



# RF EXPOSURE REPORT

**Product:** Integrated Smart Terminal

Model Name: E500

FCC ID: V5PE500FDD-LTE

**Applicant:** PAX Technology Limited

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Report No.: SA170906W001

Received Date: Sep. 06, 2017

**Test Date:** Sep. 07, 2017 ~ Sep. 22, 2017

**Issued Date:** Sep. 25, 2017

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# **RELEASE CONTROL RECORD**

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA170906W001	Original release	Sep. 25, 2017

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# 1 CERTIFICATION

**PRODUCT:** Integrated Smart Terminal

**BRAND NAME: PAX** 

**MODEL NAME:** E500

**APPLICANT: PAX Technology Limited** 

**TESTED:** Sep. 07, 2017 ~ Sep. 22, 2017

**TEST SAMPLE:** Production Unit

STANDARDS: FCC Part 2 (Section 2.1091)

FCC OET Bulletin 65, Supplement C (01-01)

KDB 447498 D01 General RF Exposure Guidance v06

**IEEE C95.1** 

The above equipment has been tested by **Bureau Veritas Shenzhen Co., Ltd. Dongguan Branch** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY	:	l wy, wy	_ ,	DATE:	Sep. 25, 2017
		(Yuqiang Yin/ Engineer)			

APPROVED BY: , DATE: Sep. 25, 2017

(Bill Yao / Manager)



# 2 GENERAL INFORMATION

## 2.1 GENERAL DESCRIPTION OF EUT

PRODUCT	Integrated Smart Terminal			
MODEL NAME	E500			
NOMINAL VOLTAGE	24Vdc (adapter or host equipment) 3.7Vdc (Li-ion, battery)			
OPERATING TEMPERATURE RANGE	RE RANGE 0 ~ 50°C			
	WLAN	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM		
	Bluetooth	GFSK, π/4-DQPSK, 8DPSK		
MODULATION TYPE	BT_LE	BT-LE(GFSK) for DTS		
	RFID	ASK		
	WCDMA	BPSK/QPSK		
	LTE	QPSK/16QAM		
	WLAN	2412 ~ 2462MHz for 11b/g/n(HT20)		
	Bluetooth/BT_LE	2402MHz ~ 2480MHz		
	RFID	13.56MHz		
OPERATING FREQUENCY	WCDMA	1852.4MHz ~ 1907.6MHz (FOR WCDMA Band 2) 826.4MHz ~ 846.6MHz (FOR WCDMA Band 5)		
	LTE	1850MHz ~ 1910MHz (FOR LTE Band2) 1710MHz ~ 1755MHz (FOR LTE Band4) 824MHZ ~ 849MHZ (FOR LTE Band5) 699MHz ~ 716MHz (FOR LTE Band12) 704MHz ~ 716MHz (FOR LTE Band17)		
ANTENNA TYPE		uetooth/BT_LE/ WLAN nna for WCDMA/ LTE		
ANTENNA GAIN	1.5dBi for Bluetooth/BT_LE/ WLAN 2.9dBi for WCDMA V/LTE BAND 5/ LTE BAND 12/ LTE BAND 17 4.6dBi for WCDMA II/LTE BAND 2/ LTE BAND 4			
HW VERSION	E500-XXXXX-XXXX-XXX			
SW VERSION	E500_PayDroid_6.0.1_Taurus_V05.1.00_20170913			
I/O PORTS	Refer to user's man	ual		
CABLE SUPPLIED	N/A			

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## NOTE:

- 1. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.
- 2. The EUT was powered by the following adapter:

ADAPTER			
BRAND:	HONOR		
MODEL:	ADS-65HI-19A-3		
INPUT:	AC 100-240V, 1500mA		
OUTPUT:	DC 24V, 2700mA		

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in test report.



## 3 RF EXPOSURE

# 3.1 LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm²)	AVERAGE TIME (minutes)			
LIMI	LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE						
300-1500			F/1500	30			
1500-100,000			1.0	30			

F = Frequency in MHz

#### 3.2 MPE CALCULATION FORMULA

Pd = (Pout\*G) / (4\*pi\*r2)

where

Pd = power density in mW/cm2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

### 3.3 CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile device**.

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# 3.4 CONDUCTED POWER

#### **WIFI 2.4G**

## 802.11b

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
1	2412	13.03	N/A
6	2437	12.73	N/A
11	2462	13.15	N/A

#### 802.11g

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
1	2412	12.50	N/A
6	2437	12.37	N/A
11	2462	12.76	N/A

# 802.11n (20MHz)

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
1	2412	11.11	N/A
6	2437	10.97	N/A
11	2462	11.14	N/A



#### **Bluetooth**

#### **GFSK**

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
0	2402	6.79	N/A
39	2441	6.95	N/A
78	2480	6.16	N/A

## **DQPSK**

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
0	2402	4.45	N/A
39	2441	4.49	N/A
78	2480	3.06	N/A

#### 8DPSK

CHANNEL	CHANNEL FREQUENCY (MHz)	AVERAGE POWER (dBm)	PASS/FAIL
0	2402	4.48	N/A
39	2441	4.56	N/A
78	2480	3.09	N/A

# **BT-LE (GFSK)**

CHANNEL	CHANNEL FREQUENCY (MHz) AVERAGE POWER (dBm)		PASS/FAIL	
0	2402	4.92	N/A	
19	2440	5.20	N/A	
39	2480	4.32	N/A	



Band		WCDMA II							
Channel	9262	9400	9538						
Frequency (MHz)	1852.4	1880.0	1907.6						
RMC 12.2K	22.85	22.67	22.63						
HSPA									
HSDPA Subtest-1	21.55	21.33	21.33						
HSDPA Subtest-2	21.50	21.31	21.28						
HSDPA Subtest-3	21.02	20.85	20.80						
HSDPA Subtest-4	20.99	20.81	20.77						
HSUPA Subtest-1	21.66	21.69	21.71						
HSUPA Subtest-2	19.85	19.88	19.84						
HSUPA Subtest-3	20.84	20.85	20.83						
HSUPA Subtest-4	19.72	19.75	19.66						
HSUPA Subtest-5	21.79	21.75	21.78						

Band		WCDMA V	
Channel	4132	4182	4233
Frequency (MHz)	826.4	836.4	846.6
RMC 12.2K	22.90	23.05	23.00
HSPA			
HSDPA Subtest-1	21.60	21.77	21.70
HSDPA Subtest-2	21.55	21.75	21.65
HSDPA Subtest-3	21.07	21.28	21.17
HSDPA Subtest-4	21.04	21.27	21.14
HSUPA Subtest-1	21.91	22.05	22.00
HSUPA Subtest-2	20.04	20.12	20.13
HSUPA Subtest-3	21.03	21.11	21.12
HSUPA Subtest-4	19.91	19.99	19.95
HSUPA Subtest-5	22.06	22.20	22.15

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# LTE BAND 2

LIEBAN	_ <del>-</del>			LTE Band 2			
D14/	Maria Indian	RB	RB	Low CH 18607	Mid CH 18900	High CH 19193	3GPP
BW	Modulation	Size	Offset	Frequency 1850.7 MHz	Frequency 1880 MHz	Frequency 1909.3 MHz	MPR (dB)
		1	0	21.69	21.92	21.82	0
		1	2	21.61	21.76	21.69	0
		1	5	21.51	21.72	21.52	0
	QPSK	3	0	21.68	21.91	21.81	0
		3	1	21.60	21.75	21.68	0
		3	3	21.50	21.71	21.51	0
1.4MHz		6	0	20.51	20.74	20.64	1
1.4111172		1	0	20.61	20.76	20.69	1
		1	2	20.54	20.75	20.55	1
		1	5	20.43	20.66	20.56	1
	16QAM	3	0	20.59	20.74	20.67	1
		3	1	20.52	20.73	20.53	1
		3	3	20.41	20.64	20.54	1
		6	0	19.54	19.69	19.62	2
BW	Modulation	RB	RB Offset	Low CH 18615	Mid CH 18900	High CH 19185	3GPP MPR
BW		Size		Frequency 1851.5 MHz	Frequency 1880 MHz	Frequency 1908.5 MHz	(dB)
		1	0	21.72	21.95	21.85	0
		1	7	21.64	21.79	21.72	0
		1	14	21.54	21.75	21.55	0
	QPSK	8	0	20.58	20.81	20.71	1
		8	3	20.62	20.77	20.70	1
		8	7	20.51	20.72	20.52	1
2 1411-		15	0	20.54	20.77	20.67	1
3 MHz		1	0	20.64	20.79	20.72	1
		1	7	20.57	20.78	20.58	1
		1	14	20.46	20.69	20.59	1
	16QAM	8	0	19.65	19.80	19.73	2
		8	3	19.49	19.70	19.50	2
		8	7	19.51	19.74	19.64	2
		15	0	19.57	19.72	19.65	2

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				LTE Band 2			
BW	Modulation	RB	RB	Low CH 18625	Mid CH 18900	High CH 19175	3GPP MPR
BW	Modulation	Size	Offset	Frequency 1852.5 MHz	Frequency 1880 MHz	Frequency 1907.5 MHz	(dB)
		1	0	21.75	21.98	21.88	0
		1	12	21.67	21.82	21.75	0
		1	24	21.57	21.78	21.58	0
	QPSK	12	0	20.61	20.84	20.74	1
		12	6	20.65	20.80	20.73	1
		12	13	20.54	20.75	20.55	1
5 MHz		25	0	20.57	20.80	20.70	1
S IVITZ		1	0	20.67	20.82	20.75	1
		1	12	20.60	20.81	20.61	1
		1	24	20.49	20.72	20.62	1
	16QAM	12	0	19.68	19.83	19.76	2
		12	6	19.52	19.73	19.53	2
		12	13	19.54	19.77	19.67	2
		25	0	19.60	19.75	19.68	2
BW	Modulation	RB	RB Offset	Low CH 18650	Mid CH 18900	High CH 19150	3GPP MPR
DW		Size		Frequency 1855 MHz	Frequency 1880 MHz	Frequency 1905 MHz	(dB)
		1	0	21.77	22.00	21.90	0
		1	24	21.69	21.84	21.77	0
		1	49	21.59	21.80	21.60	0
	QPSK	25	0	20.63	20.86	20.76	1
		25	12	20.67	20.82	20.75	1
		25	25	20.56	20.77	20.57	1
40 MH-		50	0	20.59	20.82	20.72	1
10 MHz		1	0	20.69	20.84	20.77	1
		1	24	20.62	20.83	20.63	1
		1	49	20.51	20.74	20.64	1
	16QAM	25	0	19.70	19.85	19.78	2
		25	12	19.54	19.75	19.55	2
		25	25	19.56	19.79	19.69	2
		50	0	19.62	19.77	19.70	2

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				LTE Band 2			
BW	Modulation	RB	RB	Low CH 18675	Mid CH 18900	High CH 19125	3GPP MPR
BW	Woddiation	Size	Offset	Frequency 1857.5 MHz	Frequency 1880 MHz	Frequency 1902.5 MHz	(dB)
		1	0	21.80	22.03	21.93	0
		1	37	21.72	21.87	21.80	0
		1	74	21.62	21.83	21.63	0
	QPSK	36	0	20.66	20.89	20.79	1
		36	19	20.70	20.85	20.78	1
		36	39	20.59	20.80	20.60	1
45 1411		75	0	20.62	20.85	20.75	1
15 MHz		1	0	20.72	20.87	20.80	1
		1	37	20.65	20.86	20.66	1
		1	74	20.54	20.77	20.67	1
	16QAM	36	0	19.73	19.88	19.81	2
		36	19	19.57	19.78	19.58	2
		36	39	19.59	19.82	19.72	2
		75	0	19.65	19.80	19.73	2
	Modulation	RB	RB	Low CH 18700	Mid CH 18900	High CH 19100	3GPP
BW		Size	Offset	Frequency 1860 MHz	Frequency 1880 MHz	Frequency 1900 MHz	MPR (dB)
		1	0	21.85	22.08	21.98	0
		1	50	21.77	21.92	21.85	0
		1	99	21.67	21.88	21.68	0
	QPSK	50	0	20.71	20.94	20.84	1
		50	25	20.75	20.90	20.83	1
		50	50	20.64	20.85	20.65	1
		100	0	20.67	20.90	20.80	1
20MHz		1	0	20.77	20.92	20.85	1
		1	50	20.70	20.91	20.71	1
		1	99	20.59	20.82	20.72	1
	16QAM	50	0	19.78	19.93	19.86	2
		50	25	19.62	19.83	19.63	2
		50	50	19.64	19.87	19.77	2
		100	0	19.70	19.85	19.78	2

# LTE BAND 4

LTE Band 4

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BW	Modulation	RB	RB	Low CH 19957	Mid CH 20175	High CH 20393	MPR
BW	Modulation	Size	Offset	Frequency 1710.7 MHz	Frequency 1732.5 MHz	Frequency 1754.3 MHz	
		1	0	21.44	21.65	21.73	0
		1	2	21.33	21.54	21.62	0
		1	5	21.32	21.53	21.61	0
	QPSK	3	0	21.42	21.63	21.71	0
		3	1	21.31	21.52	21.60	0
		3	3	21.30	21.51	21.59	0
1.4MHz		6	0	20.41	20.62	20.70	1
1.41∜1∏∠		1	0	20.39	20.60	20.68	1
		1	2	20.28	20.49	20.57	1
		1	5	20.27	20.48	20.56	1
	16QAM	3	0	20.38	20.59	20.67	1
		3	1	20.27	20.48	20.56	1
		3	3	20.26	20.47	20.55	1
		6	0	19.36	19.57	19.65	2
BW	Modulation	RB Size	RB	Low CH 19965	Mid CH 20175	High CH 20385	MPR
DW			Offset	Frequency 1711.5 MHz	Frequency 1732.5 MHz	Frequency 1753.5 MHz	
		1	0	21.45	21.66	21.74	0
		1	7	21.34	21.55	21.63	0
		1	14	21.33	21.54	21.62	0
	QPSK	8	0	20.41	20.62	20.70	1
		8	3	20.32	20.53	20.61	1
		8	7	20.35	20.56	20.64	1
3 MHz		15	0	20.42	20.63	20.71	1
J IVI∏Z		1	0	20.40	20.61	20.69	1
		1	7	20.29	20.50	20.58	1
		1	14	20.28	20.49	20.57	1
	16QAM	8	0	19.36	19.57	19.65	2
		8	3	19.27	19.48	19.56	2
		8	7	19.30	19.51	19.59	2
		15	0	19.37	19.58	19.66	2

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				LTE Band 4			
BW	Modulation	RB	RB	Low CH 19975	Mid CH 20175	High CH 20375	MPR
BW	Modulation	Size	Offset	Frequency 1712.5 MHz	Frequency 1732.5 MHz	Frequency 1752.5 MHz	WIFK
		1	0	21.48	21.69	21.77	0
		1	12	21.37	21.58	21.66	0
		1	24	21.36	21.57	21.65	0
	QPSK	12	0	20.44	20.65	20.73	1
		12	6	20.35	20.56	20.64	1
		12	13	20.38	20.59	20.67	1
		25	0	20.45	20.66	20.74	1
5 MHz		1	0	20.43	20.64	20.72	1
		1	12	20.32	20.53	20.61	1
		1	24	20.31	20.52	20.60	1
	16QAM	12	0	19.39	19.60	19.68	2
		12	6	19.30	19.51	19.59	2
		12	13	19.33	19.54	19.62	2
		25	0	19.40	19.61	19.69	2
	Modulation	RB Size	RB	Low CH 20000	Mid CH 20175	High CH 20350	
BW			Offset	Frequency 1715 MHz	Frequency 1732.5 MHz	Frequency 1750 MHz	MPR
		1	0	21.52	21.73	21.81	0
		1	24	21.41	21.62	21.70	0
		1	49	21.40	21.61	21.69	0
	QPSK	25	0	20.48	20.69	20.77	1
		25	12	20.39	20.60	20.68	1
		25	25	20.42	20.63	20.71	1
		50	0	20.49	20.70	20.78	1
10 MHz		1	0	20.47	20.68	20.76	1
		1	24	20.36	20.57	20.65	1
		1	49	20.35	20.56	20.64	1
	16QAM	25	0	19.43	19.64	19.72	2
		25	12	19.34	19.55	19.63	2
		25	25	19.37	19.58	19.66	2
		50	0	19.44	19.65	19.73	2

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				LTE Band 4			
BW	Modulation	RB	RB	Low CH 20025	Mid CH 20175	High CH 20325	MPR
BW		Size	Offset	Frequency 1717.5 MHz	Frequency 1732.5 MHz	Frequency 1747.5 MHz	WIFK
		1	0	21.58	21.79	21.87	0
		1	37	21.47	21.68	21.76	0
		1	74	21.46	21.67	21.75	0
	QPSK	36	0	20.54	20.75	20.83	1
		36	19	20.45	20.66	20.74	1
		36	39	20.48	20.69	20.77	1
		75	0	20.55	20.76	20.84	1
15 MHz		1	0	20.53	20.74	20.82	1
		1	37	20.42	20.63	20.71	1
		1	74	20.41	20.62	20.70	1
	16QAM	36	0	19.49	19.70	19.78	2
		36	19	19.40	19.61	19.69	2
		36	39	19.43	19.64	19.72	2
		75	0	19.50	19.71	19.79	2
	Modulation	RB	B RB	Low CH 20050	Mid CH 20175	High CH 20300	
BW		Size	Offset	Frequency 1720 MHz	Frequency 1732.5 MHz	Frequency 1745 MHz	MPR
		1	0	21.61	21.82	21.90	0
		1	50	21.50	21.71	21.79	0
		1	99	21.49	21.70	21.78	0
	QPSK	50	0	20.57	20.78	20.86	1
		50	25	20.48	20.69	20.77	1
		50	50	20.51	20.72	20.80	1
		100	0	20.58	20.79	20.87	1
20MHz		1	0	20.56	20.77	20.85	1
		1	50	20.45	20.66	20.74	1
		1	99	20.44	20.65	20.73	1
	16QAM	50	0	19.52	19.73	19.81	2
		50	25	19.43	19.64	19.72	2
		50	50	19.46	19.67	19.75	2
		100	0	19.53	19.74	19.82	2

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#### LTE BAND 5

Band/BW	Modulation	RB	RB Offeet	Low CH 20407	Mid CH 20525	High CH 20643	3GPP MPR (dB)
24114/211	modulation	Size	Offset	Frequency 824.7 MHz	Frequency 836.5 MHz	Frequency 848.3 MHz	
		1	0	23.05	22.87	22.99	0
		1	2	23.00	22.82	22.78	0
		1	5	22.83	22.73	22.69	0
	QPSK	3	0	23.03	22.85	22.97	0
		3	1	22.98	22.80	22.76	0
		3	3	22.81	22.71	22.67	0
5/1.4		6	0	22.13	21.95	22.07	1
5/1.4		1	0	22.16	21.98	21.94	1
		1	2	22.05	21.95	21.91	1
		1	5	22.04	21.86	21.98	1
	16QAM	3	0	22.15	21.97	21.93	1
		3	1	22.04	21.94	21.90	1
		3	3	22.03	21.85	21.97	1
		6	0	21.11	20.93	20.89	2
Band/BW	Modulation	RB	RB	Low CH 20415	Mid CH 20525	High CH 20635	3GPP MPR
		Size	Offset	Frequency 825.5 MHz	Frequency 836.5 MHz	Frequency 847.5 MHz	(dB)
		1		23.09	22.91		_
		'	0	23.09	22.01	23.03	0
		1	7	23.09	22.86	23.03	0
	QPSK	1	7	23.04	22.86	22.82	0
	QPSK	1	7	23.04 22.87	22.86 22.77	22.82 22.73	0
	QPSK	1 1 8	7 14 0	23.04 22.87 22.13	22.86 22.77 21.95	22.82 22.73 22.07	0 0 1
	QPSK	1 1 8 8	7 14 0 3	23.04 22.87 22.13 22.12	22.86 22.77 21.95 21.94	22.82 22.73 22.07 21.90	0 0 1 1
5/3	QPSK	1 1 8 8 8	7 14 0 3 7	23.04 22.87 22.13 22.12 22.02	22.86 22.77 21.95 21.94 21.92	22.82 22.73 22.07 21.90 21.88	0 0 1 1 1
5/3	QPSK	1 1 8 8 8 8	7 14 0 3 7	23.04 22.87 22.13 22.12 22.02 22.17	22.86 22.77 21.95 21.94 21.92 21.99	22.82 22.73 22.07 21.90 21.88 22.11	0 0 1 1 1 1
5/3	QPSK	1 1 8 8 8 8 15	7 14 0 3 7 0	23.04 22.87 22.13 22.12 22.02 22.17 22.20	22.86 22.77 21.95 21.94 21.92 21.99 22.02	22.82 22.73 22.07 21.90 21.88 22.11 21.98	0 0 1 1 1 1 1
5/3	QPSK 16QAM	1 1 8 8 8 8 15 1	7 14 0 3 7 0 0	23.04 22.87 22.13 22.12 22.02 22.17 22.20 22.09	22.86 22.77 21.95 21.94 21.92 21.99 22.02 21.99	22.82 22.73 22.07 21.90 21.88 22.11 21.98 21.95	0 0 1 1 1 1 1
5/3		1 1 8 8 8 15 1 1	7 14 0 3 7 0 0 7	23.04 22.87 22.13 22.12 22.02 22.17 22.20 22.09 22.08	22.86 22.77 21.95 21.94 21.92 21.99 22.02 21.99 21.99	22.82 22.73 22.07 21.90 21.88 22.11 21.98 21.95 22.02	0 0 1 1 1 1 1 1 1
5/3		1 1 8 8 8 15 1 1 1 1 8	7 14 0 3 7 0 0 7 14	23.04 22.87 22.13 22.12 22.02 22.17 22.20 22.09 22.08 21.19	22.86 22.77 21.95 21.94 21.92 21.99 22.02 21.99 21.90 21.01	22.82 22.73 22.07 21.90 21.88 22.11 21.98 21.95 22.02 20.97	0 0 1 1 1 1 1 1 1 1 2



Band/BW	Modulation	RB	RB	Low CH 20425	Mid CH 20525	High CH 20625	3GPP MPR
		Size	Offset	Frequency 826.5 MHz	Frequency 836.5 MHz	Frequency 846.5 MHz	(dB)
		1	0	23.15	22.97	23.09	0
		1	12	23.10	22.92	22.88	0
		1	24	22.93	22.83	22.79	0
	QPSK	12	0	22.19	22.01	22.13	1
		12	6	22.18	22.00	21.96	1
		12	13	22.08	21.98	21.94	1
5/5		25	0	22.23	22.05	22.17	1
3/3		1	0	22.26	22.08	22.04	1
		1	12	22.15	22.05	22.01	1
		1	24	22.14	21.96	22.08	1
	16QAM	12	0	21.25	21.07	21.03	2
		12	6	21.25	21.15	21.11	2
		12	13	21.17	20.99	21.11	2
		25	0	21.21	21.03	20.99	2
Band/BW	Modulation	RB Size	RB Offset	Low CH 20450 Frequency	Mid CH 20525 Frequency	High CH 20600 Frequency	3GPP MPR (dB)
				829 MHz	836.5 MHz	844 MHz	
		1	0	23.18	23.00	23.12	0
		1	24	23.13	22.95	22.91	0
		1	49	22.96	22.86	22.82	0
	QPSK	25	0	22.22	22.04	22.16	1
		25	12	22.21	22.03	21.99	1
		25	25	22.11	22.01	21.97	1
E/4.0		50	0	22.26	22.08	22.20	1
5/10		1	0	22.29	22.11	22.07	1
		1	24	22.18	22.08	22.04	1
		1	49	22.17	21.99	22.11	1
	16QAM	25	0	21.28	21.10	21.06	2
		25	12	21.28	21.18	21.14	2
			1	1	<del> </del>		
		25	25	21.20	21.02	21.14	2

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#### LTE BAND 12

LTE BAN	J 12			LTE Band 12			
BW	Modulation	RB	RB	Low CH 23017	Mid CH 23095	High CH 23173	MPR
5	Modulation	Size	Offset	Frequency 699.7 MHz	Frequency 707.5 MHz	Frequency 715.3 MHz	
		1	0	22.81	22.87	22.82	0
		1	2	22.79	22.81	22.77	0
		1	5	22.69	22.72	22.61	0
	QPSK	3	0	22.79	22.85	22.80	0
		3	1	22.77	22.79	22.75	0
		3	3	22.67	22.70	22.59	0
4 4 1011-		6	0	21.78	21.84	21.79	1
1.4 MHz		1	0	21.62	21.65	21.61	1
		1	2	21.59	21.62	21.51	1
		1	5	21.54	21.60	21.55	1
	16QAM	3	0	21.61	21.64	21.60	1
		3	1	21.58	21.61	21.50	1
		3	3	21.53	21.59	21.54	1
		6	0	20.87	20.90	20.86	2
D14/	Modulation	RB	RB	Low CH 23025	Mid CH 23095	High CH 23165	MDD
BW		Size	Offset	Frequency 700.5 MHz	Frequency 707.5 MHz	Frequency 714.5 MHz	MPR
		1	0	22.85	22.91	22.86	0
		1	7	22.83	22.85	22.81	0
		1	14	22.73	22.76	22.65	0
	QPSK	8	0	21.97	22.03	21.98	1
		8	3	21.96	21.99	21.95	1
		8	7	21.95	21.98	21.87	1
0 85		15	0	21.82	21.88	21.83	1
3 MHz		1	0	21.66	21.69	21.65	1
		1	7	21.63	21.66	21.55	1
		1	14	21.58	21.64	21.59	1
	16QAM	8	0	20.81	20.84	20.80	2
		8	3	20.96	20.99	20.88	2
		8	7	20.95	21.01	20.96	2
		15	0	20.91	20.94	20.90	2

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				LTE Band 12			
BW	Modulation	RB Size	RB Offset	Low CH 23035	Mid CH 23095	High CH 23155	MPR
				Frequency 701.5 MHz	Frequency 707.5 MHz	Frequency 713.5 MHz	WIFK
		1	0	22.91	22.97	22.92	0
		1	12	22.89	22.91 22.87		0
		1	24	22.79	22.82	22.82 22.71	
	QPSK	12	0	22.03	22.09	22.04	1
		12	6	22.02	22.05	22.01	1
		12	13	22.01	22.04	21.93	1
5 1411		25	0	21.88	21.94	21.89	1
5 MHz		1	0	21.72	21.75	21.75 21.71	
		1	12	21.69	21.72	21.61	1
		1	24	21.64	21.70	21.70 21.65	
	16QAM	12	0	20.87	20.90	20.90 20.86	
		12	6	21.02	21.05	5 20.94	
		12	13	21.01	21.07	21.02	2
		25	0	20.97	21.00	20.96	2
	Modulation	RB	RB	Low CH 23060	Mid CH 23095	High CH 23130	MPR
BW		Size	Offset	Frequency 704 MHz	Frequency 707.5 MHz	Frequency 711 MHz	
	QPSK	1	0	22.94	23.00	22.95	0
		1	24	22.92	22.94 22.90		0
		1	49	22.82	22.85	22.74	0
		25	0	22.06	22.12	22.07	1
		25	12	22.05	22.08	22.04	1
		25	25	22.04	22.07	21.96	1
10 MHz		50	0	21.91	21.97 21.92		1
	16QAM	1	0	21.75	21.78 21.74		1
		1	24	21.72	21.75	21.64	1
		1	49	21.67	21.73	21.68	1
		25	0	20.90	20.93	20.89	2
		25	12	21.05	21.08	20.97	2
		25	25	21.04	21.10	21.05	2
		50	0	21.00	21.03	20.99	2

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#### LTE BAND 17

LTE BAN	ווט			LTE Band 17				
BW	Modulation	RB Size	RB Offset	Low CH 23755	Mid CH 23790	High CH 23825	MPR	
		Size		Frequency 706.5 MHz	Frequency 710 MHz	Frequency 713.5 MHz		
		1	0	22.42	22.46	22.37	0	
		1	12	22.37	22.23	22.21	0	
		1	24	22.33	22.14	22.12	0	
	QPSK	12	0	21.37	21.41	21.34	1	
		12	6	21.35	21.40	21.32	1	
		12	13	21.34	21.30	21.27	1	
5 MHz		25	0	21.30	21.33	21.25	1	
3 IVITZ		1	0	21.23	21.25	21.22	1	
		1	12	21.18	21.20	21.17	1	
	16QAM	1	24	20.96	21.18	21.14	1	
		12	0	20.22	20.26	20.20	2	
		12	6	20.64	20.66	20.60	2	
		12	13	20.30	20.34	20.31	2	
		25	0	20.33	20.35	20.31	2	
DIM	Modulation	RB	RB	Low CH 23780	Mid CH 23790	High CH 23800	мор	
BW		Size	Offset	Frequency 709 MHz	Frequency 710 MHz	Frequency 711 MHz	MPR	
	QPSK	1	0	22.46	22.50	22.41	0	
		1	24	22.41	22.27 22.25		0	
		1	49	22.37	22.18	22.16	0	
		25	0	21.41	21.45	21.38	1	
		25	12	21.39	21.44	21.36	1	
		25	25	21.38	21.34	21.31	1	
40 8811		50	0	21.34	21.37	21.29	1	
10 MHz	16QAM	1	0	21.27	21.29	21.26	1	
		1	24	21.22	21.24	21.21		
		1	49	21.00	21.22	21.18	1	
		25	0	20.26	20.30	20.24	2	
		25	12	20.68	20.70	20.64	2	
		25	25	20.34	20.38	20.35	2	
		50	0	20.37	20.39	20.35	2	



# 3.5 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

## **BT & WIFI 2.4G**

Band	Frequency (MHz)	Operating Mode	Antenna Gain (dBi)	Tune-up Power (dBm)	E.I.R.P Power (mW)	Power Density (mW/cm^2)	limit (mW/cm^2)	PASS / FAIL
Bluetooth	2441	BT_GFSK	1.5	7.0	7.079	0.001	1.00	PASS
WIFI 2.4G	2462	11b	1.5	13.5	31.623	0.006	1.00	PASS

#### **WCDMA**

Band	Frequency (MHz)	Operating Mode	Antenna Gain (dBi)	Tune-up Power (dBm)	E.I.R.P Power (mW)	Power Density (mW/cm^2)	limit (mW/cm^2)	PASS / FAIL
WCDMA V	836.4	RMC12.2K	2.9	23.5	436.516	0.087	0.56	PASS
WCDMA II	1852.4	RMC12.2K	4.6	23.0	575.440	0.114	1.00	PASS

## LTE

Band	Frequency (MHz)	Operating Mode	Antenna Gain (dBi)	Tune-up Power (dBm)	E.I.R.P Power (mW)	Power Density (mW/cm^2)	limit (mW/cm^2)	PASS/ FAIL
Band2	1880	QPSK	4.6	22.5	512.861	0.102	1.00	PASS
Band4	1745	QPSK	4.6	22.5	512.861	0.102	1.00	PASS
Band5	829	QPSK	2.9	23.5	436.516	0.087	0.55	PASS
Band12	707.5	QPSK	2.9	23.5	436.516	0.087	0.47	PASS
Band17	710	QPSK	2.9	23.0	389.045	0.077	0.47	PASS

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#### 3.6 CONCLUSION OF SIMULTANEOUS TRANSMITTER

Both of the WLAN and plug-in device can transmit simultaneously, the formula of calculated the MPE is:

CPD1/LPD1+CPD2/LPD2+.....etc. < 1

CPD = Calculation power density

LPD = Limit of power density

Therefore the worst-case situation is 0.006/1.00+0.087/0.56+0.114/1.00+0.102/1.00+0.102/1.00+0.087/0.55+0.087/0.47+0.077/0.47 = 0.986, which is less than "1", This confirmed that the device comply with FCC 1.1310 MPE limit.

--END--