

To: SIEMIC

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RE: User Manual XS24200

## OEM Installation Guide

### Installation Notes

- Multi-surface pads provide both bottom pads for high volume reflow soldering and edge pads for low volume hand soldering.
- Power supply to module should have less than 10mVrms noise between 0-10MHz, and spikes should be minimal.
- Regulator should have a fast response time  $< 20\mu\text{s}$ . It is essential that the power rail recover quickly.
- 10 $\mu\text{F}$  or larger capacitor filter for VDD input.
- All unused pins should be unconnected.
- A surface mount antenna should be placed very near the module RF output pin using a 50 ohm transmission line, and should be designed according to antenna manufacturer specifications.
- The area around the module should be free of any ground planes, power planes, trace routings, or metal. Minimum clearance is 5mm, but additional clearance allows improved range and throughput.
- Recommend connections for all four UART pins (DB-9 connector or test points) for firmware updates.
- Recommend test points for all four SPI pins, for emergency factory debugging and firmware reloading.
- Do not clean modules with Alcohol which can interact with no-clean solder flux residue.
- Do not use ultra sonic cleaning, which may cause internal interconnect damage.
- Do not modify any hardware components on the module without prior written consent.
- Do not modify any firmware without prior written consent.
- Final products that contain a Radio Datacom Bluetooth Module device must display a visible label referring to the enclosed module similar to the following label:

FCC ID: XS24200
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### Notice of FCC Regulatory Compliance

This module has been tested and found to comply with the FCC Part 15 Rules. These limits are designed to provide reasonable protection against harmful interference in approved installations. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

Modifications or changes to this equipment not expressly approved by Radio Datacom may void the user's authority to operate this equipment.

**RF Exposure Warning**

The device has been evaluated to general population RF exposure limit environment. It is safe to use to closer (less than 20cm) proximity to human body.

**Limited Modular Approval FCC ID: XS25200**

In accordance with FCC Part 15, the device is listed as a "Limited Modular Transmitter" device. In support of the Modular Transmitter Approval, the following is stated:

- The module does have buffered modulation / data inputs.
- The module does regulate its own power supply.
- The module can be tested as a stand-alone device.
- The module is labeled with the proper FCC ID, and labeling instructions are provided to OEM end users for external product labels.
- The module does have instruction for proper use.
- The module does meet the FCC RF regulations.

Limited Modular Transmitter Approval, is granted, instead of Modular Transmitter Approval, because the following condition is not met:

- The module does not have a permanently attached antenna.
- The module does not have its own RF shielding.

In accordance with FCC document, DA 00-1407, all authorized usage by OEMs under this Limited Modular Approval grant must:

- Comply with all instructions in this OEM Installation Guide.
- Obtain final compliance approval by Radio Datacom.