

FCC TEST REPORT

RF121119D13
SM-9067
H4IMS9067
Nov. 19, 2012
Nov. 22, 2012
Nov. 28, 2012

APPLICANT: Lite-On Technology Corporation

ADDRESS: 90, Chien 1 Rd. Chung Ho, Taipei Hsien, Taiwan R.O.C.

ISSUED BY: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

LAB LOCATION: No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.

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RELEASE CONTROL RECORD

SSUE NO.	REASON FOR CHANGE	DATE ISSUE
RF121119D13	Original release	Nov. 28, 2012
		•



1. CERTIFICATION

PRODUCT: Wireless Mouse BRAND: DELL **MODEL NO.:** SM-9067 **APPLICANT:** Lite-On Technology Corporation TESTED: Nov. 22, 2012 **TEST SAMPLE: ENGINEERING SAMPLE** STANDARDS: FCC Part 15, Subpart C (Section 15.249) ANSI C63.10-2009

The above equipment has been tested by Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, 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 : Annie Chang, DATE: Nov. 28, 2012

(Annie Chang / Supervisor)

APPROVED BY :

Ken Lin , DATE: Nov. 28, 2012 (Ken Liu / Manager)



2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

STANDARD PARAGRAPH	TEST TYPE	RESULT	REMARK
15.207	Conducted Emission Test	N/A	Power supply is 1.5Vdc from battery
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 15.209		Meet the requirement of limit. Minimum passing margin is -9.2dB at 2390.00MHz.

2.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

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

Measurement	Frequency	Uncertainty
Dedicted emissions	30MHz ~ 1GHz	3.78 dB
Radiated emissions	Above 1GHz	3.36 dB



3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Wireless Mouse
MODEL NO.	SM-9067
POWER SUPPLY	1.5Vdc from battery
MODULATION TYPE	GFSK
OPERATING FREQUENCY	2403MHz ~ 2480MHz
NUMBER OF CHANNEL	78
ANTENNA TYPE	Printed antenna with 2.46dBi gain
DATA CABLE	N/A
I/O PORT	N/A
ACCESSORY DEVICES	N/A

NOTE:

- 1. The EUT is a Wireless Mouse.
- 2. The above EUT information is 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

CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)	CHANNEL	FREQ. (MHz)
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	2432	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		
20	2422	40	2442	60	2462		

78 channels are provided to this EUT:



3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

	EUT		APPLIC	ABLE TO					
	CONFIGURE MODE	PLC	RE≥1G	RE<1G	BM		I	DESCRIPT	ION
	-	Note	\checkmark	\checkmark	\checkmark	-			
				ed Emission			idiated Emiss		GHz
	RE<1G: Radiated Emission below 1GHz BM: Bandedge Measurement								
	NOTE: No need to concern of Conducted Emission due to the EUT is powered by batteries.								
RAD	NATED EMISS	SION TES	T (ABOV	E 1 GHz):					
\square	Pre-Scan has between avai architecture).							•	sible combinations versity
\boxtimes	Following cha	annel(s) w	as (were)	selected	for the	final test	as listed be	elow.	
	EUT CONFIGU	RE MODE	AVAILAB		EL	TESTED C	HANNEL	MODU	LATION TYPE
	-		1	to 78		1, 39	, 78		GFSK
	 Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations axis and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below. 								
_	between avai architecture).	lable mod	lulations a	ixis and ar	ntenna	ports (if	EUT with a	ntenna di	
_	between avai architecture).	lable mod annel(s) w	ulations a	ixis and ar	ntenna for the	ports (if	EUT with a	ntenna di elow.	
_	between avai architecture). Following cha	lable mod annel(s) w	ulations a as (were) AVAILAB	ixis and ar selected	ntenna for the	ports (if final test	EUT with an as listed be	ntenna di elow.	versity
BAN	between avai architecture). Following cha EUT CONFIGUR - DEDGE MEA Pre-Scan has	lable mod annel(s) w REMODE SUREME s been cor lable mod	AVAILAB	selected LE CHANNE to 78 o determin ind antenr	for the EL e the v na ports	ports (if final test TESTED C 1 vorst-cas s (if EUT	EUT with an as listed be HANNEL	mall pose	Versity
BAN	between avai architecture). Following cha EUT CONFIGUR - DEDGE MEA Pre-Scan has between avai	lable mod annel(s) w REMODE SUREME s been cor lable mod annel(s) w	Iulations a ras (were) AVAILAB 1 <u>NT:</u> nducted to lulations a ras (were)	selected LE CHANNE to 78 o determin ind antenr	for the EL e the v ha ports for the	ports (if final test TESTED C 1 vorst-cas s (if EUT	EUT with an as listed be HANNEL e mode from with antenras listed be	m all pose na diversi elow.	versity LATION TYPE GFSK sible combinations
BAN	between avai architecture). Following cha EUT CONFIGUE - DEDGE MEA Pre-Scan has between avai Following cha	lable mod annel(s) w REMODE SUREME s been cor lable mod annel(s) w	AVAILAB	selected LE CHANNE to 78 determin and antenr selected	for the EL e the v ha ports for the	ports (if final test TESTED C 1 vorst-cas s (if EUT final test	EUT with an as listed be the second s	m all pose na diversi elow.	versity LATION TYPE GFSK sible combinations ty architecture).
BAN	between avai architecture). Following cha EUT CONFIGUE - DEDGE MEA Pre-Scan has between avai Following cha	lable mod annel(s) w RE MODE SUREME s been cor lable mod annel(s) w RE MODE	AVAILAB	e determin selected to 78 determin and antenr selected	for the EL e the v ha ports for the	ports (if final test TESTED C 1 vorst-cas s (if EUT final test TESTED C	EUT with an as listed be the second s	m all pose na diversi elow.	versity LATION TYPE GFSK sible combinations ty architecture).
BAN	between avai architecture). Following cha EUT CONFIGUE DEDGE MEA Pre-Scan has between avai Following cha EUT CONFIGUE	lable mod annel(s) w RE MODE SUREME s been cor lable mod annel(s) w RE MODE	AVAILAB	xis and an selected to 78 determin ind antenr selected to 78	e the v for the e the v na ports for the EL	ports (if final test TESTED C 1 vorst-cas s (if EUT final test TESTED C	EUT with an as listed be HANNEL e mode from with antenras listed be HANNEL 78	m all pose na diversi elow.	versity LATION TYPE GFSK sible combinations ty architecture).
BAN Ø	between avai architecture). Following cha EUT CONFIGUE DEDGE MEA Pre-Scan has between avai Following cha EUT CONFIGUE - T CONDITION	lable mod annel(s) w RE MODE SUREME s been cor lable mod annel(s) w RE MODE	AVAILAB AVAILAB 1 NT: nducted to ulations a ras (were) AVAILAB 1 0NMENTAL	A constraints and an	e the v a ports for the for the EL	ports (if final test TESTED C 1 vorst-cas s (if EUT final test TESTED C 1, 1	EUT with an as listed be the mode from with antenras listed be the mode from with antenras listed be the mode from	m all pose na diversi elow. MODU	versity LATION TYPE GFSK sible combinations ty architecture).
BAN	between avai architecture). Following cha EUT CONFIGUE DEDGE MEA Pre-Scan has between avai Following cha EUT CONFIGUE - T CONDITION	lable mod annel(s) w RE MODE SUREME Sbeen cor lable mod annel(s) w RE MODE	AVAILAB AVAILAB 1 NT: nducted to Julations a ras (were) AVAILAB 1 ONMENTAL	Axis and an selected of the termination of te	tenna for the L e the v ha ports for the EL INPUT	ports (if final test TESTED C 1 vorst-cas s (if EUT final test TESTED C 1, 7 POWER	EUT with an as listed be HANNEL emode from with antenras listed be HANNEL 78	m all pose na diversi elow. MODU	versity LATION TYPE GFSK sible combinations ty architecture).



3.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together without any necessary accessory or support unit.

3.3.1 CONFIGURATION OF SYSTEM UNDER TEST

EUT (Powered from battery)	
	Test table



3.4 GENERAL DESCRIPTION OF APPLIED STANDARDS

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart C (Section 15.249)

ANSI C63.10-2009

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



4. TEST TYPES AND RESULTS

4.1 CONDUCTED EMISSION MEASUREMENT

N/A

4.2 RADIATED EMISSION AND BAND EDGE MEASUREMENT

4.2.1 LIMITS OF RADIATED EMISSION AND BAND EDGE MEASUREMENT

The field strength of emissions from intentional radiators operate d within these frequency bands shall comply with the following

Fundamental Frequency	Field Strength of Fundamental (millivolts/meter)	Field Strength of Harmonics (microvolts/meter)
902 ~ 928 MHz	50	500
2400 ~ 2483.5 MHz	50	500
5725 ~ 5875 MHz	50	500
24 ~ 24.25 GHz	250	2500

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits as below table, whichever is the lesser attenuation

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. 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 DATE	CALIBRATED UNTIL
HP Preamplifier	8447D	2432A03504	Feb. 29, 2012	Feb. 28, 2013
HP Preamplifier	8449B	3008A01201	Feb. 29, 2012	Feb. 28, 2013
Agilent Spectrum Analyzer	E4446A	MY46180403	Jun. 13, 2012	Jun. 12, 2013
ROHDE & SCHWARZ Test Receiver	ESCS 30	838251/021	Oct. 14, 2012	Oct. 13, 2013
Schwarzbeck Antenna	VULB 9168	137	Apr. 03, 2012	Apr. 02, 2013
Schwarzbeck Antenna	VHBA 9123	480	May 22, 2012	May 21, 2013
ADT. Turn Table	TT100	0306	NA	NA
ADT. Tower	AT100	0306	NA	NA
Software	ADT_Radiated_V 7.6.15.9.2	NA	NA	NA
SUHNER RF cable	SF102	CABLE-CH6	Aug. 19, 2012	Aug. 18, 2013
Schwarzbeck Horn Antenna	BBHA 9120-D1	D130	May 18, 2012	May 17, 2013
Highpass filter Wainwright Instruments	WHK 3.1/18G-10SS	SN 8	NA	NA
ROHDE & SCHWARZ Spectrum Analyzer	FSP 40	100036	May 09, 2012	May 08, 2013

NOTE: 1. The calibration interval of the above test instruments is 12/24 months. And the calibrations are traceable to NML/ROC and NIST/USA.

- 2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
- 3. The test was performed in Chamber No. 6.
- 4. The Industry Canada Reference No. IC 7450E-6.
- 5. The FCC Site Registration No. is 447212.



4.2.3 TEST PROCEDURES

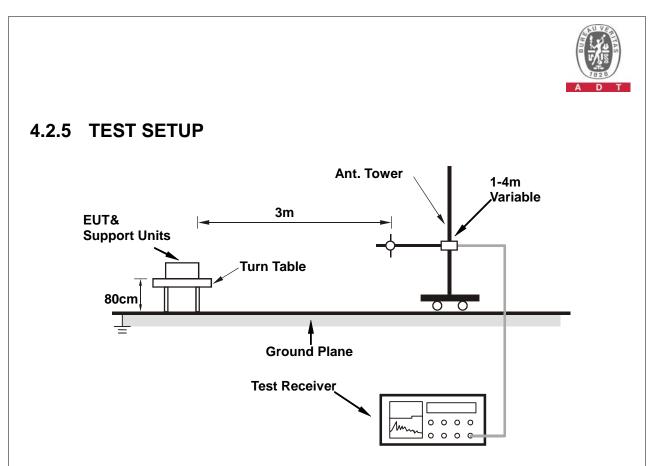
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna 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 of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
- 3. All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT OPERATING CONDITIONS

Set the EUT under transmission condition continuously at specific channel frequency.



4.2.7 TEST RESULTS

ABOVE 1GHz DATA

CHANNEL	TX Channel 1	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz	FUNCTION	Average (AV)

	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	62.5 PK	74.0	-11.5	1.00 H	205	32.28	30.24	
2	2390.00	44.8 AV	54.0	-9.2	1.00 H	205	14.56	30.24	
3	2400.00	57.4 PK	74.0	-16.6	1.00 H	205	27.13	30.29	
4	2400.00	24.8 AV	54.0	-29.2	1.00 H	205	-5.47	30.29	
5	*2403.00	99.8 PK	114.0	-14.2	1.00 H	205	69.52	30.30	
6	*2403.00	67.2 AV	94.0	-26.8	1.00 H	205	36.92	30.30	
7	4806.00	47.2 PK	74.0	-26.8	1.00 H	192	10.62	36.60	
8	4806.00	14.6 AV	54.0	-39.4	1.00 H	192	-21.98	36.60	
		ANTENNA		Y & TEST DI	STANCE: V	ERTICAL A	T 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	58.0 PK	74.0	-16.0	1.51 V	307	27.76	30.24	
2	2390.00	43.8 AV	54.0	-10.2	1.51 V	307	13.58	30.24	
3	2400.00	48.2 PK	74.0	-25.8	1.51 V	307	17.88	30.29	
4	2400.00	15.6 AV	54.0	-38.4	1.51 V	307	-14.72	30.29	
5	*2403.00	90.6 PK	114.0	-23.4	1.51 V	307	60.27	30.30	
6	*2403.00	58.0 AV	94.0	-36.0	1.51 V	307	27.67	30.30	
7	4806.00	45.3 PK	74.0	-28.7	1.00 V	360	8.74	36.60	

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. "* ": Fundamental frequency
- 6. The average value of fundamental frequency is: Average = Peak value + 20log(Duty cycle) Where the duty factor is calculated from following formula:
 20 log (Duty cycle) = 20 log (0.2 ms / 8.5 ms) = -32.6 dB
 Please see page 18 for plotted duty.



CHANNEL	TX Channel 39 DETECTOR		Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz	FUNCTION	Average (AV)

	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	95.3 PK	114.0	-18.7	1.00 H	30	64.88	30.43	
2	*2441.00	62.7 AV	94.0	-31.3	1.00 H	30	32.28	30.43	
3	4882.00	48.4 PK	74.0	-25.6	1.04 H	227	11.65	36.79	
4	4882.00	15.8 AV	54.0	-38.2	1.04 H	227	-20.95	36.79	
		ANTENNA		/ & TEST DI	STANCE: V	ERTICAL A	T 3 M		
NO.	NO. FREQ. (MHz) EMISSION LEVEL (dBuV/m) MARGIN (dB) ANTENNA HEIGHT (m) (Degree) CORRECTION (dBuV) (dBuV)								
1	*2441.00	88.6 PK	114.0	-25.4	1.18 V	59	58.13	30.43	
2	*2441.00	56.0 AV	94.0	-38.0	1.18 V	59	25.53	30.43	
3	4882.00	45.8 PK	74.0	-28.2	1.00 V	127	9.03	36.79	
4	4882.00	13.2 AV	54.0	-40.8	1.00 V	127	-23.57	36.79	

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. "*": Fundamental frequency
- 6. The average value of fundamental frequency is: Average = Peak value + 20log(Duty cycle) Where the duty factor is calculated from following formula:
 20 log (Duty cycle) = 20 log (0.2 ms / 8.5 ms) = -32.6 dB
 Please see page 18 for plotted duty.

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CHANNEL	TX Channel 78 DETECTOR		Peak (PK)
FREQUENCY RANGE	1GHz ~ 25GHz	FUNCTION	Average (AV)

	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	99.2 PK	114.0	-14.9	1.00 H	203	68.59	30.56	
2	*2480.00	66.6 AV	94.0	-27.5	1.00 H	203	35.99	30.56	
3	2483.50	56.4 PK	74.0	-17.7	1.00 H	203	25.78	30.57	
4	2483.50	23.8 AV	54.0	-30.3	1.00 H	203	-6.82	30.57	
5	4960.00	48.6 PK	74.0	-25.4	1.00 H	171	11.65	36.99	
6	4960.00	16.0 AV	54.0	-38.0	1.00 H	171	-20.95	36.99	
		ANTENNA		Y & TEST DI	STANCE: V	ERTICAL A	T 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	88.3 PK	114.0	-25.7	1.51 V	270	57.77	30.56	
2	*2480.00	55.7 AV	94.0	-38.3	1.51 V	270	25.17	30.56	
3	2483.50	45.5 PK	74.0	-28.5	1.51 V	270	14.96	30.57	
4	2483.50	12.9 AV	54.0	-41.1	1.51 V	270	-17.64	30.57	
5	4960.00	45.9 PK	74.0	-28.1	1.00 V	339	8.93	36.99	
6	4960.00	13.3 AV	54.0	-40.7	1.00 V	339	-23.67	36.99	

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).

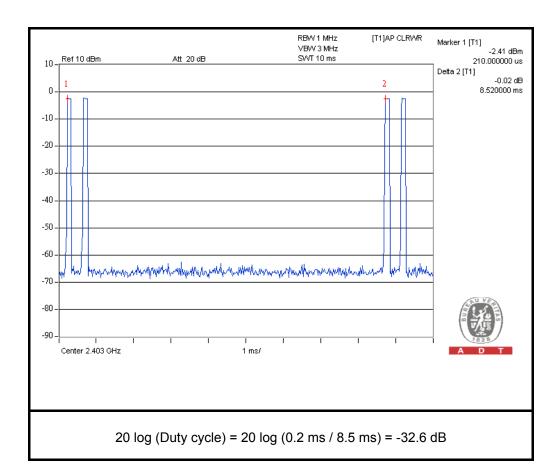
3. The other emission levels were very low against the limit.

4. Margin value = Emission level – Limit value.

5. " * " : Fundamental frequency

6. The average value of fundamental frequency is: Average = Peak value + 20log(Duty cycle) Where the duty factor is calculated from following formula:
20 log (Duty cycle) = 20 log (0.2 ms / 8.5 ms) = -32.6 dB
Please see page 18 for plotted duty.







BELOW 1GHz WORST-CASE DATA

CHANNEL	TX Channel 1	DETECTOR	Quasi Daak
FREQUENCY RANGE	Below 1000MHz	FUNCTION	Quasi-Peak

	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	41.32	21.0 QP	40.0	-19.1	1.77 H	292	7.29	13.66	
2	65.57	21.3 QP	40.0	-18.7	1.06 H	137	8.35	12.99	
3	148.02	18.5 QP	43.5	-25.0	1.97 H	180	4.40	14.11	
4	164.18	20.7 QP	43.5	-22.8	2.09 H	212	6.84	13.85	
5	594.22	27.5 QP	46.0	-18.5	1.00 H	266	4.42	23.08	
6	768.82	29.7 QP	46.0	-16.3	1.00 H	16	3.88	25.86	
		ANTENNA		/ & TEST DI	STANCE: V	ERTICAL A	T 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	38.08	28.2 QP	40.0	-11.8	2.07 V	117	15.29	12.92	
2	47.78	24.8 QP	40.0	-15.2	1.39 V	269	10.65	14.11	
3	62.33	21.9 QP	40.0	-18.2	2.21 V	5	8.53	13.32	
4	96.28	22.7 QP	43.5	-20.8	1.00 V	33	13.66	9.08	
5	107.65	20.5 QP	43.5	-23.0	1.00 V	229	10.16	10.37	
6	141.55	20.2 QP	43.5	-23.3	1.88 V	136	6.24	13.93	

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. PHOTOGRAPHS OF THE TEST CONFIGURATION

Please refer to the attached file (Test Setup Photo).



6. INFORMATION ON THE TESTING LABORATORIES

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab Tel: 886-2-26052180 Fax: 886-2-26051924 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: 886-3-3270892

Email: <u>service.adt@tw.bureauveritas.com</u> Web Site: <u>www.bureauveritas-adt.com</u>

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



7. APPENDIX A – MODIFICATION RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

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