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MPE Assessment report

Product: Tru-Test XRP2i-1 Low Frequency Electronic ID (EID) Reader

Brand Name : Tru-Test

Model Number: XRP2i-1

FCC ID: XOQXRP2-1

Company name: Datamars SA

Manufacturer: Datamars Ltd

Bluetooth Identification FCC ID: WAP3026 (IC ID: 7922A-3026)

Maximum permissible exposure calculation is given as below:

As per FCC KDB 447498 D01 and Section 2.1091 radio frequency transmitters are required to be operated in a manner that ensures the public is not exposed to RF energy levels.

Calculations have been made using the General Public/Uncontrolled Exposure limits that are defined in Section 1.1310.

Limits for General Population / Uncontrolled Exposure				
Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/ cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note 1: f = frequency in MHz ; *Plane-wave equivalent power density
Note 2: For the applicable limit, see FCC 1.1310

The evaluation has been performed on 134.2 kHz and Bluetooth frequency band (2402 MHz to 2480 MHz)

- **Frequency:** 134.2 kHz

Radiated emissions results at 134.2 kHz are:

300 metres extrapolation at 134.2 kHz (Peak Detector)

Level 10 m dBuV/m	Level 30 m dBuV/m	Roll off dB	No. half decades	Total Roll Off dB	Level 300 m dBuV/m	Limit 300 m dBuV/m	Margin dB
107.8	80.5	27.3	3.0	81.9	25.9	45.0	19.1

300 metres extrapolation at 134.2 kHz (Average Detector)

Level 10 m dBuV/m	Level 30 m dBuV/m	Roll off dB	No. half decades	Total Roll Off dB	Level 300 m dBuV/m	Limit 300 m dBuV/m	Margin dB
104.3	77.7	26.6	3.0	79.8	24.5	25.0	0.5

Result: The FCC has not defined limits for MPE at 134.2 kHz frequency and hence the product is exempt.

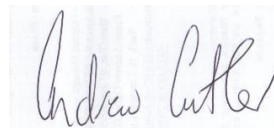
- **Frequency:** Bluetooth frequency band (2402 MHz to 2484 MHz)

Bluetooth has been implemented using a pre certified module, with FCC ID: WAP3026 (IC ID: 7922A-3026)

The FCC Test report no:

As per the RF exposure test report titled RF-Exposure-3461059 (Report No. : 1752099R-RF-US-P20V02), available on FCC web portal, the module is exempt from SAR test.

Result: The Bluetooth module (FCC ID: WAP3026) has been installed as per manufacturer instructions (as per the client), and hence exempt from SAR.



This document is issued with the authority of: _____
Andrew Cutler - General Manager