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Report No.: 2110RSU055-U2 Report Version: V01 Issue Date: 02-25-2022

RF Exposure Evaluation Declaration

FCC ID: YIY-ASMB0878

Applicant: Industrea Mining Technology Pty Ltd

Product: MINI RF TOF MODULE NANOPAN

Model No.: ASMB0878

Trading Name: T/A Digital Mining Technology

FCC Rule Part(s): FCC Part 2 (Section 2.1091)

Test Date: November 14 ~ December 27, 2021

Approved By:

Sunny Sun

Approved By:

Robin Wu

Robin Wu

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

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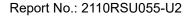
Revision History

Report No.	Version	Description	Issue Date	Note
2110RSU055-U2	Rev. 01	Initial Report	02-25-2022	Valid



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1. General Information

1.1. Applicant

Industrea Mining Technology Pty Ltd

T/A Digital Mining Technology

3 Co-Wyn Close, Fountaindale, NSW 2258, Australia

1.2. Manufacturer

Industrea Mining Technology Pty Ltd

T/A Digital Mining Technology

3 Co-Wyn Close, Fountaindale, NSW 2258, Australia

1.3. Test Facility

Test Site – MRT Suzhou Laboratory							
Laboratory Location (Suzhou - Wuzhong)							
D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China							
Laboratory Location (Suzhou - SIP)							
4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China							
Laboratory Accreditations							
A2LA: 3628.01		CNAS	S: L10551				
FCC: CN1166		ISED:	CN0001				
VCCI:	□R-20025	□G-20034	□C-20020	□T-20020			
VOOI.	□R-20141	□G-20134	□C-20103	□T-20104			
Test Site – MRT Shenzhen Laboratory							
Laboratory Location (Shenzhen)							
1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen,							
China							
Laboratory Accreditations							
A2LA: 3628.02		CNAS	: L10551				
FCC: CN1284		ISED: CN0105					
Test Site – MRT Taiwan Laboratory							
Laboratory Location (Taiwan)							
No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.)							
Laboratory Accreditations							
TAF: L3261-1907	25						
FCC: 291082, TV	V3261	ISED:	TW3261				



1.4. Product Information

Product	MINI RF TOF MODULE NANOPAN
Model No.	ASMB0878
Frequency Range	2400 ~ 2483.5MHz
Operating Temp.	-40 ~ 75°C
Power Supply	3.3 Vdc

Remark:

The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.

1.5. Radio Specification

Frequency Range	2400 ~ 2483.5MHz
Channel Number	2
Modulation	css
Antenna Type	External antenna
Antenna Gain	8 dBi

1.6. Applied Standards

KDB 447498 D01v06





2. RF Exposure Evaluation

2.1. Test Limit

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range	Electric Field	Magnetic Field	Power Density	Average Time				
(MHz)	Strength (V/m)	Strength (A/m)	(mW/cm ²)	(Minutes)				
	(A) Limits for Occupational/ Control Exposures							
300-1500			f/300	6				
1500-100,000			5	6				
(B) Limits for General Population/ Uncontrolled Exposures								
300-1500			f/1500					
1500-100,000		1		30				

f= Frequency in MHz

Calculation Formula: $Pd = (Pout*G)/(4*pi*r^2)$

Where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

r = distance between observation point and center of the radiator in cm

Pd is the limit of MPE, 1mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.



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2.2. Test Result

Product	MINI RF TOF MODULE NANOPAN
Test Item	RF Exposure Evaluation

Frequency Band	Conducted	Max. Antenna	Max.	Compliance	Power	Limit
(MHz)	Power	Gain	EIRP	Distance	Density	(mW/cm ²)
	(dBm)	(dBi)	(dBm)	(cm)	(mW/cm ²)	
2400 ~ 2483.5	9.08	8.0	17.08	20	0.0102	1

Note: EIRP (dBm) = Conducted Power (dBm) + Antenna Gain (dBi)

CONCLUSION:

So the compliance distance is 20cm for device installed without any other radio equipment.