

Report No.: E7/2017/C0006

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# **FCC CERTIFICATION REPORT** Canada ISED ICES-003 TEST REPORT

Test Report No. : E7/2017/C0006

**Applicant** : Huawei Technologies Co., Ltd.

**Address** : Administration Building, Headquarters of Huawei Technologies Co.,

> Ltd., Bantian, Longgang District, Shenzhen, 518129, China (For FCC) Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, China (Peoples

Republic Of) (For IC)

Manufacturer : Huawei Technologies Co., Ltd.

**Address** : Administration Building, Headquarters of Huawei Technologies Co.,

> Ltd., Bantian, Longgang District, Shenzhen, 518129, China (For FCC) Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, China (Peoples

Republic Of) (For IC)

**Equipment Under Test (EUT):** 

**Product Name** : HUAWEI MateBook **Brand Name** : HUAWEI; honor

: KPL-W00 Model No. Added Model(s) : KPL-W09

**Standards** : FCC Part 15:2017, Subpart B, Class B

Canada ICES-003 Issue 6(June 2016), Class B

**Date of Receipt** : Dec. 04, 2017 **Date of Test** : Dec. 04 ~ 25, 2017 Date of Issue : Jan. 03, 2018

Test Result: **PASS** 

In the configuration tested, the EUT complied with the standards specified above.

#### Remarks:

This report details the results of the testing carried out on one sample, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report shall not be reproduced except in full, without the written approval of the laboratory. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

Tested By: Date: Jan. 03, 2018

Bill Cheng (Engineer)

Date: Jan. 03, 2018 Approved By:

> Tony Hsu (Assistant Supervisor)

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# **Revision History**

Report Number	Revision	Description	Issue Date
E7/2017/C0006	Rev.00	Initial creation of document	Jan. 03, 2018

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# 1. General Information

## 1.1 Applicant & Manufacturer Information

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Address : Administration Building, Headquarters of Huawei Technologies

Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, China

Report No.: E7/2017/C0006

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(Peoples Republic Of) (For IC)

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(For FCC

Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, China

(Peoples Republic Of) (For IC)

## 1.2 General Description of EUT

Product Name : HUAWEI MateBook

Brand Name : HUAWEI; honor

Model No. : KPL-W00 Added Model(s) : KPL-W09

Model Difference: The marketing purposed

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#### 1.3 Details of EUT

Power Supply	AC100~240V		
Highest operate description	3.6 GHz		
Adapter	HUAWEI HW-200325YYY(Y=0-9,A-Z or blank)		
Adapter Power Rating	I/P: 100-240VAC, 50/6	0Hz, 1.8A	
	O/P: 5VDC, 2A; 9VDC,	, 2A; 12VDC, 2A; 15VDC, 3A; 20VDC,	
	3.25A		
DC Power Cable Type	Shielded, 1.8m (Detachable) to Power Adapter		
Memory	on Board		
Graphics	Integrated Graphic		
CPU	AMD	Up to 3.6G	
LCD Panel	BOE	TV14YYY-YYY(Y=0-9,A-Z or blank)	
	AUO	B14YYYYYY.Y(Y=0-9,A-Z or blank)	
	INNOLUX	N14YYYY-YYY(Y=0-9,A-Z or blank)	
WLAN+BT	Intel	8265HUW	
Storage	One PCIE/SATA storage Device		
Battery	One re-chargeable battery pack		
Camera	One Camera optional		

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#### Pre-test Mode

Mode	CPU	Panel	Main Board	Memory	SATA SSD / PCIE SSD	WLAN+BT	Battery	Adapter
1	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Toshiba KXG50ZNV512G (512GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
2	AMD 2.0GHz Up to 3.6GHz	AUO B140HAK03.0	Quanta H96	8GB DDR4	Lite-On CV8-8E128 (128GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
3	AMD 2.0GHz Up to 3.6GHz	BOE TV14FHM-NH0	Quanta H96	8GB DDR4	Lite-On CV8-8E256 (256GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
4	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Lite-On CV8-8E512 (512GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
5	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Samsung MZNLN128HAHQ-00000 (128GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
6	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Samsung MZNLN256HAJQ-00000 (256GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
7	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Samsung MZNLN512HAJQ-00000 (512GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
8	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Micron MTFDDAV256TBN-1AR12ABYY (256GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
9	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Micron MTFDDAV512TBN-1AR12ABYY (512GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
10	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Sandisk SD9SN8W-128G-1027 (128GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
11	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Sandisk SD9SN8W-256G-1027 (256GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
12	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Sandisk SD9SN8W-512G-1027 (512GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
13	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Lite-On CA3-8D256 (256GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
14	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Lite-On CA3-8D512 (512GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
15	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Samsung MZVLW256HEHP-00000 (256GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
16	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Samsung MZVLB512HAJQ-00000 (512GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0
17	AMD 2.0GHz Up to 3.6GHz	INNOLUX N140HCA-EAC	Quanta H96	8GB DDR4	Toshiba KXG50ZNV256G (256GB)	Intel 8265HUW	Huawei HB4593R1ECW	Huawei HW-200325UP0

#### 1.4 The worst case of the EUT

EUT will be carried out in the worst case as followings:

Worst Case	
CE	Mode 1 (1366 x 768 Resolution)
RE	Mode 1 (1366 x 768 Resolution)

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## 1.5 Description of Support Units

#### Mode 1:

PRODUCT	MANUFACTURER	MODEL NO.	SERIAL NO.
Monitor1 (HRE)	DELL	P2415Qb	CN-0GTTPW-74261-559- 0AUL
Monitor (RE,CE)	ViewSonic	VS16024	U92152900233
Mouse	Logitech	M-U0026	810-003265
Earphone	htc	N/A	N/A
USB 3.0 HDD	Transcend	TS1TSJ25M3E	D56608-1239
AP	BUFFALO	WZR-HP-G300NH2	44066221202559[[G]]
Notebook	DELL	Latitude E6440	3VGS162
BT Speaker	Creative	MF8090	YFMF8090245R00855Y

# **Support Equipment Used in Tested Cable**

#### Mode 1:

Cable Type	Core	Length	Shielding/Non-shielding
Mouse USB	N/A	1.8m	Shielding
HDD USB	N/A	0.5m	Shielding
Earphone	N/A	2.0m	Non-shielding
HDMI	N/A	1.8m	Shielding

#### 1.6 Operation Procedure

#### Mode 1:

- 1. Turn on the power of all equipment.
- 2. The EUT communicates with Notebook PC by Bluetooth radio.
- 3. The EUT communicates with Wireless AP by WIFI radio.
- 4. The EUT read(s)/write(s) disk through Win EMC test software.
- 5. The EUT displays H pattern through Win EMC test software.
- 6. Executed AMCAP2 software to turn-on the CCD.
- 7. Setup the condition for test mode, and begin the test.

#### 1.7 Modification List

No modification was made by SGS Taiwan Electronics & Communication Laboratory.

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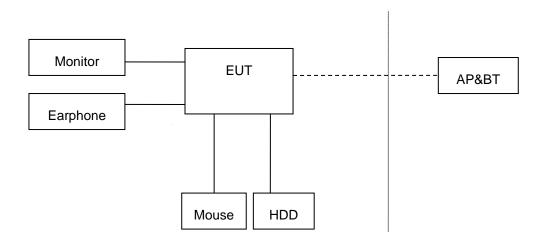
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# 1.8 Test Set-Up Configuration

Mode 1



#### 1.9 Accessories Cable List

See clause 1.3 of this report

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#### 1.10 Measurement Procedure

Conducted Emission Testing was performed according to ANSI C63.4:2014 in a shielded room with peripherals placed on a table, 0.8m high over a metal floor. It was located more than required distance away from the shielded room wall.

Radiated Emission Testing was performed according to ANSI C63.4:2014 at the 3/10m semi-anechoic chamber. The EUT was placed on a 0.8m high table along with the peripherals. The turn table was placed 10m distance from the antenna. Cables were placed in a position to produce maximum emissions as determined by experimentation, and operation mode was selected for production of maximum emission.

The frequencies and amplitudes of maximum emission were measured at varying azimuths, antenna heights and antenna polarities. Maximum emission levels are then reported.

## 1.11 Standards Applicable for Testing

Tests to be carried out under FCC Part 15. Subpart B/CISPR 22

Test Standards	
Test Standards	Status
FCC Part 15, Subpart B	Applicable
Deviation from Standard	No deviation

#### 1.12 Summary of Results

Highest Emission					
Standard Test Type Result Phase/Pol. Frequency(MHz) Margin(dB)					
FCC Part 15 Subpart B	Conducted Emission	DACC	Line	0.1900	-19.07 (QP)
Class B	Conducted Emission	PASS	Neutral	0.1540	-12.14 (QP)
Canada ICES-003 Issue 6 (June 2016),Class B	Radiated Emission	PASS	Hor.	64.9200	-4.60 (QP)

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# 2. EMISSION

#### 2.1 Test Results

	Results
Conducted Emission	Pass
Radiated Emission	Pass

#### 2.2 Frequency Range

## FCC Part 15, Subpart B:

Conducted Emission : 150 kHz - 30 MHz : See below table Radiated Emission

Highest frequency generated or Upper frequency of measurement used in the device or on which the range (MHz)

device operates or tunes (MHz)

Below 1.705 30 1.705 - 1081000 108 - 500 2000 500 - 1000 5000

5th harmonic of the highest frequency or Above 1000

40 GHz, whichever is lower

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#### 2.3 Limits of Conducted and Radiated Emission

#### 2.3.1 Limits of Conducted Emission

## FCC Part 15. Subpart B/CISPR 22:

FREQUENCY	Class A	Class A (dBuV)		(dBuV)
(MHz)	Quasi - peak	Average	Quasi - peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

Note: (1) The lower limit shall apply at the transition frequencies.

- (2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 to 0.50 MHz.
- (3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected there to, shall not exceed the level of field strengths specified above.

#### 2.3.2 Limits of Radiated Emissions

# FCC Part 15, Subpart B Limit:

Detector Function : Quasi – Peak

FREQUENCY	Class A (at 10m)	Class B (at 3m)
(MHz)	dBuV/m	dBuV/m
30~88	39	40
88~216	43.5	43.5
216~960	46.44	46
Above 960	49.54	54

Detector Function: Peak, Average

FREQUENCY	Class A (dB	uV/m) (at 3m)	Class B (dBuV/m) (at 3m)		
(MHz)	Peak	Average	Peak	Average	
Above 1000-18000	79.3	59.3	73.9	53.9	

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#### **CISPR 22 Limit:**

Detector Function : Quasi – Peak

FREQUENCY	Class A (at 10m)	Class B (at 10m)
(MHz)	dBuV/m	dBuV/m
30-230	40	30
230-1000	47	37

NOTE 1 The lower limit shall apply at the transition frequency.

NOTE 2 Additional provisions may be required for cases where interference occurs.

FREQUENCY	Class A (dB	uV/m) (at 3m)	Class B (dB	uV/m) (at 3m)
(GHz)	Average	Peak	Average	Peak
1~3	56	76	50	70
3~6	60	80	54	74

NOTE The lower limit applies at the transition frequency.

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# 2.4.Test of Conducted Emission

## 2.4.1 Test Equipments

	SGS Condu	ucted_Emission HWAYA	Conducted Roo	om No.B_EMC	
EQUIPMENT TYPE	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due
EMI Test Receiver	R&S	ESCI 7	101459	2017/2/7	2018/2/6
Coaxial Cable	EMC Instruments Corp.	EMC5D-BM-BM-3000	1401004	2017/5/25	2018/5/24
LISN	TESEQ	NNB 51	36061	2017/3/7	2018/3/6
Pulse Limiter	R&S	ESH3Z2	102099	2017/6/8	2018/6/7
LISN	TESEQ	NNB 51	36062	2017/3/7	2018/3/6
ISN	TESEQ	NNB 51	36076	2017/2/24	2018/2/23
ISN	TESEQ	ISN T800	34384	2017/3/23	2018/3/22
ISN	TESEQ	ISN T8-Cat6	38889	2017/6/29	2018/6/28
ISN	TESEQ	ISN ST08	36271	2017/9/30	2018/9/29
Power Line Communication Tester	Pretronix	PLC 6001	202167	2017/3/7	2018/3/6
ISN	TESEQ	ISN PLT-A	38339	2017/3/30	2018/3/29
RF Current Probe	Schwarzbeck	SW 9605	SW 9605-138	2017/10/13	2018/10/12
Capacitive Voltage Probe	Schwarzbeck	CVP 9222	9222-031	2017/10/13	2018/10/12
High Voltage Probe	Schwarzbeck	TK 9420	TK 9420- 5223	2017/3/8	2018/3/7
Communication Tester	R&S	CMU200	119988	2017/3/7	2018/3/6
Communication Tester	R&S	CMW500	152303	2017/2/23	2018/2/22
Communication Tester	Anritsu	MT8820C	6201465315	2016/12/29	2017/12/28
Test S/W	Farad	EZ-EMC	Ver. SGS- 03A2	N.C.R.	N.C.R.

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Measurement Uncertainty of Conducted Emission

Expanded uncertainty (K=2) of conducted emission is 2.25 dB

Expanded uncertainty (K=2) of ISN conducted emission is 2.57 dB

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#### 2.4.2 Operating Environment

Temperature: 22 degree C Humidity: 54 %RH

Atmospheric Pressure: 992 mBar

#### 2.4.3 Measurement Level Calculation

Factor = LISN insertion loss + Cable loss+ Pulse Limiter Insertion Loss Measurement Level = Reading Level + Factor Over (Margin) = Measurement Level – Limit

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#### 2.4.4 Measurement Data:

Model No.: KPL-W00

Mode 1 L

Site Conduction Room Phase: L1 Temperature: 22 °C
Limit: FCC Class B Conduction(QP) Power: AC 120V/60Hz Humidity: 54 %

Mode: Mode\_1

Note:

# Conducted Emission File: E7-2017-C0006 Data:#1 Date: 2017/12/7 Time: 上午 11:33:59 80.0 dHuV FILE Class & Conduction(UP) 0.0 0.150 0.5 (MHz) 5 30.000

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1		0.1900	25.48	19.49	44.97	64.04	-19.07	QP	
2		0.1900	9.44	19.49	28.93	54.04	-25.11	AVG	
3		0.2420	16.84	19.56	36.40	62.03	-25.63	QP	
4		0.2420	2.98	19.56	22.54	52.03	-29.49	AVG	
5		0.5420	12.73	19.96	32.69	56.00	-23.31	QP	
6		0.5420	3.88	19.96	23.84	46.00	-22.16	AVG	
7		1.8060	6.92	20.28	27,20	56.00	-28.80	QP	
8		1.8060	1.77	20.28	22.05	46.00	-23,95	AVG	
9		2.1540	9.21	20.40	29.61	56.00	-26,39	QP	
10	,	2.1540	1.52	20.40	21.92	46.00	-24.08	AVG	
11		3.8500	9.40	20.13	29.53	56.00	-26.47	QP	
12		3.8500	2.81	20.13	22.94	46.00	-23.06	AVG	

\*:Maximum data x:Over limit !:over margin

File :E7-2017-C0006\Data :#1

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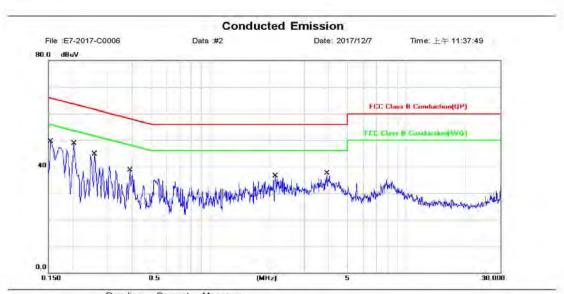
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#### Mode 1 N

Conduction Room Phase: Temperature: 22 °C Humidity: 54 % Limit: FCC Class B Conduction(QP) Power: AC 120V/60Hz

Mode: Mode\_1

Note:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	*	0.1540	34.14	19.50	53.64	65.78	-12.14	QP	
2	į.	0.1540	15.34	19.50	34.84	55.78	-20.94	AVG	
3		0.2020	22.84	19.49	42.33	63.53	-21.20	QP	
4		0.2020	7.58	19.49	27.07	53.53	-26.46	AVG	
5		0.2580	18.27	19.59	37.86	61.50	-23.64	QP	
6		0.2580	5.67	19.59	25.26	51.50	-26.24	AVG	
7		0.3900	12.47	19.81	32,28	58.06	-25.78	QP	
8		0.3900	3.13	19.81	22.94	48.06	-25.12	AVG	
9	j.	2.1340	8.69	20.39	29.08	56.00	-26.92	QP	
10	0	2.1340	1.33	20.39	21.72	46.00	-24.28	AVG	
11		3.9380	10.49	20.11	30.60	56.00	-25.40	QP	
12		3.9380	3.05	20.11	23.16	46.00	-22.84	AVG	

\*: Maximum data x:Over limit l:over margin

File :E7-2017-C0006\Data :#2

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#### 2.5 Test of Radiated Emission

# 2.5.1 Test Equipments

#### **Below 1GHz**

Delow 10112						
	SGS Rac	liated_Below_1GH	z HWAYA 966A_I	EMC		
EQUIPMENT TYPE	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due	
EMI Test Receiver	R&S	ESR 7	101459	2017/2/17	2018/2/16	
Biconical Antenna	SCHWARZBECK	VULB 9168	9168-297	2017/5/26	2018/5/25	
Pre Amplifier	EMC Instruments Corp.	EMC330	980180	2017/5/19	2018/5/18	
Coaxial Cable	Huber+Suhner	RG 214/U	539808	2017/4/23	2018/4/22	
Coaxial Cable	EMC Instruments	EMC8D-NM-NM- 6000	140922	2017/4/23	2018/4/22	
Coaxial Cable	NA	8D	SAC-A-0.5M	2017/4/23	2018/4/22	
Communication Tester	SCHWARZBECK	CMW500	152303	2017/2/23	2018/2/22	
Communication Tester	Anritsu	MT8820C	6201465315	2016/12/29	2017/12/28	
Communication Tester	R&S	CMU200	119988	2017/3/7	2018/3/6	
Coaxial Cable	MF	MF-7802	N/A	N.C.R.	N.C.R.	
Antenna Master	MF	N/A	N/A	N.C.R.	N.C.R.	
Turn Table	MF	N/A	N/A	N.C.R.	N.C.R.	
Site NSA	SGS	966 Chamber A	SAC-A	2017/1/12	2018/1/11	
Test Software	Farad	EZ-EMC	Ver. SGS-03A2	N.C.R.	N.C.R.	

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Measurement Uncertainty of Radiated Emission

Expanded uncertainty (k=2) of radiated emission measurement is 4.71 dB. (30-1000MHz)

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#### **Above 1GHz**

	SGS Ra	diated_Above_1GH	z HWAYA 966B_E	MC	
EQUIPMENT TYPE	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due
Spectrum Analyzer	R&S	FSV 40	101419	2017/3/1	2018/2/28
EMI Test Receiver	R&S	ESR 7	101507	2017/5/27	2018/5/26
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA9120D673	2017/10/16	2018/10/15
Pre Amplifier	R&S	SCU-18	100203	2017/3/26	2018/3/26
Pre Amplifier	EMC Instruments	EMC184045B	980135	2017/10/27	2018/10/26
Coaxial Cable	EMC Instruments	EMC104-SM-SM	140923	2017/9/30	2018/9/29
Coaxial Cable	EMC Instruments	EMC104-SM-SM	140925	2017/9/30	2018/9/29
Coaxial Cable	EMC Instruments	EMC104-SM-SM	140927	2017/9/30	2018/9/29
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	MY 2152/2	2017/6/5	2018/6/4
Coaxial Cable	Huber+Suhner	SUCOFLEX 102	MY 2153/2	2017/6/5	2018/6/4
Universal Digital Radio Communication Tester	R&S	CMU 200	119988	2017/3/7	2018/3/6
Wideband Radio Communication Tester	R&S	CMW 500	152303	2017/2/23	2018/2/22
Radio Communication Analyzer	Anritsu	MT8820C	6201465315	2016/12/29	2017/12/24
Controller	MF-7802	N/A	N/A	N.C.R.	N.C.R.
Antenna Master	N/A	N/A	N/A	N.C.R.	N.C.R.
Turn Table	N/A	N/A	N/A	N.C.R.	N.C.R.
Site VSWR	SGS	966 Chamber B	SAC-B	2017/10/8	2018/10/7
Test S/W	Farad	EZ-EMC	Ver. SGS-03A2	N.C.R.	N.C.R.

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Measurement Uncertainty of Radiated Emission

Expanded uncertainty (k=2) of radiated emission measurement is 5.06 dB. (1-6GHz)

Expanded uncertainty (k=2) of radiated emission measurement is 5.15 dB. (6-18GHz)

Expanded uncertainty (k=2) of radiated emission measurement is 5.19 dB. (18-26GHz)

Expanded uncertainty (k=2) of radiated emission measurement is 5.14 dB. (26-40GHz)

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#### 2.5.2 Operating Environment

Temperature: 18 degree C Humidity: 57 %RH

Atmospheric Pressure: 996 mBar

#### 2.5.3 Measurement Level Calculation

Correction Factor = Antenna Factor + Cable loss- Amplifier Gain Measurement Level = Reading Level + Correction Factor Over (Margin) = Measurement Level – Limit

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# 2.5.4 Measurement Data **Below 1GHz**

Model No.: KPL-W00 Mode\_1\_H

Site SGS 966 Chamber A

Limit: FCC Class B 3M Radiation

Mode: Mode\_1

Polarization: Horizontal

Power: AC 120V/60Hz

Temperature: 18 %

Humidity: 57 %

Distance:

	Radiate	d Emission	
File :C0006	Data :#4	Date: 2017/12/25	Time: 下午 12:13:15
80.0 d8uV/m		/	
		FCC	Class B 3M Radiation
			Harry Kill
23.	5		
40			
N. M. al	and to factored which the presents	madel 1	and the substituted
Mynumber	all Ma and Man A	april of the half a transmitted and the month	where we common what the hard is don't wise of
W Y'VA			
0.0		The state of the s	

1 1	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
- '		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
2 !	w	64.9200	48.63	-13.23	35.40	40.00	-4.60	QP	
	ļ	224.9700	55.30	-14.10	41.20	46.00	-4.80	QP	
3 !	ļ	232.7300	54.37	-13.77	40.60	46.00	-5.40	QP	
4		239.5200	52.43	-13.43	39.00	46.00	-7.00	QP	
5 1	Į.	255.0400	53.50	-12.40	41.10	46.00	-4.90	QP	
6		960.2300	43.92	0.68	44.60	54.00	-9.40	QP	

\*:Maximum data x:Over limit l:over margin

File : C0006\Data :#4

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Report No.: E7/2017/C0006

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#### Mode 1 V

Distance:

Site SGS 966 Chamber A

Limit: FCC Class B 3M Radiation

Mode: Mode\_1

Note:

Polarization:

Power: AC 120V/60Hz

Temperature: 18 °C Humidity: 57 %

806.00

1000.00 MHz

Radiated Emission Data :#3 Date: 2017/12/25 File : C0006 Time: 下午 12:05:25 80.0 d8uV/m FCC Class B 3M Radiation

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1	)	30.0000	47.71	-12.60	35.11	40.00	-4.89	QP	
2	*	63.9500	48.35	-13.05	35.30	40.00	-4.70	QP	
3		108.5700	50.18	-15.48	34.70	43.50	-8.80	QP	
4		365.6200	39.69	-9.19	30.50	46.00	-15.50	QP	
5		391.8100	38.31	-8.51	29.80	46.00	-16.20	QP	
6		960.2300	40.82	0.68	41.50	54.00	-12.50	QP	
_									

515.00

612.00

\*: Maximum data x:Over limit l:over margin

File : C0006\Data :#3

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#### **Above 1GHz**

Model No.: KPL-W00 Mode\_1\_H

Site SGS 966 Chamber B

Limit: FCC Class B 3M Radiation(1G-40G)(Pea

Mode: Mode 1

Note:

Polarization: Power: AC 120V/60Hz

Horizontal

Temperature: 21 %

Humidity: 68 %

Distance:

was await.		d Emission	
File :C0006	Data :#2	Date: 2017/12/6	Time: 下午 07:29:31
10.0 dBuV/m			
		popular no municipal	r e la marin
		FCC Class B 3M Rac	fiation[16-406][Fea
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2		FCC Class 8 3M Hadio	MINISTER PARTIES PARTIES IN THE PARTIES PARTIE
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10			

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
1		1901.000	59.16	-16.64	42.52	74.00	-31.48	peak	
2		2989.000	68.73	-14.12	54.61	74.00	-19,39	peak	
3		2989.000	57.05	-14.12	42.93	54.00	-11.07	AVG	
4		4179.000	56.79	-11.84	44.95	74.00	-29.05	peak	
5		5998.000	57.14	-7.80	49.34	74.00	-24.66	peak	
6		14753.000	46.33	4.64	50.97	74.00	-23.03	peak	
7		14753.000	35.51	4.64	40.15	54.00	-13.85	AVG	
8		18000.000	45.00	14.70	59.70	74.00	-14.30	peak	
9	*	18000.000	32.24	14.70	46.94	54.00	-7.06	AVG	

\*: Maximum data x:Over limit Lover margin

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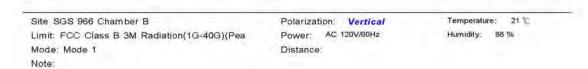
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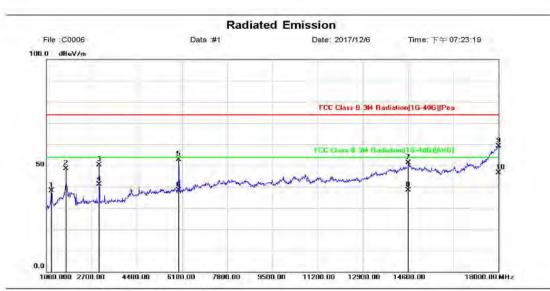


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#### Mode 1 V





Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	Comment
	1187.000	56.83	-18.60	38.23	74.00	-35.77	peak	
	1731.000	65.57	-17.05	48.52	74.00	-25.48	peak	
	2989.000	64.59	-14.12	50.47	74.00	-23.53	peak	
	2989.000	55.19	-14.12	41.07	54.00	-12.93	AVG	
	5981.000	60.83	-7.84	52.99	74.00	-21.01	peak	
	5981.000	46.31	-7.84	38.47	54.00	-15.53	AVG	
	14617.000	46.46	4.83	51.29	74.00	-22.71	peak	
	14617.000	33.60	4.83	38.43	54.00	-15.57	AVG	
	18000.000	44.38	14.70	59.08	74.00	-14.92	peak	
	18000.000	32.02	14.70	46.72	54.00	-7.28	AVG	
		MHz 1187.000 1731.000 2989.000 2989.000 5981.000 5981.000 14617.000 14617.000	Mk. Freq. Level  MHz dBuV  1187.000 56.83  1731.000 65.57  2989.000 64.59  2989.000 55.19  5981.000 60.83  5981.000 46.31  14617.000 46.46  14617.000 33.60  18000.000 44.38	Mk.         Freq.         Level         Factor           MHz         dBuV         dB/m           1187.000         56.83         -18.60           1731.000         65.57         -17.05           2989.000         64.59         -14.12           2989.000         55.19         -14.12           5981.000         60.83         -7.84           5981.000         46.31         -7.84           14617.000         33.60         4.83           18000.000         44.38         14.70	Mk.         Freq.         Level         Factor         ment           MHz         dBuV         dB/m         dBuV/m           1187.000         56.83         -18.60         38.23           1731.000         65.57         -17.05         48.52           2989.000         64.59         -14.12         50.47           2989.000         55.19         -14.12         41.07           5981.000         60.83         -7.84         52.99           5981.000         46.31         -7.84         38.47           14617.000         33.60         4.83         51.29           14617.000         44.38         14.70         59.08	Mk.         Freq.         Level         Factor         ment         Limit           MHz         dBuV         dB/m         dBuV/m         dBuV         dBuV/m         dBuV/	Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dBuV         dBuV/m         dBuV/m         dBuV/m         dB           1187.000         56.83         -18.60         38.23         74.00         -35.77           1731.000         65.57         -17.05         48.52         74.00         -25.48           2989.000         64.59         -14.12         50.47         74.00         -23.53           2989.000         55.19         -14.12         41.07         54.00         -12.93           5981.000         60.83         -7.84         52.99         74.00         -21.01           5981.000         46.31         -7.84         38.47         54.00         -15.53           14617.000         33.60         4.83         51.29         74.00         -22.71           18000.000         44.38         14.70         59.08         74.00         -14.92	Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dB/m         dBuV/m         dBuV/m         dB         Detector           1187.000         56.83         -18.60         38.23         74.00         -35.77         peak           1731.000         65.57         -17.05         48.52         74.00         -25.48         peak           2989.000         64.59         -14.12         50.47         74.00         -23.53         peak           2989.000         55.19         -14.12         41.07         54.00         -12.93         AVG           5981.000         60.83         -7.84         52.99         74.00         -21.01         peak           5981.000         46.31         -7.84         38.47         54.00         -15.53         AVG           14617.000         46.46         4.83         51.29         74.00         -22.71         peak           14617.000         33.60         4.83         38.43         54.00         -15.57         AVG           18000.000         44.38         14.70         59.08         74.00         -14.92         peak

\*: Maximum data x:Over limit Lover margin

\*\* End of Report \*\*

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