

## FCC RF Exposure Report

**Report No.:** SA200109E02B

**FCC ID:** 2AQ68T99W175

**Test Model:** T99W175

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

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

**Issued Date:** May 29, 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

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

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



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### Release Control Record

Issue No.	Description	Date Issued
SA200109E02B	Original release	May 29, 2020

## 1 Certificate of Conformity

**Product:** 5G WWAN Module

**Brand:** Foxconn

**Test Model:** T99W175

**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:** May 29, 2020  
Pettie Chen / Senior Specialist

**Approved by :** Bruce Chen , **Date:** May 29, 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

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	0.550	0.298
	LTE Band 12	699.7-715.3	25.46	27.61	20	0.115	0.466	0.363
	LTE Band 13	779.5-784.5	25.45	27.60	20	0.114	0.520	0.336
	LTE Band 71	665.5-695.5	25.46	27.61	20	0.115	0.444	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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