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FCC ID: W5O-BT2400PRO

Page: 1/10 00 Rev.:

SAR TEST REPORT

FCC 47 CFR § 2.1093

for **BATTERY TESTER**

Model Name.: BT2400PRO

Prepared for:

DHC Specialty Corp. 7FI,No.83,Chou Tzu St.Nei Hu,Taipei 114,Taiwan

Prepared by

Compliance Certification Services Inc. Wugu Lab.

> No.11, Wugong 6th Rd., Wugu Dist., New Taipei City, Taiwan. Issue Date: July 11, 2024

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Page: 2/10 Rev.: 00

Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	July 11, 2024	Initial Issue	ALL	Peggy Tsai



Page: 3 / 10 Rev.: 00

Table of Contents

1	ATTESTATION OF TEST RESULTS	4
2	TEST METHODOLOGY	5
3		
	3.1 DUT DESCRIPTION	
	3.2 WIRELESS TECHNOLOGIES	6
4	CONDUCTED OUTPUT POWER MEASUREMENTS	7
	4.1 WI-FI 2.4GHZ (DTS BAND)	7
5	ANTENNA LOCATION	8
6	RF EXPOSURE CONDITIONS (TEST CONFIGURATIONS	s)9
	6.1 STANDALONE SAR TEST EXCLUSION CONSIDERATIONS	
7	FACILITIES	10



Page: 4/10 Rev.: 00

1 Attestation of Test Results

Applicant Name	DHC Specialty Corp.					
Model Name	BATTERY TESTER					
Applicable Standards	FCC 47 CFR § 2.1093 KDB 447498 D04 Interim General RF Exposure Guidance v01					
Receive EUT Date:						
Date Tested	March 19, 2024					
Test Results	Pass					

Compliance Certification Services Inc., tested the above equipment in accordance with the requirements set forth in the above standards. Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainy. All indications of Pass/Fail in this report are opinions expressed by Compliance Certification Services Inc, based on interpretations and/or observations of test results. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report

documented in this report.	
Approved & Released By:	Tested by:
Show Thou	Jack Yang
Sky Zhou	Jack Yang
Asst. Section Manager	Engineer
Compliance Certification Services Inc.	Compliance Certification Services Inc.



Page: 5 / 10 Rev.: 00

2 Test Methodology

All calculations were made in accordance with FCC KDB 447498 D04 Interim General RF Exposure Guidance v01



Page: 6/10 Rev.: 00

Device Under Test (DUT) Information

3.1 DUT Description

Applicant Name	DHC Specialty Corp.
Applicant Address	7FI,No.83,Chou Tzu St.Nei Hu,Taipei 114,Taiwan
Manufacturer Name	DHC Specialty Corp.
Manufacturer Address	7F.,NO.308,Sec.1,Datong Rd,Xizhi Dist., NEW TAIPEI CITY 22146, TAIWAN
Product	BATTERY TESTER
Trade Name	DHC
Model No.	BT2400PRO
Model Discrepancy	N/A
Device Dimension	Overall (Length x Width): 280 mm x 132 mm Overall Diagonal: 309 mm
Back Cover	☑ Normal Battery Cover
Battery Options	Alkaline battery, Rating 9Vdc, Six batteries are connected in parallel.
Sample Stage	PVT

3.2 Wireless Technologies

<u></u>			
Wireless technologies	Frequency bands	Peak Antenna Gain (dBi)	Operating mode
Wi-Fi	2.4 GHz	2	802.11b 802.11g 802.11n (HT20)
Antenna Specification	Туре	MIFA Anten	na

Notes:

The sample selected for test was prototype that representative to production product and was provided by manufacturer Antenna information is provided by the applicant, test results of this report are applicable to the sample EUT received



Page: 7/10 Rev.: 00

4 Conducted Output Power Measurements

4.1 Wi-Fi 2.4GHz (DTS Band)

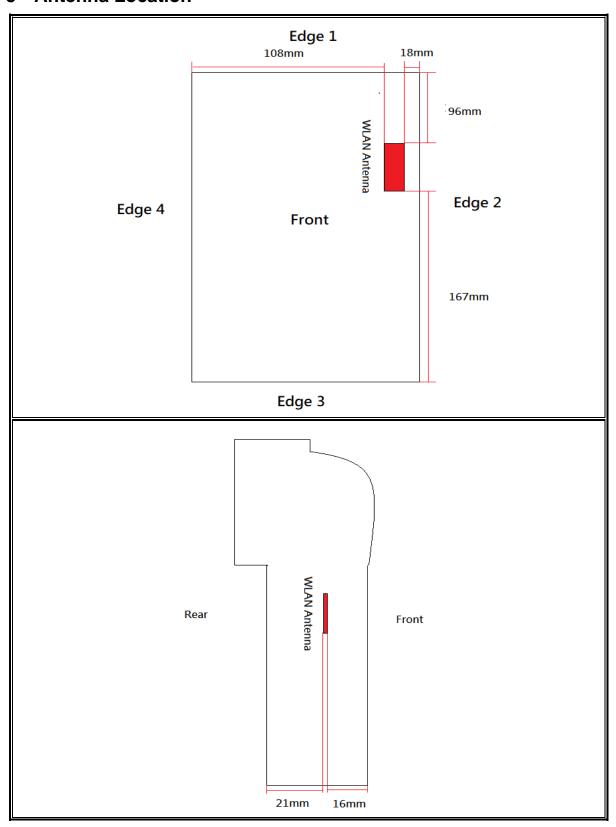
Measured Results

Measurea	easured Nesdits										
Band	Mode	Data Rate	Ch#	Freq. (MHz)	Meas. Avg Pwr (dBm)	Tune-up Limit (dBm)	SAR Test (Yes/No)				
			1	2412	11.05		No				
	802.11b	1 Mbps	6	2437	11.02	12.5					
			11	2462	11.90						
	802.11g	6 Mbps	1	2412	10.46		No				
2.4GHz (DTS)			6	2437	10.42	12.0					
(510)			11	2462	11.26						
			1	2412	10.53						
	802.11n (HT20)	MCS0	6	2437	10.50	12.0	No				
	(1120)		11	2462	11.32						



Page: 8 / 10 Rev.: 00

5 Antenna Location





Page: 9/10 Rev.: 00

6 RF Exposure Conditions (Test Configurations)

Refer to Section 5 for the specific details of the antenna-to-antenna and antenna-to-edge(s) distances.

6.1 Standalone SAR Test Exclusion Considerations

Since the Dedicated Host Approach is applied, the SAR-based exemption in Appendix B of KDB 447498 D04 is applied together with KDB 616217 § 4.3 to determine the minimum test separation distance:

- When the separation distance from the antenna to an adjacent edge is ≤ 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.
- When the separation distance from the antenna to an adjacent edge is > 5 mm, the actual antenna-to-edge separation distance is applied to determine SAR test exclusion.
- The available maximum time-averaged power or effective radiated power (ERP), whichever is greater, is less than or equal to the threshold Pth (mW) described in the following formula.
 Pth is given by:

$$P_{\rm th} \; ({\rm mW}) = ERP_{\rm 20 \; cm} \; ({\rm mW}) = \begin{cases} 2040f & 0.3 \; {\rm GHz} \leq f < 1.5 \; {\rm GHz} \\ \\ 3060 & 1.5 \; {\rm GHz} \leq f \leq 6 \; {\rm GHz} \end{cases}$$

The separation distances from 0.5 cm to 40 cm and at frequencies from 0.3 GHz to 6 GHz.
 Pth is given by:

$$P_{\text{th (mW)}} = \begin{cases} ERP_{20 \text{ cm}} (d/20 \text{ cm})^x & d \le 20 \text{ cm} \\ ERP_{20 \text{ cm}} & 20 \text{ cm} < d \le 40 \text{ cm} \end{cases}$$

where

$$x = -\log_{10}\left(\frac{60}{ERP_{20 \text{ cm}}\sqrt{f}}\right)$$

and f is in GHz, d is the separation distances (cm).

SAR Test Exclusion Calculations for 1.5 GHz $\leq f \leq$ 6 GHz

The SAR test exemption is 2.5 times the SAR-based exemption threshold.

The device was assessed the 10g SAR limits.

Tx	Frequency	Output	Power	Antenna Gain	ERP	ERP Threshold	Separation Distances (cm)			P _{th} (mW)					Exemption result						
Interface	(GHz)	dBm	mW	(dBi)	(dBm)	(mW)	Rear	Edge1	Edge2	Edge3	Edge4	Rear	Edge1	Edge2	Edge3	Edge4	Rear	Edge1	Edge2	Edge3	Edge4
WiFi 2.4GHz	2.462	12.50	18	2	12.35	17.18	2.1	9.6	1.8	16.7	10.8	105	1461	28	5472	2368	-EXEMPT-	-EXEMPT-	-EXEMPT-	-EXEMPT-	-EXEMPT-

Conclusion:

The Max. output power and ERP ≤ Pth (mW); therefore, this qualifies for SAR test exclusion.



Page: 10 / 10 Rev.: 00

7 Facilities

All measurement facilities used to collect the measurement data are located at \boxtimes No.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan.

END OF REPORT