

# FCC RADIO TEST REPORT-BT 3.0

FCC ID:2AC76DI-1011

**Product**: Tablet PC

Trade Name: N/A

Model Name: DI-1011

DI-838, DI-751, DI-841, DI-931, DI-832, DI-742,

**Serial Model**: DI-1041,DI-622,DI-726,DI-1033,DI-9732,DI-741, DI-839,DI-1001,DI-1002,DI-761,DI-861,DW-005,

ST-001.DI-743

**Report No.**: NTEK-2014NT0610866F2

# **Prepared for**

DIGILINK GROUP CO., LTD.

3th Floor, Block B3, HengFeng Industrial Park, Bao an district, Shen Zhen CHINA

# Prepared by

Shenzhen 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

 $\label{eq:applicant} \textbf{Applicant's name} \dots \dots : \ \ \mathsf{DIGILINK} \ \mathsf{GROUP} \ \mathsf{CO.}, \ \mathsf{LTD}.$ 



# **TEST RESULT CERTIFICATION**

Address:	3th Floor, Block B3, HengFeng Industrial Park, Bao an district, Shen Zhen CHINA			
Manufacture's Name:	DIGILINK GROUP CO., LTD.			
Address:	3th Floor, Block B3, HengFeng Industrial Park, Bao an district, Shen Zhen CHINA			
Product description				
Product name:	Tablet PC			
Model and/or type reference :	DI-1011			
Serial Model:	DI-1041,[	I-751,DI-841,DI-931,DI-832,DI-742, DI-622,DI-726,DI-1033,DI-9732,DI-741, I-1001,DI-1002,DI-761,DI-861,DW-005, DI-743		
Standards:	FCC Part	t15.247: 01 Oct. 2013		
Test procedure	ANSI C6 v03r02	3.4-2003 and KDB 558074 D01 DTS Meas Guidance		
	n compliar	sted by NTEK, and the test results show that the nce with the FCC requirements. And it is applicable only rt.		
This report shall not be reproduc	ced excep	t in full, without the written approval of NTEK, this		
document may be altered or rev	ised by N	TEK, personal only, and shall be noted in the revision of		
the document.				
Date of Test				
Date (s) of performance of tests	:			
Date of Issue	:	02 Jul. 2014		
Test Result	:	Pass		
Testing Engine	eer :	Danny Grany		
		Denny Huang		
Technical Man	ager :	Brown Ln		
		(Brown Lu)		
Authorized Sig	inatory :	(Bill Yao)		
		,		



## **Table of Contents**

	Page
1 . SUMMARY OF TEST RESULTS	5
1.1 TEST FACILITY	6
1.2 MEASUREMENT UNCERTAINTY	6
2. GENERAL INFORMATION	7
2.1 GENERAL DESCRIPTION OF EUT	7
2.2 DESCRIPTION OF TEST MODES	9
2.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING	9
	_
2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTE	_
2.5 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)	11
2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS	12
3 . EMC EMISSION TEST	13
3.1 CONDUCTED EMISSION MEASUREMENT	13
3.1.1 POWER LINE CONDUCTED EMISSION LIMITS	13
3.1.2 TEST PROCEDURE 3.1.3 DEVIATION FROM TEST STANDARD	14 14
3.1.4 TEST SETUP	14
3.1.5 EUT OPERATING CONDITIONS	14
3.1.6 TEST RESULTS	15
3.2 RADIATED EMISSION MEASUREMENT	17
3.2.1 RADIATED EMISSION LIMITS 3.2.2 TEST PROCEDURE	17 18
3.2.2 TEST PROCEDURE  3.2.3 DEVIATION FROM TEST STANDARD	18
3.2.4 TEST SETUP	19
3.2.5 EUT OPERATING CONDITIONS	20
3.2.6 TEST RESULTS (BELOW 30 MHZ)	21
3.2.7 TEST RESULTS (BETWEEN 30M – 1000 MHZ) 3.2.8 TEST RESULTS (ABOVE 1000 MHZ)	22 24
·	
4 . NUMBER OF HOPPING CHANNEL	25
4.1 APPLIED PROCEDURES / LIMIT	25
4.1.1 TEST PROCEDURE 4.1.2 DEVIATION FROM STANDARD	25 25
4.1.3 TEST SETUP	25 25
4.1.4 EUT OPERATION CONDITIONS	25
4.1.5 TEST RESULTS	26
5 . AVERAGE TIME OF OCCUPANCY	27
5.1 APPLIED PROCEDURES / LIMIT	27



#### **Table of Contents**

	Page
5.1.1 TEST PROCEDURE 5.1.2 DEVIATION FROM STANDARD 5.1.3 TEST SETUP 5.1.4 EUT OPERATION CONDITIONS 5.1.5 TEST RESULTS	27 27 28 28 29
6 . HOPPING CHANNEL SEPARATION MEASUREMENT	35
6.1 APPLIED PROCEDURES / LIMIT 6.1.1 TEST PROCEDURE 6.1.2 DEVIATION FROM STANDARD 6.1.3 TEST SETUP 6.1.4 EUT OPERATION CONDITIONS 6.1.5 TEST RESULTS	35 35 35 35 35 36
7 . BANDWIDTH TEST	42
7.1 APPLIED PROCEDURES / LIMIT 7.1.1 TEST PROCEDURE 7.1.2 DEVIATION FROM STANDARD 7.1.3 TEST SETUP 7.1.4 EUT OPERATION CONDITIONS 7.1.5 TEST RESULTS	42 42 42 42 42 43
8 . PEAK OUTPUT POWER TEST	49
8.1 APPLIED PROCEDURES / LIMIT 8.1.1 TEST PROCEDURE 8.1.2 DEVIATION FROM STANDARD 8.1.3 TEST SETUP 8.1.4 EUT OPERATION CONDITIONS 8.1.5 TEST RESULTS	49 49 49 49 49 50
9 . 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE 9.1 DEVIATION FROM STANDARD 9.2 TEST SETUP 9.3 EUT OPERATION CONDITIONS 9.4 TEST RESULTS	56 56 56 56 57
10 . ANTENNA REQUIREMENT	65
10.1 STANDARD REQUIREMENT	65
10.2 EUT ANTENNA	65
11 . EUT TEST PHOTO APPENDIX-PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS	66



# 1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

FCC Part15 (15.247) , Subpart C				
Standard Section	Test Item	Judgment	Remark	
15.207	Conducted Emission	PASS		
15.247(a)(1)	Hopping Channel Separation	PASS		
15.247(b)(1)	Peak Output Power	PASS		
15.247(c)	Radiated Spurious Emission	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		

## NOTE:

(1)" N/A" denotes test is not applicable in this Test Report



#### 1.1 TEST FACILITY

NTEK Testing Technology Co., Ltd

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

FCC Registration No.:238937; IC Registration No.:9270A-1

CNAS Registration No.:L5516

## 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $\mathbf{y} \pm \mathbf{U}$ , where expended uncertainty  $\mathbf{U}$  is based on a standard uncertainty multiplied by a coverage factor of  $\mathbf{k=2}$ , providing a level of confidence of approximately 95 %  $^{\circ}$ 

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%



# 2. GENERAL INFORMATION

# 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Tablet PC			
Trade Name	N/A			
Model Name	DI-1011			
Serial Model	DI-838,DI-751,DI-841,DI-931,DI-832,DI-742, DI-1041,DI-622,DI-726,DI-1033,DI-9732,DI-741, DI-839,DI-1001,DI-1002,DI-761,DI-861,DW-005, ST-001,DI-743			
Model Difference	All the model are the sa	me circuit and RF module,		
Woder Difference	except the model name	and colour.		
	The EUT is a Tablet PC			
	Operation Frequency:	2402~2480 MHz		
	Modulation Type:	BT(1Mbps): GFSK		
		BT EDR(2Mbps): $\pi$ /4-DQPSK		
		BT EDR(3Mbps): 8-DPSK		
	Bit Rate of Transmitter	1Mbps/2Mbps/3Mbps		
	Number Of Channel	79 CH		
Product Description	Antenna Designation:	Please see Note 3.		
	Output	BT(1Mbps): 4.966dBm		
	Power(Conducted):	BT EDR(2Mbps):4.900dBm BT EDR(3Mbps):4.849dBm		
		BT EDR(SWDPS).4.649UBIII		
	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.			
Channel List	Please refer to the Note 2.			
Adapter	Model:FJ-SW0502000N Input: 100-240V~,50/60Hz,0.6AMAX Output: 5.0V===, 2000mA			
Battery	DC 3.7V, 5600mAh			
Connecting I/O Port(s)	Please refer to the User's Manual			

## Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



2

	Channel List					
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	
00	2402	27	2429	54	2456	
01	2403	28	2430	55	2457	
02	2404	29	2431	56	2458	
03	2405	30	2432	57	2459	
04	2406	31	2433	58	2460	
05	2407	32	2434	59	2461	
06	2408	33	2435	60	2462	
07	2409	34	2436	61	2463	
08	2410	35	2437	62	2464	
09	2411	36	2438	63	2465	
10	2412	37	2439	64	2466	
11	2413	38	2440	65	2467	
12	2414	39	2441	66	2468	
13	2415	40	2442	67	2469	
14	2416	41	2443	68	2470	
15	2417	42	2444	69	2471	
16	2418	43	2445	70	2472	
17	2419	44	2446	71	2473	
18	2420	45	2447	72	2474	
19	2421	46	2448	73	2475	
20	2422	47	2449	74	2476	
21	2423	48	2450	75	2477	
22	2424	49	2451	76	2478	
23	2425	50	2452	77	2479	
24	2426	51	2453	78	2480	
25	2427	52	2454			
26	2428	53	2455			

3.

# Table for Filed Antenna

Ant	Brand	Model Name	Antenna Type	Connector	Gain (dBi)	NOTE
1	N/A	N/A	FPCB Antenna	N/A	2.0	BT Antenna



#### 2.2 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.

Pretest Mode	Description
Mode 1	CH00
Mode 2	CH39
Mode 3	CH78
Mode 4	normal link

For Conducted Emission			
Final Test Mode Description			
Mode 4	normal link		

For Radiated Emission			
Final Test Mode Description			
Mode 1	CH00		
Mode 2	CH39		
Mode 3	CH78		

#### Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The EUT use new battery.
- (3)The data rate was set in 2Mbps for radiated emission due to the highest RF output power.

#### 2.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of FHSS

Test software Version	Test program: Broadcom				
Frequency	2402 MHz 2441 MHz 2480 MHz				
Parameters(1/2/3Mbps)	DEF	DEF	DEF		

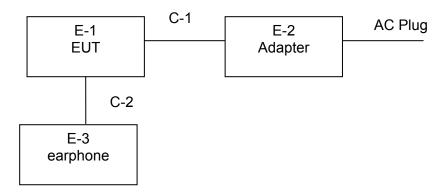


# 2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiated Spurious Emission Test

E-1 EUT

**Conducted Emission Test** 





## 2.5 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)

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.	Series No.	Note
E-1	Tablet PC	N/A	DI-1011	N/A	EUT
E-2	Adapter	N/A	FJ-SW0502000N	N/A	
E-3	earphone	N/A	2688	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	80cm	
C-2	NO	NO	120cm	

## Note:

- (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".



## 2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS

Radiation Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibratio n period
1	Spectrum Analyzer	Agilent	E4407B	MY4510804 0	2013.07.06	2014.07.05	1 year
2	Test Receiver	R&S	ESPI	101318	2014.06.07	2015.06.06	1 year
3	Bilog Antenna	TESEQ	CBL6111D	31216	2013.07.06	2014.07.05	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	620026441 6	2014.06.07	2015.06.06	1 year
5	Spectrum Analyzer	ADVANTEST	R3132	150900201	2014.06.07	2015.06.06	1 year
6	Horn Antenna	EM	EM-AH-101 80	2011071402	2013.07.06	2014.07.05	1 year
7	Horn Ant	Schwarzbeck	BBHA 9170	9170-181	2013.07.06	2014.07.05	1 year
8	Amplifier	EM	EM-30180	060538	2013.12.22	2014.12.21	1 year
9	Loop Antenna	ARA	PLA-1030/B	1029	2014.06.08	2015.06.07	1 year
10	Power Meter	R&S	NRVS	100696	2013.07.06	2014.07.05	1 year
11	Power Sensor	R&S	URV5-Z4	0395.1619. 05	2013.07.06	2014.07.05	1 year

**Conduction Test equipment** 

Item	Kind of	Manufactu	Type No.	Serial No.	Last	Calibrated	Calibratio
	Equipment	rer	31		calibration	until	n period
1	Test Receiver	R&S	ESCI	101160	2014.06.06	2015.06.05	1 year
2	LISN	R&S	ENV216	101313	2013.08.24	2014.08.23	1 year
3	LISN	EMCO	3816/2	00042990	2013.08.24	2014.08.23	1 year
4	50Ω Coaxial Switch	Anritsu	MP59B	620026441 7	2014.06.07	2015.06.06	1 year
5	Passive Voltage Probe	R&S	ESH2-Z3	100196	2014.06.07	2015.06.06	1 year
6	Absorbing clamp	R&S	MOS-21	100423	2014.06.08	2015.06.07	1 year

1	Attenuation	MCE	24-10-34	BN9258	2014.06.08	2015 06 07	1 year
•	/ tttoridation	WIOL	21 10 0 1	D110200	2017.00.00	2013.00.07	i year



## 3. EMC EMISSION TEST

## 3.1 CONDUCTED EMISSION MEASUREMENT

## 3.1.1 POWER LINE CONDUCTED EMISSION Limits (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	Class A (dBuV)		Class B	Standard	
TREQUENCT (MITZ)	Quasi-peak	Average	Quasi-peak	Average	Stariuaru
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	CISPR
0.50 -5.0	73.00	60.00	56.00	46.00	CISPR
5.0 -30.0	73.00	60.00	60.00	50.00	CISPR

0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *	FCC
0.50 -5.0	73.00	60.00	56.00	46.00	FCC
5.0 -30.0	73.00	60.00	60.00	50.00	FCC

#### Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz



#### 3.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected 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.
- b. 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 40 cm long.
- c. 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.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.

#### 3.1.3 DEVIATION FROM TEST STANDARD

No deviation

#### 3.1.4 TEST SETUP



Note: 1.Support units were connected to second LISN.

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

## 3.1.5 EUT OPERATING CONDITIONS

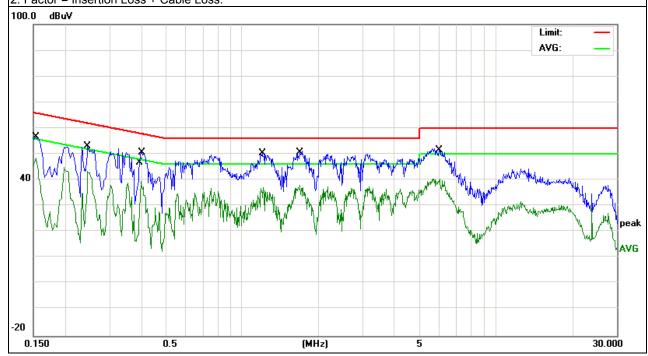
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



# 3.1.6 TEST RESULTS

EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	<b>26</b> ℃	Relative Humidity:	54%
Pressure:	1010hPa	Phase :	L
Test Voltage :	DC 5.0V from adapter AC 120V/60Hz	Test Mode :	Mode 4

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1539	46.90	9.62	56.52	65.78	-9.26	QP
0.1539	39.05	9.62	48.67	55.78	-7.11	AVG
0.2459	43.67	9.49	53.16	61.89	-8.73	QP
0.2459	33.87	9.49	43.36	51.89	-8.53	AVG
0.3890	41.16	9.50	50.66	58.08	-7.42	QP
0.3980	29.93	9.50	39.43	47.89	-8.46	AVG
1.2137	40.89	9.53	50.42	56.00	-5.58	QP
1.2137	27.77	9.53	37.30	46.00	-8.70	AVG
1.6895	41.20	9.54	50.74	56.00	-5.26	QP
1.6895	28.58	9.54	38.12	46.00	-7.88	AVG
6.0057	42.06	9.64	51.70	60.00	-8.30	QP
6.0057	30.92	9.64	40.56	50.00	-9.44	AVG



All readings are Quasi-Peak and Average values.
 Factor = Insertion Loss + Cable Loss.

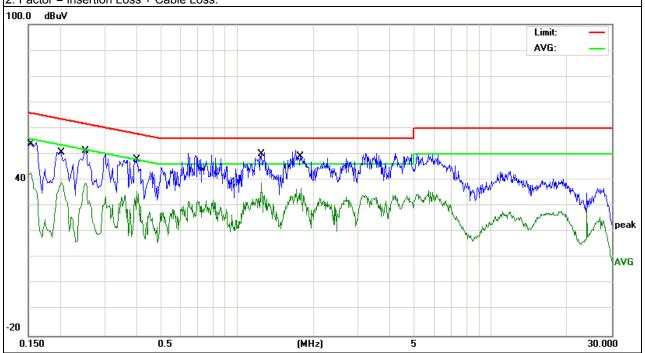


EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	<b>26</b> ℃	Relative Humidity:	54%
Pressure :	1010hPa	Phase :	N
Test Voltage :	DC 5.0V from adapter AC 120V/60Hz	Test Mode :	Mode 4

Frequency	Reading Level	Correct Factor	Measure-ment	Limits	Margin	Remark
(MHz)	(dBµV)	(dB)	(dBµV)	(dBµV)	(dB)	Remark
0.1539	44.36	9.65	54.01	65.78	-11.77	QP
0.1539	33.12	9.65	42.77	55.78	-13.01	AVG
0.2020	41.08	9.50	50.58	63.52	-12.94	QP
0.2020	29.62	9.50	39.12	53.52	-14.40	AVG
0.2519	41.69	9.51	51.20	61.69	-10.49	QP
0.2519	29.40	9.51	38.91	51.69	-12.78	AVG
0.4020	38.57	9.52	48.09	57.81	-9.72	QP
0.4020	26.19	9.52	35.71	47.81	-12.10	AVG
1.2459	40.55	9.55	50.10	56.00	-5.90	QP
1.2459	29.51	9.55	39.06	46.00	-6.94	AVG
1.7860	39.71	9.57	49.28	56.00	-6.72	QP
1.7860	27.20	9.57	36.77	46.00	-9.23	AVG

#### Remark:

All readings are Quasi-Peak and Average values.
 Factor = Insertion Loss + Cable Loss.





#### 3.2 RADIATED EMISSION MEASUREMENT

#### 3.2.1 RADIATED EMISSION LIMITS (Frequency Range 9kHz-1000MHz)

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.

Frequencies	Field Strength	Measurement Distance
(MHz)	(micorvolts/meter)	(meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

## LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	Class A (dBu	ıV/m) (at 3M)	Class B (dBuV/m) (at 3M)	
PREQUENCT (WITZ)	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000	80	60	74	54

#### Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

## FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 – 108	1000
108 – 500	2000
500 – 1000	5000
Above 1000	5 <sup>th</sup> harmonic of the highest frequency or 40 GHz, whichever is lower



Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (emission in restricted	4 MHz / 4 MHz for Dook 4 MHz / 40Hz for Average
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

#### 3.2.2 TEST PROCEDURE

- 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 meters above the ground at a 3 meter open area test site. 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; 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
	Peak	1 MHz	1 MHz
Above 1000	Average	1 MHz	10 Hz

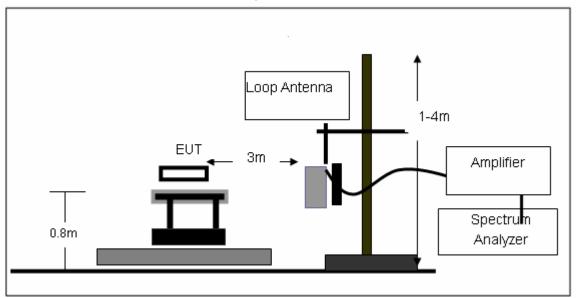
#### 3.2.3 DEVIATION FROM TEST STANDARD

No deviation

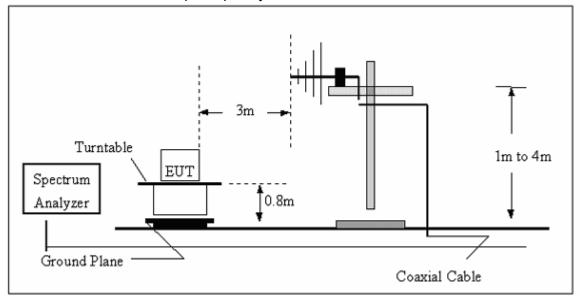


# 3.2.4 TEST SETUP

# (A) Radiated Emission Test-Up Frequency Below 30MHz

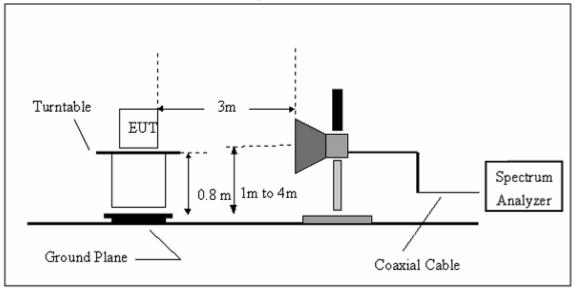


# (B) Radiated Emission Test-Up Frequency 30MHz~1GHz





# (C) Radiated Emission Test-Up Frequency Above 1GHz



## 3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



# 3.2.6 TEST RESULTS (BELOW 30 MHZ)

EUT:	Tablet PC	Model Name :	DI-1011
Temperature:	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010 hPa	Test Voltage :	DC 3.7V
Test Mode :	TX	Polarization :	

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
				N/A
				N/A

#### NOTE:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

Distance extrapolation factor =20 log (specific distance/test distance)(dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.



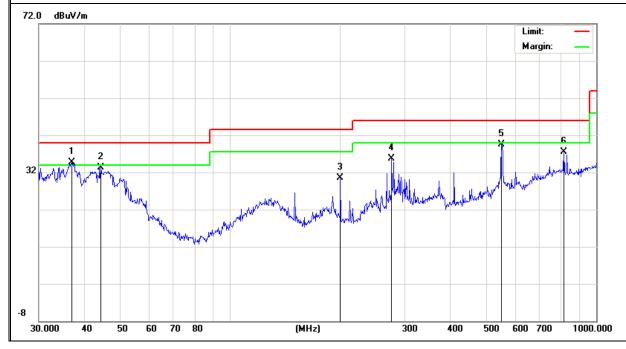
# 3.2.7 TEST RESULTS (BETWEEN 30M - 1000 MHZ)

EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	20 ℃	Relative Humidity:	48%
Pressure :	1010hPa	Test Mode:	TX
Test Voltage :	DC 3.7V		

Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Vertical	36.8952	19.30	15.50	34.80	40.00	-5.20	QP
Vertical	44.2751	21.24	12.16	33.40	40.00	-6.60	QP
Vertical	199.9856	19.67	10.78	30.45	43.50	-13.05	QP
Vertical	276.1235	21.75	13.88	35.63	46.00	-10.37	QP
Vertical	550.9479	18.15	21.36	39.51	46.00	-6.49	QP
Vertical	815.9678	10.09	27.36	37.45	46.00	-8.55	QP

## Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Absolute Level - Limit

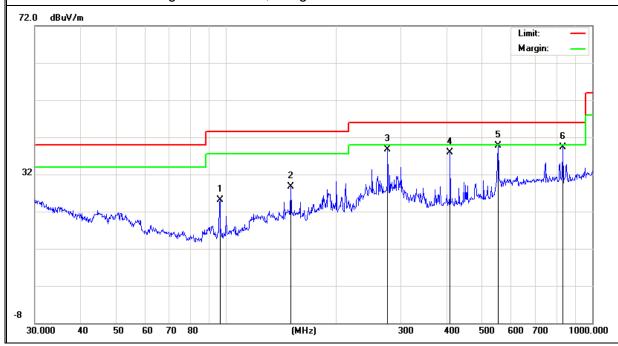




Polar	Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remark
(H/V)	(MHz)	(dBuV)	(dB)	(dBuV/m)	(dBuV/m)	(dB)	
Horizontal	96.0986	16.56	8.57	25.13	43.50	-18.37	QP
Horizontal	150.0107	18.38	10.41	28.79	43.50	-14.71	QP
Horizontal	276.1235	24.82	13.88	38.70	46.00	-7.30	QP
Horizontal	408.9460	19.37	18.49	37.86	46.00	-8.14	QP
Horizontal	552.8831	18.40	21.40	39.80	46.00	-6.20	QP
Horizontal	830.4002	12.10	27.30	39.40	46.00	-6.60	QP

## Remark:

Absolute Level= ReadingLevel+ Factor, Margin= Absolute Level - Limit





# 3.2.8 TEST RESULTS (ABOVE 1000 MHZ)

EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	<b>20</b> ℃	Relative Humidity:	48%
Pressure:	1010hPa	Test Mode:	TX
Test Mode :	DC 3.7V		

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Remar	Comment
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	k	Comment
		Low Ch	annel (2402 MHz)-A	Above 1G			
4804.122	60.66	-3.64	64.30	74.00	-9.70	Pk	Vertical
4804.122	43.95	-3.64	47.59	54.00	-6.41	AV	Vertical
7206.264	53.81	-0.95	54.76	74.00	-19.24	Pk	Vertical
7206.264	38.89	-0.95	39.84	54.00	-14.16	AV	Vertical
4804.147	61.04	-3.64	64.68	74.00	-9.32	Pk	Horizontal
4804.147	43.87	-3.64	47.51	54.00	-6.49	AV	Horizontal
7206.078	55.01	-0.95	55.96	74.00	-18.04	Pk	Horizontal
7206.078	38.82	-0.95	39.77	54.00	-14.23	AV	Horizontal
		Mid Cha	annel (2441 MHz)- <i>A</i>	Above 1G			
4882.364	63.29	-3.68	66.97	74.00	-7.03	Pk	Vertical
4882.364	46.37	-3.68	50.05	54.00	-3.95	AV	Vertical
7323.176	56.72	-0.82	57.54	74.00	-16.46	Pk	Vertical
7323.176	41.57	-0.82	42.39	54.00	-11.61	AV	Vertical
4882.365	63.22	-3.68	66.90	74.00	-7.10	Pk	Horizontal
4882.365	46.37	-3.68	50.05	54.00	-3.95	AV	Horizontal
7323.258	56.62	-0.82	57.44	74.00	-16.56	Pk	Horizontal
7323.258	40.84	-0.82	41.66	54.00	-12.34	AV	Horizontal
		High Ch	annel (2480 MHz)-	Above 1G			
4960.112	60.71	-3.59	64.30	74.00	-9.70	Pk	Vertical
4960.112	43.55	-3.59	47.14	54.00	-6.86	AV	Vertical
7440.241	54.18	-0.68	54.86	74.00	-19.14	Pk	Vertical
7440.241	38.40	-0.68	39.08	54.00	-14.92	AV	Vertical
4960.225	60.54	-3.59	64.13	74.00	-9.87	Pk	Horizontal
4960.225	43.70	-3.59	47.29	54.00	-6.71	AV	Horizontal
7440.153	54.05	-0.68	54.73	74.00	-19.27	Pk	Horizontal
7440.153	37.91	-0.68	38.59	54.00	-15.41	AV	Horizontal

Note: Mode1Mbps is the worst mode.



#### 4. NUMBER OF HOPPING CHANNEL

#### 4.1 APPLIED PROCEDURES / LIMIT

	FCC Part15 (15.247) , Subpart C					
Section	Test Item	Limit	Frequency Range (MHz)	Result		
15.247 (a)(1)(iii)	Number of Hopping Channel	≥15	2400-2483.5	PASS		

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	= the frequency band of operation
RB	RBW=100kHz
VB	VBW ≥ RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

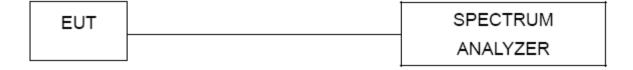
#### 4.1.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 100kHz, VBW=100kHz, Sweep time = Auto.

#### 4.1.2 DEVIATION FROM STANDARD

No deviation.

#### 4.1.3 TEST SETUP



#### **4.1.4 EUT OPERATION CONDITIONS**

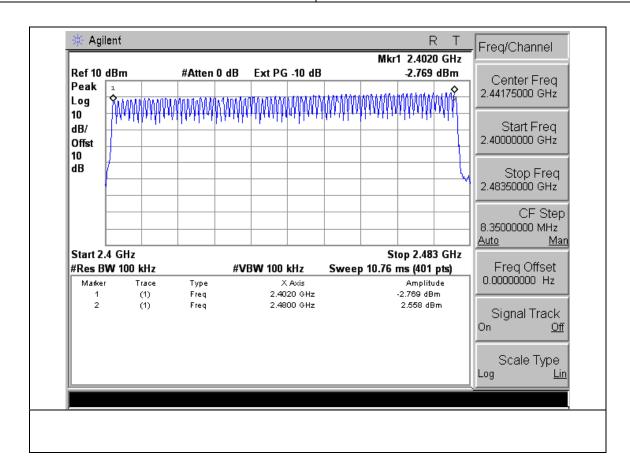
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



## 4.1.5 TEST RESULTS

EUT:	Tablet PC	Model Name :	DI-1011
Temperature:	25 ℃	Relative Humidity:	60%
Pressure :	1015 hPa	Test Voltage :	DC 3.7V
Test Mode :	Hopping Mode		

Number of Hopping Channel 79





#### 5. AVERAGE TIME OF OCCUPANCY

#### 5.1 APPLIED PROCEDURES / LIMIT

	FCC Part15 (15.247) , Subpart C					
Section	Test Item	Limit	Frequency Range (MHz)	Result		
15.247 (a)(1)(iii)	Average Time of Occupancy	0.4sec	2400-2483.5	PASS		

#### **5.1.1 TEST PROCEDURE**

- a. The transmitter output (antenna port) was connected to the spectrum analyzer
- b. Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz.
- c. Use a video trigger with the trigger level set to enable triggering only on full pulses.
- d. Sweep Time is more than once pulse time.
- e. Set the center frequency on any frequency would be measure and set the frequency span to zero span.
- f. Measure the maximum time duration of one single pulse.
- g. Set the EUT for DH5, DH3 and DH1 packet transmitting.
- h. Measure the maximum time duration of one single pulse.
- i. 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)

#### **5.1.2 DEVIATION FROM STANDARD**

No deviation.

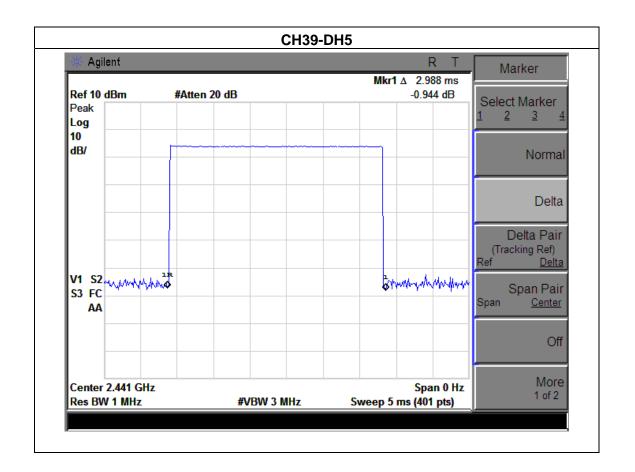
NTEK	Page 28 of 67	Report No.:NTEK-2014NT0610866F2
5.1.3 TEST SETUP		
EUT		SPECTRUM ANALYZER
5.1.4 EUT OPERAT		
The EUT tested sys operating condition	tem was configured as the statements or is specified in the follows during the test	of 2.4 Unless otherwise a special ing.



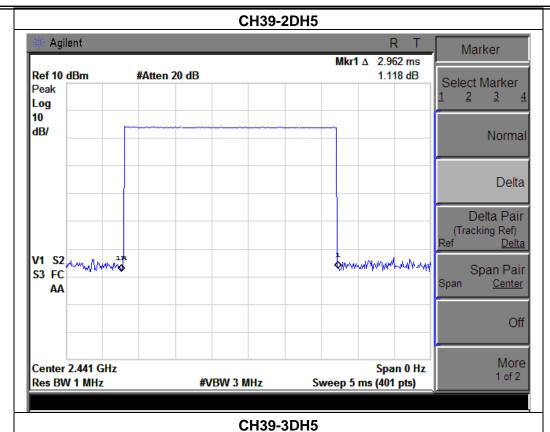
## **5.1.5 TEST RESULTS**

EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	25 ℃	Relative Humidity:	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH39-DH5 ,2DH5,3DH5	·	

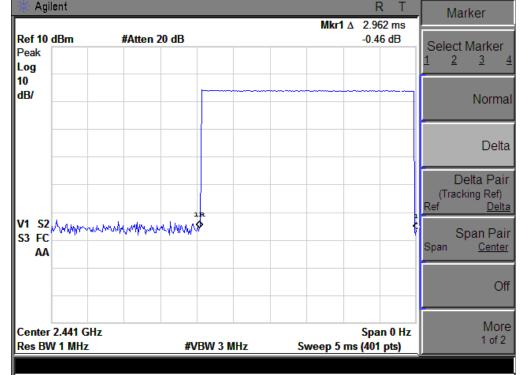
Data Packet	Frequency	Pulse Duration	Dwell Time	Limits
		(ms)	(s)	(s)
DH5	2441 MHz	2.99	0.32	0.4
2DH5	2441 MHz	2.96	0.32	0.4
3DH5	2441 MHz	2.96	0.32	0.4







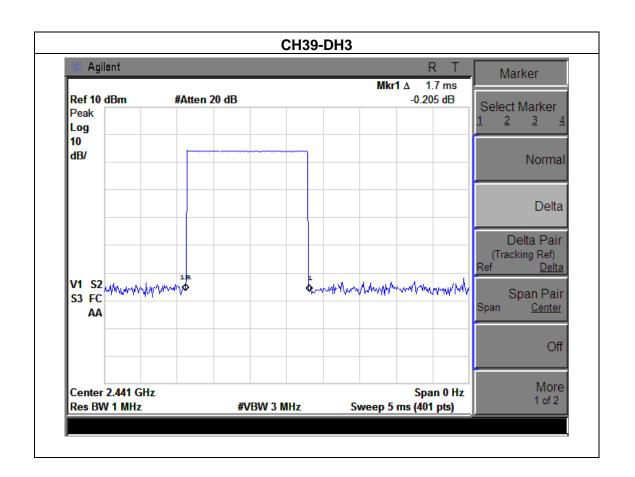




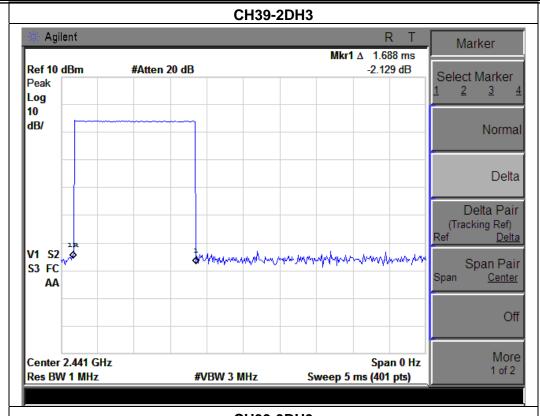


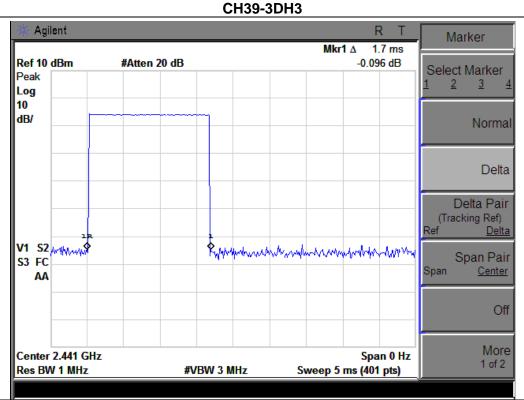
EUT:	Tablet PC	Model Name :	DI-1011
Temperature:	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH39-DH3,2DH3,3DH3		

Data Packet	Frequency	Pulse Duration	Dwell Time	Limits
		(ms)	(s)	(s)
DH3	2441 MHz	1.70	0.27	0.4
2DH3	2441 MHz	1.69	0.27	0.4
3DH3	2441 MHz	1.70	0.27	0.4





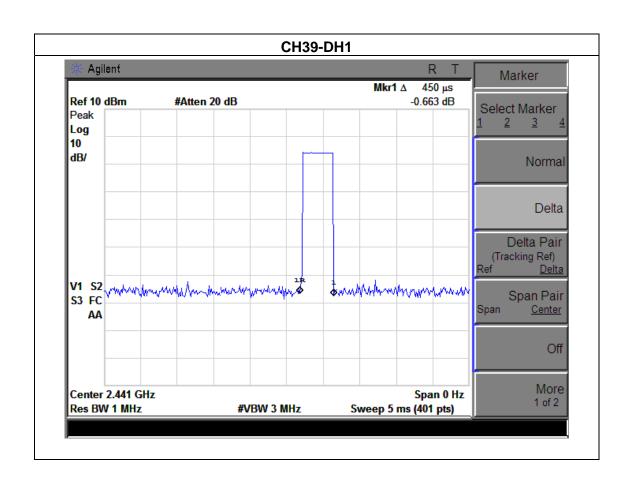




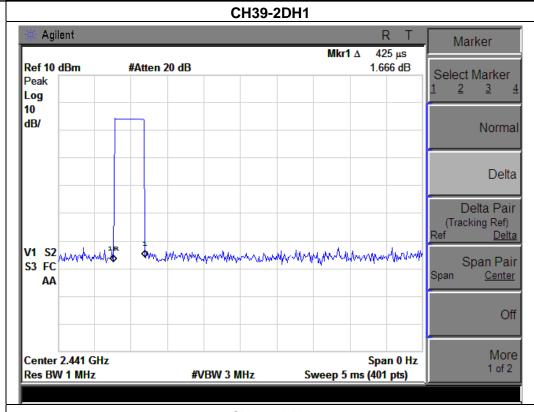


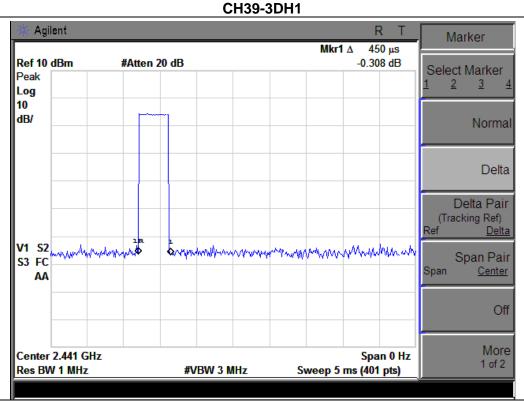
EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH39-DH1,2DH1,3DH1		

Data Packet	Frequency	Pulse Duration	Dwell Time	Limits
		(ms)	(s)	(s)
DH1	2441 MHz	0.45	0.15	0.4
2DH1	2441 MHz	0.43	0.14	0.4
3DH1	2441 MHz	0.45	0.15	0.4











#### 6. HOPPING CHANNEL SEPARATION MEASUREMENT

#### **6.1 APPLIED PROCEDURES / LIMIT**

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

Spectrum Parameter	Setting	
Attenuation	Auto	
Span Frequency	> Measurement Bandwidth or Channel Separation	
RB	30 kHz (Channel Separation)	
VB	100 kHz (Channel Separation)	
Detector	Peak	
Trace	Max Hold	
Sweep Time	Auto	

#### **6.1.1 TEST PROCEDURE**

- a. The transmitter output (antenna port) was connected to the spectrum analyser in peak hold mode.
- b. The resolution bandwidth of 30 kHz and the video bandwidth of 100 kHz were utilised for channel separation measurement.

#### **6.1.2 DEVIATION FROM STANDARD**

No deviation.

#### 6.1.3 TEST SETUP



## **6.1.4 EUT OPERATION CONDITIONS**

The EUT was programmed to be in continuously transmitting mode.

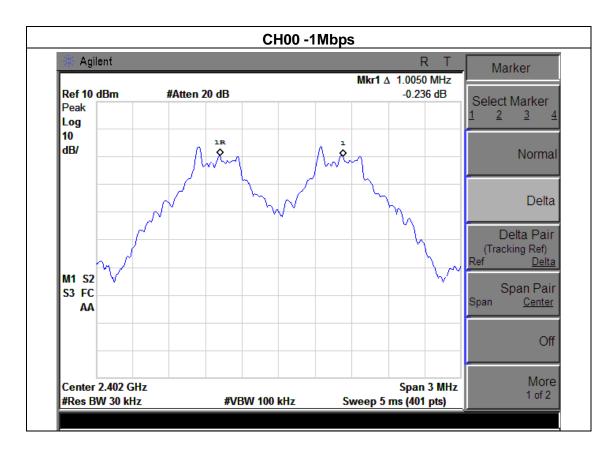


## 6.1.5 TEST RESULTS

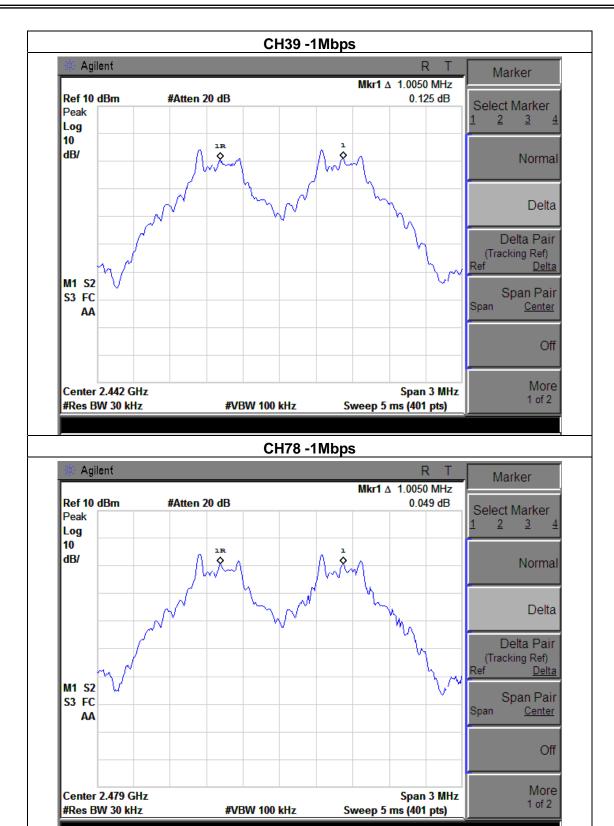
EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	<b>25</b> ℃	Relative Humidity:	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH00 / CH39 /CH78 (1Mbps Mode)		

Frequency	Ch. Separation (MHz)	Result
2402 MHz	1.005	Complies
2441 MHz	1.005	Complies
2480 MHz	1.005	Complies

## Ch. Separation Limits: >2/3 of 20dB bandwidth





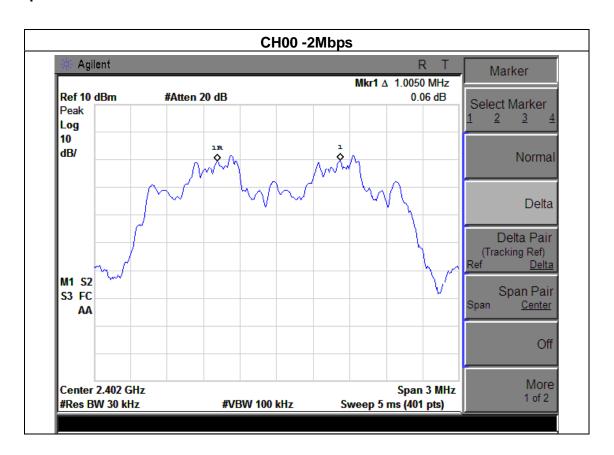




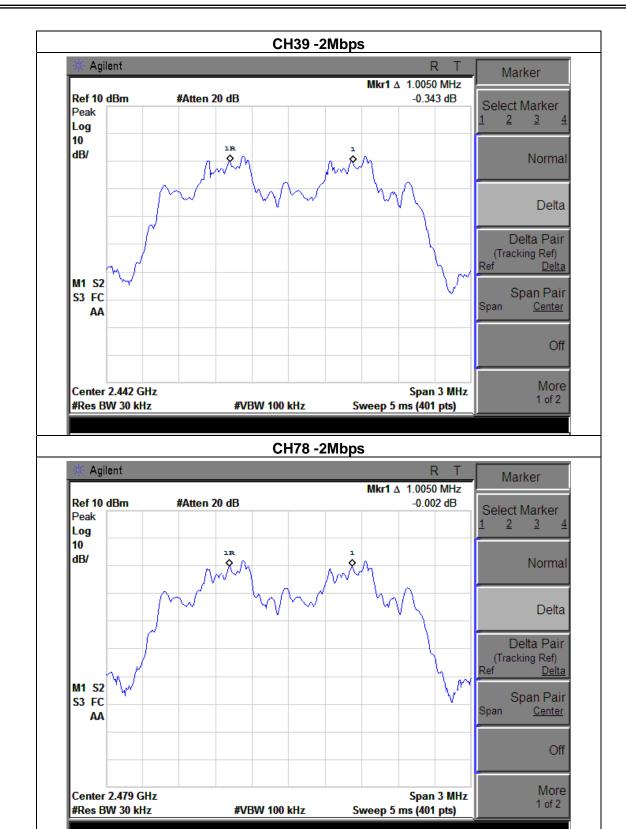
EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH00 / CH39 /CH78 (2Mbps Mode)		

Frequency	Ch. Separation (MHz)	Result
2402 MHz	1.005	Complies
2441 MHz	1.005	Complies
2480 MHz	1.005	Complies

# Ch. Separation Limits: >2/3 of 20dB bandwidth





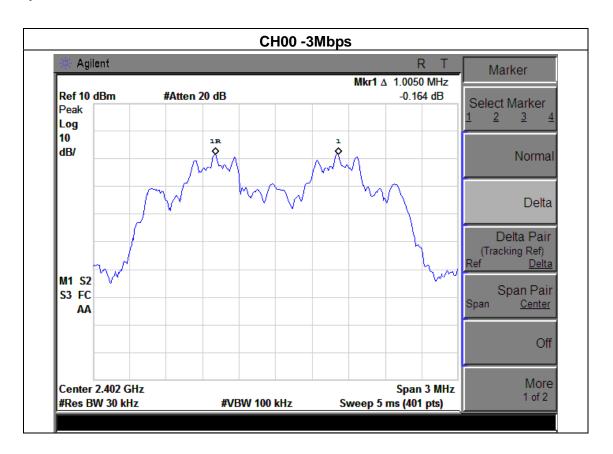




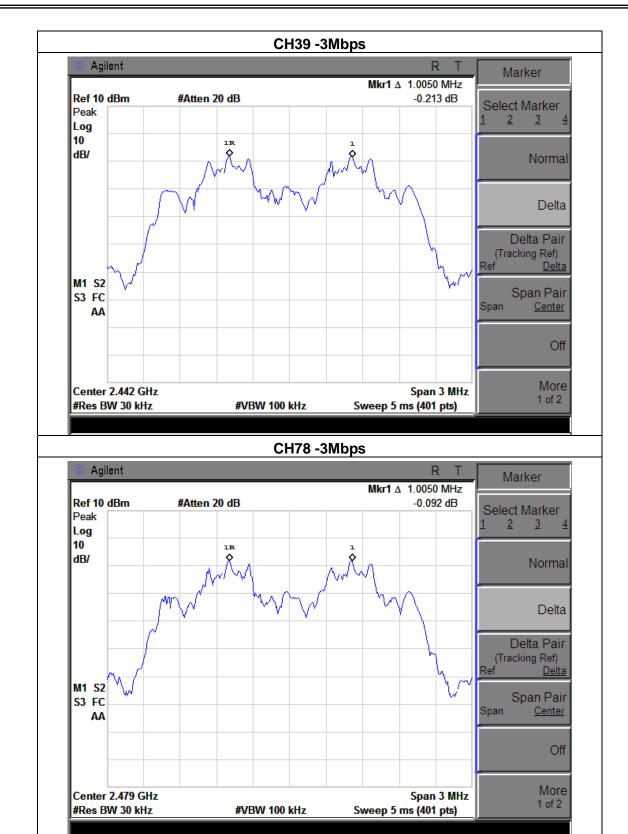
EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	<b>25</b> ℃	Relative Humidity:	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH00 / CH39 /CH78 (3Mbps Mode)		

Frequency	Ch. Separation (MHz)	Result
2402 MHz	1.005	Complies
2441 MHz	1.005	Complies
2480 MHz	1.005	Complies

# Ch. Separation Limits: >2/3 of 20dB bandwidth









#### 7. BANDWIDTH TEST

## 7.1 APPLIED PROCEDURES / LIMIT

	FCC Part15 (15.247) , Subpart C				
Section Test Item Limit Frequency Range (MHz) Result				Result	
	15.247 (a)(1)	Bandwidth	(20dB bandwidth)	2400-2483.5	PASS

Spectrum Parameter	Setting	
Attenuation	Auto	
Span Frequency	> Measurement Bandwidth or Channel Separation	
RB	30 kHz	
VB	100 kHz	
Detector	Peak	
Trace	Max Hold	
Sweep Time	Auto	

#### 7.1.1 TEST PROCEDURE

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW= 30KHz, VBW=100KHz, Sweep time = Auto.

## 7.1.2 DEVIATION FROM STANDARD

No deviation.

## **7.1.3 TEST SETUP**



#### 7.1.4 EUT OPERATION CONDITIONS

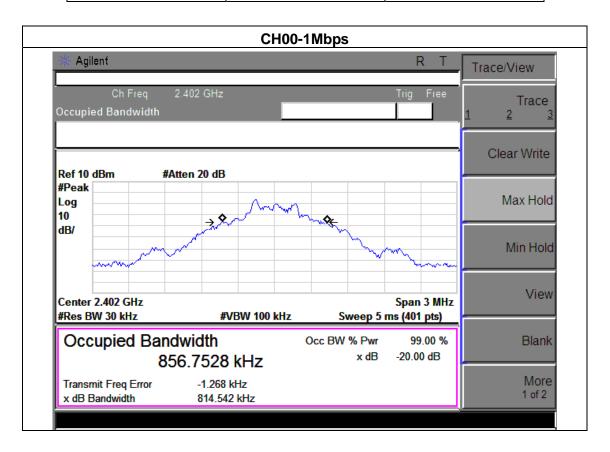
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



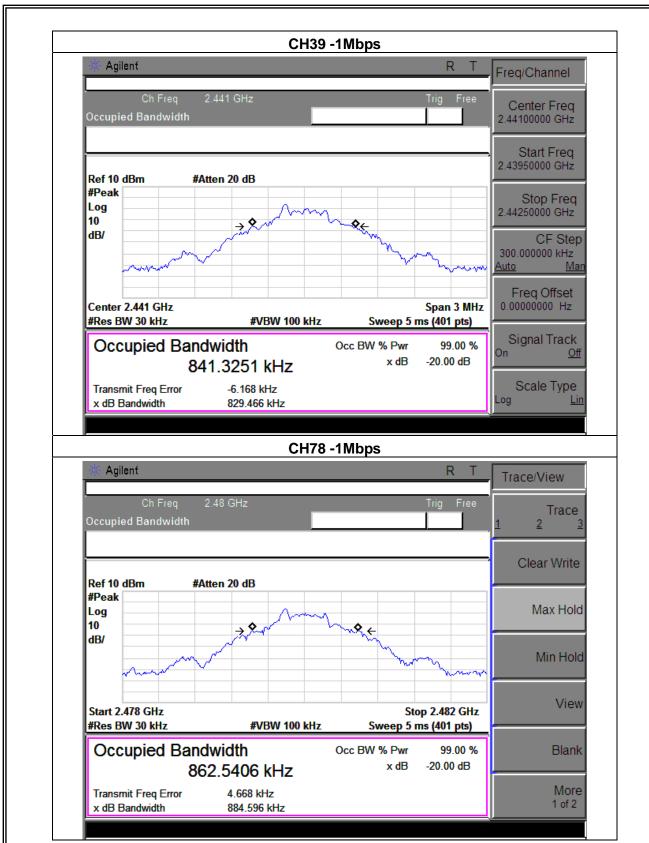
# 7.1.5 TEST RESULTS

EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	<b>25</b> ℃	Relative Humidity:	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH00 / CH39 /C78(1Mbps)		

Frequency	20dB Bandwidth (kHz)	Result
2402 MHz	814.542	PASS
2441 MHz	829.466	PASS
2480 MHz	884.596	PASS



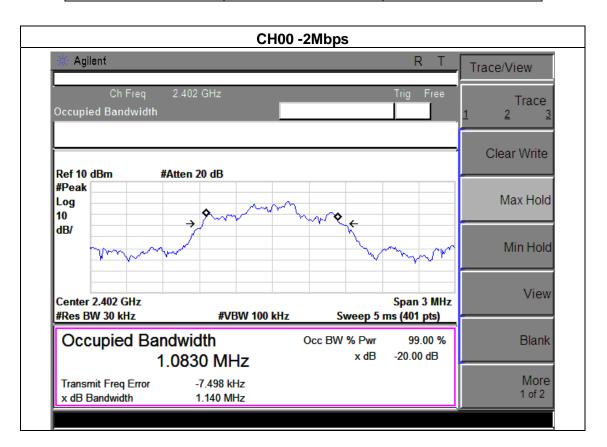




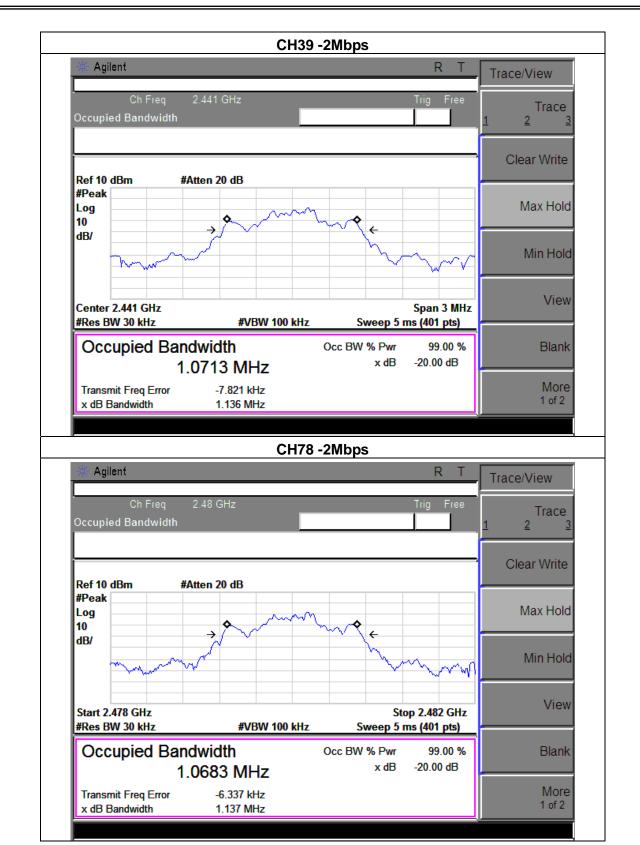


EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH00 / CH39 /C78(2Mbps)		

Frequency	20dB Bandwidth (MHz)	Result
2402 MHz	1.140	PASS
2441 MHz	1.136	PASS
2480 MHz	1.137	PASS







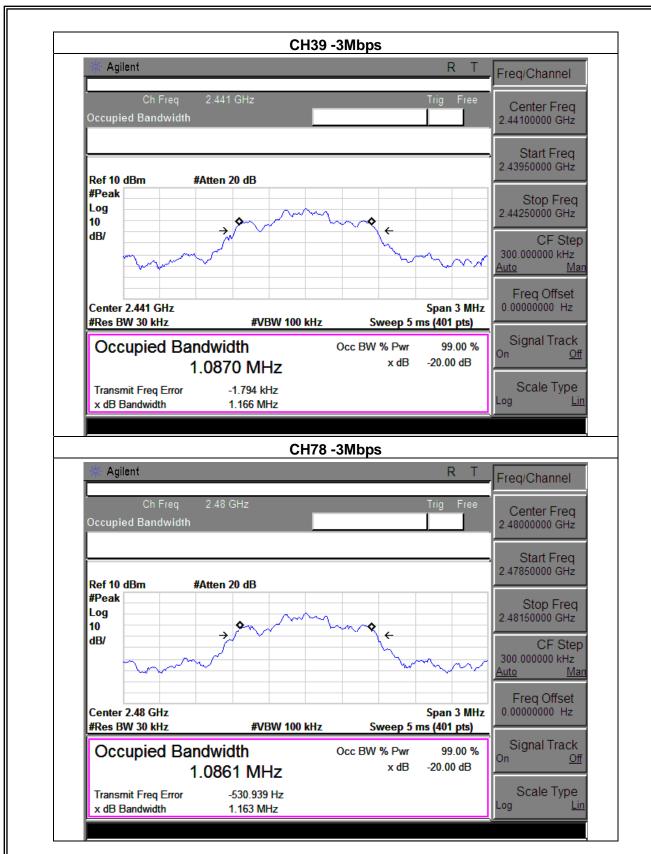


EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	<b>25</b> ℃	Relative Humidity:	60%
Pressure :	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH00 / CH39 /C78(3Mbps)		

Frequency	20dB Bandwidth (MHz)	Result
2402 MHz	1.164	PASS
2441 MHz	1.166	PASS
2480 MHz	1.163	PASS









#### 8. PEAK OUTPUT POWER TEST

## 8.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247), Subpart C				
Section	Section Test Item Limit		Frequency Range (MHz)	Result
15.247 (b)(i)	Peak Output Power	0.125 w or 20.96dBm	2400-2483.5	PASS

## **8.1.1 TEST PROCEDURE**

- a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,
- b. Spectrum Setting: RBW > the 20 dB bandwidth of the emission being measured

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

 $VBW \geq RBW$ 

Sweep = auto

Detector function = peak

Trace = max hold

#### 8.1.2 DEVIATION FROM STANDARD

No deviation.

## 8.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

## **8.1.4 EUT OPERATION CONDITIONS**

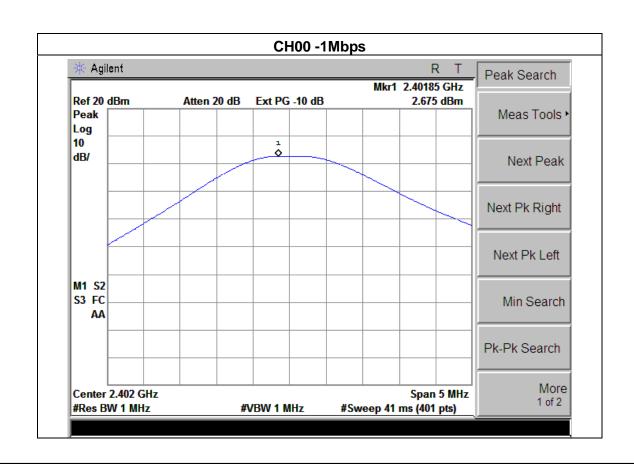
The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



# 8.1.5 TEST RESULTS

EUT:	Tablet PC	Model Name :	DI-1011
Temperature:	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH00/ CH39 /CH78 (1M/2M/3N	/lbps Mode)	

		1Mbps	
Test Channel	Frequency	Peak Output Power	LIMIT
rest Chamilei	(MHz)	(dBm)	(dBm)
CH00	2402	2.675	20.96
CH39	2441	3.691	20.96
CH78	2480	4.966	20.96
		2Mbps	
CH00	2402	2.454	20.96
CH39	2441	3.627	20.96
CH78	2480	4.900	20.96
		3Mbps	
CH00	2402	2.725	20.96
CH39	2441	3.650	20.96
CH78	2480	4.849	20.96



Signal Track

Scale Type

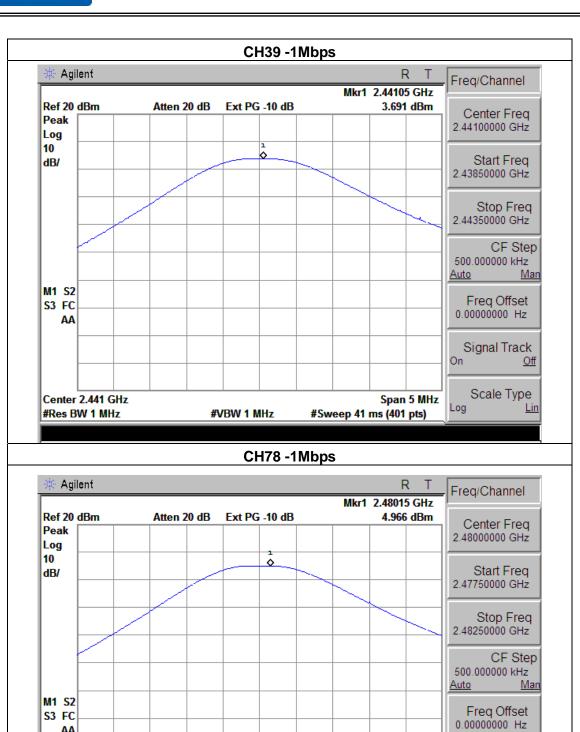
Span 5 MHz

#Sweep 41 ms (401 pts)



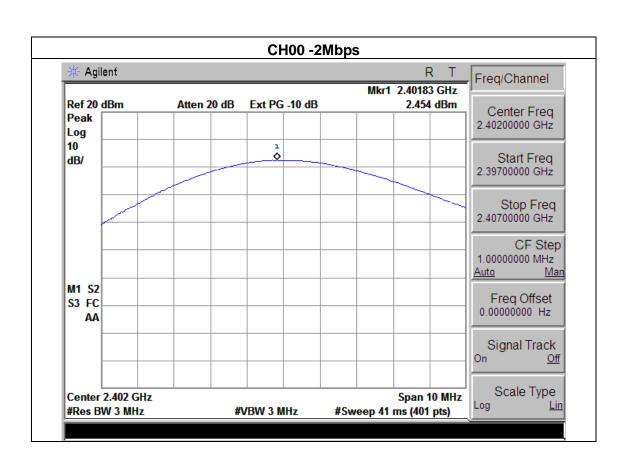
AA

Center 2.48 GHz #Res BW 1 MHz



**#VBW 1 MHz** 





Scale Type

Span 10 MHz

#Sweep 41 ms (401 pts)



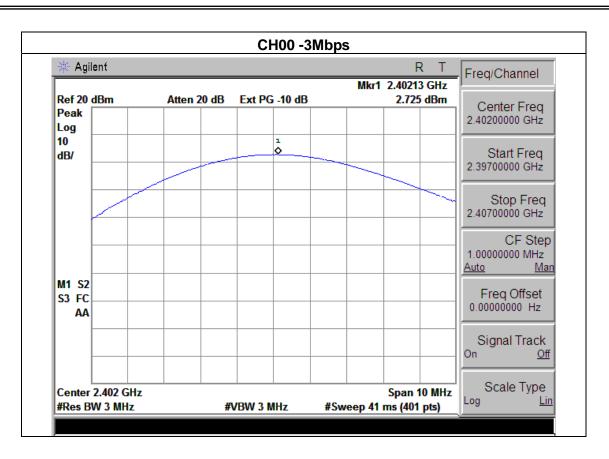
Center 2.48 GHz

#Res BW 3 MHz



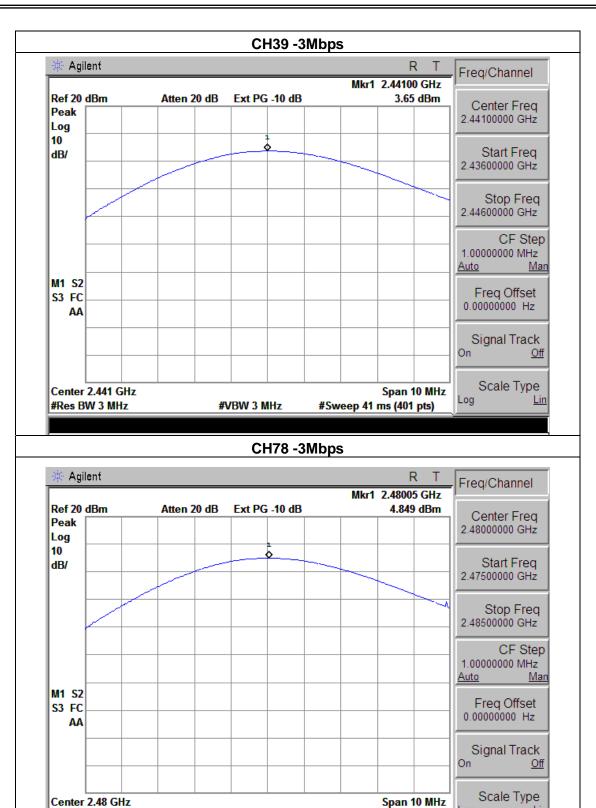
#VBW 3 MHz







#Res BW 3 MHz



#VBW 3 MHz

#Sweep 41 ms (401 pts)



# 9. 100 KHZ BANDWIDTH OF FREQUENCY BAND EDGE APPLICABLE STANDARD

Page 56 of 67

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)).

## **TEST PROCEDURE**

- a) Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
- b) Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- c) Set RBW to 100 kHz and VBW of spectrum analyzer to 300 kHz with a convenient frequency span including 100 kHz bandwidth from band edge.
- d) 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.
- e) Repeat above procedures until all measured frequencies were complete.

#### 9.1 DEVIATION FROM STANDARD

No deviation.

#### 9.2 TEST SETUP

EUT	SPECTRUM
	ANALYZER

#### 9.3 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.



# 9.4 TEST RESULTS

EUT:	Tablet PC	Model Name :	DI-1011
Temperature :	<b>25</b> ℃	Relative Humidity:	60%
Pressure:	1012 hPa	Test Voltage :	DC 3.7V
Test Mode :	CH00/ CH78 (1M/2M/3Mbps M	ode)	

Frequency Band	Delta Peak to band emission (dBc)	>Limit (dBc)	Result
	1Mbps Non-hopp	oing	
Left-band	51.90	20	Pass
Right-band	51.73	20	Pass
	2Mbps Non-hopp	oing	
Left-band	49.92	20	Pass
Right-band	50.05	20	Pass
	3Mbps Non-hopp	ping	
Left-band	49.51	20	Pass
Right-band	51.75	20	Pass
	1Mbps hopping	g	
Left-band	48.88	20	Pass
Right-band	51.61	20	Pass
	2Mbps hopping	g	
Left-band	49.31	20	Pass
Right-band	50.35	20	Pass
	3Mbps hopping	g	
Left-band	49.39	20	Pass
Right-band	50.53	20	Pass

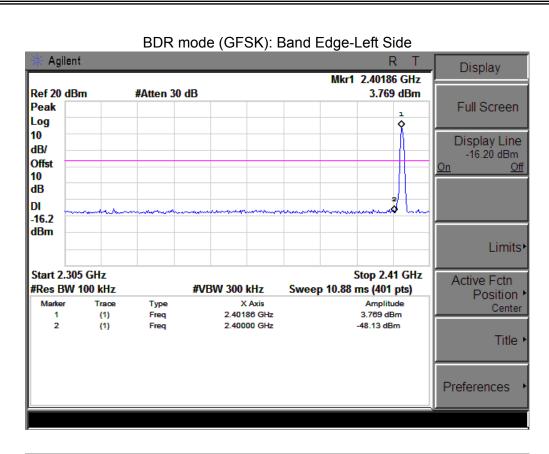


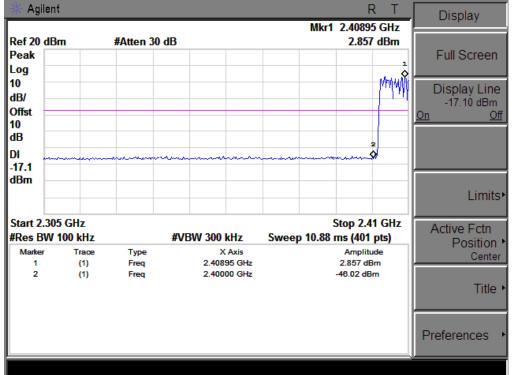
# Radiated band edge:

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector	Comment
(MHz)	(dBµV)	(dB)	(dBµV/m)	(dBµV/m)	(dB)	Туре	Comment
		1N	Ibps Non-hopp	oing			
2390	49.79	-13.06	62.85	74.00	-11.15	peak	Vertical
2390	49.92	-13.06	62.98	74.00	-11.02	peak	Horizontal
2483.5	49.67	-12.78	62.45	74.00	-11.55	peak	Vertical
2483.5	50.98	-12.78	63.76	74.00	-10.24	peak	Horizontal
			1Mbps hoppin	g			
2390	49.91	-13.06	62.97	74.00	-11.03	peak	Vertical
2390	50.04	-13.06	63.10	74.00	-10.90	peak	Horizontal
2483.5	49.79	-12.78	62.57	74.00	-11.43	peak	Vertical
2483.5	51.11	-12.78	63.89	74.00	-10.11	peak	Horizontal
		21	Abps Non-hopp	ing			
2390	49.68	-13.06	62.74	74.00	-11.26	peak	Vertical
2390	50.01	-13.06	63.07	74.00	-10.93	peak	Horizontal
2483.5	51.54	-12.78	64.32	74.00	-9.68	peak	Vertical
2483.5	51.85	-12.78	64.63	74.00	-9.37	peak	Horizontal
			2Mbps hopping	3			
2390	49.54	-13.06	62.60	74.00	-11.40	peak	Vertical
2390	49.87	-13.06	62.93	74.00	-11.07	peak	Horizontal
2483.5	51.42	-12.78	64.20	74.00	-9.80	peak	Vertical
2483.5	51.71	-12.78	64.49	74.00	-9.51	peak	Horizontal
	T	31	Mbps Non-hopp	ing		1	1
2390	52.11	-13.06	65.17	74.00	-8.83	peak	Vertical
2390	51.28	-13.06	64.34	74.00	-9.66	peak	Horizontal
2483.5	50.07	-12.78	62.85	74.00	-11.15	peak	Vertical
2483.5	50.95	-12.78	63.73	74.00	-10.27	peak	Horizontal
	T	Г	3Mbps hopping	9	<u> </u>	T	
2390	52.19	-13.06	65.25	74.00	-8.75	peak	Vertical
2390	51.36	-13.06	64.42	74.00	-9.58	peak	Horizontal
2483.5	50.15	-12.78	62.93	74.00	-11.07	peak	Vertical
2483.5	51.03	-12.78	63.81	74.00	-10.19	peak	Horizontal

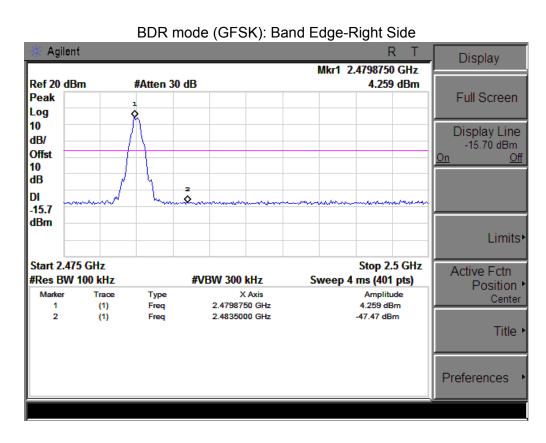
Note: Refer to chapter 3.2 test method, When PK value is lower than the Average value limit, average didn't record.

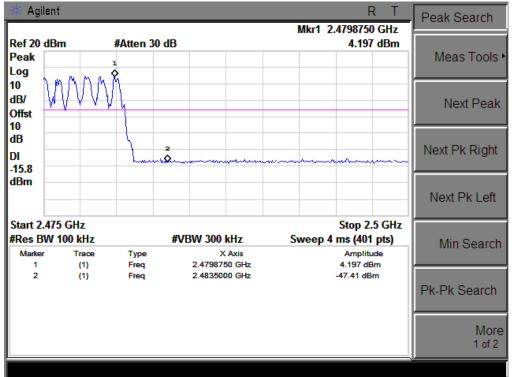




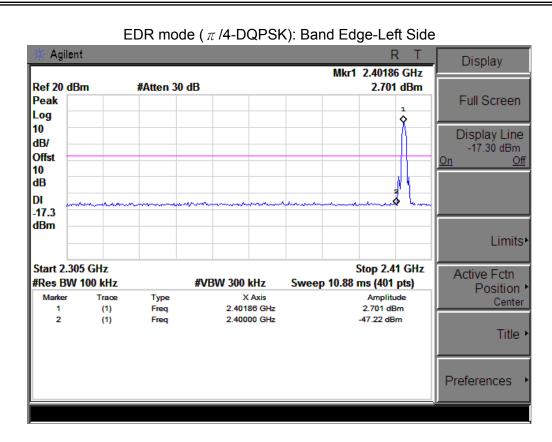


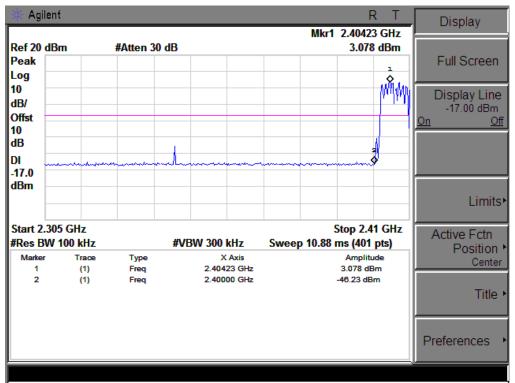




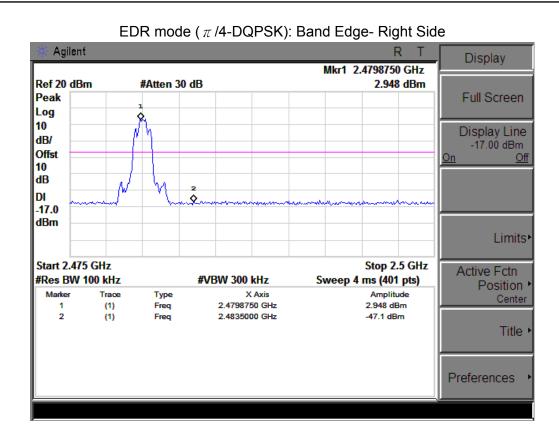






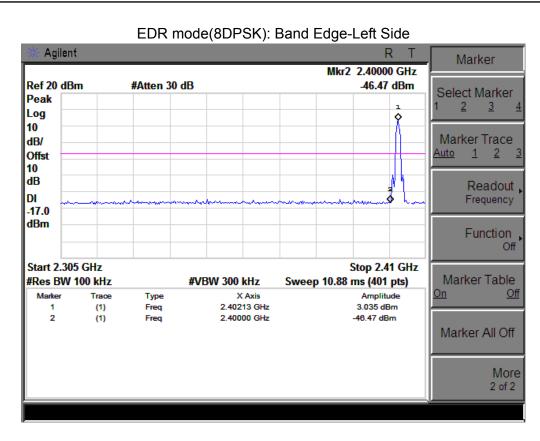


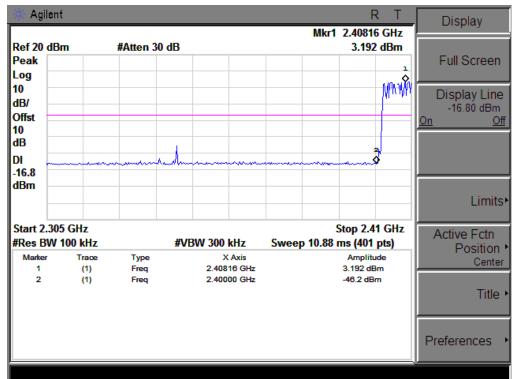




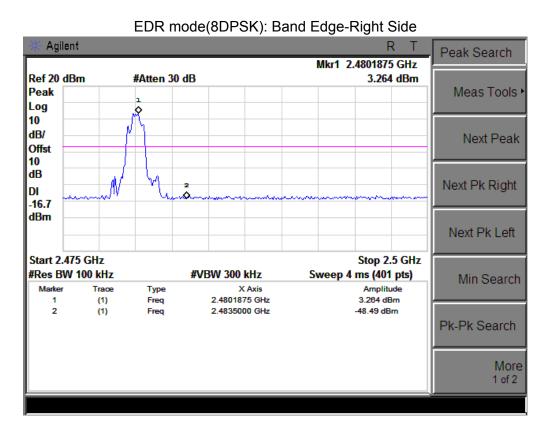


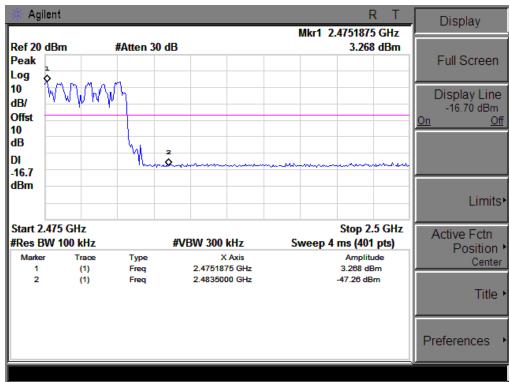












NOTE: Hopping enabled and disabled have evaluated, and the wortest data was reported



# **10. ANTENNA REQUIREMENT**

## **10.1 STANDARD 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 party shall be used with the device.

# **10.2 EUT ANTENNA**

The EUT antenna is FPCB Antenna. It comply with the standard requirement
--



# 11. EUT TEST PHOTO











