





ISO/IEC17025 Accredited Lab.

Report No: EMC0605091-01

File reference No: 2006-06-07

Applicant: Cyber-Blue (HK) Limited

Product: Bluetooth USB Dongle

Brand Name: Cyber-blue

Model No: Blueusb04B, Blueusb04C, Blueusb06B

Test Standards: ETSI EN 300 328 v 1.6.1

(2004-11)

ETSI EN 300 328-2 v 1.2.1

(2001-12)

Test result:

The EMC testing has been performed on the submitted samples

and found in compliance with council EMC Directive

89/336/EEC, 92/31/EEC and R & TTE Directive 1999/5/EC

Approved By

Jack Chung

Jack Chung

EMC Manager

Dated: June 07, 2006

This report is an additional report based on original report no: EMC0511097-01only.

Results appearing herein relate only to the sample tested

The technical reports is issued errors and omissions exempt and is subject to withdrawal at

HONG KONG TIMEWAY TECHNOLOGY DEVELOPMENT LIMITED

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Special Statement:

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.

The testing quality system of our laboratory meet with ISO/IEC-17025 requirements, which is approved by CNAL. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

CNAL-LAB Code: L2292

The EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing Laboratories (identical to ISO/IEC 17025:1999 General Requirements) for the Competence of testing Laboratories.

FCC-Registration No.: 899988

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 899988.

IC- Registration No.: IC5205

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada. The acceptance letter from the IC is maintained in our files. Registration IC No.: 5205.



Date: 2006-06-07



Test Report Conclusion

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1. General Information

1.1 Notes

The test results of this report relate exclusively to the test item specified in 1.5. The TIMEWAY Lab does not assume Responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the TIMEWAY Lab.

1.2 Testing Laboratory

SHENZHEN TIMEWAY TECHNOLOGY CONSULTING CO LTD

East 5/Block 4, Anhua Industrial Zone, No.8, Tairan Rd. CheGongMiao, FuTian District, Shenzhen, CHINA

Tel: +86 755 83448688 Fax :+86 755 83442996

Internet: www.timewaytech.com

Site on File With the Federal Communications and Commission – United States

Registration Number: 899988

For 3m & 10 m OATS

Site Listed with Industry Canada of Ottawa, Canada

Registration Number: IC: 5205

For 3m & 10 m OATS

1.3 Details of Applicant

Name: Cyber-Blue (HK) Limited

Address: Room A. 27/F., Park Avenue Tower 5 Moreton Terrace Causeway Bay Hong Kong

1. 4 Application Details

Date of Receipt of Application: May 20, 2006 Date of Receipt of Test Item: May 20, 2006

Date of Test: May 22~June 02, 2006

Date: 2006-06-07



1.5 Test Item

Manufacturer: Yingzhen Cyber Blue Industry Co., Ltd

Address: Room 1408., Block C. Stars Plaza., Hongli Road, Futian Disctrict, Shenzhen, China

Brand Name: Cyber-blue

Model No.: Blueusb04B, Blueusb04C, Blueusb06B

Additional Model No.: Blueusb04A, Blueusb04D, Blueusb05B, Blueusb06C

Description: Bluetooth USB Dongle

Additional Information

Frequency: 2402-2480 MHz Number of Channels: 79

Antenna Designation: Chip Antenna

Power Supply: 5.0VDC from USB port of host

Channel Spacing: 1MHz
Type of Modulation: FHSS

Extreme Temp. Tolerance; 0 to 40

Note: Classification according to CEPT/ERC Recommendation 70-03 & ETSI EN301 489-3 v

1.4.1 (2002-08)

1.6 Test Standards

ETSI EN 300 328 v 1.6.1 (2004-12)

Electromagnetic compatibility and Radio spectrum Matters(ERM);

Wideband Transmission systems;

Data transmission equipment operating in the 2.4GHz ISM band and using spread spectrum modulation techniques;

Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

ETSI EN 300 328-2 v 1.2.1 (2001-12)

Electromagnetic compatibility and Radio spectrum Matters(ERM);

Wideband Transmission systems;

Data transmission equipment operating in the 2.4GHz ISM band and using spread spectrum modulation techniques;

Part 2: Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive

Note: All radiated measurements were made in all three orthogonal planes. The values reported are the maximum values.

The report refers only to the sample tested and does not apply to the bulk.

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1.7 Configuration of The EUT

The EUT was configured according to **CISPR16.** All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A. EUT

Device	Manufacturer	Model
Bluetooth USB Dongle	Yingzhen Cyber Blue	Blueusb04B

B. Internal Devices

Device	Manufacturer	Model
N/A		

C. Peripherals

Device	Manufacturer	Model	Cable
Portable Computer	IBM	99-F48C0	1.5m unshielded power cord

D. EUT Exercise

The EUT (Transmitter) was operated in the engineering mode to fix the Tx frequency that was for the purpose of the measurements.

1.8 EUT Modifications

No modification by Shenzhen Timeway Technology Consulting Co.,Ltd

1.9 Tests or Witness Test Engineering

Test By:

Printing Name: Terry Tang

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2. Technical Test

2.1 Summary of Test Results

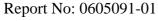
No deviations from the technical specification(s) were ascertained in the course of the tests Performed		
Final Verdict:	Pass	
(Only "Passed" if all Measurements are "Passed")		

2.2 Test Report

Test Report Reference

List of Measurements				
Parameter to be measured Clause				
Transmitter Parameters				
Effective Isotropic Radiated Power Clause 5.2.1				
Peak Power Density	Clause 5.2.2			
Frequency Range	Clause 5.2.3			
Spurious Emissions	Clause 5.2.4			
Receiver Parameters				
Receiver Spurious Emissions	Clause 5.3.2			

Note: The clause numbers are referenced to ETSI EN 300 328-2 v 1.2.1(2001-12)



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Clause 5.2.1 Effective Isotropic Radiated Power

Tx (UGPZ2/Class2)

EIRP is calculated by method described under sub clause 7.2.1.2, using following formulae;

 $P=A+G+10 \log (1/x);$

Where:

A-Average Power (measured)

Freq.(MHz) Average Power Measured Using Wide band Power Meter (dBm	
2402	-1.61
2441	-1.23
2480	-3.77

G= Antenna Gain= 1dBi

X= Duty Cycle=0.457 (measured)

$X=Tx_{on}/Tx_{on}+Tx_{off}$			
Tx _{on}	0.48msec		
$Tx_{on}+Tx_{off}$	1.05msec		
X	0.457		
10log(1/x)	3.40		

Worst case variance (delts) at extreme temperature from nominal power measured at 23

Freq.(MHz)	Delta in dB@0	Delta in dB@+40	
2402	+0.02	+0.23	
2441	+0.49	+0.32	
2480	+0.16	+0.02	

Test Conditions	Transmitter Power 9dBm) EIRP		
	Low Freq. Mid Freq. High Freq.		High Freq.
	2402MHz	2441MHz	2480MHz
T _{nom} (23)	2.79	3.17	0.63
$T_{\min}(0)$	2.81	3.66	0.79
T _{max} (40)	3.04	3.49	0.65

Av: Average Power During Burst

Limits: Clause 5.2.1

Under All Test Conditions	20dBm/-10dBW/100mW
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Clause 5.2.2 Peak Power Density

For FHSS Systems

Test Conditions		Transmitter Power in 3kHz BW(dBm)		
		Low Freq.	Mid Freq.	High Freq.
		2402MHz	2441MHz	2480MHz
T _{nom} (23)	$V_{\text{nom}}(5)$	-12.36	-10.72	-14.01

Under All Test Conditions	-10dBW/100kHz(20dBm/100kHz)

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Clause 5.2.3 Frequency Range

For FHSS Systems

Test Conditions		Transmitter Power dBm		
		Low Freq.(f _L)	High Freq.(f _H)	
		2402MHz	2480MHz	
T _{nom} (23)	$V_{nom}(5)$	2402.00	2480.00	
$T_{nom}(0)$	$V_{\text{nom}}(5)$	2402.10	2480.67	
T _{nom} (+40)	V _{nom} (5)	2401.78	2379.63	

Limits Clause 5.2.3

Under NormalTest Conditions	$f_1 > 2400 MHz$	$f_{\rm H} < 2483.5 {\rm MHz}$

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Clause 5.2.4 Spurious Emissions (Radiated)

Transmitter Operating

Note:

- 1. Measurements were done on low & high channels, but depicting the worst case are submitted in the report.
- 2. The spurious emissions were done with different settings, using the relevant pre-amplifiers for the relevant frequency ranges.

	Lowest Frequency			Highest Frequency		
f(MHz)	Band-Width (kHz)	Level (dBm)	f(MHz)	Band-Width (kHz)	Level (dBm)	
NF			NF			
NF			NF			
NF			NF			
NF			NF			
NF			NF			
NF			NF			
NF			NF			
NF			NF			
NF			NF			
NF	_	_	NF			
Measure	ment Uncertainty	± 6dB				

Note: NF=No Significant Peak was Found

Limits Clause 5.2.4

Frequency Range	Narrowband Spt	urious Emissions	Wideband Spur	rious Emissions
	Limit Limit		Limit	Limit
	When Operating	When in Standby	When Operating	When in Standby
30MHz-1GHz	-36 dBm	-57 dBm	-86 dBm/Hz	-107 dBm/Hz
Above	-30 dBm	-47 dBm	-80 dBm/Hz	-97 dBm/Hz
1GHz-12.75GHz				
1.8GHz-1.9GHz	-47 dBm	-47 dBm	-97 dBm/Hz	-97 dBm/Hz
5.15GHz-5.3GHz				

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Transmitter Standby

Lowest Frequency			Highest Frequency		
f(MHz)	Band-Width (kHz)	Level (dBm)	f(MHz)	Band-Width (kHz)	Level (dBm)
NF			NF		
NF			NF		
NF			NF		
NF			NF		
NF			NF		
NF			NF		
NF			NF		
NF			NF		
NF			NF		
NF			NF		
Measuren	nent Uncertainty	± 6dB	·	·	

Note: NF=No Significant Peak was Found

Limits Clause 5.2.4

Frequency Range	Narrowband Spu	urious Emissions	Wideband Spur	rious Emissions
	Limit Limit		Limit	Limit
	When Operating	When Operating When in Standby		When in Standby
30MHz-1GHz	-36 dBm -57 dBm		-86 dBm/Hz	-107 dBm/Hz
Above	-30 dBm -47 dBm		-80 dBm/Hz	-97 dBm/Hz
1GHz-12.75GHz				
1.8GHz-1.9GHz	-47 dBm	-47 dBm	-97 dBm/Hz	-97 dBm/Hz
5.15GHz-5.3GHz				

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Clause 5.3.2 Receiver Spurious Emissions (Radiated)

Note:

- 1. Measurements were done on low & high channels, but depicting the worst case are submitted in the report.
- 2. The receiver spurious emissions were done with different settings, using the relevant and pre-amplifiers for the relevant frequency ranges.

	Lowest Frequency			Highest Frequency		
f(MHz)	Band-Width (kHz)	Level (dBm)	f(MHz)	Band-Width (kHz)	Level (dBm)	
771.68	120	-66.3				
499.68	120	-70.1				
762.72	120	-68.2				
Measurer	nent Uncertainty	± 6dB				

Limits Clause 5.2.4

Frequency Range	Narrowband Spurious Emissions	Wideband Spurious Emissions	
30MHz-1GHz	-57 dBm	-107 dBm/Hz	
Above 1GHz-12.75GHz	-47 dBm	-97 dBm/Hz	

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3.0 Product Labelling

CE Mark label specification

Text of the mark is black or white in color and is left justified. Labels are printed in indelible ink on permanent adhesive backing and shall be affixed at a conspicuous location on the EUT or silk-screened onto the EUT.



Mark Location: Rear enclosure

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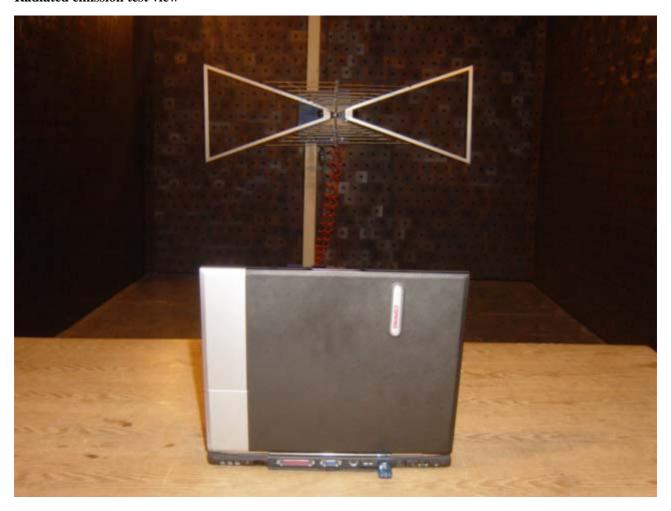
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4. 0 Photographs – Test Setup

Radiated emission test view



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5. Photographs - EUT

EUT View

Model No: Blueusb04A



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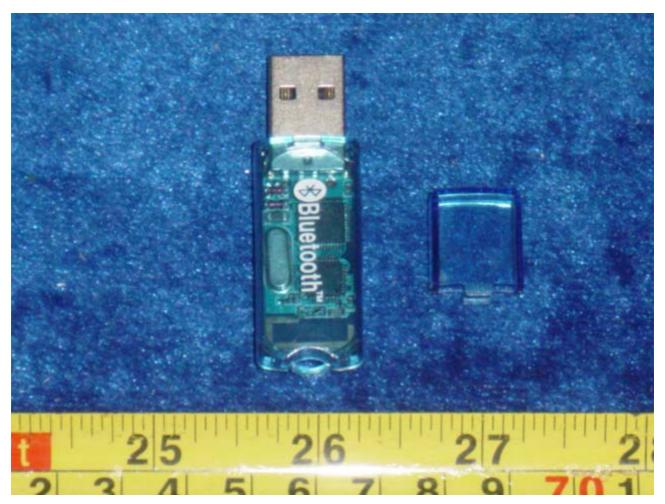
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EUT View

Model No: Blueusb04B



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EUT View

Model No: Blueusb04D



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EUT View

Model No: Blueusb06B



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EUT View

Model No: Blueusb05B



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EUT View

Model No: Blueusb04C



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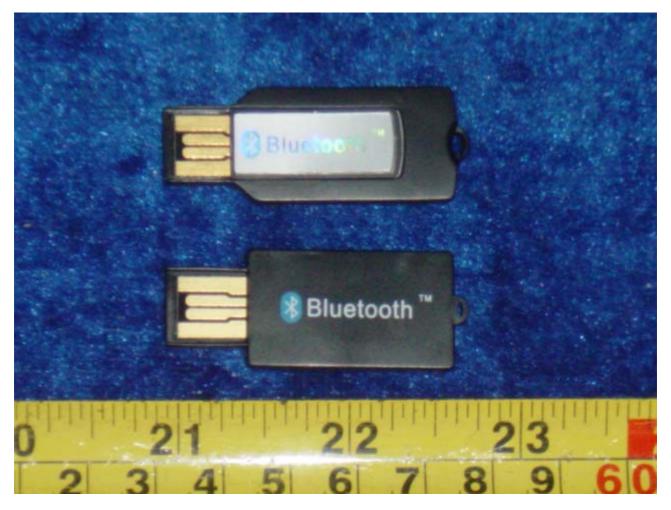
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EUT View

Model No: Blueusb06C



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6.0									
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date				
ESD Simulator	EM TEST	DITO	0404-24	2005-08-03	2006-08-02				
Continuous Wave Simulator	EM TEST	CWS 500C	0407-05	2005-12-17	2006-12-16				
Ultra Compact Simulator	EM TEST	UCS 500 M4	0304-42	2005-08-25	2006-08-24				
Harmonic	California Instruments	PACS-1	72305	2004-08-23	2005-08-23				
ESPI Test Receiver	ROHDE&SCHWARZ	ESPI 3	100379	2005-12-01	2006-11-30				
Absorbing Clamp	ROHDE&SCHWARZ	MDS-21	100126	2005-12-01	2006-11-30				
TWO Line-V-NETW	ROHDE&SCHWARZ	EZH3-Z5	100294	2005-12-01	2006-11-30				
TWO Line-V-NETW	ROHDE&SCHWARZ	EZH3-Z5	100253	2005-12-01	2006-11-30				
Ultra Broadband ANT	ROHDE&SCHWARZ	HL562	100157	2005-12-01	2006-11-30				
ESDV Test Receiver	ROHDE&SCHWARZ	ESDV	100008	2006-04-02	2007-04-01				
4-WIRE ISN	ROHDE&SCHWARZ	ENY 41	830663/044	2006-02-23	2007-02-23				
GG ENY22 Double 2-Wire ISN	ROHDE&SCHWARZ	ENY22	83066/016	2006-02-23	2007-02-23				
Impuls-Begrenzer	ROHDE&SCHWARZ	ESH3-Z2	100281	2006-02-23	2007-02-23				
System Controller	CT	SC100	-	2006-02-23	2007-02-23				
Printer	EPSON	PHOTO EX3	CFNH234850	2006-02-23	2007-02-23				
FM-AM Signal Generator	JUNGJIN	SG-150M	389911177	2006-02-23	2007-02-23				

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			- 09		
Color TV Pattern Generator	PHILIPS	PM5418	LO621747	2006-02-23	2007-02-23
Computer	IBM	8434	1S8434KCE99BLXLO*	2006-02-23	2007-02-23
Oscillator	KENWOOD	AG-203D	3070002	2006-02-23	2007-02-23
Spectrum Analyzer	HAMEG	HM5012	-	2006-02-23	2007-02-23
Power Supply	LW	APS1502	-	2006-02-23	2007-02-23
5K VA AC Power Source	California Instruments	5001iX	56060	2006-02-23	2007-02-23
CDN	EM TEST	CDN M2/M3	-	2006-02-23	2007-02-23
Attenuation	EM TEST	ATT6/75	-	2006-02-23	2007-02-23
Resistance	EM TEST	R100	-	2006-02-23	2007-02-23
Electromagnetic Injection Clamp	LITTHI	EM101	35708	2006-02-23	2007-02-23
Inductive Components	EM TEST	MC2630	-	2006-02-23	2007-02-23
Antenna	EM TEST	MS100	-	2006-02-23	2007-02-23
Signal Generator	ROHDE&SCHWARZ	SMT03	100029	2006-01-28	2007-01-27
Power Amplifier	AR	150W1000	300999	2006-01-28	2007-01-27
Field probe	Holaday	HI-6005	105152	2006-01-28	2007-01-27
Bilog Antenna	Chase	CBL6111C	2576	2006-01-28	2007-01-27
ESPI Test Receiver	ROHDE&SCHWARZ	ESI26	838786/013	2006-01-28	2007-01-27
3m OATS			N/A	2006-01-28	2007-01-27

End of the report