



Test Report - RF Exposure Evaluation Report for SAR Exclusion

Prepared For: TANDD CORPORATION

Approved for Release By:

Signature: Bruno Clavier

Name & Title: Bruno Clavier, General Manager

Date of Signature
(YYYY-MM-DD): 2020-11-03

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Table of Contents

1.	CUSTOMER INFORMATION.....	3
2.	LOCATION OF TESTING	3
2.1	TEST LABORATORY	3
2.2	TESTING WAS PERFORMED, REVIEWED BY	4
3.	TEST SAMPLE(S) (EUT/DUT).....	5
3.1	DESCRIPTION OF THE EUT.....	5
4.	SAR EXCLUSION CALCULATION:	6
5.	HISTORY OF TEST REPORT CHANGES.....	7



Timco Engineering, Inc., an IIA Company
849 NW State Road 45, Newberry, Florida 32669
(352) 472-5500 / testing@timcoengr.com

1. Customer Information

Applicant: TANDD Corporation
Address: 817-1-Shimadachi
Matsumoto City, Nagano, Japan 390-0852

Contact: Akemo Oana
Telephone: 81-263-40-0131
Email address: oana@tandd.co.jp

2. Location of Testing

2.1 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



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2.2 Testing was performed, reviewed by

Dates of Testing: June 12 – September 18, 2020

Signature:  _____

Name & Title: Franklin Rose, EMC Specialist

Date of Signature
(YYYY-MM-DD): 2020-11-3

Signature:  _____



Name & Title: Tim Royer, EMC Engineer

Date of Signature
(YYYY-MM-DD): 2020-11-3



3. Test Sample(s) (EUT/DUT)

The test sample was received: October 27, 2020

3.1 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:	SRD10100
Brief Description	Data Logger Base Unit
Type of Modular	NA
Model(s) #	RTR500BW, RTR500BC
Trade name	TANDD
Firmware version	NA
Software version	NA
Serial Number	NA

Technical Characteristics

Technology	BLE
Frequency Range	902-928
RF O/P Power (Max.)	7.2 dBm, 0.005248 Watts
Modulation	FSK
Bandwidth & Emission Class	552.55 kHz
Number of Channels	21
Duty Cycle	10%
Antenna Type	External
Antenna Gain (for each ant.)	2.15 dBi
Antenna Connector	N/A
Voltage Rating (AC or Batt.)	Batt

Antenna Characteristics

Frequency Range	Mode / BW	Ant Gain 1	Ant Gain 2
902-928		2.15 dBi	



4. SAR EXCLUSION CALCULATION:

SAR EXCLUSION CALCULATION:

KDB 447498 D01 General RF Exposure Guidance v05r02									
4.3.1. Standalone SAR test exclusion considerations									
100 MHz to 6 GHz at separation distance less than or equal to 50 mm									
SAR Test Exclusion Calculator for Portable Devices Insert values in yellow highlighted boxes to determine SAR Exclusion									
Max Power	5.248	mW	When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.						
Min Separation	5	mm							
Frequency	0.902	GHz							
Answer	1.00	Must be less than or equal to 3.0 for SAR Exclusion	7.5	for extremities					
KDB 388624 D02Permit But Ask List v15r03, Item II. A. 5. PBA is required if: General Population: The Answer is equal to or greater than 24 (8x threshold) Controlled Use: The Answer is equal to or greater than 60 (20x threshold) and , when published RF exposure KDB procedures are <u>not</u> established for SAR testing or when SAR data is not provided to support compliance.									
Please also note the following: <i>[FCC KDB quote]</i> These test exclusion conditions are based on source-based time-averaged maximum conducted output power of the RF channel requiring evaluation, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The minimum test separation distance is determined by the smallest distance from the antenna and radiating structures or outer surface. <i>[End quote]</i>									

Conclusion: SAR testing is not required.



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5. History of Test Report Changes

Test Report #	Revision #	Description	Date of Issue
TR_3846-20_RF Exp SAR Exclusion Rpt	1	Initial release	November 13, 2020



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END OF TEST REPORT
