



BUREAU
VERITAS

TEST REPORT No: (5210)074-0246

TEST REPORT

To:	CABEN ASIA PACIFIC LTD.	
Attn:	Ernest Lam	
Address:	9/F, Tal Building, 49 Austin Road, TST, Kowloon, Hong Kong	
Fax:	86-755-8831-2343	
E-mail:	ernest_jh_lam@caben.com.hk	
Folder No.:	BVCK10FE048MTHS-B-A1	
Factory name:	--	
Location:	--	
Product:	00000389000070 Ducati 1198 R/C MODEL: 00000 38900070	
		
Sample No:	(5210)074-0246	
Test date:	March 18, 2010	
Test Requested:	FCC Part 15 - 2008	
Test Method:	ANSI C63.4 – 2003	
FCC ID:	MVH04979600389	

The results given in this report are related to the tested specimen of the described electrical apparatus.

CONCLUSION: The submitted sample was found to COMPLY with requirement of FCC Part 15 Subpart C.

Authorized Signature:



Reviewed by: Keith Yeung

Approved by: Steven Tsang

Date: April 1, 2010

Date: April 1, 2010

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Location of the test laboratory

Radiated and Conducted emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2003. An Open Area Test Site and Full Anechoic Chamber (FCC Listed Site, Registration No. 642151) are set up for investigation and located at :

BUREAU VERITAS HONG KONG LIMITED, EMC CENTRE

No. 2106-2107, 21/F., Westin Centre,
26 Hung To Road,
Kwun Tong, Kowloon,
Hong Kong

List of measuring equipment

Radiated Emission

EQUIPMENT	MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATION DUE
EMI TEST RECEIVER	R&S	ESCI	100379	24-AUG-2010
LOOP ANTENNA	ETS-LINDGREN	6502	00102266	12-MAY-2010
BILOG ANTENNA	SCHAFFNER	CBL6112D	25229	31-MAY-2010
OPEN AREA TEST SITE	BVCPS	N/A	N/A	03-JULY-2010
ANECHOIC CHAMBER	ALBATROSS	M-CDC	80374004499B	07-JULY-2010
COAXIAL CABLE	SUHNER	N/A	N/A	11-MAY-2010

Remarks:-

N/A : Not Applicable or Not Available

The measurement instrumentation uncertainty would be taking into consideration on each of the test result



TEST REPORT No: (5210)074-0246

Equipment Under Test [EUT]

Description of Sample:

Model Name: 00000389000070 Ducati 1198 R/C

Model Number: 00000 38900070

Rating: 3Vd.c. ("AA" size battery x 2)

Description of EUT Operation:

The Equipment Under Test (EUT) is a CABEN ASIA PACIFIC LTD of Radio Control toy. The transmitter is 3 buttons 1 switch and 1 marble transmitter and operating at 27.145MHz. The EUT continues to transmit buttons is being pressed, Modulation by IC, and type is frequency modulation.

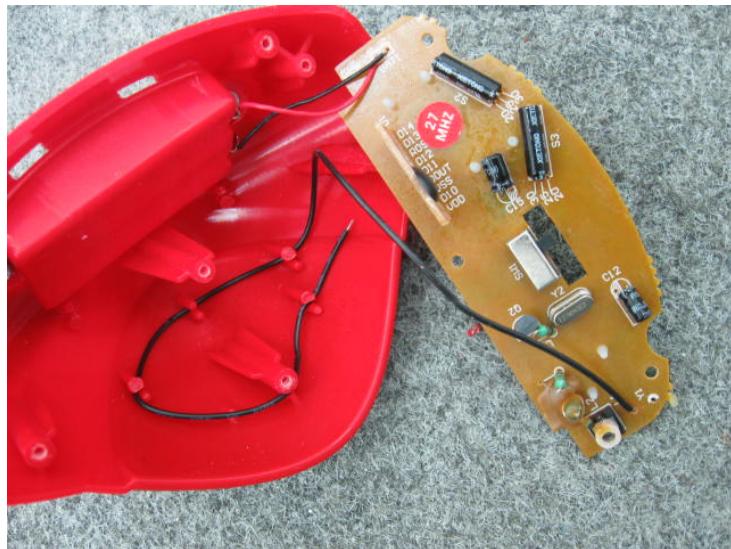
The transmitter has different control:

1. Left button – Backward control
2. Right button – Forward control
3. Middle button – Horn control
4. Switch “ON/OFF” – ON/OFF control
5. Marble – Left or Right control

Antenna Requirement (Section 15.203)

The EUT is use of a permanently antenna. The antenna consists of 30.0cm long signal wire. It is soldered on the PCB. The antenna is not replaceable or user serviceable. The requirement of S15.203 is met. There are no deviations or exceptions to the specifications.

Photo of Antenna



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TEST REPORT No: (5210)074-0246

Radiated Emissions (Fundamental)

Test Requirement: FCC Part 15 Section 15.227

Test Method: ANSI C63.4

Test Date(s): 2010-03-18

Mode of Operation: Transmission mode

Test Procedure:

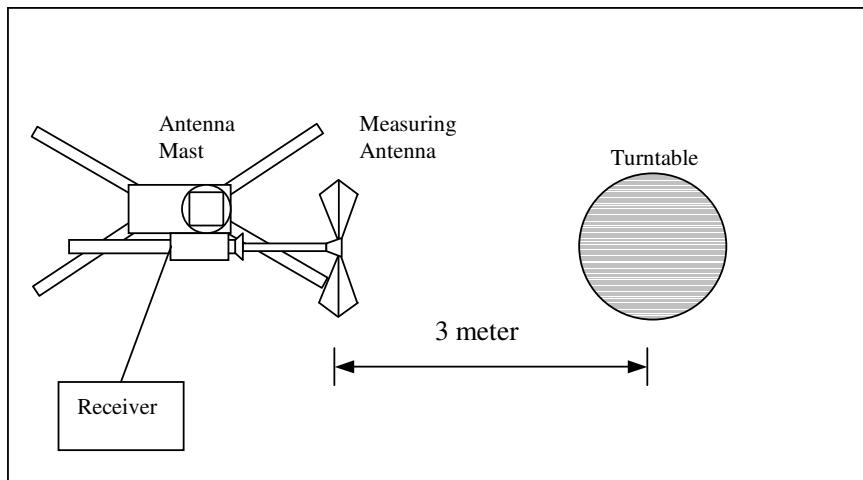
Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2003.

The equipment under test (EUT) was placed on a non-conductive turntable with dimensions of 1.5m x 1m and 0.8m high above the ground. 3m from the EUT, a broadband antenna mounting on the mast received the signal strength. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using new battery. The turntable was rotated to maximize the emission level. The antenna was then moving along the mast from 1m up to 4m until no more higher value was found. Both horizontal and vertical polarization of the antenna were placed and investigated.

For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.

Location: The Roof, Westin Centre, 26 Hung To Road, Kwun Tong, Kowloon, Hong Kong

Test Setup: Open Area Test Site



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Limits for Field Strength of Fundamental Emissions [FCC 47CFR 15.227]:

Frequency Range of Fundamental [MHz]	Field Strength of Fundamental Emission [Peak] [μ V/m]	Field Strength of Fundamental Emission [Average] [μ V/m]
26.96 – 27.28	100,000 (100 dB μ V/m)	10,000 (80 dB μ V/m)

Measurement Data

Test Result of (Transmission mode): PASS

Detection mode: Peak

Frequency (MHz)	Polarity (H/V) and degree	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
27.149	V/0°	10.0	31.3	100	-68.7

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 100KHz
VBW = 300KHz

Detection mode: Average

Frequency (MHz)	Polarity (H/V) and degree	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
27.149	V/0°	10.0	29.7	80	-50.3

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 100KHz
VBW = 10Hz

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TEST REPORT No: (5210)074-0246

Radiated Emissions (9kHz – 1GHz)

Test Requirement: FCC Part 15 Section 15.209

Test Method: ANSI C63.4

Test Date(s): 2010-03-18

Mode of Operation: **Transmission mode**

Limits for Radiated Emissions [FCC 47 CFR 15.209]:

Frequency Range [MHz]	Quasi-Peak Limits [μV/m]
1.705-30	300
30-88	100
88-216	150
216-960	200
Above 960	500

Measurement Data

Test Result of (Transmission mode): PASS

Detection mode: Quasi-Peak

Frequency (MHz)	Polarity (H/V)	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
54.298	V	8.5	25.7	40.0	-14.3
81.447	V	8.0	21.0	40.0	-19.0
108.596	H	11.0	24.8	43.5	-18.7
135.745	V	10.9	26.3	43.5	-17.2
162.894	V	10.9	24.9	43.5	-18.6
190.043	V	11.2	24.8	43.5	-18.7
217.192	H	12.0	26.1	46.0	-19.9
244.341	H	13.6	25.7	46.0	-20.3
271.490	H	14.5	27.1	46.0	-18.9
298.639	V	15.0	29.7	46.0	-16.3

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 120KHz
VBW = 120KHz

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TEST REPORT No: (5210)074-0246

26dB Bandwidth of Fundamental Emission

Test Requirement: FCC 47 CFR 15.227
Test Method: ANSI C63.4:2003 (Section 13.1.7)
Test Date: 2010-03-18
Mode of Operation: Transmission mode

Test Method:

The bandwidth is measured at an amplitude level reduced from the reference level by a specified ratio. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.

Limits for 26dB Bandwidth of Fundamental Emission:

Frequency [MHz]	26dB Bandwidth [KHz]	Limits [MHz]
27.14944	44.80	within 26.96 – 27.28

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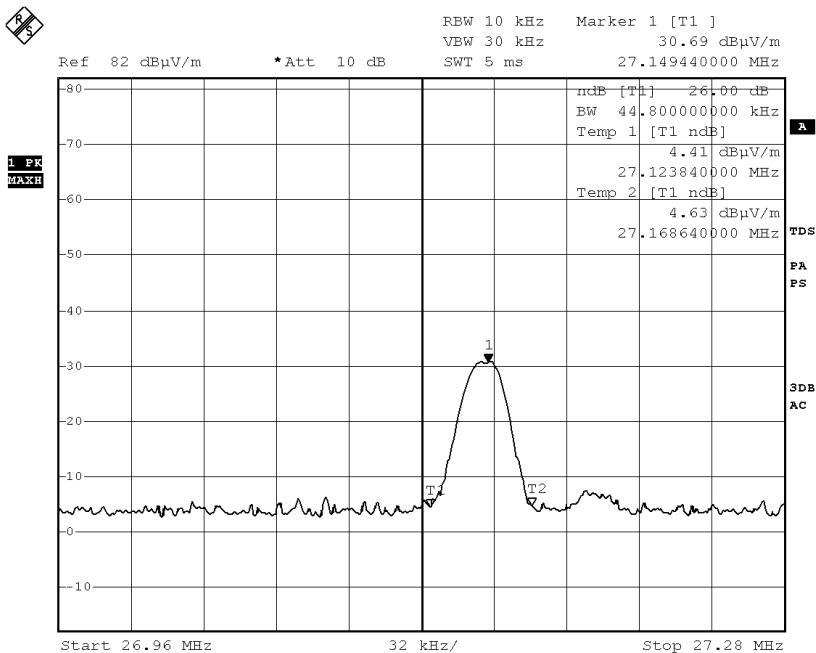
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Measurement Data :

Test Result of 26dB Bandwidth of Fundamental Emission: PASS



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Photographs of EUT

Front View of the product



Rear View of the product



Inner Circuit Top View



Inner Circuit Bottom View



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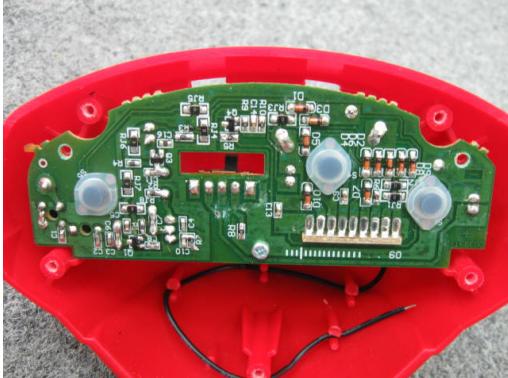
Battery compartment



Battery Cover



Front View of the product (Internal)



Rear View of the product (Internal)



Antenna



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Measurement of Radiated Emission Test Set Up



******* End of Report *******

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