An IIA Company

Test Report - RF Exposure Evaluation Report for SAR Exclusion
Applicant: Escort Incorporated

Approved for Release By:

Signature: Bruno Clavier

Name & Title: Bruno Clavier, General Manager

Date of Signature 10/31/2022

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Customer Information

Applicant: Escort Incorporated
Address: 5440 West Chester Road
West Chester, Ohio, 45069, United States

Location of Testing

1.1 Test Laboratory

Timco Engineering Inc. is a subsidiary of Industrial Inspection & Analysis, Inc. ("IIA"). Testing was performed at Timco's permanent laboratory located at 849 NW State Road 45, Newberry, Florida 32669

FCC test firm # 578780
FCC Designation # US1070
FCC site registration is under A2LA certificate # 0955.01
ISED Canada test site registration # 2056A
EU Notified Body # 1177
For all designations see A2LA scope # 0955.01

1.2 Testing was performed, reviewed by

Dates of Testing: 10/3/2022-10/20/2022

Signature:  Sr. EMC Engineer EMC-003838-NE

Name & Title: Tim Royer, EMC Engineer

Date of Signature 10/31/2022

Signature: 

Name & Title: Kristoffer Costa, EMC Technician

Date of Signature 10/31/2022

Test Sample(s) (EUT/DUT)

The test sample was received: 09/27/2022

1.3 Description of the EUT

A description as well as unambiguous identification of the EUT(s) tested. Where more than one sample is required for technical reasons (such as the use of connected units for the purpose of conducted output power testing where the product units will have integral antennas), each specific test shall identify which unit was tested.

Identification	
FCC ID:	QKLMAX3V2
Brief Description	Radar Detector with BLE
Model(s) #	MAX 3
Firmware version	N/A
Software version	N/A
Serial Number	N/A

Technical Characteristics	
Technology	Radar Detector with BLE
Frequency Range	2402 – 2480 MHz
Duty Cycle	100%
Antenna Connector	N/A
Voltage Rating (AC or Batt.)	13.8 VAC

SAR EXCLUSION CALCULATION:

Section 4.3.1 General SAR test exclusion guidance

Equation:

For 100 MHz to 6 GHz and *test separation distances* ≤ 50 mm, the 1-g and 10-g *SAR test exclusion thresholds* are determined by the following:

[(*max. power of channel, including tune-up tolerance, mW*) / (*min. test separation distance, mm*)] · [$\sqrt{f_{(GHz)}}$] ≤ 3.0 for 1-g SAR, and ≤ 7.5 for 10-g extremity SAR,[30] where

- $f_{(GHz)}$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation[31]
- The result is rounded to one decimal place for comparison
- The values 3.0 and 7.5 are referred to as *numeric thresholds* in step b) below

RSS 102 Section 2.5 Exemption Limits for Routine Evaluation

Equation:

- below 20 MHz[6] and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $4.49/f^{0.5}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2}\ f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

Conclusion: SAR testing is not required.

MPE

Frequency Band	Separation Distance (mm)	Max Power + Tolerance (dBm)	Max Power + Tolerance (mW)	SAR Exclusion Value	Limit for 1-g SAR	Limit for 10-g SAR (Extremeties)	SAR Exclusion
2400-2483.5 MHz	5	1.25	1.33	0.42	3.0	7.5	SAR EXEMPT

History of Test Report Changes

Test Report #	Revision #	Description	Date of Issue
TR_4407-22_RF Exp SAR Exclusion_	1	Initial release	10/10/2022
	2	Updated frequency range Page 5	10/31/2022

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END OF TEST REPORT