RF Exposure Report

Report No.:	SA190807C25
FCC ID:	XMR201909EG12GT
Test Model:	EG12-GT
Received Date:	Aug. 07, 2019
Test Date:	Dec. 18, 2019 ~ Jan. 20, 2020
Issued Date:	Jan. 20, 2020
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
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

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
SA190807C25	Original release	Jan. 20, 2020

1 Certificate of Conformity

Product:	LTE-A Cat 12 LGA Module
Brand:	Quectel
Test Model:	EG12-GT
Sample Status:	Engineering sample
Applicant:	Quectel Wireless Solutions Co., Ltd.
Test Date:	Dec. 18, 2019 ~ Jan. 20, 2020
Standards:	FCC Part 2 (Section 2.1091)
References Test Guidance:	IEEE C95.3 -2002 KDB 447498 D01 General RF Exposure Guidance v06

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 : Celine Chou , **Date:** Jan. 20, 2020

Celine Chou / Senior Specialist

Approved by : Bruce Chen , **Date:** Jan. 20, 2020

Bruce Chen / Senior Project Engineer

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm^2)	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	($180/f^2$)*	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

2.2 MPE Calculation Formula

$Pd = (Pout*G) / (4*pi*r^2)$
where
Pd = power density in mW/cm^2
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

2.3 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 Conducted Power

Function	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)	EIRP Limit (dBm)	Max. Allowable Antenna Gain (dBi)
LTE Band 48	3552.5 ~ 3697.5	21.15	0.14	20	0.027	1	23	1.85
LTE Band 42 (CA)	3560 ~ 3590	17.00	0.14	20	0.010	1	23	6.00

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

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