


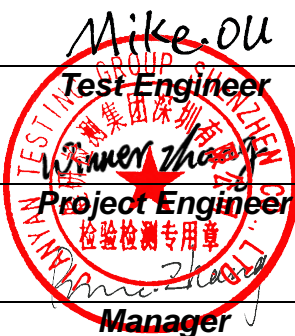


RF Exposure Evaluation Report

Applicant: Netradyne Inc.
Address of Applicant: 9191 Towne Centre Drive, Suite 200, San Diego, CA United States 92122
Equipment Under Test (EUT)
Product Name: Lumia 2.0
Model No.: DCM-NA1-200
FCC ID: 2AM8R-DCM-NA1-200
Applicable standards: FCC CFR Title 47 Part 2 Subpart J Section 2.1091
Date of sample receipt: 21 Jan., 2022
Date of Test: 22 Jan., 2022 to 17 Feb., 2022
Date of report issue: 18 Feb., 2022
Test Result: PASS*

Tested by:	 _____	Date:	18 Feb., 2022 _____
Reviewed by:	 _____	Date:	18 Feb., 2022 _____
Approved by:	 _____	Date:	18 Feb., 2022 _____



This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in above the application standard version. Test results reported herein relate only to the item(s) tested.

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2 Version

Version No.	Date	Description
00	18 Feb., 2022	Original

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4 General Information

4.1 Client Information

Applicant:	Netradyne Inc.
Address:	9191 Towne Centre Drive, Suite 200, San Diego, CA United States 92122
Manufacturer:	Netradyne Inc.
Address:	9191 Towne Centre Drive, Suite 200, San Diego, CA United States 92122

4.2 General Description of E.U.T.

Product Name:	Lumia 2.0			
Model No.:	DCM-NA1-200			
Operation Frequency:	4G :	Band 2: 1850 MHz-1990 MHz		
		Band 4: 1710 MHz-2155 MHz		
		Band 12: 699 MHz-746 MHz		
		Band 66: 1710 MHz-2200 MHz		
		Band 71: 663 MHz-698 MHz		
Modulation technology:	LTE: QPSK, 16QAM, 64QAM			
Antenna Type:	Internal Antenna			
Antenna gain:	LTE:	Band 2: -2 dBi	Band 4: -1.8 dBi	Band 12: -2.5 dBi
		Band 66: -3.8 dBi	Band 71: -2.7 dBi	
Test Sample Condition:	The test samples were provided in good working order with no visible defects.			

4.3 Operating Modes

Operating mode	Detail description
LTE mode	Keep the EUT in continuously transmitting in LTE mode

4.4 Additions to, deviations, or exclusions from the method

No

4.5 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

● **FCC - Designation No.: CN1211**

JianYan Testing Group Shenzhen Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

● **ISED – CAB identifier.: CN0021**

The 3m Semi-anechoic chamber and 10m Semi-anechoic chamber of JianYan Testing Group Shenzhen Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

● **CNAS - Registration No.: CNAS L15527**

JianYan Testing Group Shenzhen Co., Ltd. is accredited to ISO/IEC 17025:2017 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L15527.

● **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <https://portal.a2la.org/scopepdf/4346-01.pdf>

4.6 Laboratory Location

JianYan Testing Group Shenzhen Co., Ltd.

Address: No.101, Building 8, Innovation Wisdom Port, No.155 Hongtian Road, Huangpu Community, Xinqiao Street, Bao'an District, Shenzhen, Guangdong, People's Republic of China.

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info-JYTee@lets.com, Website: <http://jyt.lets.com>

5 Technical Requirements Specification in FCC CFR Title 47 Part 2.1091

5.1 Limits

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)

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3–3.0	614	1.63	*(100)	6
3.0–30	1842/f	4.89/f	*(900/f ²)	6
30–300	61.4	0.163	1.0	6
300–1500			f/300	6
1500–100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3–1.34	614	1.63	*(100)	30
1.34–30	824/f	2.19/f	*(180/f ²)	30
30–300	27.5	0.073	0.2	30
300–1500			f/1500	30
1500–100,000			1.0	30

5.2 Test Procedure

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = \frac{P \times G}{4 \times \pi \times R^2}$$

Where:

S = power density

P = power input to the antenna

G = numeric gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the centre of radiation of the antenna

5.3 Result

Frequency (MHz)	Maximum Output power (dBm)	Maximum Output power (mW)	Antenna Gain (dBi)	Antenna Gain (numeric)	Distance (cm)	Result (mW/cm ²)	Limits for General Population/ Uncontrolled Exposure (mW/cm ²)
LTE-Band 2							
1900.00	20.56	74.817	-2	0.63	20.00	0.014	1.0
LTE-Band 12							
711.00	22.79	65.163	-2.5	0.56	20.00	0.021	0.474
LTE-Band 66							
1770.00	20.44	46.132	-3.8	0.42	20.00	0.009	1.0
LTE-Band 71							
695.50	20.74	61.52	-2.7	0.54	20.00	0.013	0.464

Note: Just the worst case mode was shown in report.

5.4 Conclusion

The device is exempt from the SAR test and satisfies RF exposure evaluation.

-----End of report-----