RF EXPOSURE REPORT

REPORT NO.:	SA140808E01 R1
MODEL NO.:	EMG101
FCC ID:	H9PEMG101
RECEIVED:	July 10, 2014
TESTED:	Aug. 12, 2014
ISSUED:	Aug. 26, 2014
APPLICANT:	Symbol Technologies, Inc.
ADDRESS:	One Motorola Plaza Holtsville NY 11742-1300 USA
MANUFACTURER:	Symbol Technologies, Inc.
ADDRESS:	One Motorola Plaza Holtsville NY 11742-1300 USA
ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
LAB ADDRESS:	No. 81-1, Lu Liao Keng, 9th Ling,Wu Lung Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan, R.O.C.

This report should not be used by the client to claim product certification, approval, or endorsement by any government agencies.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
SA140808E01	Original release	Aug. 21, 2014
SA140808E01 R1	Modified the antenna information on section 5.	Aug. 26, 2014

1. CERTIFICATION

PRODUCT:	802.15.4 Gateway
BRAND NAME:	Symbol
MODEL NO.:	EMG101
TEST SAMPLE:	ENGINEERING SAMPLE
APPLICANT:	Symbol Technologies, Inc.
TESTED DATE:	Aug. 12, 2014
STANDARDS:	FCC Part 2 (Section 2.1091)
	KDB 447498 D03
	IEEE C95.1

The above equipment (Model: EMG101) 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:** *Aug. 26, 2014*
(Lori Chung, Specialist)

APPROVED BY : _____ , **DATE:** *Aug. 26, 2014*
(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

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

where

Pd = power density in mW/cm^2

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

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

The antenna provided to the EUT, please refer to the following table:

Gain (dBi) Exclude cable loss	Cable Loss (dB)	Net Gain (dBi)	Connecter Type	Frequency range (MHz to MHz)	Antenna Type
3.2	0.47	2.73	NA	2400~2500	Dipole

6. CALCULATION RESULT OF MAXIMUM CONDUCTED POWER

Radio circuit 1:

FREQUENCY– (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
2405 ~ 2475	26.485	2.73	20	0.00988	1

Radio circuit 2:

FREQUENCY– (MHz)	MAX POWER (mW)	ANTENNA GAIN (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm^2)	LIMIT (mW/cm^2)
2405 ~ 2475	24.831	2.73	20	0.00926	1

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