

# FCC CERTIFICATION REPORT

## Canada ISED ICES-003 TEST REPORT

**Test Report No.** : MH/2018/10036

**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

**Model No.** : VLT-W10

**Added Model(s)** : VLT-W50; VLT-W60

**Standards** : FCC Part 15:2017, Subpart B, Class B  
Canada ICES-003 Issue 6(June 2016), Class B

**Date of Receipt** : Jan. 08, 2018

**Date of Test** : Jan. 08 ~ 16, 2018

**Date of Issue** : Mar.08, 2018

<b>Test Result :</b>	<b>PASS</b>
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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:** Bill Cheng  
**Bill Cheng (Engineer)**

**Date:** Mar.08, 2018

**Approved By:** Tony Hsu  
**Tony Hsu (Assistant Supervisor)**

**Date:** Mar.08, 2018





## Revision History

Report Number	Revision	Description	Issue Date
MH/2018/10036	Rev.00	Initial creation of document	Mar.08, 2018

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# 1. General Information

## 1.1 Applicant & Manufacturer Information

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## 1.2 General Description of EUT

Product Name : HUAWEI MateBook  
Brand Name : HUAWEI; honor  
Model No. : VLT-W10  
Added Model(s) : VLT-W50; VLT-W60  
Model Difference : The marketing purposed

### 1.3 Details of EUT

Power Supply	AC100~240V	
Highest operate description	4 GHz	
AC Adapter	Huawei	HW-200325YYY (Y=0-9,A-Z or blank)
Adapter Power Rating	I/P: 100-240VAC, 50/60Hz, 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	
CPU	Intel	Up to 4GHz
Main Board	Quanta	H96A
Graphics	Integrated Graphic NVIDIA N17S	
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	LCD Panel	Main Board	Memory	SATA SSD / PCIE SSD	WLAN + BT	Battery	Graphics	AC Adapter
1	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	SAMSUNG MZVLB512HAJQ-00000 (512GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
2	Intel Up to 4GHz	BOE TV14FHM-NH0	Quanta H96A	DDR4 8GB	LITEON CV8-8E128 (128GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
3	Intel Up to 4GHz	INNOLUX N140HCA-EAC	Quanta H96A	DDR4 16GB	LITEON CV8-8E256 (256GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
4	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	LITEON CV8-8E512 (512GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
5	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	MICRON MTFDDAV256TBN-1AR12ABYY (256GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
6	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	MICRON MTFDDAV512TBN-1AR12ABYY (512GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
7	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	SAMSUNG MZNLN128HAHQ-00000 (128GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
8	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	SAMSUNG MZNLN256HAHQ-00000 (256GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
9	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	SAMSUNG MZNLN512HAHQ-00000 (512GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
10	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	SANDISK SD9SN8W-128G-1027 (128GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
11	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	SANDISK SD9SN8W-256G-1027 (256GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
12	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	SANDISK SD9SN8W-512G-1027 (512GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
13	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	LITEON CA3-8D256 (256GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
14	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	LITEON CA3-8D512 (512GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
15	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	SAMSUNG MZVLW256HEHP-00000 (256GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
16	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	Toshiba KXG502NV256G (256GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	Huawei HW-200325UP0
17	Intel Up to 4GHz	AUO B140HAK03.0	Quanta H96A	DDR4 16GB	Toshiba KXG502NV512G (512GB)	Intel 8265HUUW	Huawei HB4593R1ECW	NVIDIA N17S	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 (1920 x 1080 Resolution)
RE	Mode 1 (1920 x 1080 Resolution)

### 1.5 Description of Support Units

Mode 1:

PRODUCT	MANUFACTURER	MODEL NO.	SERIAL NO.
Monitor (RE,HRE)	DELL	P2415Qb	CN-0GTTTPW-74261-559-0AUL
Monitor (CE)	ASUS	MX27U	H5LMRS055345
Mouse (10M,CE,HRE)	Logitech	M-U0026	1738HS05FGU8
Earphone (RE,HRE)	htc	N/A	N/A
Earphone (CE)	SONY	MDR-E9LP	N/A
HDD (10M,CE,HRE)	Transcend	StoreJet 25M3 1TB	D70559-1523
BT Speaker	Creative	MF8090	YFMF8090245R00855Y
AP	ZyXEL	NBG6503	S130F23003375
Notebook	DELL	Latitude E6440	3VGS162

### Support Equipment Used in Tested Cable

Mode 1:

Cable Type	Core	Length	Shielding/Non-shielding
HDMI	N/A	1.8m	Shielding
HDD USB	N/A	1m	Shielding
Mouse USB	N/A	1.8m	Shielding
Earphone	N/A	2m	Non-shielding

### 1.6 Operation Procedure

Mode 1:

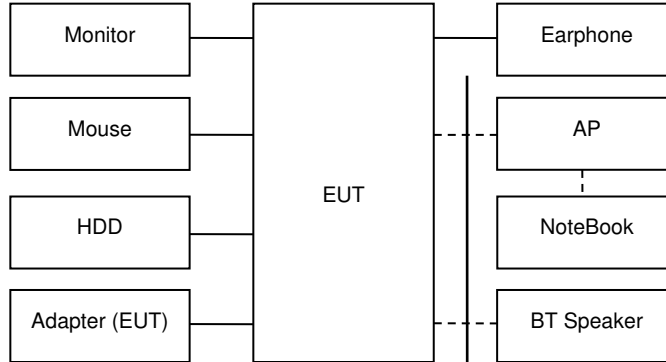
1. Turn on the power of all equipment.
2. The EUT communicates with BT Speaker by Bluetooth radio.
3. The EUT communicates with Wireless AP by WIFI radio.
4. The EUT read(s)/write(s) disk through Win EMC test software.
5. The EUT displays H pattern through Win EMC test software.
6. Executed AMCAP2 software 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.

### 1.8 Test Set-Up Configuration

Mode 1



### 1.9 Accessories Cable List

See clause 1.3 of this report



### 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	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 Class B	Conducted Emission	PASS	Line	0.1660	-21.62 (QP)
			Neutral	0.1700	-21.34 (QP)
Canada ICES-003 Issue 6 (June 2016),Class B	Radiated Emission	PASS	Ver.	17983.000	-5.04 (peak)

## 2. EMISSION

### 2.1 Test Results

	Results
Conducted Emission	<b>Pass</b>
Radiated Emission	<b>Pass</b>

### 2.2 Frequency Range

#### FCC Part 15, Subpart B:

Conducted Emission : 150 kHz - 30 MHz

Radiated Emission : See below table

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

---

Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5th harmonic of the highest frequency or 40 GHz, whichever is lower

## 2.3 Limits of Conducted and Radiated Emission

### 2.3.1 Limits of Conducted Emission

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

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	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 (MHz)	Class A (at 10m)	Class B (at 3m)
	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 (MHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	Peak	Average	Peak	Average
Above 1000-18000	79.3	59.3	73.9	53.9

**CISPR 22 Limit:**

- Detector Function : Quasi – Peak

FREQUENCY (MHz)	Class A (at 10m)	Class B (at 10m)
	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 (GHz)	Class A (dBuV/m) (at 3m)		Class B (dBuV/m) (at 3m)	
	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.

## 2.4. Test of Conducted Emission

### 2.4.1 Test Equipments

SGS Conducted Emission HWAYA Conducted Room No.A EMC					
EQUIPMENT TYPE	Manufacturer	Model Number	Serial Number	Calibration Date	Calibration Due
EMI Test Receiver	R&S	ESCI 3	101311	2017/6/23	2018/6/22
Coaxial Cables	EMC Instruments Corp	EMCRG58-BM-BM-3000	160812	2017/8/12	2018/8/11
LISN	SCHWARZBECK	NSLK 8127	8127-648	2017/6/18	2018/6/17
Pulse Limiter	Narda S.T.S.	PMM PL01	1110X30602	2017/8/12	2018/8/11
LISN	Schwarzbeck	NSLK 8128	NSLK8128-300	2017/9/4	2018/9/3
ISN	TESEQ	ISN T800	34384	2017/3/23	2018/3/22
ISN	TESEQ	ISN ST08	36271	2017/9/30	2018/9/29
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
DC LISN	SCHWARZBECK	NNBM 8124	8124-564	2017/12/6	2018/12/5
DC LISN	SCHWARZBECK	NNBM 8124	8124-565	2017/12/6	2018/12/5
High Voltage Probe	SCHWARZBECK	TK 9420	TK 9420-5223	2017/3/8	2018/3/7
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	2017/12/29	2018/12/28
Test S/W	Farad	EZ-EMC	Ver. SGS-03A2	N.C.R.	N.C.R.

SGS Taiwan LTD. Electronics & Communication Laboratory  
No.2, Keji 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)  
Measurement Uncertainty of Conducted Emission  
Expanded uncertainty U<sub>lab</sub>(K=2) of conducted emission is 2.25 dB  
Expanded uncertainty U<sub>lab</sub>(K=2) of ISN conducted emission is 2.57 dB  
Theory Value uncertainty U<sub>cispr 16-4-2 :2011+A1\_2014</sub> (K=2) of AC mains Conduction Emission is 3.44dB  
Theory Value uncertainty U<sub>cispr 16-4-2 :2011+A1\_2014</sub> (K=2) of ISN Conduction Emission is 4.59dB

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## 2.4.2 Operating Environment

Temperature : 18 degree C

Humidity : 41 %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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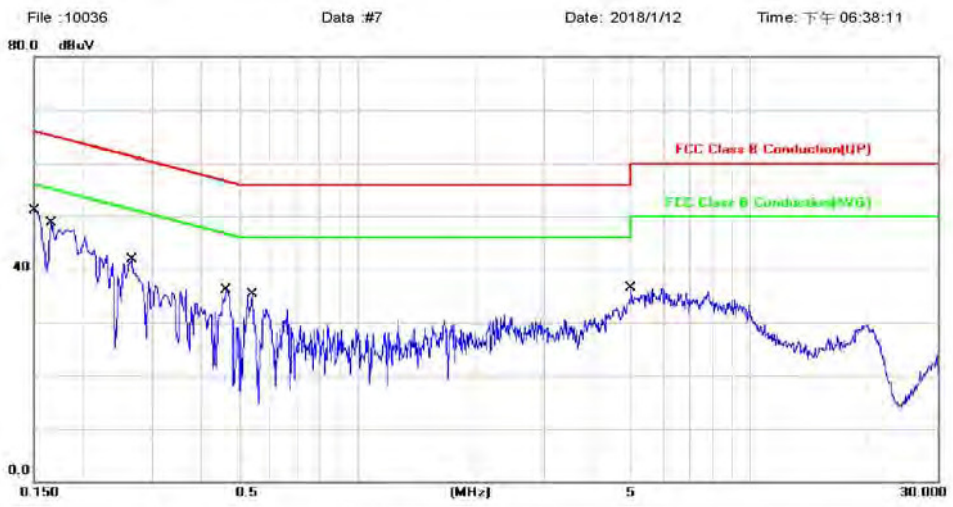
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2.4.4 Measurement Data:

Model No.: VLT-W10  
Mode\_1\_L

Site: Conduction Room Phase: L1 Temperature: 18 °C  
Limit: FCC Class B Conduction(QP) Power: AC 120V/60Hz Humidity: 41 %  
Mode: Mode 1  
Note:

Conducted Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1500	44.20	0.04	44.24	66.00	-21.76	QP	
2		0.1500	28.50	0.04	28.54	56.00	-27.46	AVG	
3	*	0.1660	43.50	0.04	43.54	65.16	-21.62	QP	
4		0.1660	26.20	0.04	26.24	55.16	-28.92	AVG	
5		0.2660	36.30	0.03	36.33	61.24	-24.91	QP	
6		0.2660	23.40	0.03	23.43	51.24	-27.81	AVG	
7		0.4660	32.80	0.04	32.84	56.58	-23.74	QP	
8		0.4660	24.30	0.04	24.34	46.58	-22.24	AVG	
9		0.5420	31.60	0.05	31.65	56.00	-24.35	QP	
10		0.5420	16.00	0.05	16.05	46.00	-29.95	AVG	
11		4.9940	30.30	0.41	30.71	56.00	-25.29	QP	
12		4.9940	20.50	0.41	20.91	46.00	-25.09	AVG	

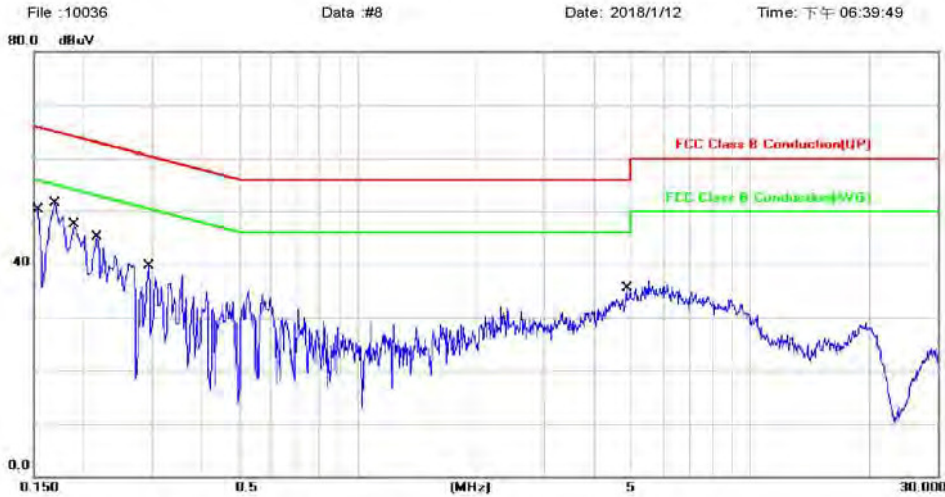
\*:Maximum data x:Over limit l:over margin

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### Mode\_1\_N

Site: Conduction Room      Phase: **N**      Temperature: 18 °C  
 Limit: FCC Class B Conduction(QP)      Power: AC 120V/60Hz      Humidity: 41 %  
 Mode: Mode 1  
 Note:

#### Conducted Emission



No.	Mk.	Freq.	Reading Level	Correct Factor	Measurement	Limit	Over	Detector	Comment
		MHz	dBuV	dB	dBuV	dBuV	dB		
1		0.1540	43.80	0.12	43.92	65.78	-21.86	QP	
2		0.1540	27.20	0.12	27.32	55.78	-28.46	AVG	
3	*	0.1700	43.50	0.12	43.62	64.96	-21.34	QP	
4		0.1700	26.30	0.12	26.42	54.96	-28.54	AVG	
5		0.1900	41.30	0.11	41.41	64.04	-22.63	QP	
6		0.1900	27.00	0.11	27.11	54.04	-26.93	AVG	
7		0.2180	36.90	0.11	37.01	62.89	-25.88	QP	
8		0.2180	19.00	0.11	19.11	52.89	-33.78	AVG	
9		0.2940	31.80	0.11	31.91	60.41	-28.50	QP	
10		0.2940	15.60	0.11	15.71	50.41	-34.70	AVG	
11		4.8500	29.20	0.28	29.48	56.00	-26.52	QP	
12		4.8500	20.20	0.28	20.48	46.00	-25.52	AVG	

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

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## 2.5 Test of Radiated Emission

### 2.5.1 Test Equipments

#### Below 1GHz

SGS Radiated_Below_1GHz HWAYA 966A 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	2017/12/29	2018/12/28
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	2018/1/12	2019/1/11
Test Software	Farad	EZ-EMC	Ver. SGS-03A2	N.C.R.	N.C.R.

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No.2, Keji 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)  
Measurement Uncertainty of Radiated Emission  
Expanded uncertainty Ulab (k=2) of radiated emission measurement is 4.71 dB. (30-1000MHz)  
Theory values uncertainty Ucispr 16-4-2:2011+A1:2014 (K=2) of radiated emission is 5.26 dB. (30MHz ~ 1000MHz)

**Above 1GHz**

SGS Radiated_Above_1GHz HWAYA 966A EMC					
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	101459	2017/2/17	2018/2/16
Horn Antenna	SCHWARZBECK	BBHA9120D	BBHA9120D673	2017/10/16	2018/10/15
Pre Amplifier	EMC Instruments Corp.	EMC012645B	980216	2017/4/25	2018/4/24
Pre Amplifier	EMC Instruments Corp.	EMC184045B	980135	2017/10/27	2018/10/26
Coaxial Cable	JUNFLOW	MWX221-NMSNMS	J0778929	2017/4/23	2018/4/22
Coaxial Cable	Huber+Suhner	SUCCOFLEX 104PEA	30255/4PEA	2017/4/23	2018/4/22
Coaxial Cable	EMC Instruments	EMC104-SM-SM	140927	2017/4/23	2018/4/22
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	2017/12/29	2018/12/28
Controller	MF	MF-7802	N.C.R.	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 VSWR	SGS	966 Chamber A	SAC-A	2018/1/12	2019/1/11
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 5.05 dB. (1-6GHz)

Expanded uncertainty (k=2) of radiated emission measurement is 5.07 dB. (6-18GHz)

Expanded uncertainty U<sub>lab</sub> (k=2) of radiated emission measurement is 5.19 dB. (18-26GHz)

Expanded uncertainty U<sub>lab</sub> (k=2) of radiated emission measurement is 5.14 dB. (26-40GHz)

Theory values uncertainty U<sub>cispr 16-4-2:2011+A1:2014</sub> (K=2) of Irradiated emission measurement is 5.18 dB.(1-6GHz)

Theory values uncertainty U<sub>cispr 16-4-2:2011+A1:2014</sub> (K=2) of Irradiated emission measurement is 5.48 dB.(6-18GHz)

Theory values uncertainty U<sub>cispr 16-4-2:2011+A1:2014</sub> (K=2) of Irradiated emission measurement is ---- dB.(18-26GHz)

Theory values uncertainty U<sub>cispr 16-4-2:2011+A1:2014</sub> (K=2) of Irradiated emission measurement is ---- dB.(26-40GHz)

### 2.5.2 Operating Environment

Temperature : 19 degree C

Humidity : 70 %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.: VLT-W10

Mode\_1\_H

Site: SGS 966 Chamber A	Polarization: <b>Horizontal</b>	Temperature: 19 °C
Limit: FCC Class B 3M Radiation	Power: AC 120V/60Hz	Humidity: 70 %
Mode: Mode 1	Distance:	
Note:		

### Radiated Emission



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		30.9700	34.88	-12.58	22.30	40.00	-17.70	QP	
2		116.3300	36.20	-14.70	21.50	43.50	-22.00	QP	
3		228.8500	41.35	-13.95	27.40	46.00	-18.60	QP	
4 *		262.8000	48.04	-12.24	35.80	46.00	-10.20	QP	
5		704.1500	29.02	-2.72	26.30	46.00	-19.70	QP	
6		788.5400	29.66	-1.26	28.40	46.00	-17.60	QP	

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

File: 10035 REData #4

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### Mode\_1\_V

Site: SGS 966 Chamber A	Polarization: <b>Vertical</b>	Temperature: 19 °C
Limit: FCC Class B 3M Radiation	Power: AC 120V/60Hz	Humidity: 70 %
Mode: Mode 1	Distance:	
Note:		

### Radiated Emission



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1	*	30.9700	41.68	-12.58	29.10	40.00	-10.90	QP	
2		115.3600	41.17	-14.77	26.40	43.50	-17.10	QP	
3		132.8200	43.28	-13.48	29.80	43.50	-13.70	QP	
4		229.8200	39.21	-13.91	25.30	46.00	-20.70	QP	
5		262.8000	45.34	-12.24	33.10	46.00	-12.90	QP	
6		788.5400	35.46	-1.26	34.20	46.00	-11.80	QP	

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

File :10035 REData #3

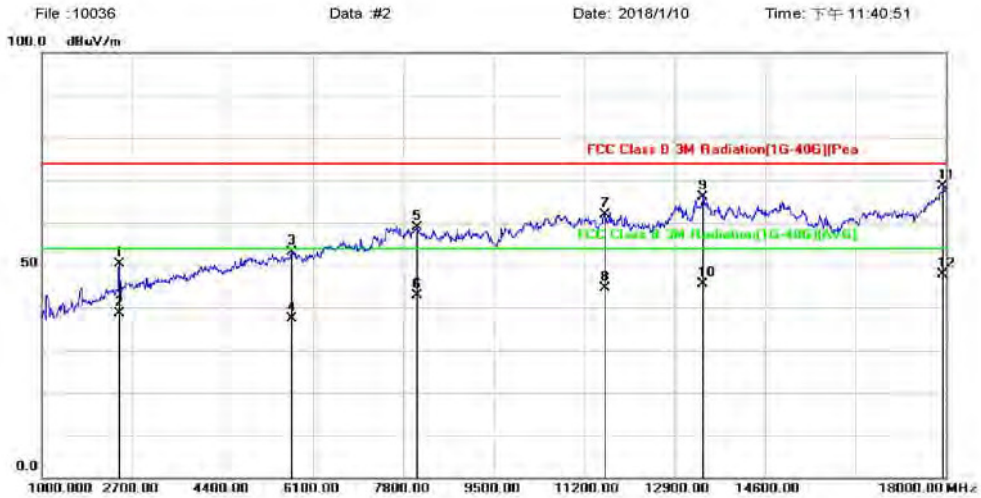
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Above 1GHz

Model No.: VLT-W10  
Mode\_1\_H

Site: SGS 966 Chamber A      Polarization: **Horizontal**      Temperature: 18 °C  
Limit: FCC Class B 3M Radiation(1G-40G)(Pea      Power: AC 120V/60Hz      Humidity: 63 %  
Mode: Mode 1      Distance:  
Note:

Radiated Emission



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2462.000	64.85	-14.59	50.26	74.00	-23.74	peak	
2		2462.000	53.30	-14.59	38.71	54.00	-15.29	AVG	
3		5692.000	59.42	-6.34	53.08	74.00	-20.92	peak	
4		5692.000	43.79	-6.34	37.45	54.00	-16.55	AVG	
5		8055.000	57.44	1.49	58.93	74.00	-15.07	peak	
6		8055.000	41.44	1.49	42.93	54.00	-11.07	AVG	
7		11591.000	55.75	6.18	61.93	74.00	-12.07	peak	
8		11591.000	38.36	6.18	44.54	54.00	-9.46	AVG	
9		13427.000	56.92	9.30	66.22	74.00	-7.78	peak	
10		13427.000	36.38	9.30	45.68	54.00	-8.32	AVG	
11	*	17949.000	49.30	19.32	68.62	74.00	-5.38	peak	
12		17949.000	28.53	19.32	47.85	54.00	-6.15	AVG	

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

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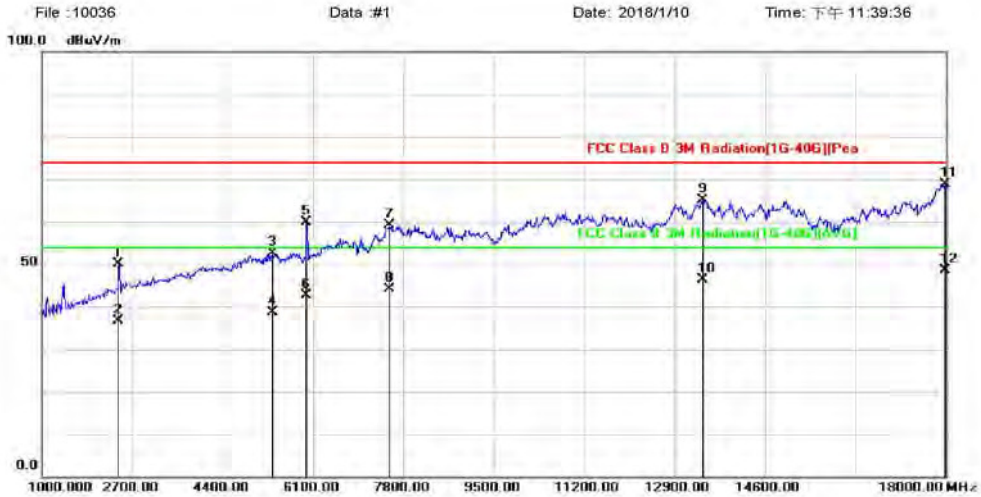
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### Mode\_1\_V

Site: SGS 966 Chamber A      Polarization: **Vertical**      Temperature: 18 °C  
 Limit: FCC Class B 3M Radiation(1G-40G)(Pea)      Power: AC 120V/60Hz      Humidity: 63 %  
 Mode: Mode 1      Distance:  
 Note:

### Radiated Emission



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB/m	Measurement dBuV/m	Limit dBuV/m	Over dB	Detector	Comment
1		2445.000	65.10	-14.93	50.17	74.00	-23.83	peak	
2		2445.000	51.52	-14.93	36.59	54.00	-17.41	AVG	
3		5335.000	59.60	-6.93	52.67	74.00	-21.33	peak	
4		5335.000	45.66	-6.93	38.73	54.00	-15.27	AVG	
5		5981.000	65.47	-5.65	59.82	74.00	-14.18	peak	
6		5981.000	48.21	-5.65	42.56	54.00	-11.44	AVG	
7		7528.000	58.22	0.93	59.15	74.00	-14.85	peak	
8		7528.000	43.26	0.93	44.19	54.00	-9.81	AVG	
9		13427.000	55.91	9.30	65.21	74.00	-8.79	peak	
10		13427.000	36.98	9.30	46.28	54.00	-7.72	AVG	
11	*	17983.000	49.06	19.90	68.96	74.00	-5.04	peak	
12		17983.000	28.63	19.90	48.53	54.00	-5.47	AVG	

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

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**\*\* End of Report \*\***