



1007-00079
Revision 1.0

WF-10040

Technical Operational Description

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1. Summary

The WF-10040 module is a Jorjin WG7310 chip paired with an Antenova 3030A5839-01 antenna. It will be integrated into in HandEra designs.

2. Antenna

The Jorjin WG7310 chip is connected to an Antenova 3030A5839-01 2.45 GHz left side feed chip antenna that is used for wireless transmissions. The ground plane on the PCB that contains the module must not extend below the antenna as described in the datasheet for that part.

3. Installation

This module is intended to be installed on a printed circuit board (PCB). All recommendations in section 10 of the Jorjin WG7310 datasheet must be followed. All routing and placement recommendations in the Antenova 3030A5839-01 must be followed as well. The module may communicate with a CPU on a different PCB using a board to board connector or cable for inter-module communications.

4. Grounding

The Jorjin chip must be connected to the digital ground plane of the PCB it is integrated into. A cutout around the antenna must be maintained as described in the Antenova 3030A5839-01 datasheet.

5. Power

The Jorjin chip must be powered as described in section 6 of the Jorjin WG7310 datasheet. The wireless radio power is handled internally by the Jorjin chip.

6. Transmissions

The WiFi module supports IEEE 802.11b/g/n and BT v2.1 EDR transmissions. A CPU module communicates with the Jorjin WG7310 chip using an SDIO or SPI interface for WiFi communications and a UART interface for Bluetooth communications. The wireless transmissions are generated by the Jorjin WG7310 chip using the firmware referenced in the User's Manual.