



RF EXPOSURE REPORT

REPORT NO.: SA131112E09

MODEL NO.: SLE111GW

FCC ID: RU4-SLE111-ML

RECEIVED: Nov. 12, 2013

TESTED: Dec. 06, 2013

ISSUED: Dec. 16, 2013

APPLICANT: Metalligence Technology Corp.

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ISSUED BY: Bureau Veritas Consumer Products Services
(H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory

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RELEASE CONTROL RECORD

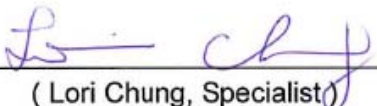
ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA131112E09	Original release	Dec. 16, 2013



1. CERTIFICATION

PRODUCT: Zigbee Gateway
BRAND NAME: Metalligence Technology Corporation
MODEL NO.: SLE111GW
TEST SAMPLE: MASS-PRODUCTION
APPLICANT: Metalligence Technology Corp.
TESTED DATE: Dec. 06, 2013
STANDARDS: FCC Part 2 (Section 2.1091)
FCC OET Bulletin 65, Supplement C (01-01)
IEEE C95.1

The above equipment (Model: SLE111GW) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY :  , **DATE:** Dec. 16, 2013
(Lori Chung, Specialist)

APPROVED BY :  , **DATE:** Dec. 16, 2013
(May Chen, Manager)

2. RF EXPOSURE LIMIT

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm ²)	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	F/1500	30
1500-100,000	1.0	30

F = Frequency in MHz

3. MPE CALCULATION FORMULA

$$P_d = (P_{out} * G) / (4 * \pi * r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

r = distance between observation point and center of the radiator in cm

4. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

5. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

For WLAN

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm ²)	LIMIT (mW/cm ²)
2412-2462	179.473	1.53	20	0.05078	1

For Zigbee

FREQUENCY BAND (MHz)	CONDUCTED POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm ²)	LIMIT (mW/cm ²)
2405 - 2480	4.977	1.93	20	0.00154	1.00

CONCLUSION:

Both of the WLAN and Zigbee can transmit simultaneously, the formula of calculated the MPE is:

$$CPD_1 / LPD_1 + CPD_2 / LPD_2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

Therefore, the worst-case situation is $0.05078 / 1 + 0.00154 / 1 = 0.052$, which is less than "1". This confirmed that the device comply with FCC 1.1310 MPE limit.

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