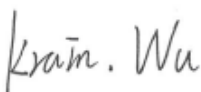


FCC RF EXPOSURE REPORT

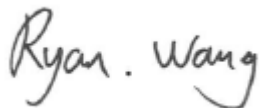
FCC ID: XMR202005SC200RNA

Project No. : 2005H018
Equipment : Multi-mode Smart LTE Module
Brand Name : Quectel
Test Model : SC200R-NA
Series Model : N/A
Applicant : Quectel Wireless Solutions Co., Ltd
Address : Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233
Manufacturer : Quectel Wireless Solutions Co., Ltd
Address : Building 5, Shanghai Business Park Phase III (Area B), No.1016 Tianlin Road, Minhang District, Shanghai, China 200233
Date of Receipt : May 08, 2020
Date of Test : May 08, 2020 ~ Jun. 05, 2020
Issued Date : Aug. 13, 2020
Report Version : R01
Test Sample : Engineering Sample No.: SH2020050840, SH2020050840-1
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.



Prepared by : Krain Wu



Approved by : Ryan Wang



Certificate # 5123.03

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue	Aug. 10, 2020
R01	Revised report to address TCB's comments.	Aug. 13, 2020

1 TEST FACILITY

The test facilities used to collect the test data in this report is at the location of No. 29, Jintang Road, Tangzhen Industry Park, Pudong New Area, Shanghai 201210, China
 BTL's Test Firm Registration Number for FCC: 476765
 BTL's Designation Number for FCC: CN1241

2. MPE CALCULATION METHOD

Calculation Method of RF Safety Distance:

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

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 2.4G Wifi

Ant.	Brand	Model Name	Antenna Type	Connector	Gain(dBi)
1	N/A	N/A	Dipole	N/A	0.47

For 5G Wifi

Ant.	Brand	Model Name	Antenna Type	Connector	Gain(dBi)
1	N/A	N/A	Dipole	N/A	1.28

For BT:

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	0.47

For LE

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	0.47

For LTE Band 2/25 & WCDMA II

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	1.59

For LTE Band 4/66& WCDMA Band IV

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

For LTE Band 5/26(814MHz-824MHz) & WCDMA Band V

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	2.53

For LTE Band 26(824MHz-849MHz)

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	2.13

For LTE Band 7/41

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

For LTE Band 12/17

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	3.95

For LTE Band 13

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	4.45

For LTE Band 14

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	3.63

For LTE Band 71

Ant.	Brand	Model Name	Antenna Type	Connector	Gain (dBi)
1	N/A	N/A	Dipole	N/A	1.66

3. TEST RESULTS

For BT:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
0.47	1.11430	3.5	2.2387	0.00050	1	Complies

For LE:

Antenna Gain (dBi)	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Max. Peak Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
0.47	1.11430	3	1.9953	0.00040	1	Complies

For 2.4GHz:

Antenna Gain (dBi)	Antenna 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
0.47	1.11430	25	316.2278	0.07010	1	Complies

For 5GHz:

Antenna Gain (dBi)	Antenna 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
1.28	1.34280	18	63.0957	0.01690	1	Complies

For WCDMA Band 2

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density S) (mW/cm ²)	Test Result
25	316.2278	0.06290	1	Complies

For WCDMA Band 4

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density S) (mW/cm ²)	Test Result
25	316.2278	0.06290	1	Complies

For WCDMA Band 5

ERP=EIRP-2.15

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density S) (mW/cm ²)	Test Result
27	501.1872	0.09970	0.55	Complies

For LTE Band 2

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density S) (mW/cm ²)	Test Result
26.00	398.1072	0.07920	1	Complies

For LTE Band 4

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density S) (mW/cm ²)	Test Result
26.00	398.1072	0.07920	1	Complies

For LTE Band 7

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density S) (mW/cm ²)	Test Result
28.00	630.9573	0.12550	1	Complies

For LTE Band 66

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density S) (mW/cm ²)	Test Result
27.00	501.1872	0.09970	1	Complies

For LTE Band 25

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density S) (mW/cm ²)	Test Result
26.00	398.1072	0.07920	1	Complies

For LTE Band 5

ERP=EIRP-2.15

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density S) (mW/cm ²)	Test Result
28	630.9573	0.12550	0.55	Complies

For LTE Band 26

ERP=EIRP-2.15

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density S) (mW/cm ²)	Test Result
28	630.9573	0.12550	0.54	Complies

For LTE Band 12

ERP=EIRP-2.15

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
30	1000.0000	0.19890	0.47	Complies

For LTE Band 13

ERP=EIRP-2.15

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
30	1000.0000	0.19890	0.52	Complies

For LTE Band 14

ERP=EIRP-2.15

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
29	794.3282	0.15800	0.53	Complies

For LTE Band 17

ERP=EIRP-2.15

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
30	1000.0000	0.19890	0.47	Complies

For LTE Band 41

ERP=EIRP-2.15

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
30	1000.0000	0.19890	1	Complies

For LTE Band 71

ERP=EIRP-2.15

Max EIRP (dBm)	Max EIRP (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
27	501.1872	0.09970	0.44	Complies

For the max simultaneous transmission MPE:

Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	CPD1/LPD1	Note
0.0005	1	0.000500	BT
0.0004	1	0.000400	LE
0.0701	1	0.070100	2.4G
0.0169	1	0.016900	5G
WCDMA			
0.0629	1	0.062900	Band II
0.0629	1	0.062900	Band IV
0.0997	0.55	0.181273	Band V
LTE			
0.0792	1	0.079200	Band 2
0.0792	1	0.079200	Band 4
0.1255	1	0.125500	Band 7
0.0997	1	0.099700	Band 66
0.0792	1	0.079200	Band 25
0.1255	0.55	0.228182	Band 5
0.1255	0.54	0.232407	Band 26
0.1989	0.47	0.423191	Band 12
0.1989	0.52	0.382500	Band 13
0.158	0.53	0.298113	Band 14
0.1989	0.47	0.423191	Band 17
0.1989	1	0.198900	Band 41
0.0997	0.44	0.226591	Band 71

Power Density (S) (mW/cm ²)	Power Density (S) (mW/cm ²)	Power Density (S) (mW/cm ²)	Power Density (S) (mW/cm ²)	Total	Limit of Power Density (S) (mW/cm ²)	Test Result
BT	2.4GHz	5GHz	LTE			
0.000500	0.070100	0.016900	0.423191	0.510691	1	Complies

Note: The calculated distance is 20 cm.
Output power including tune up tolerance.
CPD=Calculation power density.
LPD=Limit of power density.

End of Test Report