Ada Li



RADIO TEST REPORT

Report Reference No.....: NTEK-2011NT0606888E

Compiled by (+ signature) Jumy Qiu Approved by (+ signature) Ada Li Date of issue....: 2011-06-28

Total number of pages

Applicant's name Match Tech Industrial Co.,Ltd.

Unit A603, Wuhan daxue, South Keyuan Rd, Nanshan Address:

District, Shenzhen, China.

Manufacture's Name Match Tech Industrial Co., Ltd.

Address Unit A603, Wuhan daxue, South Keyuan Rd, Nanshan

District, Shenzhen, China.

Factory's Name Match Tech Industrial Co.,Ltd.

Unit A603, Wuhan daxue, South Keyuan Rd, Nanshan Address:

District, Shenzhen, China.

Test specification:

Standard FCC Part 15.247

Test procedure : ANSI C63.4 : 2003, DA 00-705

Non-standard test method....:

N/A

Test item description

Product name: Android tablet

Trademark:: DOOLAX((("

Model and/or type reference: MID988,MID886

Rating(s): DC 9V from adapter AC 120V/60Hz

Testing Laboratory information:

Testing Laboratory Name: NTEK Testing Technology Co., Ltd.

1/F, Building E, Fenda Science Park, Sanwei Community, Address::

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

0020984514 FCC Registration Number:

(86)-0755-61156588 Fax....:: (86)-0755-61156599 Page 2 of 66

Report No.:NTEK-2011NT0606888E

- test case does not apply to the test object	N/A
- test object does meet the requirement.:	P (Pass)
- test object does not meet the requirement:	F (Fail)
Testing:	
Date of receipt of test item:	2011-06-10
Date (s) of performance of tests:	2011-06-15~2011-06-23

General remarks:

The test results presented in this report relate only to the object tested.

The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report.

This report would be invalid test report without all the signatures of testing technician and approver.

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.



Table of Contents

	Page
1 . SUMMARY OF TEST RESULTS	6
1.1 MEASUREMENT UNCERTAINTY	7
2. GENERAL INFORMATION	8
2.1 GENERAL DESCRIPTION OF EUT	8
2.2 DESCRIPTION OF TEST MODES	10
2.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING	10
2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTE	D 11
2.5 DESCRIPTION OF SUPPORT UNITS(CONDUCTED MODE)	12
2.6 EQUIPMENTS LIST FOR ALL TEST ITEMS	13
3 . EMC EMISSION TEST	14
3.1 CONDUCTED EMISSION MEASUREMENT 3.1.1 POWER LINE CONDUCTED EMISSION LIMITS 3.1.2 TEST PROCEDURE 3.1.3 DEVIATION FROM TEST STANDARD 3.1.4 TEST SETUP 3.1.5 EUT OPERATING CONDITIONS 3.1.6 TEST RESULTS	14 14 15 15 15 16
3.2 RADIATED EMISSION MEASUREMENT 3.2.1 RADIATED EMISSION LIMITS 3.2.2 TEST PROCEDURE 3.2.3 DEVIATION FROM TEST STANDARD 3.2.4 TEST SETUP 3.2.5 EUT OPERATING CONDITIONS 3.2.6 TEST RESULTS (BETWEEN 9KHZ – 1000 MHZ) 3.2.7 TEST RESULTS (ABOVE 1000 MHZ) 3.2.8 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)	19 19 20 21 21 22 24 36
4 . NUMBER OF HOPPING CHANNEL	40
4.1 APPLIED PROCEDURES / LIMIT 4.1.1 TEST PROCEDURE 4.1.2 DEVIATION FROM STANDARD 4.1.3 TEST SETUP 4.1.4 EUT OPERATION CONDITIONS 4.1.5 TEST RESULTS	40 40 40 40 40 41
5 . AVERAGE TIME OF OCCUPANCY	42
5.1 APPLIED PROCEDURES / LIMIT 5.1.1 TEST PROCEDURE	42 42



Table of Contents

	Page
5.1.2 DEVIATION FROM STANDARD	42
5.1.3 TEST SETUP	43
5.1.4 EUT OPERATION CONDITIONS	43
5.1.5 TEST RESULTS	44
6. HOPPING CHANNEL SEPARATION MEASUREMENT	50
6.1 APPLIED PROCEDURES / LIMIT	50
6.1.1 TEST PROCEDURE	50
6.1.2 DEVIATION FROM STANDARD	50
6.1.3 TEST SETUP 6.1.4 EUT OPERATION CONDITIONS	50 50
6.1.5 TEST RESULTS	50 51
7 . BANDWIDTH TEST	53
7.1 APPLIED PROCEDURES / LIMIT	53
7.1.1 TEST PROCEDURE	53
7.1.2 DEVIATION FROM STANDARD	53
7.1.3 TEST SETUP	53
7.1.4 EUT OPERATION CONDITIONS	53
7.1.5 TEST RESULTS	54
8 . PEAK OUTPUT POWER TEST	56
8.1 APPLIED PROCEDURES / LIMIT	56
8.1.1 TEST PROCEDURE	56
8.1.2 DEVIATION FROM STANDARD	56
8.1.3 TEST SETUP	56
8.1.4 EUT OPERATION CONDITIONS 8.1.5 TEST RESULTS	56 57
9. ANTENNA CONDUCTED SPURIOUS EMISSION	59
9.1 APPLIED PROCEDURES / LIMIT	59 50
9.1.1 TEST PROCEDURE 9.1.2 DEVIATION FROM STANDARD	59 59
9.1.3 TEST SETUP	60
9.1.4 EUT OPERATION CONDITIONS	60
9.1.5 TEST RESULTS	61
10 . RF EXPOSURE TEST	63
10.1 APPLIED PROCEDURES / LIMIT	63
10.1.1 MPE CALCULATION METHOD	64
10.1.2 DEVIATION FROM STANDARD	65
10.1.3 TEST SETUP	65
10.1.4 EUT OPERATION CONDITIONS	65
10.1.5 TEST RESULTS	66



Table of Contents

Page



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 (c)	Antenna conducted Spurious 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 (b)(1)	Number of Hopping Frequency	PASS			
15.247 (a)(1)	Dwell Time	PASS			
15.205	Restricted Bands	PASS			
15.203	Antenna Requirement	PASS			
1.1307 1.1310 2.1091 2.1093	RF Exposure Compliance	PASS			

NOTE:

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



1.1 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 % $^{\circ}$

A. Conducted Measurement:

Test Site	Method	Measurement Frequency Range	U , (dB)	NOTE
C01	ANSI	150 KHz ~ 30MHz	1.94	

B. Radiated Measurement:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U , (dB)	NOTE
OS-01	ANSI	30MHz ~ 200MHz	V	3.82	
		30MHz ~ 200MHz	Н	3.60	
		200MHz ~ 1,000MHz	V	3.86	
		200MHz ~ 1,000MHz	Н	3.94	
		All emissions,radiated(>1G)	V	4.89	
		All emissions,radiated(>1G)	Η	4.70	
OS-02	ANSI	30MHz ~ 200MHz	V	2.48	
		30MHz ~ 200MHz	Н	2.16	
		200MHz ~ 1,000MHz	V	2.50	
		200MHz ~ 1,000MHz	Н	2.66	
		All emissions,radiated(>1G)	V	4.68	
		All emissions,radiated(>1G)	Н	4.55	



2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Android tablet			
Trade Name	N/A			
Model Name	MID988,MID886			
OEM Brand/Model Name	N/A			
Model Difference	All model is totally identi	cal,Just color is different.		
	The EUT is a Android ta	blet		
	Operation Frequency:	2402~2480 MHz		
	Modulation Type:	FHSS		
	Bit Rate of Transmitter	GFSK(1Mbps)		
	Number Of Channel	79 CH		
	Antenna Designation:	Please see Note 3.		
Product Description	Antenna Gain(Peak)	Please see Note 3.		
	Output Power:	-3.81 dBm (Max.)		
	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.		
Power Source	DC Voltage supplied from	m 2* Battery		
Power Rating	DC 9V from adapter AC 120V/60Hz			
Connecting I/O Port(s)	Please refer to the User's Manual			
Products Covered	N/A			
EUT Modification(s)	N/A			

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
80	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	PIFA Antenna	NA	0.5	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

For Conducted Emission		
Final Test Mode	Description	
-	"N/A" denotes test is not applicable in this Test Report	

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.

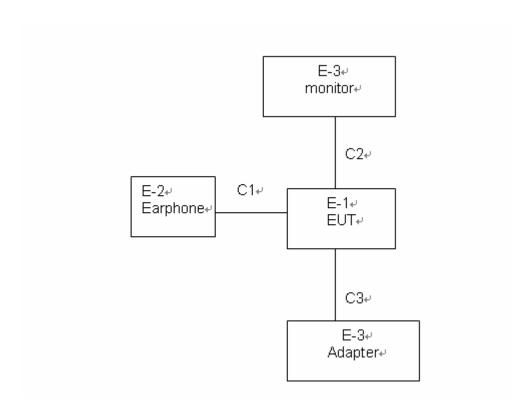
2.3 TABLE OF PARAMETERS OF TEXT SOFTWARE SETTING

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(1Mbps)	DEF	DEF	DEF		



2.4 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED





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.	FCC ID	Series No.	Note
E-1	Android tablet	N/A	MID988	ZLFMID988	N/A	EUT
E-2	Earphone	N/A	ABD567	VOC	3490754	
E-3	Monitor	Konka	MK-047	DOC	N/A	
E-4	adapter	Match	AK04G-0900250U	DOC	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C1	NO	NO	0.8M	
C2	NO	YES	1M	
C3	NO	NO	1.5M	

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.



2.5 EQUIPMENTS LIST FOR ALL TEST ITEMS

No	Test Equipment	Manufacturer	Manufacturer Model No		Cal. Due
1	Spectrum Analyzer	ADVANTEST	R3182	150900201	2012.04.16
2	EMI Measuring Receiver	Schaffner	SCR3501	235	2012.04.06
3	Low Noise Pre Amplifier	Tsj	MLA-10K01-B01-27	1205323	2011.09.06
4	Low Noise Pre Amplifier	Tsj	MLA-0120-A02-34	2648A04738	2012.04.07
5	TRILOG Super Broadband test Antenna	SCHWARZBECK	VULB9160	9160-3206	2011.07.01
6	Broadband Horn Antenna	SCHWARZBECK	BBHA9120D	451	2011.07.14
7	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2011.09.06
8	EMI Test Receiver	R&S	ESCI	100124	2011.12.27
9	LISN	Kyoritsu	KNW-242	8-837-4	2012.04.06
10	LISN	Kyoritsu	KNW-407	8-1789-3	2012.04.06
11	50Ω Coaxial Switch	Anritsu MP59B		6200264417	2011.09.06
12	Loop Antenna	ARA	PLA-1030/B	1029	2011.07.14



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		



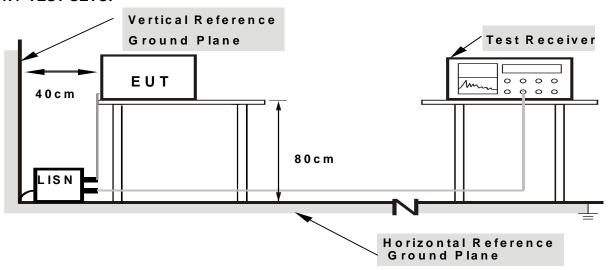
3.1.2 TEST PROCEDURE

- a. The EUT was placed 0.4 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

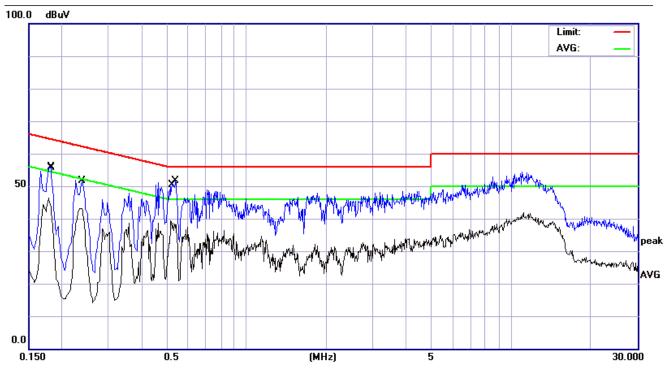
The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.



3.1.6 TEST RESULTS

EUT:	Android tablet	Model Name. :	MID988		
Temperature:	26 ℃	Relative Humidity:	54%		
Pressure :	1010hPa	Test Date :	2011-6-22		
Test Mode:	Running Phase : L				
Test Voltage :	DC 9V from adapter AC 120V/60Hz				

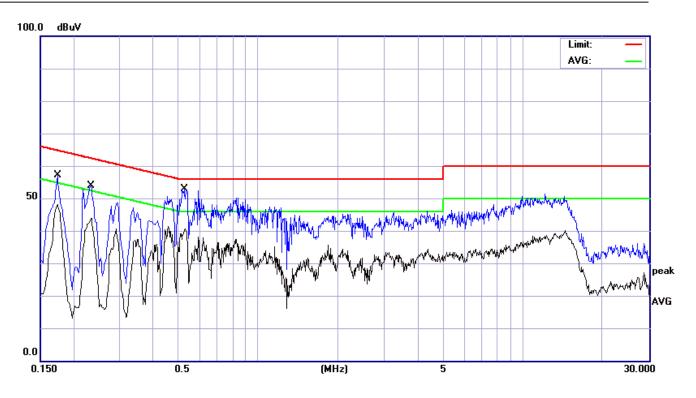
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
	MHz	dBu∨	dB	dBu∨	dBu∀	dB	Detector	Comment	
1	0.1780	35.92	10.37	46.29	54.57	-8.28	AVG		
2	0.1819	45.47	10.38	55.85	64.39	-8.54	QP		
3	0.2380	41.11	10.43	51.54	62.16	-10.62	QP		
4	0.2380	32.67	10.43	43.10	52.16	-9.06	AVG		
5	0.5180	28.88	10.41	39.29	46.00	-6.71	AVG		
6 *	0.5380	41.14	10.41	51.55	56.00	-4.45	QP		





EUT:	Android tablet	Model Name. :	MID988		
Temperature:	26 ℃	Relative Humidity:	54%		
Pressure :	1010hPa	Test Date :	2011-6-22		
Test Mode:	Running	N			
Test Voltage :	DC 9V from adapter AC 120V/60Hz				

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector	Comment
1	0.1740	46.60	10.45	57.05	64.76	-7.71	QP	
2	0.1740	37.73	10.45	48.18	54.76	-6.58	AVG	
3	0.2340	43.49	10.44	53.93	62.30	-8.37	QP	
4	0.2340	33.47	10.44	43.91	52.30	-8.39	AVG	
5 *	0.5260	42.43	10.40	52.83	56.00	-3.17	QP	
6	0.5299	30.25	10.40	40.65	46.00	-5.35	AVG	





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	V/m) (at 3M)	Class B (dBuV/m) (at 3M)		
FREQUENCY (MIDZ)	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 th 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	1 MHz / 1 MHz for Dook 1 MHz / 10Hz 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.

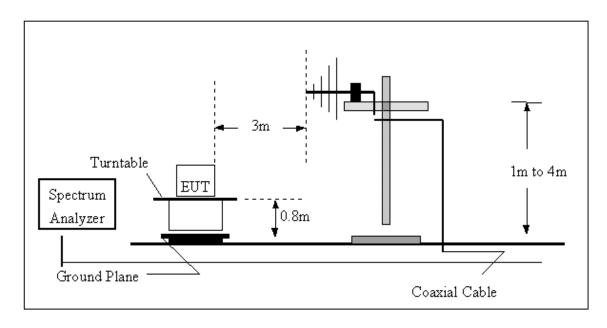
3.2.3 DEVIATION FROM TEST STANDARD

No deviation

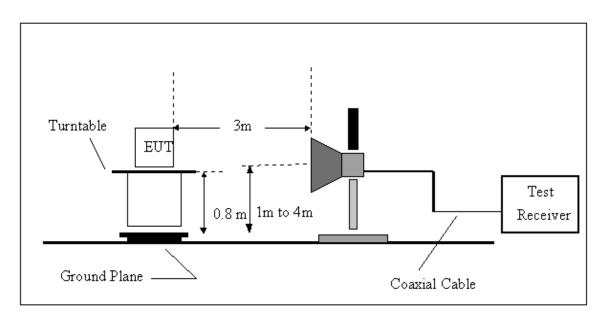


3.2.4 TEST SETUP

(A) Radiated Emission Test Set-Up, Frequency Below 1000MHz



(B) Radiated Emission Test Set-Up Frequency Above 1 GHz



3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of 4.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

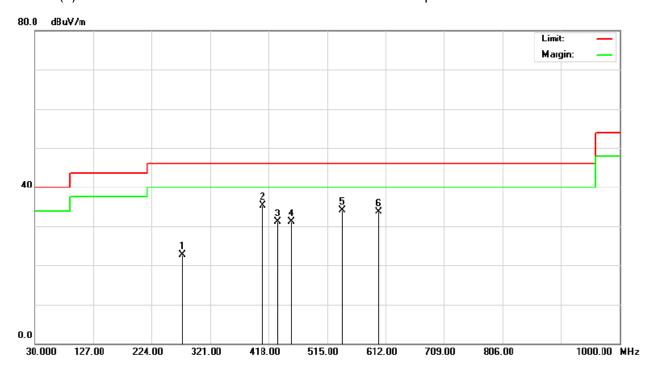


3.2.6 TEST RESULTS (BETWEEN 9KHZ – 1000 MHZ)

EUT:	Android tablet	Model Name :	MID988
Temperature:	20 ℃	Relative Humidity:	48%
Pressure :	1010 hPa	riest vollage .	DC 9V from adapter AC 120V/60Hz
Test Mode :	TX 2441MHz-1Mbps		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
275.41	V	37.55	-14.84	22.71	46.00	- 23.29	
408.30	V	45.95	-10.60	35.35	46.00	- 10.65	
432.55	V	41.42	-10.41	31.01	46.00	- 14.99	
455.83	V	40.71	-9.70	31.01	46.00	- 14.99	
540.22	V	41.65	-7.48	34.17	46.00	- 11.83	·
600.36	V	39.70	-6.04	33.66	46.00	- 12.34	

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz $^{\circ}$
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (3) Measuring frequency range from 30MHz to 1000MHz •
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table ${\scriptstyle \circ}$
- (5) Corr.Factor = Antenna Factor + Cable Loss Pre-amplifier.

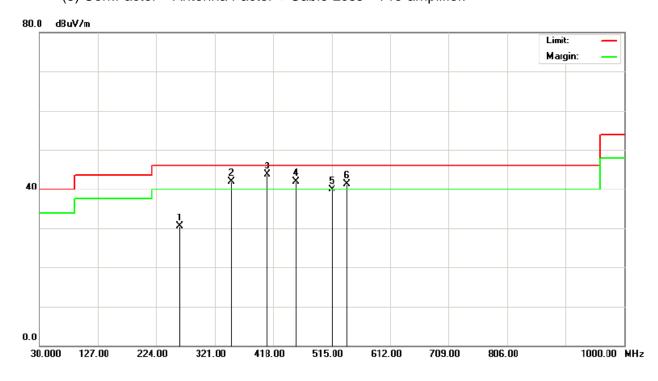




EUT:	Android tablet	Model Name :	MID988
Temperature:	20 ℃	Relative Humidity:	48%
Pressure :	1010 hPa	LIEST VOITAGE .	DC 9V from adapter AC 120V/60Hz
Test Mode :	TX 2441MHz-1Mbps		

Freq. (MHz)	Ant. H/V	Reading(RA) (dBuV)	Corr.Factor(CF) (dB)	Measured(FS) (dBuV/m)	Limits(QP) (dBuV/m)	Margin (dB)	Note
263.77	Н	45.67	-15.14	30.53	46.00	- 15.47	
348.16	Н	53.83	-12.00	41.83	46.00	- 4.17	
408.30	Н	54.32	-10.60	43.72	46.00	- 2.28	
455.83	Н	51.56	-9.70	41.86	46.00	- 4.14	
515.97	Н	48.14	-8.28	39.86	46.00	- 6.14	
540.22	Н	48.85	-7.48	41.37	46.00	- 4.63	

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Mode or Peak Mode with Detector BW=120KHz ; SPA setting in RBW=120KHz, VBW =120KHz, Swp. Time = 0.3 sec./MHz $^{\circ}$
- (2) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{L}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (3) Measuring frequency range from 30MHz to 1000MHz •
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not show in table \circ
- (5) Corr.Factor = Antenna Factor + Cable Loss Pre-amplifier.





3.2.7 TEST RESULTS (ABOVE 1000 MHZ)

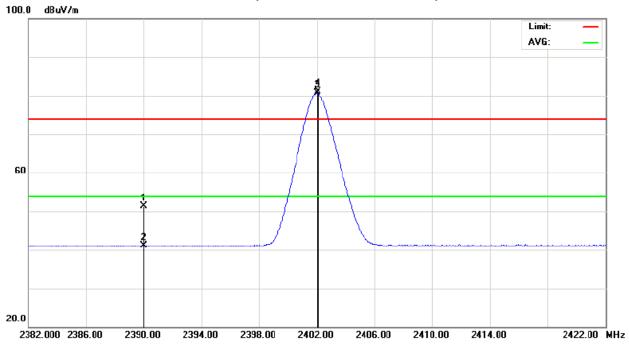
EUT:	Android tablet	Model Name :	MID988
Temperature:	20 ℃	Relative Humidity:	48%
Pressure :	1010 hPa	nesi vollade .	DC 9V from adapter AC 120V/60Hz
Test Mode :	TX 2402MHz – CH 00(1Mbps)		

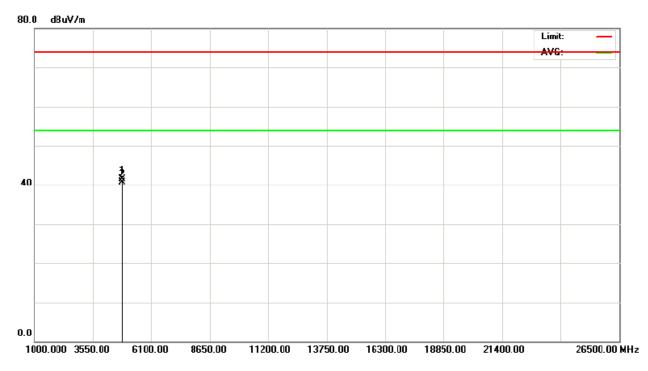
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	16.49	6.28	34.77	51.26	41.05	74.00	54.00	X/E
2402.00	٧	46.33	45.86	34.80	81.13	80.66			X/F
4804.00	V	33.72	32.98	7.71	41.43	40.69	74.00	54.00	X/H
7206.00	V	*	*	*	*	*	*	*	*

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ∘
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (8) Corr. Factor = Antenna Factor + Cable Loss Pre-amplifier.



TX CH00(Above 1000 MHz, Vertical)







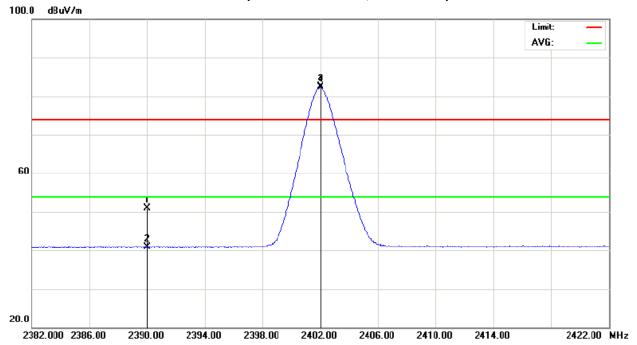
EUT:	Android tablet	Model Name :	MID988
Temperature:	20 ℃	Relative Humidity:	48%
Pressure :	1010hPa	LIEST VOITAGE .	DC 9V from adapter AC 120V/60Hz
Test Mode :	TX 2402MHz – CH 00(1Mbps)		

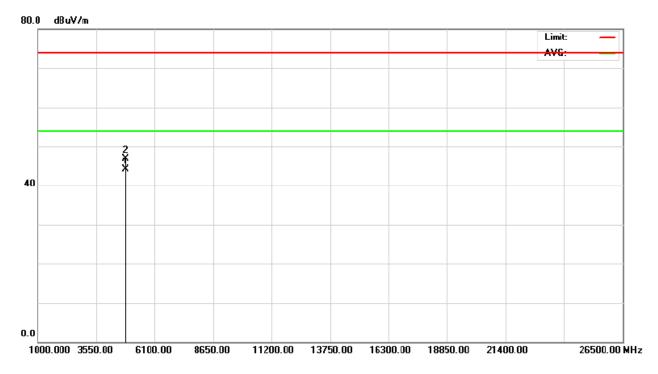
Freq.	Ant.Pol.	Rea	ding	Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	16.13	6.14	34.77	50.90	40.91	74.00	54.00	X/E
2402.00	Н	47.79	47.43	34.80	82.59	82.23			X/F
4803.98	Н	39.29	36.38	7.71	47.00	44.09	74.00	54.00	X/H
7206.00	Н	*	*	*	*	*	*	*	*

- (1) All readings are Peak unless otherwise stated QP in column of 『Note』. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ∘
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (8) Corr.Factor = Antenna Factor + Cable Loss Pre-amplifier.



TX CH00(Above 1000 MHz, Horizontal)







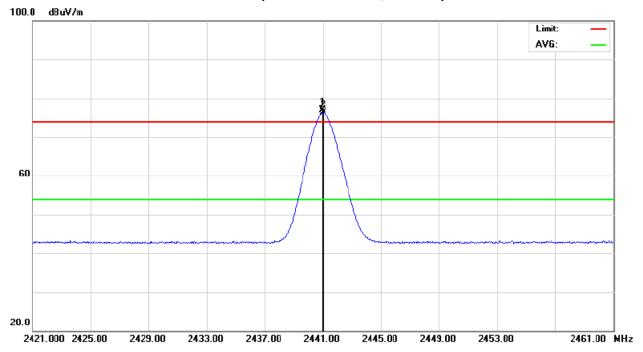
EUT:	Android tablet	Model Name :	MID988
Temperature:	20 ℃	Relative Humidity:	48%
Pressure :	1010 hPa	HAST VAHAAA .	DC 9V from adapter AC 120V/60Hz
Test Mode :	TX 2441MHz -CH39(1Mbps)		

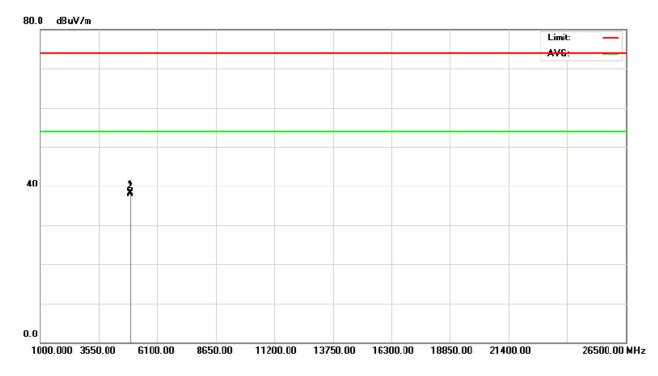
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2440.96	V	44.63	44.03	32.21	76.84	76.24			X/F
4882.18	V	30.05	29.69	8.19	38.24	37.88	74.00	54.00	X/H
5235.92	V	29.36	27.55	7.23	36.59	34.78	74.00	54.00	X/E
7322.88	V	*	*	*	*	*	*	*	*

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (8) Corr.Factor = Antenna Factor + Cable Loss Pre-amplifier.



TX CH39 (Above 1000 MHz, Vertical)







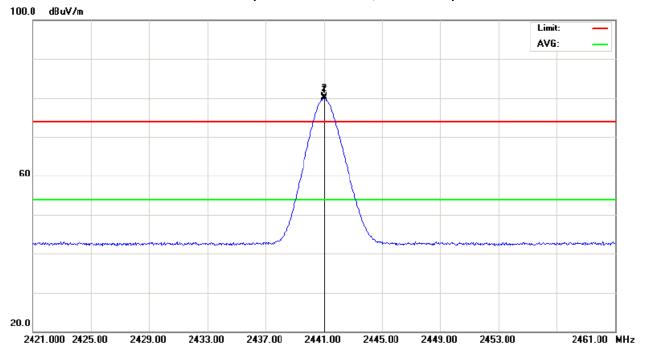
EUT:	Android tablet	Model Name :	MID988
Temperature:	20 ℃	Relative Humidity:	48%
Pressure :	1010 hPa	HEST VOITAGE .	DC 9V from adapter AC 120V/60Hz
Test Mode :	TX 2441MHz -CH39(1Mbps)		

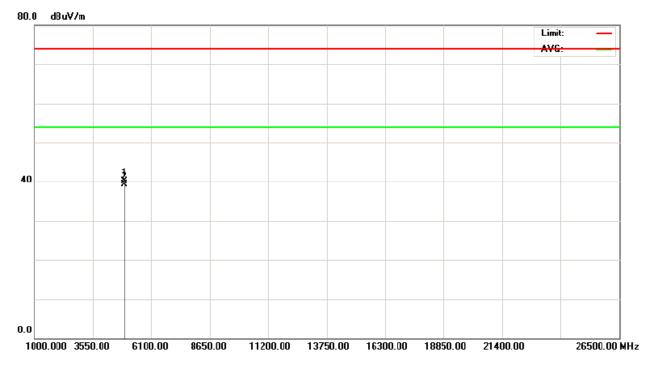
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2441.00	Н	48.14	47.73	32.21	80.35	79.94			X/F
4882.03	Н	31.82	31.03	8.19	40.01	39.22	74.00	54.00	X/H
5236.02	Н	31.35	29.29	7.23	38.58	36.52	74.00	54.00	X/E
7323.00	Н	*	*	*	*	*	*	*	*

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (8) Corr.Factor = Antenna Factor + Cable Loss Pre-amplifier.



TX CH39 (Above 1000 MHz, Horizontal)







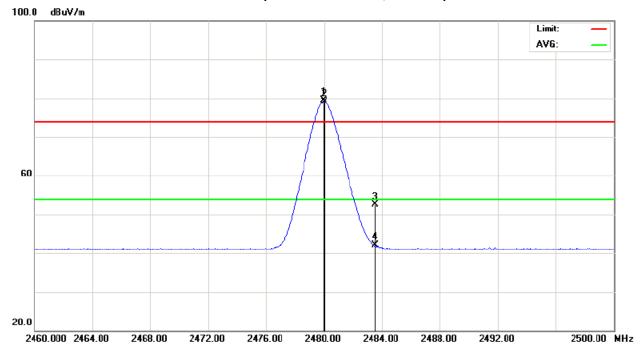
EUT:	Android tablet	Model Name :	MID988
Temperature:	20 ℃	Relative Humidity:	48%
Pressure :	1010hPa	LIAST VIOLIZION	DC 9V from adapter AC 120V/60Hz
Test Mode :	TX 2480MHz -CH78(1Mbps)		

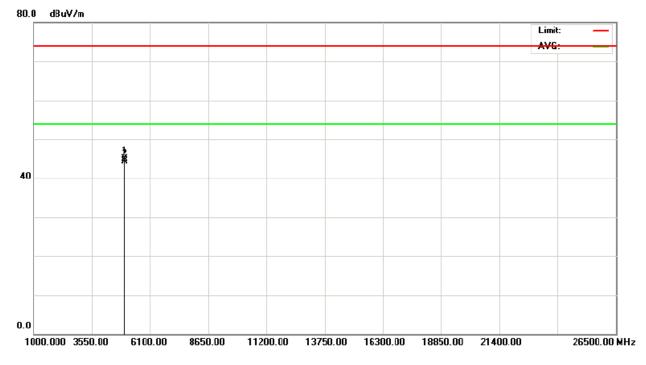
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2480.00	V	44.44	44.07	35.04	79.48	79.11			X/F
2483.50	V	17.49	6.98	35.04	52.53	42.02	74.00	54.00	X/E
4960.00	V	36.26	35.61	8.67	44.93	44.28	74.00	54.00	X/H
7440.00	V	*	*	*	*	*	*	*	*

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (8) Corr. Factor = Antenna Factor + Cable Loss Pre-amplifier.



TX CH78 (Above 1000 MHz, Vertical)







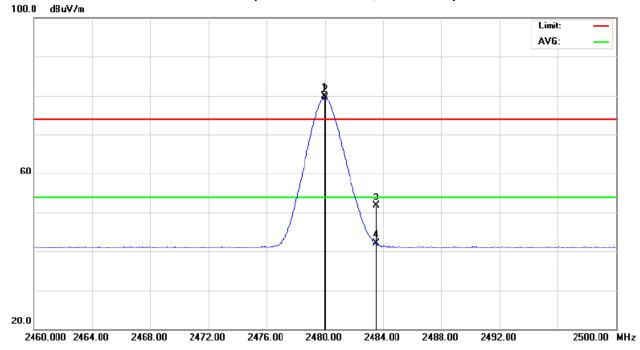
EUT:	Android tablet	Model Name :	MID988
Temperature:	20 ℃	Relative Humidity:	48%
Pressure :	1010 hPa	HAST VAHAAA .	DC 9V from adapter AC 120V/60Hz
Test Mode :	TX 2480MHz -CH78(1Mbps)		

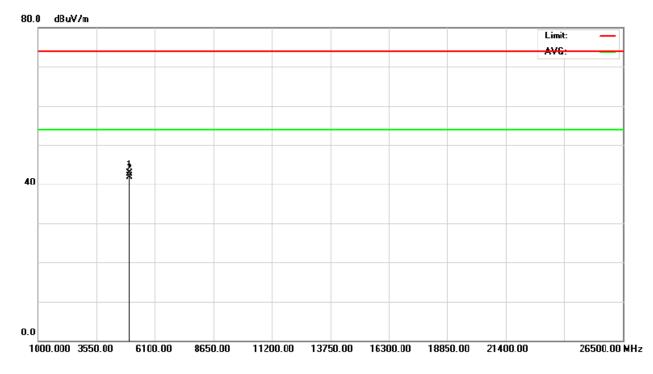
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Limit		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2480.00	Н	44.92	44.37	35.04	79.96	79.41			X/F
2483.50	Н	16.58	7.04	35.04	51.62	42.08	74.00	54.00	X/E
4960.00	Н	33.97	33.33	8.67	42.64	42.00	74.00	54.00	X/H
7440.00	Н	*	*	*	*	*	*	*	*

- (1) All readings are Peak unless otherwise stated QP in column of ${}^{\mathbb{F}}$ Note ${}_{\mathbb{J}}$. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform ${}_{\circ}$
- (2) Measuring frequency range from 30MHz to 1000MHz or the 10th harmonic of highest fundamental frequency "F" denotes fundamental frequency; "H" denotes spurious frequency. "E" denotes band edge frequency. (This judgment method includes the Band Edge Requirement.)
- (3) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (4) Data of measurement within this frequency range shown " * " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (5) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.
- (6) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (7) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (8) Corr.Factor = Antenna Factor + Cable Loss Pre-amplifier.



TX CH78 (Above 1000 MHz, Horizontal)







3.2.8 TEST RESULTS (RESTRICTED BANDS REQUIREMENTS)

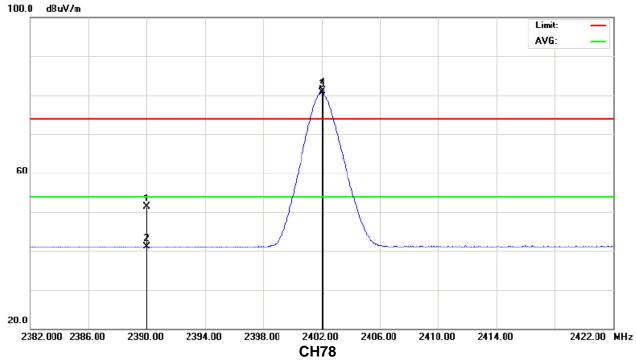
EUT:	Android tablet	Model Name :	MID988					
Temperature:	20 ℃	Relative Humidity:	48%					
Pressure :	1010 hPa	Test Voltage :	DC 9V from adapter AC 120V/60Hz					
Test Mode :	TX 2402MHz/2480MHz (1Mbps)							
	 The transmitter was setup to field strength was measured The transmitter was setup to the field strength was measured 	at 2310-2390 MHz. transmit at the higher	est channel (CH78). Then					

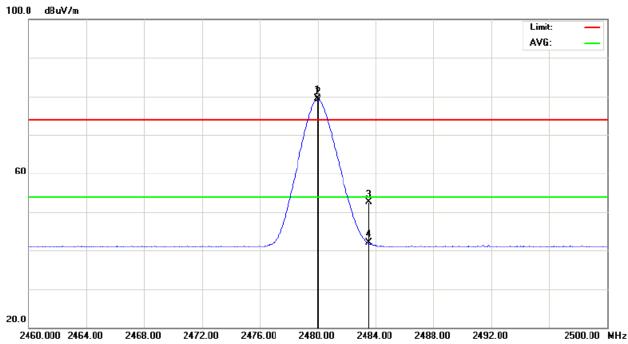
Freq.	Ant.Pol.	Reading		Ant./CF	Act.		Lir		
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	V	16.49	6.28	34.77	51.26	41.05	74.00	54.00	CH00
2483.50	V	17.49	6.98	35.04	52.53	42.02	74.00	54.00	CH78

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (3) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna
- (4) Corr.Factor = Antenna Factor + Cable Loss Pre-amplifier.



Restricted Bands Requirements, Vertical CH00







EUT:	Android tablet	Model Name :	MID988		
Temperature:	20 ℃	Relative Humidity:	48%		
Pressure :	1010 hPa	Test Voltage :	DC 9V from adapter AC 120V/60Hz		
Test Mode :	TX 2402MHz/2480MHz (1Mbps)				
Note:	 The transmitter was setup to transmit at the lowest channel (CH00). Then the field strength was measured at 2310-2390 MHz. The transmitter was setup to transmit at the highest channel (CH78). Then the field strength was measured at 2483.5-2500 MHz. 				

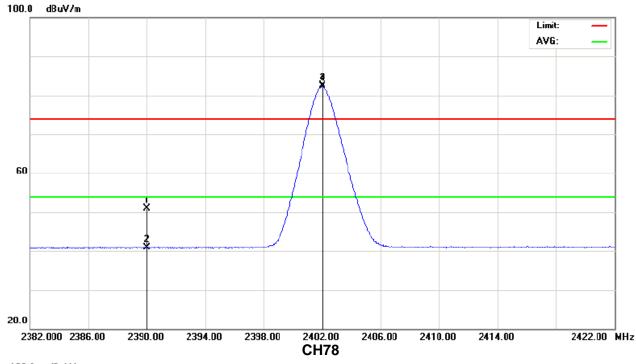
Freq.	Ant.Pol.	Rea	ding	Ant./CF	A	ct.	Liı	mit	
		Peak	AV		Peak	AV	Peak	AV	Note
(MHz)	H/V	(dBuV)	(dBuV)	CF(dB)	(dBuV/m)	(dBuV/m)	(dBuV/m)	(dBuV/m)	
2390.00	Н	16.13	6.14	34.77	50.90	40.91	74.00	54.00	CH00
2483.50	Н	16.58	7.04	35.04	51.62	42.08	74.00	54.00	CH78

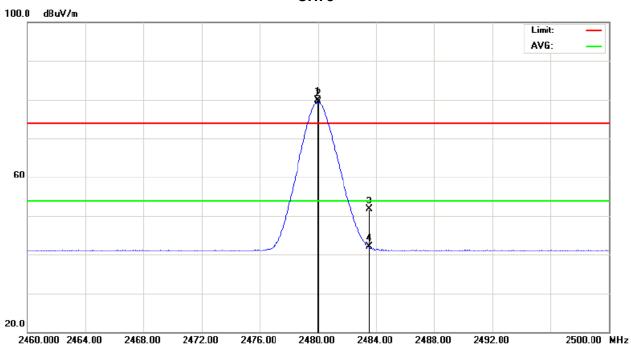
Remark:

- (1) Radiated emissions measured in frequency range above 1000MHz were made with an instrument using Peak detector mode
- (2) EUT Orthogonal Axis:
 - "X" denotes Laid on Table; "Y" denotes Vertical Stand; "Z" denotes Side Stand
- (3) During the measurements above 1 GHz it is taken care of that the EUT is always within the 3 dB cone of radiation BW of the used antenna $\frac{1}{2}$
- (4) Corr.Factor = Antenna Factor + Cable Loss Pre-amplifier.



Restricted Bands Requirements, Horizontal CH00







4. NUMBER OF HOPPING CHANNEL

4.1 APPLIED PROCEDURES / LIMIT

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

Spectrum Parameters	Setting
Attenuation	Auto
Span Frequency	> Operating Frequency Range
RB	100 kHz
VB	100 kHz
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.1.1 TEST PROCEDURE

4.1.2 DEVIATION FROM STANDARD

No deviation.

4.1.3 TEST SETUP



4.1.4 EUT OPERATION CONDITIONS

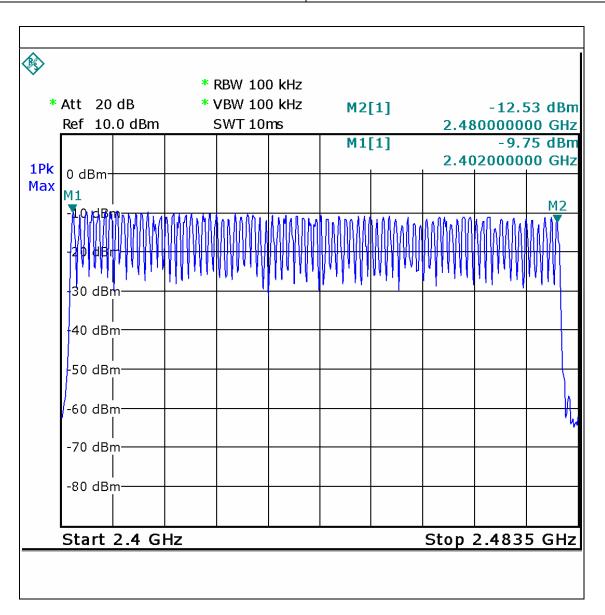
a. The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram below,

b. Spectrum Setting: RBW= 100KHz, VBW=100KHz, Sweep time = Auto.



EUT:	Android tablet	Model Name :	MID988
Temperature:	25 ℃	Relative Humidity:	60%
Pressure :	1015 hPa	Hest voltage .	DC 9V from adapter AC 120V/60Hz
Test Mode :	Hopping Mode –1Mbps mode		

Number of Hopping Channel	79
11 5	





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)(ii)	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 1MHz.
- 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. DH5 Packet permit maximum $1600/79/6 = 3.\overline{37}$ hops per second in each channel (5 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times $3.37 \times 31.6 = 106.6$ within 31.6 seconds.
- j. DH3 Packet permit maximum 1600 / 79 / 4 = 5.06 hops per second in each channel (3 time slots RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times $5.06 \times 31.6 = 160$ within 31.6 seconds.
- k. DH1 Packet permit maximum 1600 / 79 / 2 = 10.12 hops per second in each channel (1 time slot RX, 1 time slot TX). So, the dwell time is the time duration of the pulse times $10.12 \times 31.6 = 320$ within 31.6 seconds.

5.1.2 DEVIATION FROM STANDARD

No deviation.



5.1.3 TEST SETUP

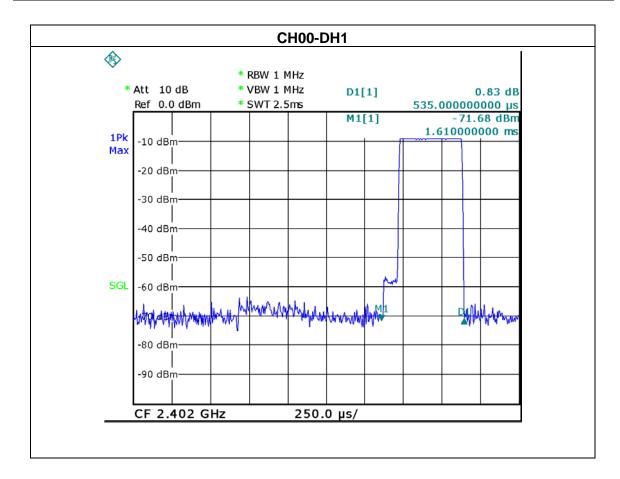
EUT	SPECTRUM
	ANALYZER

5.1.4 EUT OPERATION CONDITIONS

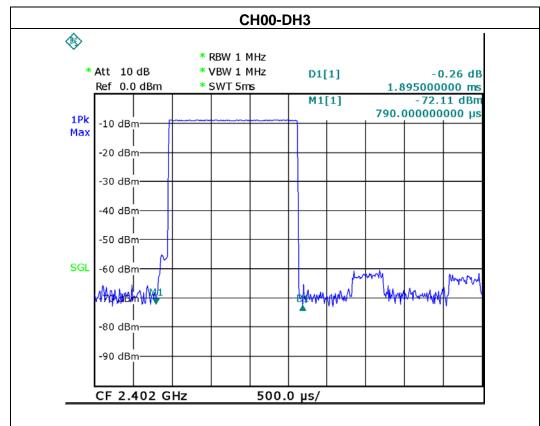


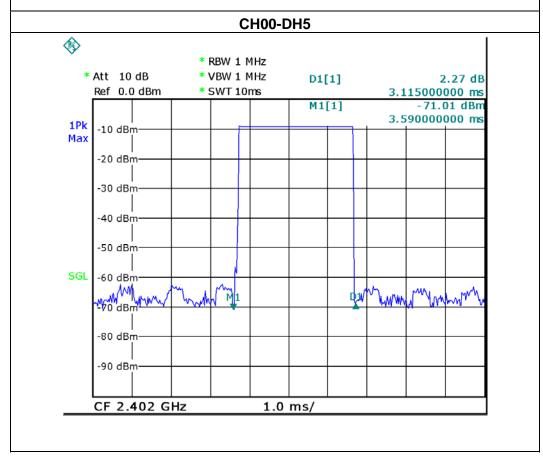
EUT:	Android tablet	Model Name :	MID988
Temperature:	25 ℃	Relative Humidity:	60%
Pressure :	1012 hPa	LIEST VOITAGE .	DC 9V from adapter AC 120V/60Hz
Test Mode : CH00-DH1/DH3/DH5 (1Mbps Mode)			

Data Packet	Frequency	Pulse Duration (ms)	Dwell Time (s)	Limits (s)
DH5	2402 MHz	3.1150	0.3323	0.4000
DH3	2402 MHz	1.8950	0.3032	0.4000
DH1	2402 MHz	0.5350	0.1712	0.4000





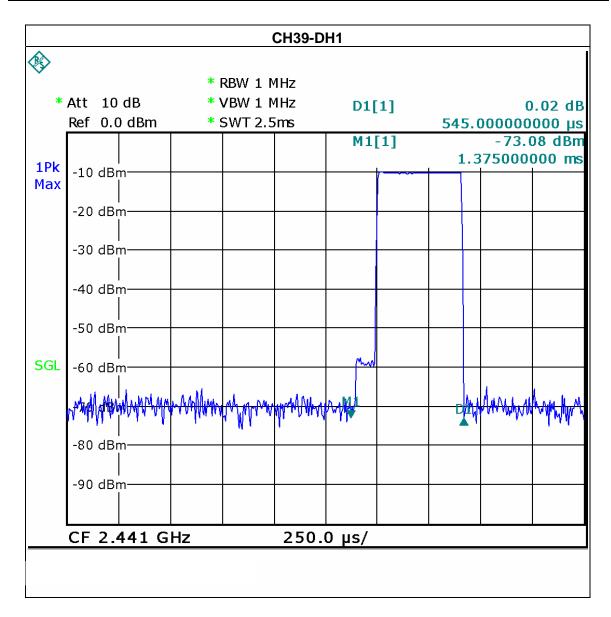




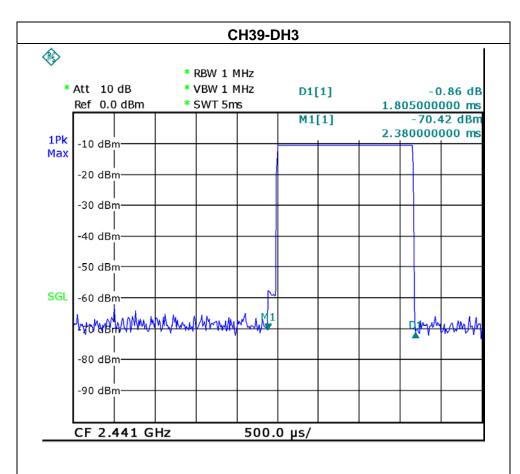


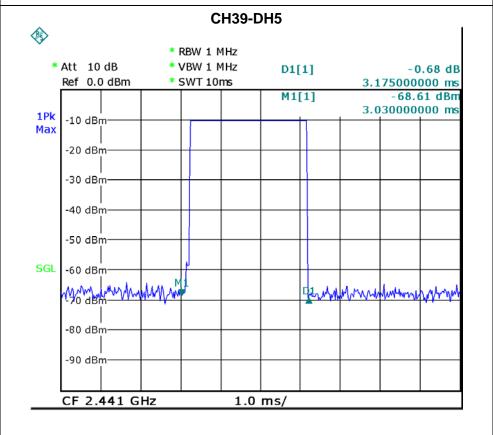
EUT:	Android tablet	Model Name :	MID988	
Temperature:	25 ℃	Relative Humidity:	60%	
Pressure :	1012 hPa	nest vollage .	DC 9V from adapter AC 120V/60Hz	
Test Mode :	de : CH39 -DH1/DH3/DH5 (1Mbps Mode)			

Data Packet	Frequency	Pulse Duration (ms)	Dwell Time (s)	Limits (s)
DH5	2441 MHz	3.1750	0.3387	0.4000
DH3	2441 MHz	1.8050	0.2888	0.4000
DH1	2441 MHz	0.5450	0.1744	0.4000





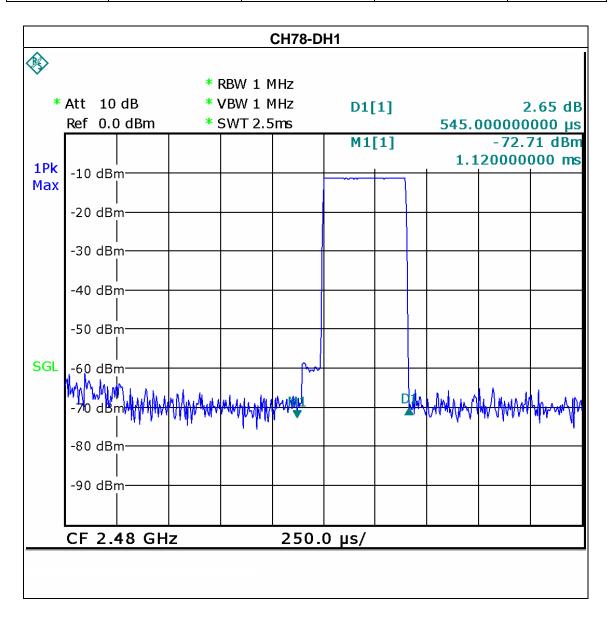




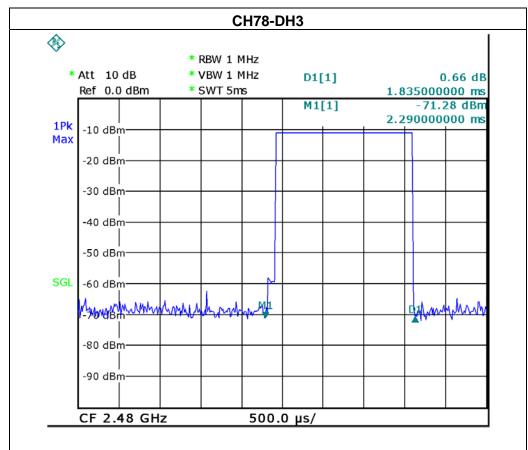


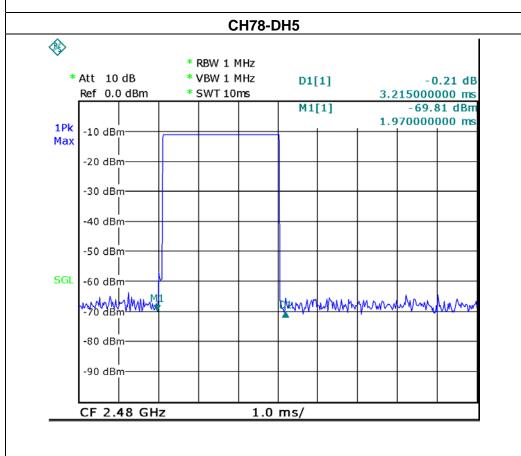
EUT:	Android tablet	Model Name :	MID988
Temperature:	25 ℃	Relative Humidity:	60%
Pressure :	1012 hPa	riesi vollage .	DC 9V from adapter AC 120V/60Hz
Test Mode :	CH78 -DH1/DH3/DH5 (1Mbps Mode)		

Data Packet	Frequency	Pulse Duration (ms)	Dwell Time (s)	Limits (s)
DH5	2480 MHz	3.2150	0.3429	0.4000
DH3	2480 MHz	1.8350	0.2936	0.4000
DH1	2480 MHz	0.5450	0.1744	0.4000











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 (20dB Bandwidth) / 100 kHz (Channel Separation)
VB	100 kHz (20dB Bandwidth) / 300 kHz (Channel Separation)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

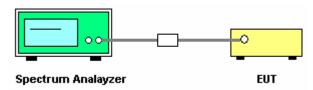
6.1.1 TEST PROCEDURE

- 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 20 dB bandwidth measurement.
- C. The resolution bandwidth of 100 kHz and the video bandwidth of 300 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

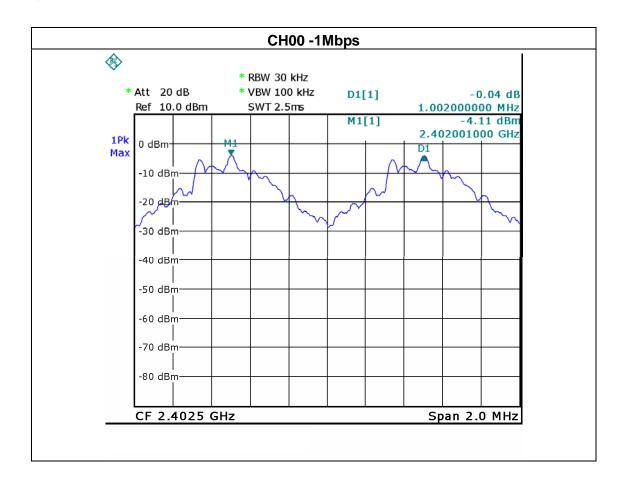
The EUT was programmed to be in continuously transmitting mode.



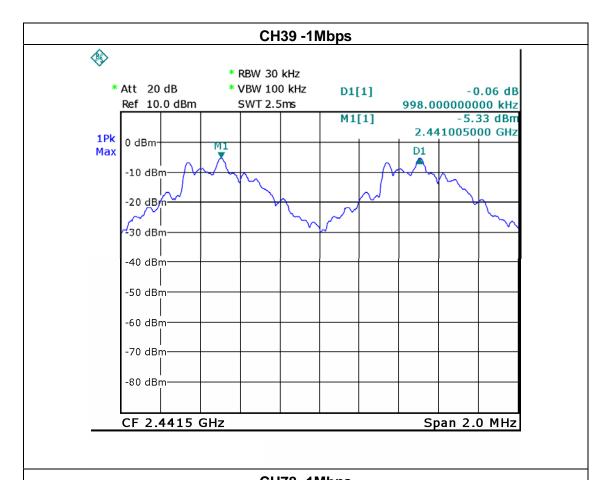
EUT:	Android tablet	Model Name :	MID988
Temperature :	25 ℃	Relative Humidity: 60%	
Pressure :	1012 hPa	Pa Test Voltage :	
Test Mode :	: CH00 / CH39 /CH78 (1Mbps Mode)		

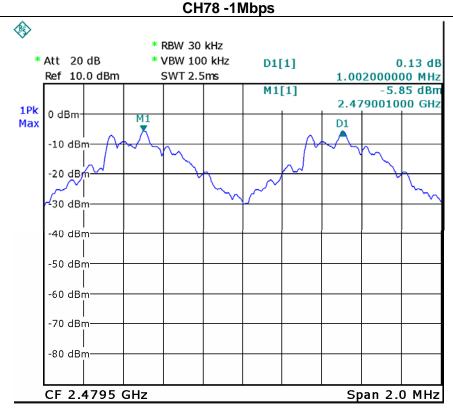
Frequency	Ch. Separation (MHz)	20d Bandwidth B (kHz)	99% Occupied Bandwidth (kHz)	Result
2402 MHz	1	846.30	842.32	Complies
2441 MHz	1	838.30	838.32	Complies
2480 MHz	1	846.30	842.32	Complies

Ch. Separation Limits: >20dB bandwidth or >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	
15.247 (a)(2)	Bandwidth	<= 1 MHz (20dB bandwidth)	2400-2483.5	PASS	

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth or Channel Separation
RB	30 kHz (20dB Bandwidth) / 100 kHz (Channel Separation)
VB	100 kHz (20dB Bandwidth) / 300 kHz (Channel Separation)
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= 100KHz, VBW=100KHz, Sweep time = Auto.

7.1.2 DEVIATION FROM STANDARD

No deviation.

7.1.3 TEST SETUP

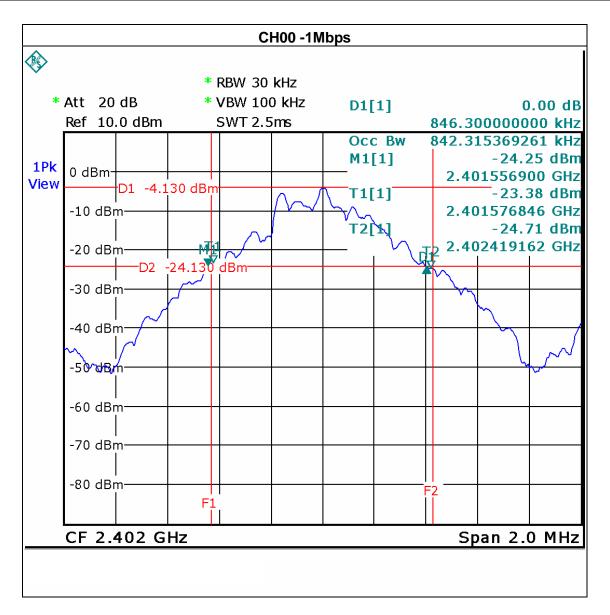


7.1.4 EUT OPERATION CONDITIONS

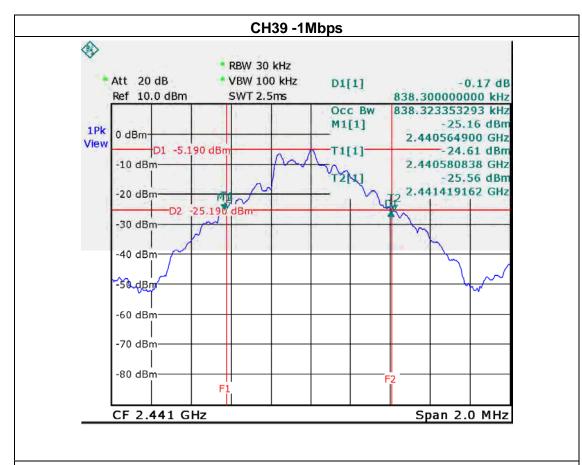


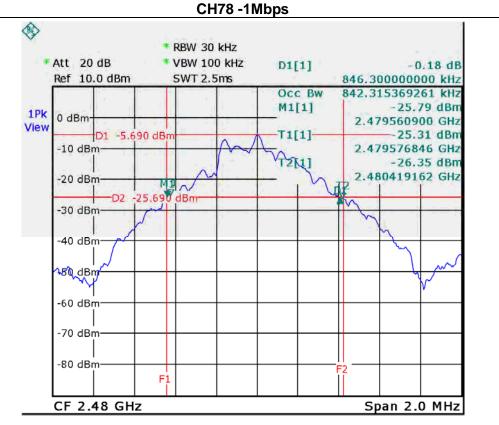
EUT:	Android tablet	Model Name :	MID988
Temperature:	25 ℃	Relative Humidity:	60%
Pressure :	1012 hPa	LIEST VOITAGE .	DC 9V from adapter AC 120V/60Hz
est Mode : CH00 / CH39 /CH78 (1Mbps Mode)			

Frequency	20dB Bandwidth (kHz)	Channel Separation (MHz)	Result
2402 MHz	846.30	<= 1MHz	PASS
2441 MHz	838.30	<= 1MHz	PASS
2480 MHz	846.30	<= 1MHz	PASS











8. PEAK OUTPUT POWER TEST

8.1 APPLIED PROCEDURES / LIMIT

FCC Part15 (15.247) , Subpart C				
Section Test Item Limit Frequency Range (MHz) Resul				Result
15.247 (b)(1)	Peak Output Power	1 watt or 30dBm	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= 1MHz, VBW= 1MHz, Sweep time = Auto.

8.1.2 DEVIATION FROM STANDARD

No deviation.

8.1.3 TEST SETUP

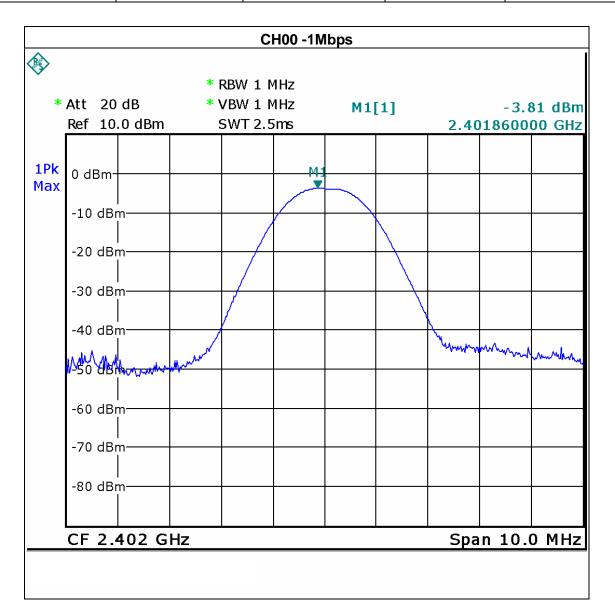


8.1.4 EUT OPERATION CONDITIONS

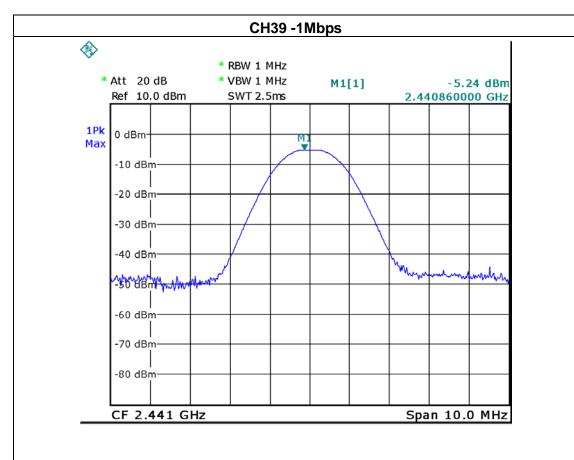


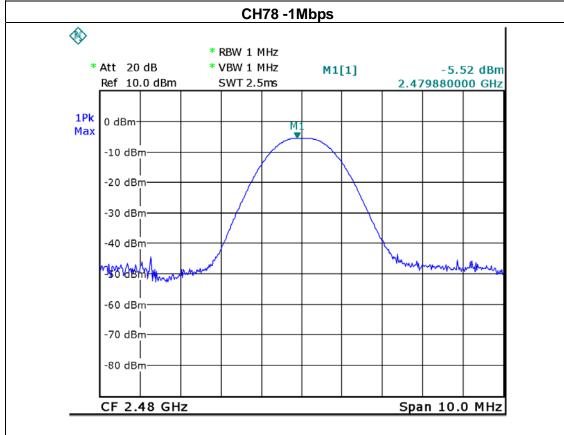
EUT:	Android tablet	Model Name :	MID988
Temperature:	25 ℃	Relative Humidity:	60%
Pressure :	1012 hPa	LIEST VOITAGE .	DC 9V from adapter AC 120V/60Hz
Test Mode : CH00/ CH39 /CH78 (1Mbps Mode)			

Test Channel	Frequency (MHz)	Peak Output Power (dBm)	LIMIT (dBm)	LIMIT (W)
CH00	2402	-3.81	30	1
CH39	2441	-5.24	30	1
CH78	2480	-5.52	30	1











9. ANTENNA CONDUCTED SPURIOUS EMISSION

9.1 APPLIED PROCEDURES / LIMIT

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 (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (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

The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting	
Attenuation	Auto	
Span Frequency	100 MHz	
RB / VB (emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average	
RB / VB (other emission)	100 KHz /100 KHz for Peak	

9.1.1 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.

9.1.2 DEVIATION FROM STANDARD

No deviation.



9.1.3 TEST SETUP

EUT	SPECTRUM
	ANALYZER

9.1.4 EUT OPERATION CONDITIONS



EUT:	Android tablet	Model Name :	MID988
Temperature:	25 ℃	Relative Humidity:	60%
Pressure :	1012 hPa	LIEST VOITAGE .	DC 9V from adapter AC 120V/60Hz
Test Mode :	CH00 / CH78 (1Mbps)		

The max. radio frequency power in any 100kHz bandwidth outside the frequency band		The max. radio frequency power in any 100 kHz bandwidth within the frequency band.		
FREQUENCY(MHz)	POWER(dBm)	FREQUENCY(MHz)	POWER(dBm)	
2386.14	-60.58	2484.58	-54.01	
Result				

In any 100kHz bandwidth outside the frequency band, the radio frequency power is at least 20dB below that in the 100kHz bandwidth within the band that contains the highest lever of the desired power.

Remark:

(1) Hopping enabled and disabled have evaluated, and the worrest data was reported



