

# RF EXPOSURE REPORT

**REPORT NO.:** SA111117E01

**MODEL NO.:** RU-827, RU-827-00X  
(X :0~9 , A~Z , CONFIGURATION CODE)

**FCC ID:** MAD-RU-827

**RECEIVED:** Nov. 17, 2011

**TESTED:** Dec. 06, 2011

**ISSUED:** Dec. 15, 2011

**APPLICANT:** Microelectronics Technology Inc.

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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
SA111117E01	Original release	Dec. 15, 2011

## 1.CERTIFICATION

**PRODUCT:** RFID UHF 827 SERIES WITH AMS 3992 MODULE  
**BRAND NAME:** MTI  
**MODEL NO.:** RU-827, RU-827-00X  
(X :0~9 , A~Z , CONFIGURATION CODE)  
**TEST SAMPLE:** ENGINEERING SAMPLE  
**TESTED:** Dec. 06, 2011  
**APPLICANT:** Microelectronics Technology Inc.  
**STANDARDS:** FCC Part 2 (Section 2.1091)  
FCC OET Bulletin 65, Supplement C (01-01)  
IEEE C95.1

The above equipment (Model: RU-827) 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** : Phoenix Huang , **DATE:** Dec. 15, 2011  
( Phoenix Huang, Specialist )

**APPROVED BY** : May Chen , **DATE:** Dec. 15, 2011  
( May Chen, Deputy 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 <sup>2</sup> )	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/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

G = gain of antenna in linear scale

$\pi$  = 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. Antenna Gain

1. There is one antenna provided to this EUT, please refer to the following table:

Antenna Type	Gain(dBi) Include cable loss	Frequency range (MHz to MHz)
Reverse- F	-0.51	902~928

## 6.CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

FREQUENCY BAND (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/ cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
902.75 ~ 927.25	70.8	-0.51	20	0.013	0.6

Note: Limit of Power Density =  $F/1500$

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