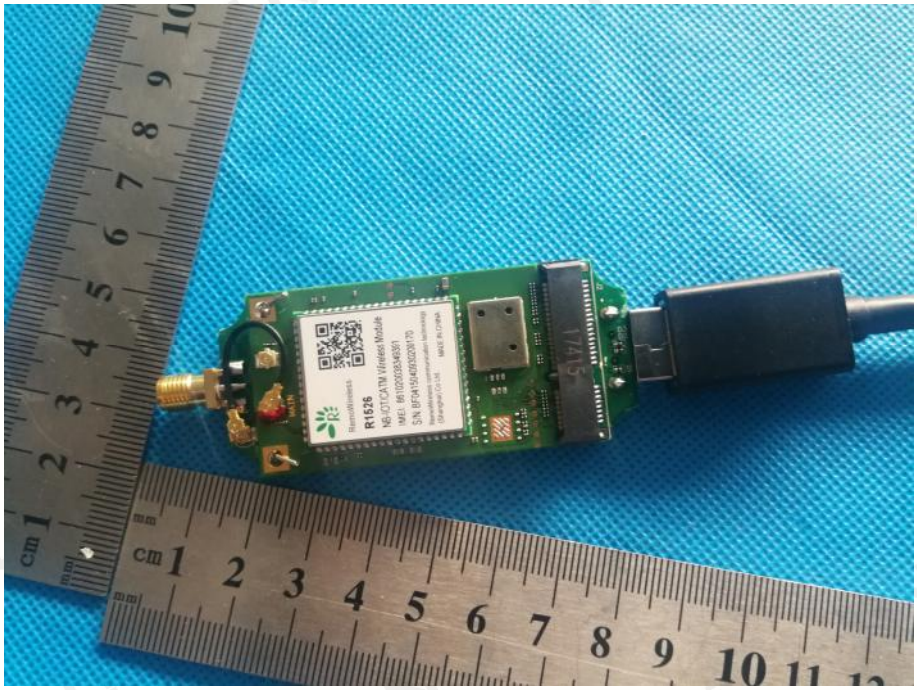


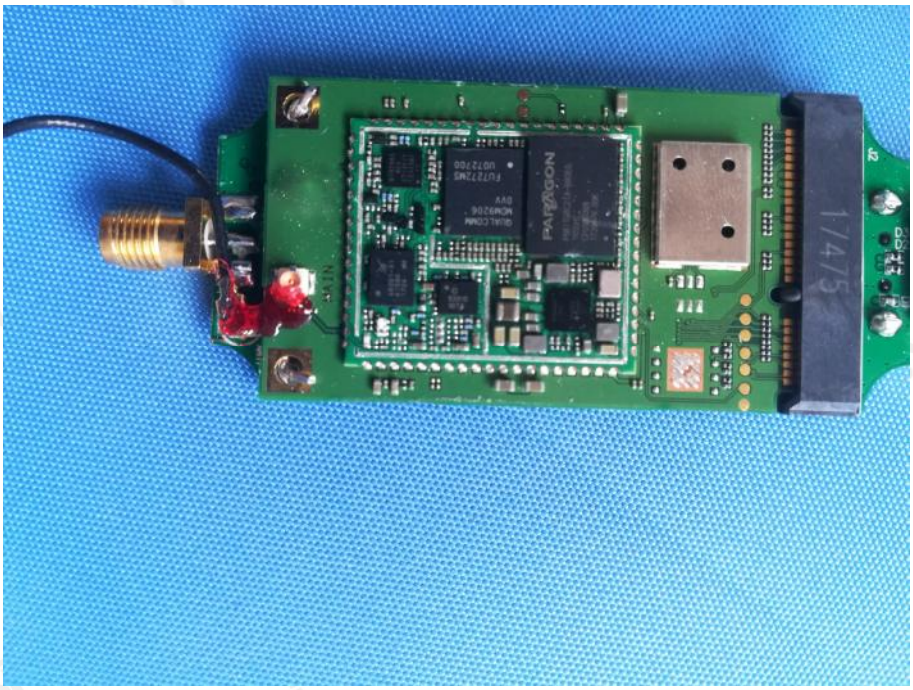


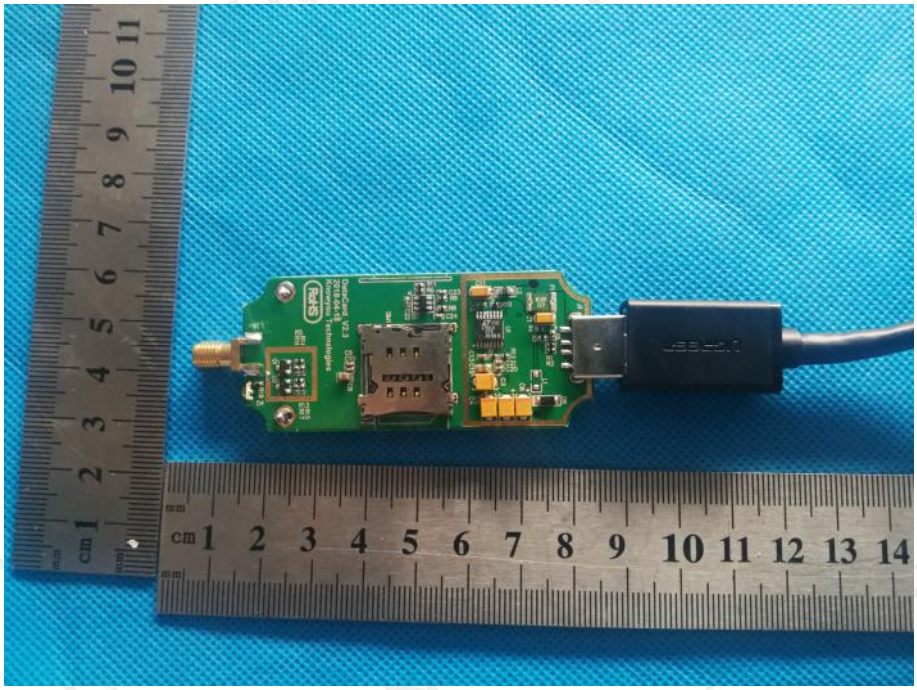





R1526
NB-IOT/CAT-M Wireless Module


R1526
NB-IOT/CAT-M Wireless Module





Test Data for Appendix For LTE Band 2, Appendix For LTE Band 4, Appendix For LTE Band 5

********END OF REPORT********