



**FCC PART 15C  
TEST REPORT  
No. B18N00835-BLE**

**for**

**HUAWEI Technologies Co., Ltd.**

**HUAWEI MediaPad T3**

**Model Name: KOB-W09**

**With**

**Hardware Version: REACHW-V1.0**

**Software Version: KOB-W09C331B002-log**

**FCC ID: QISKOB-W09**

**Issued Date: 2018-06-20**

**Designation Number: CN1210**

**Note:**

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

**Test Laboratory:**

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## **REPORT HISTORY**

<b>Report Number</b>	<b>Revision</b>	<b>Description</b>	<b>Issue Date</b>
B18N00835-BLE	Rev.0	1st edition	2018-06-20

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## **1. Test Laboratory**

### **1.1. Testing Location**

Location: Shenzhen Academy of Information and Communications Technology  
Address: Building G, Shenzhen International Innovation Center, No.1006  
Shennan Road, Futian District, Shenzhen, Guangdong Province ,China  
Postal Code: 518026  
Telephone: +86(0)755-33322000  
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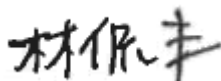
### **1.2. Testing Environment**

Normal Temperature: 15-35℃  
Relative Humidity: 20-75%

### **1.3. Project data**

Testing Start Date: 2018-06-11  
Testing End Date: 2018-06-20

### **1.4. Signature**



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Lin Kanfeng  
(Prepared this test report)



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Tang Weisheng  
(Reviewed this test report)



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Zhang Bojun  
(Approved this test report)

## **2. Client Information**

### **2.1. Applicant Information**

Company Name: Huawei Technologies Co., Ltd  
Address: Administration Building, Huawei Base, Bantian, Longgang District,  
Shenzhen  
City: Shenzhen  
Postal Code: 518129  
Country: China  
Telephone: 15602311354  
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### **2.2. Manufacturer Information**

Company Name: Huawei Technologies Co., Ltd  
Address: Administration Building, Huawei Base, Bantian, Longgang District,  
Shenzhen  
City: Shenzhen  
Postal Code: 518129  
Country: China  
Telephone: 15602311354  
Fax: /

### **3. Equipment Under Test (EUT) and Ancillary Equipment (AE)**

#### **3.1. About EUT**

Description	HUAWEI MediaPad T3
Model Name	KOB-W09
Market Name	HUAWEI MediaPad T3
Frequency Band	2402MHz~2480MHz
Type of Modulation	GFSK
Number of Channels	40
FCC ID	QISKOB-W09
Condition of EUT as received	No obvious damage in appearance

#### **3.2. Internal Identification of EUT**

<b>EUT ID*</b>	<b>IMEI</b>	<b>HW Version</b>	<b>SW Version</b>	<b>Receive Date</b>
EUT1	/	REACHW-V1.0	KOB-W09C331B002-log	2018-06-11

\*EUT ID: is used to identify the test sample in the lab internally.

**Note:** According to Huawei Technologies Co., Ltd description that Remove 3 grounding shrapnel of the main board; Remove 5 Common mode Choke and replace them with 0 ohm resistance; Replace one high Q inductor with a laminated inductor and Remove 4 TVS. Else part have no changes C Band edge compliance and Radiated Spurious Emissions test selected worst case needs to been performed. else results are cited from the initial model. The report number for initial model is B17N00263-BLE-Rev.1.

#### **3.3. Internal Identification of AE**

<b>AE ID*</b>	<b>Description</b>	<b>SN</b>
AE1	Charger	/
AE2	Charger	/
AE3	Charger	/
AE1		
Model		HW-050100U01
Manufacturer		SHENZHEN HUNTKEY ELECTRONIC CO.,LTD.
AE2		
Model		HW-050100U01
Manufacturer		HUIZHOU BYD ELECTRONIC CO., LTD.
AE3		
Model		HW-050100U01
Manufacturer		DONGGUAN PHITEK ELECTRONICS CO.,LTD.

\*AE ID: is used to identify the test sample in the lab internally.

#### **3.4. General Description**

The Equipment under Test (EUT) is a model of HUAWEI MediaPad T3 with integrated antenna and inbuilt battery. It supports WLAN 802.11a/b/g/n (11n 20MHz and 40MHz)function.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.

## **4. Reference Documents**

### **4.1. Documents supplied by applicant**

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

### **4.2. Reference Documents for testing**

The following documents listed in this section are referred for testing.

<b>Reference</b>	<b>Title</b>	<b>Version</b>
FCC Part15	FCC CFR 47, Part 15, Subpart C: 15.205 Restricted bands of operation; 15.209 Radiated emission limits, general requirements; 15.247 Operation within the bands 902–928MHz, 2400–2483.5 MHz, and 5725–5850 MHz	Oct,2017
ANSI C63.10	American National Standard for Testing Unlicensed Wireless Devices	Jun,2013

## 5. Test Results

### 5.1. Summary of Test Results

No	Test cases	Sub-clause of Part15C	Verdict
1.	Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	<b>P</b>

See **ANNEX A** and **ANNEX B** for details.

### 5.2. Terms used in the result table

Terms used in Verdict column

P	Pass
NA	Not Available
F	Fail

Abbreviations

AC	Alternating Current
AFH	Adaptive Frequency Hopping
BW	Band Width
E.I.R.P.	equivalent isotropic radiated power
ISM	Industrial, Scientific and Medical
R&TTE	Radio and Telecommunications Terminal Equipment
RF	Radio Frequency
Tx	Transmitter



### 5.3. Laboratory Environment

**Semi-anechoic chamber** did not exceed following limits along the EMC testing

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 18000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4Ω
Normalised site attenuation (NSA)	< ±4dB, 3m/10m distance, from 30 to 1000 MHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

**Shielded room** did not exceed following limits along the EMC testing

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4 Ω

**Fully-anechoic chamber** did not exceed following limits along the EMC testing

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB; 1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4Ω
Voltage Standing Wave Ratio (VSWR)	≤6dB, from 1 to 18 GHz, 3m distance

## 6. Test Facilities Utilized

### Radiated emission test system

NO.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Loop Antenna	HLA6120	35779	TESEQ	2019-05-02	3 years
2	BiLog Antenna	VULB9163	9163 329	Schwarzbeck	2020-02-27	3 years
3	Horn Antenna	3117	00066577	ETS-Lindgren	2019-04-05	3 years
4	Test Receiver	ESR7	101676	Rohde & Schwarz	2018-11-29	1 year
5	Spectrum Analyser	FSV40	101192	Rohde & Schwarz	2019-05-22	1 year
6	Chamber	FACT3-2.0	1285	ETS-Lindgren	2019-11-27	3 years
7	Antenna	QSH-SL-18-26-S-20	17013	Q-par	2020-01-15	3 years
8	Antenna	QSH-SL-26-40-K-20	17014	Q-par	2020-01-15	3 years

### Anechoic chamber

Fully anechoic chamber by ETS-Lindgren

#### Measurement uncertainty:

Frequency Range	uncertainty (dB)	Note
9kHz-30MHz	1.84	k=2
30MHz-1GHz	4.90	
1GHz-18GHz	5.32	
18GHz-40GHz	4.66	

## **ANNEX A: MEASUREMENT RESULTS FOR RECEIVER**

### **A.1 Transmitter Spurious Emission - Radiated**

#### **Measurement Limit:**

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

#### **Limit in restricted band:**

Frequency of emission (MHz)	Field strength( $\mu$ V/m)	Measurement distance(meters)
0.009-0.490	2400/F(kHz)	300
0.490-1.705	24000/F(kHz)	30
1.705-30.0	30	30
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

#### **Test Condition:**

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	120kHz/300kHz	5
1000-4000	1MHz/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

**Note:** According to the performance evaluation, the radiated emission margin of EUT is over 20dB in the band from 9kHz to 30MHz. Therefore, the measurement starts from 30MHz to tenth harmonic.

The measurement results include the horizontal polarization and vertical polarization measurements.

**NOTE:** The test cases are selected as the worst cases for every conditions.

**Measurement Results:**

GFSK	0	9 kHz ~30 MHz	Fig.1	P
		30 MHz ~1 GHz	Fig.2	P
		1 GHz ~18 GHz	Fig.3	P
		18 GHz~ 26.5 GHz	Fig.4	P
	Power(CH0)	2.38 GHz ~ 2.45 GHz	Fig.5	P

**GFSK CH0 (1-18GHz)**

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Corr. (dB)	Pol
13963.500000	57.84	74.00	16.16	V	19.7
14715.000000	58.18	74.00	15.82	H	20.7
15132.500000	58.10	74.00	15.90	H	20.0
15659.000000	59.55	74.00	14.45	V	21.3
16643.000000	59.53	74.00	14.47	V	22.4
17892.500000	58.11	74.00	15.89	H	23.9

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Corr. (dB)	Pol
13973.000000	45.38	54.00	8.62	H	19.6
14654.500000	46.15	54.00	7.85	V	20.6
15575.000000	46.65	54.00	7.35	H	21.0
15642.500000	47.52	54.00	6.48	V	21.3
16621.500000	47.50	54.00	6.50	V	22.7
17699.500000	46.45	54.00	7.55	H	22.9

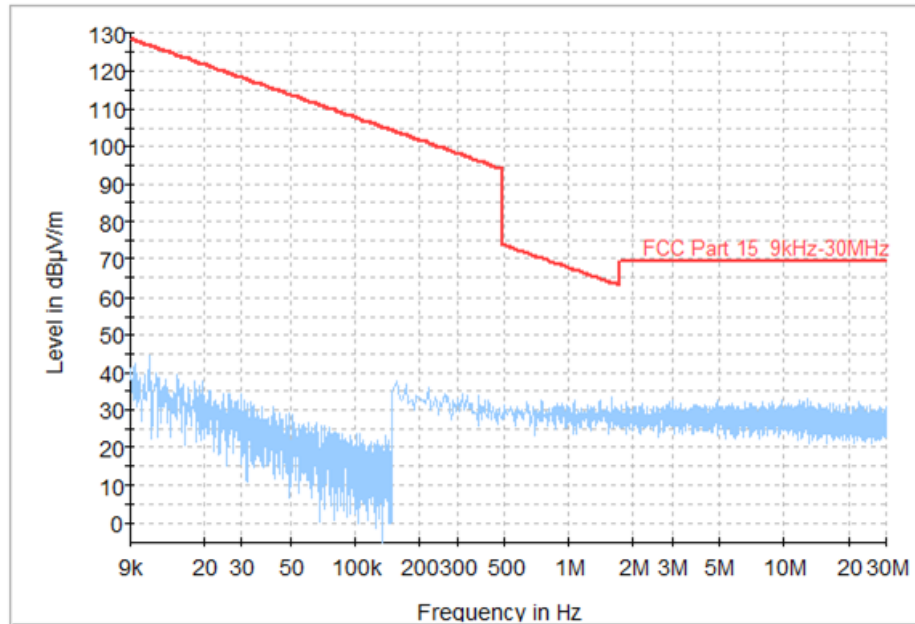
See ANNEX B for test graphs.

**Conclusion: Pass**

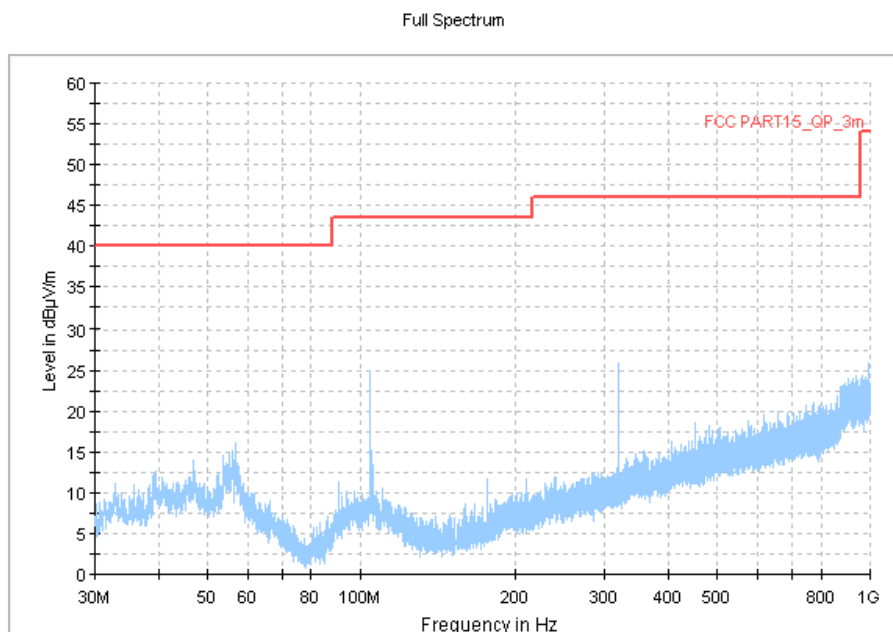
**Note:** A "reference path loss" is established and the  $A_{Rpl}$  is the attenuation of "reference path loss", and including the gain of receive antenna, the gain of the preamplifier, the cable loss.

$P_{Mea}$  is the field strength recorded from the instrument. The measurement results are obtained as described below:  $Result = P_{Mea} + A_{Rpl} = P_{Mea} + Cable Loss + Antenna Factor$

**ANNEX B: TEST FIGURE LIST**



**Fig.1 Radiated Spurious Emission (Ch0, 9 kHz-30 MHz)**



**Fig.2 Radiated Spurious Emission (Ch0, 30 MHz-1 GHz)**

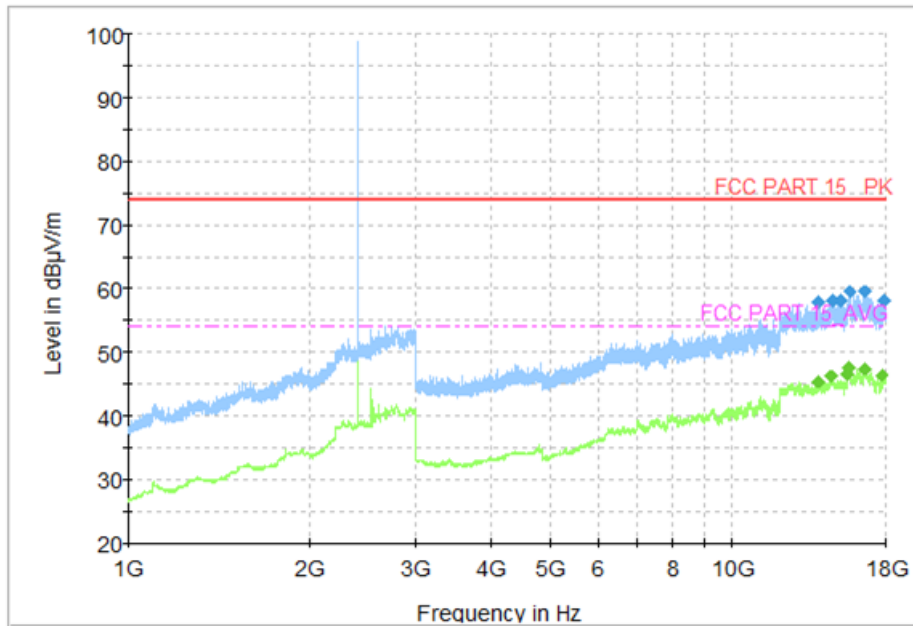


Fig.3 Radiated Spurious Emission (GFSK, Ch0, 1 GHz ~18 GHz)

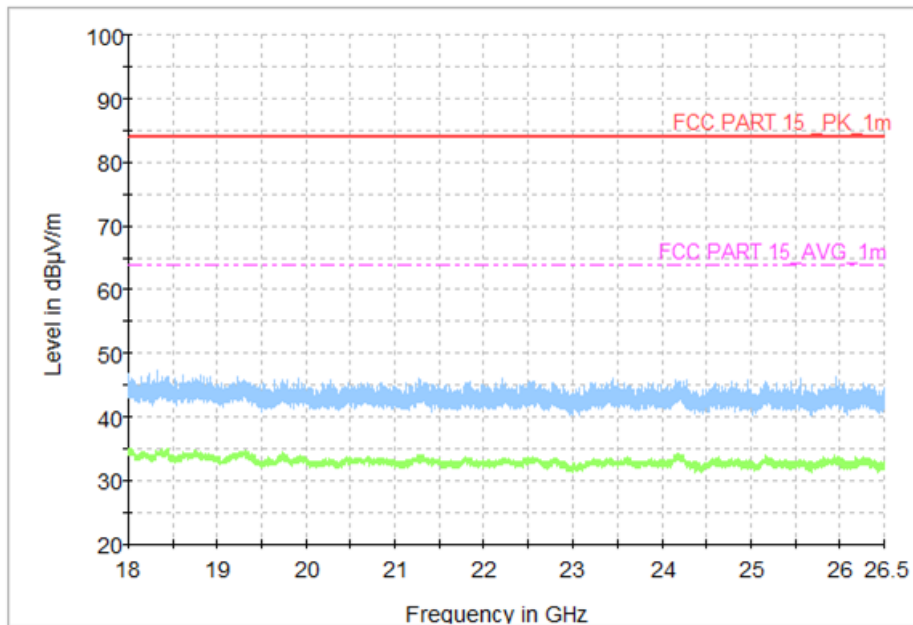


Fig.4 Radiated Spurious Emission (Ch0, 18 GHz-26.5 GHz)

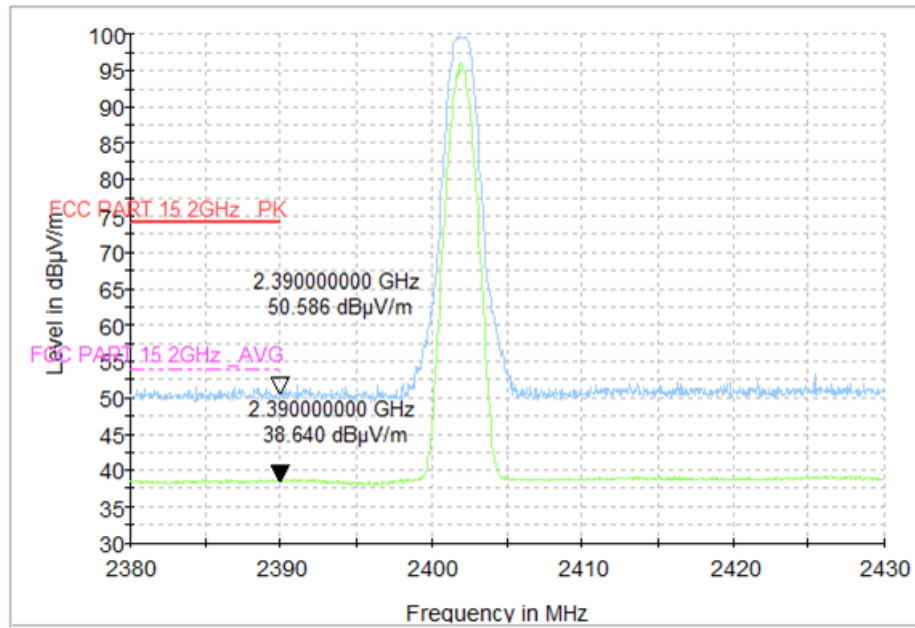


Fig.5 Radiated Emission Power (GFSK, Ch0, 2380GHz~2450GHz)



**ANNEX C: Persons involved in this testing**

<b>Test Name</b>	<b>Tester</b>
Transmitter Spurious Emission - Radiated	Lin Kanfeng, Tang Weisheng

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