



VTech Group of Companies

Module Compliance for the 900 MHz Half-Duplex Transceiver M90SXCRN1

1. Shielding

The 900 MHz transceiver, M90SXCRN1, is supplied to the user as a fully shielded module. All RF components are located on one side of a 3" x 1 15/16" circuit card. All digital components are located on the opposite side of this card. Both sides of the card have a full coverage shield. The shields are seam soldered to the ground plane of the pc card. This forms a 6 sided shielded enclosure for the entire transmitter. One end of the module contains a 10-pin header connector. The other end contains an MMCX RF connector.

2. User I/O

Each pin of the 10-pin header, other than five-volt power and ground, pass through a buffer, or level shifter. Overdriving or under driving any of the modulation or data inputs has no effect on the amount of RF power, modulation spectrum, or frequency of operation for the transmitter.

3. Power Supply

The module operates from a nominal 5.0 $\pm$ 5% volt source. All circuitry critical to determining RF frequency or RF output power levels, operate from an internally regulated 4.0 volt source. The module contains an under voltage/brownout reset circuit that fully disables the RF transmitter for input voltages of 4.8 volts or less.

4. Antenna

The module was tested with three antennas: a whip, a 1/2 wave vertical dipole, and a monolithic antenna. All of these antennas were connected to the module using an MMCX coaxial connector. This miniature coaxial connector satisfies the requirements as a "unique" connector.

5. Testing

The module was tested in a stand-alone configuration (See Test Report). The serial port of a notebook computer was used as a data source for the module during testing.

6. Labeling

The top shield of the module contains the required FCC label (See Test Report). In cases where the module is installed within a customer's device an additional label containing the following wording will be provided:

This device contains Transceiver Module FCC ID NRLM90SXCRN1

VTech Wireless, Inc.