

FCC TEST REPORT

REPORT NO.: RF940401L04

MODEL NO.: TRK-RF-01

RECEIVED: Apr. 01, 2005

TESTED: Apr. 19 ~ Apr. 20, 2005

ISSUED: Apr. 22, 2005

APPLICANT: Teraoka Weigh-system Pte Ltd

ADDRESS: 4 Leng Kee Road, #05-02/03/04/05 &11, SIS

Building, Singapore 159088

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.

This test report consists of 24 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product endorsement by CNLA, A2LA or any government agencies. The test results in the report only apply to the tested sample.







Table of Contents

1	CERTIFICATION	3
2	SUMMARY OF TEST RESULTS	4
2.1	MEASUREMENT UNCERTAINTY	4
3	GENERAL INFORMATION	5
3.1	GENERAL DESCRIPTION OF EUT	5
3.2	DESCRIPTION OF TEST MODES	6
3.2.1	CONFIGURATION OF SYSTEM UNDER TEST	7
3.2.2	TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:	8
3.3	GENERAL DESCRIPTION OF APPLIED STANDARDS	9
3.4	DESCRIPTION OF SUPPORT UNITS	9
4	TEST TYPES AND RESULTS	10
4.1	CONDUCTED EMISSION MEASUREMENT	10
4.2	RADIATED EMISSION MEASUREMENT	10
4.2.1	LIMITS OF RADIATED EMISSION MEASUREMENT	10
4.2.2	TEST INSTRUMENTS	11
4.2.3	TEST PROCEDURES	12
4.2.4	DEVIATION FROM TEST STANDARD	
4.2.5	TEST SETUP	13
4.2.6	EUT OPERATING CONDITIONS	13
4.2.7	TEST RESULTS	14
4.3	BAND EDGES MEASUREMENT	18
4.3.1	LIMITS OF BAND EDGES MEASUREMENT	
4.3.2	TEST INSTRUMENTS	18
4.3.3	TEST PROCEDURE	18
4.3.4	DEVIATION FROM TEST STANDARD	18
4.3.5	EUT OPERATING CONDITION	18
4.3.6	TEST RESULTS	19
5	PHOTOGRAPHS OF THE TEST CONFIGURATION	22
6	INFORMATION ON THE TESTING LABORATORIES	24



1 CERTIFICATION

PRODUCT: RF802.15.4 Module

MODEL NO.: TRK-RF-01

BRAND NAME: DIGI

APPLICANT: Teraoka Weigh-system Pte Ltd

TESTED: Apr. 19 ~ Apr. 20, 2005

TEST SAMPLE: PROTOTYPE

STANDARDS: FCC Part 15, Subpart C (Section 15.249)

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	:	Condin Chen	, DATE:	Apr. 22, 2005	
		The second secon			_

(Candice Chen)

TECHNICAL

ACCEPTANCE: Gay Chang, DATE: Apr. 22, 2005

Responsible for RF (Gary Chang)

APPROVED BY: ______, DATE: _____Apr. 22, 2005 (Cody Chang.

Deputy Manager)



2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLI	APPLIED STANDARD: FCC Part 15, Subpart C (Section 15.249)							
STANDARD PARAGRAPH	TEST TYPE	RESULT	REMARK					
15.207	Conducted Emission Test	NA	Power supply is 3Vdc from batteries					
15.209 15.249 15.249 (d)	Radiated Emission Test Band Edge Measurement Limit: 50dB less than the peak value of fundamental frequency or meet radiated emission limit in section 12.209	PASS	Minimum passing margin is -1.04dB at 2445.00MHz					

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
	30MHz ~ 200MHz	3.73 dB
Radiated emissions	200MHz ~1000MHz	3.74 dB
Radiated emissions	1GHz ~ 18GHz	2.20 dB
	18GHz ~ 40GHz	1.88 dB



3 GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

PRODUCT	RF802.15.4 Module
MODEL NO.	TRK-RF-01
POWER SUPPLY	3.3Vdc from batteries
MODULATION TYPE	O-QPSK
RADIO TECHNOLOGY	DSSS
FREQUENCY RANGE	2405 ~ 2480MHz
NUMBER OF CHANNEL	16
ANTENNA TYPE	Internal PCB antenna with 0.77dBi gain
DATA CABLE	NA
I/O PORTS	NA
ASSOCIATED DEVICES	NA

NOTE:

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



3.2 DESCRIPTION OF TEST MODES

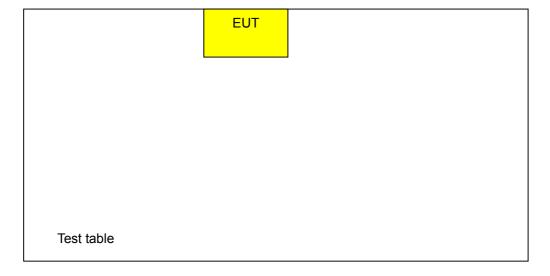
Operated in 2405 ~ 2480MHz Band:

16 channels for 2.4GHz were provided to this EUT

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2405 MHz	9	2445 MHz
2	2410 MHz	10	2450 MHz
3	2415 MHz	11	2455 MHz
4	2420 MHz	12	2460 MHz
5	2425 MHz	13	2465 MHz
6	2430 MHz	14	2470 MHz
7	2435 MHz	15	2475 MHz
8	2440 MHz	16	2480 MHz



3.2.1 CONFIGURATION OF SYSTEM UNDER TEST





3.2.2 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL:

EUT configure		Applicable to			Description
mode	PLC	RE<1G	RE≥1G	APCM	Bescription
_	_	х	Х	Х	NA

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

Power Line Conducted Emission Test:

	Pre-Scan has been conducted to determine the worst-case mode from all possible
_	combinations between available modulations and packet types.

Following char	nnel(s) was	(were)	selected	for the	final te	st as listed	below.

Available	Tested	Modulation	Modulation
Channel	Channel	Technology	Type
1 to 16	ı	DSSS	O-QPSK

Radiated Emission Test (Below 1 GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, packet types.
- Following channel(s) was (were) selected for the final test as listed below.

Available Channel	Tested Channel	Modulation Technology	
1 to 16	16	DSSS	O-QPSK

Radiated Emission Test (Above 1 GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, packet types.
- Following channel(s) was (were) selected for the final test as listed below.

Available Channel	Tested Channel	Modulation Technology	Modulation Type
1 to 16	1. 9. 16	DSSS	O-QPSK

Bandedge Measurement:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, packet types.
- Following channel(s) was (were) selected for the final test as listed below.

Available	Tested	Modulation Technology	Modulation
Channel	Channel		Type
1 to 16	1, 16	DSSS	O-QPSK



3.3 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF802.15.4 Module. According to the specifications of the manufacturer, it must complies with the requirements of the following standards:

FCC Part 15, Subpart C (Section 15.249) 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	NA	NA	NA	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	NA

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



4 TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

NA

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:

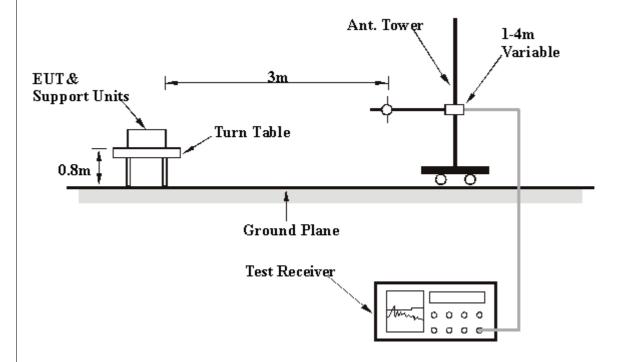
- 1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Peak detection (PK) and Quasi-peak detection (QP) at frequency below 1GHz.
- 2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 1 MHz for Peak detection at frequency above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

The EUT has been placed on the table. Set the transmitter part of EUT under transmission condition continuously at specific channel frequency.



4.2.7 TEST RESULTS

Below 1GHz Worst-Case Data

EUT	RF802.15.4 Module	MEASUREMENT DETAIL			
MODEL	TRK-RF-01	FREQUENCY RANGE	Below 1000MHz		
CHANNEL	Channel 16	DETECTOR FUNCTION	Quasi-Peak		
MODULATION TYPE	O-QPSK	ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH, 991hPa		
TESTED BY	Bright Chang	INPUT POWER (SYSTEM)	120Vac, 60 Hz		

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
	Freg.	Emission	Limit	Margin	Antenna	Table	Raw	Correction
No.	(MHz)	Level	(dDu\//m)	_	Height	Angle	Value	Factor
	(IVITZ)	(dBuV/m)	(ubuv/III)	(dBuV/m) (dB)	(m)	(Degree)	(dBuV)	(dB/m)
1	31.94	18.26 QP	40.00	-21.74	2.50 H	25	4.58	13.68
2	445.99	24.91 QP	46.00	-21.09	2.00 H	337	7.10	17.81
3	815.33	23.68 QP	46.00	-22.32	1.50 H	253	-0.14	23.83
4	858.10	23.68 QP	46.00	-22.32	2.00 H	85	-0.60	24.28
5	908.64	25.00 QP	46.00	-21.00	1.50 H	223	-0.19	25.19
6	945.57	25.47 QP	46.00	-20.53	1.25 H	346	-0.10	25.57

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M							
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction
No.		Level		J	Height	Angle	Value	Factor
	(MHz)	(dBuV/m)	(ubuv/III)	dBuV/m) (dB)	(m)	(Degree)	(dBuV)	(dB/m)
1	33.89	22.63 QP	40.00	-17.37	1.00 V	184	8.62	14.00
2	758.96	24.38 QP	46.00	-21.62	2.00 V	280	0.91	23.47
3	797.84	24.13 QP	46.00	-21.87	1.75 V	10	0.44	23.69
4	891.14	24.70 QP	46.00	-21.30	1.00 V	310	-0.23	24.93
5	922.24	25.20 QP	46.00	-20.80	2.00 V	37	-0.13	25.33
6	953.35	24.26 QP	46.00	-21.74	1.50 V	31	-1.36	25.61

- 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.



1 ~ 25GHz Worst-Case Data

EUT	RF802.15.4 Module	MEASUREMENT DETAIL			
MODEL	TRK-RF-01	FREQUENCY RANGE	1~25 GHz		
CHANNEL	Channel 1	DETECTOR FUNCTION	Peak(PK) Average (AV)		
MODULATION TYPE	O-QPSK	ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH, 991hPa		
TESTED BY	Bright Chang	INPUT POWER (SYSTEM)	120Vac, 60 Hz		

	ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M							
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction
No.	(MHz)	Level		_	Height	Angle	Value	Factor
	(IVITZ)	(dBuV/m)	(ubuv/III)	(dBuV/m) (dB)	(m)	(Degree)	(dBuV)	(dB/m)
1	2390.00	53.21 PK	74.00	-20.79	1.05 H	122	22.24	30.97
1	2390.00	43.91 AV	54.00	-10.09	1.05 H	122	12.94	30.97
2	*2405.00	90.35 PK	114.00	-23.65	1.05 H	122	59.32	31.03
2	*2405.00	90.11 AV	94.00	-3.89	1.05 H	122	59.08	31.03
3	4810.00	50.02 PK	74.00	-23.98	1.10 H	299	13.63	36.39
3	4810.00	45.70 AV	54.00	-8.30	1.10 H	299	9.31	36.39

	ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
	Freq.	Emission	Limit	Margin	Antenna	Table	Raw	Correction	
No.	(MHz)	Level	(dBuV/m)	(dB)	Height	Angle	Value	Factor	
	(1411 12)	(dBuV/m)	(dBd V/III)	(dB)	(m)	(Degree)	(dBuV)	(dB/m)	
1	2390.00	51.76 PK	74.00	-22.24	1.19 V	304	20.79	30.97	
1	2390.00	42.43 AV	54.00	-11.57	1.19 V	304	11.46	30.97	
2	*2405.00	95.04 PK	114.00	-18.96	1.19 V	304	64.01	31.03	
2	*2405.00	92.86 AV	94.00	-1.14	1.19 V	304	61.83	31.03	
3	4810.00	50.04 PK	74.00	-23.96	1.16 V	299	13.65	36.39	
3	4810.00	44.95 AV	54.00	-9.05	1.16 V	299	8.56	36.39	
4	7215.00	51.88 PK	74.00	-22.12	1.04 V	1	9.69	42.19	
4	7215.00	42.25 AV	54.00	-11.75	1.04 V	1	0.06	42.19	

- 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.



EUT	RF802.15.4 Module	MEASUREMENT DETAIL		
MODEL	TRK-RF-01	FREQUENCY RANGE	1~25 GHz	
CHANNEL	Channel 9	DETECTOR FUNCTION	Peak(PK) Average (AV)	
MODULATION TYPE	O-QPSK	ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH, 991hPa	
TESTED BY	Bright Chang	INPUT POWER (SYSTEM)	120Vac, 60 Hz	

	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	*2445.00	88.08 PK	114.00	-25.92	1.03 H	333	56.88	31.20	
1	*2445.00	87.86 AV	94.00	-6.14	1.03 H	333	56.66	31.20	
2	4890.00	48.05 PK	74.00	-25.95	1.24 H	162	11.47	36.58	
2	4890.00	41.23 AV	54.00	-12.77	1.24 H	162	4.65	36.58	

	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	*2445.00	95.73 PK	114.00	-18.27	1.16 V	258	64.53	31.20	
1	*2445.00	92.96 AV	94.00	-1.04	1.16 V	258	61.76	31.20	
2	4890.00	48.42 PK	74.00	-25.58	1.19 V	107	11.84	36.58	
2	4890.00	41.89 AV	54.00	-12.11	1.19 V	107	5.31	36.58	
3	7335.00	49.88 PK	74.00	-24.12	1.00 V	350	7.37	42.50	
3	7335.00	38.11 AV	54.00	-15.89	1.00 V	350	-4.40	42.50	

- 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.



EUT	RF802.15.4 Module	MEASUREMENT DETAIL			
MODEL	TRK-RF-01	FREQUENCY RANGE	1~25 GHz		
CHANNEL	Channel 16	DETECTOR FUNCTION	Peak(PK) Average (AV)		
MODULATION TYPE	O-QPSK	ENVIRONMENTAL CONDITIONS	25deg. C, 68%RH, 991hPa		
TESTED BY	Bright Chang	INPUT POWER (SYSTEM)	120Vac, 60 Hz		

	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	89.23 PK	114.00	-24.77	1.01 H	309	57.88	31.35	
1	*2480.00	89.04 AV	94.00	-4.96	1.01 H	309	57.69	31.35	
2	4960.00	46.45 PK	74.00	-27.55	1.47 H	4	9.70	36.75	
2	4960.00	37.75 AV	54.00	-16.25	1.47 H	4	1.00	36.75	

	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	94.59 PK	114.00	-19.41	1.17 V	209	63.24	31.35	
1	*2480.00	92.47 AV	94.00	-1.53	1.17 V	209	61.12	31.35	
2	4960.00	47.71 PK	74.00	-26.29	1.12 V	126	10.96	36.75	
2	4960.00	38.91 AV	54.00	-15.09	1.12 V	126	2.16	36.75	

- 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.



4.3 BAND EDGES MEASUREMENT

4.3.1 LIMITS OF BAND EDGES MEASUREMENT

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

4.3.2 TEST INSTRUMENTS

Description & Manufacturer	Model No.	Serial No.	Calibrated Until	
SPECTRUM ANALYZER	FSEK30	100049	Aug. 12, 2005	

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 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.

The spectrum plots (Peak and Average RBW=VBW=100kHz) are attached on the following pages.

4.3.4 DEVIATION FROM TEST STANDARD

No deviation

4.3.5 EUT OPERATING CONDITION

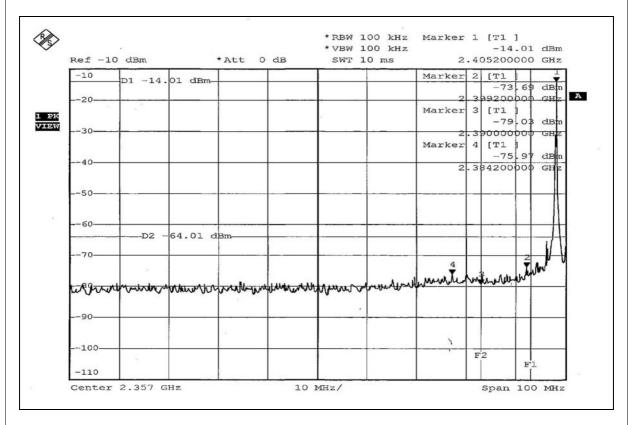
Same as Item 4.3.6

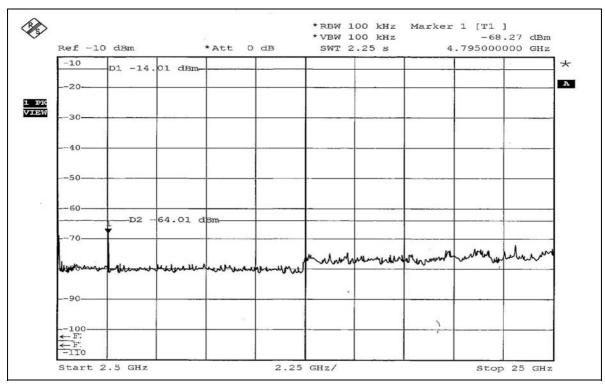


4.3.6 TEST RESULTS

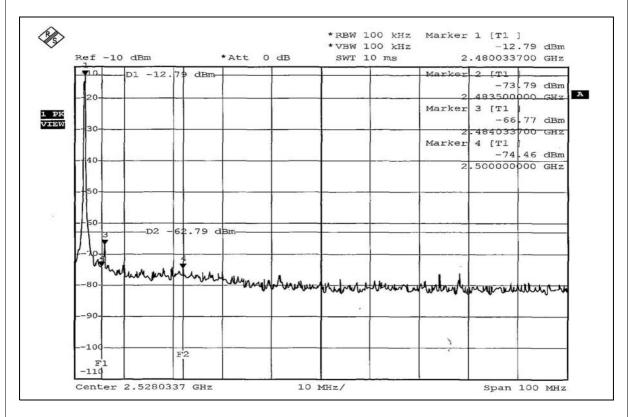
The spectrum plots are attached on the following 4 images. D2 line indicates the highest level, and D1 line indicates the 50dB offset below D2. It shows compliance with the requirement in part 15.249 (d).

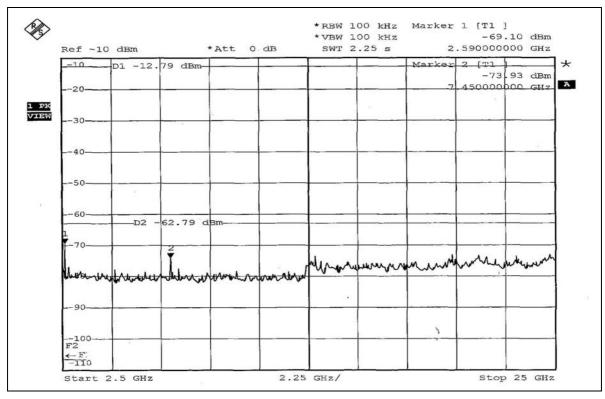














5 PHOTOGRAPHS OF THE TEST CONFIGURATION

RADIATED EMISSION TEST











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:

<u>www.adt.com.tw/index.5/phtml</u>. If you have any comments, please feel free to contact us at the following:

 Linko EMC/RF Lab:
 Hsin Chu EMC/RF Lab:

 Tel: 886-2-26052180
 Tel: 886-3-5935343

 Fax: 886-2-26052943
 Fax: 886-3-5935342

 Hwa Ya EMC/RF/Safety/Telecom Lab:
 Linko RF Lab.

 Tel: 886-3-3183232
 Tel: 886-3-3270910

 Fax: 886-3-3185050
 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.