FCC TEST REPORT

REPORT NO.:	RF940915L10
MODEL NO.:	MC7004
RECEIVED:	Sep. 15, 2005
TESTED:	Sep. 22 ~ 28, 2005
ISSUED:	Oct. 18, 2005

APPLICANT:	Symbol Technologies, Inc.
ADDRESS:	One Symbol Plaza, Holtsville, NY 11742, U.S.A.

ISSUED BY:	Advance Data Technology Corporation
LAB ADDRESS:	No. 47, 14th Ling, Chia Pau Tsuen, Lin Kou Hsiang 244, Taipei Hsien, Taiwan, R.O.C.
TEST LOCATION:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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0528
ILAC MRA

No. 2177-01

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1. CERTIFICATION

PRODUCT:	EDA (Enterprise Digital Assistant)
MODEL:	MC7004
BRAND:	Symbol
APPLICANT:	Symbol Technologies, Inc.
TEST SAMPLE:	PROTOTYPE
TESTED:	Sep. 22 ~ 28, 2005
STANDARDS:	FCC Part 15, Subpart C (Section 15.247), ANSI C63.4-2003

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

PREPARED BY	: Rennie Wang Rennie Wang	, **DATE:**	Oct. 18, 2005
TECHNICAL ACCEPTANCE Responsible for RF	: Gary Chang Gary Chang	, **DATE:**	Oct. 18, 2005
APPROVED BY	: Cody Chang / Deputy Manager	, **DATE:**	Oct. 18, 2005

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C (Section 15.247)			
Standard Section	**Test Type and Limit**	**Result**	**Remark**
15.207	AC Power Conducted Emission	PASS	Meet the requirement of limit. Minimum passing margin is –14.48dB at 0.201MHz
15.247(a)(2)	Spectrum Bandwidth of a Direct Sequence Spread Spectrum System Limit: min. 500kHz	PASS	Meet the requirement of limit.
15.247(b)	Maximum Peak Output Power Limit: max. 30dBm	PASS	Meet the requirement of limit.
15.247(d)	Radiated Emissions Limit: Table 15.209	PASS	Meet the requirement of limit. Minimum passing margin is –7.41dB at 249.66MHz
15.247(e)	Power Spectral Density Limit: max. 8dBm	PASS	Meet the requirement of limit.
15.247(d)	Band Edge Measurement Limit: 20dB less than the peak value of fundamental frequency	PASS	Meet the requirement of limit.

2.1 MEASUREMENT UNCERTAINTY

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

Measurement	Frequency	Uncertainty
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.73 dB
	200MHz ~1000MHz	3.74 dB
	1GHz ~ 18GHz	2.20 dB
	18GHz ~ 40GHz	1.88 dB

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

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	EDA (Enterprise Digital Assistant)
MODEL NO.	MC7004
POWER SUPPLY	3.7Vdc from rechargeable lithium battery 5.4Vdc from power adapter for charger 12.0Vdc from power adapter for cradle
MODULATION TYPE	GFSK
MODULATION TECHNOLOGY	FHSS
TRANSFER RATE	723Kbps
FREQUENCY RANGE	2.402 ~ 2.480GHz
NUMBER OF CHANNEL	79
CHANNEL SPACING	1MHz
OUTPUT POWER	0.843mW
ANTENNA TYPE	Chip antenna with 2.0dBi gain
DATA CABLE	0.92m non-shielded cable for earphone
I/O PORTS	Refer to user's manual
ASSOCIATED DEVICES	Earphone, cradle

NOTE:

1. The EUT is an EDA (Enterprise Digital Assistant) with bluetooth and mobile phone (GSM850, PCS1900) functions.
2. This report is only covered the functions of bluetooth. The mobile phone function is covered in another two test reports, which standards used are FCC Part 24 and FCC Part 22.
3. The EDA supports two battery options, Heavy (high capacity) and Main (normal). Both options were assessed and the heavy battery was found to be worst case and was selected for the final test configuration.

HEAVY BATTERY:	
BRAND:	Symbol
MODEL:	82-71364-01
RATING:	3.7Vdc, 3800 mAh

MAIN BATTERY:	
BRAND:	Symbol
MODEL:	82-71363-01
RATING:	3.7Vdc, 1900 mAh

4. The cradle was operated with following power adapter:

BRAND:	HIPRO
MODEL:	HP-O2040D43
INPUT:	100-240Vac, 50-60Hz, 1.5A
OUTPUT:	12Vdc, 3.33A
POWER LINE:	AC 1.8m non-shielded cable without core DC 1.8m non-shielded cable with one core

5. The EUT was operated with following charging cable:

BRAND:	Delta
MODEL:	ADP-16GB A
INPUT:	100-240Vac, 50-60Hz, 0.4A
OUTPUT:	5.4Vdc, 3A
POWER LINE:	AC 0.7m non-shielded cable without core DC 1.87m non-shielded cable with one core

6. The above EUT information was declared by the manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 DESCRIPTION OF TEST MODES

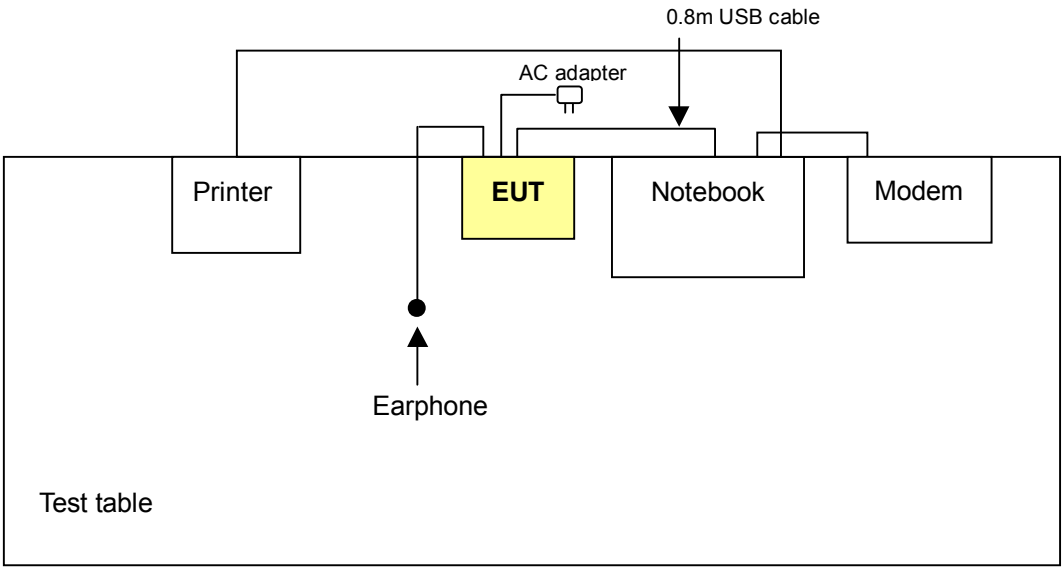
Since the EUT is considered a portable unit, it was pre-tested on the positioned of each 3 axis. The worst case was found when positioned on X-plane. Therefore only the test data of this X-plane was used for radiated test.

79 channels are provided to this EUT:

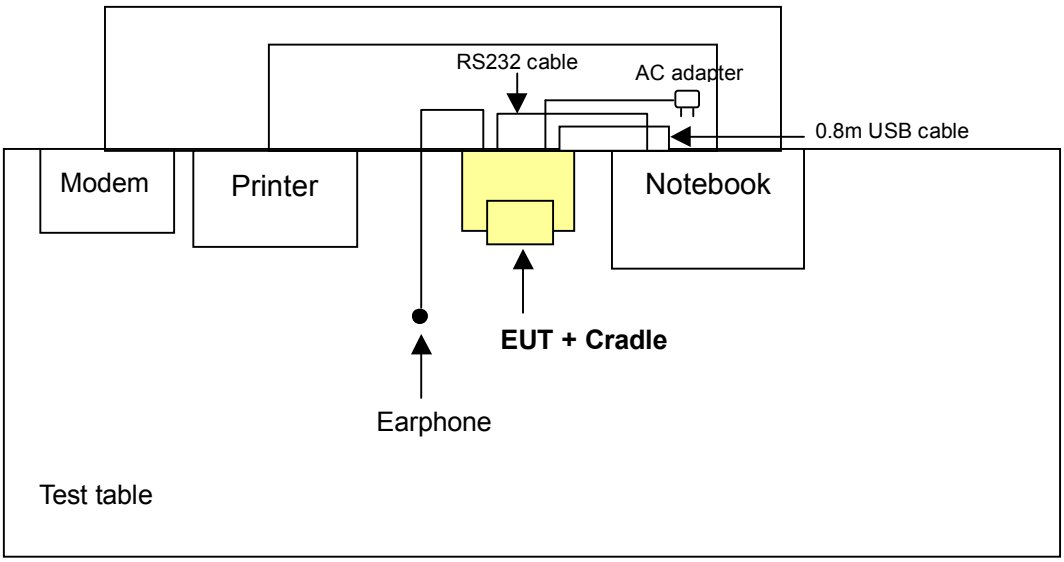
CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
0	2402	20	2422	40	2442	60	2462
1	2403	21	2423	41	2443	61	2463
2	2404	22	2424	42	2444	62	2464
3	2405	23	2425	43	2445	63	2465
4	2406	24	2426	44	2446	64	2466
5	2407	25	2427	45	2447	65	2467
6	2408	26	2428	46	2448	66	2468
7	2409	27	2429	47	2449	67	2469
8	2410	28	2430	48	2450	68	2470
9	2411	29	2431	49	2451	69	2471
10	2412	30	2431	50	2452	70	2472
11	2413	31	2433	51	2453	71	2473
12	2414	32	2434	52	2454	72	2474
13	2415	33	2435	53	2455	73	2475
14	2416	34	2436	54	2456	74	2476
15	2417	35	2437	55	2457	75	2477
16	2418	36	2438	56	2458	76	2478
17	2419	37	2439	57	2459	77	2479
18	2420	38	2440	58	2460	78	2480
19	2421	39	2441	59	2461		

3.2.1 CONFIGURATION OF SYSTEM UNDER TEST

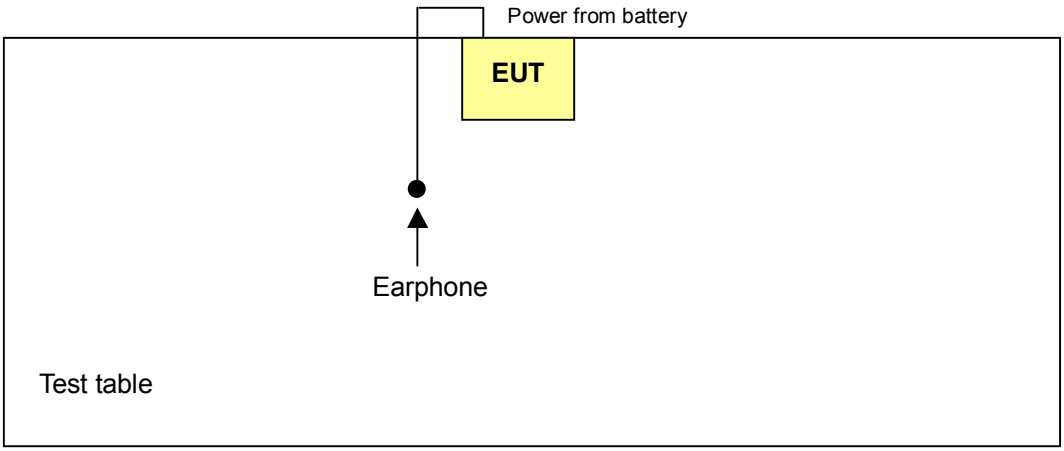
Mode 1



Mode 2



Mode 3



3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT configure mode	Applicable to				Description
	PLC	RE<1G	RE≥1G	APCM	
A	√	√	√	√	The EUT with heavy battery connected with the earphone, and was powered by the adapter mode: ADP-16GB A
B	√	√	NOTE 2	NOTE 2	The EUT with heavy battery connected with the earphone and cradle, and was powered by the adapter model: HP-O2040D43
C	NOTE 1	√	NOTE 2	NOTE 2	The EUT with heavy battery connected with the earphone

Where PLC: Power Line Conducted Emission RE<1G RE: Radiated Emission below 1GHz
RE≥1G: Radiated Emission above 1GHz APCM: Antenna Port Conducted Measurement

NOTE 1: No need to concern due to the EUT is powered by battery.

NOTE 2: No effect.

Power Line Conducted Emission Test:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture), and packet types.

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	PACKET TYPE
A	0 to 78	0, 39, 78	FHSS	GFSK	DH5
B	0 to 78	0, 39, 78	FHSS	GFSK	DH5

Radiated Emission Test (Below 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates, antenna ports (if EUT with antenna diversity architecture), X, Y, Z Axis, and packet types.

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	PACKET TYPE	AXIS
A	0 to 78	78	FHSS	GFSK	DH5	X
B	0 to 78	78	FHSS	GFSK	DH5	-
C	0 to 78	78	FHSS	GFSK	DH5	X

Radiated Emission Test (Above 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture), X, Y, Z Axis, and packet types.

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT CONFIGURE MODE	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	PACKET TYPE	AXIS
A	0 to 78	0, 39, 78	FHSS	GFSK	DH5	X

Bandedge Measurement:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	PACKET TYPE
0 to 78	0, 78	FHSS	GFSK	DH5

Antenna Port Conducted Measurement:

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	PACKET TYPE
0 to 78	0, 39, 78	FHSS	GFSK	DH5

3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is an EDA (Enterprise Digital Assistant). According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C. (15.247)
ANSI C63.4-2003

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

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

3.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	NOTEBOOK COMPUTER	DELL	PP05L	16484462992	E2K24CLNS
2	MODEM	ACEEX	1414V/3	0401008269	IFAXDM1414
3	PRINTER	EPSON	LQ-300+	DCGY054147	FCC DoC Approved

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA
2	1.8 m shielded cable without core
3	1.2 m shielded cable without core

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

4. TEST TYPES AND RESULTS

4.1.1 CONDUCTED EMISSION MEASUREMENT

4.1.2 LIMITS OF CONDUCTED EMISSION MEASUREMENT

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Nov. 06, 2005
RF signal cable Woken	5D-FB	Cable-HyC02-01	Jan. 09, 2006
LISN ROHDE & SCHWARZ	ESH2-Z5	100100	Jan. 20, 2006
LISN ROHDE & SCHWARZ	ESH3-Z5	100311	Jan. 20, 2006
Software ADT	ADT_Cond_V3	NA	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 3.

3. The VCCI Site Registration No. is C-2047.

4.1.4 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

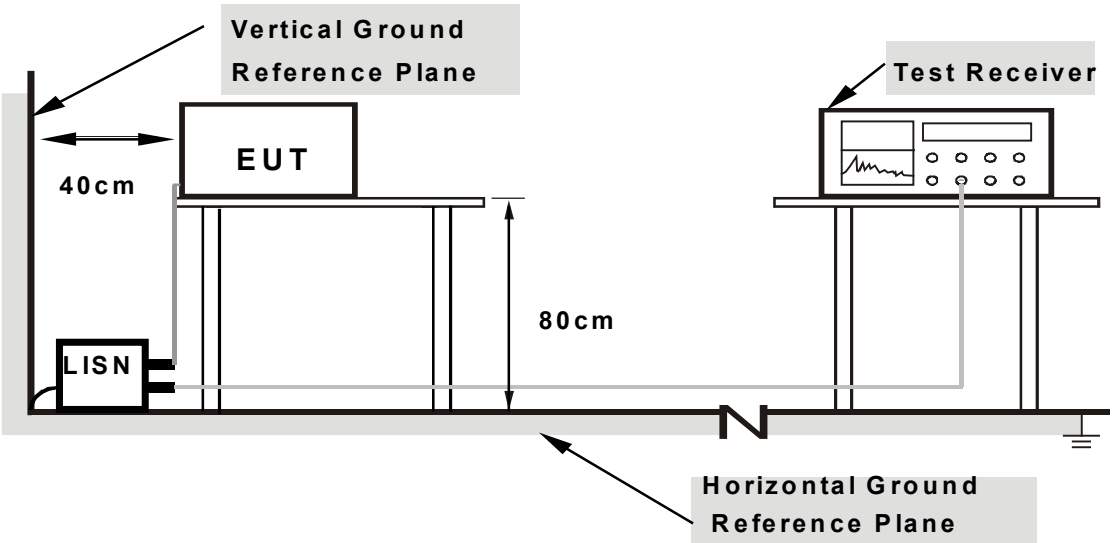
b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

4.1.5 DEVIATION FROM TEST STANDARD

No deviation

4.1.6 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

For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.1.7 EUT OPERATING CONDITIONS

a. Connected the EUT to notebook system placed on a testing table.
b. The EUT ran a test program (provided by manufacturer) to enable EUT under transmission/receiving condition continuously at specific channel frequency.
c. The notebook system sent "H" messages to its screen.
d. The notebook system sent “H” messages to modem.
e. The notebook system sent "H" messages to printer, and the printer printed them on paper.
f. Steps c ~ e were repeated.

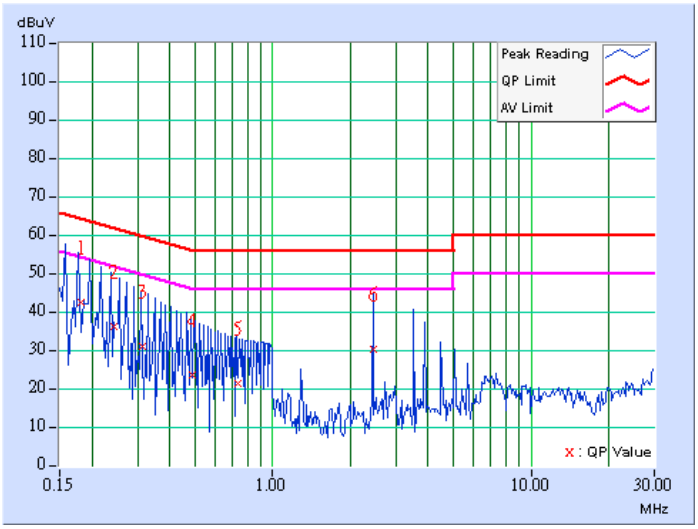
4.1.8 TEST RESULTS

Conducted Worst-Case Data_with charging cable

EUT	EDA (Enterprise Digital Assistant)	**MEASUREMENT DETAIL**	
MODEL	MC7004	**PHASE**	Line 1
CHANNEL	Channel 0	**6dB BANDWIDTH**	9 kHz
MODULATION TYPE	GFSK	**ENVIRONMENTAL CONDITIONS**	25deg. C, 65%RH, 991hPa
TEST MODE	A	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TESTED BY	Jay Hsu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.182	0.11	42.45	-	42.56	-	64.39	54.39	-21.83	-
2	0.243	0.11	36.05	-	36.16	-	61.99	51.99	-25.83	-
3	0.313	0.12	30.95	-	31.07	-	59.90	49.90	-28.83	-
4	0.488	0.14	23.38	-	23.52	-	56.20	46.20	-32.69	-
5	0.732	0.18	21.31	-	21.49	-	56.00	46.00	-34.51	-
6	2.452	0.26	30.05	-	30.31	-	56.00	46.00	-25.69	-

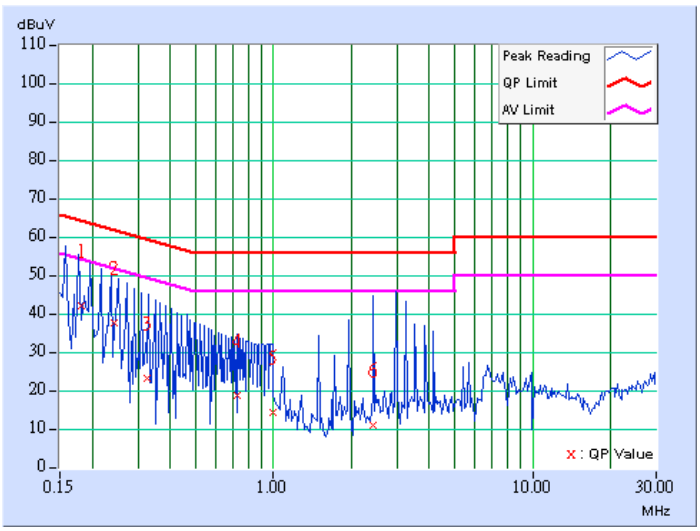
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL	
MODEL	MC7004	PHASE	Line 2
CHANNEL	Channel 0	6dB BANDWIDTH	9 kHz
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa
TEST MODE	A	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Jay Hsu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.181	0.11	42.07	-	42.18	-	64.45	54.45	-22.27	-
2	0.243	0.11	37.56	-	37.67	-	61.99	51.99	-24.32	-
3	0.324	0.12	23.25	-	23.37	-	59.60	49.60	-36.23	-
4	0.728	0.18	18.72	-	18.90	-	56.00	46.00	-37.10	-
5	0.994	0.23	14.37	-	14.60	-	56.00	46.00	-41.40	-
6	2.437	0.26	10.99	-	11.25	-	56.00	46.00	-44.75	-

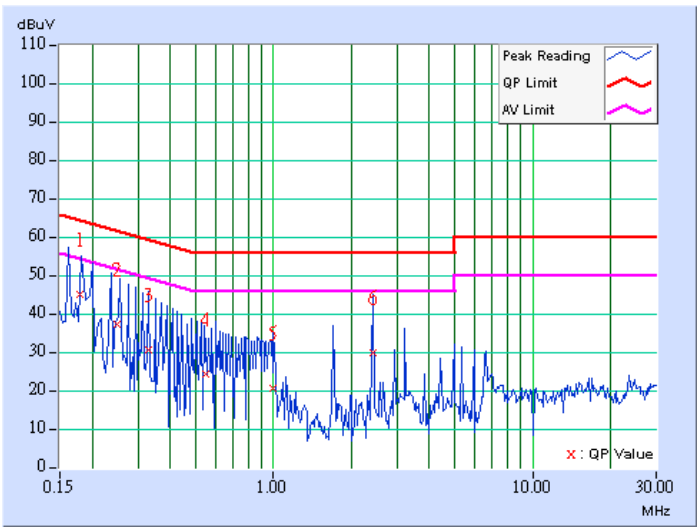
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL	
MODEL	MC7004	PHASE	Line 1
CHANNEL	Channel 39	6dB BANDWIDTH	9 kHz
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa
TEST MODE	A	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Jay Hsu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.180	0.11	44.94	-	45.05	-	64.51	54.51	-19.46	-
2	0.248	0.11	36.99	-	37.10	-	61.81	51.81	-24.71	-
3	0.328	0.12	30.40	-	30.52	-	59.49	49.49	-28.97	-
4	0.547	0.15	24.28	-	24.43	-	56.00	46.00	-31.57	-
5	0.998	0.23	20.48	-	20.71	-	56.00	46.00	-35.29	-
6	2.410	0.26	29.75	-	30.01	-	56.00	46.00	-25.99	-

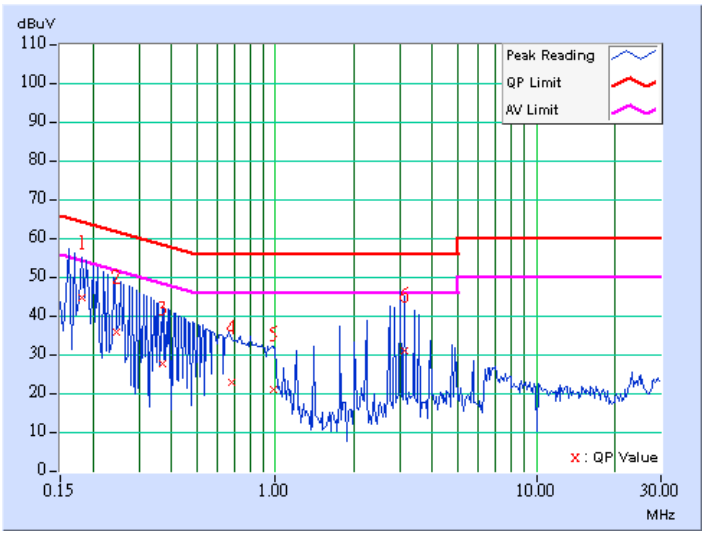
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL	
MODEL	MC7004	PHASE	Line 2
CHANNEL	Channel 39	6dB BANDWIDTH	9 kHz
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa
TEST MODE	A	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Jay Hsu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.182	0.11	44.62	-	44.73	-	64.39	54.39	-19.66	-
2	0.247	0.11	35.58	-	35.69	-	61.85	51.85	-26.16	-
3	0.369	0.12	27.69	-	27.81	-	58.52	48.52	-30.71	-
4	0.677	0.17	22.65	-	22.82	-	56.00	46.00	-33.18	-
5	0.987	0.23	20.92	-	21.15	-	56.00	46.00	-34.85	-
6	3.122	0.27	30.91	-	31.18	-	56.00	46.00	-24.82	-

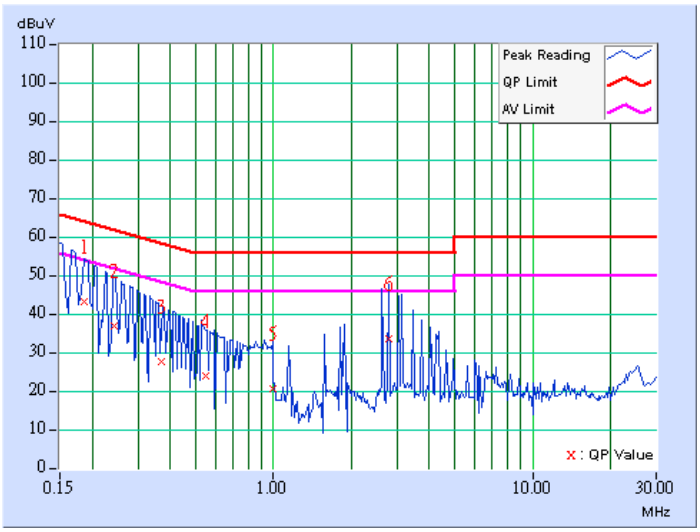
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL	
MODEL	MC7004	PHASE	Line 1
CHANNEL	Channel 78	6dB BANDWIDTH	9 kHz
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa
TEST MODE	A	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Jay Hsu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.185	0.11	42.99	-	43.10	-	64.25	54.25	-21.15	-
2	0.243	0.11	36.81	-	36.92	-	61.98	51.98	-25.05	-
3	0.367	0.12	27.61	-	27.73	-	58.56	48.56	-30.83	-
4	0.549	0.15	23.80	-	23.95	-	56.00	46.00	-32.05	-
5	0.992	0.23	20.30	-	20.53	-	56.00	46.00	-35.47	-
6	2.789	0.27	33.48	-	33.75	-	56.00	46.00	-22.25	-

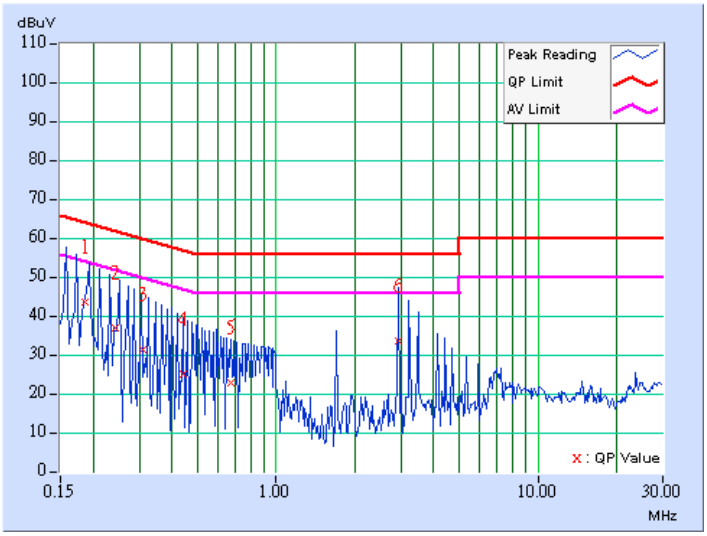
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL	
MODEL	MC7004	PHASE	Line 2
CHANNEL	Channel 78	6dB BANDWIDTH	9 kHz
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa
TEST MODE	A	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Jay Hsu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.186	0.11	43.39	-	43.50	-	64.22	54.22	-20.73	-
2	0.244	0.11	36.90	-	37.01	-	61.95	51.95	-24.94	-
3	0.309	0.12	31.24	-	31.36	-	60.00	50.00	-28.65	-
4	0.443	0.13	24.74	-	24.87	-	57.00	47.00	-32.13	-
5	0.674	0.17	22.59	-	22.76	-	56.00	46.00	-33.24	-
6	2.931	0.27	33.27	-	33.54	-	56.00	46.00	-22.46	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.

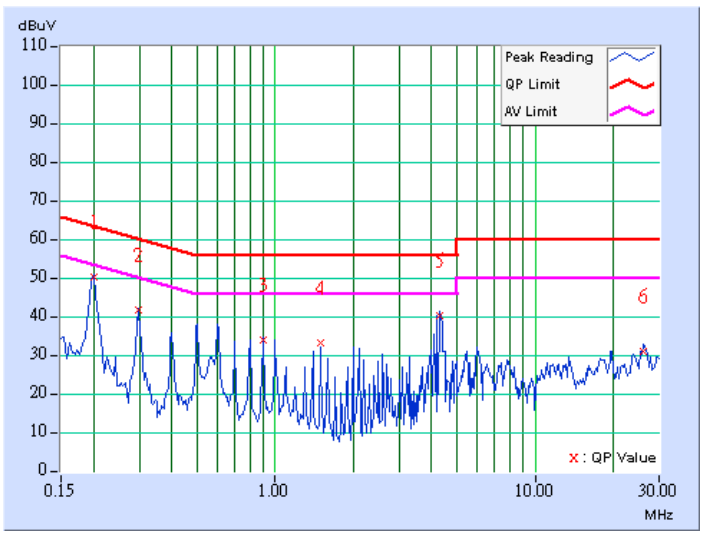


Conducted Worst-Case Data_with cradle

EUT	EDA (Enterprise Digital Assistant)	**MEASUREMENT DETAIL**	
MODEL	MC7004	**PHASE**	Line 1
CHANNEL	Channel 0	**6dB BANDWIDTH**	9 kHz
MODULATION TYPE	GFSK	**ENVIRONMENTAL CONDITIONS**	25deg. C, 65%RH, 991hPa
TEST MODE	B	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TESTED BY	Jay Hsu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.201	0.11	48.93	-	49.04	-	63.58	53.58	-14.54	-
2	0.298	0.11	40.28	-	40.39	-	60.29	50.29	-19.89	-
3	0.900	0.21	32.78	-	32.99	-	56.00	46.00	-23.01	-
4	1.500	0.24	31.92	-	32.16	-	56.00	46.00	-23.84	-
5	4.293	0.30	38.87	-	39.17	-	56.00	46.00	-16.83	-
6	26.172	1.46	29.55	-	31.01	-	60.00	50.00	-28.99	-

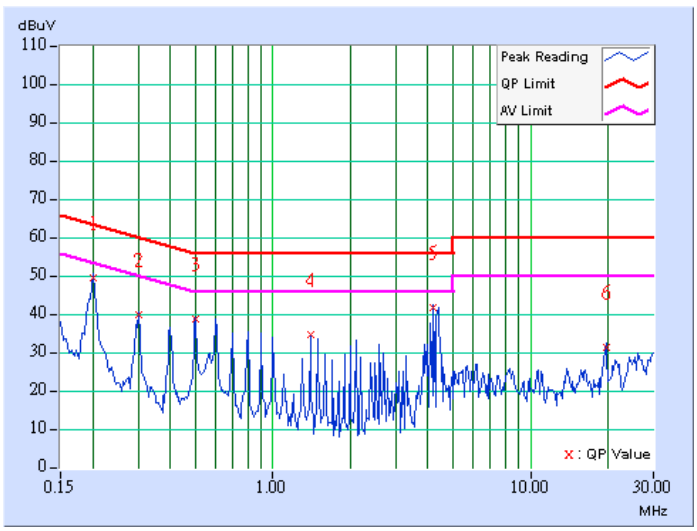
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL	
MODEL	MC7004	PHASE	Line 2
CHANNEL	Channel 0	6dB BANDWIDTH	9 kHz
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa
TEST MODE	B	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Jay Hsu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.201	0.11	48.58	-	48.69	-	63.58	53.58	-14.89	-
2	0.302	0.12	39.05	-	39.17	-	60.18	50.18	-21.01	-
3	0.500	0.14	37.78	-	37.92	-	56.00	46.00	-18.08	-
4	1.398	0.24	33.97	-	34.21	-	56.00	46.00	-21.79	-
5	4.195	0.29	41.00	-	41.29	-	56.00	46.00	-14.71	-
6	19.633	0.95	30.60	-	31.55	-	60.00	50.00	-28.45	-

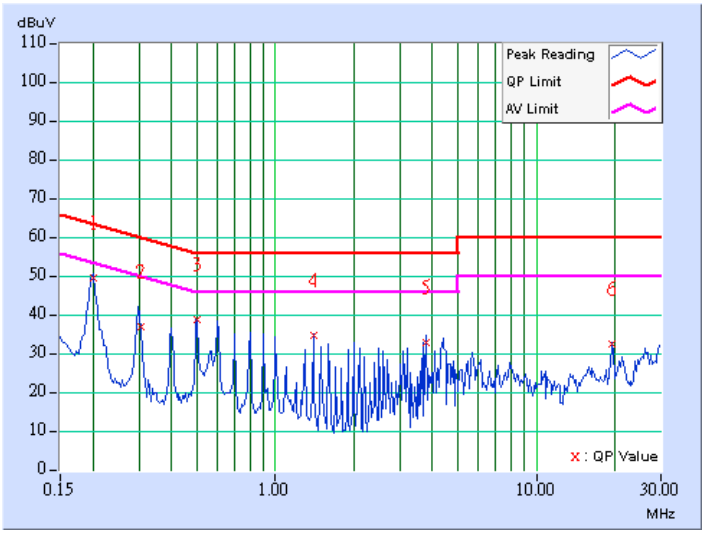
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL	
MODEL	MC7004	PHASE	Line 1
CHANNEL	Channel 39	6dB BANDWIDTH	9 kHz
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa
TEST MODE	B	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Jay Hsu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.201	0.11	48.52	-	48.63	-	63.58	53.58	-14.95	-
2	0.304	0.12	36.05	-	36.17	-	60.13	50.13	-23.96	-
3	0.500	0.14	37.82	-	37.96	-	56.00	46.00	-18.04	-
4	1.398	0.24	33.97	-	34.21	-	56.00	46.00	-21.79	-
5	3.793	0.29	31.94	-	32.23	-	56.00	46.00	-23.77	-
6	19.496	0.94	31.50	-	32.44	-	60.00	50.00	-27.56	-

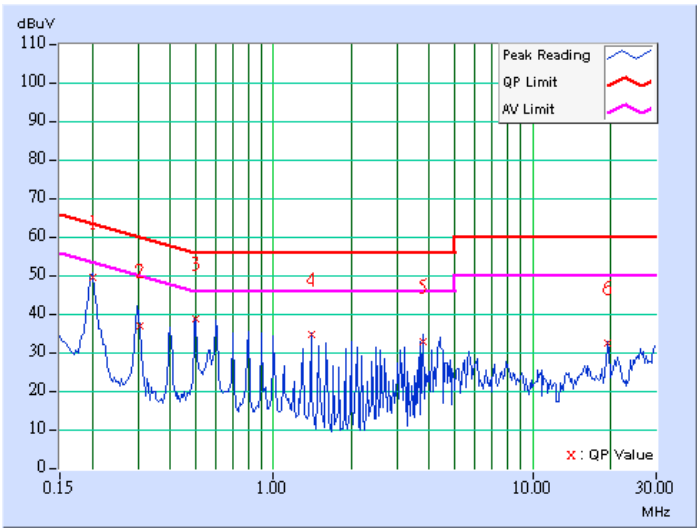
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL	
MODEL	MC7004	PHASE	Line 2
CHANNEL	Channel 39	6dB BANDWIDTH	9 kHz
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa
TEST MODE	B	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Jay Hsu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.201	0.11	48.52	-	48.63	-	63.58	53.58	-14.95	-
2	0.304	0.12	36.05	-	36.17	-	60.13	50.13	-23.96	-
3	0.500	0.14	37.82	-	37.96	-	56.00	46.00	-18.04	-
4	1.398	0.24	33.97	-	34.21	-	56.00	46.00	-21.79	-
5	3.793	0.29	31.94	-	32.23	-	56.00	46.00	-23.77	-
6	19.496	0.95	31.50	-	32.45	-	60.00	50.00	-27.55	-

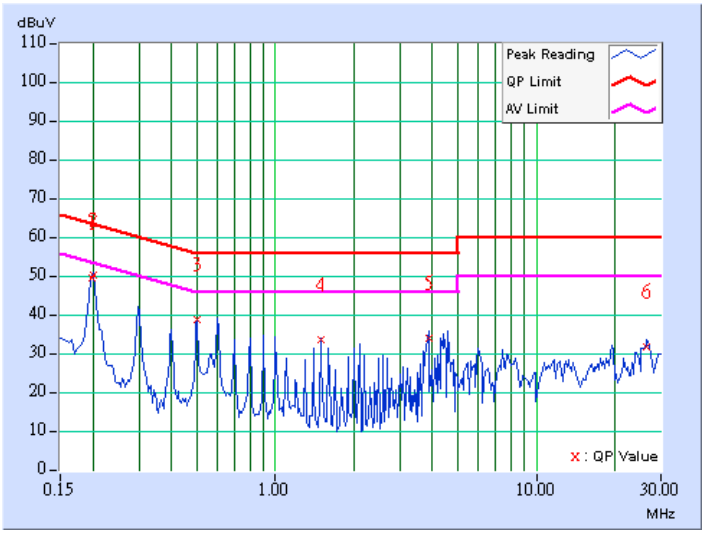
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL	
MODEL	MC7004	PHASE	Line 1
CHANNEL	Channel 78	6dB BANDWIDTH	9 kHz
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa
TEST MODE	B	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Jay Hsu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.198	0.11	48.30	-	48.41	-	63.71	53.71	-15.30	-
2	**0.201**	**0.11**	**48.99**	**-**	**49.10**	**-**	**63.58**	**53.58**	**-14.48**	**-**
3	0.500	0.14	37.37	-	37.51	-	56.00	46.00	-18.49	-
4	1.496	0.24	32.02	-	32.26	-	56.00	46.00	-23.74	-
5	3.895	0.29	32.46	-	32.75	-	56.00	46.00	-23.25	-
6	26.566	1.51	30.43	-	31.94	-	60.00	50.00	-28.06	-

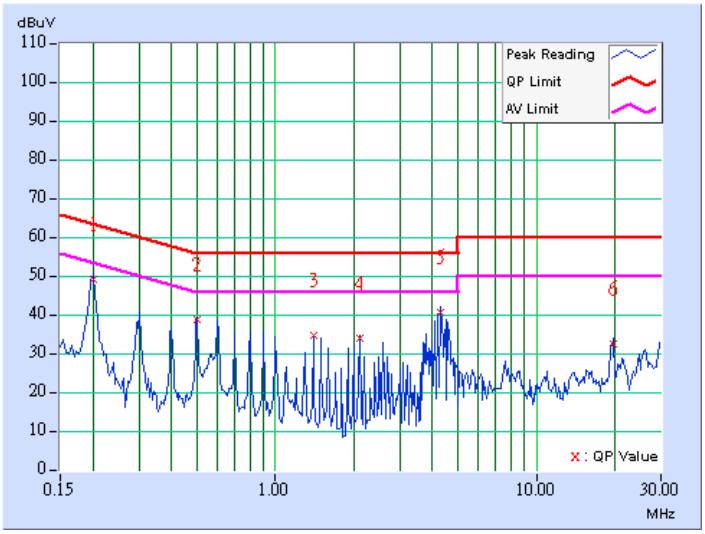
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL	
MODEL	MC7004	PHASE	Line 2
CHANNEL	Channel 78	6dB BANDWIDTH	9 kHz
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa
TEST MODE	B	INPUT POWER (SYSTEM)	120Vac, 60 Hz
TESTED BY	Jay Hsu		

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.201	0.11	48.34	-	48.45	-	63.58	53.58	-15.13	-
2	0.500	0.14	37.86	-	38.00	-	56.00	46.00	-18.00	-
3	1.398	0.24	33.99	-	34.23	-	56.00	46.00	-21.77	-
4	2.098	0.25	33.10	-	33.35	-	56.00	46.00	-22.65	-
5	4.297	0.30	39.82	-	40.12	-	56.00	46.00	-15.88	-
6	19.637	0.96	31.59	-	32.55	-	60.00	50.00	-27.45	-

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. The emission levels of other frequencies were very low against the limit.
4. Margin value = Emission level - Limit value
5. Correction factor = Insertion loss + Cable loss
6. Emission Level = Correction Factor + Reading Value.



4.2 RADIATED EMISSION MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

Emissions radiated outside of the specified bands, shall be according to the general radiated limits in 15.209 as following:

FREQUENCIES (MHz)	FIELD STRENGTH (microvolts/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

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESIB7	100188	Dec. 19, 2005
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Nov. 21, 2005
BILOG Antenna SCHWARZBECK	VULB9168	9168-157	Jan. 22, 2006
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-407	Jan. 16, 2006
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA 9170241	Feb. 23, 2006
Preamplifier Agilent	8449B	3008A01961	Nov. 09, 2005
Preamplifier Agilent	8447D	2944A10629	Nov. 09, 2005
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218182/4	Feb. 17, 2006
RF signal cable HUBER+SUHNER	SUCOFLEX 104	218194/4	Feb. 17, 2006
Software ADT.	ADT_Radiated_V5.14	NA	NA
Antenna Tower ADT.	AT100	AT93021702	NA
Turn Table ADT.	TT100.	TT93021702	NA
Controller ADT.	SC100.	SC93021702	NA

NOTE: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Chamber 1.

3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.

4. The IC Site Registration No. is IC4924-2.

4.2.3 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The antenna is a broadband antenna, and its height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

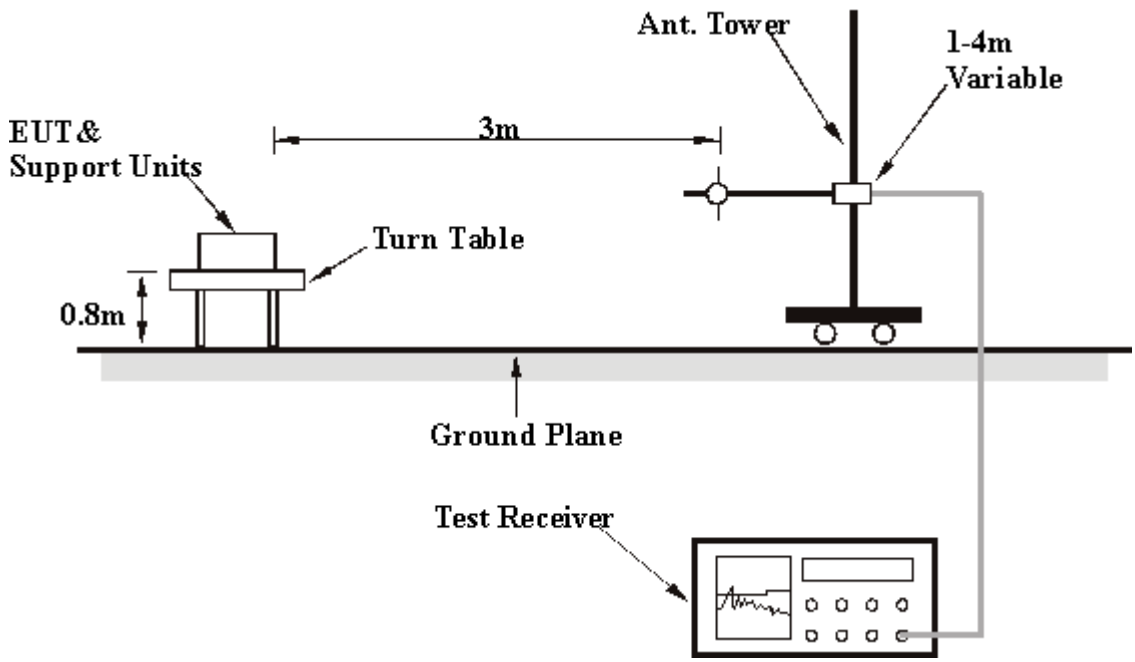
NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection (PK) at frequency above 1GHz.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation

4.2.5 TEST SETUP



For the actual test configuration, please refer to the related item – Photographs of the Test Configuration.

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.7

4.2.7 TEST RESULTS

Radiated Worst Case Data_with charging cable

EUT	EDA (Enterprise Digital Assistant)	**MEASUREMENT DETAIL**	
MODEL	MC7004	**FREQUENCY RANGE**	Below 1000MHz
CHANNEL	Channel 78	**DETECTOR FUNCTION**	Quasi-Peak
MODULATION TYPE	GFSK	**ENVIRONMENTAL CONDITIONS**	25deg. C, 65%RH, 991hPa
TEST MODE	A	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	49.44	24.60 QP	40.00	-15.40	2.00 H	346	10.07	14.53
2	88.32	35.22 QP	43.50	-8.28	2.00 H	337	25.31	9.91
3	129.14	27.18 QP	43.50	-16.32	2.00 H	259	13.73	13.45
4	168.02	26.71 QP	43.50	-16.79	1.50 H	124	12.83	13.88
5	479.04	27.73 QP	46.00	-18.27	1.50 H	58	9.43	18.30
6	751.18	25.00 QP	46.00	-21.00	1.00 H	19	1.58	23.42

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	53.33	30.95 QP	40.00	-9.05	1.00 V	360	16.82	14.13
2	113.59	35.94 QP	43.50	-7.56	1.00 V	166	23.80	12.14
3	166.08	34.22 QP	43.50	-9.28	1.00 V	10	20.15	14.07
4	199.12	25.08 QP	43.50	-18.42	1.00 V	325	13.88	11.20
5	667.60	28.69 QP	46.00	-17.31	2.00 V	223	6.87	21.82
6	922.24	27.96 QP	46.00	-18.04	1.00 V	58	2.63	25.33

REMARKS:
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

Radiated Worst Case Data_with cradle

EUT	EDA (Enterprise Digital Assistant)	**MEASUREMENT DETAIL**	
MODEL	MC7004	**FREQUENCY RANGE**	Below 1000MHz
CHANNEL	Channel 78	**DETECTOR FUNCTION**	Quasi-Peak
MODULATION TYPE	GFSK	**ENVIRONMENTAL CONDITIONS**	25deg. C, 65%RH, 991hPa
TEST MODE	B	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	115.53	29.99 QP	43.50	-13.51	1.50 H	67	17.65	12.34
2	150.52	30.38 QP	43.50	-13.12	2.00 H	28	15.94	14.45
3	189.40	31.74 QP	43.50	-11.76	1.50 H	64	19.77	11.97
4	**249.66**	**38.59 QP**	**46.00**	**-7.41**	**1.00 H**	**85**	**25.51**	**13.08**
5	280.76	33.78 QP	46.00	-12.22	1.00 H	205	19.71	14.07
6	374.07	33.79 QP	46.00	-12.21	1.00 H	19	17.76	16.03

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.61	25.16 QP	40.00	-14.84	1.00 V	118	10.13	15.03
2	113.59	33.60 QP	43.50	-9.90	1.00 V	148	21.46	12.14
3	166.07	35.82 QP	43.50	-7.68	1.00 V	61	21.75	14.07
4	249.66	32.46 QP	46.00	-13.54	2.00 V	58	19.39	13.08
5	374.07	33.36 QP	46.00	-12.64	1.50 V	13	17.33	16.03
6	667.60	31.55 QP	46.00	-14.45	1.50 V	70	9.73	21.82

REMARKS:
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

Radiated Worst Case Data_battery mode

EUT	EDA (Enterprise Digital Assistant)	**MEASUREMENT DETAIL**	
MODEL	MC7004	**FREQUENCY RANGE**	Below 1000MHz
CHANNEL	Channel 78	**DETECTOR FUNCTION**	Quasi-Peak
MODULATION TYPE	GFSK	**ENVIRONMENTAL CONDITIONS**	25deg. C, 65%RH, 991hPa
TEST MODE	C	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
TESTED BY	Match Tsui		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.61	20.11 QP	40.00	-19.89	2.00 H	319	5.08	15.03
2	399.34	27.17 QP	46.00	-18.83	2.00 H	271	10.55	16.62
3	479.04	29.27 QP	46.00	-16.73	2.00 H	304	10.97	18.30
4	624.83	27.50 QP	46.00	-18.50	1.50 H	304	6.26	21.24
5	797.84	27.21 QP	46.00	-18.79	2.00 H	154	3.52	23.69
6	865.87	26.51 QP	46.00	-19.49	1.00 H	262	2.08	24.43

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	43.61	24.88 QP	40.00	-15.12	1.00 V	331	9.85	15.03
2	109.70	28.08 QP	43.50	-15.42	1.00 V	253	16.34	11.74
3	249.66	31.79 QP	46.00	-14.21	1.00 V	60	18.71	13.08
4	399.34	30.61 QP	46.00	-15.39	1.00 V	340	13.99	16.62
5	479.04	31.21 QP	46.00	-14.79	1.00 V	334	12.91	18.30
6	731.74	30.40 QP	46.00	-15.60	1.00 V	10	7.41	22.99

REMARKS:
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.

EUT	EDA (Enterprise Digital Assistant)	**MEASUREMENT DETAIL**	
MODEL	MC7004	**FREQUENCY RANGE**	1 ~ 25GHz
CHANNEL	Channel 0	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
MODULATION TYPE	GFSK	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	**TESTED BY**	Match Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	33.17 PK	74.00	-40.83	1.10 H	354	1.13	32.04
2	*2402.00	91.46 PK			1.10 H	354	59.37	32.09
2	*2402.00	61.46 AV			1.10 H	354	29.37	32.09
3	4804.00	47.46 PK	74.00	-26.54	1.07 H	183	9.31	38.15

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	2390.00	28.67 PK	74.00	-45.33	1.01 V	174	-3.37	32.04
2	*2402.00	86.96 PK			1.01 V	174	54.87	32.09
2	*2402.00	56.96 AV			1.01 V	174	24.87	32.09
3	4804.00	47.26 PK	74.00	-26.74	1.04 V	196	9.11	38.15

REMARKS:
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The DH5 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on 0.625 * 5 per 296.25 ms per channel. Therefore, the duty cycle be equal to: 20log(3.125/100)= -30 dB.
6. Average value = peak reading –20log(duty cycle).

EUT	EDA (Enterprise Digital Assistant)	**MEASUREMENT DETAIL**	
MODEL	MC7004	**FREQUENCY RANGE**	1 ~ 25GHz
CHANNEL	Channel 39	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
MODULATION TYPE	GFSK	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	**TESTED BY**	Match Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2441.00	86.27 PK			1.14 H	341	54.01	32.26
1	*2441.00	56.27 AV			1.14 H	341	24.01	32.26
2	4882.00	46.86 PK	74.00	-27.14	1.07 H	178	8.52	38.34

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2441.00	86.74 PK			1.07 V	169	54.48	32.26
1	*2441.00	56.74 AV			1.07 V	169	24.48	32.26
2	4882.00	47.02 PK	74.00	-26.98	1.10 V	147	8.68	38.34

REMARKS:
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The DH5 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on 0.625 * 5 per 296.25 ms per channel. Therefore, the duty cycle be equal to: 20log(3.125/100)= -30 dB.
6. Average value = peak reading –20log(duty cycle).

EUT	EDA (Enterprise Digital Assistant)	**MEASUREMENT DETAIL**	
MODEL	MC7004	**FREQUENCY RANGE**	1 ~ 25GHz
CHANNEL	Channel 78	**DETECTOR FUNCTION**	Peak (PK) Average (AV)
MODULATION TYPE	GFSK	**INPUT POWER (SYSTEM)**	120Vac, 60 Hz
ENVIRONMENTAL CONDITIONS	25deg. C, 67%RH, 991hPa	**TESTED BY**	Match Tsui

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	91.86 PK			1.07 H	318	59.42	32.44
1	*2480.00	61.86 AV			1.07 H	318	29.42	32.44
2	2483.50	35.66 PK	74.00	-38.34	1.07 H	318	3.20	32.46
3	4960.00	47.54 PK	74.00	-26.46	1.06 H	169	8.97	38.57

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*2480.00	87.16 PK			1.06 V	169	54.72	32.44
1	*2480.00	57.16 AV			1.06 V	169	24.72	32.44
2	2483.50	28.96 PK	74.00	-45.04	1.06 V	169	-3.50	32.46
3	4960.00	45.96 PK	74.00	-28.04	1.17 V	247	7.39	38.57

REMARKS:
1. Emission level (dBuV/m) = Raw Value (dBuV) + Correction Factor (dB/m).
2. Correction Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB).
3. The other emission levels were very low against the limit.
4. Margin value = Emission level – Limit value.
5. The DH5 packet was the worse case duty cycle for a transmit dwell time on a channel, based upon bluetooth theory the transmitter is on 0.625 * 5 per 296.25 ms per channel. Therefore, the duty cycle be equal to: 20log(3.125/100)= -30 dB.
6. Average value = peak reading –20log(duty cycle).

4.3 NUMBER OF HOPPING FREQUENCY USED

4.3.1 LIMIT OF HOPPING FREQUENCY USED

At least 15 channels frequencies, and should be equally spaced.

4.3.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

NOTE: The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

4.3.3 TEST PROCEDURES

a. Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.

b. Turn on the EUT and connect its antenna terminal to measurement 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 the SA on MaxHold Mode, and then keep the EUT in hopping mode. Record all the signals from each channel until each one has been recorded.

d. Set the SA on View mode and then plot the result on SA screen.

e. Repeat above procedures until all frequencies measured were complete.

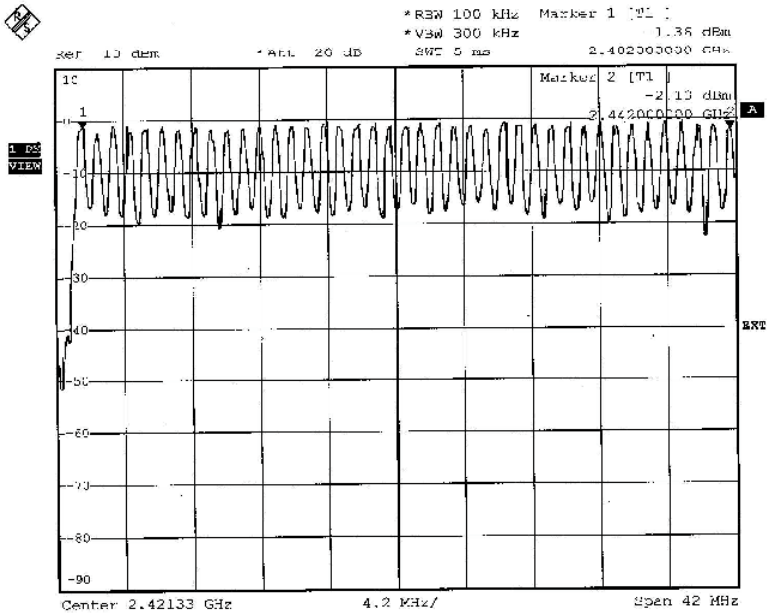
4.3.4 DEVIATION FROM TEST STANDARD

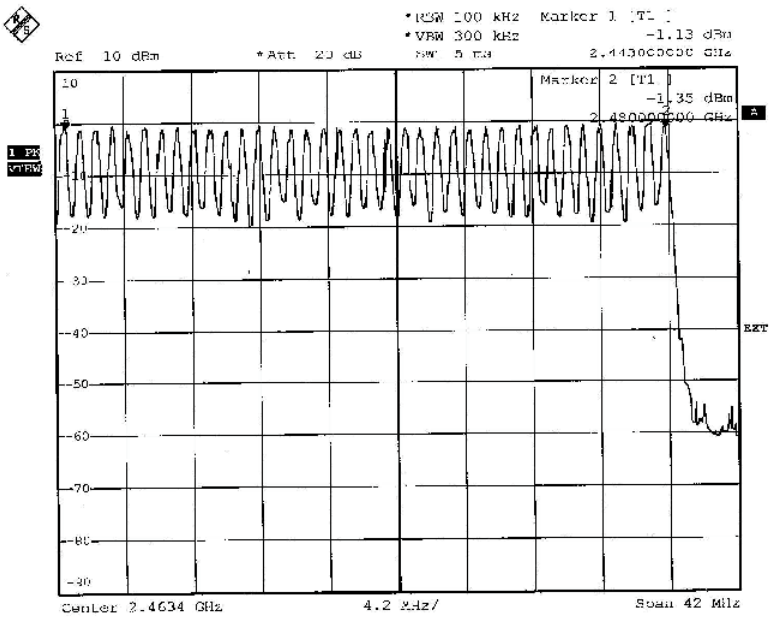
No deviation.

4.3.5 TEST SETUP

4.3.6 TEST RESULTS

There are 79 hopping frequencies in the hopping mode. Please refer to next two pages for the test result. On the plots, it shows that the hopping frequencies are equally spaced.


*RBW 100 kHz
*VBW 300 kHz
Marker 1 [T1]
-1.36 dBm
Ref 10 dBm
*Att 20 dB
SWT 5 ms
Marker 2 [T1]
-2.13 dBm
1 PK
VIEW
EXT
Center 2.42133 GHz
4.2 MHz/
Span 42 MHz


*RBW 100 kHz
*VBW 300 kHz
Marker 1 [T1]
-1.13 dBm
Ref 10 dBm
*Att 20 dB
SWT 5 ms
Marker 2 [T1]
-1.35 dBm
1 PK
VIEW
EXT
Center 2.4634 GHz
4.2 MHz/
Span 42 MHz

4.4 DWELL TIME ON EACH CHANNEL

4.4.1 LIMIT OF DWELL TIME USED

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

4.4.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

NOTES: The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

4.4.3 TEST PROCEDURES

a. Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.

b. Turn on the EUT and connect its antenna terminal to measurement 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. Adjust the center frequency of SA on any frequency be measured and set SA to zero span mode. And then, set RBW and VBW of spectrum analyzer to proper value.

d. Measure the time duration of one transmission on the measured frequency. And then plot the result with time difference of this time duration.

e. Repeat above procedures until all different time-slot modes have been completed.

4.4.4 DEVIATION FROM TEST STANDARD

No deviation.

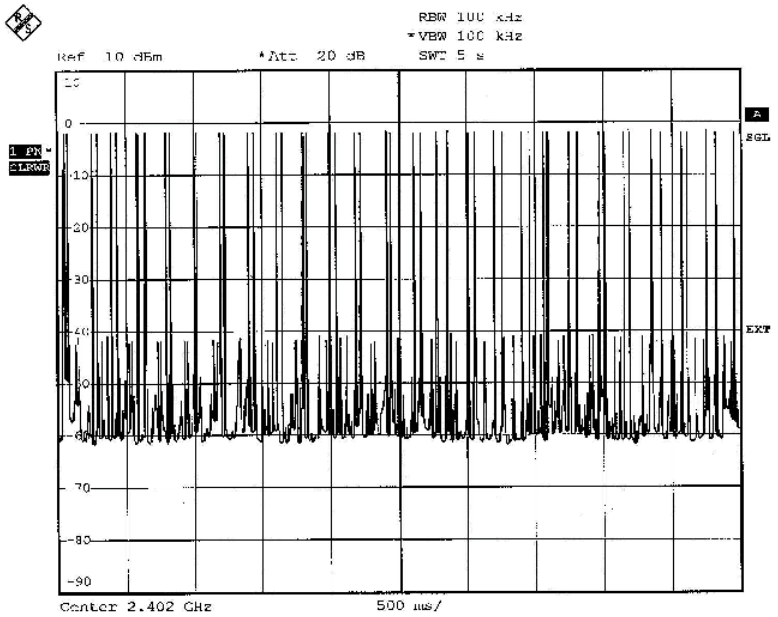
4.4.5 TEST SETUP

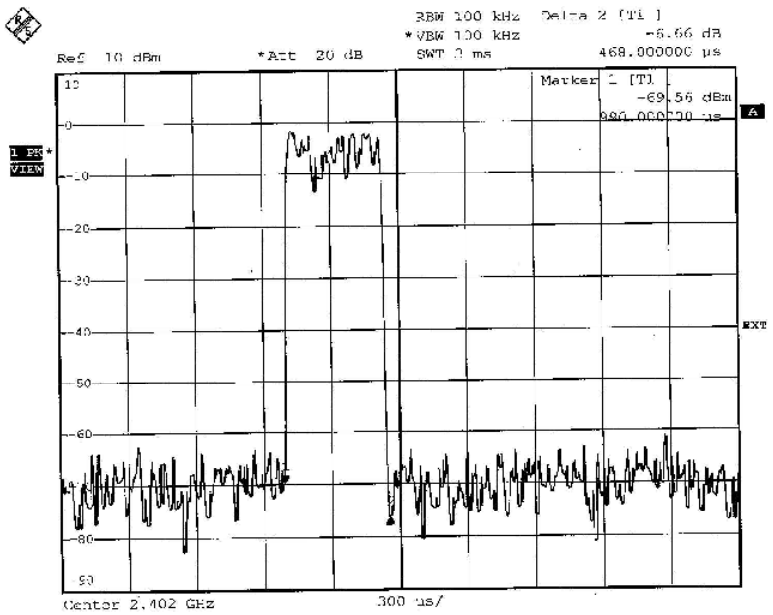
4.4.6 TEST RESULTS

MODE	NUMBER OF TRANSMISSION IN A 31.6 (79HOPPING * 0.4)	LENGTH OF TRANSMISSION TIME (msec)	RESULT (msec)	LIMIT (msec)
DH1	50 (times / 5 sec) * 6.32 = 316.00 times	0.468	147.89	400
DH3	26 (times / 5 sec) * 6.32 = 164.32 times	1.770	290.85	400
DH5	16 (times / 5 sec) * 6.32 = 101.12 times	3.030	306.39	400

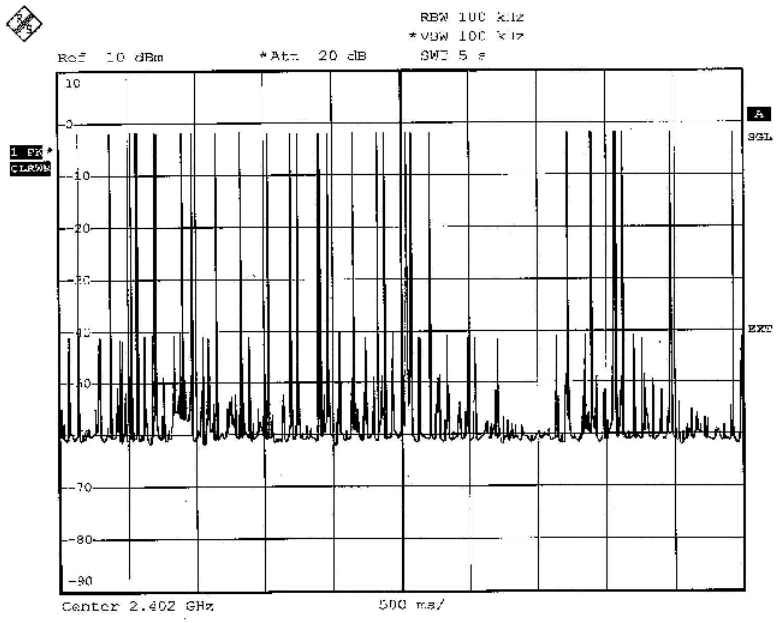
NOTE: Test plots of the transmitting time slot are shown on next 3 pages.

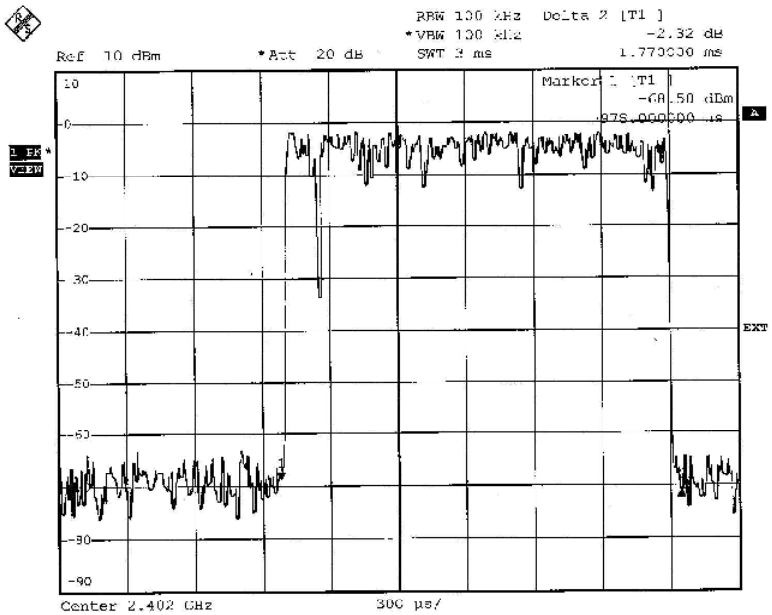
DH1


RBW 100 kHz
*VBW 100 kHz
Ref 10 dBm
*Att 20 dB
SWT 5 s
1 PK
CLRWR
A
SGL
EXT
Center 2.402 GHz
500 ms/

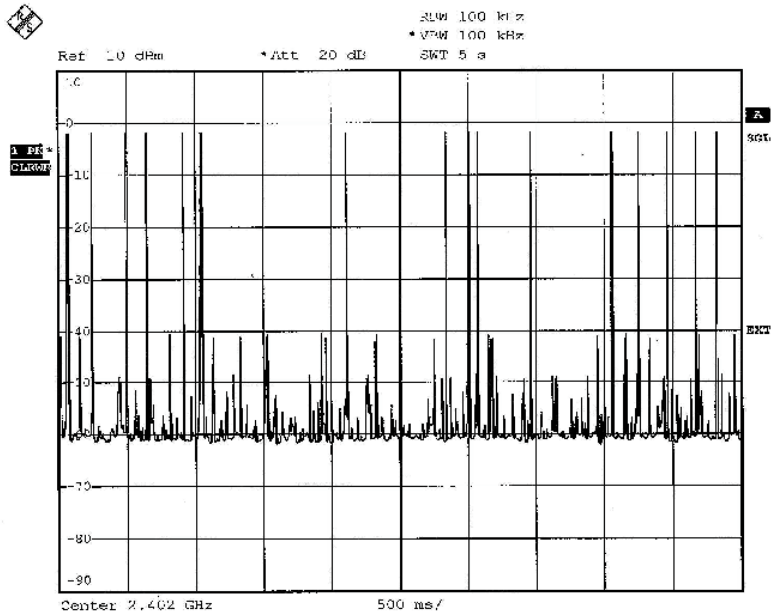

RBW 100 kHz
*VBW 100 kHz
Ref 10 dBm
*Att 20 dB
SWT 3 ms
Marker 1 [T1]
-69.56 dBm
1 PK
VIEW
A
EXT
Center 2.402 GHz
300 us/

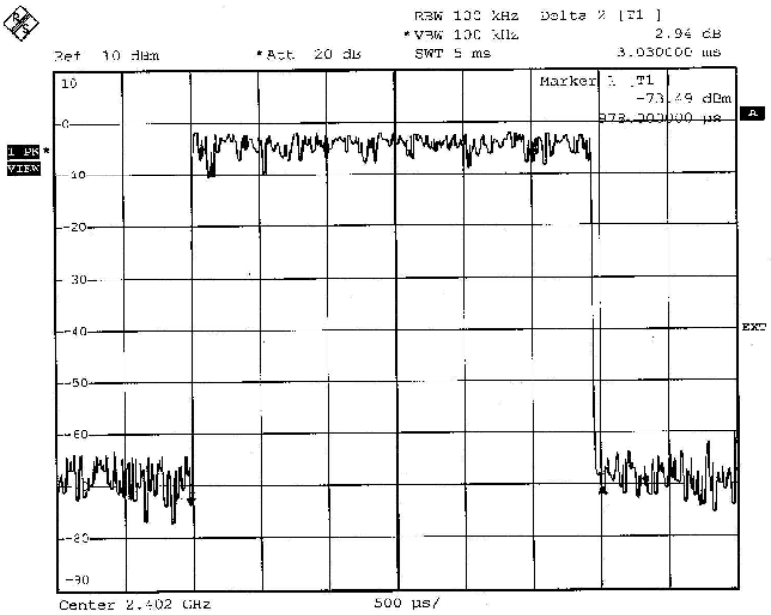
DH3


RBW 100 kHz
*VBW 100 kHz
Ref 10 dBm
*Att 20 dB
SWT 5 s
1 PK
CLRWR
A
SGL
EXT
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
Center 2.402 GHz
500 ms/


RBW 100 kHz
Delta 2 [T1]
*VBW 100 kHz
-2.32 dB
Ref 10 dBm
*Att 20 dB
SWT 2 ms
1.770000 ms
Marker 1 [T1]
-68.50 dBm
975.000000 µs
1 PK
VIEW
A
EXT
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
Center 2.402 GHz
300 µs/

DH5


RBW 100 kHz
*VBW 100 kHz
Ref 10 dBm
*Att 20 dB
SWT 5 s
1 PK
CLRWR
A
EXT
Center 2.402 GHz
500 ms/


RBW 100 kHz
Delta 2 [T1]
*VBW 100 kHz
2.94 dB
Ref 10 dBm
*Att 20 dB
SWT 5 ms
3.030000 ms
Marker 1 [T1]
-73.49 dBm
1 PK
VIEW
A
EXT
Center 2.402 GHz
500 µs/

4.5 CHANNEL BANDWIDTH

4.5.1 LIMITS OF CHANNEL BANDWIDTH

For frequency hopping system operating in the 2400-2483.5MHz, If the 20dB bandwidth of hopping channel is greater than 25kHz, the 20dBbandwidth of hopping channel shell be a minimum limit for the hopping channel separation.

4.5.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

NOTE: The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

4.5.3 TEST PROCEDURE

a. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.

b. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.

c. Measure the frequency difference of two frequencies that were attenuated 20dB from the reference level. Record the frequency difference as the emission bandwidth.

d. Repeat above procedures until all frequencies measured were complete.

4.5.4 DEVIATION FROM TEST STANDARD

No deviation.

4.5.5 TEST SETUP

4.5.6 EUT OPERATING CONDITION

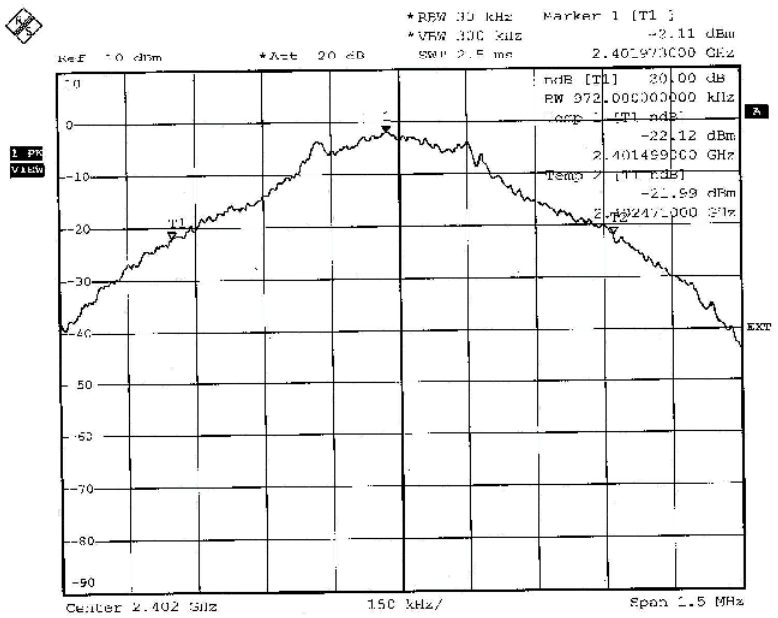
The software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel frequencies individually.

4.5.7 TEST RESULTS

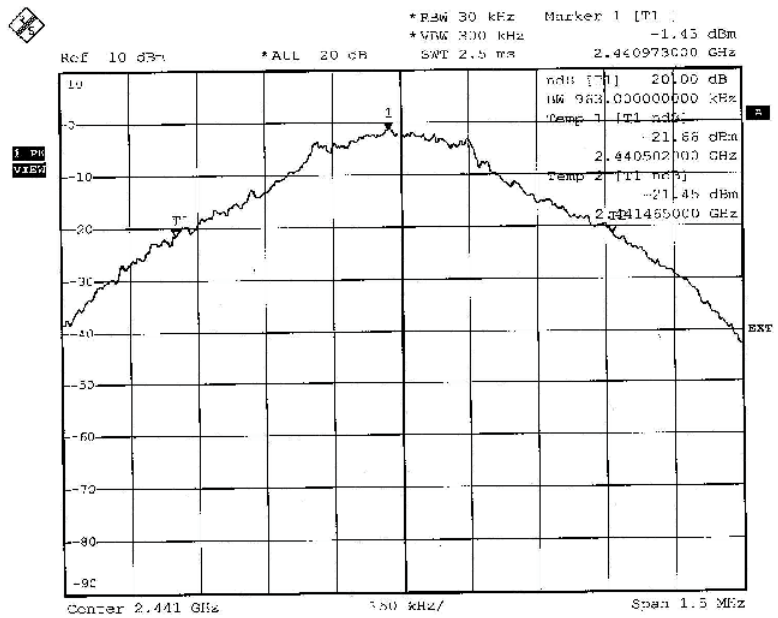
EUT	EDA (Enterprise Digital Assistant)	**MODEL**	MC7004
MODULATION TYPE	GFSK	**ENVIRONMENTAL CONDITIONS**	25deg. C, 65%RH, 991hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**TESTED BY**	Long Chen

CHANNEL	CHANNEL FREQUENCY (MHz)	20dB BANDWIDTH (MHz)
0	2402	0.972
39	2441	0.963
78	2480	0.966

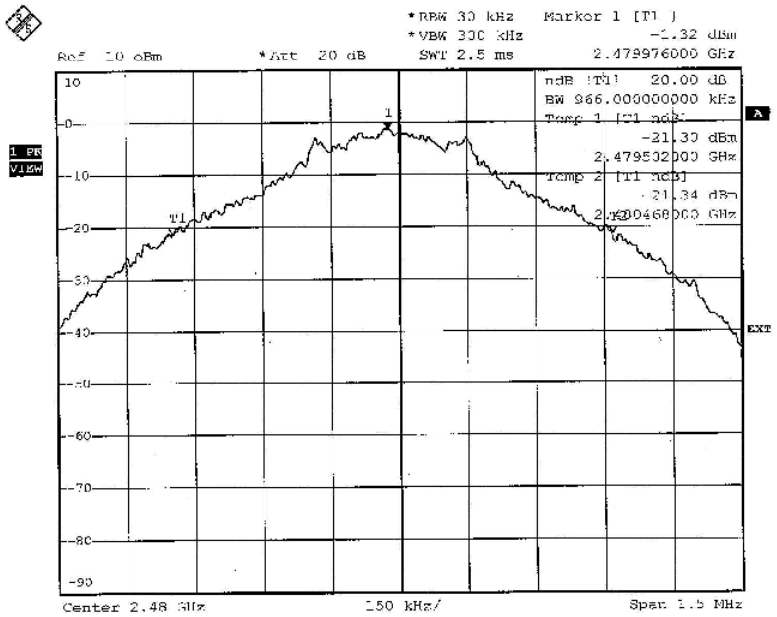
CH 0


*RBW 30 kHz
*VBW 300 kHz
Marker 1 [T1]
-2.11 dBm
Ref 10 dBm
*Att 20 dB
SWP 2.5 ms
2.401973000 GHz
ndB [T1] 20.00 dB
BW 972.000000000 kHz
-22.12 dBm
2.401499000 GHz
-21.99 dBm
1 PK
VIEW
A
EXT
Center 2.402 GHz
150 kHz/
Span 1.5 MHz

CH 39


*RBW 30 kHz
*VBW 300 kHz
Marker 1 [T1]
-1.43 dBm
Ref 10 dBm
*ATT 20 dB
SWP 2.5 ms
2.440973000 GHz
ndB [T1] 20.00 dB
-21.66 dBm
2.440502000 GHz
-21.45 dBm
1 PK
VIEW
A
EXT
Center 2.441 GHz
150 kHz/
Span 1.5 MHz

CH 78


*RBW 30 kHz
*VBW 300 kHz
SWT 2.5 ms
Marker 1 [T1]
-1.32 dBm
2.479976000 GHz
Att 20 dB
ndB [T1] 20.00 dB
BW 966.000000000 kHz
-21.30 dBm
2.479532000 GHz
-21.34 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
T1
1 PK
VIEW
A
EXT
Center 2.48 GHz
150 kHz/
Span 1.5 MHz

4.6 HOPPING CHANNEL SEPARATION

4.6.1 LIMIT OF HOPPING CHANNEL SEPARATION

At least 25kHz or 20dB hopping channel bandwidth (whichever is greater).

4.6.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

NOTES: The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

4.6.3 TEST PROCEDURES

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range.
3. By using the MaxHold function record the separation of two adjacent channels.
4. Measure the frequency difference of these two adjacent channels by SA MARK function. And then plot the result on SA screen.
5. Repeat above procedures until all frequencies measured were complete.

4.6.4 DEVIATION FROM TEST STANDARD

No deviation.

4.6.5 TEST SETUP

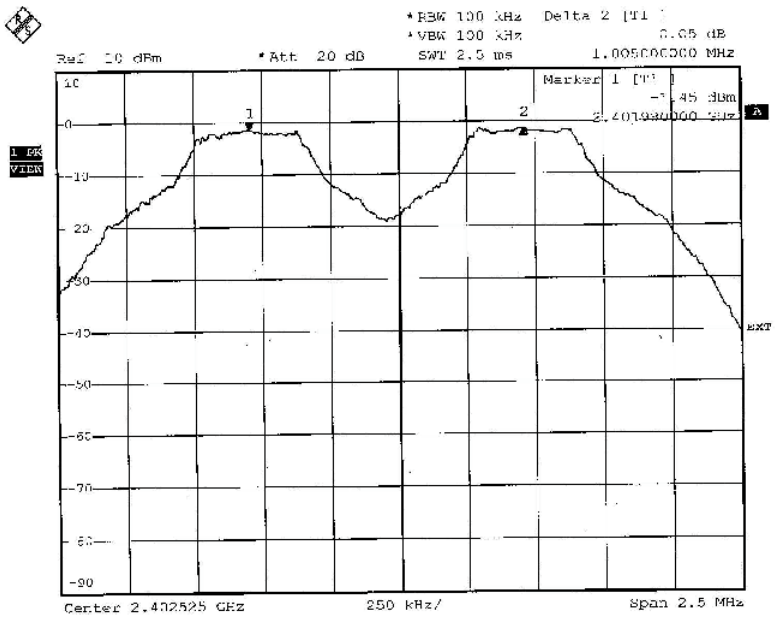
4.6.6 TEST RESULTS

EUT	EDA (Enterprise Digital Assistant)	**MODEL**	MC7004
MODULATION TYPE	GFSK	**ENVIRONMENTAL CONDITIONS**	27deg. C, 63%RH, 991hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**TESTED BY**	Long Chen

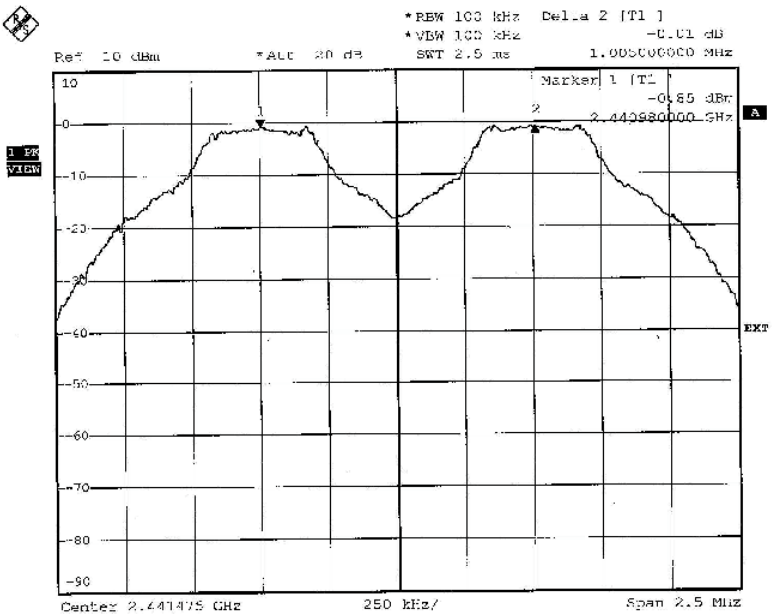
CHANNEL	FREQUENCY (MHz)	ADJACENT CHANNEL SEPARATION (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
0	2402	1.005	0.972	PASS
39	2441	1.005	0.963	PASS
78	2480	1.005	0.966	PASS

NOTE: The minimum limit is 20dB bandwidth. Test results please refer to next two pages.

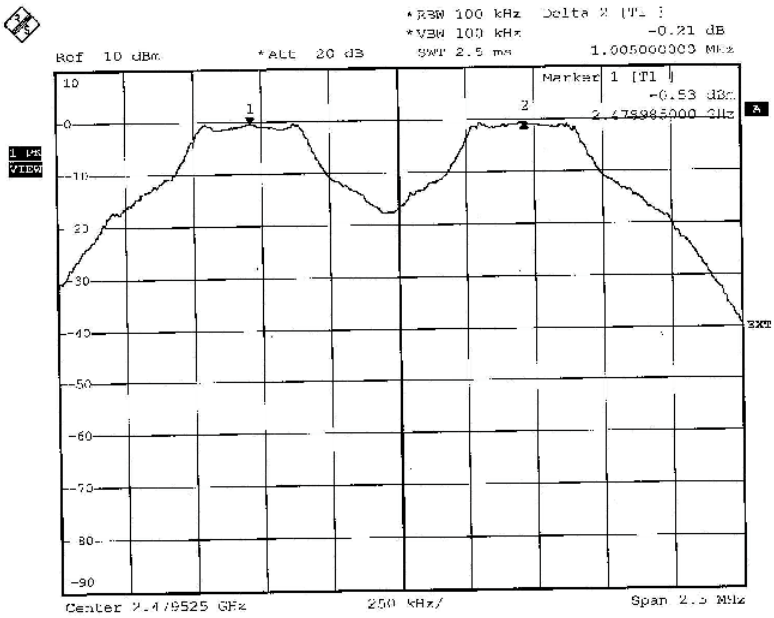
CH 0


*RBW 100 kHz
*VBW 100 kHz
SWT 2.5 ms
Ref 10 dBm
*Att 20 dB
Marker 1
1 PK
VIEW
EXT
Center 2.402525 GHz
250 kHz/
Span 2.5 MHz

CH 39


*RBW 100 kHz
*VBW 100 kHz
SWT 2.5 ms
Ref 10 dBm
*Att 20 dB
Marker 1
1 PK
VIEW
EXT
Center 2.441475 GHz
250 kHz/
Span 2.5 MHz

CH 78


*RBW 100 kHz
*VBW 100 kHz
SWT 2.5 ms
Ref 10 dBm
*Att 20 dB
Marker 1 [T1]
-0.53 dBm
2.479985000 GHz
Center 2.479525 GHz
250 kHz/
Span 2.5 MHz

4.7 MAXIMUM PEAK OUTPUT POWER

4.7.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

4.7.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYEER	FSEK30	100049	Aug. 14, 2006

NOTE: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.7.3 TEST PROCEDURES

a. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.

b. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.

c. The center frequency of the spectrum analyzer is set to the fundamental frequency and using 1 MHz RBW and 3 MHz VBW.

d. Measure the captured power within the band and recording the plot.

e. Repeat above procedures until all frequencies required were complete.

4.7.4 DEVIATION FROM TEST STANDARD

No deviation

4.7.5 TEST SETUP

For the actual test configuration, please refer to the related Item – Photographs of the Test Configuration.

4.7.6 EUT OPERATING CONDITION

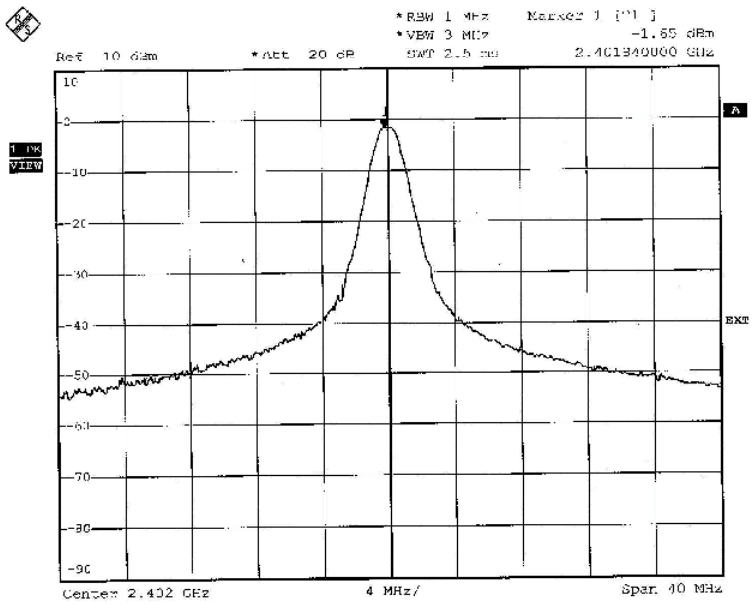
The software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel frequencies individually.

4.7.7 TEST RESULTS

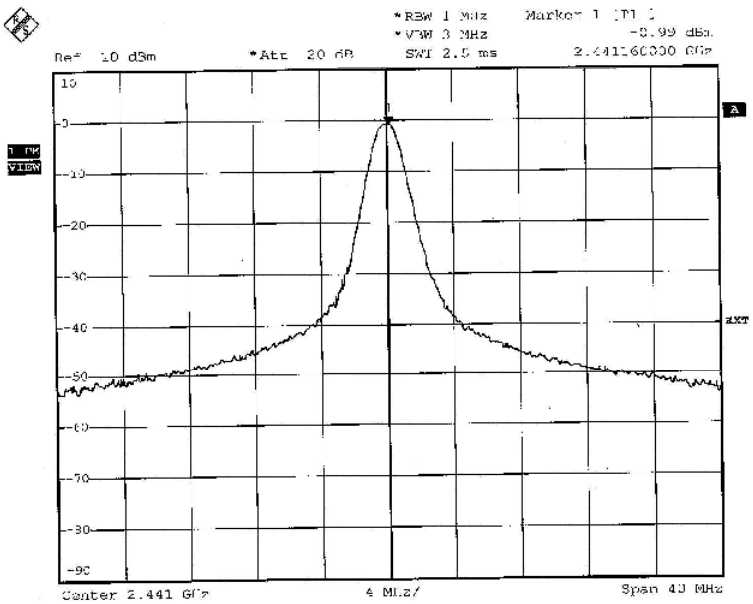
EUT	EDA (Enterprise Digital Assistant)	**MODEL**	MC7004
MODULATION TYPE	GFSK	**ENVIRONMENTAL CONDITIONS**	25deg. C, 65%RH, 991hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	**TESTED BY**	Long Chen

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
0	2402	0.684	-1.65	30	PASS
39	2441	0.796	-0.99	30	PASS
78	2480	0.843	-0.74	30	PASS

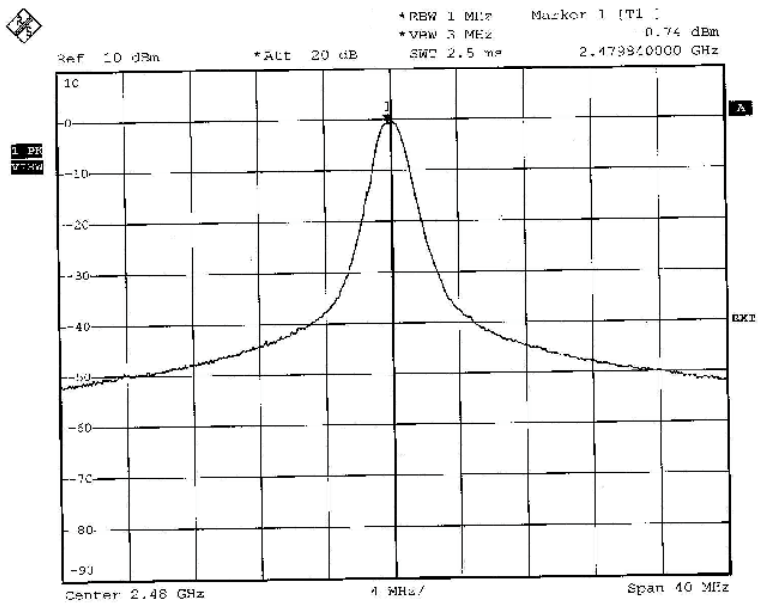
CH 0


*RBW 1 MHz
*VBW 3 MHz
Marker 1 [T1]
-1.65 dBm
Ref 10 dBm
*Att 20 dB
SWT 2.5 ms
2.401340000 GHz
1 PK
VIEW
A
EXT
Center 2.402 GHz
4 MHz/
Span 40 MHz

CH 39


*RBW 1 MHz
*VBW 3 MHz
Marker 1 [T1]
-0.99 dBm
Ref 10 dBm
*Att 20 dB
SWT 2.5 ms
2.441160000 GHz
1 PK
VIEW
A
EXT
Center 2.441 GHz
4 MHz/
Span 40 MHz

CH 78


*RBW 1 MHz
*VBW 3 MHz
SWT 2.5 ms
Marker 1 [T1]
0.74 dBm
2.479840000 GHz
Ref 10 dBm
*Att 20 dB
1 PK
VIEW
A
EXT
Center 2.48 GHz
4 MHz/
Span 40 MHz

4.8 BAND EDGES MEASUREMENT

4.8.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100KHz RBW).

4.8.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006

NOTES: The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to NML/ROC and NIST/USA.

4.8.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer via a low lose cable. Set both RBW and VBW of spectrum analyzer to 100 kHz with suitable frequency span including 100 MHz bandwidth from band edge. The band edges was measured and recorded.

4.8.4 DEVIATION FROM TEST STANDARD

No deviation.

4.8.5 EUT OPERATING CONDITION

The software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel frequencies individually.

4.8.6 TEST RESULTS

The spectrum plots are attached on the following 4 images. D1 line indicates the highest level, D2 line indicates the 20dB offset below D1. It shows compliance with the requirement in part 15.247(d).

NOTE 1:

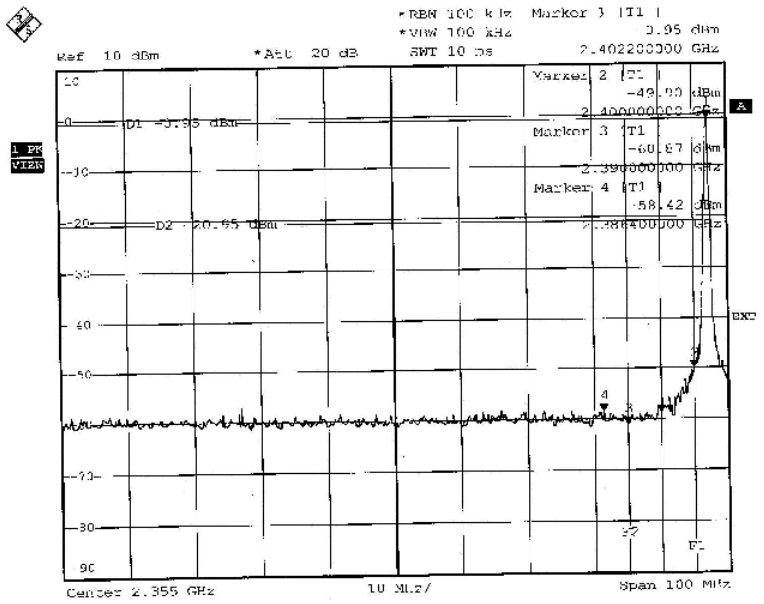
The band edge emission plot on page 64 shows 57.47dBc between carrier maximum power and local maximum emission in restrict band (2.3864GHz). The emission of carrier strength list in the test result of channel 0 at the item 6.2.7 is 91.46dBuV/m (Peak), so the maximum field strength in restrict band is 91.46-57.47=33.99dBuV/m, which is under 74 dBuV/m limit.

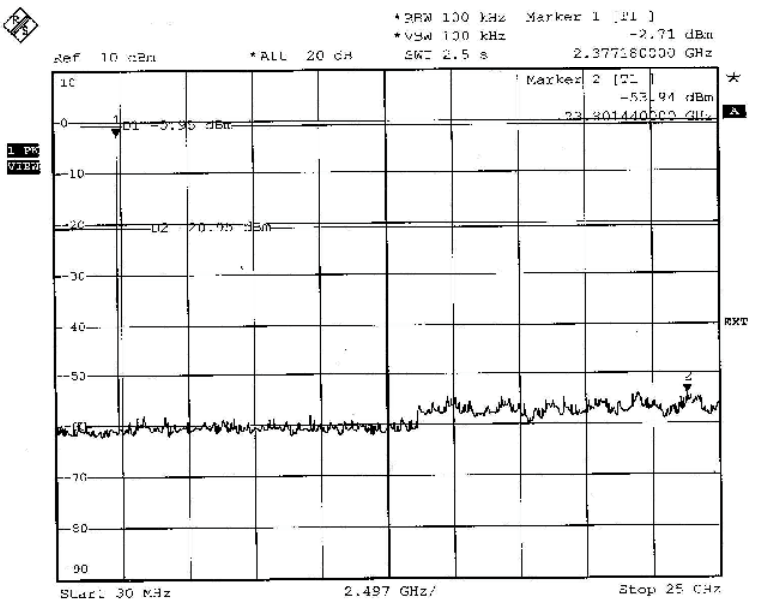
The band edge emission plot on page 64 shows 57.47dBc between carrier maximum power and local maximum emission in restrict band (2.3864GHz). The emission of carrier strength list in the test result of channel 0 at the item 6.2.7 is 61.46dBuV/m (Average), so the maximum field strength in restrict band is 61.46-57.47=3.99dBuV/m, which is under 54 dBuV/m limit.

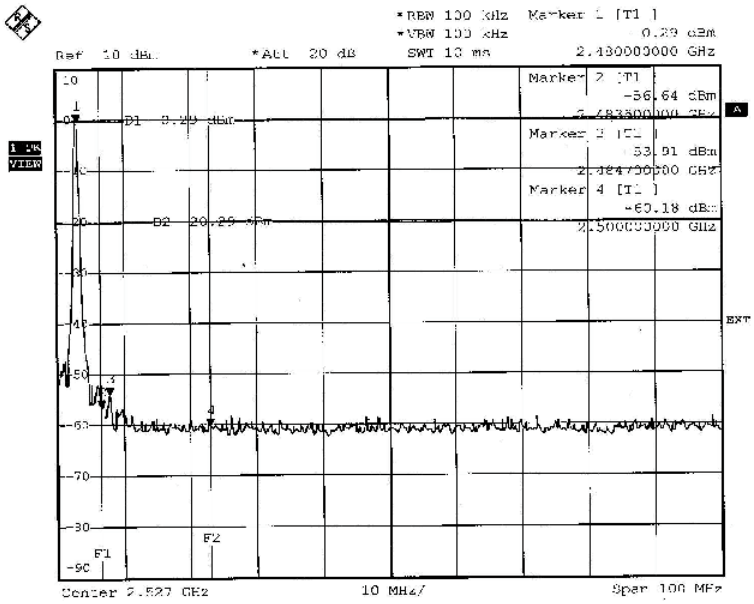
NOTE 2:

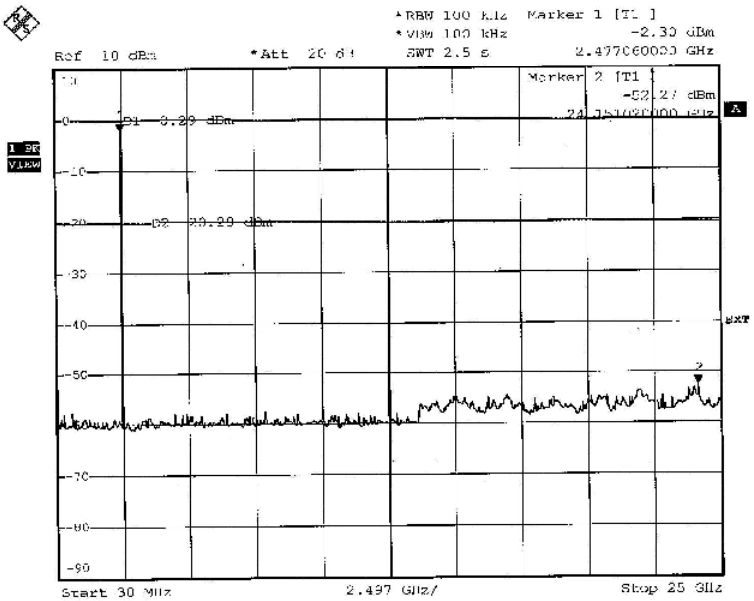
The band edge emission plot on page 65 shows 53.62dBc between carrier maximum power and local maximum emission in restrict band (2.4847GHz). The emission of carrier strength list in the test result of channel 78 at the item 6.2.7 is 91.86dBuV/m (Peak), so the maximum field strength in restrict band is 91.86-53.62=38.24dBuV/m, which is under 74 dBuV/m limit.

The band edge emission plot on page 65 shows 53.62dBc between carrier maximum power and local maximum emission in restrict band (2.4847GHz). The emission of carrier strength list in the test result of channel 78 at the item 6.2.7 is 61.86dBuV/m (Average), so the maximum field strength in restrict band is 61.86-53.62=8.24dBuV/m, which is under 54 dBuV/m limit.


*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-0.95 dBm
2.402200000 GHz
Ref 10 dBm
*Att 20 dB
SWT 10 ms
Marker 2 [T1]
-49.90 dBm
2.400000000 GHz
Marker 3 [T1]
-60.87 dBm
2.390000000 GHz
Marker 4 [T1]
-58.42 dBm
2.388400000 GHz
D1 -0.95 dBm
D2 -20.95 dBm
1 PK
VIEW
A
EXT
Center 2.355 GHz
10 MHz/
Span 100 MHz


*RBW 100 kHz
*VBW 100 kHz
Marker 1 [T1]
-2.71 dBm
2.377180000 GHz
Ref 10 dBm
*Att 20 dB
SWT 2.5 s
Marker 2 [T1]
-53.94 dBm
2.301440000 GHz
D1 -0.95 dBm
D2 -20.95 dBm
1 PK
VIEW
A
EXT
Start 30 MHz
2.497 GHz/
Stop 25 GHz


*RBW 100 kHz
*VBW 100 kHz
SWT 10 ms
Marker 1 [T1]
0.29 dBm
2.480000000 GHz
Ref 10 dBm
*Att 20 dB
Marker 2 [T1]
-56.64 dBm
Marker 3 [T1]
-33.91 dBm
Marker 4 [T1]
-60.18 dBm
2.500000000 GHz
D1 0.29 dBm
D2 20.29 dBm
F1
F2
EXT
Center 2.527 GHz
10 MHz/
Span 100 MHz


*RBW 100 kHz
*VBW 100 kHz
SWT 2.5 s
Marker 1 [T1]
-2.30 dBm
2.477060000 GHz
Ref 10 dBm
*Att 20 dB
Marker 2 [T1]
-52.27 dBm
D1 0.29 dBm
D2 20.29 dBm
EXT
Start 30 MHz
2.497 GHz/
Stop 25 GHz

4.9 ANTENNA REQUIREMENT

4.9.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 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.

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

4.9.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product is Chip antenna without antenna connector. The maximum gain of this antenna is 2.0dBi.

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

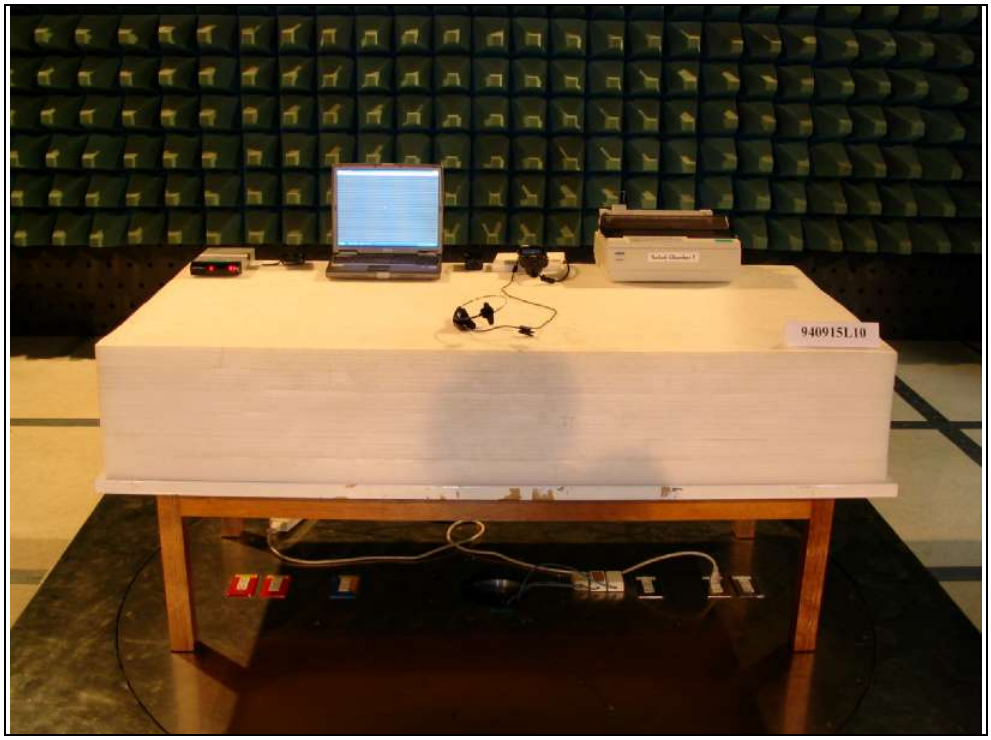
CONDUCTED EMISSION TEST

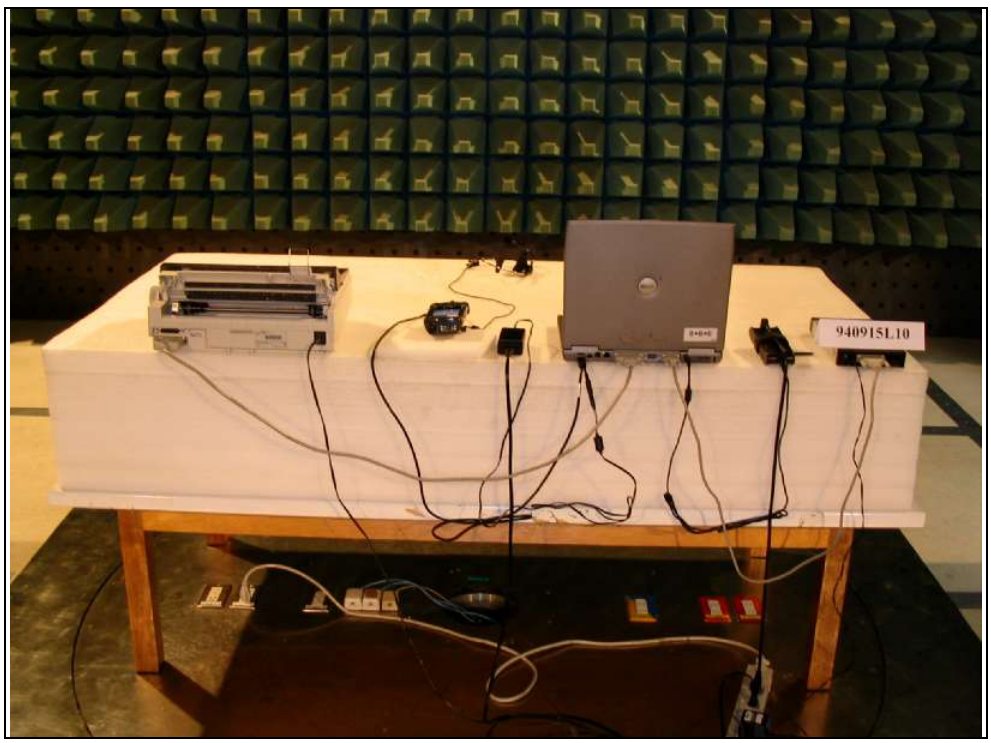
TEST MODE A

TEST MODE B

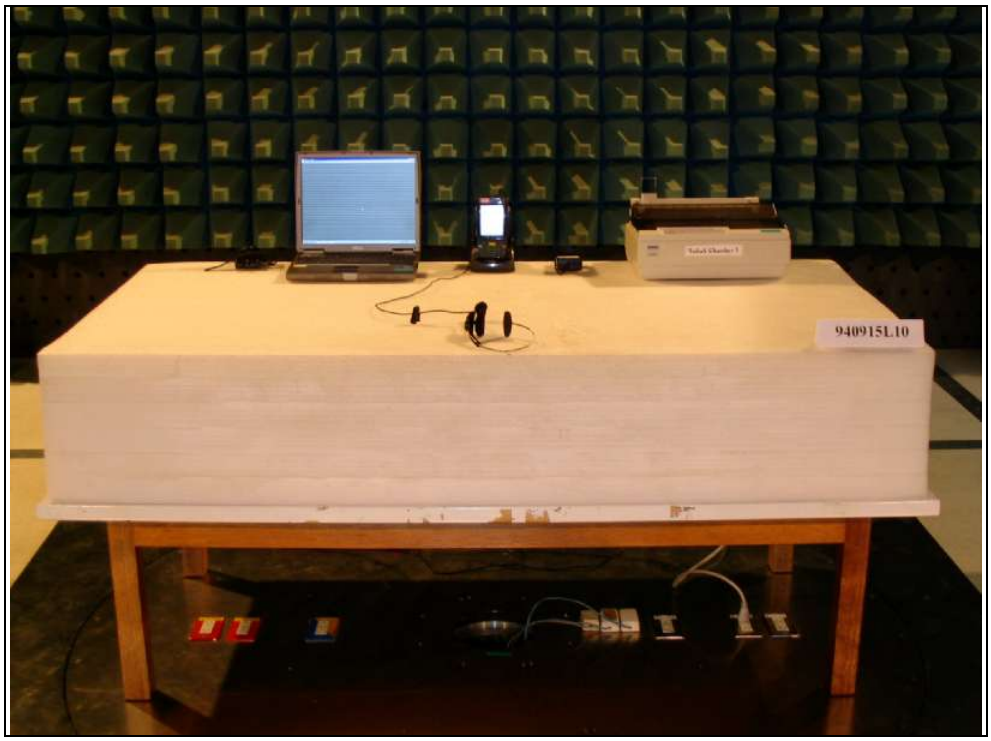
RADIATED EMISSION TEST

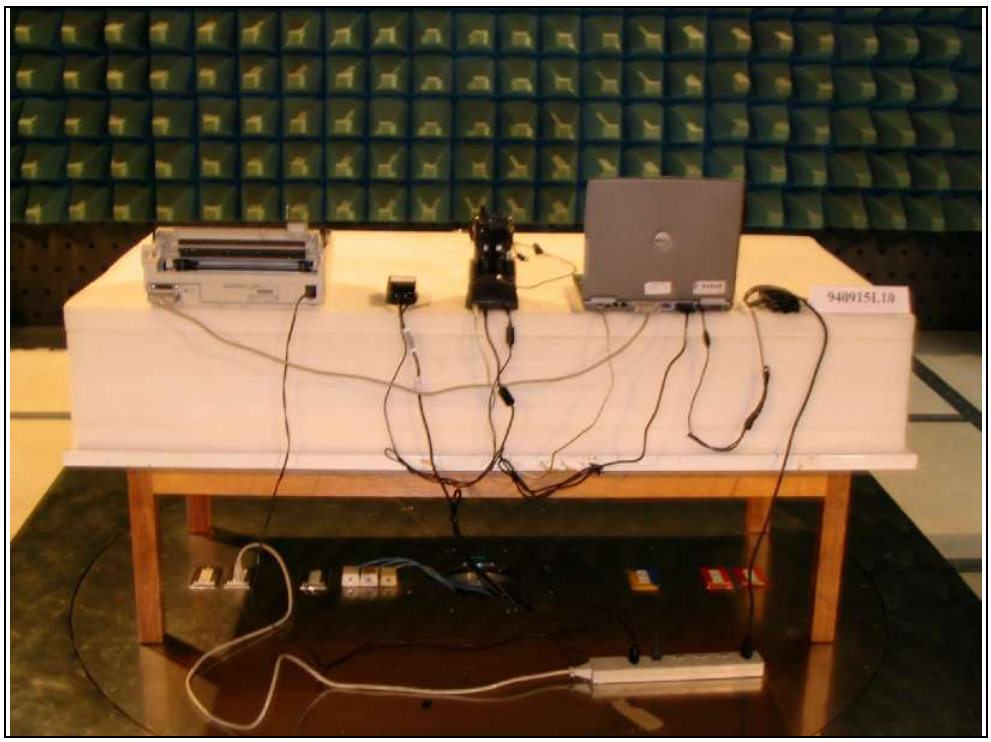
TEST MODE A



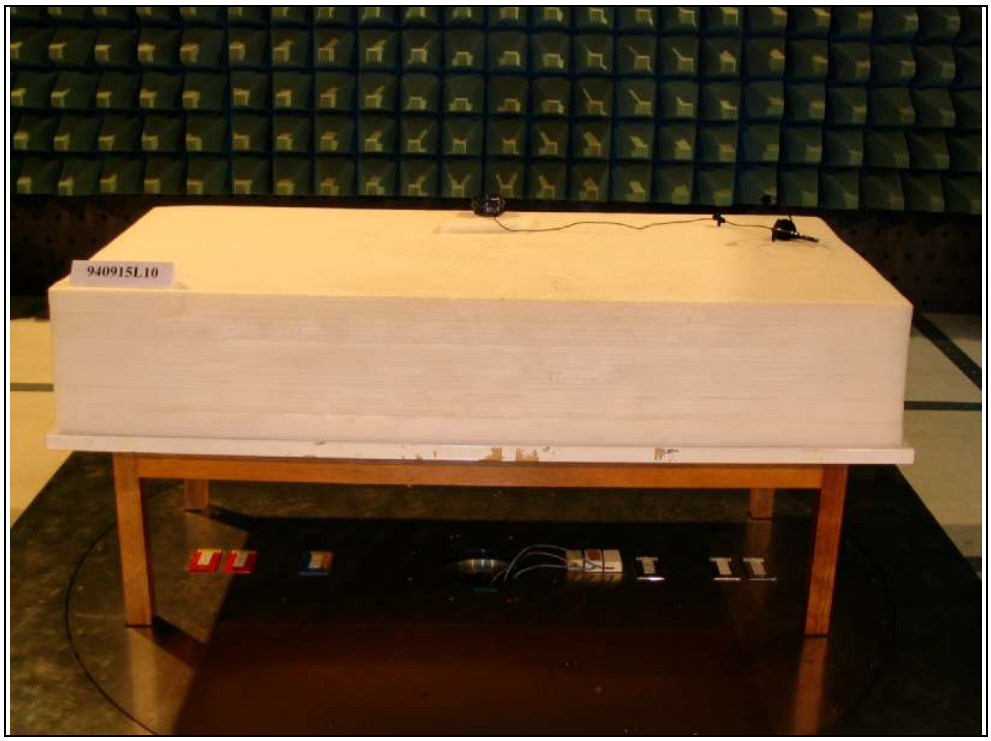


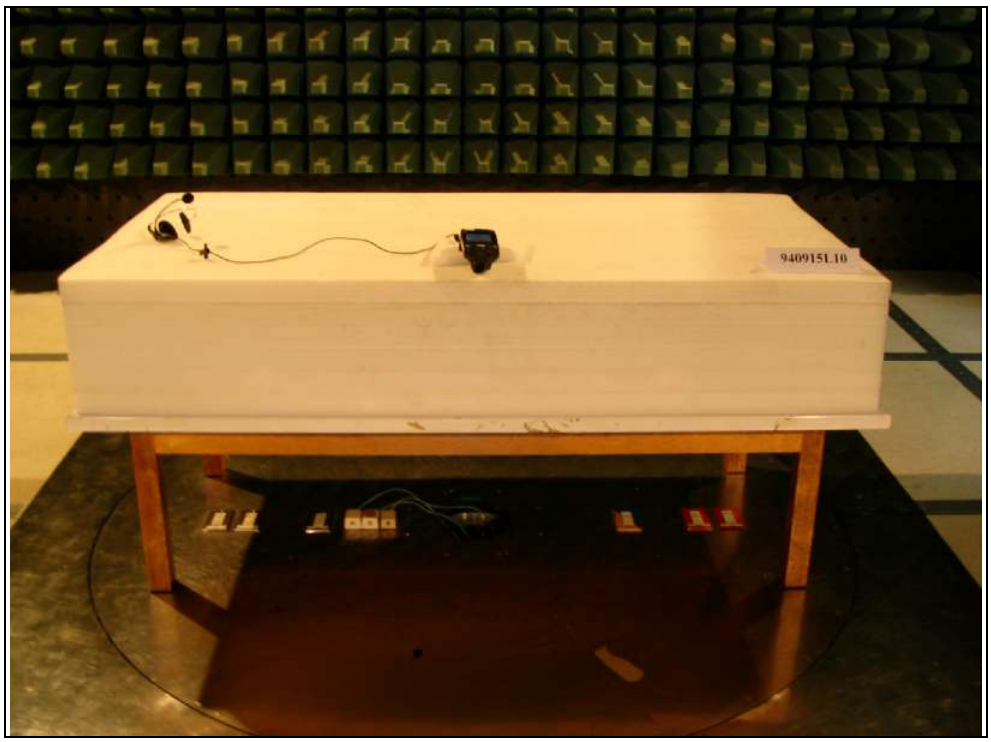
TEST MODE B





TEST MODE C





6. INFORMATION ON THE TESTING LABORATORIES

We, ADT Corp., were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	FCC, NVLAP, UL, A2LA
Germany	TUV Rheinland
Japan	VCCI
Norway	NEMKO
Canada	INDUSTRY CANADA , CSA
R.O.C.	CNLA, BSMI, DGT
Netherlands	Telefication
Singapore	PSB , GOST-ASIA(MOU)
Russia	CERTIS(MOU)

Copies of accreditation certificates of our laboratories obtained from approval agencies can be downloaded from our web site: www.adt.com.tw/index.5/phtml. If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab:
Tel: 886-2-26052180
Fax: 886-2-26052943

Hsin Chu EMC/RF Lab:
Tel: 886-3-5935343
Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety Telecom Lab:
Tel: 886-3-3183232
Fax: 886-3-3185050

Linko RF Lab.
Tel: 886-3-3270910
Fax: 886-3-3270892

Web Site: www.adt.com.tw

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

APPENDIX-A

MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

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