Excellence in Compliance Testing

Certification Exhibit

FCC ID: 2AKILBX090
IC: 22194-BX090

FCC Rule Part: 15.247
ISED Canada Radio Standards Specification: RSS-247

ACS Project Number: 16-2075

Manufacturer: Creed Monarch, Inc.
Model: BX090

RF Exposure

General Information:

Applicant:	Creed Monarch, Inc.
ACS Project:	16-2075
Device Category:	Mobile
Environment:	General Population/Uncontrolled Exposure

Technical Information:

Antenna Type:	Helical SMD Antenna
Antenna Gain:	0.8 dBi
Maximum Transmitter Conducted Power:	8.1 dBm, 6.46 mW
Maximum System EIRP:	8.9 dBm, 7.76 mW
Exposure Conditions:	Greater than 20 centimeters

MPE Calculation

The Power Density (mW/cm^2) is calculated as follows:

$$S = \frac{PG}{4\pi R^2}$$

Where:
S = power density (in appropriate units, e.g. mW/cm2)
P = power input to the antenna (in appropriate units, e.g., mW)
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna (appropriate units, e.g., cm)

Table 1: FCC Requirements

MPE Calculator for Mobile Equipment Limits for General Population/Uncontrolled Exposure*							
Transmit Frequency (MHz)	**Radio Power (dBm)**	**Power Density Limit (mW/Cm2)**	**Radio Power (mW)**	**Antenna Gain (dBi)**	**Antenna Gain (mW eq.)**	**Distance (cm)**	**Power Density (mW/cm^2)**
922.4	8.1	0.61	6.46	0.8	1.202	20	0.002

Table 2: Innovation Science Economic Development Canada Requirements

MPE Calculator for Mobile Equipment Limits for General Population/Uncontrolled Exposure*							
Transmit Frequency (MHz)	**Radio Power (dBm)**	**Power Density Limit (W/m2)**	**Radio Power (mW)**	**Antenna Gain (dBi)**	**Antenna Gain (mW eq.)**	**Distance (cm)**	**Power Density (W/m^2)**
922.4	8.1	2.78	6.46	0.8	1.202	20	0.015

Installation Guidelines

The installation manual should contain text similar to the following advising how to install the equipment to maintain compliance with the FCC RF exposure requirements:

RF Exposure

In accordance with FCC requirements of human exposure to radio frequency fields, the radiating element shall be installed such that a minimum separation distance of 20 centimeters will be maintained.

Conclusion

This device complies with the MPE requirements by providing adequate separation between the device, any radiating structure and the general population.