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RF EXPOSURE REPORT

REPORT NO.: SA130319C23

MODEL NO.: SBG6782-ACHU DIAGNOSTIC, SBG6782-ACH

FCC ID: W5HSBG6782ACH

RECEIVED: Mar. 25, 2013

TESTED: Apr. 01 ~ Apr. 18, 2013

ISSUED: May 09, 2013

APPLICANT: GENERAL INSTRUMENT OF TAIWAN, LTD.

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ISSUED BY: Bureau Veritas Consumer Products Services
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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA130319C23	Original release	May 09, 2013

1. CERTIFICATION

PRODUCT: Wireless Gateway
MODEL NO.: SBG6782-ACHU DIAGNOSTIC, SBG6782-ACH
BRAND: Motorola
APPLICANT: GENERAL INSTRUMENT OF TAIWAN, LTD.
TESTED: Apr. 01 ~ Apr. 18, 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: SBG6782-ACHU 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 : Celine Chou , **DATE :** May 09, 2013
Celine Chou / Specialist

APPROVED BY : Ken Liu , **DATE :** May 09, 2013
Ken Liu / Senior 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 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

2.2 MPE calculation Formula

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

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

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 ²)	LIMIT (mW/cm ²)
2412-2462	24.89	9.17	20	0.507	1
5180-5240	16.95	8.27	20	0.066	1
5745-5825	28.55	8.27	20	0.975	1

NOTE:

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

5GHz: Directional gain = 3.5dBi + 10log(3) = 8.27dBi