

## FCC RF Exposure Report

**Report No.:** SA200109E02E

**FCC ID:** 2AQ68T99W175M

**Original FCC ID:** 2AQ68T99W175

**Test Model:** T99W175M

**Received Date:** Jan. 10, 2020

**Test Date:** Feb. 26 ~ May 28, 2020

**Issued Date:** Aug. 11, 2020

**Applicant:** Hon Lin Technology Co., Ltd.

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**Issued By:** Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch  
Lin Kou Laboratories

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

**Test Location:** No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City  
33383, Taiwan

**FCC Registration /  
Designation Number:** 788550 / TW0003



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.

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### Release Control Record

Issue No.	Description	Date Issued
SA200109E02E	Original release	Aug. 11, 2020

## 1 Certificate of Conformity

**Product:** 5G WWAN Module

**Brand:** Foxconn

**Test Model:** T99W175M

**Sample Status:** Engineering Sample

**Applicant:** Hon Lin Technology Co., Ltd.

**Test Date:** Feb. 26 ~ May 28, 2020

**Standards:** FCC Part 2 (Section 2.1091)

**References Test Guidance:** KDB 447498 D01 General RF Exposure Guidance v06

**Guidance:** IEEE C95.3 -2002

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

**Prepared by :** Pettie Chen , **Date:** Aug. 11, 2020  
Pettie Chen / Senior Specialist

**Approved by :** Bruce Chen , **Date:** Aug. 11, 2020  
Bruce Chen / Senior Project Engineer

## 2 RF Exposure

### 3.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (minutes)
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 <sup>2</sup> )*	30
30-300	27.5	0.073	0.2	30
300-1500	...	...	f/1500	30
1500-100,000	...	...	1.0	30

f = Frequency in MHz; \*Plane-wave equivalent power density

### 3.2 MPE Calculation Formula

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

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

### 3.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.

So, this device is classified as **Mobile Device**.

### 3 Calculation Result of Maximum Density Power

The Maximum RF out power values are the same as FCC ID: 2AQ68T99W175

Function	Frequency Band (MHz)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
WCDMA Band 2	1850.7-1909.3	27.79	20	0.120	1
WCDMA Band 4	1710.7-1754.3	27.74	20	0.118	1
LTE Band 2	1850.7-1909.3	28.09	20	0.128	1
LTE Band 4	1710.7-1754.3	28.25	20	0.133	1
LTE Band 7	2502.5-2567.5	28.66	20	0.146	1
LTE Band 25	1850.7-1914.3	27.99	20	0.125	1
LTE Band 30	2307.5-2312.5	23.50	20	0.045	1
LTE Band 38	2572.5-2617.5	28.85	20	0.153	1
LTE Band 41	2547.5-2652.5	32.03	20	0.317	1
LTE Band 48 (Per 10M)	3552.5-3697.5	22.78	20	0.038	1
LTE Band 48 (Full Power)	3552.5-3697.5	22.92	20	0.039	1
LTE Band 42 (Per 10M)	3552.5-3597.5	22.56	20	0.036	1
LTE Band 42 (Full Power)	3552.5-3597.5	22.79	20	0.038	1
LTE Band 66	1710.7-1779.3	27.95	20	0.124	1
LTE Band 7C	2507.8-2560.0	28.71	20	0.148	1
LTE Band 38C	2580.0-2610.0	30.26	20	0.211	1
LTE Band 41C	2506.0-2680.0	30.23	20	0.210	1
LTE Band 48C (Per 10M)	3560.0-3690.0	22.53	20	0.036	1
LTE Band 48C (Full Power)	3560.0-3690.0	22.89	20	0.039	1
LTE Band 42C (Per 10M)	3552.5-3697.5	22.25	20	0.033	1
LTE Band 42C (Full Power)	3552.5-3697.5	22.68	20	0.037	1
LTE Band 66C	1720.0-1770.0	28.89	20	0.154	1
LTE Band 66B	1715.0-1775.0	28.63	20	0.145	1
5GNR (n38)	2580.0-2610.0	28.51	20	0.141	1
5GNR (n41)	2506.02-2679.99	30.81	20	0.240	1

Function	Frequency Band (MHz)	ERP (dBm)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
WCDMA Band 5	826.4-846.6	25.15	27.30	20	0.107	0.551
LTE Band 5	824.7-848.3	25.84	27.99	20	0.125	0.550
LTE Band 26 (Part 22)	824.7-848.3	25.64	27.79	20	0.120	0.550
LTE Band 12	699.7-715.3	26.35	28.50	20	0.141	0.466
LTE Band 13	779.5-784.5	26.41	28.56	20	0.143	0.520
LTE Band 14	790.5-795.5	26.41	28.56	20	0.143	0.527
LTE Band 17	706.5-713.5	26.27	28.42	20	0.138	0.471
LTE Band 26 (Part 90)	814.7-823.3	25.78	27.93	20	0.124	0.543
LTE Band 71	665.5-695.5	25.97	28.12	20	0.129	0.444
LTE Band 5B	829.0-844.0	25.79	27.94	20	0.124	0.553

Function	Frequency Band (MHz)	ERP (dBm)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Co-located Ratio<1	
ENDC n2	1852.5-1907.5	-	27.55	20	0.113	1	-	
ENDC n2	LTE Band 5	824.7-848.3	25.04	27.19	20	0.104	0.550	0.303
	LTE Band 12	699.7-715.3	25.45	27.60	20	0.114	0.466	0.359
	LTE Band 13	779.5-784.5	25.46	27.61	20	0.115	0.520	0.334
	LTE Band 30	2307.5-2312.5	-	23.30	20	0.043	1	0.156
	LTE Band 48 (Per 10M)	3552.5-3697.5	-	22.71	20	0.037	1	0.150
	LTE Band 48 (Full Power)	3552.5-3697.5	-	22.71	20	0.037	1	0.150
	LTE Band 66	1710.7-1779.3	-	27.47	20	0.111	1	0.224
ENDC n5	826.5-846.5	24.96	27.11	20	0.102	0.551	-	
ENDC n5	LTE Band 2	1850.7-1909.3	-	27.66	20	0.116	1	0.302
	LTE Band 7	2502.5-2567.5	-	28.49	20	0.141	1	0.326
	LTE Band 12	699.7-715.3	25.45	27.60	20	0.114	0.466	0.431
	LTE Band 48 (Per 10M)	3552.5-3697.5	-	22.71	20	0.037	1	0.223
	LTE Band 48 (Full Power)	3552.5-3697.5	-	22.69	20	0.037	1	0.223
	LTE Band 66	1710.7-1779.3	-	27.44	20	0.110	1	0.296
ENDC n7	2507.8-2560.0	-	28.51	20	0.141	1	-	
ENDC n7	LTE Band 5	824.7-848.3	25.06	27.21	20	0.105	0.550	0.331
	LTE Band 12	699.7-715.3	25.45	27.60	20	0.114	0.466	0.387
ENDC n12	699.7-715.3	25.56	27.71	20	0.193	0.466	-	
ENDC n12	LTE Band 2	1850.7-1909.3	-	27.66	20	0.116	1	0.368
	LTE Band 66	1710.7-1779.3	-	27.47	20	0.111	1	0.363
ENDC n41 (HPUE)	2506.02-2679.99	-	31.21	20	0.263	1	-	
ENDC n41	2506.02-2679.99	-	28.90	20	0.154	1	-	
ENDC n41	LTE Band 2	1850.7-1909.3	-	27.47	20	0.111	1	0.374
	LTE Band 25	1850.7-1914.3	-	27.47	20	0.111	1	0.374
	LTE Band 26 (Part 22)	824.7-848.3	24.86	27.01	20	0.100	0.550	0.445
	LTE Band 26 (Part 90)	814.7-823.3	24.86	27.01	20	0.100	0.543	0.447
	LTE Band 41 (HPUE)	2498.5-2687.5	-	30.80	20	0.239	1	0.502
	LTE Band 41	2498.5-2687.5	-	28.21	20	0.132	1	0.395
	LTE Band 66	1710.7-1779.3	-	27.46	20	0.111	1	0.374



Function	Frequency Band (MHz)	ERP (dBm)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )	Co-located Ratio<1	
ENDC n66	1712.5-1777.9	-	27.67	20	0.116	1	-	
ENDC n66	LTE Band 5	824.7-848.3	24.86	27.01	20	0.100	0.298	
	LTE Band 12	699.7-715.3	25.46	27.61	20	0.115	0.363	
	LTE Band 13	779.5-784.5	25.45	27.60	20	0.114	0.336	
	LTE Band 71	665.5-695.5	25.46	27.61	20	0.115	0.375	
	LTE Band 30	2307.5-2312.5	-	23.20	20	0.042	1	0.158
	LTE Band 48 (Per 10M)	3552.5-3697.5	-	22.72	20	0.037	1	0.154
	LTE Band 48 (Full Power)	3552.5-3697.5	-	22.71	20	0.037	1	0.153
ENDC n71	665.5-695.5	25.45	27.60	20	0.114	0.444	-	
ENDC n71	LTE Band 2	1850.7-1909.3	-	27.67	20	0.116	1	0.374
	LTE Band 7	2502.5-2567.5	-	28.46	20	0.140	1	0.397
	LTE Band 66	1710.7-1779.3	-	27.47	20	0.111	1	0.369

\*EIRP = ERP + 2.15dB

\*Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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