



# RF EXPOSURE REPORT

**REPORT NO.:** SA130129C10

**MODEL NO.:** SVG7782U DIAGNOSTIC, SVG7782U,  
SVG7782

**FCC ID:** W5HSVG7782HH

**RECEIVED:** Jan. 29, 2013

**TESTED:** Feb. 20 ~ Mar. 23, 2013

**ISSUED:** Mar. 28, 2013

**APPLICANT:** GENERAL INSTRUMENT OF TAIWAN, LTD.

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

**LAB ADDRESS:** No. 47, 14th Ling, Chia Pau Vil., Lin Kou Dist.,  
New Taipei City, Taiwan, R.O.C.

**TEST LOCATION:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei  
Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA130129C10	Original release.	Mar. 28, 2013



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## 1. CERTIFICATION

**PRODUCT:** Wireless voice cable modem gateway

**MODEL:** SVG7782U DIAGNOSTIC, SVG7782U, SVG7782

**BRAND:** Motorola

**APPLICANT:** GENERAL INSTRUMENT OF TAIWAN, LTD.

**TESTED:** Feb. 20 ~ Mar. 23, 2013

**TEST SAMPLE:** ENGINEERING SAMPLE

**STANDARDS:** FCC Part 2 (Section 2.1091)

FCC OET Bulletin 65, Supplement C (01-01)

IEEE C95.1

The above equipment (Model: SVG7782U DIAGNOSTIC) 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 :** Sunee Liu, **DATE :** Mar. 28, 2013  
Suntee Liu / Specialist

**APPROVED BY :** Ken Liu, **DATE :** Mar. 28, 2013  
Ken Liu / Senior Manager



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## 2. RF EXPOSURE

### 2.1 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

### 2.2 MPE CALCULATION FORMULA

$$Pd = (Pout \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

Pout = 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

### 2.3 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**.



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## 2.4 CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

FREQUENCY BAND (MHz)	MAX POWER (dBm)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
2412-2462	27.50	9.17	20	0.924	1
5180-5240	16.41	8.27	20	0.058	1
5745-5825	28.57	8.27	20	0.961	1

**NOTE:**

**2.4GHz:** Directional gain = 4.4dBi + 10log(3) = 9.17dBi

**5.0GHz:** Directional gain = 3.5dBi + 10log(3) = 8.27dBi

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