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
Address:	Secure House, Braithwell Way Hellaby Rotherham N/A United Kingdom S66 8QY
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location (1):	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location (2):	No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

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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 : _____ , **Date:** Jan. 05, 2016

Midoli Peng / Specialist

Approved by : _____ , **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/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

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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