

TCB

GRANT OF EQUIPMENT
AUTHORIZATION

TCB

Certification
Issued Under the Authority of the
Federal Communications Commission
By:

Timco Engineering, Inc.
849 NW State Road 45
Newberry, FL 32669

Date of Grant: 03/29/2019
Application Dated: 03/28/2019

Quectel Wireless Solutions Company Limited
7th Floor, Hongye Building,
No.1801 Hongmei Road, Xuhui District
Shanghai, 200233
China

Attention: Johnny xiang

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is
VALID ONLY for the equipment identified hereon for use under the Commission's
Rules and Regulations listed below.

FCC IDENTIFIER: XMR201903EG25G
Name of Grantee: Quectel Wireless Solutions Company
Limited
Equipment Class: PCS Licensed Transmitter
Notes: LTE Module
Modular Type: Single Modular

<u>Grant Notes</u>	<u>FCC Rule Parts</u>	<u>Frequency Range (MHZ)</u>	<u>Output Watts</u>	<u>Frequency Tolerance</u>	<u>Emission Designator</u>
	22H	824.2 - 848.8	1.8493	0.1 PM	247KGXW
	22H	824.2 - 848.8	0.4797	0.1 PM	245KG7W
	24E	1850.2 - 1909.8	1.3335	0.1 PM	249KGXW
	24E	1850.2 - 1909.8	0.6012	0.1 PM	249KG7W
	24E	1852.4 - 1907.6	0.3524	0.1 PM	4M15F9W
	27	1712.4 - 1752.6	0.3819	0.1 PM	4M14F9W
	22H	826.4 - 846.6	0.2512	0.1 PM	4M13F9W
	24E	1860.0 - 1900.0	0.4198	0.1 PM	17M9G7D
	24E	1860.0 - 1900.0	0.2259	0.1 PM	17M9W7D
	24E	1850.7 - 1909.3	0.2547	0.1 PM	1M09W7D
	27	1720.0 - 1745.0	0.4887	0.1 PM	17M9G7D
	27	1720.0 - 1745.0	0.2612	0.1 PM	17M9W7D
	27	1710.7 - 1754.3	0.2877	0.1 PM	1M09W7D
	22H	829.0 - 844.0	0.2333	0.1 PM	8M93G7D
	22H	829.0 - 844.0	0.1703	0.1 PM	8M93W7D
	22H	825.5 - 847.5	0.235	0.1 PM	2M70G7D
	22H	824.7 - 848.3	0.1936	0.1 PM	1M09W7D
	27	2510.0 - 2560.0	0.4864	0.1 PM	17M9G7D
	27	2510.0 - 2560.0	0.3177	0.1 PM	17M9W7D
	27	2502.5 - 2567.5	0.3192	0.1 PM	4M49W7D
	27	704.0 - 711.0	0.3475	0.1 PM	8M93G7D

27	704.0 - 711.0	0.2183	0.1 PM	8M93W7D
27	699.7 - 715.3	0.2472	0.1 PM	1M09W7D
27	782.0 - 782.0	0.4217	0.1 PM	8M91G7D
27	782.0 - 782.0	0.2911	0.1 PM	8M91W7D
27	779.5 - 784.5	0.4395	0.1 PM	4M48G7D
27	779.5 - 784.5	0.309	0.1 PM	4M49W7D
24E	1860.0 - 1905.0	0.3516	0.1 PM	17M9G7D
24E	1860.0 - 1905.0	0.2489	0.1 PM	17M9W7D
24E	1855.0 - 1910.0	0.4111	0.1 PM	8M91G7D
24E	1850.7 - 1914.3	0.2429	0.1 PM	1M09W7D
90	819.0 - 819.0	0.2198	0.1 PM	8M91G7D
90	819.0 - 819.0	0.1738	0.1 PM	8M91W7D
90	814.7 - 823.3	0.2455	0.1 PM	1M09G7D
90	814.7 - 823.3	0.1972	0.1 PM	1M09W7D
22H	831.5 - 841.5	0.2582	0.1 PM	13M5G7D
22H	831.5 - 841.5	0.1828	0.1 PM	13M4W7D
22H	826.5 - 846.5	0.1945	0.1 PM	4M49W7D
27	2580.0 - 2610.0	0.3926	0.1 PM	17M8G7D
27	2580.0 - 2610.0	0.2799	0.1 PM	17M8W7D
27	2575.0 - 2615.0	0.3936	0.1 PM	8M91G7D
27	2506.0 - 2680.0	0.4842	0.1 PM	17M9G7D
27	2506.0 - 2680.0	0.342	0.1 PM	17M9W7D
27	2501.0 - 2685.0	0.4853	0.1 PM	8M91G7D
27	2498.5 - 2687.5	0.3451	0.1 PM	4M50W7D

Single Modular Approval. Power listed is ERP for part 22 and part 27 below 1 GHz, EIRP for part 24 and part 27 above 1 GHz. Approval is limited to OEM installation only. Compliance of this device in all final host configurations is the responsibility of the Grantee. This device is to be used only for mobile and fixed applications. OEM integrators must be provided labeling requirements for finished products. This grant is valid only when the device is sold to OEM integrators and the OEM integrators are instructed to ensure that the end user has no manual instructions to remove or install the device. Separate approval is required for all other operating configurations, including portable configurations with respect to 2.1093 and different antenna configurations. The module antenna(s) must be installed to meet the RF exposure compliance separation distance of 20 cm and any additional testing and authorization process as required. Co-location of this module with other transmitters that operate simultaneously are required to be evaluated using the FCC multi-transmitter procedures. The antenna installation and operating configurations of this transmitter, including any applicable source-based time-averaging duty factor, antenna gain, and cable loss must satisfy MPE categorical Exclusion Requirements of Part 2.1091. Users must be provided with instructions and transmitter operating conditions for satisfying RF exposure compliance. RF exposure compliance may need to be addressed at the time of licensing, as required by the responsible FCC bureau(s), including antenna co-location requirements of Part 1.1307(b)(3). This module can only be used with a host antenna circuit trace layout design in strict compliance with the OEM instructions provided. This device supports: LTE of 1.4, 3, 5, 10, 15, and 20MHz bandwidth modes for LTE Band 2, 4 and 25; and LTE of 1.4, 3, 5 and 10MHz bandwidth modes for LTE Band 5,12 and 26 (814-824MHz),LTE of 5, 10, 15 and 20MHz bandwidth modes for LTE Band 7, 38 and 41; LTE of 5 and 10 MHz bandwidth modes for LTE Band 13; LTE of 1.4, 3, 5,10 and 15MHz bandwidth mode for LTE Band 26(824-849MHz).

The allowed maximum antenna gain including cable loss in a mobile-only exposure condition must not exceed: 8dBi in WCDMA Band 2/LTE Band 2/7/25/38/41; 5dBi in WCDMA /LTE Band 4, and 8.6dBi in GSM850;10.19dBi in PCS1900; 9.42dBi in WCDMA Band 5; 9.41dBi in LTE Band 5; 8.7dBi in LTE Band 12; 9.16dBi in LTE Band 13; 9.36dBi in LTE Band 26(814-824); 9.41dBi in LTE Band 26(824-849).

This device contains functions that are not operational in U.S. Territories. This filing is only applicable for U.S. operations.