

Maximum Permissible Exposure Report

FCC ID: 2AMHM-P2-6E-LTE

Report No. : BTL-FCCP-7-2105T078
Equipment : LTE Module
Model Name : EG21-G
Brand Name : BOSCH
Applicant : Robert Bosch Engineering and Business Solutions Private Limited
Address : No.123, Industrial Layout, Hosur Road, Koramangala, Bangalore - 560 095

FCC Rule Part(s) : FCC Guidelines for Human Exposure IEEE C95.1

Date of Receipt : 2021/5/19
Date of Test : 2021/5/19 ~ 2021/9/9
Issued Date : 2021/10/6

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

Prepared by

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REVISION HISTORY

Report No.	Version	Description	Issued Date
BTL-FCCP-7-2105T078	R00	Original Report.	2021/10/6

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:

Antenna	Manufacture	Part No.	Type	Connector	Gain (dBi)	Note
1		YE0003AA	Dipole	SMA Male	3.3	LTE Band 2
					1.4	LTE Band 4
					-3.1	LTE Band 5
					-1.2	LTE Band 12
					-0.9	LTE Band 13

Output power including tune up tolerance

Function	Target power (dBm)	Tolerance (dB)
LTE Band 2, 4, 5, 12, 13	22	±2

CALCULATED RESULTS

Mode	Band	Frequency Range (MHz)	Maximum Power (dBm)	Antenna Gain (dBi)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Test Result
LTE	Band 2	1860.0	24	3.3	0.0245	0.5577	Complies
LTE	Band 4	1732.5	24	1.4	0.0379	0.4693	Complies
LTE	Band 5	836.5	24	-3.1	0.0406	0.5213	Complies
LTE	Band 12	704.0	24	-1.2	0.1068	1.0000	Complies
LTE	Band 13	782.0	24	-0.9	0.0690	1.0000	Complies

Note:

1. The calculated distance is 20 cm.

COLLOCATED POWER DENSITY CALCULATIONS

So for simultaneous transmission (WWAN+WLAN+BT): $0.1068/1+0.0216/1+0.0017/1=0.1301<1$.

End of Test Report