



RE FCC ID: U3D-TSIICTRL2

To the certification reviewer:

We are hereby applying for full modular approval of the above-referenced FCC ID, based on compliance with all of the criteria as detailed below.

Sincerely,

Muhammad E Tabani
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Part 15 Unlicensed Single Modular Transmitter Approval Justification per 15.212

Requirement per 15.212	reference
(i) The radio elements of the modular transmitter must have their own RF shielding.	Yes. Shielding is provided by a metal box covering RF circuitry, analog and digital as well. Shielding is also provided by having a ground plane on the printed circuit board. Layout showing ground plane below RF circuitry is shown in fig. 1.
(ii) The modular transmitter must have buffered modulation/data inputs (if such inputs are provided).	Yes. All modulation and data inputs are buffered by circuitry on the transmitter chip.
(iii) The modular transmitter must have its own power supply regulation.	Yes. NXP MKW21D512V Arm Transceiver chip being used here. This chip has 1.8 to 3.6V operating voltage with on-chip voltage regulators.
(iv) The modular transmitter must comply with the antenna and transmission system requirements of §§ 15.203, 15.204(b) and 15.204(c).	Yes. The antenna is designed by micro strips on PCB. It is permanently attached and is in an integral part of PCB. Fig 1 shows antenna design of antenna in our layout.
(v) 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 parameters.	Yes. Refer the attachment "Test Report".



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<p>(vi) The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number. If the FCC ID is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module.</p>	<p>Yes. Refer to attachment "Label Location"</p>
<p>(vii) 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.</p>	<p>Yes. Refer to attachment "User Manual"</p>
<p>(viii) The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.</p>	<p>Yes. Refer the attachment "Test Report".</p>

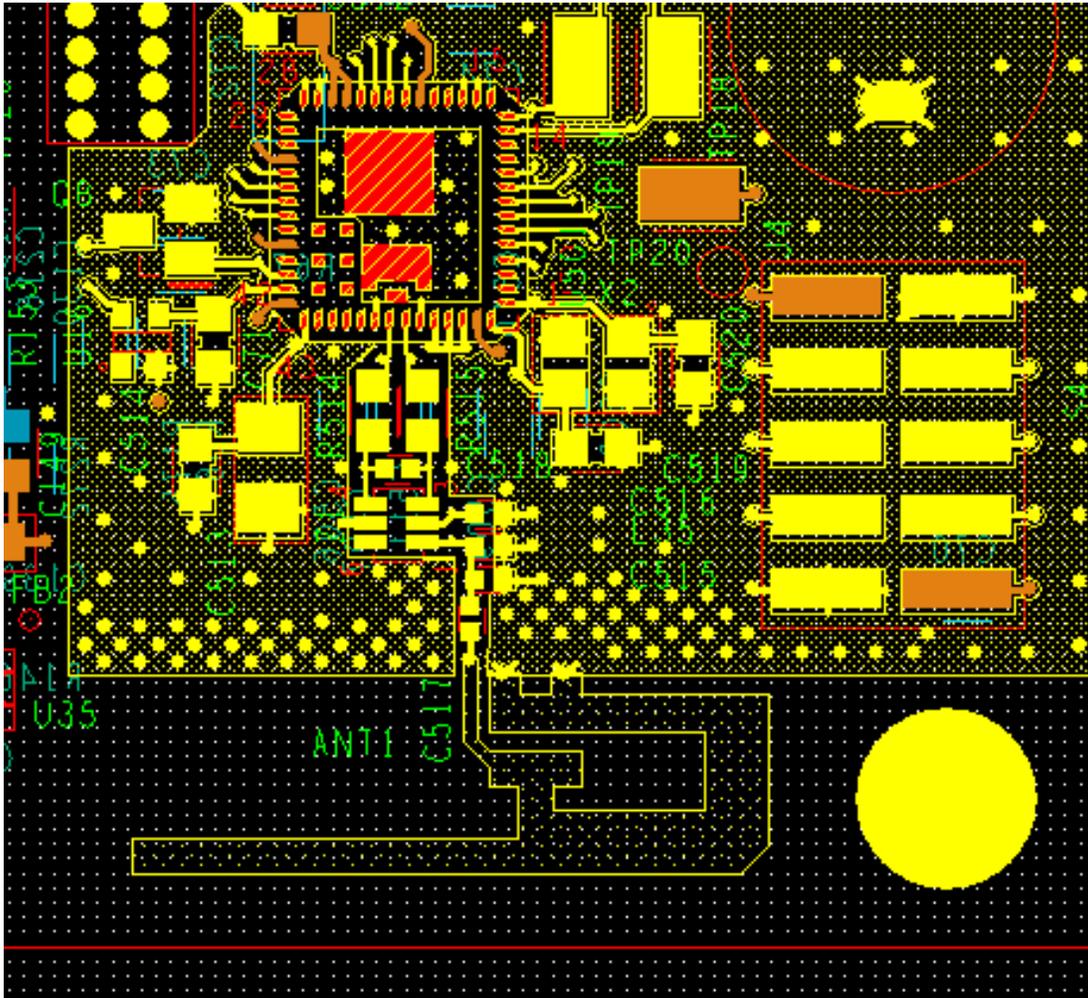


Fig 1. RF circuitry layout showing with ground plan in layout design.