RF Exposure Report

Report No.: SA170419E08D

FCC ID: QXP-A7310

Test Model: mevo

Received Date: Apr. 19, 2017

Test Date: June 12, 2017

Issued Date: Feb. 08, 2018

Applicant: FlightScope (Pty) Ltd

Address: 10 Elektron Road, Technopark, Stellenbosch, 7500 South Africa

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory

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Table of Contents

Release Control Record

Issue No.	Description	Date Issued
SA170419E08D	Original release.	Feb. 08, 2018

1 Certificate of Conformity

Product:	FlightScope mevo
Brand:	FlightScope
Test Model:	mevo
Sample Status:	ENGINEERING SAMPLE
Applicant:	FlightScope (Pty) Ltd
Test Date:	June 12, 2017
Standards:	FCC Part 2 (Section 2.1091) KDB 447498 D01 General RF Exposure Guidance v06 IEEE C95.1-1992

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:** Feb. 08, 2018

Wendy Wu / Specialist

Approved by : _____ , **Date:** Feb. 08, 2018

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				
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	($180/f^2$)*	30
30-300	27.5	0.073	0.2	30
300-1500	…	…	f/1500	30
1500-100,000	…	…	1.0	30

f = Frequency in MHz ; *Plane-wave equivalent power density

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 20cm away from the body of the user.

2.4 Calculation Result

For 24GHz:

Frequency (MHz)	Field Strength of Fundamental (dBuV/m)	Pout EIRP (dBm)	Pout EIRP (mW)	Distance (cm)	Power Density (mW/cm^2)	Limit (W/cm^2)
24088	107.1	2.33	1.710	20	0.00034	1

For BT-LE

Frequency (MHz)	Field Strength of Fundamental (dBuV/m)	Pout EIRP (dBm)	Pout EIRP (mW)	Distance (cm)	Power Density (mW/cm^2)	Limit (W/cm^2)
2404~2478	87.1	-8.13	0.15382	20	0.00003	1

Field strength is then converted to EIRP as follows:
(i) EIRP = ((E*d)^2) / 30
where:

E is the field strength in V/m;
d is the measurement distance in meters;
EIRP is the equivalent isotropically radiated power in watts.

(ii) Working in dB units, the above equation is equivalent to:

EIRP[dBm] = E[dBμV/m] + 20log(d[meters]) - 104.77

(iii) Or, if d is 3 meters: EIRP[dBm] = E[dBμV/m] – 95.23

Conclusion:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1

CPD = Calculation power density

LPD = Limit of power density

24GHz + BT-LE = 0.00034 / 1 + 0.00003 / 1 = 0.00037

Therefore the maximum calculations of above situations are less than the "1" limit.

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