

OET Bulletin 65 (MPE) Test Report

For

USB Bluetooth Transmitter D1

Model Name: MZ0440

Brand Name: CREATIVE

FCC ID: IBAMZ0440

Report No.: AGC10270908SZ09E7

Date of Issue: Sep.04, 2009

Prepared For

CREATIVE LABS INC

1901 McCarthy Blvd, Milpitas, California, United States

TEL: (408) 546-6558

FAX: (408) 954-8516

Prepared By

Attestation of Global Compliance Co., Ltd.

2F., No.2 Building, Huafeng No.1 Technical Industrial Park, Sanwei,

Xixiang, Baoan District, Shenzhen

TEL: 86-755-2908 1966

FAX: 86-755-2600 8484

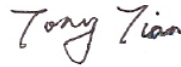
TABALE OF CONTENTS


| | |
|---|---|
| 1. TEST RESULT CERTIFICATION..... | 2 |
| 2. TECHNICAL INFORMATION..... | 3 |
| 2.1 EUT DESCRIPTION..... | 3 |
| 3. RF EXPOSURE MEASUREMENT | 4 |
| 3.1 INTRODUCTION..... | 4 |
| 3.2 FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE(MPE)..... | 5 |
| 4. CLASSIFICATION OF THE ASSESSMENT METHODS | 6 |
| APPENDIX I | 8 |
| PHOTOGRAPHS OF THE EUT | 8 |

1. TEST RESULT CERTIFICATION

| | |
|-----------------------|--|
| Applicant Name: | CREATIVE LABS INC |
| Address: | 1901 McCarthy Blvd, Milpitas, California, United States |
| Manufacturer Name: | Microlink Communications Inc. |
| Address: | B Block, 5 th Floor Building 2, Cyber-Tech Zone, GaoXin Ave. 7.S, NanShan District, ShenZhen |
| Brand Name: | CREATIVE |
| Equipment Under Test: | USB Bluetooth Transmitter D1 |
| Model Number: | MZ0440 |
| Test Standard | OET Bulletin 65 (Edition 97-01) Supplement C (Edition 01-01) |
| File Number: | AGC10270908SZ09E7 |
| Date of Test: | Sep.04, 2009 |

We (AGC), Shenzhen Attestation of Global Compliance Science & Technology Co., Ltd. for compliance with the requirements set forth in the European Standard OET Bulletin 65 (Edition 97-01) Supplement C (Edition 01-01) The results of testing in this report apply to the product/system which was tested only. Other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.

Checked By: 
Tony Tian Sep.04, 2009

Authorized By: 
King Zhang Sep.04, 2009

2. TECHNICAL INFORMATION

Note: the following data is based on the information by the applicant.

2.1 EUT DESCRIPTION

| | |
|--------------------|--|
| Product | USB Bluetooth Transmitter D1 |
| Brand / Model Name | CREATIVE / MZ0440 |
| Support Channels | CH 00 – CH 78 |
| Modulation | GFSK and $\pi/4$ DQPSK |
| Antenna Type | Integrated Antenna |
| Power Supply | DC5.50V (Supplied By USB) |
| Channels Frequency | CH 00 2.402GHZ CH 78 2.480GHZ Channel Space = 1MHz |

Note:

1. The EUT is a USB Bluetooth Transmitter D1. The EUT provides Bluetooth wireless interface operating at 2.4G ISM band (2400MHZ-2483MHZ). The EUT use (FHSS) modulation.
2. Please refer to Appendix I for the photographs of the EUT. For more details, please refer to the User's manual of the EUT.

3. RF EXPOSURE MEASUREMENT

3.1 INTRODUCTION

Human exposure to RF emissions from mobile devices (47 CFR §2.1091) may be evaluated based on the MPE limits adopted by the FCC for electric and magnetic field strength and/or power density, as appropriate, since exposures are assumed to occur at distances of 20 cm or more from persons.

The 1992 ANSI/IEEE standard (See Listed limit table) specifies a minimum separation distance of 20 cm for performing reliable field measurements to determine adherence to MPE limits.

If the minimum separation distance between a transmitter and nearby persons is more than 20 cm under normal operating conditions, compliance with MPE limits may be determined at such distance from the transmitter. When applicable, operation instructions and prominent warning labels may be used to alert the exposed persons to maintain a specified distance from the transmitter or to limit their exposure durations and usage conditions to ensure compliance.

3.2 FCC LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE(MPE)

LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE

| Frequency Range (MHz) | E-field Strength (E) (V/m) | Magnetic Field Strength (H) (A/m) | Power Density (S) (mW/cm ²) | Averaging Time E ² , H ² or S (Minutes) |
|-----------------------|----------------------------|-----------------------------------|---|---|
| 0.3 -- 1.34 | 614 | 1.63 | (100)* | 30 |
| 1.34 -- 30 | 824/f | 2.19/f | (180/f ²)* | 30 |
| 30 -- 300 | 27.5 | 0.073 | 0.2 | 30 |
| 300 -- 1500 | -- | -- | f/1500 | 30 |
| 1500 -- 100,000 | -- | -- | 1.0 | 30 |

*Note:

1. f=Frequency in MHz * Plane-wave Equivalent Power Density
2. The averaging time for General Population/Uncontrolled exposure to fixed transmitters is not applicable for mobile and portable transmitters. See 47 CFR §§2.1091 and 2.1093 on source-based time-averaging requirements for mobile and portable transmitters.

4. CLASSIFICATION OF THE ASSESSMENT METHODS

The antenna of the product, under normal use condition is at least 20 cm away from the body of the user. Warning statement to the user for keeping at least 20cm separation distance and the prohibition of operating to a person has been printed on the user's manual. So, this product under normal use is located on electromagnetic far field between the human body.

$$S = \frac{PG}{4\pi R^2}$$

Where:

S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator **R**=distance to the center of radiation of the antenna

MPE Calculated Values for USB Dongle

5. EUT OPERATION CONDITION

The software provided by Manufacturer enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

6. TEST RESULTS

Since the maximum eirp power is used as the output power to antenna, so the Gain of the antenna can be assumed as 0dBi.

| Channel | Frequency | Output Power | Output Power | Power Density | Power Density Limit | Result |
|---------|-----------|--------------|--------------|---------------|---------------------|-----------|
| | MHz | dBm | mW | mW/cm2 | mW/cm2 | Pass/Fail |
| CH 00 | 2402 | 4.87 | 3.07 | 0.006 | 1.00 | Pass |
| CH 39 | 2441 | 4.62 | 2.90 | 0.006 | 1.00 | Pass |
| CH 79 | 2480 | 6.13 | 4.10 | 0.006 | 1.00 | Pass |

APPENDIX I
PHOTOGRAPHS OF THE EUT
TOP VIEW OF SAMPLE



BOTTOM VIEW OF SAMPLE



LEFT VIEW OF SAMPLE



RIGHT VIEW OF SAMPLE



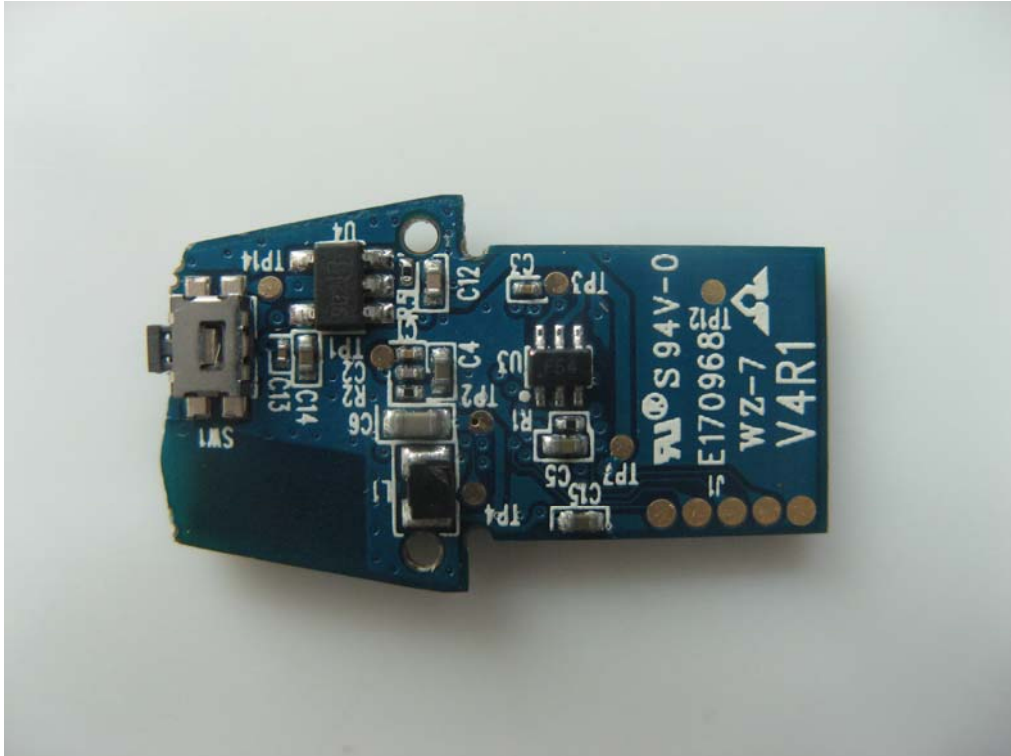
FRONT VIEW OF SAMPLE



BACK VIEW OF SAMPLE



INTERNAL PHOTO OF SAMPLE – 1



INTERNAL PHOTO OF SAMPLE – 2



----END OF REPORT----