FCC RF EXPOSURE REPORT

FCC ID: 2AYW8WL21C01

Project No.	:	2101C159
Equipment	:	LTE Wireless Router
Brand Name	:	WiLINQ
Test Model	:	D010U
Series Model	:	N/A
Applicant	:	Acentury Inc.
Address	:	120 West Beaver Creek Road, Unit 13, Richmond Hill, ON Canada, L4B 1L2
Manufacturer	:	Acentury Inc.
Address	:	120 West Beaver Creek Road, Unit 13, Richmond Hill, ON Canada, L4B 1L2
Factory	:	Acentury Inc.
Address	:	120 West Beaver Creek Road, Unit 13, Richmond Hill, ON Canada, L4B 1L2
Date of Receipt	:	Jan. 19, 2021
Date of Test	:	Jan. 19, 2021 ~ Feb. 08, 2021
Issued Date	:	Mar. 12, 2021
Report Version	:	R00
Test Sample	:	Engineering Sample No.: DG2021011920 for WIFI, DG2021011917 for GSM, WCDMA and LTE.
Standard(s)	:	FCC Guidelines for Human Exposure IEEE C95.1 & FCC Part 2.1091 FCC Title 47 Part 2.1091, OET Bulletin 65 Supplement C

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

Treey Chen

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Certificate #5123.02

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Mar. 12, 2021

1. TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No.3,Jinshagang 1st Road, Shixia, Dalang Town, Dongguan, Guangdong, China.
BTL's Test Firm Registration Number for FCC: 357015
BTL's Designation Number for FCC: CN1240

2. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

$$S = \frac{PG}{4\pi r^2} = \frac{EIRP}{4\pi r^2}$$

where:
S = power density
P = power input to the antenna
G = power gain of the antenna in the direction of interest relative to an isotropic radiator
R = distance to the center of radiation of the antenna

Table for Filed Antenna:
For WLAN 2.4GHz/5GHz:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	FPC	IPEX	3
2	N/A	N/A	FPC	IPEX	3

Note:
1. This EUT supports CDD and MIMO, any transmit signals are correlated with each other, so Directional gain=G_{ANT}+10log(N)dBi, that is Directional gain=3+10log(2)dBi=6.01.
2. The antenna gain is provided by the manufacturer.

For GSM/WCDMA/LTE:

Brand	Model Name	Antenna Type	Connector	Gain (dBi)
N/A	N/A	FPC	IPEX	3

3. TEST RESULTS

For 2.4GHz:

Directional gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
6.01	3.9902	17.92	61.9441	0.04920	1	Complies

For 5GHz UNII-1:

Directional gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
6.01	3.9902	19.17	82.6038	0.06561	1	Complies

For 5GHz UNII-2A:

Directional gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
6.01	3.9902	19.19	82.9851	0.06591	1	Complies

For 5GHz UNII-2C:

Directional gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm^2)	Limit of Power Density (S) (mW/cm^2)	Test Result
6.01	3.9902	19.24	83.9460	0.06667	1	Complies

For 5GHz UNII-3:

Directional gain (dBi)	Directional Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm2)	Limit of Power Density (S) (mW/cm2)	Test Result
6.01	3.9902	19.21	83.3681	0.06621	1	Complies

For GSM:

Band	Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm2)	Limit of Power Density (S) (mW/cm2)	Test Result
GSM 850	3	1.9953	32.28	1690.4409	0.67135	1	Complies
DCS 1900	3	1.9953	29.67	926.8298	0.36809	1	Complies

For WCDMA:

Band	Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm2)	Limit of Power Density (S) (mW/cm2)	Test Result
WCDMA II	3	1.9953	22.59	181.5516	0.07210	1	Complies
WCDMA IV	3	1.9953	22.65	184.0772	0.07311	1	Complies
WCDMA V	3	1.9953	22.98	198.6095	0.07888	1	Complies

For LTE:

Band	Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Output Power (dBm)	Max. Output Power (mW)	Power Density (S) (mW/cm2)	Limit of Power Density (S) (mW/cm2)	Test Result
Band 2	3	1.9953	22.65	184.0772	0.07311	1	Complies
Band 4	3	1.9953	23.32	214.7830	0.08530	1	Complies
Band 5	3	1.9953	22.91	195.4339	0.07762	1	Complies
Band 7	3	1.9953	22.80	190.5461	0.07567	1	Complies
Band 12	3	1.9953	23.02	200.4472	0.07961	1	Complies
Band 13	3	1.9953	23.03	200.9093	0.07979	1	Complies
Band 17	3	1.9953	23.02	200.4472	0.07961	1	Complies
Band 26 (Part 90)	3	1.9953	22.42	174.5822	0.06933	1	Complies
Band 26 (Part 22)	3	1.9953	22.32	170.6082	0.06776	1	Complies
Band 41	3	1.9953	23.88	244.3431	0.09704	1	Complies
Band 66	3	1.9953	23.29	213.3045	0.08471	1	Complies

For the max simultaneous transmission MPE:

Power Density (S) (mW/cm^2)	Power Density (S) (mW/cm^2)	Power Density (S) (mW/cm2)	Total	Limit of Power Density (S) (mW/cm^2)	Test Result
2.4GHz	5GHz	GSM			
0.04920	0.06667	0.67135	0.78722	1	Complies

Note: The calculated distance is 20 cm.

End of Test Report