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RF Exposure Report

Report No.: SA141028D03A

FCC ID: ROO-MDU2000

Test Model: MDU2000

Received Date: Dec. 16, 2015

Test Date: Jan. 04, 2016

Issued Date: Jan. 05, 2016

Applicant: Microwave Solutions Ltd

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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Release Control Record

Issue No.	Description	Date Issued
SA141028D03A	Original release.	Jan. 05, 2016

1 Certificate of Conformity

Product: MDU2000 X-Band Doppler Motion Detector

Brand: Microwave-Solutions

Test Model: MDU2000

Sample Status: MASS-PRODUCTION

Applicant: Microwave Solutions Ltd

Test Date: Jan. 04, 2016

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE Std C95.1-2005

The above equipment 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 : Midoli Peng, **Date:** Jan. 05, 2016
Midoli Peng / Specialist

Approved by : May Chen, **Date:** Jan. 05, 2016
May Chen / 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

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

where

Pd = power density in mW/cm²

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 0.2m away from the body of the user.

So, this device is classified as **Mobile Device**.

3 Calculation Result of Maximum Power

Separation distance is more than 20cm

Frequency Band (MHz)	Field Strength of Fundamental (dBuV/m)	Pout EIRP (dBm)	Pout EIRP (mW)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
10525	110.1	14.87	30.69	20	0.00611	1

Minimum separation distance is 1.7cm

Frequency Band (MHz)	Field Strength of Fundamental (dBuV/m)	Pout EIRP (dBm)	Pout EIRP (mW)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
10525	110.1	14.87	30.69	1.7	0.84506	1

NOTE: Pout EIRP (dBm) = Field Strength of Fundamental (dBuV/m) - 95.23 (dB)

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