

## Modular Approval Request Letter

Applicant: Quectel Wireless Solutions Company Limited,  
 Product Name: LTE-A Cat 16 M.2 Module  
 Model No.: EM160R-GL  
 FCC ID: XMR2020EM160RGL

The single module transmitter has been evaluated then tested meeting the requirements under Part 15C Section 212 as below:

Modular approval requirement	EUT Condition	Comply
The radio elements of the modular transmitter must have their own shielding. The physical crystal and tuning capacitors may be located external to the shielded radio elements.	The radio elements of the modular transmitter have their own shielding.	Yes
The modular transmitter must have buffered modulation/data inputs (if such inputs are provided) to ensure that the module will comply with part 15 requirements under conditions of excessive data rates or over-modulation.	The modular has buffered data inputs, it is integrated in chip. Please see schematic.pdf	Yes
The modular transmitter must have its own power supply regulation.	All power lines derived from the host device are regulated before energizing other circuits internal to the EM160R-GL. Please see schematic.pdf	Yes
The modular transmitter must comply with the antenna and transmission system requirements of Sections 15.203, 15.204(b) and 15.204(c). The antenna must either be permanently attached or employ a “unique” antenna coupler (at all connections between the module and the antenna, including the cable). The “professional installation” provision of Section 15.203 is not applicable to modules but can apply to limited modular approvals under paragraph (b) of this section.	A permanently attached antenna or unique antenna connector is not a requirement for licensed modules.	Yes

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<p>The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing for compliance with part 15 requirements. Unless the transmitter module will be battery powered, it must comply with the AC line conducted requirements found in Section 15.207. AC or DC power lines and data input/output lines connected to the module must not contain ferrites, unless they will be marketed with the module (see Section 15.27(a)). The length of these lines shall be the length typical of actual use or, if that length is unknown, at least 10 centimeters to insure that there is no coupling between the case of the module and supporting equipment. Any accessories, peripherals, or support equipment connected to the module during testing shall be unmodified and commercially available (see Section 15.31(i)) must not be inside another device during testing.</p>	<p>The EM160R-GL was tested in a stand - alone configuration via a PCMCIA extender. Please see spurious set - up</p>	<p>Yes</p>
<p>The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number.</p>	<p>The label position of UG89 is clearly indicated. If the FCC ID of the module cannot be seen when it is installed, then the host label must include the text: Contains FCC ID: XMR2020EM160RGL. Please see the label.pdf</p>	<p>Yes</p>
<p>The modular transmitter must comply with any specific rules or operating requirements that ordinarily apply to a complete transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements. A copy of these instructions must be included in the application for equipment authorization requirements, which are based on the intended use/configurations</p>	<p>The UG89 is compliant with all applicable FCC rules. Detail instructions are given in the User Manual.</p>	<p>Yes</p>
<p>The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.</p>	<p>The EM160R-GL is approved to comply with the applicable RF exposure requirement, please see the MPE evaluation with 20cm as the distance restriction.</p>	<p>Yes</p>

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