

FCC RADIO TEST REPORT FCC ID: 2AFK7-PCB-I316

Product: Smart Phone

Trade Name: PCBOX

Model No.: PCB-i316

Serial Model: SOFR50BP

Report No.: NTEK-2016NT02264448F2

Issue Date: 11 Mar. 2016

Prepared for

BLUEBANK COMMUNICATION TECHNOLOGY CO.LTD.
NO. 13-2, JIANG YING ROAD, NAN AN DISTRICT,
CHONGQING, P.R. CHINA

Prepared by

NTEK TESTING TECHNOLOGY CO., LTD.

1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street Bao'an District, Shenzhen, P.R. China

Tel.: +86-0755-61156588 Fax.: +86-0755-61156599 Website: www.ntek.org.cn



TABLE OF CONTENTS

	ST RESULT CERTIFICATION	
2 SUI	MMARY OF TEST RESULTS	4
3 FAC	CILITIES AND ACCREDITATIONS	5
3.1	FACILITIES	5
3.2 3.3	LABORATORY ACCREDITATIONS AND LISTINGS MEASUREMENT UNCERTAINTY	
4 GE	NERAL DESCRIPTION OF EUT	
5 DE	SCRIPTION OF TEST MODES	8
6 SE	FUP OF EQUIPMENT UNDER TEST	9
6.1	BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM	9
6.2	SUPPORT EQUIPMENT	10
6.3	EQUIPMENTS LIST FOR ALL TEST ITEMS	
7 TE	ST REQUIREMENTS	
7.1	CONDUCTED EMISSIONS TEST	12
7.2	RADIATED SPURIOUS EMISSION	
7.3	NUMBER OF HOPPING CHANNEL	
7.4	HOPPING CHANNEL SEPARATION MEASUREMENT	
7.5	AVERAGE TIME OF OCCUPANCY (DWELL TIME)	
7.6	20BANDWIDTH TEST	
7.7 7.8	PEAK OUTPUT POWER CONDUCTED BAND EDGE MEASUREMENT	
7.8 7.9	ANTENNA APPLICATION	



1 TEST RESULT CERTIFICATION

Applicant's name:	Bluebank Communication Technology Co.Ltd.
Address:	No. 13-2, Jiang Ying Road, Nan An District, Chongqing, P.R. China
Manufacture's Name:	Bluebank Communication Technology Co.Ltd.
Address	No. 13-2, Jiang Ying Road, Nan An District, Chongqing, P.R. China
Product description	
Product name:	Smart Phone
Model and/or type reference:	PCB-i316
Serial Model:	SOFR50BP

Measurement Procedure Used:

APPLICABLE STANDARDS		
STANDARD/ TEST PROCEDURE	TEST RESULT	
FCC 47 CFR Part 2, Subpart J:2015 FCC 47 CFR Part 15, Subpart C:2015 KDB 174176 D01 Line Conducted FAQ v01r01 ANSI C63.10-2013 DA 00-705	Complied	

This device described above has been tested by NTEK Testing Technology Co., Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

This report shall not be reproduced except in full, without the written approval of NTEK Testing Technology Co., Ltd., this document may be altered or revised by NTEK Testing Technology Co., Ltd., personnel only, and shall be noted in the revision of the document.

The test results of this report relate only to the tested sample identified in this report.

Date of Test :		26 Feb. 2016 ~ 11 Mar. 2016
Testing Engineer	:_	Eileen Wu. (Eileen Liu)
		(Elleell Liu)
Technical Manager	:	Jason chen
		(Jason Chen)
Authorized Signatory	:	San. Chen
		(Sam Chen)



2 SUMMARY OF TEST RESULTS

FCC Part15 (15.247), Subpart C				
Standard Section	Test Item	Verdict	Remark	
15.207	Conducted Emission	PASS		
15.247(c)	Radiated Spurious Emission	PASS		
15.247(a)(1)	Hopping Channel Separation	PASS		
15.247(b)(1)	Peak Output Power	PASS		
15.247(a)(iii)	Number of Hopping Frequency	PASS		
15.247(a)(iii)	Dwell Time	PASS		
15.247(a)(1)	Bandwidth	PASS		
15.205	Band Edge Emission	PASS		
15.203	Antenna Requirement	PASS		

Remark:

- 1. "N/A" denotes test is not applicable in this Test Report.
- 2. All test items were verified and recorded according to the standards and without any deviation during the test.
- 3. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



3 FACILITIES AND ACCREDITATIONS

3.1 FACILITIES

All measurement facilities used to collect the measurement data are located at

1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang Street, Bao'an District, Shenzhen P.R. China

The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.10 and CISPR Publication 22.

3.2 LABORATORY ACCREDITATIONS AND LISTINGS

Site Description

EMC Lab. : Accredited by CNAS, 2014.09.04

The certificate is valid until 2017.09.03

The Laboratory has been assessed and proved to be in compliance with

CNAS-CL01:2006 (identical to ISO/IEC 17025:2005) The Certificate Registration Number is L5516.

Accredited by Industry Canada, August 29, 2012 The Certificate Registration Number is 9270A-1.

Name of Firm : NTEK Testing Technology Co., Ltd

Site Location : 1/F, Building E, Fenda Science Park, Sanwei Community, Xixiang

Street, Bao'an District, Shenzhen P.R. China.

3.3 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement y±U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty	
1	Conducted Emission Test	±1.38dB	
2	RF power, conducted	±0.16dB	
3	Spurious emissions, conducted	±0.21dB	
4	All emissions, radiated(<1G)	±4.68dB	
5	All emissions, radiated(>1G)	±4.89dB	
6	Temperature	±0.5°C	
7	Humidity	±2%	



4 GENERAL DESCRIPTION OF EUT

Product Feature and Specification		
Equipment	Smart Phone	
Trade Name	PCBOX	
FCC ID	2AFK7-PCB-I316	
Model No.	PCB-I316	
Serial Model	SOFR50BP	
Model Difference	All the model are the same circuit and RF module, except the model name.	
Operating Frequency	2402MHz~2480MHz	
Modulation	GFSK, π/4-DQPSK, 8DPSK	
Number of Channels	79 Channels	
Antenna Type	FPCB Antenna	
Antenna Gain	1 dBi	
	☑DC supply: DC 3.8V/2300mAh from Li-ion Battery or DC 5V from USB Port.	
Power supply	⊠Adapter supply: Model: WTA0501000USA1 Input: 100-240V~, 50/60Hz, 0.3A Output: 5.0V==-,1000mA	
HW Version	N/A	
SW Version	N/A	

Note: Based on the application, features, or specification exhibited in User's Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification, please refer to the User's Manual.



Revision History

Report No.	Version	Description	Issued Date
NTEK-2016NT02264448F2	Rev.01	Initial issue of report	Mar 11, 2016
		-	
		-	



5 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

The Transmitter was operated in the normal operating mode. The TX frequency was fixed which was for the purpose of the measurements.

Test of channel included the lowest and middle and highest frequency to perform the test, then record on this report.

Those data rates (1Mbps for GFSK modulation; 2Mbps for $\pi/4$ -DQPSK modulation; 3Mbps for 8DPSK modulation) were used for all test.

The EUT was pretested with 3 orientations placed on the table for the radiated emission measurement –X, Y, and Z-plane. The Y-plane results were found as the worst case and were shown in this report.

Carrier Frequency and Channel list:

Channel	Frequency(MHz)
0	2402
1	2403
39	2441
40	2442
	•••
77	2479
78	2480

Note: $fc=2402MHz+k\times 1MHz$ k=0 to 78

The following summary table is showing all test modes to demonstrate in compliance with the standard.

For AC Conducted Emission			
Final Test Mode Description			
Mode 1 normal link mode			

Note: AC power line Conducted Emission was tested under maximum output power.

For Radiated Test Cases		
Final Test Mode	Description	
Mode 2	CH00(2402MHz)	
Mode 3	CH39(2441MHz)	
Mode 4	CH78(2480MHz)	

Note: For radiated test cases, the worst mode data rate 1Mbps was reported only, because this data rate has the highest RF output power at preliminary tests, and no other significantly frequencies found in conducted spurious emission.

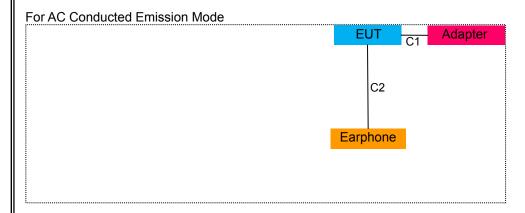
For Conducted Test Cases		
Final Test Mode	Description	
Mode 5	CH00(2402MHz)	
Mode 6	CH39(2441MHz)	
Mode 7	CH78(2480MHz)	
Mode 8	Hopping	

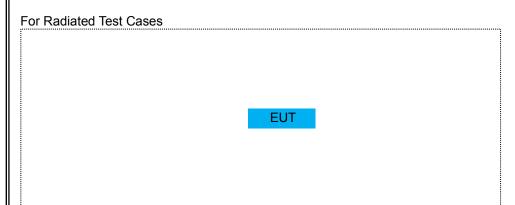
Note: The engineering test program was provided and the EUT was programmed to be in continuously transmitting mode.

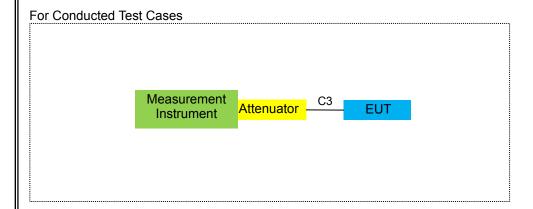


6 SETUP OF EQUIPMENT UNDER TEST

6.1 BLOCK DIAGRAM CONFIGURATION OF TEST SYSTEM









6.2 SUPPORT EQUIPMENT

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.

			_		
Item	Equipment	Mfr/Brand	Model/Type No.	FCC ID	Note
E-1	Smart Phone	PCBOX	PCB-i316	2AFK7-PCB-I316	EUT
E-2	Adapter	N/A	WTA0501000USA1	N/A	Peripherals
E-3	Earphone	N/A	L662	N/A	Peripherals

Item	Cable Type	Shielded Type	Ferrite Core	Length
C-1	USB Cable	NO	NO	1.0m
C-2	Earphone	NO	NO	0.8m
C-3	RF Cable	NO	NO	0.5m

Notes:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in <code>[Length]</code> column.
- (3) "YES" is means "shielded" "with core"; "NO" is means "unshielded" "without core".



6.3 EQUIPMENTS LIST FOR ALL TEST ITEMS

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Spectrum Analyzer	Agilent	E4407B	MY45108040	2015.07.06	2016.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2015.06.07	2016.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2015.07.06	2016.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2015.06.07	2016.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2015.06.07	2016.06.06	1 year
6	Horn Antenna	EM	EM-AH-1018 0	2011071402	2015.07.06	2016.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2015.07.06	2016.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2015.07.06	2016.07.05	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2015.06.08	2016.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2015.07.06	2016.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619.0 5	2015.07.06	2016.07.05	1 year
12	Test Cable	N/A	R-01	N/A	2015.07.06	2016.07.05	1 year
13	Test Cable	N/A	R-02	N/A	2015.07.06	2016.07.05	1 year
14	Test Receiver	R&S	ESCI	101160	2015.06.06	2016.06.05	1 year
15	LISN	R&S	ENV216	101313	2015.08.24	2016.08.23	1 year
16	LISN	EMCO	3816/2	00042990	2015.08.24	2016.08.23	1 year
17	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2015.06.07	2016.06.06	1 year
18	Passive Voltage Probe	R&S	ESH2-Z3	100196	2015.06.07	2016.06.06	1 year
19	Absorbing clamp	R&S	MOS-21	100423	2015.06.08	2016.06.07	1 year
20	Test Cable	N/A	C01	N/A	2015.06.08	2016.06.07	1 year
21	Test Cable	N/A	C02	N/A	2015.06.08	2016.06.07	1 year
22	Test Cable	N/A	C03	N/A	2015.06.08	2016.06.07	1 year
23	Attenuation	MCE	24-10-34	BN9258	2015.06.08	2016.06.07	1 year

Note: Each piece of equipment is scheduled for calibration once a year.



7 TEST REQUIREMENTS

7.1 CONDUCTED EMISSIONS TEST

7.1.1 Applicable Standard

According to FCC Part 15.207(a) and KDB 174176 D01 Line Conducted FAQ v01r01

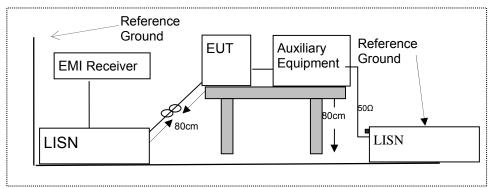
7.1.2 Conformance Limit

Fraguanov(MHz)	Conducted	I Emission Limit
Frequency(MHz)	Quasi-peak	Average
0.15-0.5	66-56*	56-46*
0.5-5.0	56	46
5.0-30.0	60	50

Note: 1. *Decreases with the logarithm of the frequency

- 2. The lower limit shall apply at the transition frequencies
- 3. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

7.1.3 Test Configuration



7.1.4 Test Procedure

According to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 Conducted emissions the EUT measured in the frequency range between 0.15 MHz and 30 MHz using CISPR Quasi-Peak and average detector mode.

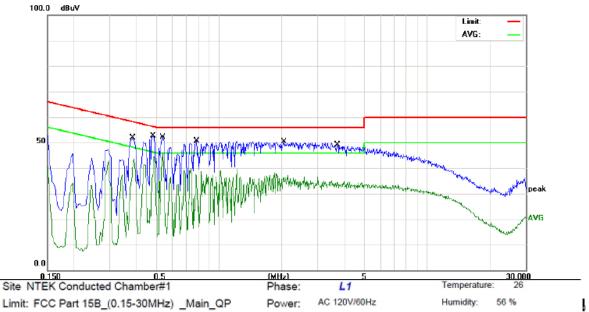
- 1. The EUT was placed 0.4 meter from the conducting wall of the shielding room.
- 2. The EUT was placed on a table which is 0.8m above ground plane.
- 3. Connect EUT to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- 4. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40cm long.
- 5. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- 6. LISN at least 80 cm from nearest part of EUT chassis.
- 7. The frequency range from 150KHz to 30MHz was searched.
- 8. Set the test-receiver system to Peak Detect Function and specified bandwidth(IF bandwidth=9KHz) with Maximum Hold Mode
- 9. For the actual test configuration, please refer to the related Item –EUT Test Photos.

7.1.5 Test Results

Pass







Limit: FCC Part 15B_(0.15-30MHz) _Main_QP

AC 120V/60Hz Power:

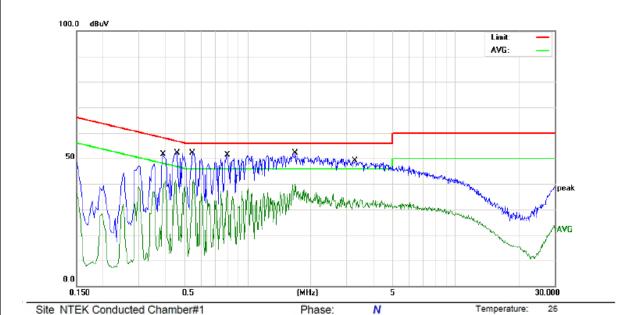
Humidity: 56 %

Mode: BT3.0 Note: Adapter

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
		MHz	dBu∀	dB	dBu∀	dBu∀	dB	Detector	Comment
1		0.3899	41.77	10.05	51.82	58.06	-6.24	QP	
2		0.3899	33.45	10.05	43.50	48.06	-4.56	AVG	
3		0.4858	42.83	9.83	52.66	56.24	-3.58	QP	
4		0.4858	34.90	9.83	44.73	46.24	-1.51	AVG	
5		0.5380	42.25	9.80	52.05	56.00	-3.95	QP	
6	*	0.5380	35.98	9.80	45.78	46.00	-0.22	AVG	
7		0.7820	40.86	9.80	50.66	56.00	-5.34	QP	
8		0.7820	30.04	9.80	39.84	46.00	-6.16	AVG	
9		2.0579	40.62	9.73	50.35	56.00	-5.65	QP	
10		2.0579	28.19	9.73	37.92	46.00	-8.08	AVG	
11		3.7219	39.36	9.75	49.11	56.00	-6.89	QP	
12		3.7219	25.20	9.75	34.95	46.00	-11.05	AVG	

^{*:}Maximum data x:Over limit !:over margin





Limit: FCC Part 15B_(0.15-30MHz) _Main_QP Mode: BT3.0

Note: Adapter

Power: AC 120V/60Hz Humidity: 56 %

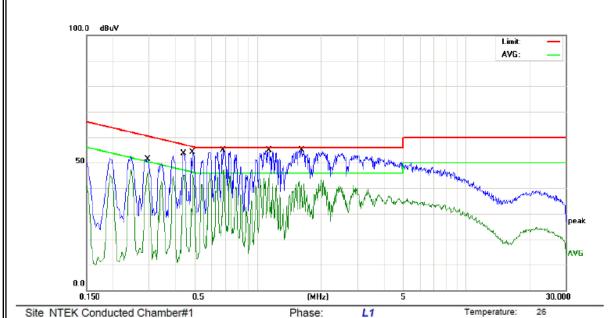
No. Mk.	Freq.	Reading Level	Correct	weasure- ment	Limit	Over		
	MHz	dBuV	dB	dBu∀	dBu∀	dB	Detector	Comment
1	0.3899	41.67	10.05	51.72	58.06	-6.34	QP	
2	0.3899	30.97	10.05	41.02	48.06	-7.04	AVG	
3	0.4580	42.34	9.90	52.24	56.73	-4.49	QP	
4	0.4580	31.66	9.90	41.56	46.73	-5.17	AVG	
5	0.5420	42.37	9.80	52.17	56.00	-3.83	QP	
6	0.5420	31.81	9.80	41.61	46.00	-4.39	AVG	
7	0.7980	41.61	9.80	51.41	56.00	-4.59	QP	
8	0.7980	27.79	9.80	37.59	46.00	-8.41	AVG	
9 *	1.6979	42.44	9.77	52.21	56.00	-3.79	QP	
10	1.6979	30.10	9.77	39.87	46.00	-6.13	AVG	
11	3.2780	39.27	9.74	49.01	56.00	-6.99	QP	
12	3.2780	24.46	9.74	34.20	46.00	-11.80	AVG	

^{*:}Maximum data x:Over limit !:over margin

Humidity:

56 %





Power:

Limit: FCC Part 15B_(0.15-30MHz) _Main_QP

Mode: BT3.0 Note: Adapter

No. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBu∀	dBu∀	dB	Detector	Comment
1	0.2938	41.35	10.14	51.49	60.41	-8.92	QP	
2	0.2938	36.37	10.14	46.51	50.41	-3.90	AVG	
3	0.4420	43.62	9.94	53.56	57.02	-3.46	QP	
4	0.4420	35.28	9.94	45.22	47.02	-1.80	AVG	
5	0.4858	41.57	9.83	51.40	56.24	-4.84	QP	
6 *	0.4858	35.38	9.83	45.21	46.24	-1.03	AVG	
7	0.6860	42.12	9.78	51.90	56.00	-4.10	QP	
8	0.6860	34.92	9.78	44.70	46.00	-1.30	AVG	
9	1.1298	42.77	9.83	52.60	56.00	-3.40	QP	
10	1.1298	34.42	9.83	44.25	46.00	-1.75	AVG	
11	1.6140	42.32	9.78	52.10	56.00	-3.90	QP	
12	1.6140	32.77	9.78	42.55	46.00	-3.45	AVG	

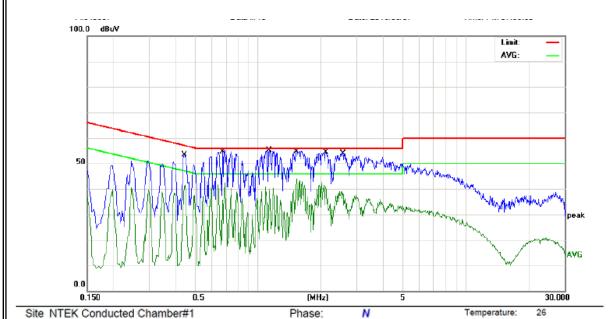
AC 240V/50Hz

^{*:}Maximum data x:Over limit !:over margin

Humidity:

56 %





Power:

i imity 500 Both 45B (0.45 00MHz) Main 05

Limit: FCC Part 15B_(0.15-30MHz) _Main_QP

Mode: BT3.0

Note: Adapter

	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
·			MHz	dBu∨	dB	dBu∀	dBu∀	dB	Detector	Comment
	1		0.4420	43.39	9.95	53.34	57.02	-3.68	QP	
	2		0.4420	31.37	9.95	41.32	47.02	-5.70	AVG	
	3		0.6740	42.99	9.81	52.80	56.00	-3.20	QP	
	4		0.6740	32.48	9.81	42.29	46.00	-3.71	AVG	
•	5	*	1.1338	44.05	9.85	53.90	56.00	-2.10	QP	
	6		1.1338	31.11	9.85	40.96	46.00	-5.04	AVG	
	7		1.5339	42.89	9.81	52.70	56.00	-3.30	QP	
	8		1.5339	34.06	9.81	43.87	46.00	-2.13	AVG	
	9		2.1179	43.05	9.75	52.80	56.00	-3.20	QP	
	10		2.1179	32.88	9.75	42.63	46.00	-3.37	AVG	
·	11		2.5579	42.16	9.74	51.90	56.00	-4.10	QP	
•	12		2.5579	29.47	9.74	39.21	46.00	-6.79	AVG	

AC 240V/50Hz

^{*:}Maximum data x:Over limit !:over margin



7.2 RADIATED SPURIOUS EMISSION

7.2.1 Applicable Standard

According to FCC Part 15.247(d) and 15.209 and DA 00-705

7.2.2 Conformance Limit

According to FCC Part 15.247(d): radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)). According to FCC Part15.205. Restricted bands

According to 1 CC Part 13.20	o, restricted barras		
MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
10.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(2)
13.36-13.41			

20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

restricted barid specified off	13.203(a), then the 13.200	(a) iii iii iii iiic labic below i	ias to be followed.
Restricted Frequency(MHz)	Field Strength (μV/m)	Field Strength (dBµV/m)	Measurement Distance
0.009~0.490	2400/F(KHz)	20 log (uV/m)	300
0.490~1.705	2400/F(KHz)	20 log (uV/m)	30
1.705~30.0	30	29.5	30
30-88	100	40	3
88-216	150	43.5	3
216-960	200	46	3
Above 960	500	54	3

Limits of Radiated Emission Measurement(Above 1000MHz)

Frequency(MHz)	Class B (dBuV/m) (at 3M)				
	PEAK	AVERAGE			
Above 1000	74	54			

Remark :1. Emission level in dBuV/m=20 log (uV/m)

- 2. Measurement was performed at an antenna to the closed point of EUT distance of meters.
- 3. Distance extrapolation factor =40log(Specific distance/ test distance)(dB); Limit line=Specific limits(dBuV) + distance extrapolation factor.

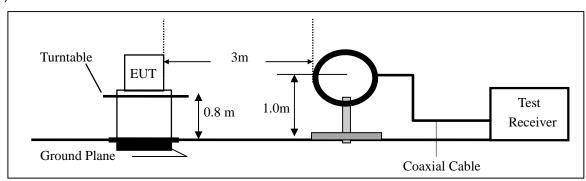
7.2.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

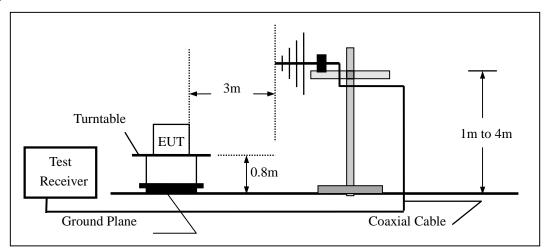


7.2.4 Test Configuration

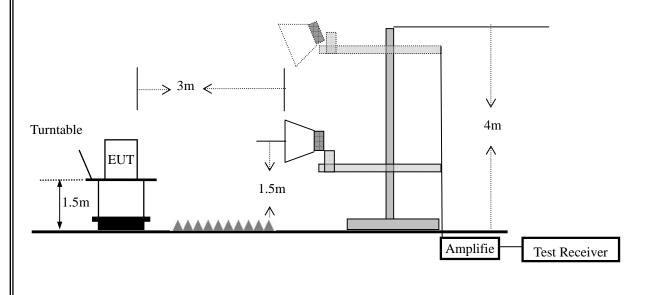
(a) For radiated emissions below 30MHz



(b) For radiated emissions from 30MHz to 1000MHz



(c) For radiated emissions above 1000MHz





7.2.5 Test Procedure

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.10-2013. The test distance is 3m.The setup is according to the requirements in Section 13.1.4.1 of ANSI C63.10-2013 and CAN/CSA-CEI/IEC CISPR 22.

This test is required for any spurious emission that falls in a Restricted Band, as defined in Section 15.205. It must be performed with the highest gain of each type of antenna proposed for use with the EUT.

Ose the following spectrum analyzer settings	
0 , 0 ,	

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted band)	1 MHz / 1 MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB 200Hz for QP
Start ~ Stop Frequency	150kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 m for below 1GHz and 1.5m for above 1GHz the ground at a 3 meter. The table was rotated 360 degrees to determine the position of the highest radiation
- c. The height of the equipment or of the substitution antenna shall be 0.8 m for below 1GHz and 1.5m for above 1GHz; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note

Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported

During the radiated emission test, the Spectrum Analyzer was set with the following configurations:

Frequency Band (MHz)	Function	Resolution bandwidth	Video Bandwidth
30 to 1000	QP	120 kHz	300 kHz
Above 1000	Peak	1 MHz	1 MHz
Above 1000	Average	1 MHz	10 Hz

Note: for the frequency ranges below 30 MHz, a narrower RBW is used for these ranges but the measured value should add a RBW correction factor (RBWCF) where RBWCF [dB] =10*lg(100 [kHz]/narrower RBW [kHz]). , the narrower RBW is 1 kHz and RBWCF is 20 dB for the frequency 9 kHz to 150 kHz, and the narrower RBW is 10 kHz and RBWCF is 10 dB for the frequency 150 kHz to 30 MHz.



7.2.6 Test Results

■ Spurious Emission below 30MHz (9KHz to 30MHz)

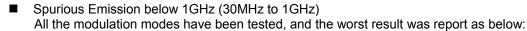
EUT:	Smart Phone	Model No.:	PCB-i316
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Eileen Liu

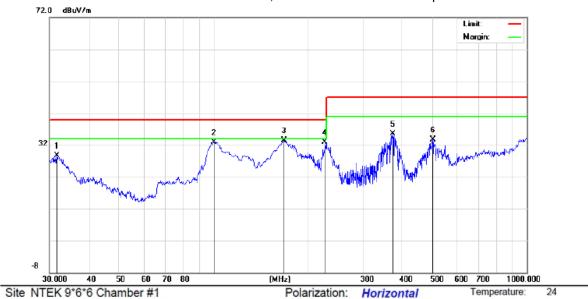
Freq.	Ant.Pol.	Emission Level(dBuV/m)		Limit 3m(dBuV/m)		Over(dB)	
(MHz)	H/V	PK AV ´		PK	AV	PK	AV
				-			

Note: the amplitude of spurious emission that is attenuated by more than 20dB below the permissible limit has no need to be reported.

Distance extrapolation factor =20log(Specific distance/ test distance)(dB); Limit line=Specific limits(dBuV) + distance extrapolation factor







Limit: FCC_PART15_B_03m_QP

Polarization:

Temperature:

Power:

Humidity: 50 %

Mode: BT Note:

No.	Mk	. Freq.	Reading Level	Correct Factor	Meäsure- ment	Limit	Over		Antenna Height	Degree	
		MHz	dBu∀	dB	dBuV/m	dBu\//m	dB	Detector	cm	degree	Comment
1		31.6202	9.81	18.99	28.80	40.00	-11.20	QP			
2		100.2286	22.58	10.25	32.83	40.00	-7.17	QP			
3	*	167.8240	21.31	12.20	33.51	40.00	-6.49	QP			
4		226.8934	21.93	10.88	32.81	40.00	-7.19	QP			
5		373.3110	20.68	14.77	35.45	47.00	-11.55	QP			
6		501.1788	16.29	17.42	33.71	47.00	-13.29	QP			

^{*:}Maximum data x:Over limit !:over margin

Humidity: 50 %





Limit: FCC_PART15_B_03m_QP

Mode: BT Note:

No	. M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		Antenna Height	Table Degree	
		MHz	dBu∀	dB	dBuV/m	dBu∀/m	dB	Detector	cm	degree	Comment
1	*	32.8637	17.90	18.28	36.18	40.00	-3.82	QP			
2		42.4508	18.33	13.29	31.62	40.00	-8.38	QP			
3	į	97.4560	24.91	10.37	35.28	40.00	-4.72	QP			
4	į	158.6673	24.20	11.55	35.75	40.00	-4.25	QP			
5		393.4723	15.28	14.79	30.07	47.00	-16.93	QP			
6		489.0269	13.91	17.14	31.05	47.00	-15.95	QP			

Power:

^{*:}Maximum data x:Over limit !:over margin



■ Spurious Emission Above 1GHz (1GHz to 25GHz)

EUT:	Smart Phone	Model No.:	PCB-i316
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Eileen Liu

All the modulation modes have been tested, and the worst result was report as below:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remar	Commont		
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	k	Comment		
	Low Channel (2402 MHz)-Above 1G								
4804.215	60.25	-3.64	56.61	74.00	-17.39	Pk	Vertical		
4804.215	42.18	-3.64	38.54	54.00	-15.46	AV	Vertical		
7206.196	60.34	-0.95	59.39	74.00	-14.61	Pk	Vertical		
7206.196	41.19	-0.95	40.24	54.00	-13.76	AV	Vertical		
4804.243	62.54	-3.64	58.90	74.00	-15.10	Pk	Horizontal		
4804.243	42.93	-3.64	39.29	54.00	-14.71	AV	Horizontal		
7206.269	60.29	-0.95	59.34	74.00	-14.66	Pk	Horizontal		
7206.269	43.64	-0.95	42.69	54.00	-11.31	AV	Horizontal		
		Mid Chan	nel (2441 MHz)-Abo	ove 1G					
4882.142	62.51	-3.68	58.83	74.00	-15.17	Pk	Vertical		
4882.142	46.59	-3.68	42.91	54.00	-11.09	AV	Vertical		
7323.449	61.47	-0.82	60.65	74.00	-13.35	Pk	Vertical		
7323.449	43.29	-0.82	42.47	54.00	-11.53	AV	Vertical		
4882.158	61.42	-3.68	57.74	74.00	-16.26	Pk	Horizontal		
4882.158	46.95	-3.68	43.27	54.00	-10.73	AV	Horizontal		
7323.146	59.82	-0.82	59.00	74.00	-15.00	Pk	Horizontal		
7323.146	42.34	-0.82	41.52	54.00	-12.48	AV	Horizontal		
		High Chan	nel (2480 MHz)- Ab	ove 1G					
4960.223	62.34	-3.59	58.75	74.00	-15.25	Pk	Vertical		
4960.223	43.65	-3.59	40.06	54.00	-13.94	AV	Vertical		
7440.114	58.92	-0.68	58.24	74.00	-15.76	Pk	Vertical		
7440.114	42.17	-0.68	41.49	54.00	-12.51	AV	Vertical		
4960.962	61.32	-3.59	57.73	74.00	-16.27	Pk	Horizontal		
4960.962	42.35	-3.59	38.76	54.00	-15.24	AV	Horizontal		
7440.247	61.18	-0.68	60.50	74.00	-13.50	Pk	Horizontal		
7440.247	43.24	-0.68	42.56	54.00	-11.44	AV	Horizontal		



■ Spurious Emission in Restricted Band 2310-2390MHz and 2483.5-2500MHz

EUT:	Smart Phone	Model No.:	PCB-i316
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode2/Mode3/Mode4	Test By:	Eileen Liu

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector				
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Type	Comment			
, ,	1Mbps Non-hopping									
2390	60.31	-13.06	47.25	74.00	-26.75	peak	Vertical			
2390	59.45	-13.06	46.39	74.00	-27.61	peak	Horizontal			
2483.5	61.95	-12.78	49.17	74.00	-24.83	peak	Vertical			
2483.5	60.87	-12.78	48.09	74.00	-25.91	peak	Horizontal			
			1Mbps ho	pping			_			
2390	60.81	-13.06	47.75	74.00	-26.25	peak	Vertical			
2390	60.38	-13.06	47.32	74.00	-26.68	peak	Horizontal			
2483.5	58.94	-12.78	46.16	74.00	-27.84	peak	Vertical			
2483.5	60.82	-12.78	48.04	74.00	-25.96	peak	Horizontal			
			2Mbps Non-	hopping		1	_			
2390	61.02	-13.06	47.96	74.00	-26.04	peak	Vertical			
2390	60.76	-13.06	47.70	74.00	-26.30	peak	Horizontal			
2483.5	61.28	-12.78	48.50	74.00	-25.50	peak	Vertical			
2483.5	59.74	-12.78	46.96	74.00	-27.04	peak	Horizontal			
	Г		2Mbps ho	pping		Г	T			
2390	59.19	-13.06	46.13	74.00	-27.87	peak	Vertical			
2390	59.76	-13.06	46.70	74.00	-27.30	peak	Horizontal			
2483.5	60.11	-12.78	47.33	74.00	-26.67	peak	Vertical			
2483.5	58.54	-12.78	45.76	74.00	-28.24	peak	Horizontal			
	ı		3Mbps Non-	hopping		1				
2390	59.15	-13.06	46.09	74.00	-27.91	peak	Vertical			
2390	61.61	-13.06	48.55	74.00	-25.45	peak	Horizontal			
2483.5	60.77	-12.78	47.99	74.00	-26.01	peak	Vertical			
2483.5	60.30	-12.78	47.52	74.00	-26.48	peak	Horizontal			
	 		3Mbps ho	pping						
2390	60.29	-13.06	47.23	74.00	-26.77	peak	Vertical			
2390	59.02	-13.06	45.96	74.00	-28.04	peak	Horizontal			
2483.5	58.64	-12.78	45.86	74.00	-28.14	peak	Vertical			
2483.5	59.79	-12.78	47.01	74.00	-26.99	peak	Horizontal			



7.3 NUMBER OF HOPPING CHANNEL

7.3.1 Applicable Standard

According to FCC Part 15.247(a)(1) (iii)and DA 00-705

7.3.2 Conformance Limit

Frequency hopping systems in the 2400-2483.5MHz band shall use at least 15 channels.

7.3.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.3.4 Test Setup

Please refer to Section 6.1 of this test report.

7.3.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 7.8.3

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT must have its hopping function enabled.

Use the following spectrum analyzer settings:

Span = the frequency band of operation

RBW ≥ 1% of the span

 $VBW \geq RBW$

Sweep = auto

Detector function = peak

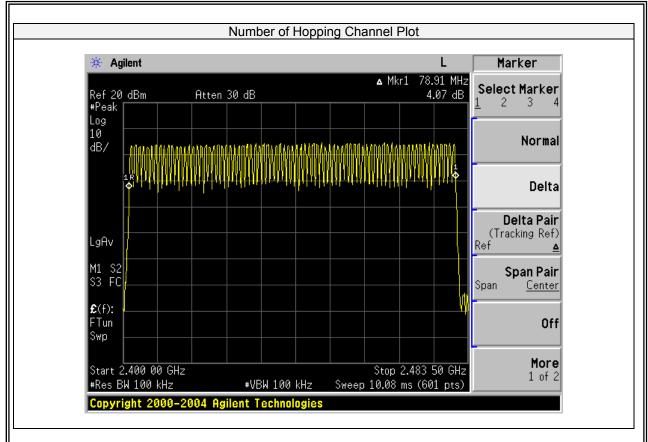
Trace = max hold

7.3.6 Test Results

EUT:	Smart Phone	Model No.:	PCB-i316
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode 8	Test By:	Eileen Liu

I	lumber of Hopping Adaptive Frequency hopping (Channel) (Channel)		limit	Verdict	
	79	20	≥15	Pass	







7.4 HOPPING CHANNEL SEPARATION MEASUREMENT

7.4.1 Applicable Standard

According to FCC Part 15.247(a)(1) and DA 00-705

7.4.2 Conformance Limit

Frequency hopping systems operating in the 2400-2483.5MHz band shall have hopping channel carrier frequencies that are separated by 25kHz or two-thirds of the 20dB bandwidth of the hopping channel, whichever is greater.

7.4.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.4.4 Test Setup

Please refer to Section 6.1 of this test report.

7.4.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 7.8.2

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Use the following spectrum analyzer settings:

Span = Measurement Bandwidth or Channel Separation

 $RBW \geq 30 KHz \\$

 $VBW \geq 3*RBW$

Sweep = auto

Detector function = peak

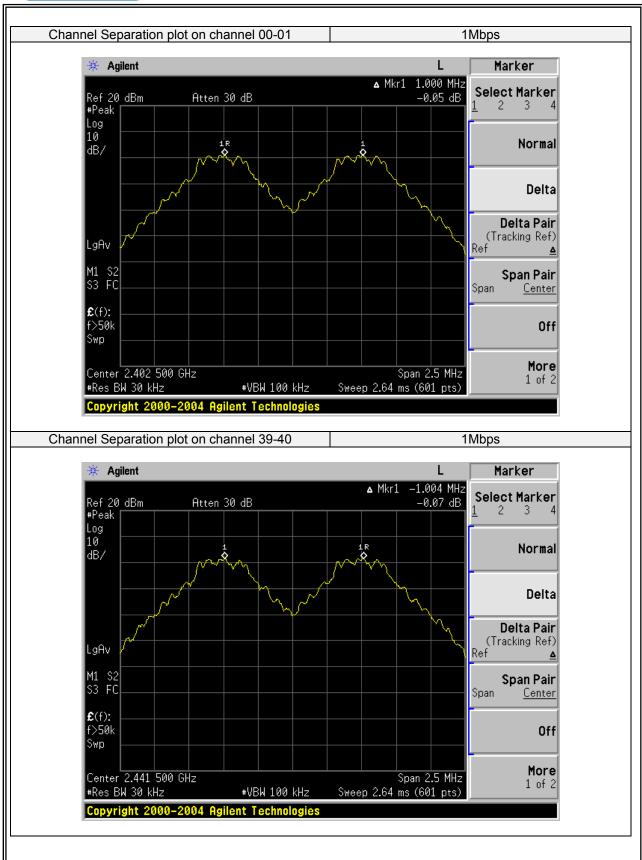
Trace = max hold

7.4.6 Test Results

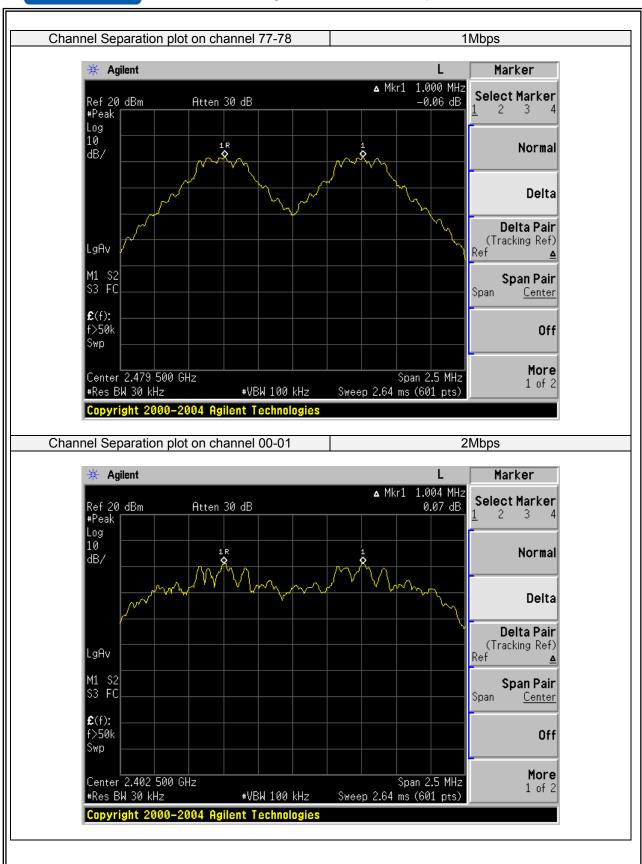
EUT:	Smart Phone	Model No.:	PCB-i316
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode5/Mode6/Mode7	Test By:	Eileen Liu

Modulation	Channel	Channel	Measurement	Limit (kHz)		
Mode	Number	Frequency	Bandwidth			Verdict
		(MHz)	(kHz)			
	0	2402	1000.00	>877.170	20dB BW	PASS
GFSK	39	2441	1004.00	>872.117	20dB BW	PASS
	78	2480	1000.00	>883.567	20dB BW	PASS
	0	2402	1004.00	>803.333	2/3 of 20dB BW	PASS
π/4-DQPSK	39	2441	1004.00	>814.667	2/3 of 20dB BW	PASS
	78	2480	1000.00	>820.000	2/3 of 20dB BW	PASS
	0	2402	1004.00	>808.000	2/3 of 20dB BW	PASS
8DPSK	39	2441	1000.00	>804.000	2/3 of 20dB BW	PASS
	78	2480	1000.00	>808.000	2/3 of 20dB BW	PASS

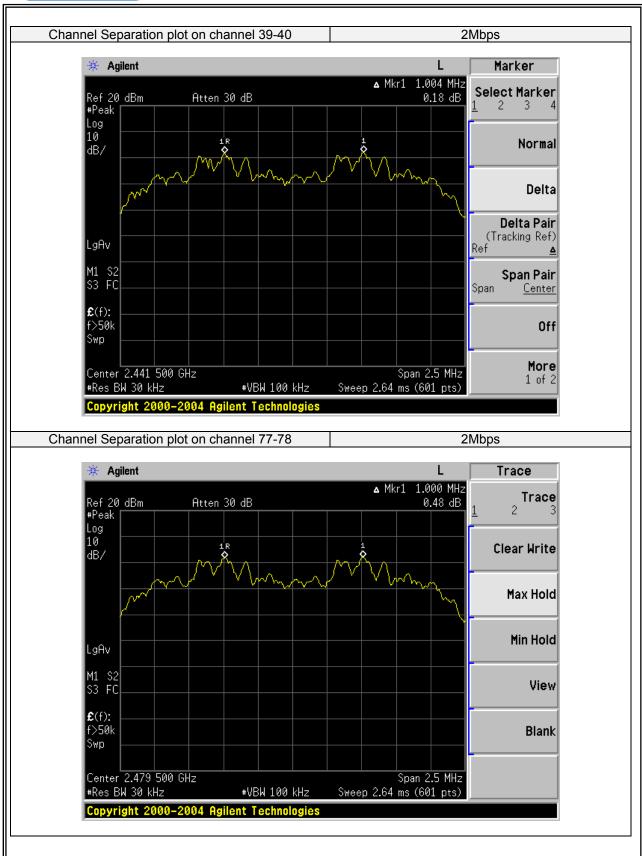




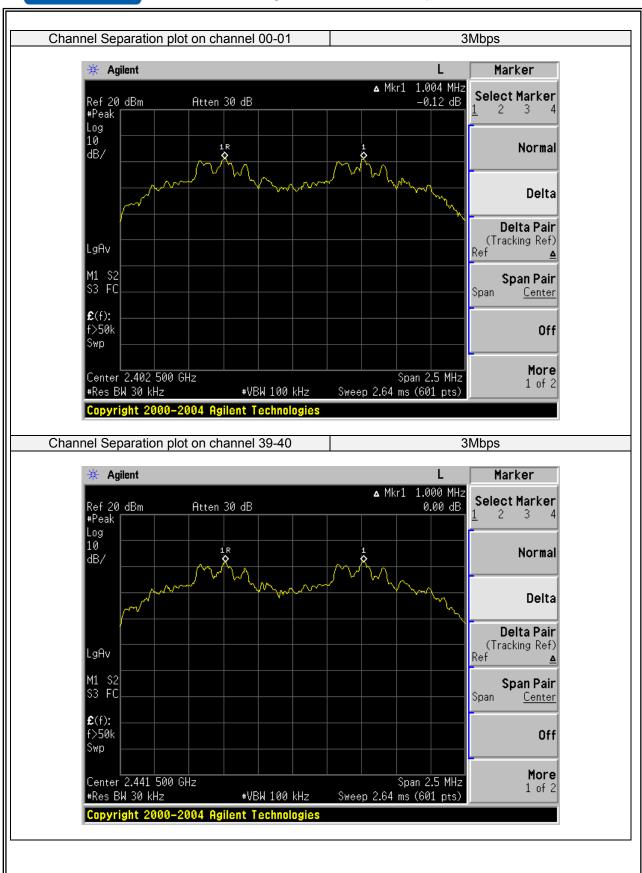




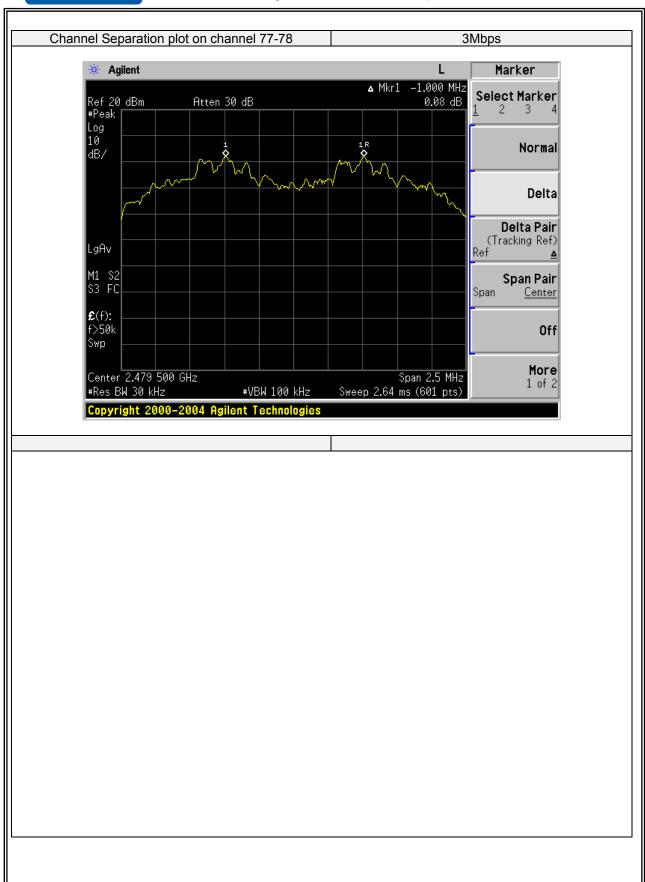














7.5 AVERAGE TIME OF OCCUPANCY (DWELL TIME)

7.5.1 Applicable Standard

According to FCC Part 15.247(a)(1)(iii) and DA 00-705

7.5.2 Conformance Limit

The average time of occupancy on any channel shall not be greater than 0.4s within a period of 0.4s multiplied by the number of hopping channels employed.

7.5.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.5.4 Test Setup

Please refer to Section 6.1 of this test report.

7.5.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 7.8.4

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT must have its hopping function enabled.

Use the following spectrum analyzer settings:

Span = zero span, centered on a hopping channel

 $RBW \geq 1MHz \\$

 $VBW \geq RBW$

Sweep = as necessary to capture the entire dwell time per hopping channel

Detector function = peak

Trace = max hold

Measure the maximum time duration of one single pulse.

Set the EUT for DH5, DH3 and DH1 packet transmitting.

Measure the maximum time duration of one single pulse.



7.5.6 Test Results

EUT:	Smart Phone	Model No.:	PCB-i316
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode 8	Test By:	Eileen Liu

Modulation Mode	Channel Number	Packet type	Mode	Hops Over Occupancy Time (ms)	Pulse width (ms)	dwell time (ms)	Limit (ms)	Verdict
	39	DH1	Normal	320.00	0.497	159.040	<400	PASS
	39		AFH	160.00	0.497	79.520	<400	PASS
GFSK	39	DH3	Normal	160.00	1.750	280.000	<400	PASS
GISK	39	סווס	AFH	80.00	1.750	140.000	<400	PASS
	39	DH5	Normal	106.67	2.981	317.983	<400	PASS
	39	טחט	AFH	53.33	2.981	158.977	<400	PASS
	39	2DH1	Normal	320.00	0.518	165.760	<400	PASS
	39		AFH	160.00	0.518	82.880	<400	PASS
π/4-DQPSK	39	2DH3	Normal	160.00	1.760	281.600	<400	PASS
II/4-DQF3K	39		AFH	80.00	1.760	140.800	<400	PASS
	39	2DH5	Normal	106.67	3.035	323.743	<400	PASS
	39		AFH	53.33	3.035	161.857	<400	PASS
	39	3DH1	Normal	320.00	0.508	162.560	<400	PASS
	39		AFH	160.00	0.508	81.280	<400	PASS
8DPSK	39	3DH3	Normal	160.00	1.771	283.360	<400	PASS
ODESK	39		AFH	80.00	1.771	141.680	<400	PASS
	39	3DH5	Normal	106.67	3.046	324.917	<400	PASS
	39	วบทอ	AFH	53.33	3.046	162.443	<400	PASS

Note:

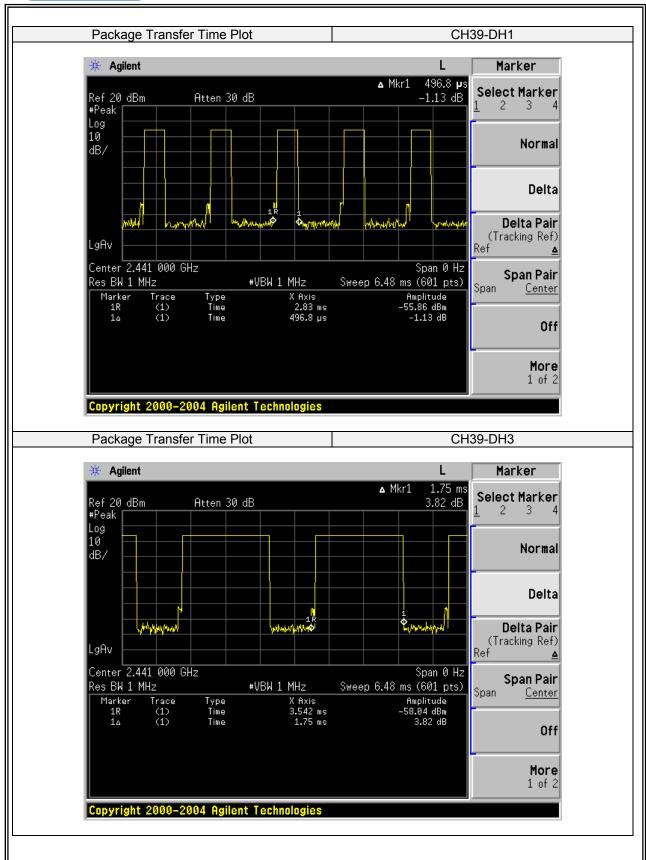
A Period Time = (channel number)*0.4

DH1 Time Slot: Reading * (1600/2)*31.6/(channel number) DH3 Time Slot: Reading * (1600/4)*31.6/(channel number) DH5 Time Slot: Reading * (1600/6)*31.6/(channel number)

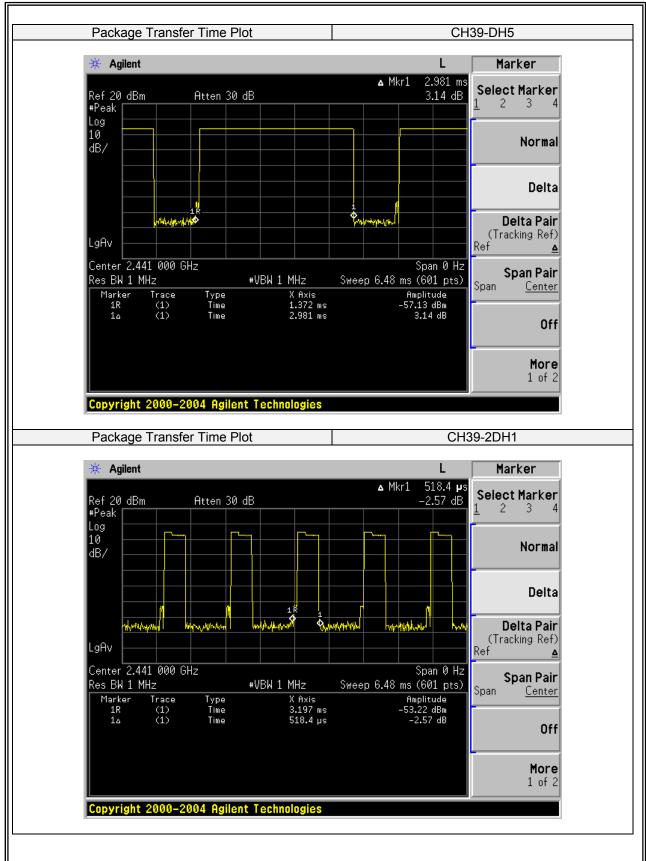
For Example:

- 1. In normal mode, hopping rate is 1600 hops/s with 6 slots in 79 hopping channels. With channel hopping rate (1600 / 6 / 79) in Occupancy Time Limit (0.4×79) (s), Hops Over Occupancy Time comes to $(1600 / 6 / 79) \times (0.4 \times 79) = 106.67$ hops.
- In AFH mode, hopping rate is 800 hops/s with 6 slots in 20 hopping channels.
 With channel hopping rate (800 / 6 / 20) in Occupancy Time Limit (0.4 x 20) (s), Hops Over Occupancy Time comes to (800 / 6 / 20) x (0.4 x 20) = 53.33 hops.
- 3. Dwell Time(s) = Hops Over Occupancy Time (hops) x Package Transfer Time

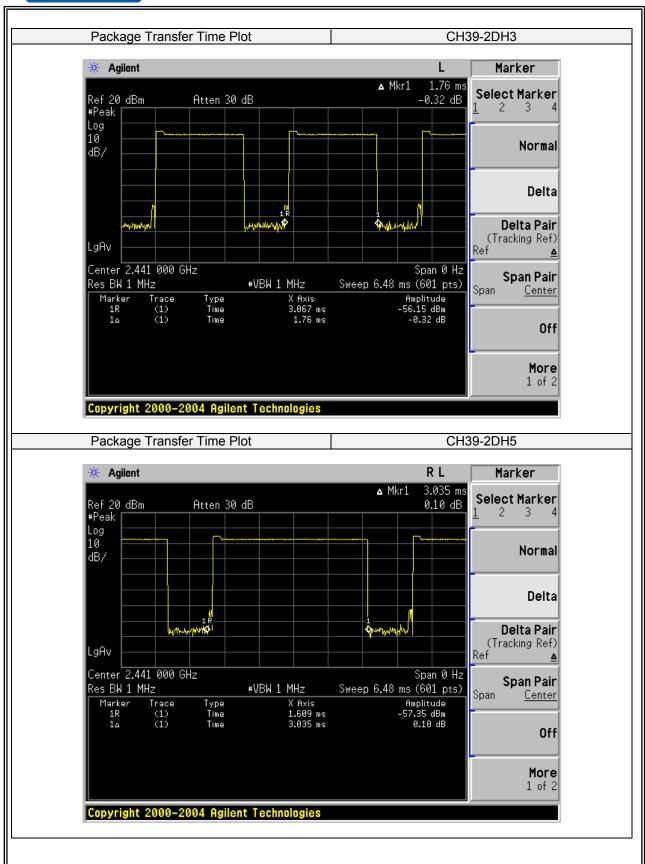




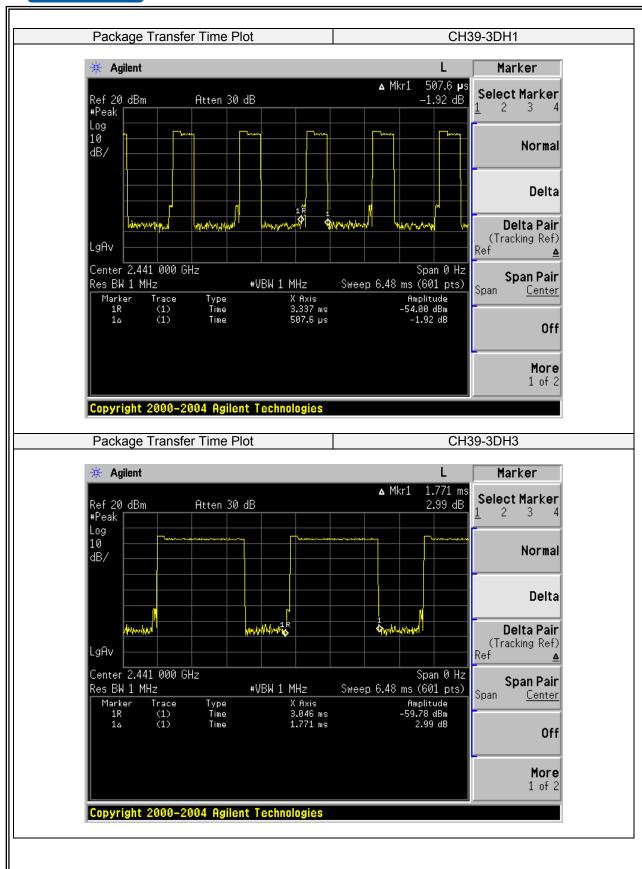




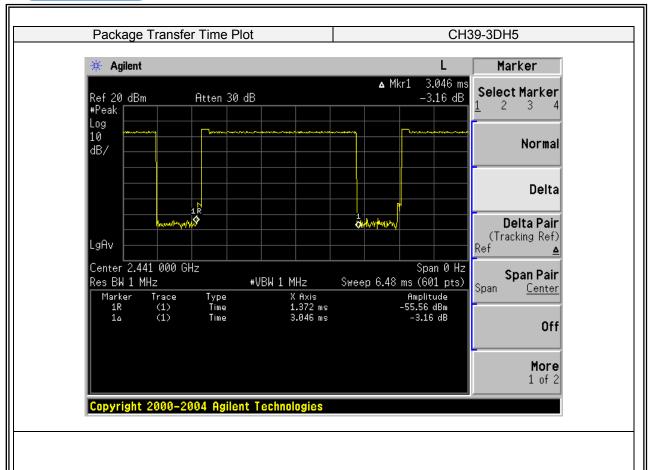














7.6 20BANDWIDTH TEST

7.6.1 Applicable Standard

According to FCC Part 15.249

7.6.2 Conformance Limit

No limit requirement.

7.6.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.6.4 Test Setup

Please refer to Section 6.1 of this test report.

7.6.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 6.9.2

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Use the following spectrum analyzer settings:

Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel

RBW \geq 1% of the 20 dB bandwidth

VBW ≥ RBW Sweep = auto

Detector function = peak

Trace = max hold

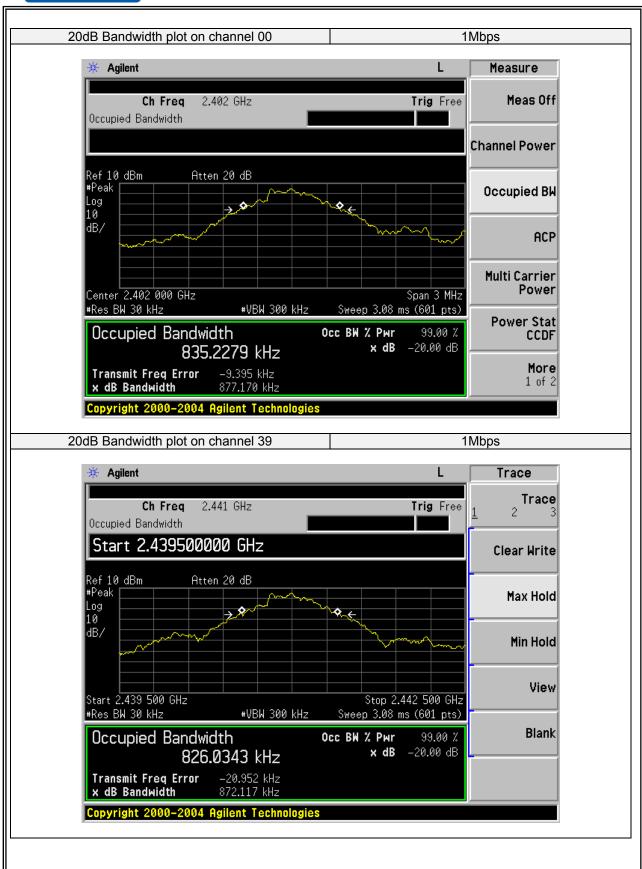
7.6.6 Test Results

EUT:	Smart Phone	Model No.:	PCB-i316
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode5/Mode6/Mode7	Test By:	Eileen Liu

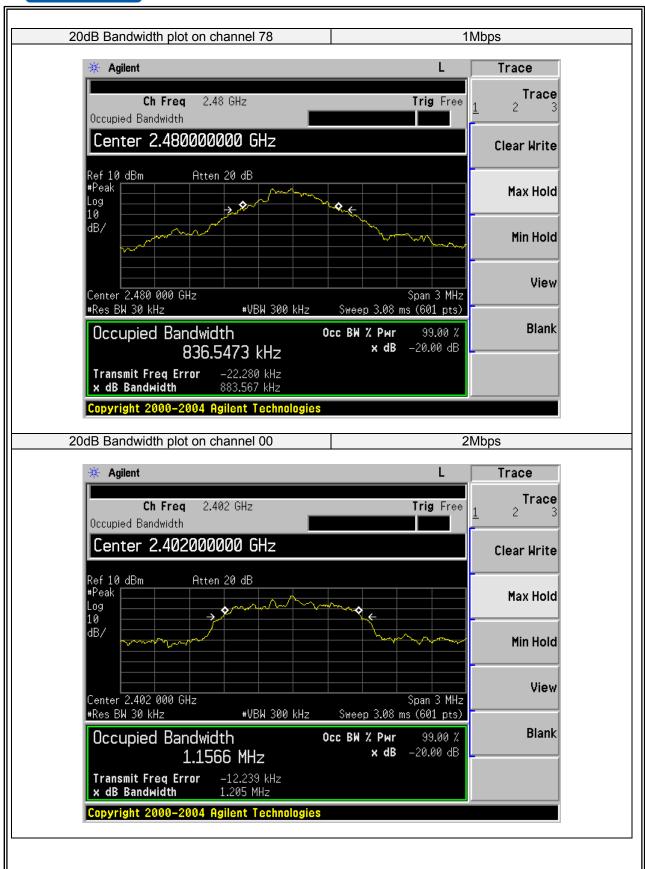
	Frequency	Measurement	Limit	Verdict		
	(MHz)	Bandwidth (KHz)	(kHz)	verdict		
	1Mbps					
00	2402	877.170	N/A	PASS		
39	2441	872.117	N/A	PASS		
78	2480	883.567	N/A	PASS		
	2Mbps					
00	2402	1205.000	N/A	PASS		
39	2441	1222.000	N/A	PASS		
78	2480	1230.000	N/A	PASS		
3Mbps						
00	2402	1212.000	N/A	PASS		
39	2441	1206.000	N/A	PASS		
78	2480	1212.000	N/A	PASS		
star NIA (NIst Assoliastic)						

Note: N/A (Not Applicable)

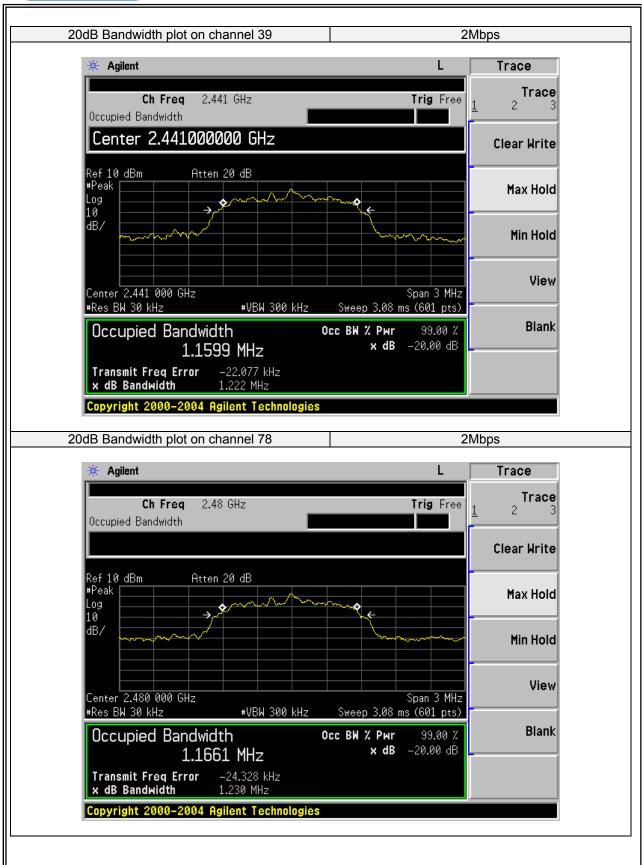




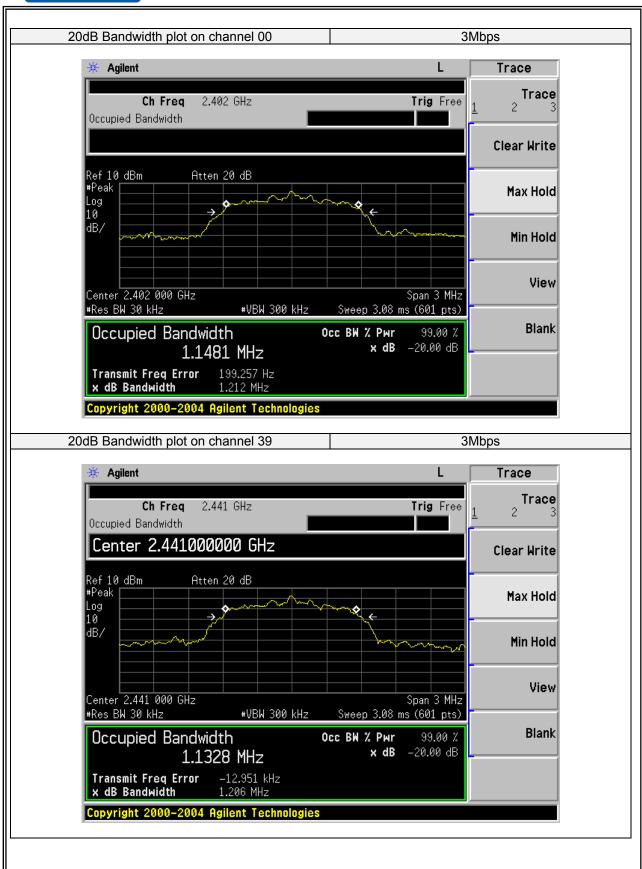




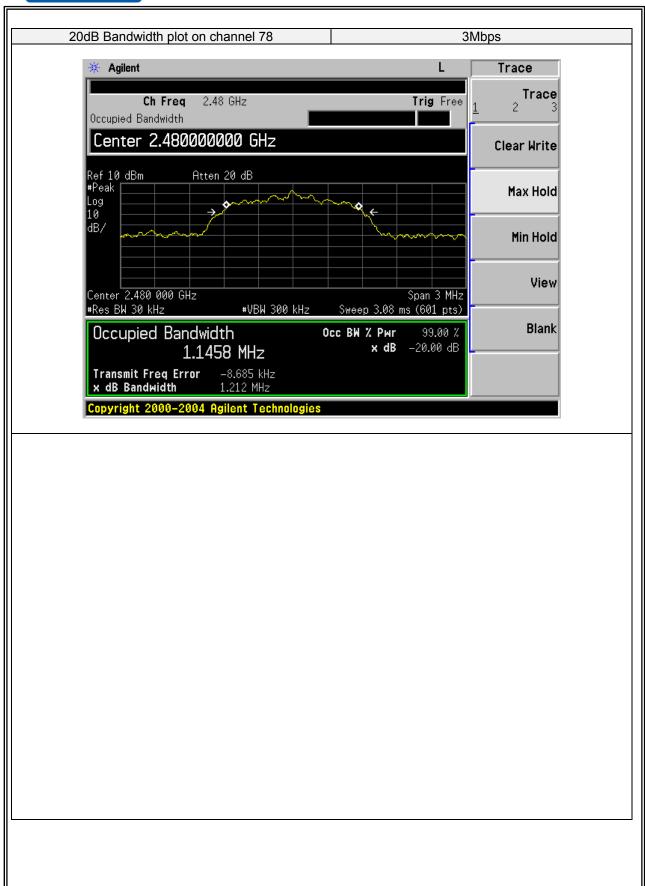














7.7 PEAK OUTPUT POWER

7.7.1 Applicable Standard

According to FCC Part 15.247(b)(1) and DA 00-705

7.7.2 Conformance Limit

The maximum peak conducted output power of the intentional radiator shall not exceed the following: (1) For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band 0.125 watts.

7.7.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.7.4 Test Setup

Please refer to Section 6.1 of this test report.

7.7.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 7.8.5.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT was operating in controlled its channel.

Use the following spectrum analyzer settings:

Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel

RBW \geq the 20 dB bandwidth of the emission being measured

 $VBW \geq RBW$

Sweep = auto

Detector function = peak

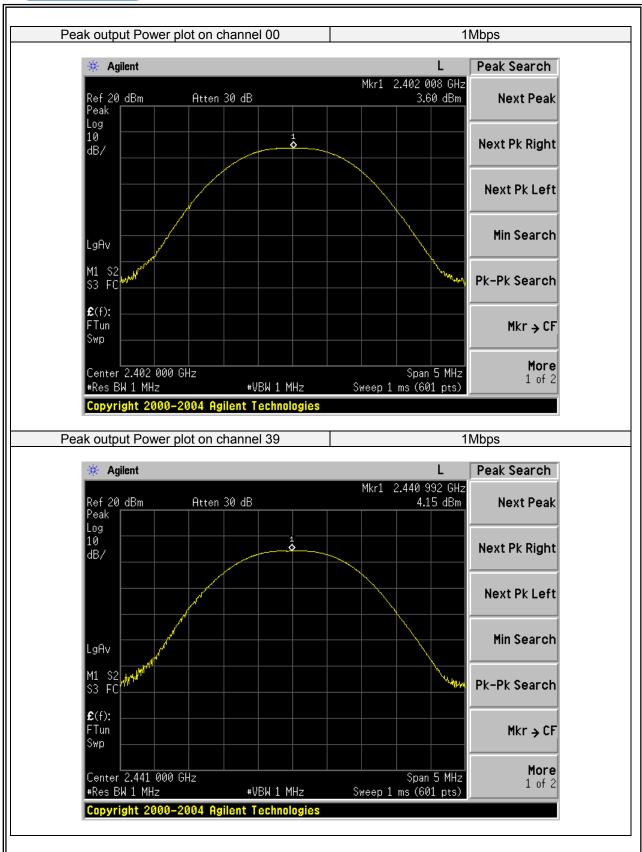
Trace = max hold

7.7.6 Test Results

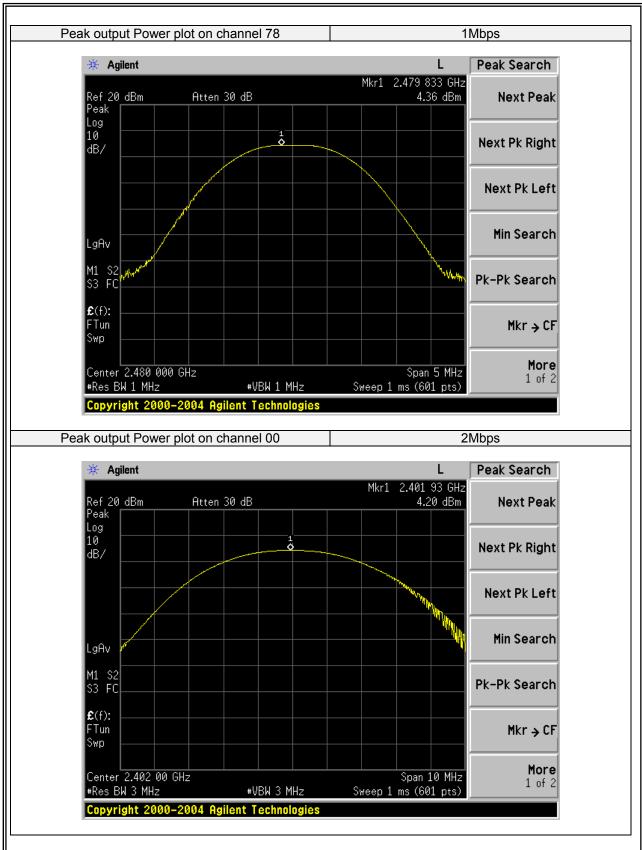
EUT:	Smart Phone	Model No.:	PCB-i316
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode5/Mode6/Mode7	Test By:	Eileen Liu

Test Channel	Frequency (MHz)	Power Setting	Peak Output Power (dBm)	LIMIT (dBm)	Verdict
			1Mbps		
00	2402	MAXIMUM	3.60	30.00	PASS
39	2441	MAXIMUM	4.15	30.00	PASS
78	2480	MAXIMUM	4.36	30.00	PASS
	2Mbps				
00	2402	MAXIMUM	4.20	20.97	PASS
39	2441	MAXIMUM	4.72	20.97	PASS
78	2480	MAXIMUM	4.88	20.97	PASS
	3Mbps				
00	2402	MAXIMUM	4.13	20.97	PASS
39	2441	MAXIMUM	4.61	20.97	PASS
78	2480	MAXIMUM	4.80	20.97	PASS

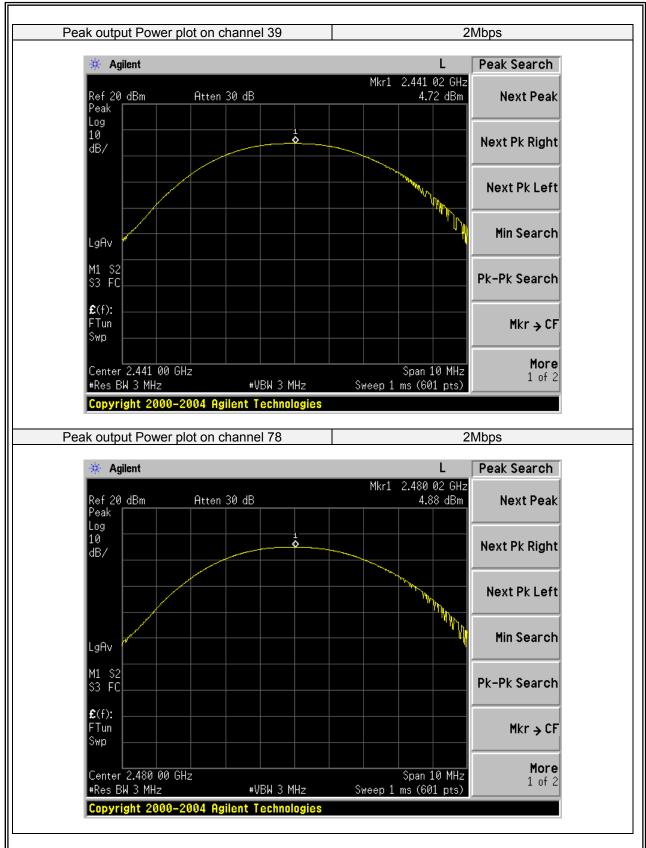




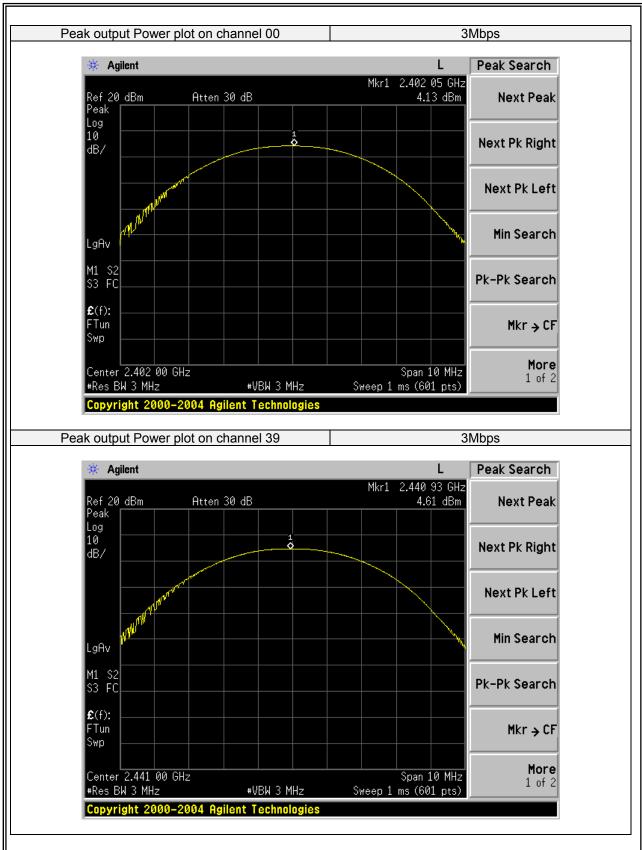




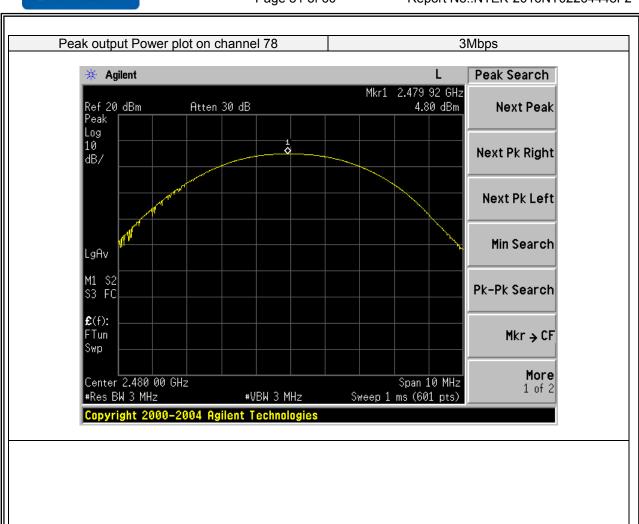














7.8 CONDUCTED BAND EDGE MEASUREMENT

7.8.1 Applicable Standard

According to FCC Part 15.247(d) and DA 00-705

7.8.2 Conformance Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

7.8.3 Measuring Instruments

The Measuring equipment is listed in the section 6.3 of this test report.

7.8.4 Test Setup

Please refer to Section 6.1 of this test report.

7.8.5 Test Procedure

The testing follows ANSI C63.10-2013 clause 7.8.6.

The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator.

The path loss was compensated to the results for each measurement.

Set to the maximum power setting and enable the EUT transmit continuously.

The EUT must have its hopping function enabled.

Use the following spectrum analyzer settings:

Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel

RBW = 100KHz

VBW = 300KHz

Band edge emissions must be at least 20 dB down from the highest emission level within the authorized band as measured with a 100kHz RBW. The attenuation shall be 30 dB instead of 20 dB when RMS conducted output power procedure is used.

Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.

Repeat above procedures until all measured frequencies were complete.



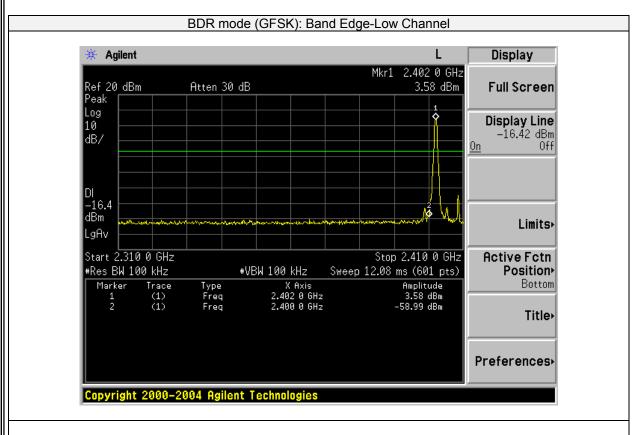
7.8.6 Test Results

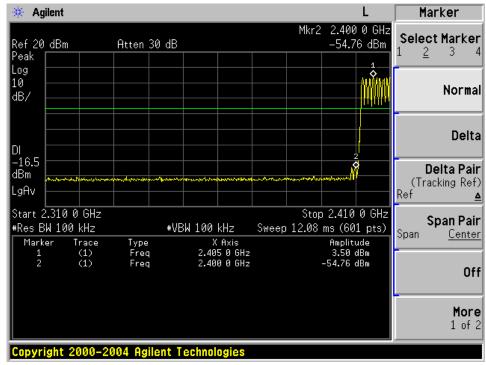
EUT:	Smart Phone	Model No.:	PCB-i316
Temperature:	20 ℃	Relative Humidity:	48%
Test Mode:	Mode5/Mode6/Mode7/Mode8	Test By:	Eileen Liu

Frequency Band	Delta Peak to band emission(dBc)	>Limit(dBc)	Verdict			
1Mbps Non-hopping						
2400	62.57	20	Pass			
2483.5	62.39	20	Pass			
2Mbps Non-hopping						
2400	48.88	20	Pass			
2483.5	60.24	20	Pass			
	3Mbps Non-hopping					
2400	45.03	20	Pass			
2483.5	58.42	20	Pass			
1Mbps hopping						
2400	58.26	20	Pass			
2483.5	48.11	20	Pass			
2Mbps hopping						
2400	49.05	20	Pass			
2483.5	55.36	20	Pass			
3Mbps hopping						
2400	61.16	20	Pass			
2483.5	58.33	20	Pass			

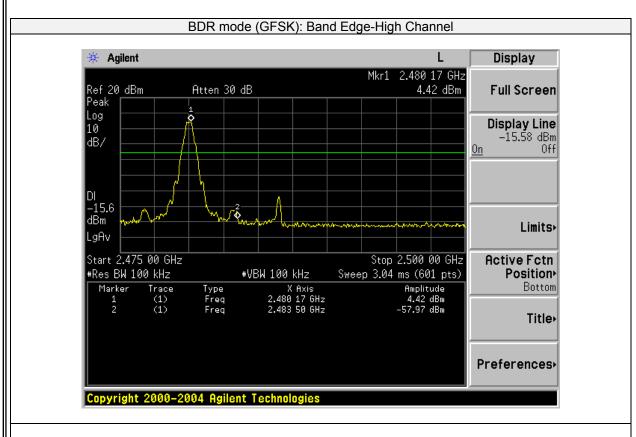
Note: Hopping enabled and disabled have evaluated, and the wortest data was reported

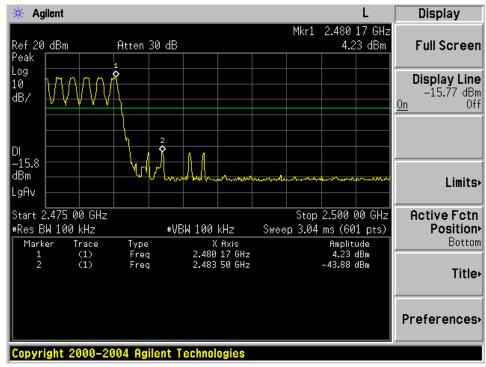




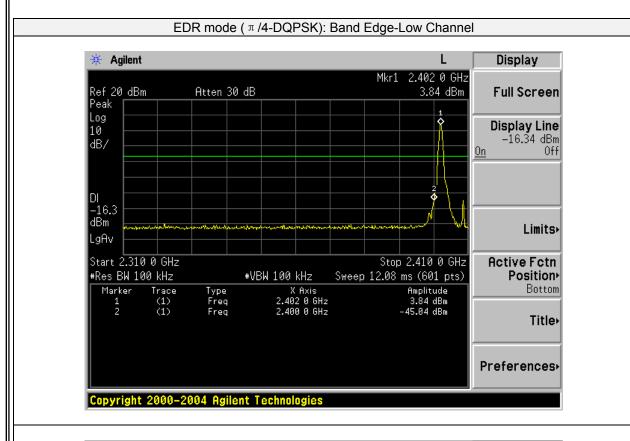


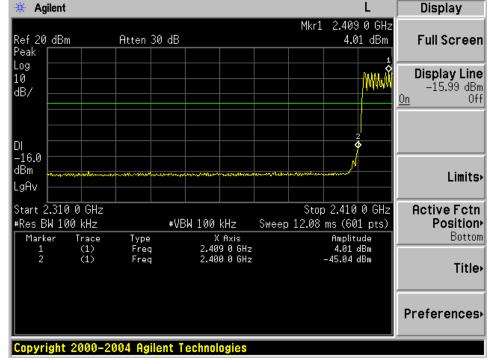




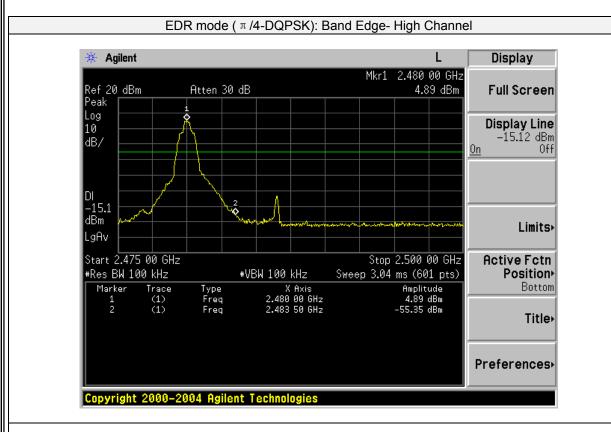


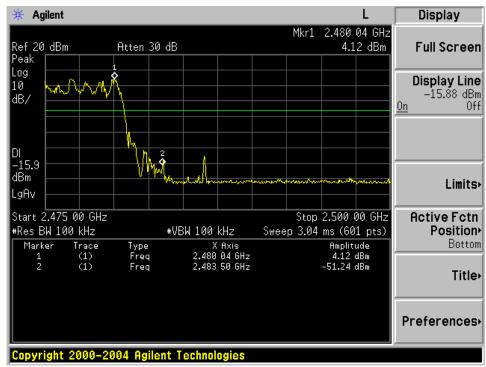




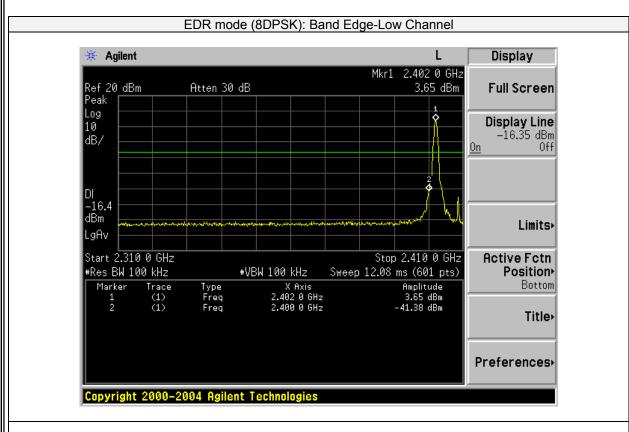


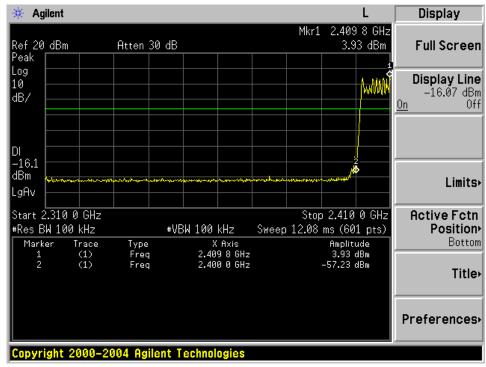




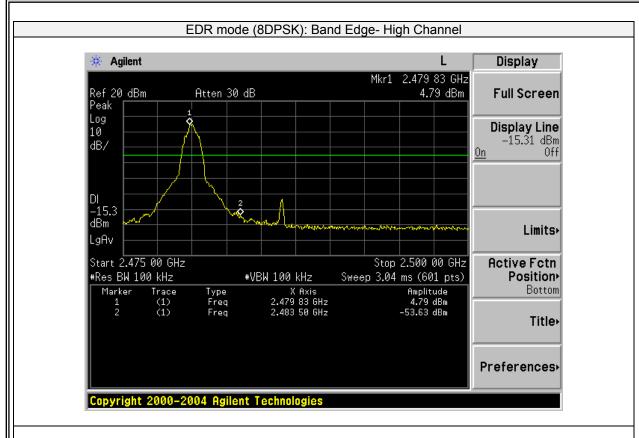


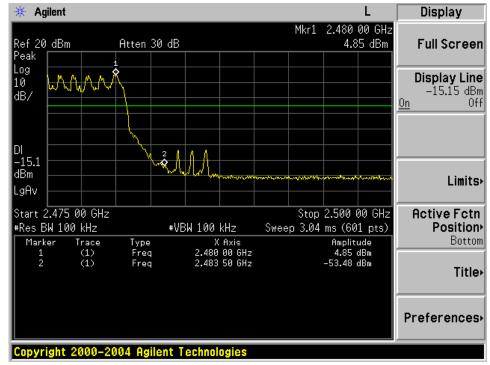














7.9 ANTENNA APPLICATION

7.9.1 Antenna Requirement

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible partyshall be used with the device.

7.9.2 **Result**

The EUT antenna is permanent attached antenna. It comply with the standard requirement.

END OF REPORT