



**FCC 47 CFR PART 15 SUBPART C
ISED RSS-247 ISSUE 2**

CERTIFICATION TEST REPORT

For

Communication Module

MODEL NUMBER: LBEE6ZZ1FD

FCC ID: VPYLB1FD

IC: 772C-LB1FD

REPORT NUMBER: 4788224831-5

ISSUE DATE: Feb. 10, 2018

Prepared for

Murata Manufacturing Co.,Ltd.

Prepared by

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TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS.....	3
2. TEST METHODOLOGY	4
3. FACILITIES AND ACCREDITATION.....	4
4. REQUIREMENT	5

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Murata Manufacturing Co.,Ltd.
Address: 10-1,Higashikotari 1-chome,Nagaokakyo-shi,Kyoto
617-8555,Japan

Manufacturer Information

Company Name: Murata Manufacturing Co.,Ltd.
Address: 10-1,Higashikotari 1-chome,Nagaokakyo-shi,Kyoto
617-8555,Japan

EUT Description

Product Name: Communication Module
Model Name: LBEE6ZZ1FD
Sample ID: 1308669-001
Sample Status: Good
Sample Received date: Dec .7, 2017
Date Tested: Dec .10, 2017 ~ Feb. 10, 2018

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
FCC 47CFR§2.1091	Complies
KDB-447498 D01 V06	

Tested By:



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Engineer

Checked By:



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Laboratory Leader

Approved By:



Stephen Guo
Laboratory Manager

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 447498 D01 General RF Exposure Guidance v06.

3. FACILITIES AND ACCREDITATION

Test Location	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch.
Address	Building 10, Innovation Technology Park, Song Shan Lake Hi tech Development Zone, Dongguan, 523808, China
Accreditation Certificate	UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. EMC Laboratory has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing. The Certificate Registration Number is 4102.01. UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. EMC Laboratory has been registered and fully described in a report filed with the FCC (Federal Communications Commission). The Designation Number is CN1187. UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch. EMC Laboratory has been registered and fully described in a report filed with Industry Canada. The Company Number is 21320.

Note: The test anechoic chamber in UL Verification Services (Guangzhou) Co., Ltd. Song Shan Lake Branch had been calibrated and compared to the open field sites.

4. REQUIREMENT

LIMIT

Limits for General Population/Uncontrolled Exposure

Limits for General Population/Uncontrolled Exposure				
Frequency Range (MHz)	Electric 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/150	30
1500-100,000	--	--	1.0	30

Note 1: f = frequency in MHz, * means Plane-wave equivalent power density

Note 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Note 3: The limit value 1.0mW/cm² is available for this EUT.

MPE CALCULATION METHOD

$$S = PG / (4\pi R^2)$$

Where: S = power density (in appropriate units, e.g. mW/ cm²)

P = power input to the antenna (in appropriate units, e.g., mW)

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 (appropriate units, e.g., cm)

CALCULATED RESULTS

Radio Frequency Radiation Exposure Evaluation

Frequency Band (MHz)	TX Function	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
2412-2462	1TX	23	1	20	0.0500	1
5180-5240	1TX	9.5	-3	20	0.0009	1
	2TX	12.5	-3	20	0.0018	1
5260-5320	1TX	9.5	-3	20	0.0009	1
	2TX	12.5	-3	20	0.0018	1
5500-5720	1TX	10.0	-3	20	0.0010	1
	2TX	13.0	-3	20	0.0020	1
5745-5825	1TX	10.5	-3	20	0.0011	1
	2TX	13.0	-3	20	0.0020	1
BT EDR	-	8.5	1	20	0.0018	1
BT LE	-	6.0	1	20	0.0010	1

Note: the calculated distance is 20cm.

END OF REPORT