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Bearaxe, LLC

SAR EXCLUSION

REPORT

SCOPE OF WORK

SAR EXCLUSION CALCULATION
ON THE SMART-HANDLE

REPORT NUMBER

105081748LEX-008

ISSUE DATE

8/18/2022

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SAR EXCLUSION TEST REPORT

Report Number: 105081748LEX-008

Project Number: G105081748

Report Issue Date: 8/18/2022

Product Name: Smart-Handle

Standards: FCC Part 1.1310 Limits for Maximum
Permissible Exposure (MPE)

Tested by:
Intertek Testing Services NA, Inc.
731 Enterprise Drive
Lexington, KY 40510
USA

Client:
Bearaxe, LLC
2542 NW Upshur St
Portland, OR 97210
USA

Report prepared by



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Report reviewed by



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1 Introduction and Conclusion

SAR exclusion calculations were performed on the product constructed as described in section 4. Information provided by the client including maximum output power, antenna gain(s), and minimum separation distance(s) was used to determine if the product under evaluation was exempt from SAR. Any change in these stated values may invalidate these results. No additions, deviations, or exclusions have been made from the standard(s) unless specifically noted.

Based on the results of our investigation, we have concluded the product under evaluation is **exempt** from SAR requirements for each of the standard(s) indicated. The results obtained in this test report pertain only to the item(s) evaluated. Intertek does not make any claims of compliance for samples or variants which were not evaluated.

2 Test Summary

Section	Test Full Name	Result
5	FCC SAR Exclusion Calculation	Exempt from SAR



3 Client Information

This product was tested at the request of the following:

Client Information	
Client Name:	Bearaxe, LLC
Address:	2542 NW Upshur St Portland, OR 97210 USA
Contact:	Joshua Baltaxe
Telephone:	+1 (818) 293-8338
Email:	josh@bearaxe.co
Manufacturer Information	
Manufacturer Name:	Bearaxe, LLC
Manufacturer Address:	2542 NW Upshur St Portland, OR 97210 USA



4 Description of Equipment under Test and Variant Models

Equipment Under Test	
Product Name	Smart-Handle
Model Number	0021-1001
Embedded Module	Manufacturer: Digi International Inc. Model: XBee
Embedded Module FCCID	MCQ-XBS2C
Maximum Output Power (dBm) ¹	8
Receive Date	8/18/2022
Test Start Date	8/18/2022
Test End Date	8/18/2022
Device Received Condition	Good
Test Sample Type	Production
Nominal Voltage	3.7V
Charging Cut-Off Voltage	4.2V
Discharge Cut-Off Voltage	3.0V
Description of Equipment Under Test (provided by client)	
Intuitive Smart-Handle puts the power in the hands of the rider, enabling wireless transmission of throttle input to the winch.	

4.1 Variant Models:

There were no variant models covered by this evaluation.

¹ The information was provided by the client. Any deviations from these values may affect compliance.



5 FCC SAR Exclusion Criteria

Per KDB 447498 D01 General RF Exposure Guidance v06 § 4.3.1(a), the 10-g extremity SAR exclusion threshold is:

$$\left[\frac{(\text{max. power of channel, including tune - up tolerance, mW})}{(\text{min. test separation distance, mm})} \right] \cdot \left[\sqrt{f_{(\text{GHz})}} \right] \leq 7.5$$

The maximum output power for each transmit band was taken from the module grant MCQ-XBS2C. The device was evaluated using a minimum permissible separation distance of 5mm. Any changes from these values will alter the calculation and may affect compliance.

Band	Frequency (GHz)	Output Power (dBm)	Output Power (mW)	Exclusion Threshold @ 5mm	Limit	Exempt from SAR?
902-928MHz ISM	0.928	8	6.3	1.21	7.5	Exempt

**6 Revision History**

Revision Level	Date	Report Number	Prepared By	Reviewed By	Notes
0	8/18/2022	105081748LEX-008	BZ	JTS	Original Issue