



# RF EXPOSURE REPORT

**REPORT NO.:** SA120522C16 R1  
**MODEL NO.:** SBG6580-G228  
**FCC ID:** W5HSBG6580-G228  
**RECEIVED:** May 22, 2012  
**TESTED:** May 30 ~ Jun. 28, 2012  
**ISSUED:** Jul. 24, 2012

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

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

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**TEST LOCATION:** No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei  
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## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA120522C16	Original release	Jul. 02, 2012
SA120522C16 R1	Revised the model name and FCC ID.	Jul. 24, 2012



## 1. CERTIFICATION

**PRODUCT:** DOCSIS 3.0 Wi-Fi Gateway  
**MODEL:** SBG6580-G228  
**BRAND:** MOTOROLA  
**APPLICANT:** GENERAL INSTRUMENT OF TAIWAN, LTD.  
**TESTED:** May 30 ~ Jun. 28, 2012  
**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: SBG6580-G228) 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** : Jul. 24, 2012  
Joanna Wang / Senior Specialist

**APPROVED BY** :  , **DATE** : Jul. 24, 2012  
Gary Chang / Technical Manager

## 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)
<b>LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE</b>				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

### 2.2 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

### 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**.

### 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	26.3	4.08	20	0.217	1
5180-5240	14.5	2.65	20	0.010	1
5745-5825	24.6	2.65	20	0.106	1