

# 5.2.7 TEST RESULTS

#### Below 1GHz Worst-Case Data\_with charging cable

EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL				
MODEL	MC7094	FREQUENCY RANGE	Below 1000MHz			
CHANNEL	Channel 5	DETECTOR FUNCTION	Quasi-Peak			
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa			
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz			
TESTED BY	Match Tsui	TEST MODE	A			

	ANTENN	A POLARIT	Y & TES	ST DIST	ANCE: H	ORIZON	ITAL AT 3	B M
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction
No.	(MHz)	Level	(dBuV/m)	(dB)	Height	Angle	Value	Factor
(11172)	(101112)	(dBuV/m)	(aBuv/m)	(ub)	(m)	(Degree)	(dBuV)	(dB/m)
1	115.53	30.48 QP	43.50	-13.02	1.50 H	304	18.14	12.34
2	185.51	25.96 QP	43.50	-17.54	1.50 H	289	13.69	12.27
3	249.66	28.41 QP	46.00	-17.59	1.00 H	268	15.33	13.08
4	463.49	29.56 QP	46.00	-16.44	2.00 H	283	11.47	18.09
5	731.74	35.39 QP	46.00	-10.61	1.00 H	241	12.40	22.99
6	867.82	31.24 QP	46.00	-14.76	1.50 H	286	6.77	24.47

	ANTEN	INA POLAF	RITY & T	est dis	TANCE:	VERTIC	CAL AT 3	М
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	45.55	33.38 QP	40.00	-6.62	1.50 V	360	18.39	14.99
2	76.65	23.51 QP	40.00	-16.49	1.00 V	235	12.89	10.62
3	109.70	33.29 QP	43.50	-10.21	1.00 V	253	21.55	11.74
4	156.35	26.73 QP	43.50	-16.77	1.00 V	28	12.15	14.58
5	191.34	31.48 QP	43.50	-12.02	1.00 V	73	19.67	11.81
6	465.43	29.45 QP	46.00	-16.55	1.00 V	358	11.33	18.12
7	729.80	29.76 QP	46.00	-16.24	1.50 V	151	6.82	22.94
8	865.87	29.32 QP	46.00	-16.68	1.50 V	202	4.89	24.43

**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



#### Below 1GHz Worst-Case Data\_with cradle

EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL				
MODEL	MC7094	FREQUENCY RANGE	Below 1000MHz			
CHANNEL	Channel 5	DETECTOR FUNCTION	Quasi-Peak			
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa			
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz			
TESTED BY	Match Tsui	TEST MODE	В			

	ANTENN	A POLARIT	Y & TES	ST DIST	ANCE: H	ORIZON	ITAL AT 3	B M
No.	Freq. (MHz)	Emission Level	Limit (dBuV/m)	Margin (dB)	Antenna Height	Table Angle	Raw Value	Correction Factor
1	(dBuV/m) (dBuV/m) (dBuV/m) (dBuV/m) (dBuV/m)	43.50	-10.51	(m) 1.50 H	(Degree) 280	(dBuV) 20.85	(dB/m) 12.14	
2	166.07	30.02 QP	43.50	-13.48	1.50 H	200	15.95	14.07
3	249.66	39.95 QP	46.00	-6.05	1.00 H	274	26.87	13.08
4	463.49	30.52 QP	46.00	-15.48	2.00 H	286	12.43	18.09
5	500.42	29.08 QP	46.00	-16.92	2.00 H	37	10.48	18.59
6	597.62	31.20 QP	46.00	-14.80	1.00 H	301	10.36	20.83
7	733.69	37.42 QP	46.00	-8.58	1.00 H	331	14.38	23.03
8	865.87	32.46 QP	46.00	-13.54	1.50 H	283	8.02	24.43
9	898.92	29.22 QP	46.00	-16.78	1.00 H	91	4.14	25.08

	ANTEN	INA POLAF	RITY & T	EST DIS	TANCE:	VERTIC	AL AT 3	Μ
	Freg.	Emission	Limit	Margin	Antenna	Table	Raw	Correction
No.	(MHz)	Level	(dBuV/m)	(dB)	Height	Angle	Value	Factor
	(dBuV/m)	(ubuv/iii)	(ub)	(m)	(Degree)	(dBuV)	(dB/m)	
1	47.49	28.93 QP	40.00	-11.07	1.00 V	334	14.17	14.76
2	109.70	37.11 QP	43.50	-6.39	1.00 V	238	25.37	11.74
3	158.30	32.42 QP	43.50	-11.08	1.00 V	244	17.80	14.62
4	463.49	31.12 QP	46.00	-14.88	1.00 V	343	13.02	18.09
5	733.69	30.43 QP	46.00	-15.57	1.50 V	181	7.39	23.03
6	867.82	29.13 QP	46.00	-16.87	1.00 V	238	4.65	24.47
7	916.41	30.38 QP	46.00	-15.62	1.00 V	166	5.10	25.27

#### **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



#### Below 1GHz Worst-Case Data\_battery mode

EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL				
MODEL	MC7094	FREQUENCY RANGE	Below 1000MHz			
CHANNEL	Channel 5	DETECTOR FUNCTION	Quasi-Peak			
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa			
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz			
TESTED BY	Match Tsui	TEST MODE	С			

	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	111.64	34.85 QP	43.50	-8.65	1.50 H	(Degree) 289	22.90	11.94			
2	162.18	30.28 QP	43.50	-13.22	1.50 H	298	15.83	14.45			
3	249.66	29.67 QP	46.00	-16.33	1.00 H	280	16.60	13.08			
4	465.43	30.30 QP	46.00	-15.70	1.50 H	262	12.18	18.12			
5	733.69	32.92 QP	46.00	-13.08	1.00 H	328	9.89	23.03			
6	865.87	30.73 QP	46.00	-15.27	1.00 H	331	6.30	24.43			
7	898.92	29.49 QP	46.00	-16.51	1.00 H	247	4.41	25.08			

	ANTEN	INA POLAF	RITY & T	EST DIS	TANCE:	VERTIC	CAL AT 3	Μ
Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction	
No.	(MHz)	Level	(dBuV/m)	(dB)	Height	Angle	Value	Factor
(IVITZ)	(dBuV/m)	(ubuv/iii)	(ub)	(m)	(Degree)	(dBuV)	(dB/m)	
1	47.49	28.93 QP	40.00	-11.07	1.00 V	334	14.17	14.76
2	109.70	39.88 QP	43.50	-3.62	1.00 V	238	28.14	11.74
3	158.30	32.42 QP	43.50	-11.08	1.00 V	244	17.80	14.62
4	463.49	31.12 QP	46.00	-14.88	1.00 V	343	13.02	18.09
5	733.69	30.43 QP	46.00	-15.57	1.50 V	181	7.39	23.03
6	867.82	29.13 QP	46.00	-16.87	1.00 V	238	4.65	24.47
7	916.41	30.38 QP	46.00	-15.62	1.00 V	166	5.10	25.27

**REMARKS**: 1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)

Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value



#### 802.11a OFDM modulation

EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL						
MODEL	MC7094	FREQUENCY RANGE	1 ~ 40 GHz					
CHANNEL	Channel 1	DETECTOR FUNCTION	Peak(PK) Average (AV)					
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 991hPa					
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz					
TESTED BY	Long Chen							

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M											
No. Freq. (MHz)	•	Emission Level	Limit	Margin	Antenna Height	Table Angle	Raw Value	Correction Factor				
	(IMHZ)	(dBuV/m)	(dBuV/m)	(dB)	(m)	(Degree)	(dBuV)	(dB/m)				
1	5725.00	73.02 PK	87.68	-14.66	1.14 H	284	35.69	37.33				
1	5725.00	60.16 AV	77.87	-17.71	1.14 H	284	22.83	37.33				
2	*5745.00	107.68 PK			1.14 H	284	70.35	37.33				
2	*5745.00	97.87 AV			1.14 H	284	60.54	37.33				
3	#11490.00	58.62 PK	74.00	-15.38	1.01 H	12	11.14	47.48				
3	#11490.00	47.38 AV	54.00	-6.62	1.01 H	12	-0.10	47.48				

	ANTEN	NA POLAR	ITY & TE	EST DIS	TANCE:	VERTIC	AL AT 3 M	Ν
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	5725.00	69.83 PK	84.96	-15.13	1.14 V	295	32.50	37.33
1	5725.00	57.44 AV	74.84	-17.40	1.14 V	295	20.11	37.33
2	*5745.00	104.96 PK			1.14 V	295	67.63	37.33
2	*5745.00	94.84 AV			1.14 V	295	57.51	37.33
3	#11490.00	56.28 PK	74.00	-17.72	1.05 V	322	8.80	47.48
3	#11490.00	44.36 AV	54.00	-9.64	1.05 V	322	-3.12	47.48

**NOTE**: 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. "\*" : Fundamental frequency
- 6. "#"The radiated frequency falling in the restricted band.
- 7. The limit value is defined as per 15.247



EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL		
MODEL	MC7094	FREQUENCY RANGE	1 ~ 40 GHz	
CHANNEL	Channel 3	DETECTOR FUNCTION	Peak(PK) Average (AV)	
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 991hPa	
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz	
TESTED BY	Long Chen			

	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	*5785.00	107.29 PK			1.18 H	267	69.98	37.31			
1	*5785.00	97.24 AV			1.18 H	267	59.93	37.31			
2	#11570.00	57.68 PK	74.00	-16.32	1.06 H	28	10.22	47.46			
2	#11570.00	45.93 AV	54.00	-8.07	1.06 H	28	-1.53	47.46			

	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	*5785.00	104.06 PK			1.58 V	301	66.75	37.31			
1	*5785.00	94.24 AV			1.58 V	301	56.93	37.31			
2	#11570.00	54.96 PK	74.00	-19.04	1.00 V	325	7.50	47.46			
2	#11570.00	44.80 AV	54.00	-9.20	1.00 V	325	-2.66	47.46			

NOTE: 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. "\*" : Fundamental frequency
- 6. "#"The radiated frequency falling in the restricted band.
- 7. The limit value is defined as per 15.247



EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL		
MODEL	MC7094	FREQUENCY RANGE	1 ~ 40 GHz	
CHANNEL	Channel 5	DETECTOR FUNCTION	Peak(PK) Average (AV)	
MODULATION TYPE	BPSK	ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 991hPa	
TRANSFER RATE	6Mbps	INPUT POWER (SYSTEM)	120Vac, 60 Hz	
TESTED BY	Long Chen			

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M									
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction		
No.	(MHz)	Level	(dBuV/m)	-	Height	Angle	Value	Factor		
	(10172)	(dBuV/m)	(ubuv/iii)	BuV/m) (dB)	(m)	(Degree)	(dBuV)	(dB/m)		
1	*5825.00	107.30 PK			1.00 H	267	69.96	37.34		
1	*5825.00	97.42 AV			1.00 H	267	60.08	37.34		
2	5850.00	66.07 PK	87.30	-21.23	1.00 H	267	28.70	37.37		
2	5850.00	56.19 AV	77.42	-21.23	1.00 H	267	18.82	37.37		
3	#11650.00	57.96 PK	74.00	-16.04	1.46 H	352	10.66	47.30		
3	#11650.00	44.53 AV	54.00	-9.47	1.46 H	352	-2.77	47.30		

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M										
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction			
No.	(MHz)	Level	(dBuV/m)	-	Height	Angle	Value	Factor			
	(10172)	(dBuV/m)	(ubuv/iii)	uV/m) (dB)	(m)	(Degree)	(dBuV)	(dB/m)			
1	*5825.00	104.25 PK			1.26 V	308	66.91	37.34			
1	*5825.00	94.40 AV			1.26 V	308	57.06	37.34			
2	5850.00	63.05 PK	84.25	-21.20	1.26 V	308	25.68	37.37			
2	5850.00	53.20 AV	74.40	-21.20	1.26 V	308	15.83	37.37			
3	11650.00	55.86 PK	74.00	-18.14	1.00 V	348	8.55	47.30			
3	11650.00	44.35 AV	54.00	-9.65	1.00 V	348	-2.95	47.30			

**NOTE**: 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. "\*" : Fundamental frequency
- 6. "#"The radiated frequency falling in the restricted band.
- 7. The limit value is defined as per 15.247



### 5.3 6dB BANDWIDTH MEASUREMENT

#### 5.3.1 LIMITS OF 6dB BANDWIDTH MEASUREMENT

The minimum of 6dB Bandwidth Measurement is 0.5 MHz.

#### 5.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S 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.



### 5.3.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 100kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

### 5.3.4 DEVIATION FROM TEST STANDARD

No deviation

### 5.3.5 TEST SETUP



#### 5.3.6 EUT OPERATING CONDITIONS

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.



# 5.3.7 TEST RESULTS

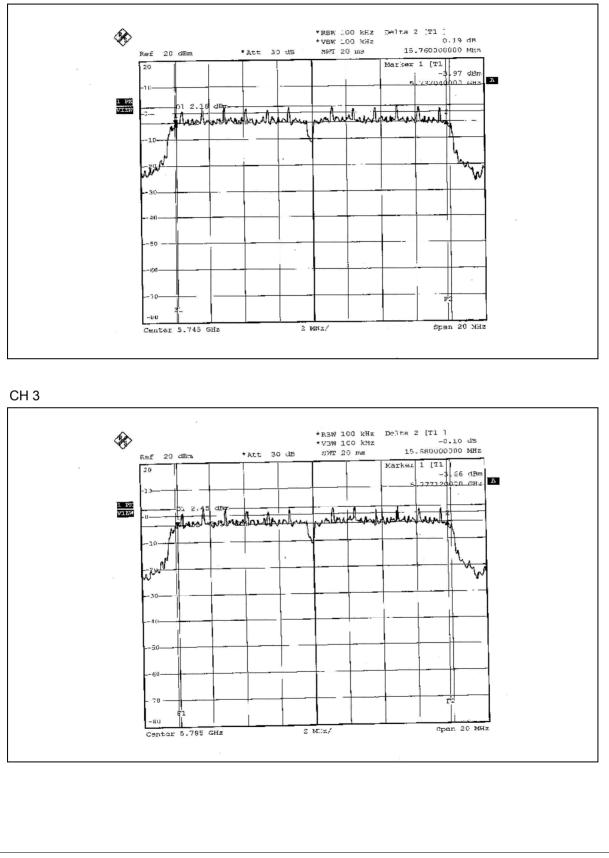
#### 802.11a OFDM modulation

EUT	EDA (Enterprise Digital Assistant)	MODEL	MC7094
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg.C, 63%RH, 991hPa
TESTED BY	Gary Chang		

CHANNEL	CHANNEL FREQUENCY (MHz)	6dB BANDWIDTH (MHz)	MINIMUM LIMIT (MHz)	PASS/FAIL
1	5745	15.76	0.5	PASS
3	5785	15.68	0.5	PASS
5	5825	15.76	0.5	PASS

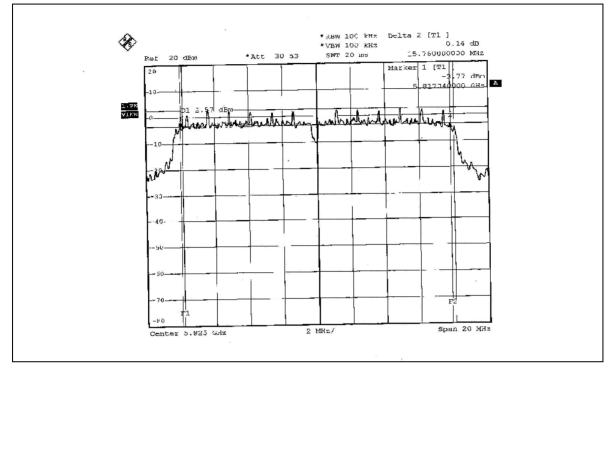








CH 5





### 5.4 MAXIMUM PEAK OUTPUT POWER

#### 5.4.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

### 5.4.2 INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S SPECTRUM ANALYZER	FSEK30	100049	Aug. 14, 2006
AGILENT SIGNAL GENERATOR	E8257C	MY43320668	Dec. 31, 2005
TEKTRONIX OSCILLOSCOPE	TDS 1012	C019167	Feb. 01, 2006
NARDA DETECTOR	4503A	FSCM99899	NA

#### NOTE:

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



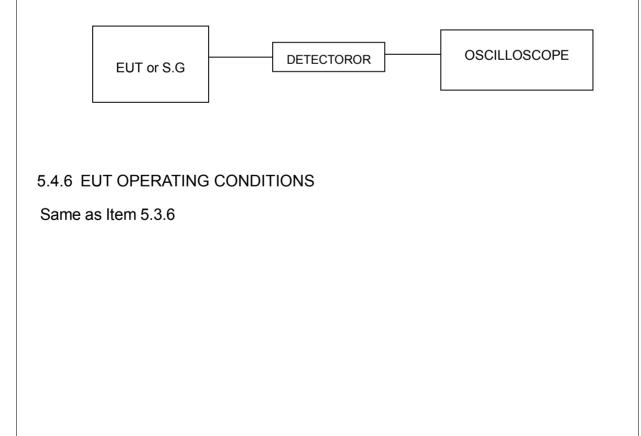
### 5.4.3 TEST PROCEDURES

- 1. A detector was used on the output port of the EUT. An oscilloscope was used to read the response of the detector.
- 2. Replaced the EUT by the signal generator . The center frequency of the S.G was adjusted to the center frequency of the measured channel.
- 3. Adjusted the power to have the same reading on oscilloscope. Record the power level.

### 5.4.4 DEVIATION FROM TEST STANDARD

No deviation

# 5.4.5 TEST SETUP





# 5.4.7 TEST RESULTS

#### 802.11a OFDM modulation

EUT	EDA (Enterprise Digital Assistant)	MODEL	MC7094
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg.C, 63%RH, 991hPa
TESTED BY	Gary Chang		•

CHANNEL	CHANNEL FREQUENCY (MHz)	PEAK POWER OUTPUT (mW)	PEAK POWER OUTPUT (dBm)	PEAK POWER LIMIT (dBm)	PASS/FAIL
1	5745	40.179	16.04	30	PASS
3	5785	40.458	16.07	30	PASS
5	5825	40.272	16.05	30	PASS



# 5.5 POWER SPECTRAL DENSITY MEASUREMENT

### 5.5.1 LIMITS OF POWER SPECTRAL DENSITY MEASUREMENT

The Maximum of Power Spectral Density Measurement is 8dBm.

### 5.5.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until
R&S 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.



#### 5.5.3 TEST PROCEDURE

The transmitter output was connected to the spectrum analyzer through an attenuator, the bandwidth of the fundamental frequency was measured with the spectrum analyzer using 3 kHz RBW and 30 kHz VBW, set sweep time = span/3 kHz. The power spectral density was measured and recorded.

The sweep time is allowed to be longer than span/3 kHz for a full response of the mixer in the spectrum analyzer.

### 5.5.4 DEVIATION FROM TEST STANDARD

No deviation

### 5.5.5 TEST SETUP



# 5.5.6 EUT OPERATING CONDITION

Same as Item 5.3.6

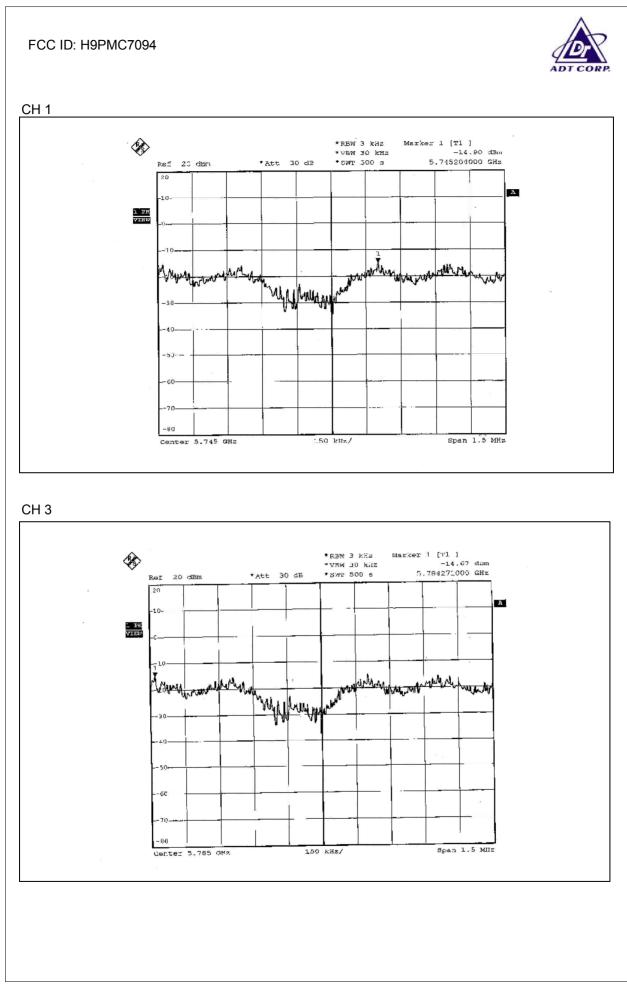


# 5.5.7 TEST RESULTS

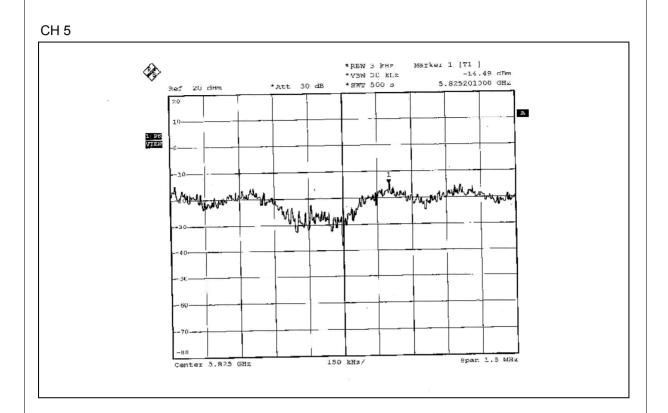
#### 802.11a OFDM modulation

EUT	EDA (Enterprise Digital Assistant)	MODEL	MC7094
MODULATION TYPE	BPSK	TRANSFER RATE	6Mbps
INPUT POWER (SYSTEM)	120Vac, 60 Hz	ENVIRONMENTAL CONDITIONS	27deg.C, 63%RH, 991hPa
TESTED BY	Gary Chang		

CHANNEL	CHANNEL FREQUENCY (MHz)	FREQUENCY IN 3 kHz BW		PASS/FAIL
1	5745	-14.90	8	PASS
3	5785	-14.67	8	PASS
5	5825	-14.49	8	PASS









### 5.6 BAND EDGES MEASUREMENT

#### 5.6.1 LIMITS OF BAND EDGES MEASUREMENT

Below –20dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).

# 5.6.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until	
R&S 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.

#### 5.6.3 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.

#### 5.6.4 DEVIATION FROM TEST STANDARD

No deviation



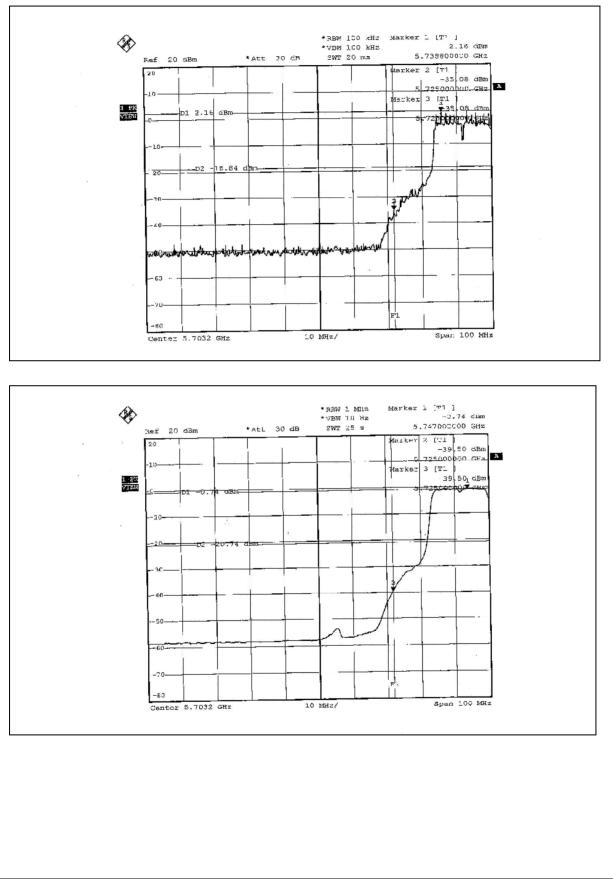
# 5.6.5 EUT OPERATING CONDITION

Same as Item 5.9.6

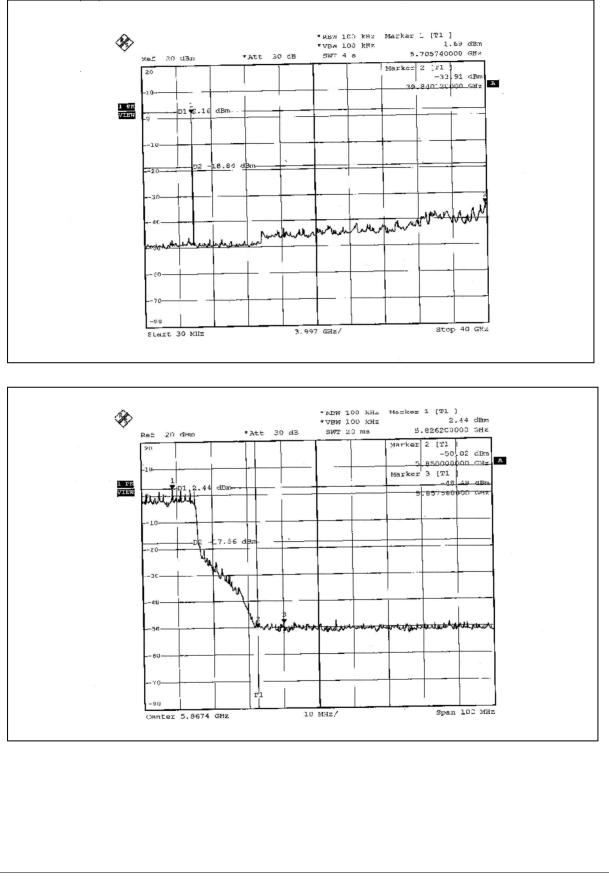
#### 5.6.6 TEST RESULTS

The spectrum plots are attached on the following pages. 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).

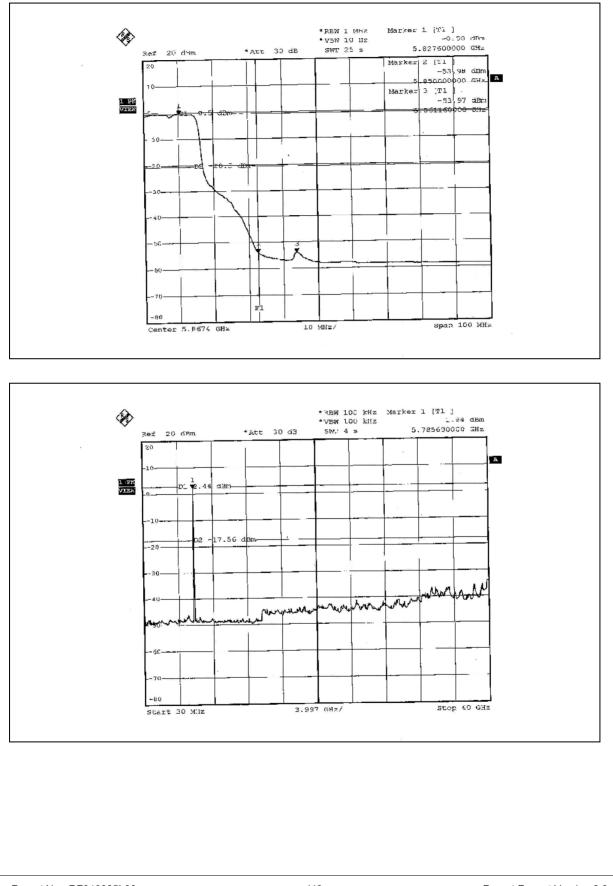














# 5.7 ANTENNA REQUIREMENT

#### 5.7.1 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(a), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

# 5.7.2 ANTENNA CONNECTED CONSTRUCTION

The antenna used in this product is PIFA antenna with UFL connector. The maximum Gain of the antenna is 2.5dBi.



# 6. TEST TYPES AND RESULTS (FOR BLUETOOTH)

### 6.1.1 CONDUCTED EMISSION MEASUREMENT

#### 6.1.2 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.

### 6.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED UNTIL
Test Receiver	ESCS30	100288	Nov. 06, 2005
ROHDE & SCHWARZ	E3C330	100200	NOV. 00, 2005
RF signal cable	5D-FB	Cable-HyC02-01	lan 00 2006
Woken	5D-FB		Jan. 09, 2006
LISN	ESH2-Z5	100100	Jan. 20, 2006
ROHDE & SCHWARZ	E3HZ-25	100100	Jan. 20, 2000
LISN	ESH3-Z5	100311	Jan. 20, 2006
ROHDE & SCHWARZ	E3H3-25	100311	Jan. 20, 2000
Software	ADT Cond V3	NA	NA
ADT		INA	INA

**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.

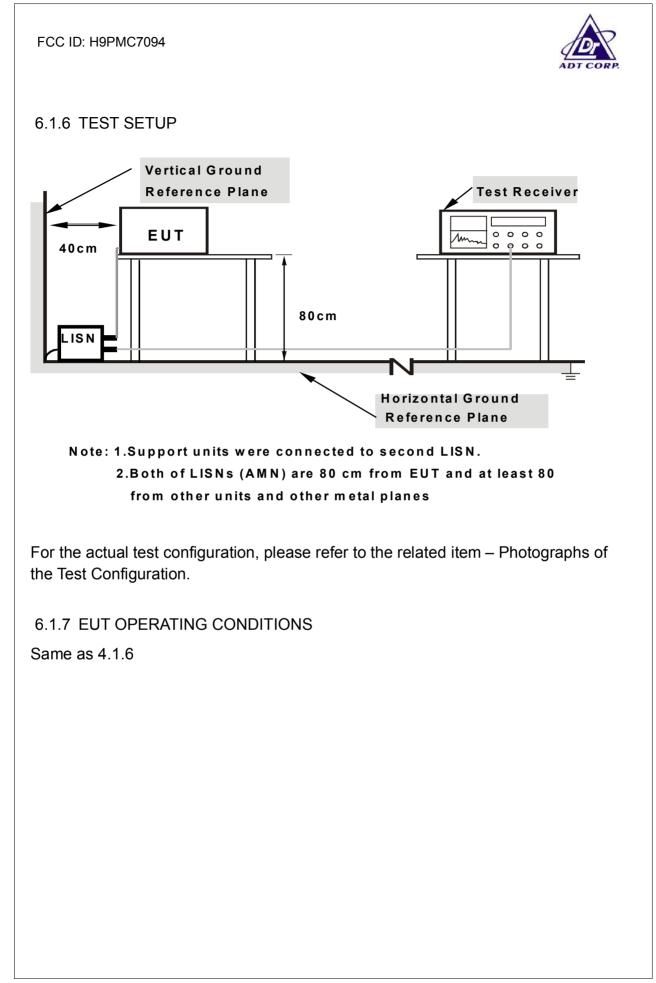


# 6.1.4 TEST PROCEDURES

- 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.

6.1.5 DEVIATION FROM TEST STANDARD

No deviation





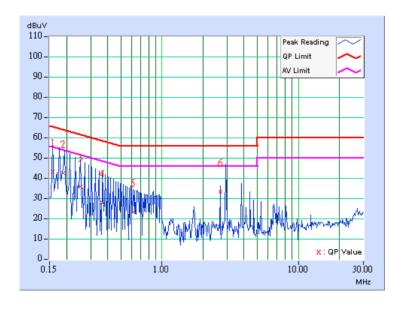
# 6.1.8 TEST RESULTS

#### Conducted Worst-Case Data\_with charging cable

EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL			
MODEL	MC7094	PHASE	Line 1		
CHANNEL	Channel 0	6dB BANDWIDTH	9 kHz		
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa		
TEST MODE	А	INPUT POWER (SYSTEM)	120Vac, 60 Hz		
TESTED BY	Jay Hsu				

	Freq.	Corr.	Reading Value			hission Limit Margin		Limit		gin
No		Factor	[dB (	(uV)]	[dB(	(uV)]	[dB	(uV)]	(dl	3)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.158	0.11	43.03	-	43.14	-	65.58	55.58	-22.44	-
2	0.188	0.11	42.31	-	42.42	-	64.14	54.14	-21.72	-
3	0.253	0.11	35.66	-	35.77	-	61.66	51.66	-25.89	-
4	0.364	0.12	27.89	-	28.01	-	58.63	48.63	-30.62	-
5	0.612	0.16	23.10	-	23.26	-	56.00	46.00	-32.74	-
6	2.680	0.26	33.03	-	33.29	-	56.00	46.00	-22.71	-

- 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.

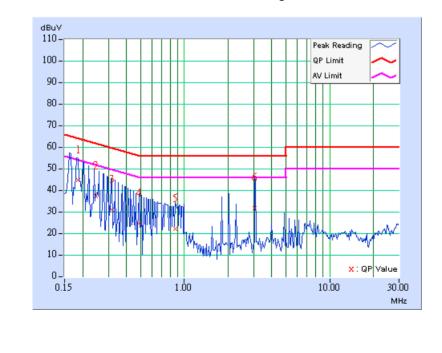




EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL			
MODEL	MC7094	PHASE	Line 2		
CHANNEL	Channel 0	6dB BANDWIDTH	9 kHz		
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa		
TEST MODE	А	INPUT POWER (SYSTEM)	120Vac, 60 Hz		
TESTED BY	Jay Hsu	•			

	Freq.	Corr.	Reading Value		Emission Level Limit		Limit		Mar	gin
No		Factor	[dB (	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.186	0.11	44.38	-	44.49	-	64.22	54.22	-19.74	-
2	0.246	0.11	37.24	-	37.35	-	61.90	51.90	-24.55	-
3	0.319	0.12	30.74	-	30.86	-	59.72	49.72	-28.87	-
4	0.487	0.14	24.59	-	24.73	-	56.21	46.21	-31.49	-
5	0.861	0.20	21.80	-	22.00	-	56.00	46.00	-34.00	-
6	3.030	0.27	31.71	-	31.98	-	56.00	46.00	-24.02	-

- 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.

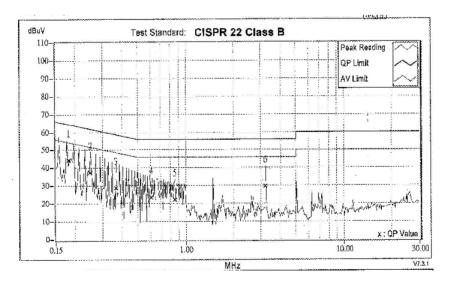




EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL				
MODEL	MC7094	PHASE	Line 1			
CHANNEL	Channel 39	6dB BANDWIDTH	9 kHz			
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa			
TEST MODE	A	INPUT POWER (SYSTEM)	120Vac, 60 Hz			
TESTED BY	Jay Hsu					

	Freq.	Corr.	Reading Value				Limit		Mar	gin
No		Factor	[dB (	(uV)]	[dB(	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.183	0.11	44.18	-	44.29	-	64.36	54.36	-20.08	-
2	0.251	0.11	37.16	-	37.27	-	61.70	51.70	-24.43	-
3	0.365	0.12	28.39	-	28.51	-	58.62	48.62	-30.11	-
4	0.611	0.16	23.34	-	23.50	-	56.00	46.00	-32.50	-
5	0.853	0.20	22.03	-	22.23	-	56.00	46.00	-33.77	-
6	3.212	0.27	29.53	-	29.80	-	56.00	46.00	-26.20	-

- 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.

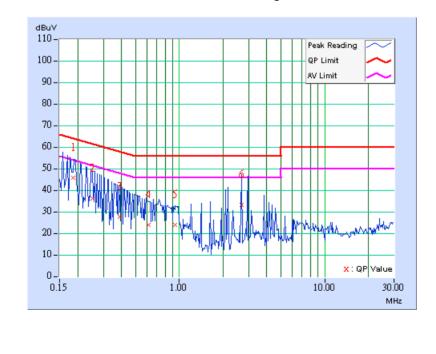




EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL					
MODEL	MC7094	PHASE	Line 2				
CHANNEL	Channel 39	6dB BANDWIDTH	9 kHz				
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa				
TEST MODE	A	INPUT POWER (SYSTEM)	120Vac, 60 Hz				
TESTED BY	Jay Hsu	•					

	Freq.	Corr.	Corr. Reading Value		•		Lir	nit	Mar	gin	
No		Factor	[dB (	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	
1	0.187	0.11	45.52	-	45.63	-	64.18	54.18	-18.55	-	
2	0.254	0.11	36.12	-	36.23	-	61.63	51.63	-25.40	-	
3	0.387	0.12	27.44	-	27.56	-	58.14	48.14	-30.58	-	
4	0.613	0.16	23.99	-	24.15	-	56.00	46.00	-31.85	-	
5	0.931	0.22	23.93	-	24.15	-	56.00	46.00	-31.85	-	
6	2.686	0.26	33.09	-	33.35	-	56.00	46.00	-22.65	-	

- 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.

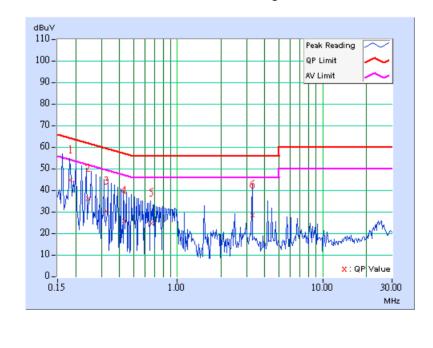




EUT	EDA (Enterprise Digital Assistant)	ital MEASUREMENT DETAIL				
MODEL	MC7094	PHASE	Line 1			
CHANNEL	Channel 78	6dB BANDWIDTH	9 kHz			
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa			
TEST MODE	А	INPUT POWER (SYSTEM)	120Vac, 60 Hz			
TESTED BY	Jay Hsu	•				

	Freq.	Corr.	Reading Value		Emission Level		Limit		Margin	
No		Factor	[dB (	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.183	0.11	44.52	-	44.63	-	64.33	54.33	-19.70	-
2	0.244	0.11	36.15	-	36.26	-	61.94	51.94	-25.68	-
3	0.327	0.12	30.23	-	30.35	-	59.53	49.53	-29.18	-
4	0.429	0.13	25.65	-	25.78	-	57.26	47.26	-31.49	-
5	0.667	0.17	24.40	-	24.57	-	56.00	46.00	-31.43	-
6	3.284	0.28	28.28	-	28.56	-	56.00	46.00	-27.44	-

- 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.

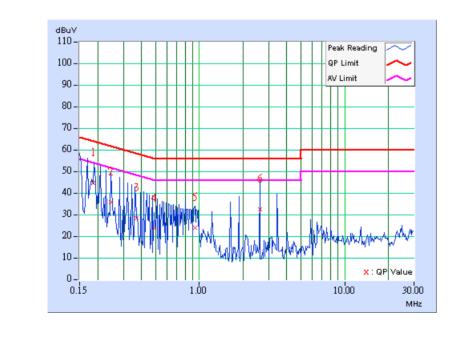




EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL					
MODEL	MC7094	PHASE	Line 2				
CHANNEL	Channel 78	6dB BANDWIDTH	9 kHz				
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa				
TEST MODE	А	INPUT POWER (SYSTEM)	120Vac, 60 Hz				
TESTED BY	Jay Hsu	•					

	Freq.	Corr.	Reading Value		Emission Level		Lir	nit	Margin	
No		Factor	[dB (	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	3)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.187	0.11	44.70	-	44.81	-	64.15	54.15	-19.35	-
2	0.246	0.11	35.81	-	35.92	-	61.89	51.89	-25.97	-
3	0.368	0.12	28.43	-	28.55	-	58.54	48.54	-30.00	-
4	0.492	0.14	23.53	-	23.67	-	56.13	46.13	-32.47	-
5	0.937	0.22	23.73	-	23.95	-	56.00	46.00	-32.05	-
6	2.612	0.26	32.48	-	32.74	-	56.00	46.00	-23.26	-

- 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.



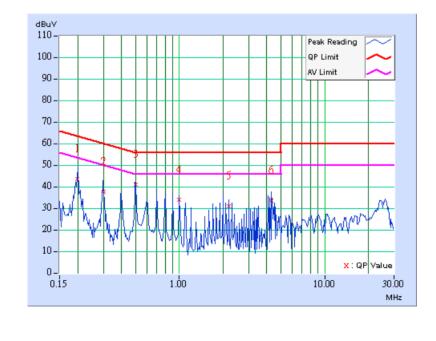


EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL				
MODEL	MC7094	PHASE	Line 1			
CHANNEL	Channel 0	6dB BANDWIDTH	9 kHz			
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa			
TEST MODE	В	INPUT POWER (SYSTEM)	120Vac, 60 Hz			
TESTED BY	Jay Hsu					

#### Conducted Worst-Case Data\_with cradle

	Freq.	Corr.	rr. Reading Emission Li Value Level Li				Limit		Mar	gin
No		Factor	[dB (	(uV)]	[dB	(uV)]	[dB	(uV)]	(dl	B)
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.198	0.11	43.59	-	43.70	-	63.71	53.71	-20.01	-
2	0.302	0.12	37.61	-	37.73	-	60.18	50.18	-22.45	-
3	0.500	0.14	40.67	-	40.81	-	56.00	46.00	-15.19	-
4	1.000	0.23	33.84	-	34.07	-	56.00	46.00	-21.93	-
5	2.201	0.25	30.91	-	31.16	-	56.00	46.00	-24.84	-
6	4.292	0.30	33.53	-	33.83	-	56.00	46.00	-22.17	-

- 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.

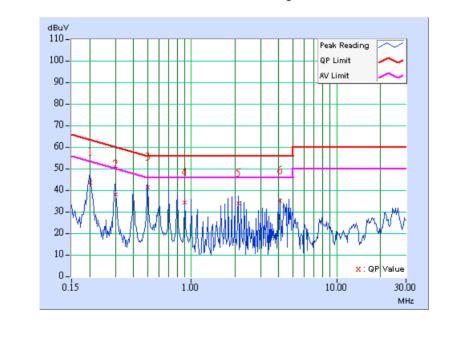




EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL				
MODEL	MC7094	PHASE	Line 2			
CHANNEL	Channel 0	6dB BANDWIDTH	9 kHz			
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa			
TEST MODE	В	INPUT POWER (SYSTEM)	120Vac, 60 Hz			
TESTED BY	Jay Hsu	•				

	Freq.	Corr.	Reading Value		Emission Level		Lir	nit	Margin		
No		Factor	[dB (	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	
1	0.201	0.11	43.49	-	43.60	-	63.56	53.56	-19.96	-	
2	0.302	0.12	37.71	-	37.83	-	60.18	50.18	-22.35	-	
3	0.500	0.14	41.09	-	41.23	-	56.00	46.00	-14.77	-	
4	0.901	0.21	34.18	-	34.39	-	56.00	46.00	-21.61	-	
5	2.100	0.25	33.86	-	34.11	-	56.00	46.00	-21.89	-	
6	4.098	0.29	35.06	-	35.35	-	56.00	46.00	-20.65	-	

- 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.

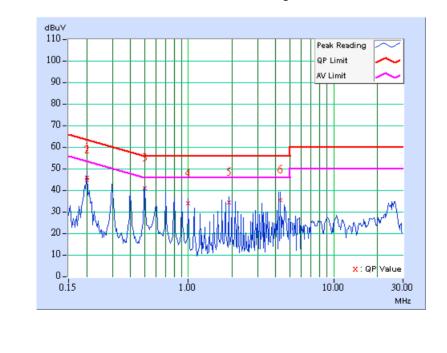




EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL				
MODEL	MC7094	PHASE	Line 1			
CHANNEL	Channel 39	6dB BANDWIDTH	9 kHz			
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa			
TEST MODE	В	INPUT POWER (SYSTEM)	120Vac, 60 Hz			
TESTED BY	Jay Hsu	•				

	Freq.	Corr.	Rea Va	•	Emis Le		Limit				gin
No		Factor	[dB (	(uV)]	[dB (uV)]		[dB (uV)]		(dB)		
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	
1	0.200	0.11	45.45	-	45.56	-	63.61	53.61	-18.05	-	
2	0.202	0.11	44.69	-	44.80	-	63.54	53.54	-18.74	-	
3	0.500	0.14	40.68	-	40.82	-	56.00	46.00	-15.18	-	
4	0.998	0.23	33.63	-	33.86	-	56.00	46.00	-22.14	-	
5	1.898	0.25	34.29	-	34.54	-	56.00	46.00	-21.46	-	
6	4.297	0.30	35.36	-	35.66	-	56.00	46.00	-20.34	-	

- 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.

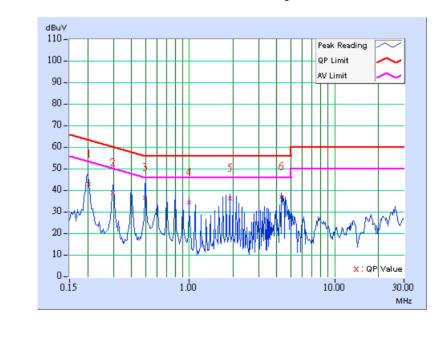




EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL				
MODEL	MC7094	PHASE	Line 2			
CHANNEL	Channel 39	6dB BANDWIDTH	9 kHz			
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa			
TEST MODE	В	INPUT POWER (SYSTEM)	120Vac, 60 Hz			
TESTED BY	Jay Hsu	•				

	Freq.	Corr.	Reading Value			imission Limit Margin		Limit		gin
No		Factor	[dB (	(uV)]	[dB	(uV)] [dB (uV)]		(dB)		
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.202	0.11	42.65	-	42.76	-	63.52	53.52	-20.76	-
2	0.300	0.11	38.76	-	38.87	-	60.25	50.25	-21.37	-
3	0.495	0.14	36.47	-	36.61	-	56.09	46.09	-19.48	-
4	1.000	0.23	34.14	-	34.37	-	56.00	46.00	-21.63	-
5	1.898	0.25	35.86	-	36.11	-	56.00	46.00	-19.89	-
6	4.297	0.30	36.88	-	37.18	-	56.00	46.00	-18.82	-

- 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.

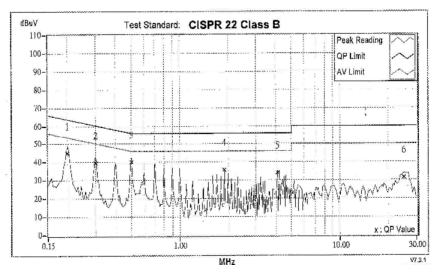




EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL				
MODEL	MC7094	PHASE	Line 1			
CHANNEL	Channel 78	6dB BANDWIDTH	9 kHz			
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa			
TEST MODE	В	INPUT POWER (SYSTEM)	120Vac, 60 Hz			
TESTED BY	Jay Hsu	•				

	Freq.	Corr.	Rea Va	•	Emission Limit Marg		Limit		gin	
No		Factor	[dB (	(uV)]	[dB	[dB (uV)] [dB (uV)]		(uV)]	(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.199	0.11	43.82	-	43.93	-	63.67	53.67	-19.74	-
2	0.298	0.11	38.39	-	38.50	-	60.29	50.29	-21.78	-
3	0.503	0.14	38.83	-	38.97	-	56.00	46.00	-17.03	-
4	1.897	0.25	34.68	-	34.93	-	56.00	46.00	-21.07	-
5	4.097	0.29	32.84	-	33.13	-	56.00	46.00	-22.87	-
6	25.066	1.32	29.91	-	31.23	-	60.00	50.00	-28.77	-

- 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.

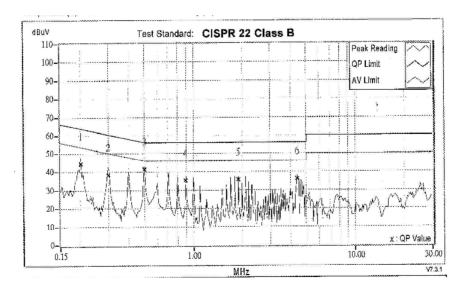




EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL				
MODEL	MC7094	PHASE	Line 2			
CHANNEL	Channel 78	6dB BANDWIDTH	9 kHz			
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa			
TEST MODE	В	INPUT POWER (SYSTEM)	120Vac, 60 Hz			
TESTED BY	Jay Hsu	•				

	Freq.	Corr.	Reading Ei Value			Emission Level Limit		Mar	gin	
No		Factor	[dB (	(uV)]	[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.201	0.11	44.30	-	44.41	-	63.58	53.58	-19.17	-
2	0.298	0.11	38.16	-	38.27	-	60.29	50.29	-22.01	-
3	0.500	0.14	41.12	-	41.26	-	56.00	46.00	-14.74	-
4	0.899	0.21	35.08	-	35.29	-	56.00	46.00	-20.71	-
5	1.898	0.25	35.42	-	35.67	-	56.00	46.00	-20.33	-
6	4.397	0.31	36.14	-	36.45	-	56.00	46.00	-19.55	-

- 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.





## 6.2 RADIATED EMISSION MEASUREMENT

## 6.2.1 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.



# 6.2.2 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
26GHz ~ 40GHz Amplifier	AMF-6F-2600400	923362	Mar. 13, 2006

**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.



# 6.2.3 TEST PROCEDURES

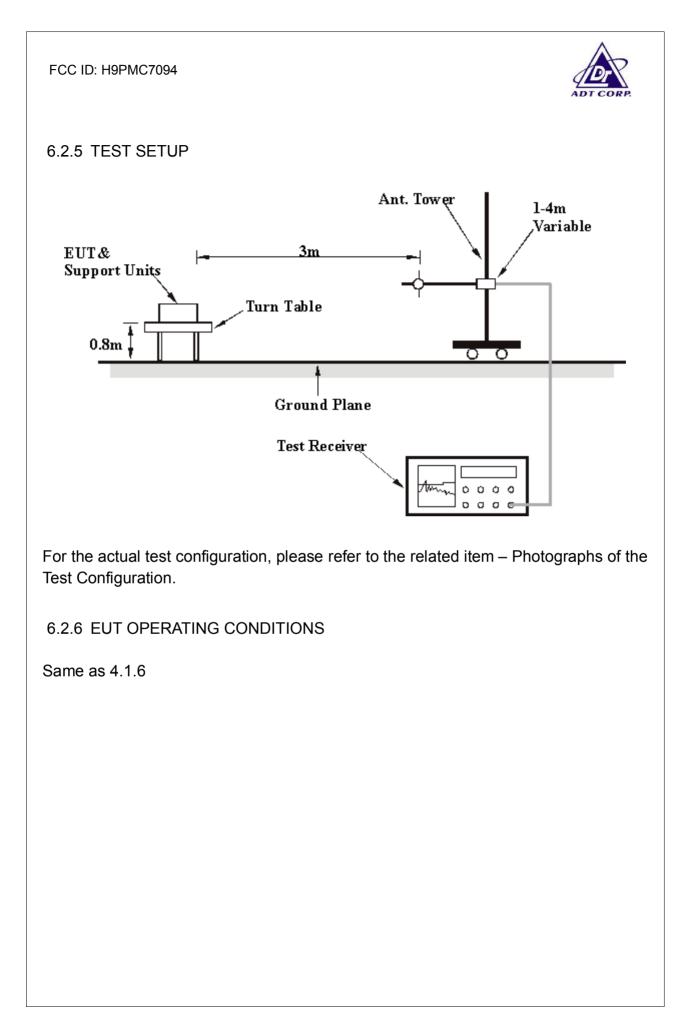
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on 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.

# 6.2.4 DEVIATION FROM TEST STANDARD

No deviation





# 6.2.7 TEST RESULTS

### Radiated Worst Case Data\_with charging cable

EUT	EDA (Enterprise Digital Assistant)	MEASUREMENT DETAIL				
MODEL	MC7094	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	Jay Hsu					

	AN.	TENNA POLA	RITY & TE	EST DIST	ANCE: HC	RIZONTA	LAT3M	
	Frog	Emission	Limit	Margin	Antenna	Table	Raw	Correction
No.	Freq. (MHz)	Level	(dBuV/m)	(dB)	Height	Angle	Value	Factor
	(IVITZ)	(dBuV/m)	(ubuv/iii)	(ub)	(m)	(Degree)	(dBuV)	(dB/m)
1	37.78	26.37 QP	40.00	-13.63	1.00 H	193	11.75	14.62
2	70.82	25.40 QP	40.00	-14.60	1.75 H	142	13.28	12.12
3	113.59	32.59 QP	43.50	-10.91	1.50 H	73	20.45	12.14
4	199.12	29.70 QP	43.50	-13.80	1.00 H	232	18.50	11.20
5	249.66	29.16 QP	46.00	-16.84	1.00 H	52	16.08	13.08
6	463.49	30.52 QP	46.00	-15.48	1.75 H	85	12.43	18.09
7	519.86	30.75 QP	46.00	-15.25	1.50 H	55	11.76	18.99
8	733.69	32.18 QP	46.00	-13.82	1.00 H	34	9.15	23.03
9	861.98	33.03 QP	46.00	-12.97	1.25 H	106	8.67	24.36
10	916.41	31.57 QP	46.00	-14.43	2.00 H	52	6.30	25.27

	Α	NTENNA POL	ARITY &	TEST DIS	TANCE: V	<b>ERTICAL</b>	AT 3 M	
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction
No.	(MHz)	Level	(dBuV/m)	(dB)	Height	Angle	Value	Factor
		(dBuV/m)	(ubuv/iii)	(ub)	(m)	(Degree)	(dBuV)	(dB/m)
1	35.83	33.41 QP	40.00	-6.59	1.00 V	205	19.09	14.32
2	68.88	33.04 QP	40.00	-6.96	1.25 V	202	20.58	12.46
3	113.59	34.67 QP	43.50	-8.83	1.00 V	360	22.53	12.14
4	162.18	30.50 QP	43.50	-13.00	1.00 V	142	16.05	14.45
5	315.75	27.09 QP	46.00	-18.91	1.25 V	202	12.41	14.68
6	463.49	28.68 QP	46.00	-17.32	1.00 V	172	10.59	18.09
7	624.83	26.75 QP	46.00	-19.25	1.50 V	148	5.51	21.24
8	733.69	34.18 QP	46.00	-11.82	1.50 V	13	11.15	23.03
9	865.87	33.19 QP	46.00	-12.81	1.25 V	25	8.76	24.43
10	916.41	32.30 QP	46.00	-13.70	1.25 V	247	7.03	25.27

**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	MC7094	FREQUENCY RANGE	Below 1000MHz	
CHANNEL	Channel 78	DETECTOR FUNCTION	Quasi-Peak	
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	
TEST MODE	В	INPUT POWER (SYSTEM)	120Vac, 60 Hz	
TESTED BY	Jay Hsu			

	AN	TENNA POLA	RITY & TI	EST DIST	ANCE: HC	RIZONTA	LAT3M	
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	36.84 QP	43.50	-6.66	1.50 H	295	24.50	12.34
2	166.07	29.31 QP	43.50	-14.19	2.00 H	82	15.24	14.07
3	199.12	33.78 QP	43.50	-9.72	2.00 H	61	22.58	11.20
4	249.66	36.96 QP	46.00	-9.04	1.00 H	250	23.88	13.08
5	374.07	27.01 QP	46.00	-18.99	1.00 H	328	10.98	16.03
6	463.49	29.25 QP	46.00	-16.75	2.00 H	220	11.16	18.09
7	572.34	30.45 QP	46.00	-15.55	1.50 H	1	10.27	20.18
8	733.69	37.13 QP	46.00	-8.87	1.00 H	241	14.09	23.03
9	865.87	31.11 QP	46.00	-14.89	1.00 H	97	6.68	24.43
10	898.92	34.45 QP	46.00	-11.55	2.00 H	298	9.37	25.08

	Α	NTENNA POL	ARITY &	TEST DIS	TANCE: V	<b>ERTICAL</b>	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	37.78	30.20 QP	40.00	-9.80	1.00 V	157	15.58	14.62
2	117.47	37.38 QP	43.50	-6.12	1.00 V	223	24.84	12.54
3	199.12	31.19 QP	43.50	-12.31	1.00 V	169	19.99	11.20
4	249.66	37.20 QP	46.00	-8.80	1.50 V	322	24.12	13.08
5	457.66	33.70 QP	46.00	-12.30	1.00 V	349	15.68	18.01
6	500.42	32.40 QP	46.00	-13.60	1.00 V	319	13.80	18.59
7	572.34	33.20 QP	46.00	-12.80	1.00 V	349	13.02	20.18
8	729.80	34.43 QP	46.00	-11.57	2.00 V	202	11.49	22.94
9	865.87	32.28 QP	46.00	-13.72	2.00 V	136	7.84	24.43
10	916.41	31.72 QP	46.00	-14.28	1.50 V	127	6.45	25.27

**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	MC7094	FREQUENCY RANGE	Below 1000MHz	
CHANNEL	Channel 78	DETECTOR FUNCTION	Quasi-Peak	
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	25deg. C, 65%RH, 991hPa	
TEST MODE	с	INPUT POWER (SYSTEM)	120Vac, 60 Hz	
TESTED BY	Jay Hsu			

	AN	TENNA POLA	RITY & TE	EST DIST	ANCE: HC	RIZONTA	LAT3M	
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction
No.	(MHz)	Level		(dB)	Height	Angle	Value	Factor
	(IVIFIZ)	(dBuV/m)	(dBuV/m)	(ub)	(m)	(Degree)	(dBuV)	(dB/m)
1	115.53	30.98 QP	43.50	-12.52	1.50 H	124	18.64	12.34
2	154.41	27.05 QP	43.50	-16.45	1.00 H	67	12.51	14.53
3	187.45	30.73 QP	43.50	-12.77	1.50 H	286	18.61	12.12
4	288.54	24.79 QP	46.00	-21.21	1.00 H	235	10.62	14.17
5	463.49	27.95 QP	46.00	-18.05	1.50 H	268	9.86	18.09
6	595.67	26.14 QP	46.00	-19.86	1.50 H	130	5.36	20.78
7	665.65	28.14 QP	46.00	-17.86	1.50 H	28	6.35	21.79
8	729.80	32.09 QP	46.00	-13.91	1.00 H	229	9.15	22.94
9	867.82	31.38 QP	46.00	-14.62	1.00 H	328	6.91	24.47
10	916.41	29.80 QP	46.00	-16.20	2.50 H	61	4.53	25.27

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M									
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction		
No.	(MHz)	Level	-	0	Height	Angle	Value	Factor		
(IVIHZ)	(dBuV/m)	(dBuV/m)	(dB)	(m)	(Degree)	(dBuV)	(dB/m)			
1	47.49	26.99 QP	40.00	-13.01	1.00 V	349	12.22	14.76		
2	111.64	37.32 QP	43.50	-6.18	1.00 V	217	25.38	11.94		
3	169.96	28.27 QP	43.50	-15.23	1.00 V	226	14.58	13.69		
4	519.86	31.45 QP	46.00	-14.55	1.00 V	40	12.46	18.99		
5	733.69	32.05 QP	46.00	-13.95	1.50 V	25	9.01	23.03		
6	863.93	33.56 QP	46.00	-12.44	1.00 V	253	9.16	24.40		
7	916.41	32.35 QP	46.00	-13.65	1.00 V	73	7.08	25.27		

**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	MC7094	FREQUENCY RANGE	1 ~ 25GHz	
CHANNEL	Channel 0	DETECTOR FUNCTION	Peak (PK) Average (AV)	
MODULATION TYPE	GFSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz	
ENVIRONMENTAL CONDITIONS			Long Chen	

	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	34.67 PK	74.00	-39.33	1.14 H	341	4.07	30.61		
2	*2402.00	92.67 PK			1.14 H	341	62.02	30.65		
2	*2402.00	62.67 AV			1.14 H	341	32.02	30.65		
3	4804.00	48.97 PK	74.00	-25.03	1.04 H	172	13.13	35.84		

	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	30.26 PK	74.00	-43.74	1.00 V	138	-0.34	30.61		
2	*2402.00	88.26 PK			1.00 V	138	57.61	30.65		
2	*2402.00	58.26 AV			1.00 V	138	27.61	30.65		
3	4804.00	48.83 PK	74.00	-25.17	1.00 V	221	12.99	35.84		

**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	MC7094	FREQUENCY RANGE	1 ~ 25GHz	
CHANNEL	Channel 39	DETECTOR FUNCTION	Peak (PK) Average (AV)	
MODULATION TYPE	GFSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz	
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 991hPa	TESTED BY	Long Chen	

	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	91.86 PK			1.00 H	354	61.08	30.78		
1	*2441.00	61.86 AV			1.00 H	354	31.08	30.78		
2	4882.00	49.30 PK	74.00	-24.70	1.00 H	18	13.25	36.05		

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
No.	Freq.	Emission Level	Limit	Margin	Antenna Height	Table Angle	Raw Value	Correction Factor
	(MHz) (dBuV/m) (dB)	(m)	(Degree)	(dBuV)	(dB/m)			
1	*2441.00	87.68 PK			1.06 V	135	56.90	30.78
1	*2441.00	57.68 AV			1.06 V	135	26.90	30.78
2	4882.00	48.69 PK	74.00	-25.31	1.09 V	253	12.64	36.05

**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	MC7094	FREQUENCY RANGE	1 ~ 25GHz	
CHANNEL	Channel 78	DETECTOR FUNCTION	Peak (PK) Average (AV)	
MODULATION TYPE	GFSK	INPUT POWER (SYSTEM)	120Vac, 60 Hz	
ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 991hPa	TESTED BY	Long Chen	

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
No.	Freq. (MHz)	Emission Level	Limit (dBuV/m)	Margin (dB)	Antenna Height	Table Angle	Raw Value	Correction Factor
		(dBuV/m)			(m)	(Degree)	(dBuV)	(dB/m)
1	*2480.00	93.06 PK			1.15 H	2	62.15	30.91
1	*2480.00	63.06 AV			1.15 H	2	32.15	30.91
2	2483.50	35.06 PK	74.00	-38.94	1.15 H	2	4.14	30.92
3	4960.00	48.96 PK	74.00	-25.04	1.14 H	76	12.68	36.28

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	88.69 PK			1.00 V	146	57.78	30.91
1	*2480.00	58.69 AV			1.00 V	146	27.78	30.91
2	2483.50	30.69 PK	74.00	-43.31	1.00 V	146	-0.23	30.92
3	4960.00	47.83 PK	74.00	-26.17	1.53 V	280	11.55	36.28

**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).



# 6.3 NUMBER OF HOPPING FREQUENCY USED

## 6.3.1 LIMIT OF HOPPING FREQUENCY USED

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

# 6.3.2 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.

## 6.3.3 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.



# 6.3.4 DEVIATION FROM TEST STANDARD

No deviation.

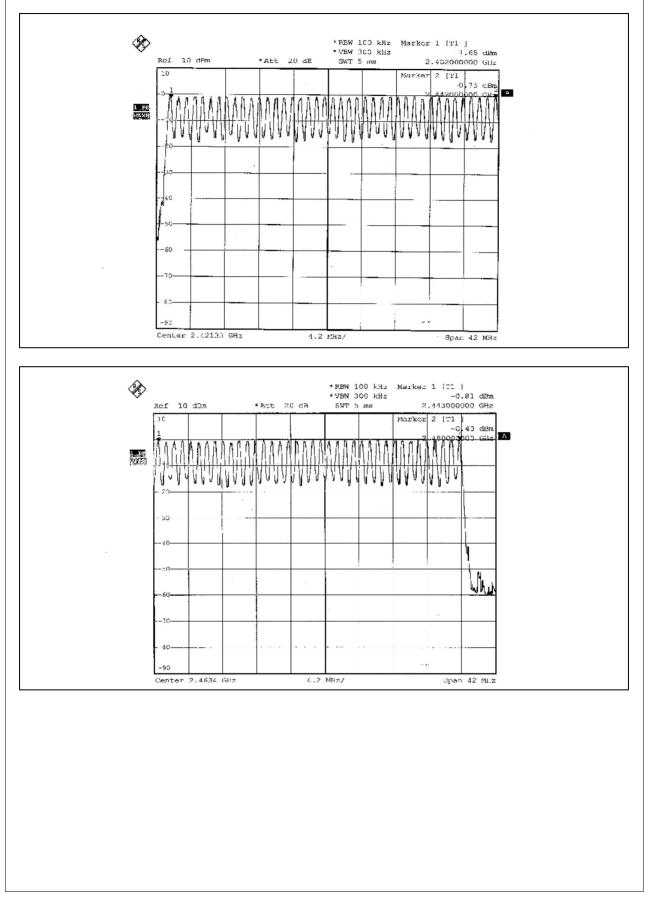
## 6.3.5 TEST SETUP



## 6.3.6 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.







# 6.4 DWELL TIME ON EACH CHANNEL

## 6.4.1 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.

## 6.4.2 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.

### 6.4.3 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.

## 6.4.4 DEVIATION FROM TEST STANDARD

No deviation.



# 6.4.5 TEST SETUP



# 6.4.6 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	0.522	164.95	400
DH3	26 (times / 5 sec) * 6.32 = 164.32 times	1.740	285.92	400
DH5	17 (times / 5 sec) * 6.32 = 107.44 times	3.000	322.32	400

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

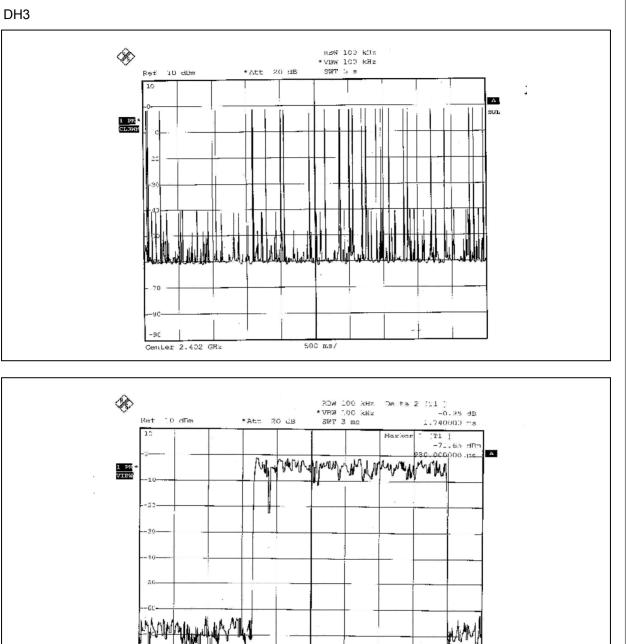




# DH1 Ì RBW 100 kHz •VBW 100 kHz SWT 5 s Att 20 HB Ref 10 dBm 10 А arat. 1 1 PK -6.7 -90 Center 2.402 GHz 500 me/ Ì RBW 100 kHz Deita 2 [11] \*VBW 100 kHz 2.42 dB SWT 3 ms 322.000000 uc Ret 10 dBm \*Att 20 dB 10 .≂1 ] ∽75,02 dBm .000000 as Markee А e MAMM 1 PR VIEW .... - 20 -30 -40 a WMAN MARKAN -90 Center 2.402 GHz 300 µs/







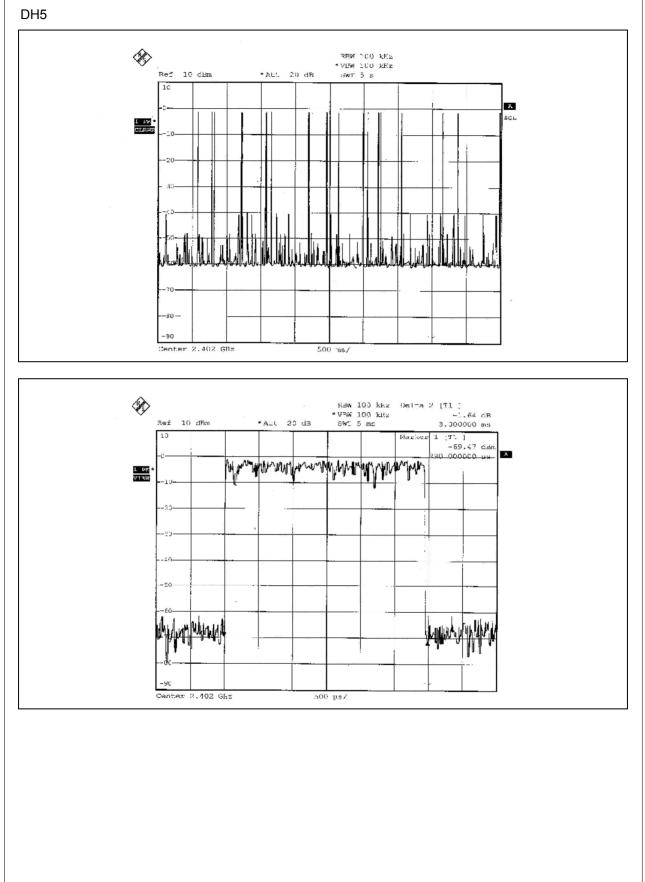
-30

Center 2.402 GEz

300 µs/









# 6.5 CHANNEL BANDWIDTH

## 6.5.1 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.

# 6.5.2 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.

## 6.5.3 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.

# 6.5.4 DEVIATION FROM TEST STANDARD

No deviation.

FCC ID: H9PMC7094	ADI CORP.
6.5.5 TEST SETUP	
EUT	SPECTRUM ANALYZER
6.5.6 EUT OPERATING CONDITION	
The software provided by client enabled the E lowest, middle and highest channel frequencies	



# 6.5.7 TEST RESULTS

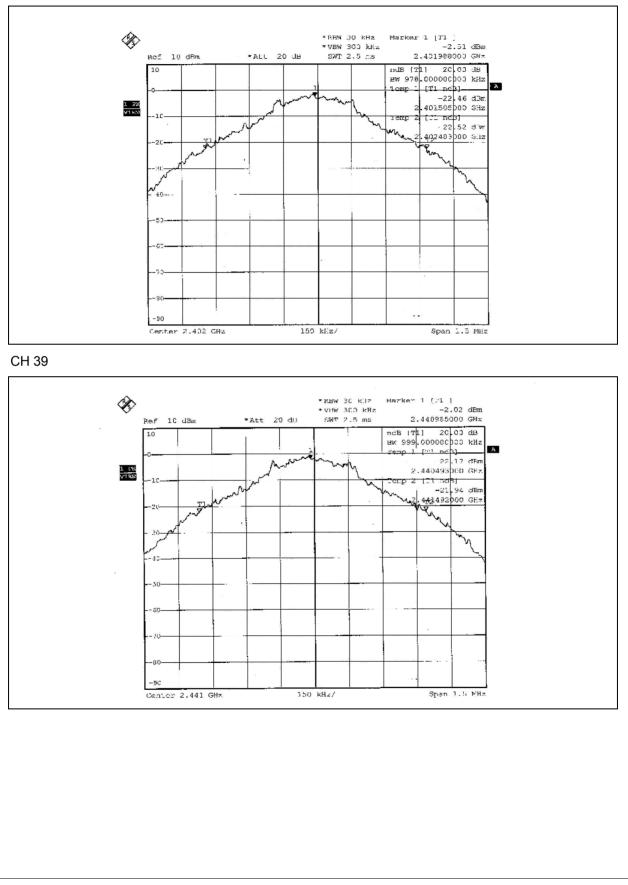
EUT	EDA (Enterprise Digital Assistant)	MODEL	MC7094
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 991hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TESTED BY	Long Chen

CHANNEL	CHANNEL FREQUENCY (MHz)	20dB BANDWIDTH (MHz)
0	2402	0.978
39	2441	0.999
78	2480	0.960



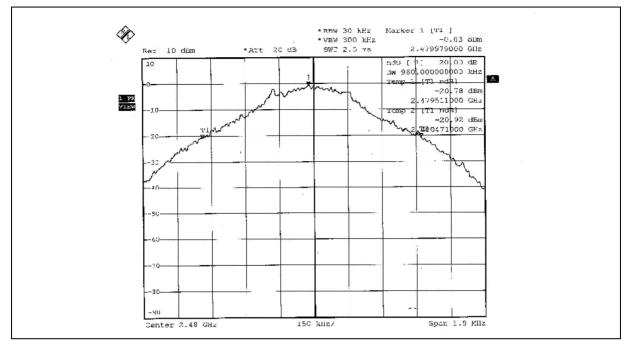


#### CH 0





#### CH 78





# 6.6 HOPPING CHANNEL SEPARATION

### 6.6.1 LIMIT OF HOPPING CHANNEL SEPARATION

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

## 6.6.2 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.

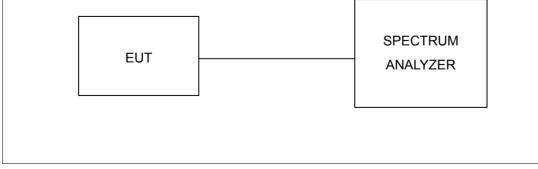
### 6.6.3 TEST PROCEDURES

- 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.

## 6.6.4 DEVIATION FROM TEST STANDARD

No deviation.

## 6.6.5 TEST SETUP





# 6.6.6 TEST RESULTS

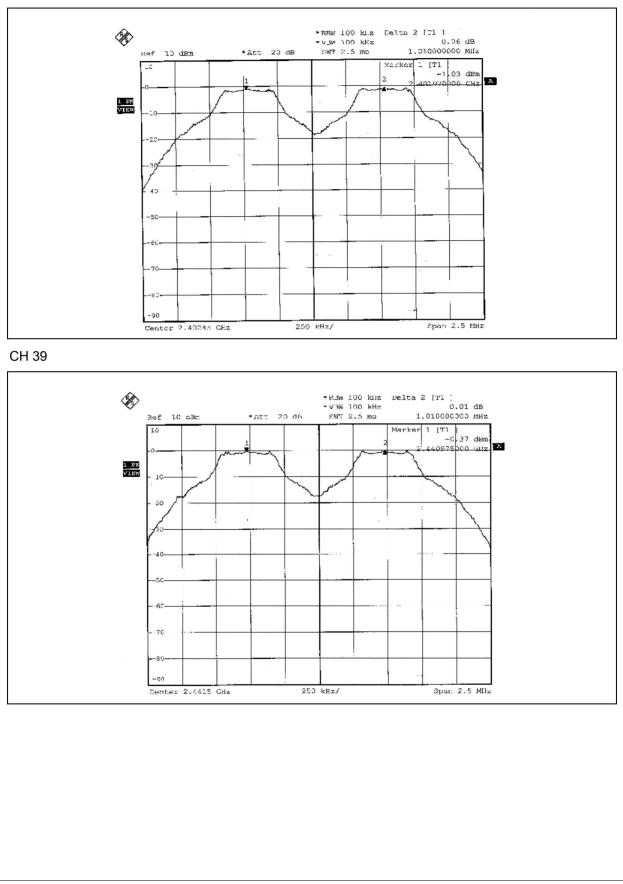
EUT	EDA (Enterprise Digital Assistant)	MODEL	MC7094
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	27deg. C, 63%RH, 991hPa
INPUT POWER (SYSTEM)	120Vac, 60 Hz	TESTED BY	Long Chen

CHANNEL	FREQUENCY (MHz)	ADJACENT CHANNEL SEPARATION (MHz)	MINIMUM LIMIT (MHz)	PASS / FAIL
0	2402	1.010	0.978	PASS
39	2441	1.010	0.999	PASS
78	2480	1.010	0.960	PASS

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

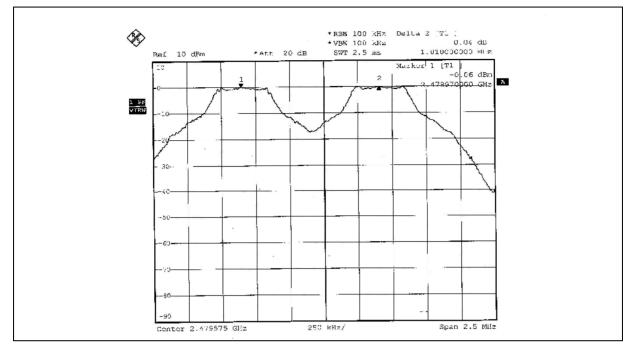








### CH 78





# 6.7 MAXIMUM PEAK OUTPUT POWER

## 6.7.1 LIMITS OF MAXIMUM PEAK OUTPUT POWER MEASUREMENT

The Maximum Peak Output Power Measurement is 30dBm.

## 6.7.2 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.

### 6.7.3 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.

## 6.7.4 DEVIATION FROM TEST STANDARD

No deviation



# 6.7.5 TEST SETUP



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

# 6.7.6 EUT OPERATING CONDITION

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



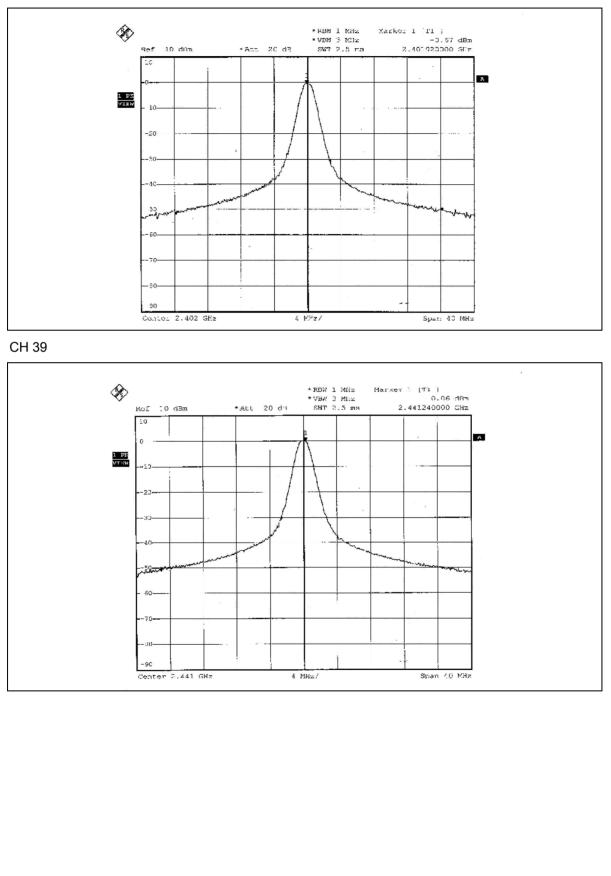
# 6.7.7 TEST RESULTS

EUT	EDA (Enterprise Digital Assistant)	MODEL	MC7094
MODULATION TYPE	GFSK	ENVIRONMENTAL CONDITIONS	23deg. C, 54%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	0.857	-0.67	30	PASS
39	2441	0.986	-0.06	30	PASS
78	2480	1.072	0.30	30	PASS

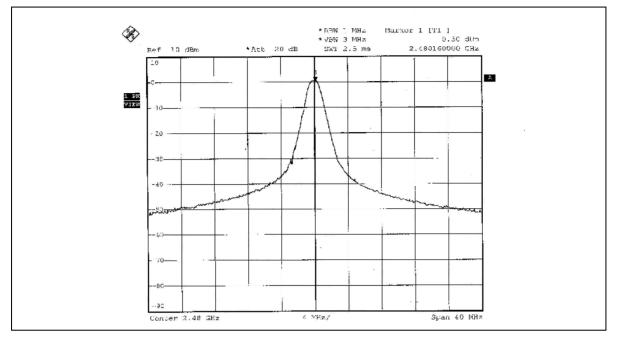


#### CH 0





### CH 78





# 6.8 BAND EDGES MEASUREMENT

### 6.8.1 LIMITS OF BAND EDGES MEASUREMENT

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

#### 6.8.2 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.

#### 6.8.3 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.

#### 6.8.4 DEVIATION FROM TEST STANDARD

No deviation.

## 6.8.5 EUT OPERATING CONDITION

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



## 6.8.6 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 164 shows 56.47dBc between carrier maximum power and local maximum emission in restrict band (2.3886GHz). The emission of carrier strength list in the test result of channel 0 at the item 6.2.7 is 92.67dBuV/m (Peak), so the maximum field strength in restrict band is 92.67-56.47=36.20dBuV/m, which is under 74 dBuV/m limit.

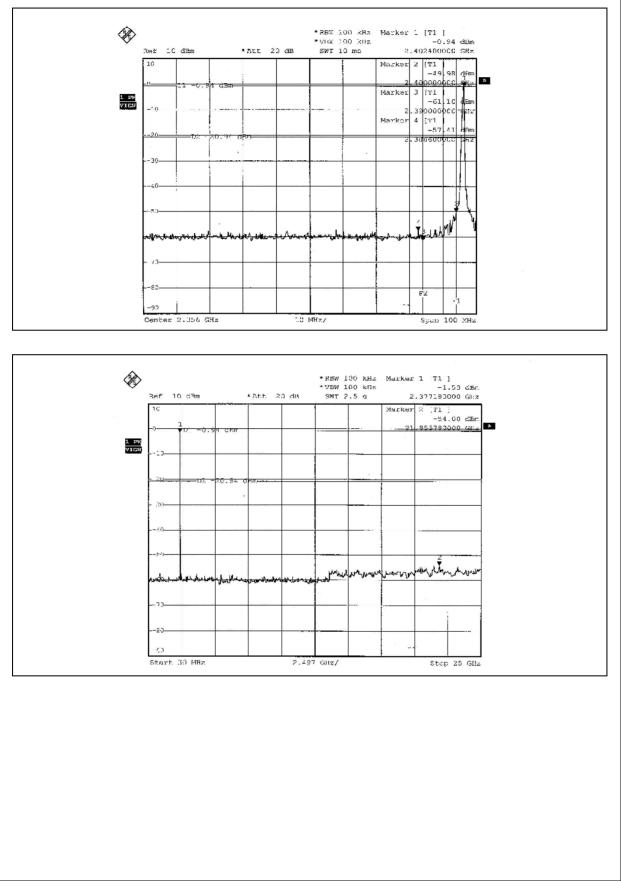
The band edge emission plot on page 164 shows 56.47dBc between carrier maximum power and local maximum emission in restrict band (2.3886GHz). The emission of carrier strength list in the test result of channel 0 at the item 6.2.7 is 62.67dBuV/m (Average), so the maximum field strength in restrict band is 62.67-56.47=6.20dBuV/m, which is under 54 dBuV/m limit.

#### NOTE 2:

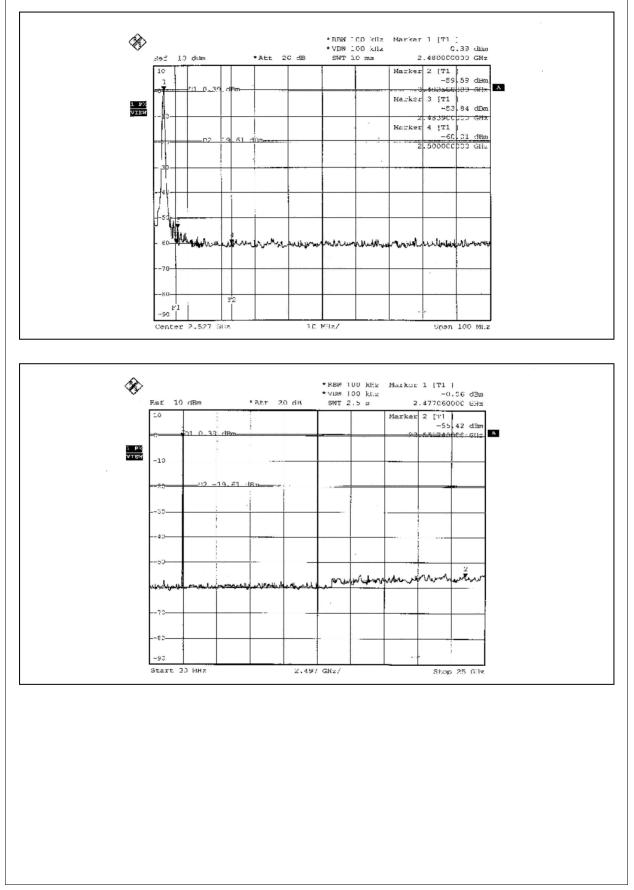
The band edge emission plot on page 165 shows 54.23dBc between carrier maximum power and local maximum emission in restrict band (2.4839GHz). The emission of carrier strength list in the test result of channel 78 at the item 6.2.7 is 93.06dBuV/m (Peak), so the maximum field strength in restrict band is 93.06-54.23=38.83dBuV/m, which is under 74 dBuV/m limit.

The band edge emission plot on page 165 shows 54.23dBc between carrier maximum power and local maximum emission in restrict band (2.4839GHz). The emission of carrier strength list in the test result of channel 78 at the item 6.2.7 is 63.06dBuV/m (Average), so the maximum field strength in restrict band is 63.06-54.23=8.83dBuV/m, which is under 54 dBuV/m limit.











# 6.9 ANTENNA REQUIREMENT

#### 6.9.1 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.

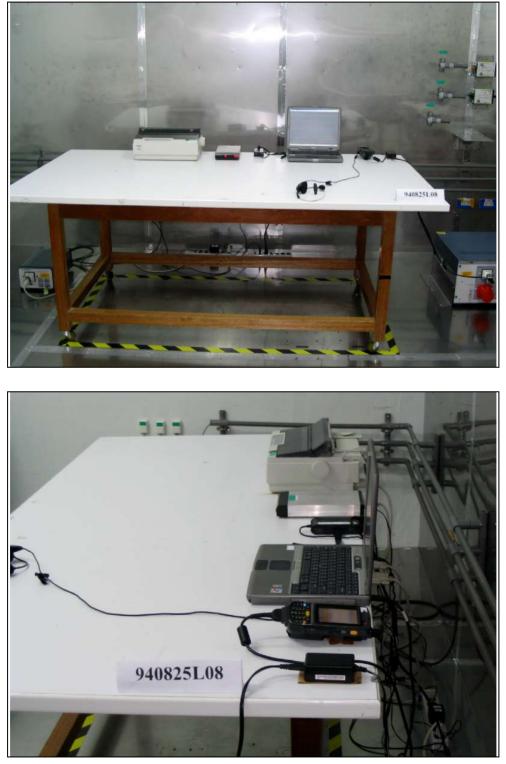
6.9.2 ANTENNA CONNECTED CONSTRUCTION

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



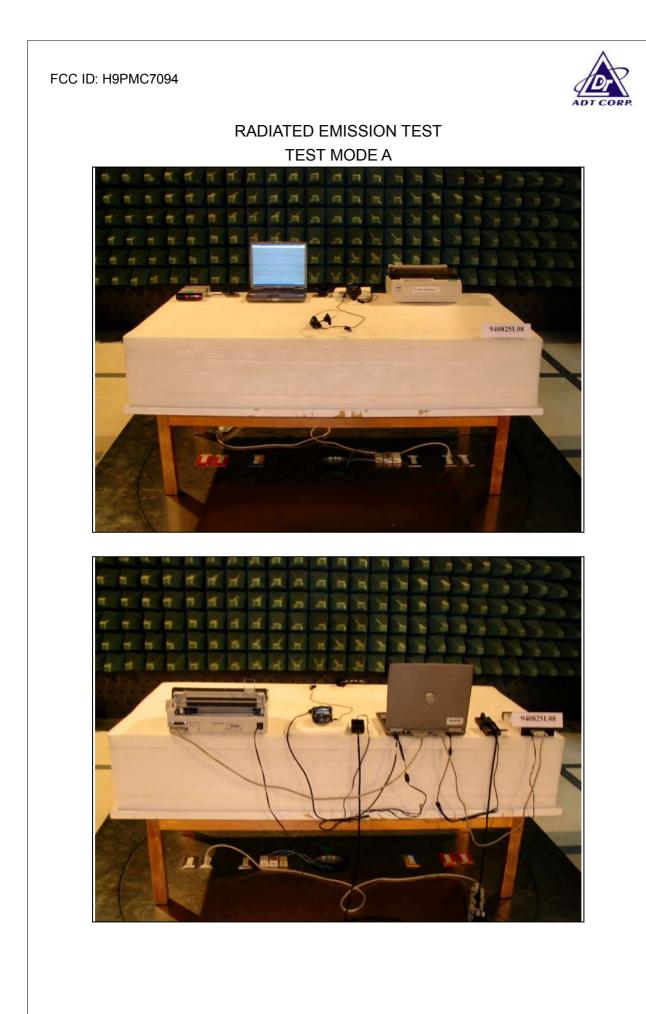
# 7. PHOTOGRAPHS OF THE TEST CONFIGURATION

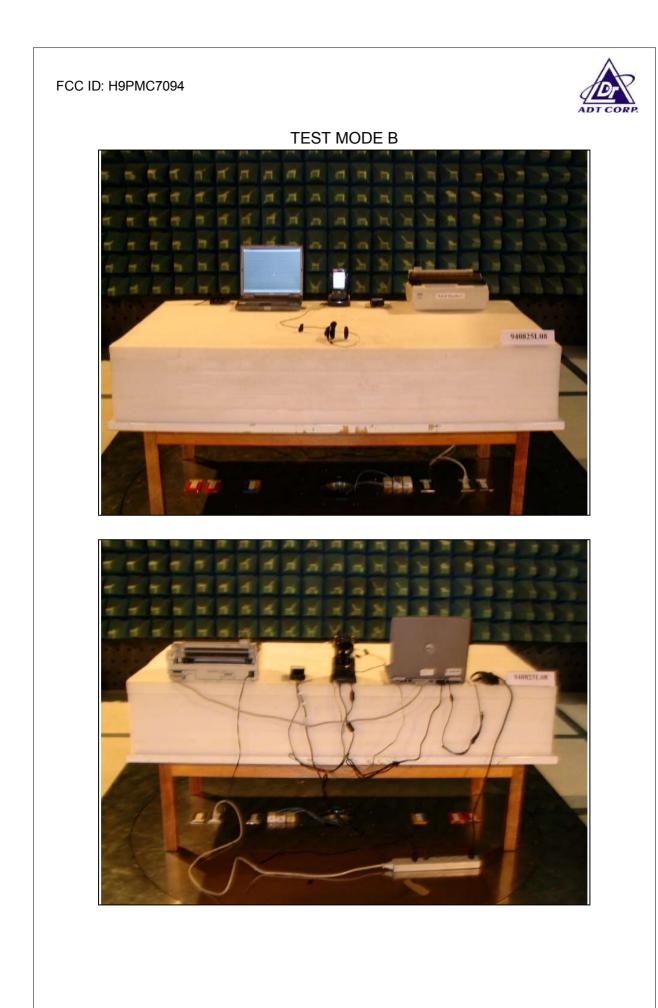
CONDUCTED EMISSION TEST TEST MODE A

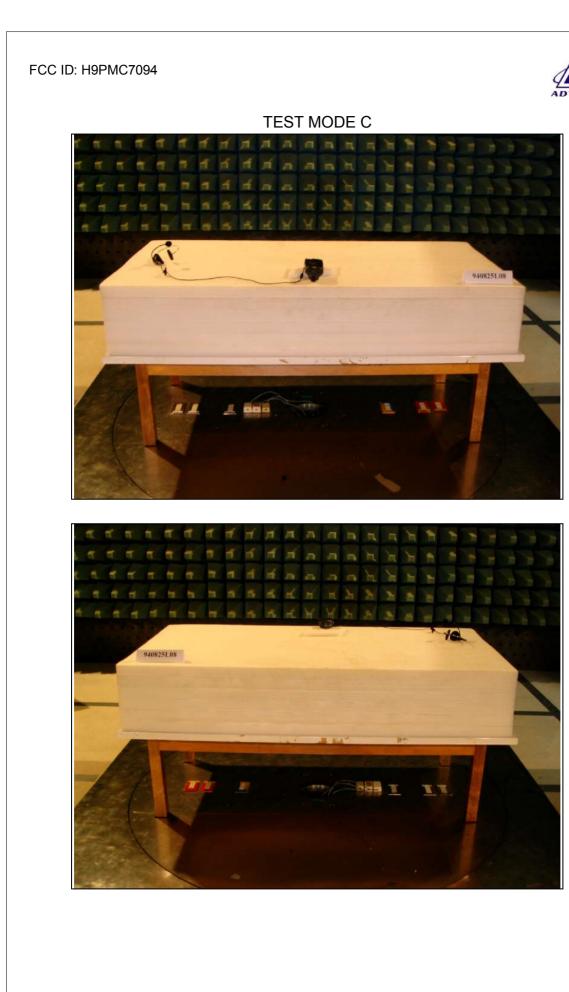


Report No.: RF940825L08











# 8. 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: Linko RF Lab. Tel: 886-3-3183232 Fax: 886-3-3185050

Tel: 886-3-3270910 Fax: 886-3-3270892

Web Site: <u>www.adt.com.tw</u>

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.