

Tel:(86) 755-26825180 Fax:(86) 755-86170310

Http://www.szmost.com Email: szmost@szmost.com

Test Report

Product Name: USB Bluetooth 2.0 Dongle

FCC ID: U3PSDB2U1C2V1V2

MODEL NO. : SD-B2U1C2-V1-BTW40, SD-B2U1C2-V1-BTW51, SD-B2U1C2-V2-BTW40, SD-B2U1C2-V2-BTW51, FG-B2U1C2-V1-BTW40, FG-B2U1C2-V1-BTW51, FG-B2U1C2-V2-BTW40, FG-B2U1C2-V2-BTW51

Applicant:

SPEED DRAGON MULTIMEDIA LIMITED

Rm 1312, Vanta Industrial Centre, 21-33 Tai Lin Pai Road, Kwai Chung, N.T. Hong Kong

Date Received: 01/21/2008-01/22/2008

Date Tested: 01/21/2008

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED



Tel:(86) 755-26825180 Fax:(86) 755-86170310

TABLE OF CONTENTS

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED

FCC ID: U3PSDB2U1C2V1V2

TEST REPORT CONTAINING:

PAGE	1	TEST E	EQUIP	MENT L	IST		
PAGE	2	TEST E	PROCEI	DURE			
PAGE	5-6	.RADIAT	CION :	INTERFF	ERENCE	TEST	DATA
PAGE	7-10	OCCUPI	ED B	ANDWID7	TH AND	PLOTS	3

EXHIBIT INCLUDED:

PAGE 1BLOCK DIAGRAM
PAGE 2SCHEMATIC
PAGE 3USERS MANUAL
PAGE 4LABEL SAMPLE
PAGE 5LABEL LOCATION
PAGE 6EXTERNAL PHOTOGRAPHS
PAGE 7INTERNAL PHOTOGRAPHS
PAGE 8OPERATIONAL DESCRIPTION
PAGE 9TEST SET UP PHOTOGRAPHS

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED



Tel:(86) 755-26825180 Fax:(86) 755-86170310

EMC Equipment List

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal.
					Interval
EMI Test Receiver	ROHDE&SCHWARZ	ESCI	100492	Apr 06,2007	1 Year
LISN	ROHDE&SCHWARZ	ENV216	100093	Apr 06,2007	1Year
EMI Test Receiver	ROHDE&SCHWARZ	ESCI	101202	Apr 06,2007	1 Year
Spectrum Analyzer	ANRITSU	MS2651B	6200238316	Apr 06,2007	1 Year
50 Ω Coaxial Switch	ANRITSU CORP	MP59B	6200283933	Apr 06,2007	1 Year
Bilog Antenna	Sunol	JB3	A121206	Apr 06,2007	1 Year
Horn Antenna	EMCO	3115	640201028-0 6	Apr 06,2007	1 Year
50 Ω Coaxial Switch	ANRITSU CORP	MP59B	6200283933	Apr 06,2007	1 Year
Cable	Resenberger	N/A	NO.1	Apr 06,2007	1 Year
Cable	SCHWARZBECK	N/A	NO.2	Apr 06,2007	1 Year
Cable	SCHWARZBECK	N/A	NO.3	Apr 06,2007	1 Year
Single Phase Power	Kikusui		LM002352	Apr 06,2007	1Year
Line Filter		R-L			
AC Power Source	Kikusui	AC40MA	LM003232	Apr 06,2007	1Year
Test analyzer	Kikusui	KHA1000	LM003720	Apr 06,2007	1Year
ESD Tester	Kikusui	KES4021	LM003537	Apr 08,2007	1 Year
Signal Generator	IFR	2032	203002/100	Apr 08,2007	1 Year
Amplifier	A&R	150W1000	301584	NCR	NCR
Dual Directional Coupler	A&R	DC6080	301508	Apr 06,2007	1 Year
Power Head	A&R	PH2000	301193	Apr 06,2007	1 Year
Power Meter	A&R	PM2002	302799	Apr 06,2007	1 Year
Field Monitor	A&R	FM5004	300329	Apr 06,2007	1 Year
Field Probe	A&R	FP5000	300221	Apr 06,2007	1 Year
EMCPRO System	EM Test	UCS-500-M4	V064810202 6	Apr 06,2007	1 Year
EMCPRO System	EM Test	UCS-500-M4	V064810202 6	Apr 06,2007	1 Year

Remark:

Test Firm Name: Most Technology Service Co., Ltd.

Test Firm Address:

No. 5, 2nd Langshan Road, North District, Hi-tech Industrial Park, Nanshan, Shenzhen, Guangdong, China

FCC Registered Test Site Number: 490827

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED



Tel:(86) 755-26825180 Fax:(86) 755-86170310

Http://www.szmost.com Email: szmost@szmost.com

TEST PROCEDURE

GENERAL: This report shall NOT be reproduced except in full without the written approval of MOST TECHNOLOGY SERVICE CO., LTD. The EUT was transmitting a test signal during the testing.

POWER LINE CONDUCTED INTERFERENCE: The test procedure used was ANSI Standard C63.4-2003 using a 50 u H LISN. Both Lines were observed. The bandwidth of the receiver was $10 \, \text{kHz}$ with an appropriate sweep speed. The ambient temperature of the EUT was 25 °C with a humidity of 58%.

RADIATION INTERFERENCE: The test procedure used was ANSI Standard C63.4-2003 using a ANRITSU spectrum analyzer with a pre-selector. The analyzer was calibrated in dB above a micro volt at the output of the antenna. The resolution bandwidth was 100 kHz and the video bandwidth was 300 kHz up to 1 GHz and 1 MHz with a video BW of 3 MHz above 1 GHz. The ambient temperature of the EUT was $25\,^{\circ}$ C with a humidity of $58\,^{\circ}$ C.

FORMULA OF CONVERSION FACTORS: The Field Strength at 3m was established by adding the meter reading of the spectrum analyzer (which is set to read in units of dBuV) to the antenna correction factor supplied by the antenna manufacturer and cable loss. The antenna correction factors and cable loss are stated in terms of dB. The gain of the Pre-selector was accounted for in the Spectrum Analyzer Meter Reading.

Example:

ANSI STANDARD C63.4-2003 10.1.7 MEASUREMENT PROCEDURES: The EUT was placed on a table 80 cm high and with dimensions of 1m by 1.5m. The EUT was placed in the center of the table (1.5m side). The table used for radiated measurements is capable of continuous rotation. The spectrum was scanned from 30 MHz to 10th harmonic of the fundamental.

Peak readings were taken in three (3) orthogonal planes and the highest readings were converted to average readings based on the duration of "ON" time.

When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical planes.

The situation was similar for the conducted measurement except that the table did not rotate. The EUT was setup as described in ANSI Standard C63.4-2003 10.1.7 with the EUT 40 cm from the vertical ground wall.

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED



Tel:(86) 755-26825180 Fax:(86) 755-86170310

Http://www.szmost.com Email: szmost@szmost.com

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED

U3PSDB2U1C2V1V2 FCC ID:

NAME OF TEST: RADIATION INTERFERENCE

RULES PART NUMBER: 15.249, 15.209

REQUIREMENTS:

FIELD STRENGTH of FIELD STRENGTH S15.209

of Harmonics Fundamental:

902-928 MHZ 30 -88 MHz 40 dBuV/m @3M

2.4-2.4835 GHz 88 - 216 MHz 43.5 216 - 960 MHz 46

94 dBuV/m @3m 54 dBuV/m @3m ABOVE 960 MHz 54dBuV/m

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 IN 15.209, WHICHEVER IS THE LESSER ATTENUATION.

REMARK: Emissions attenuated more than 20 dB below the permissible value are not reported.

Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)		BuV/m)	FCC 15 Subpart			
		Avg	QP	Peak	C Limit (dBuV/m)			
Low frequency(2402.00 MHz)								
91.73	Vertical		36.30	38.30	43.5			
101.05	Vertical		34.60	37.50	46.0			
2402.00	Vertical			85.10	94.0			
4804.00	Vertical			36.05	54.0			
7206.10	Vertical			33.20	54.0			
9608.20	Vertical			34.00	54.0			
91.15	Horizontal		32.50	35.00	43.5			
102.20	Horizontal		33.20	35.60	46.0			
2402.00	Horizontal			84.20	94.0			
4804.00	Horizontal			33.20	54.0			
7206.10	Horizontal			31.50	54.0			
9608.20	Horizontal			32.10	54.0			
	Middle	frequency(244	41.00 MHz)					
102.10	Vertical		34.10	37.50	43.5			
2441.00	Vertical			85.55	94.0			
4882.10	Vertical			32.65	54.0			
7323.20	Vertical			32.20	54.0			
9764.30	Vertical			31.50	54.0			
101.15	Horizontal		32.50	39.10	43.5			
2441.00	Horizontal			83.80	94.0			
4882.10	Horizontal			33.20	54.0			
7323.20	Horizontal			32.10	54.0			
9764.30	Horizontal			32.20	54.0			

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED



Tel:(86) 755-26825180 Fax:(86) 755-86170310

Http://www.szmost.com Email: szmost@szmost.com

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED

FCC ID: U3PSDB2U1C2V1V2

NAME OF TEST: RADIATION INTERFERENCE

RULES PART NUMBER: 15.249, 15.209

REQUIREMENTS:

FIELD STRENGTH of FIELD STRENGTH S15.209

Fundamental: of Harmonics

902-928 MHZ 30 -88 MHz 40 dBuV/m @3M

2.4-2.4835 GHz 88 - 216 MHz 43.5 216 - 960 MHz 46

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 IN 15.209, WHICHEVER IS THE LESSER ATTENUATION.

REMARK: Emissions attenuated more than 20 dB below the permissible value are not reported.

Continued:

Frequency (MHz) Antenna Polarization		Emission Level (dBuV/m)			FCC 15 Subpart		
		Avg	QP	Peak	C Limit (dBuV/m)		
High frequency(2480.0 MHz)							
104.00	Vertical		33.25	37.30	43.5		
2480.00	Vertical			85.75	94.0		
4960.10	Vertical			33.20	54.0		
7440.20	Vertical			32.30	54.0		
9920.00	Vertical			32.19	54.0		
104. 10	Horizontal		32.15	35.50	43.5		
2480.00	Horizontal			83.70	94.0		
4960.10	Horizontal			33.40	54.0		
7440.20	Horizontal			32.20	54.0		
9920.00	Horizontal			31.70	54.0		

Emissions attenuated more than 20 dB below the permissible value are not reported.

TEST PROCEDURE: ANSI Standard C63.4-2003 using a ANRITSU spectrum analyzer with a pre-selector and an appropriate antenna. The resolution bandwidth of spectrum analyzer was 100 kHz below 1 GHz and 1 MHz above 1 GHz. An appropriate sweep speed was used. When an emission was found, the table was rotated to produce the maximum signal strength. The antenna was placed in both the horizontal and vertical planes and the worse case emissions were reported. The spectrum was searched to at least the tenth (10) harmonic of the fundamental.

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED



Tel:(86) 755-26825180 Fax:(86) 755-86170310

Http://www.szmost.com Email: szmost@szmost.com

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED

FCC ID: U3PSDB2U1C2V1V2

NAME OF TEST: Occupied Bandwidth and Band Edge Compliance

RULES PART NUMBER: 15.249, 15.209

REQUIREMENTS: The field strength of any emissions appearing outside the band

edges and up to 10 kHz above and below the band edges shall be attenuated at least 50 dB below the level of the carrier or to

the general limits of 15.209.

Band edge emissions plots are included on the following pages

METHOD OF MEASUREMENT: A small sample of the transmitter output was fed into the spectrum analyzer and the attached plot was printed. The vertical scale is set to -10 dB per division.

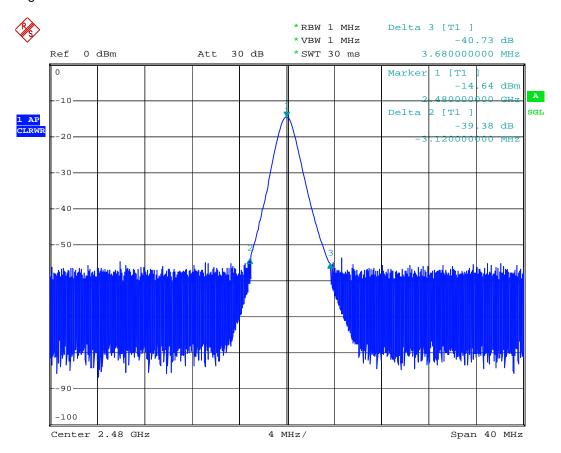
TEST RESULTS: The unit DOES meet the FCC requirements.

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED



Tel:(86) 755-26825180 Fax:(86) 755-86170310

High



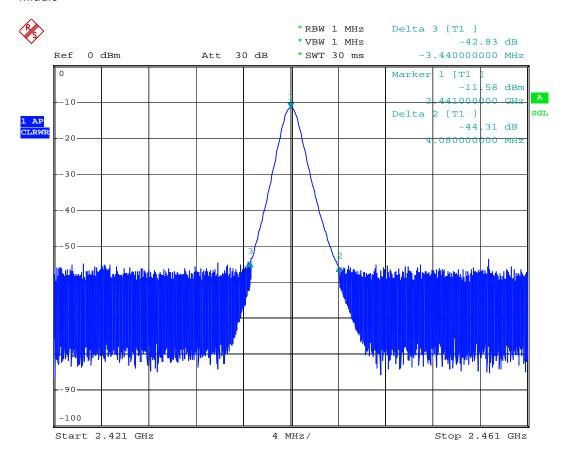
Date: 21.JAN.2008 15:11:10

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED



Tel:(86) 755-26825180 Fax:(86) 755-86170310

Middle



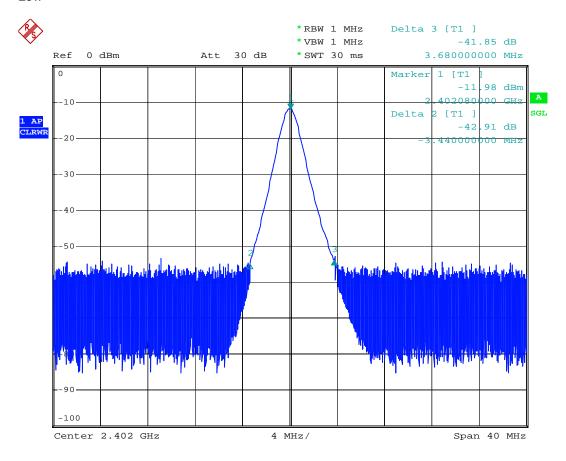
Date: 21.JAN.2008 15:15:01

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED



Tel:(86) 755-26825180 Fax:(86) 755-86170310

Low



Date: 21.JAN.2008 15:19:21

APPLICANT: SPEED DRAGON MULTIMEDIA LIMITED