Product Change Notice

Jupiter N3 (Rev. J) Release

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1 Introduction

The Jupiter N3 Revision G module currently in production has undergone some hardware design changes in order to make the functionality more closely resemble the NEO6 product.

Based on customer feedback, the following design changes have been implemented and will be introduced in the J-N3 Rev J production release scheduled for July 2011.

2 Hardware Design Changes

The following paragraphs explain the J-N3 Rev. J hardware design changes in more detail.

2.1 Battery Back-up Support

The older J-N3 module required an orderly commanded shutdown (either software or hardware using the USER_ON_OFF) followed by a waiting period in order to preserve both battery backed SRAM and RTC data. This restriction has been removed in the newer module, provided a backup voltage source is applied to pin 22 (VBATT). The current draw on pin 22 is expected to be approximately double what it would be if an orderly shutdown had occurred. The software command to implement an orderly shutdown is still supported and will result in the lowest backup current during shutdown (hibernate state).

2.2 Hardware ON-OFF Control Removed

The USER_ON_OFF feature has been removed. This feature was incompatible with the industry standard module pinout. It is no longer possible to command a shutdown or return to full power mode using this hardware signal.

2.3 Power Management Limitations

Support for SiRF Star IV power management modes other than Trickle Power have been removed. This is a direct result of removing support for the USER_ON_OFF signal. The software for the J-N3 is identical for both the older and newer versions, so the software commands for these power modes are still present. However, the hardware to support these modes no longer exists. If the intended use of the module relied on NMEA communications, then no further action is required as NMEA does not support these power modes. If OSP communications is used, then the customer needs to review their software to determine if these power management modes are used. If so, these commands must be removed.

2.4 Power Cycling Improvements

The three second delay during the power up of the module has been greatly reduced. Power cycling within this 3 second period no longer confuses the power up state of the J-N3.

2.5 UART-Only Serial Communication

J-N3 is a UART-only design. Support for I2C and SPI serial communications have been removed.

Navman Wireless had never assigned SKU numbers for these versions of the modules, so the effect of the change should be minimal.

2.6 MEMS Support

The J-N3 Rev J supports external MEMS sensors on the I2C bus, which is a new feature as compared to the J-N3 Rev G module. Please refer to the latest J-N3 data sheet and designer's notes regarding this new capability.

2.7 EMI/EMC Certification

The J-N3 Rev J module design has changed significantly. Depending upon customer requirements, the module may need to be re-tested for EMI/EMC characteristics.

3 Navman Wireless Design Review Support

Navman Wireless Applications Engineering will gladly review your existing product design to determine if it is compatible with the J-N3 Rev. J hardware design changes.