



# FCC TEST REPORT (PART 22)

	•		
Applicant:	PAX Technology Limited		
Address:	Room 2416, 24/F., Sun Hung Kai Centre, 30 Harbour Road, Wanchai, Hong Kong		
Manufacturer or Supplier:	PAX Computer Technology (Shenzhen) Co., Ltd.		
Address:	4/F, No.3 Building, Software Park, Second Central Science-Tech Road, High-Tech industrial Park, Shenzhen, Guangdong, P.R.C.		
Product:	Smart Kiosk		
Brand Name:	PAX		
Model Name:	SK600		

The tests have been carried out according to the requirements of the following standard:

FCC PART 22, Subpart H

V5PSK600

Apr. 30, 2019 ~ Jun 26, 2019

**MANSI/TIA/EIA-603-D** 

FCC ID:

Date of tests:

**⊠ ANSI/TIA/EIA-603-E** 

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Alex Chen Engineer / Mobile Department	Approved by Luke Lu Manager / Mobile Department
Alex	lufe lu

Date: Jul 15, 2019

Date: Jul 15, 2019

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BV 7Layers Communications Technology (Shenzhen) Co. Ltd

No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, China Tel: +86 755 8869 6566 Fax: +86 755 8869 6577

Email: customerservice.dg@cn.bureauveritas.com



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Tel: +86 755 8869 6566

Fax: +86 755 8869 6577



# **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF190429W001-4	Original release	Jul 15, 2019



# **SUMMARY OF TEST RESULTS**

The EUT has been tested according to the following specifications:

	APPLIED STANDARD: FCC Part 22 & Part 2				
STANDARD SECTION	TEST TYPE	RESULT	REMARK		
2.1046 22.913 (a)	Effective Radiated Power	PASS	Meet the requirement of limit.		
2.1055 22.355	Frequency Stability	PASS	Meet the requirement of limit.		
2.1049 22.917b	Occupied Bandwidth	PASS	Meet the requirement of limit.		
	Peak to average ratio*	PASS	Meet the requirement of limit.		
22.917	Band Edge Measurements	PASS	Meet the requirement of limit.		
2.1051 22.917	Conducted Spurious Emissions	PASS	Meet the requirement of limit.		
2.1053 22.917	Radiated Spurious Emissions		Meet the requirement of limit. Minimum passing margin is -14.13dB at 38.550MHz.		

<sup>\*</sup> Refer to KDB 971168 D01 Power Meas License Digital Systems v03r01.

#### **MEASUREMENT UNCERTAINTY**

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

MEASUREMENT	UNCERTAINTY
Effective Radiated Power	±4.48dB
Frequency Stability	$\pm$ 39.27Hz
Radiated emissions	±4.48dB
Conducted emissions	±2 dB
Occupied Channel Bandwidth	±21.7KHz
Band Edge Measurements	±4.48dB
Peak to average ratio	$\pm$ 0.76dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



# 1.2 TEST SITE AND INSTRUMENTS

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
MXE EMI Receiver	KEYSIGHT	N9038A-544	MY54450026	Feb. 26,19	Feb. 25,20
EXA Signal Analyzer	KEYSIGHT	N9010A-526	MY54510322	Feb. 26,19	Feb. 25,20
Bilog Antenna 1	ETS-LINDGREN	3143B	00161964	Feb. 26,19	Feb. 25,20
Bilog Antenna 2	ETS-LINDGREN	3143B	00161965	Feb. 26,19	Feb. 25,20
Horn Antenna 1	ETS-LINDGREN	3117	00168728	Feb. 26,19	Feb. 25,20
Horn Antenna 2	ETS-LINDGREN	3117	00168692	Nov. 30, 18	Nov. 29, 19
Horn Antenna (18GHz-40GHz)	N/A	QWH-SL-18-40 -K-SG/QMS-00 361	15433	Nov. 21, 18	Nov. 20, 19
Radio Communication Analyzer	ANRITSU	MT8820C	6201465426	Feb. 26,19	Feb. 25,20
Signal Pre-Amplifier	EMSI	EMC 9135	980249	Jun. 24,19	Jun. 23,20
Signal Pre-Amplifier	EMSI	EMC 012645B	980257	Jun. 24,19	Jun. 23,20
Signal Pre-Amplifier	EMSI	EMC 184045B	980259	Jun. 24,19	Jun. 23,20
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	Euroshieldpn- CT0001143-1216	Feb. 26,19	Feb. 25,20
Test Software	E3	V 9.160323	N/A	N/A	N/A
Test Software	ADT	ADT_Radiated _V7.6.15.9.2	N/A	N/A	N/A
10dB Attenuator	JFW/USA	50HF-010-SM A	1505	Jun. 24,19	Jun. 23,20
Power Meter	Anritsu	ML2495A	1506002	Feb. 26,19	Feb. 25,20
Power Sensor	Anritsu	MA2411B	1339352	Feb. 26,19	Feb. 25,20
Humid & Temp Programmable Tester	Juyi	ITH-120-45-CP -AR	IAA1504-001	Jun. 24,19	Jun. 23,20
MXG Analog Microvave Signal Generator	KEYSIGHT	N5183A	MY50143024	Feb. 26,19	Feb. 25,20

**NOTE:** 1. The calibration interval of the above test instruments is 12 months or 24 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

- 2. The test was performed in 3m Semi-anechoic Chamber and RF Oven Room.
- 3. The horn antenna is used only for the measurement of emission frequency above 1GHz if tested.
- 4. The FCC Site Registration No. is 525120; The Designation No. is CN1171.

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# 2 GENERAL INFORMATION

# 2.1 GENERAL DESCRIPTION OF EUT

EUT	Smart Kiosk			
BRAND NAME	PAX			
MODEL NAME	SK600			
POWER SUPPLY	AC 120V			
MODILI ATION TYPE	WCDMA	BPSK, QPSK		
MODULATION TYPE	LTE	QPSK, 16QAM		
	WCDMA	826.4MHz ~ 846.6MHz		
	LTE Band 5 (Channel Bandwidth: 1.4MHz)	824.7MHz ~ 848.3MHz		
FREQUENCY RANGE	LTE Band 5 (Channel Bandwidth: 3MHz)	825.5MHz ~ 847.5MHz		
	LTE Band 5 (Channel Bandwidth: 5MHz)	826.5MHz ~ 846.5MHz		
	LTE Band 5 (Channel Bandwidth: 10MHz)	829MHz ~ 844MHz		
	WCDMA	56mW		
	LTE Band 5 (Channel Bandwidth: 1.4MHz)	50mW		
MAX. ERP POWER	LTE Band 5 (Channel Bandwidth: 3MHz)	63mW		
	LTE Band 5 (Channel Bandwidth: 5MHz)	62mW		
	LTE Band 5 (Channel Bandwidth: 10MHz)	56mW		
	WCDMA	4M15F9W		
	LTE Band 5	QPSK: 1M09G7D		
	(Channel Bandwidth: 1.4MHz)	16QAM: 1M08W7D		
EMISSION	LTE Band 5	QPSK: 2M68G7D		
DESIGNATOR	(Channel Bandwidth: 3MHz)	16QAM: 2M68W7D		
	LTE Band 5	QPSK: 4M48G7D		
	(Channel Bandwidth: 5MHz)	16QAM: 4M46W7D		
	LTE Band 5	QPSK: 8M92G7D		
	(Channel Bandwidth: 10MHz) 16QAM: 8M93W7D			
ANTENNA TYPE	Fixed Internal Antenna with 1dBi gain			
HW VERSION	N/A			
SW VERSION	N/A			

Tel: +86 755 8869 6566 Fax: +86 755 8869 6577

Email: customerservice.dg@cn.bureauveritas.com



I/O PORTS Refer to user's manual	
DATA CABLE	Refer to note as below

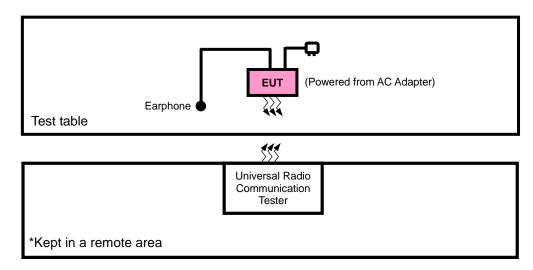
#### NOTE:

- 1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- 2. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.

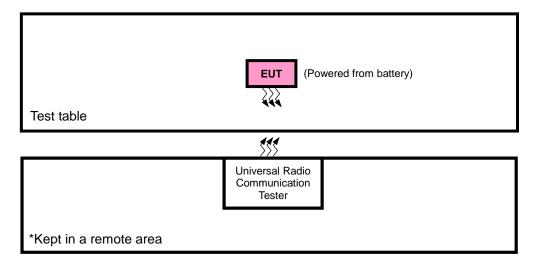


# 2.2 CONFIGURATION OF SYSTEM UNDER TEST

#### FOR RADIATION EMISSION



#### FOR CONDUCTED & E.R.P. TEST



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#### 2.3 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.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	DC source	LONG WEI	PS-6403D	010934269	N/A
2	PC	HP	A6608CN	3CR83825X3	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	DC Line: Unshielded, Detachable 1.0m
2	AC Line: Unshielded, Detachable 1.5m

#### NOTE:

1. All power cords of the above support units are non shielded (1.8m).

#### 2.4 TEST ITEM AND TEST CONFIGURATION

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, XYZ axis and antenna ports. The worst case in ERP and radiated emission was found when positioned on X-plane for WCDMA/LTE. Following channel(s) was (were) selected for the final test as listed below:

EUT CONFIGURE MODE	DESCRIPTION
Α	EUT with WCDMA or LTE link
В	EUT with WCDMA or LTE link

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# **WCDMA MODE**

EUT CONFIGURE MODE	TEST ITEM	AVAILABLE CHANNEL	TESTED CHANNEL	MODE
В	ERP	4132 to 4233	4132, 4182, 4233	WCDMA
В	FREQUENCY STABILITY	4132 to 4233	4132, 4233	WCDMA
В	OCCUPIED BANDWIDTH	4132 to 4233	4132, 4182, 4233	WCDMA
В	BAND EDGE	4132 to 4233	4132, 4233	WCDMA
В	CONDCUDETED EMISSION	4132 to 4233	4132, 4182, 4233	WCDMA
А	RADIATED EMISSION	4132 to 4233	4132, 4182, 4233	WCDMA

# LTE BAND 5 MODE

EUT CONFIGURE MODE	TEST ITEM	Available Channel	Tested Channel	Channel bandwidth	modulation	mode
		20407 to 20643	20407, 20525, 20643	1.4MHz	QPSK,16QAM	1 RB / 0 RB Offset
В	ERP	20415 to 20635	20415, 20525, 20635	3MHz	QPSK,16QAM	1 RB / 0 RB Offset
Ь	ERF	20425 to 20625	20425, 20525, 20625	5MHz	QPSK,16QAM	1 RB / 0 RB Offset
		20450 to 20600	20450, 20525, 20600	10MHz	QPSK,16QAM	1 RB / 0 RB Offset
		20407 to 20643	20407, 20643	1.4MHz	QPSK	1 RB / 0 RB Offset
В	FREQUENCY	20415 to 20635	20415, 20635	3MHz	QPSK	1 RB / 0 RB Offset
	STABILITY	20425 to 20625	20425, 20625	5MHz	QPSK	1 RB / 0 RB Offset
		20450 to 20600	20450, 20600	10MHz	QPSK	1 RB / 0 RB Offset
		20407 to 20643	20407, 20525,	1.4MHz	QPSK	6 RB / 0 RB Offset
		20407 10 20043	20643	1. <del>4</del> IVII IZ	16QAM	6 RB / 0 RB Offset
		20415 to 20635	20415, 20525,	3MHz	QPSK	15 RB / 0 RB Offset
В	OCCUPIED	20410 to 20000	20635	OIVII IZ	16QAM	15 RB / 0 RB Offset
	BANDWIDTH	20425 to 20625	20425, 20525,	5MHz	QPSK	25 RB / 0 RB Offset
		20420 10 20020	20625	JIVII IZ	16QAM	25 RB / 0 RB Offset
		20450 to 20600	20450, 20525,	10MHz	QPSK	50 RB / 0 RB Offset
		20400 10 20000	20600	TOWN 12	16QAM	50 RB / 0 RB Offset

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		20407 to 20642	20407	1 / 1 1 1 1 1 -	ODSK 16OAM	1 RB / 0 RB Offset
		20407 to 20643	20407	1.4 MHz	QPSK,16QAM	6 RB / 0 RB Offset
		20407 to 20643	20643	1.4 MHz	QPSK,16QAM	1 RB / 5 RB Offset
		20407 10 20043	20043	1.4 IVI⊓2	QPSK, IBQAIN	6 RB / 0 RB Offset
		20415 to 20635	20415	3 MHz	QPSK,16QAM	1 RB / 0 RB Offset
		20413 10 20033	20413	3 1011 12	QF3N, TOQAIVI	15 RB / 0 RB Offset
		20415 to 20635	20635	3 MHz	QPSK,16QAM	1 RB / 14 RB Offset
D	BAND EDGE	20410 10 20000	20000	3 WII 12	QI OIL, IOQAW	15 RB / 0 RB Offset
В		20425 to 20625	20425	5MHz	QPSK,16QAM	1 RB / 0 RB Offset
		20423 10 20023	20423	JIVII IZ	QI ON, TOQAW	25 RB / 0 RB Offset
		20425 to 20625	20625	5MHz	QPSK,16QAM	1 RB / 24 RB Offset
		20420 10 20020	20020	OIVII IZ	QI OIL, IOQAW	25 RB / 0 RB Offset
		20450 to 20600	20450	10MHz	QPSK.16QAM	1 RB / 0 RB Offset
		20450 10 20600	20.00	TOWNIZ	Qi Oit, ioq/iivi	50 RB / 0 RB Offset
		20450 to 20600	20600	10MHz	QPSK,16QAM	1 RB / 49 RB Offset
		20430 10 20000	20000	TOWNIZ	QI OIL, IOQAW	50 RB / 0 RB Offset
		20407 to 20643	20407, 20525, 20643	1.4MHz	QPSK	1 RB / 0 RB Offset
В	CONDCUDETED	20415 to 20635	20415, 20525, 20635	3MHz	QPSK	1 RB / 0 RB Offset
	EMISSION	20425 to 20625	20425, 20525, 20625	5MHz	QPSK	1 RB / 0 RB Offset
		20450 to 20600	20450, 20525, 20600	10MHz	QPSK	1 RB / 0 RB Offset
		20407 to 20643	20525	1.4MHz	QPSK	1 RB / 0 RB Offset
A	RADIATED	20415 to 20635	20525	3MHz	QPSK	1 RB / 0 RB Offset
^	EMISSION	20425 to 20625	20525	5MHz	QPSK	1 RB / 0 RB Offset
		20450 to 20600	20450, 20525, 20600	10MHz	QPSK	1 RB / 0 RB Offset
		20407 to 20643	20407, 20525, 20643	1.4MHz	QPSK,16QAM	1 RB / 0 RB Offset
В	PEAK TO AVERAGE	20415 to 20635	20415, 20525, 20635	3MHz	QPSK,16QAM	1 RB / 0 RB Offset
	RATIO	20425 to 20625	20425, 20525, 20625	5MHz	QPSK,16QAM	1 RB / 0 RB Offset
		20450 to 20600	20450, 20525, 20600	10MHz	QPSK,16QAM	1 RB / 0 RB Offset
Mate. This day		لممتم واللمسماء ويتنا	1.10 - DD (			

Note: This device was tested under all bandwidths, RB configurations and modulations. The worst case was found in QPSK modulation.

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TEST ITEM	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
ERP	23deg. C, 62%RH	AC120V	Tony
FREQUENCY STABILITY	23deg. C, 62%RH	AC120V	Rain Wang
OCCUPIED BANDWIDTH	23deg. C, 62%RH	AC120V	Rain Wang
BAND EDGE	23deg. C, 62%RH	AC120V	Rain Wang
CONDCUDETED EMISSION	23deg. C, 62%RH	AC120V	Rain Wang
RADIATED EMISSION	25deg. C, 63.6%RH	AC120V	Rain Wang
PEAK TO AVERAGE RATIO	23deg. C, 70%RH	AC120V	Tony

#### 2.5 EUT OPERATING CONDITIONS

The EUT makes a call to the communication simulator. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency

#### 2.6 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC 47 CFR Part 2 FCC 47 CFR Part 22

KDB 971168 D01 Power Meas License Digital Systems v03r01

ANSI/TIA/EIA-603-D

ANSI/TIA/EIA-603-E

ANSI C63.26-2015

**NOTE:** All test items have been performed and recorded as per the above standards.



# **TEST TYPES AND RESULTS**

#### 3.1 OUTPUT POWER MEASUREMENT

#### 3.1.1 LIMITS OF OUTPUT POWER MEASUREMENT

Mobile / Portable station are limited to 7 watts e.r.p.

#### 3.1.2 TEST PROCEDURES

#### **EIRP / ERP MEASUREMENT:**

- a. All measurements were done at low, middle and high operational frequency range. RBW and VBW is 5MHz for WCDMA mode and 10MHz for LTE mode.
- b. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber. EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- c. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a tx cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value " of step b. Record the power level of S.G
- d. EIRP = Output power level of S.G TX cable loss + Antenna gain of substitution horn. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.P.R power - 2.15dBi.

# **CONDUCTED POWER MEASUREMENT:**

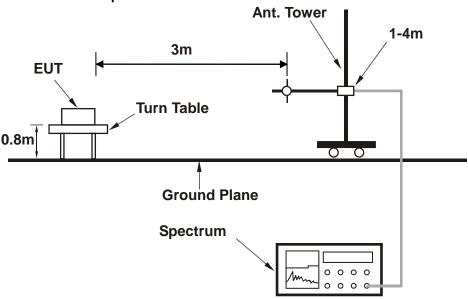
The EUT was set up for the maximum power with WCDMA link data modulation and link up with simulator. Set the EUT to transmit under low, middle and high channel and record the power level shown on simulator.



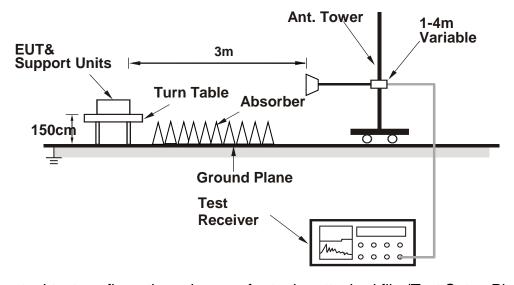
#### 3.1.3 TEST SETUP

#### **EIRP / ERP Measurement:**

<Radiated Emission below or equal 1 GHz>



#### <Radiated Emission above 1 GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

#### **CONDUCTED POWER MEASUREMENT:**



BV 7Layers Communications Technology (Shenzhen) Co. Ltd

No.B102, Dazu Chuangxin Mansion, North of Beihuan Avenue, North Area, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, China Tel: +86 755 8869 6566 Fax: +86 755 8869 6577

Email: customerservice.dg@cn.bureauveritas.com



# 3.1.4 TEST RESULTS

# **CONDUCTED OUTPUT POWER (dBm)**

Band		WCDMA V	
Channel	4132	4182	4233
Frequency (MHz)	826.4	836.4	846.6
RMC 12.2K	22.27	22.11	22.08
	HSPA		
HSDPA Subtest-1	21.34	21.18	21.15
HSDPA Subtest-2	21.28	21.12	21.09
HSDPA Subtest-3	20.91	20.75	20.72
HSDPA Subtest-4	20.84	20.68	20.65
HSUPA Subtest-1	21.26	21.10	21.07
HSUPA Subtest-2	19.36	19.20	19.17
HSUPA Subtest-3	20.28	20.12	20.09
HSUPA Subtest-4	19.32	19.16	19.13
HSUPA Subtest-5	21.24	21.08	21.05
HSPA+ Subtest-1	19.78	19.62	19.59

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# LTE Band 5

Band/BW	Modulation	RB	RB	Low CH 20407	Mid CH 20525	High CH 20643	3GPP MPR
Ballu/BVV	Woddiation	Size	Offset	Frequency 824.7 MHz	Frequency 836.5 MHz	Frequency 848.3 MHz	(dB)
		1	0	22.09	22.45	21.61	0
		1	2	22.08	22.37	21.58	0
		1	5	22.03	22.30	21.49	0
	QPSK	3	0	21.25	21.55	20.78	1
		3	1	21.26	21.57	20.68	1
		3	3	21.19	21.48	20.67	1
		6	0	21.35	21.62	20.83	1
5/1.4		1	0	20.92	21.22	20.41	1
		1	2	20.91	21.17	20.40	1
		1	5	20.84	21.13	20.37	1
	16QAM	3	0	20.17	20.48	19.65	2
		3	1	20.11	20.50	19.63	2
		3	3	20.10	20.41	19.62	2
		6	0	20.11	20.47	19.61	2
Rand/RW	Modulation	RB	RB	Low CH 20415	Mid CH 20525	High CH 20635	3GPP MPR
Band/BW	Modulation	RB Size	RB Offset				3GPP MPR (dB)
Band/BW	Modulation			20415 Frequency	20525 Frequency	20635 Frequency	MPR
Band/BW	Modulation	Size	Offset	20415 Frequency 825.5 MHz	20525 Frequency 836.5 MHz	20635 Frequency 847.5 MHz	MPR (dB)
Band/BW	Modulation	Size 1	Offset 0	20415 Frequency 825.5 MHz 22.11	20525 Frequency 836.5 MHz 22.47	20635 Frequency 847.5 MHz 21.60	MPR (dB)
Band/BW	Modulation QPSK	1 1	0 7	20415 Frequency 825.5 MHz 22.11 22.04	20525 Frequency 836.5 MHz 22.47 22.38	20635 Frequency 847.5 MHz 21.60 21.58	MPR (dB)  0 0
Band/BW		1 1 1	0 7 14	20415 Frequency 825.5 MHz 22.11 22.04 21.99	20525 Frequency 836.5 MHz 22.47 22.38 22.30	20635 Frequency 847.5 MHz 21.60 21.58 21.49	0 0 0
Band/BW		1 1 1 8	0 7 14 0	20415 Frequency 825.5 MHz 22.11 22.04 21.99 21.24	20525 Frequency 836.5 MHz 22.47 22.38 22.30 21.58	20635 Frequency 847.5 MHz 21.60 21.58 21.49 20.78	0 0 0 1
		1 1 1 8 8 8	0 7 14 0 3	20415 Frequency 825.5 MHz  22.11 22.04 21.99 21.24 21.19	20525 Frequency 836.5 MHz  22.47 22.38 22.30 21.58 21.57	20635 Frequency 847.5 MHz 21.60 21.58 21.49 20.78 20.70	0 0 0 1
Band/BW		1 1 1 8 8 8 8	0 7 14 0 3 7	20415 Frequency 825.5 MHz  22.11 22.04 21.99 21.24 21.19 21.16	20525 Frequency 836.5 MHz  22.47  22.38  22.30  21.58  21.57  21.55	20635 Frequency 847.5 MHz 21.60 21.58 21.49 20.78 20.70 20.71	0 0 0 1 1
		1 1 1 8 8 8 8	0 7 14 0 3 7	20415 Frequency 825.5 MHz  22.11 22.04 21.99 21.24 21.19 21.16 21.32	20525 Frequency 836.5 MHz 22.47 22.38 22.30 21.58 21.57 21.55 21.63	20635 Frequency 847.5 MHz 21.60 21.58 21.49 20.78 20.70 20.71 20.77	0 0 0 1 1 1
		1 1 1 8 8 8 15	0 7 14 0 3 7 0	20415 Frequency 825.5 MHz  22.11 22.04 21.99 21.24 21.19 21.16 21.32 20.89	20525 Frequency 836.5 MHz  22.47  22.38  22.30  21.58  21.57  21.55  21.63  21.28	20635 Frequency 847.5 MHz 21.60 21.58 21.49 20.78 20.70 20.71 20.77 20.44	0 0 0 1 1 1 1 1
		1 1 1 8 8 8 15 1	0 7 14 0 3 7 0 0	20415 Frequency 825.5 MHz  22.11 22.04 21.99 21.24 21.19 21.16 21.32 20.89 20.88	20525 Frequency 836.5 MHz  22.47  22.38  22.30  21.58  21.57  21.55  21.63  21.28  21.20	20635 Frequency 847.5 MHz 21.60 21.58 21.49 20.78 20.70 20.71 20.77 20.44 20.38	0 0 0 1 1 1 1 1
	QPSK	1 1 1 8 8 8 15 1 1 1	0 7 14 0 3 7 0 0 7 14 14	20415 Frequency 825.5 MHz  22.11 22.04 21.99 21.24 21.19 21.16 21.32 20.89 20.88 20.87	20525 Frequency 836.5 MHz  22.47  22.38  22.30  21.58  21.57  21.55  21.63  21.28  21.20  21.13	20635 Frequency 847.5 MHz 21.60 21.58 21.49 20.78 20.70 20.71 20.77 20.44 20.38 20.37	0 0 0 1 1 1 1 1 1
	QPSK	Size  1 1 1 8 8 8 15 1 1 1 8	0 7 14 0 3 7 0 0 7 14 0 0 14 0 0	20415 Frequency 825.5 MHz  22.11 22.04 21.99 21.24 21.19 21.16 21.32 20.89 20.88 20.87 20.13	20525 Frequency 836.5 MHz  22.47  22.38  22.30  21.58  21.57  21.55  21.63  21.28  21.20  21.13  20.49	20635 Frequency 847.5 MHz  21.60 21.58 21.49 20.78 20.70 20.71 20.77 20.44 20.38 20.37 19.65	MPR (dB)  0 0 1 1 1 1 1 1 2

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Band/BW	Modulation	RB	RB	Low CH 20425	Mid CH 20525	High CH 20625	3GPP MPR
Barra, BVV	modulation	Size	Offset	Frequency 826.5 MHz	Frequency 836.5 MHz	Frequency 846.5 MHz	(dB)
		1	0	22.12	22.42	21.61	0
		1	12	22.09	22.35	21.58	0
		1	24	22.00	22.29	21.53	0
	QPSK	12	0	21.27	21.58	20.75	1
		12	6	21.19	21.58	20.71	1
		12	13	21.20	21.51	20.72	1
E/ E		25	0	21.30	21.66	20.80	1
5/ 5		1	0	20.90	21.24	20.44	1
		1	12	20.85	21.23	20.37	1
		1	24	20.87	21.13	20.36	1
	16QAM	12	0	20.13	20.47	19.62	2
		12	6	20.13	20.49	19.62	2
		12	13	20.07	20.41	19.61	2
		25	0	20.11	20.42	19.61	2
Band/BW		RB	RB	Low CH 20450	Mid CH 20525	High CH 20600	3GPP MPR
Бапи/Бүү	Modulation	Size	Offset	Frequency 829 MHz	Frequency 836.5 MHz	Frequency 844 MHz	(dB)
		1	0	22.17	22.49	21.66	0
		1	0.4				
		•	24	22.11	22.43	21.60	0
Ī		1	49	22.11 22.05	22.43 22.37	21.60 21.54	0
	QPSK			<del> </del>			
	QPSK	1	49	22.05	22.37	21.54	0
	QPSK	1 25	49 0	22.05 21.31	22.37 21.63	21.54 20.80	0
	QPSK	1 25 25	49 0 12	22.05 21.31 21.27	22.37 21.63 21.59	21.54 20.80 20.76	0 1 1
5/ 10	QPSK	1 25 25 25	49 0 12 25	22.05 21.31 21.27 21.24	22.37 21.63 21.59 21.56	21.54 20.80 20.76 20.73	0 1 1 1
5/ 10	QPSK	1 25 25 25 25 50	49 0 12 25 0	22.05 21.31 21.27 21.24 21.36	22.37 21.63 21.59 21.56 21.68	21.54 20.80 20.76 20.73 20.85	0 1 1 1 1
5/ 10	QPSK	1 25 25 25 25 50 1	49 0 12 25 0	22.05 21.31 21.27 21.24 21.36 20.97	22.37 21.63 21.59 21.56 21.68 21.29	21.54 20.80 20.76 20.73 20.85 20.46	0 1 1 1 1 1
5/ 10	QPSK 16QAM	1 25 25 25 25 50 1	49 0 12 25 0 0 24	22.05 21.31 21.27 21.24 21.36 20.97 20.93	22.37 21.63 21.59 21.56 21.68 21.29 21.25	21.54 20.80 20.76 20.73 20.85 20.46 20.42	0 1 1 1 1 1 1
5/ 10		1 25 25 25 50 1 1	49 0 12 25 0 0 24 49	22.05 21.31 21.27 21.24 21.36 20.97 20.93 20.89	22.37 21.63 21.59 21.56 21.68 21.29 21.25 21.21	21.54 20.80 20.76 20.73 20.85 20.46 20.42 20.38	0 1 1 1 1 1 1
5/ 10		1 25 25 25 50 1 1 1 25	49 0 12 25 0 0 24 49	22.05 21.31 21.27 21.24 21.36 20.97 20.93 20.89 20.21	22.37 21.63 21.59 21.56 21.68 21.29 21.25 21.21 20.53	21.54 20.80 20.76 20.73 20.85 20.46 20.42 20.38 19.70	0 1 1 1 1 1 1 1 2



# **ERP POWER (dBm)**

#### **WCDMA**

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)	Polarization (H/V)
4132	826.4	-15.29	33.56	16.12	40.92	Н
4182	836.4	-14.10	33.63	17.38	54.69	Н
4233	846.6	-13.95	33.57	17.47	55.82	Н
4132	826.4	-21.70	34.24	10.39	10.93	V
4182	836.4	-22.64	34.59	9.80	9.54	V
4233	846.6	-21.71	34.62	10.76	11.92	V

**REMARKS:** 1. ERP Output Power (dBm) = SPA LVL (dBm) + Correction Factor (dB) -2.15(dB).

2. Correction factor (dB) = Free Space Loss + Antenna Factor + Cable Loss

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#### LTE BAND 5

#### **CHANNEL BANDWIDTH: 1.4MHz QPSK**

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)	Polarization (H/V)	LIMIT (W)
20407	824.7	-15.64	33.67	15.88	38.75	Н	7
20525	836.5	-13.51	33.62	17.96	62.53	Н	7
20643	848.3	-14.53	33.65	16.97	49.72	Н	7
20407	824.7	-21.07	34.25	11.03	12.67	V	7
20525	836.5	-20.50	34.60	11.95	15.66	V	7
20643	848.3	-20.02	34.63	12.46	17.62	V	7

#### **CHANNEL BANDWIDTH: 1.4MHz 16QAM**

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)	Polarization (H/V)	LIMIT (W)
20407	824.7	-16.47	33.67	15.05	32.01	Н	7
20525	836.5	-14.53	33.62	16.94	49.44	Н	7
20643	848.3	-15.63	33.65	15.87	38.59	Н	7
20407	824.7	-21.90	34.25	10.20	10.47	V	7
20525	836.5	-21.52	34.60	10.93	12.38	V	7
20643	848.3	-21.12	34.63	11.36	13.68	V	7

# **CHANNEL BANDWIDTH: 3MHz QPSK**

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)	Polarization (H/V)	LIMIT (W)
20415	825.5	-15.45	33.72	16.12	40.94	Н	7
20525	836.5	-13.45	33.62	18.02	63.40	Н	7
20635	847.5	-14.40	33.65	17.10	51.27	Н	7
20415	825.5	-20.88	34.30	11.27	13.40	V	7
20525	836.5	-20.44	34.60	12.01	15.88	V	7
20635	847.5	-19.89	34.57	12.53	17.91	V	7



#### **CHANNEL BANDWIDTH: 3MHz 16QAM**

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)	Polarization (H/V)	LIMIT (W)
20415	825.5	-16.60	33.72	14.97	31.41	Н	7
20525	836.5	-14.55	33.62	16.92	49.22	Н	7
20635	847.5	-15.56	33.65	15.94	39.26	Н	7
20415	825.5	-22.03	34.30	10.12	10.28	V	7
20525	836.5	-21.54	34.60	10.91	12.33	V	7
20635	847.5	-21.05	34.57	11.37	13.71	V	7

#### **CHANNEL BANDWIDTH: 5MHz QPSK**

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)	Polarization (H/V)	LIMIT (W)
20425	826.5	-15.46	33.69	16.08	40.59	Н	7
20525	836.5	-13.52	33.62	17.95	62.39	Н	7
20625	846.5	-14.47	33.66	17.04	50.59	Н	7
20425	826.5	-20.89	34.85	11.81	15.17	V	7
20525	836.5	-20.51	34.60	11.94	15.62	V	7
20625	846.5	-19.96	34.59	12.48	17.72	V	7

#### **CHANNEL BANDWIDTH: 5MHz 16QAM**

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)	Polarization (H/V)	LIMIT (W)
20425	826.5	-16.32	33.69	15.22	33.30	Н	7
20525	836.5	-14.39	33.62	17.08	51.06	Н	7
20625	846.5	-15.32	33.66	16.19	41.60	Н	7
20425	826.5	-21.75	34.85	10.95	12.44	V	7
20525	836.5	-21.38	34.60	11.07	12.79	V	7
20625	846.5	-20.81	34.59	11.63	14.57	V	7



#### **CHANNEL BANDWIDTH: 10MHz QPSK**

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)	Polarization (H/V)	LIMIT (W)
20450	829.0	-16.04	33.73	15.54	35.77	Н	7
20525	836.5	-13.97	33.62	17.50	56.25	Н	7
20600	844.0	-15.05	33.51	16.31	42.79	Н	7
20450	829.0	-21.47	34.54	10.92	12.35	V	7
20525	836.5	-20.96	34.60	11.49	14.09	V	7
20600	844.0	-20.54	34.46	11.77	15.01	V	7

#### **CHANNEL BANDWIDTH: 10MHz 16QAM**

Channel	Frequency (MHz)	SPA LVL (dBm)	Correction Factor(dB)	ERP(dBm)	ERP(mW)	Polarization (H/V)	LIMIT (W)
20450	829.0	-16.97	33.73	14.61	28.87	Н	7
20525	836.5	-15.04	33.62	16.43	43.96	Н	7
20600	844.0	-15.88	33.51	15.48	35.34	Н	7
20450	829.0	-22.40	34.54	9.99	9.97	V	7
20525	836.5	-22.03	34.60	10.42	11.01	V	7
20600	844.0	-21.37	34.46	10.94	12.40	V	7

**REMARKS:** 1. ERP Output Power (dBm) = SPA LVL (dBm) + Correction Factor (dB) -2.15(dB).

<sup>2.</sup> Correction factor (dB) = Free Space Loss + Antenna Factor + Cable Loss



#### 3.2 FREQUENCY STABILITY MEASUREMENT

#### 3.2.1 LIMITS OF FREQUENCY STABILITY MEASUREMENT

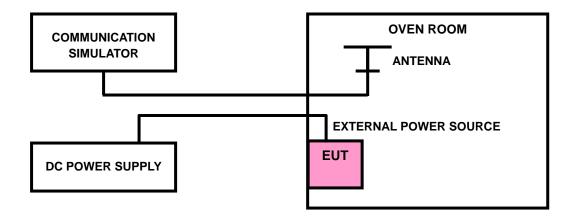
1.5 ppm is for base and fixed station. 2.5 ppm is for mobile station.

#### 3.2.2 TEST PROCEDURE

- a. Device is placed at the oven room. The oven room could control the temperatures and humidity. Power warm up is at least 15 min and power applied should perform before recording frequency error.
- b. EUT is connected the external power supply to control the DC input power. The test voltage range is from minimum to maximum working voltage. Each step shall be record the frequency error rate.
- c. The temperature range step is 10 degrees in this test items. All temperature levels shall be hold the  $\pm 0.5^{\circ}$ C during the measurement testing. The each temperature step shall be at least 0.5 hours, consider the EUT could be test under the stability condition.

**NOTE:** The frequency error was recorded frequency error from the communication simulator.

#### 3.2.3 TEST SETUP





#### 3.2.4 TEST RESULTS

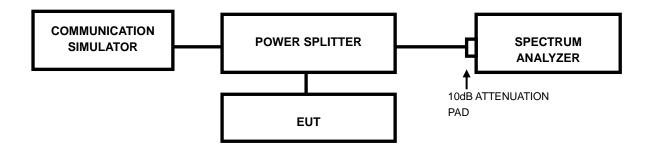
The test results was recorded in Report No.: RF160714W002-1(FCC ID: SRQ-ME3630).

#### 3.3 OCCUPIED BANDWIDTH MEASUREMENT

#### 3.3.1 TEST PROCEDURES

The EUT makes a call to the communication simulator. All measurements were done at low, middle and high operational frequency range. The communication simulator station system controlled a EUT to export maximum output power under transmission mode and specific channel frequency. Use OBW measurement function of Spectrum analyzer to measure 99 % occupied bandwidth.

#### 3.3.2 TEST SETUP



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#### 3.3.3 TEST RESULTS

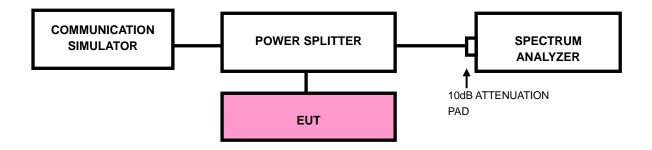
The test results was recorded in Report No.: RF160714W002-1(FCC ID: SRQ-ME3630).

#### 3.4 **BAND EDGE MEASUREMENT**

#### 3.4.1 LIMITS OF BAND EDGE MEASUREMENT

Power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. In the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

#### 3.4.2 TEST SETUP





#### 3.4.3 TEST PROCEDURES

- a. All measurements were done at low and high operational frequency range.
- b. The center frequency of spectrum is the band edge frequency and span is 10MHz. RBW of the spectrum is 100kHz and VBW of the spectrum is 300kHz (WCDMA).
- c. The center frequency of spectrum is the band edge frequency and span is 1~5 MHz. RBW of the spectrum is 20kHz and VBW of the spectrum is 100 kHz. (LTE bandwidth 1.4MHz).
- d. The center frequency of spectrum is the band edge frequency and span is 1~5 MHz. RBW of the spectrum is 30kHz and VBW of the spectrum is 100kHz. (LTE bandwidth 3MHz)
- e. The center frequency of spectrum is the band edge frequency and span is 1~5 MHz. RBW of the spectrum is 50kHz and VBW of the spectrum is 200kHz. (LTE bandwidth 5MHz)
- f. The center frequency of spectrum is the band edge frequency and span is 1~5 MHz. RBW of the spectrum is 100kHz and VBW of the spectrum is 300kHz. (LTE bandwidth 10MHz)
- g. Record the max trace plot into the test report.

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#### 3.4.4 TEST RESULTS

The test results was recorded in Report No.: RF160714W002-1(FCC ID: SRQ-ME3630).

#### 3.5 CONDUCTED SPURIOUS EMISSIONS

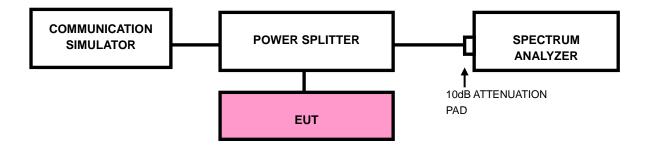
# 3.5.1 LIMITS OF CONDUCTED SPURIOUS EMISSIONS MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least  $43 + 10 \log(P)$  dB. The emission limit equal to -13dBm.

#### 3.5.2 TEST PROCEDURE

- a. The EUT makes a phone call to the communication simulator. All measurements were done at low, middle and high operational frequency range.
- b. Measuring frequency range is from 9 kHz to 9GHz. 10dB attenuation pad is connected with spectrum. RBW=1MHz and VBW=3MHz is used for conducted emission measurement.

#### 3.5.3 TEST SETUP





#### 3.5.4 TEST RESULTS

The test results was recorded in Report No.: RF160714W002-1(FCC ID: SRQ-ME3630).

#### 3.6 RADIATED EMISSION MEASUREMENT

#### 3.6.1 LIMITS OF RADIATED EMISSION MEASUREMENT

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB. The emission limit equal to -13dBm.

#### 3.6.2 TEST PROCEDURES

- a. Substitution method is used for E.I.R.P measurement. In the semi-anechoic chamber, EUT placed on the 0.8m height of Turn Table, rotated the table around 360 degrees to search the maximum radiation power and receiver antenna shall be rotated vertical and horizontal polarization and moved height from 1m to 4m to find the maximum polar radiated power. The "Read Value" is the spectrum reading the maximum power value.
- b. The substitution horn antenna is substituted for EUT at the same position and signals generator export the CW signal to the substitution antenna via a TX cable. Rotated the Turn Table and moved receiving antenna to find the maximum radiation power. Adjust output power level of S.G to get a Value of spectrum reading equal to "Read Value " of step a. Record the power level of S.G
- c. EIRP = Output power level of S.G TX cable loss + Antenna gain of substitution horn.
- d. E.R.P power can be calculated form E.I.R.P power by subtracting the gain of dipole, E.R.P power = E.I.P.R power - 2.15dBi.

NOTE: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1MHz/3MHz.

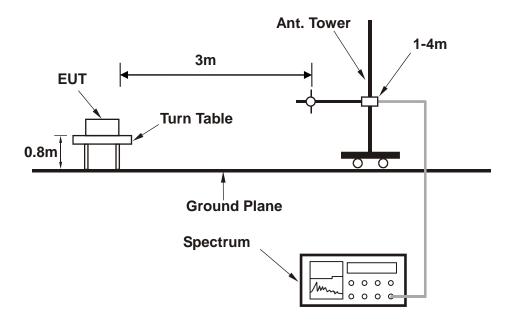
#### 3.6.3 DEVIATION FROM TEST STANDARD

No deviation

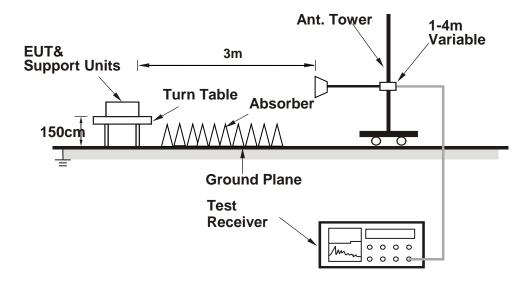


# 3.6.4 TEST SETUP

# < Frequency Range 30MHz~1GHz >



# < Frequency Range above 1GHz >



For the actual test configuration, please refer to the attached file (Test Setup Photo).



# 3.6.5 TEST RESULTS

#### **BELOW 1GHz WORST-CASE DATA**

30 MHz - 1GHz data:

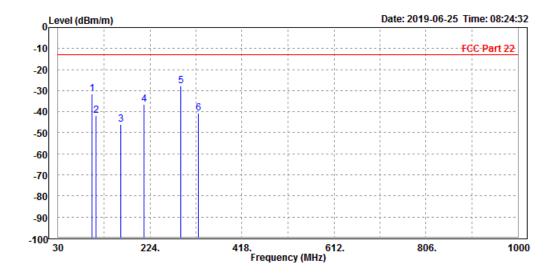
LTE Band 5

**CHANNEL BANDWIDTH: 10MHz / QPSK** 

CH 20525

MODE	TX channel 20525	FREQUENCY RANGE	Below 1000MHz					
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V					
TESTED BY	Tony							
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								

			Read	Limit	0ver			
	Freq	Level	Level	Line	Limit	Factor	Remark	Pol/Phase
_								
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	101.320	-31.66	-20.23	-13.00	-18.66	-11.43	Peak	Horizontal
2	110.450	-41.70	-28.36	-13.00	-28.70	-13.34	Peak	Horizontal
3	162.150	-45.97	-27.58	-13.00	-32.97	-18.39	Peak	Horizontal
4	211.580	-36.53	-19.52	-13.00	-23.53	-17.01	Peak	Horizontal
5 PP	289.740	-27.80	-13.49	-13.00	-14.80	-14.31	Peak	Horizontal
6	325.790	-40.62	-27.68	-13.00	-27.62	-12.94	Peak	Horizontal

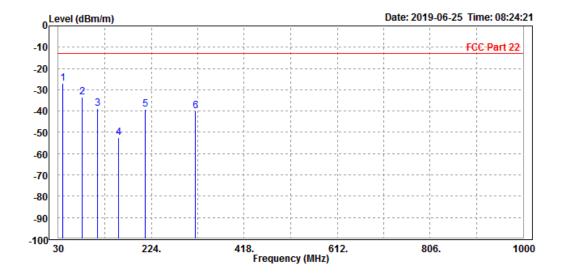


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MODE	TX channel 20525	FREQUENCY RANGE	Below 1000MHz					
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V					
TESTED BY	Tony							
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								

	Freq	Level	Read Level	Limit Line		Factor	Remark	Pol/Phase
_	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	38.550	-27.13	-25.84	-13.00	-14.13	-1.29	Peak	Vertical
2	80.120	-33.40	-23.15	-13.00	-20.40	-10.25	Peak	Vertical
3	112.540	-38.87	-26.54	-13.00	-25.87	-12.33	Peak	Vertical
4	155.890	-52.28	-36.72	-13.00	-39.28	-15.56	Peak	Vertical
5	211.520	-39.16	-28.32	-13.00	-26.16	-10.84	Peak	Vertical
6	315.420	-39.82	-28.58	-13.00	-26.82	-11.24	Peak	Vertical



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# **ABOVE 1GHz DATA**

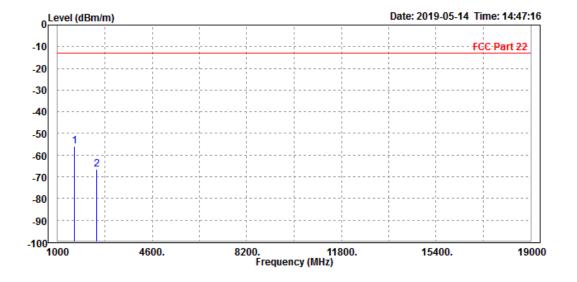
**Note:** For higher frequency, the emission is too low to be detected.

#### **WCDMA Band V:**

#### CH 4132:

MODE	TX channel 4132	FREQUENCY RANGE	Above 1000MHz					
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V					
TESTED BY	Tony							
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								

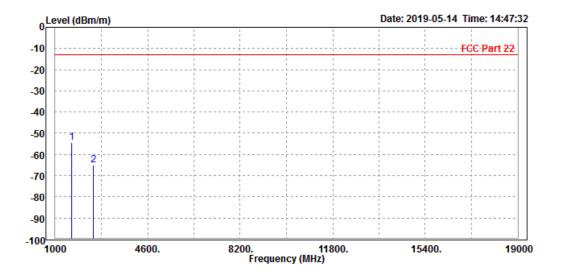
	Freq	Level		Limit Line			Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP 2	1648.000 2479.200							Horizontal Horizontal





MODE	TX channel 4132	FREQUENCY RANGE	Above 1000MHz						
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V						
TESTED BY	TESTED BY Tony								
ANTEN	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								

				Read	Limit	0ver			
		Freq	Level	Level	Line	Limit	Factor	Remark	Pol/Phase
	_	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
			u.c,		u.c,	45	u.,		
4	DD	1648.000	E4 44	E0 90	12 00	41 44	2 55	Dools	Vertical
1	гг	1040.000	- 54.44	-30.03	-13.00	-41.44	-3.33	reak	vencical
2		2479.200	-64.89	-64.72	-13.00	-51.89	-0.17	Peak	Vertical

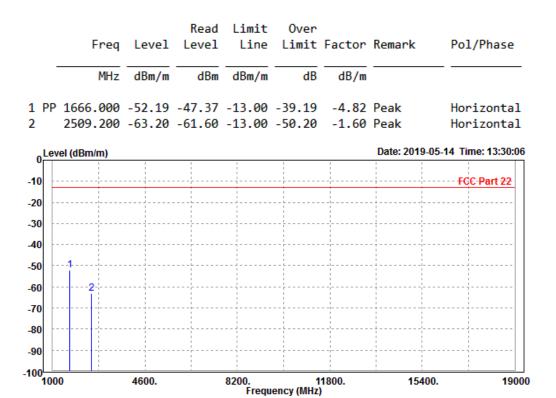


Tel: +86 755 8869 6566



#### CH 4182:

MODE	TX channel 4182	FREQUENCY RANGE	Above 1000MHz				
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V				
TESTED BY	Tony						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							

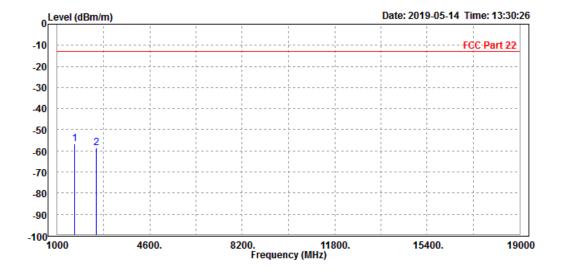


Tel: +86 755 8869 6566



MODE	TX channel 4182	FREQUENCY RANGE	Above 1000MHz			
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V			
TESTED BY	Tony					
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M						

Freq	Level		Limit Line		Factor	Remark	Pol/Phase
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP 1666.000 2 2509.200							Vertical Vertical



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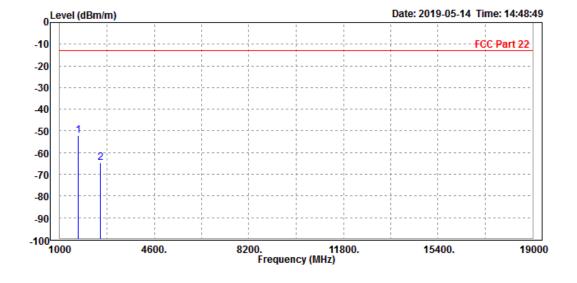
Fax: +86 755 8869 6577



#### CH 4233:

MODE	TX channel 4233	FREQUENCY RANGE	Above 1000MHz			
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V			
TESTED BY Tony						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M						

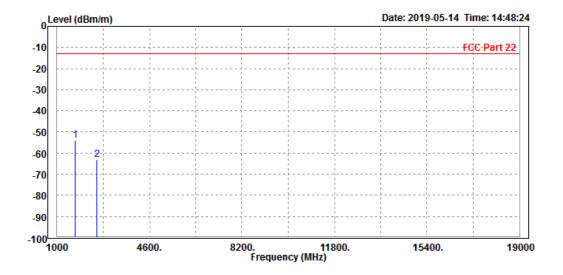
	Freq	Level		Limit Line		Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP 2	1693.200 2548.000							Horizontal Horizontal





MODE	TX channel 4233	FREQUENCY RANGE	Above 1000MHz						
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V						
TESTED BY	Tony	Tony							
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M									

	Freq	Level		Limit Line		Factor	Remark	Pol/Phase
-	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
	1702.000 2539.800							Vertical Vertical



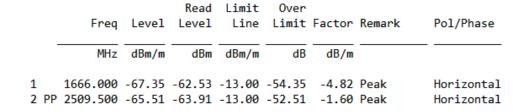
Tel: +86 755 8869 6566

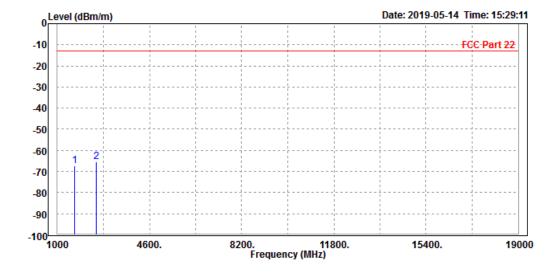


#### LTE Band 5

#### **CHANNEL BANDWIDTH: 1.4MHz/QPSK**

MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz						
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V						
TESTED BY	Tony	Tony							
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									

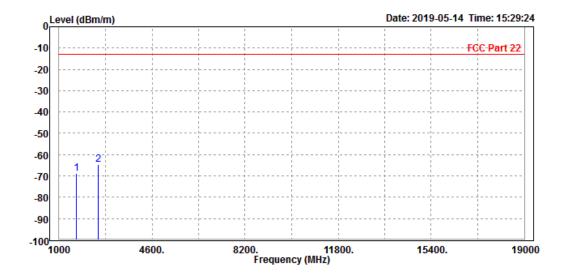






MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz						
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V						
TESTED BY	Tony	Tony							
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M									

	Freq	Level		Limit Line		Factor	Remark	Pol/Phase
-	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 2 PP	1666.000 2509.500							Vertical Vertical



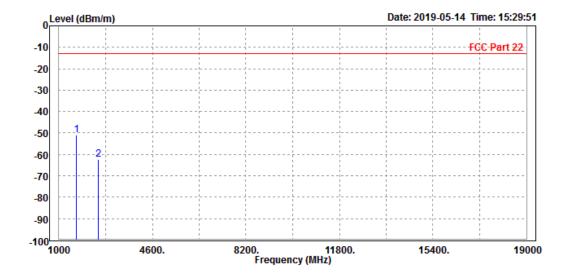
Tel: +86 755 8869 6566



### **CHANNEL BANDWIDTH: 3MHz/QPSK**

MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz				
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V				
TESTED BY	Tony						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							

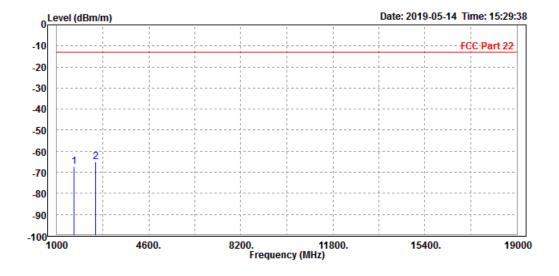
	Freq	Level		Limit Line		Factor	Remark	Pol/Phase
-	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
	1666.000							Horizontal
2	2509.500	-62.41	-60.81	-13.00	-49.41	-1.60	Peak	Horizontal





MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz						
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V						
TESTED BY	Tony	Tony							
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M									

		Frea	Level		Limit		Factor	Remark	Pol/Phase	
	_									
		MHz	dBm/m	dBm	dBm/m	dB	dB/m			
1		1666.000	-67.28	-63.90	-13.00	-54.28	-3.38	Peak	Vertical	
2	PP	2509.500	-64.87	-64.74	-13.00	-51.87	-0.13	Peak	Vertical	



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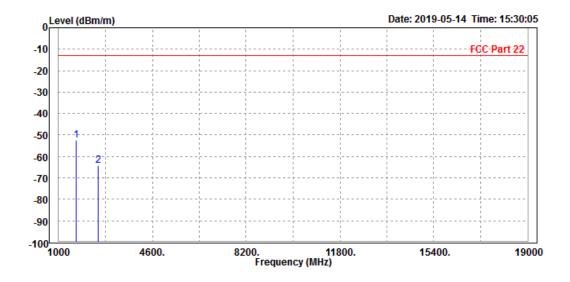


#### **CHANNEL BANDWIDTH: 5MHz / QPSK**

#### CH 20525

MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz						
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V						
TESTED BY	Tony	Гопу							
ANTEN	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								

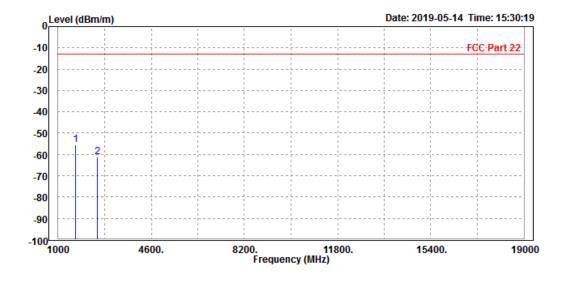
			Read	Limit	0ver			
	Freq	Level	Level	Line	Limit	Factor	Remark	Pol/Phase
_								
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1666.000	-52.43	-47.61	-13.00	-39.43	-4.82	Peak	Horizontal
2	2509.500	-64.44	-62.84	-13.00	-51.44	-1.60	Peak	Horizontal





MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz						
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V						
TESTED BY	Tony	Tony							
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M									

	Freq	Level		Limit Line		Factor	Remark	Pol/Phase
-	MHz	dBm/m	dBm	dBm/m	dB	dB/m		-
1 PP 2	1666.000 2509.500							Vertical Vertical

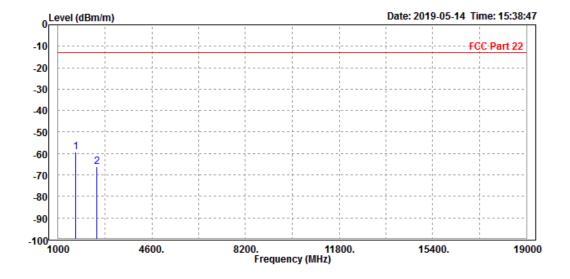




CHANNEL BANDWIDTH: 10MHz / QPSK CH 20450

MODE	TX channel 20450	FREQUENCY RANGE	Above 1000MHz					
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V					
TESTED BY	Tony	Гопу						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								

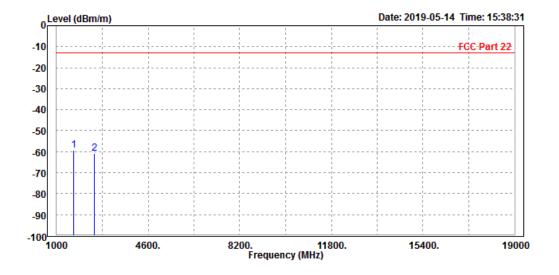
	Freq	Level		Limit Line		Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP	1666.000 2487.000							Horizontal Horizontal





MODE	TX channel 20450	FREQUENCY RANGE	Above 1000MHz					
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V					
TESTED BY	Tony	Гопу						
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								

		Freq	Level		Limit Line		Factor	Remark	Pol/Phase
	-	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1	. PP	1666.000 2487.000							Vertical Vertical

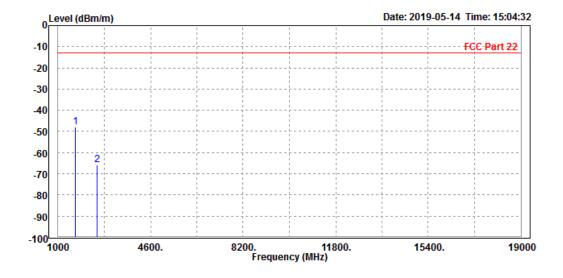




CH 20525

MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz					
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V					
TESTED BY	Tony	Tony						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								

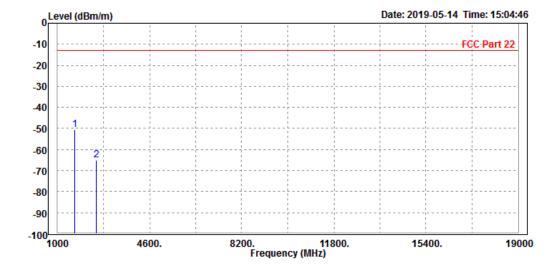
	Read	Limit	0ver			
Level	Level	Line	Limit	Factor	Remark	Pol/Phase
dBm/m	dBm	dBm/m	dB	dB/m		
-48.07	451.93	-13.00	-35.07	-500.00	Peak	Horizontal
-65.94	434.06	-13.00	-52.94	-500.00	Peak	Horizontal
	dBm/m -48.07	Level Level $\frac{\text{dBm/m}}{\text{dBm/m}} \frac{\text{dBm}}{\text{dBm}}$ -48.07 451.93	Level Level Line $ \frac{dBm/m}{dBm/m} \frac{dBm}{dBm/m} -48.07 451.93 -13.00 $	dBm/m dBm dBm/m dB -48.07 451.93 -13.00 -35.07	$\frac{\text{Level Level Line Limit Factor}}{\text{dBm/m}} \frac{\text{dBm}}{\text{dBm/m}} \frac{\text{dBm/m}}{\text{dB}} \frac{\text{Factor}}{\text{dB/m}}$ $-48.07 451.93 -13.00 -35.07-500.00$	Read Limit Over Level Level Line Limit Factor Remark  dBm/m dBm dBm/m dB dB/m  -48.07 451.93 -13.00 -35.07-500.00 Peak -65.94 434.06 -13.00 -52.94-500.00 Peak





MODE	TX channel 20525	FREQUENCY RANGE	Above 1000MHz					
ENVIRONMENTAL CONDITIONS 23deg. C, 70%RH		INPUT POWER	AC 120V					
TESTED BY	Tony							
ANTEN	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							

F	1 2		Limit		F+	DI-	D-1 /Db
Freq	rever	rever	Line	Limit	Factor	Remark	Pol/Phase
MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 PP 1666.000	-50.67	449.33	-13.00	-37.67	-500.00	Peak	Vertical
2 2509.500	-64.88	435.12	-13.00	-51.88	-500.00	Peak	Vertical

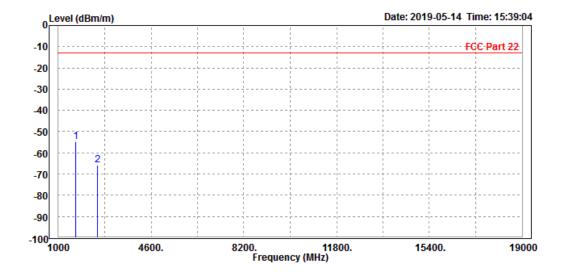




**CH 20600** 

MODE	TX channel 20600	FREQUENCY RANGE	Above 1000MHz					
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V					
TESTED BY	Tony	Tony						
ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								

	Freq	Level		Limit Line		Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 P	P 1684.000 2532.000							Horizontal Horizontal

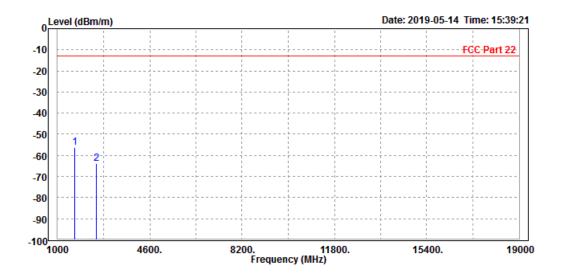


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MODE	TX channel 20600	FREQUENCY RANGE	Above 1000MHz					
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	INPUT POWER	AC 120V					
TESTED BY	Tony	Fony						
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								

	Freq	Level		Limit Line		Factor	Remark	Pol/Phase
	MHz	dBm/m	dBm	dBm/m	dB	dB/m		
1 F 2	PP 1684.000 2532.000							Vertical Vertical



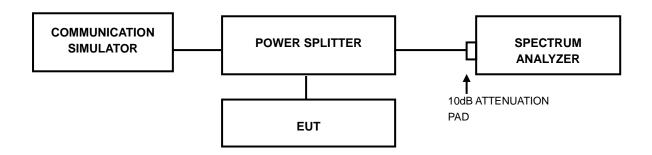


#### 3.7 PEAK TO AVERAGE RATIO

#### 3.7.1 LIMITS OF PEAK TO AVERAGE RATIO MEASUREMENT

In measuring transmissions in this band using an average power technique, the peak to-average ratio (PAR) of the transmission may not exceed 13 dB

#### 3.7.2 TEST SETUP



#### 3.7.3 TEST PROCEDURES

- 1. Set resolution/measurement bandwidth ≥ signal's occupied bandwidth;
- 2. Set the number of counts to a value that stabilizes the measured CCDF curve;
- 3. Record the maximum PAPR level associated with a probability of 0.1%.

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# 3.7.4 TEST RESULTS

The test results was recorded in Report No.: RF160714W002-1(FCC ID: SRQ-ME3630).



# PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).

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Email: <a href="mailto:customerservice.dg@cn.bureauveritas.com">customerservice.dg@cn.bureauveritas.com</a>



### INFORMATION ON THE TESTING LABORATORIES

We, BV 7LAYERS COMMUNICATIONS TECHNOLOGY (SHENZHEN) CO. LTD., were founded in 2015 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

#### Shenzhen EMC/RF Lab:

Tel: +86-755-88696566 Fax: +86-755-88696577

Email: customerservice.dg@cn.bureauveritas.com

Web Site: www.adt.com.tw

The address and road map of all our labs can be found in our web site also.

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# 6 APPENDIX A - MODIFICATIONS RECORDERS FOR ENGINEERING **CHANGES TO THE EUT BY THE LAB**

No any modifications are made to the EUT by the lab during the test.

---END---

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