TIMCO
ENGINEERING, Inc.
An IIA Company

Test Report - RF Exposure Evaluation / SAR Exclusion
Prepared For: TANDD CORPORATION

Approved for Release By:

Signature: _Bruno Clavier_

Name & Title: Bruno Clavier, General Manager

Date of Signature   12/16/2020

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1. Customer Information

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

Contact: Akemi 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

2.2 Testing was performed, reviewed by

Dates of Testing: October 14 – December 16, 2020

Signature:

Name & Title: Franklin Rose, EMC Specialist

Date of Signature
(YYYY-MM-DD):   2020-12-16

Sr. EMC Engineer
EMC-003838-NE

Signature:

Name & Title: Tim Royer, EMC Engineer

Date of Signature
(YYYY-MM-DD):   2020-12-16

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

The test sample was received: October 14, 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	Host device to WiFi module FCC ID: Z64-CC3135MOD
Model(s) #	RTR500BC, RTR500BW
Firmware version	n/a
Software version	n/a
Serial Number	n/a

Technical Characteristics	
Technology	900 MHz FSK (The host also contains 2.4 GHz BLE; 2.4 GHz WiFi module)
Frequency Range	902-928 MHz; 2400-2483.5 MHz
RF O/P Power (Max.)	7.2 dBm (5.25 milliwatts)
Modulation	FSK
Bandwidth & Emission Class	552.55 kHz
Number of Channels	21
Duty Cycle	10%
Antenna Gain (for each ant.)	2.15 dBi
Antenna Connector	SMA
Voltage Rating (AC or Batt.)	5 V DC

Antenna Characteristics			
Antenna	Frequency Range	Mode / BW	Antenna Gain
1	902-928 MHz	n/a	2.15 dBi
2	2.4 – 2.4835 GHz	n/a	0 dBi

4. SAR EXCLUSION CALCULATION:

900 MHz Radio

Frequency Band	Separation Distance (mm)	Max Power + Tolerance (dBm)	Max Power + Tolerance (mW)	SAR Exclusion Value
902-928 MHz	5	7.20	5.25	1.01

2.4 GHz Radio

Frequency Band	Separation Distance (mm)	Max Power + Tolerance (dBm)	Max Power + Tolerance (mW)	SAR Exclusion Value
2402-2480 MHz	5	-0.85	0.82	0.26

SAR, Composite

Frequency Band	Separation Distance (mm)	SAR Exclusion Value	Limit for 1-g SAR	Limit for 10-g SAR (Extremeties)	SAR Exclusion
902-2480 MHz	5	1.27	3.0	7.5	SAR EXEMPT

Note: Device is fixed; device is not handheld or body-worn.

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
TR_3846-20_RF Exp SAR Exclusion Rpt_2	2	Updated with 2.4 GHz Radio; clerical updates	December 16, 2020

END OF TEST REPORT