

NW-0101 Module

Datasheet

Version 1.0

**1. Description**

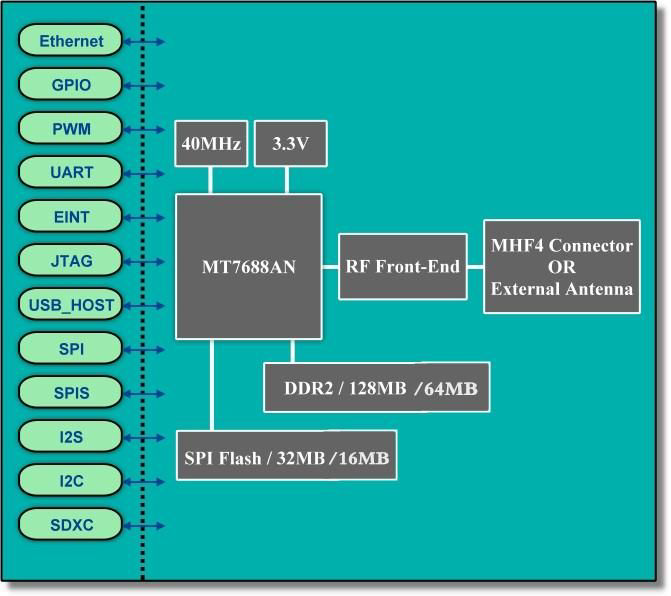
The NW0101 is a highly integrated module designed by RYSE Inc.. It utilizes the Mediatek MT7688AN System on a Chip (SoC) device which is based on the MIPs 24K CPU processor core. The SoC includes 802.11b/g/n Wi-Fi, making the Omega2 ideal for Internet of Things (IoT) applications and projects. In addition to the SoC, the module includes DDR2 DRAM, Flash memory, and all of the components necessary to allow this product to be a fully functional and complete device.

* Mechanical dimensions and footprint: 20mm x 34mm, 2.8mm high
* Greater quantity of I/O signals available to the user, 42 I/O.
* No SD Card slot on the bottom.
* No Wifi chip antenna. An external antenna must be connected.

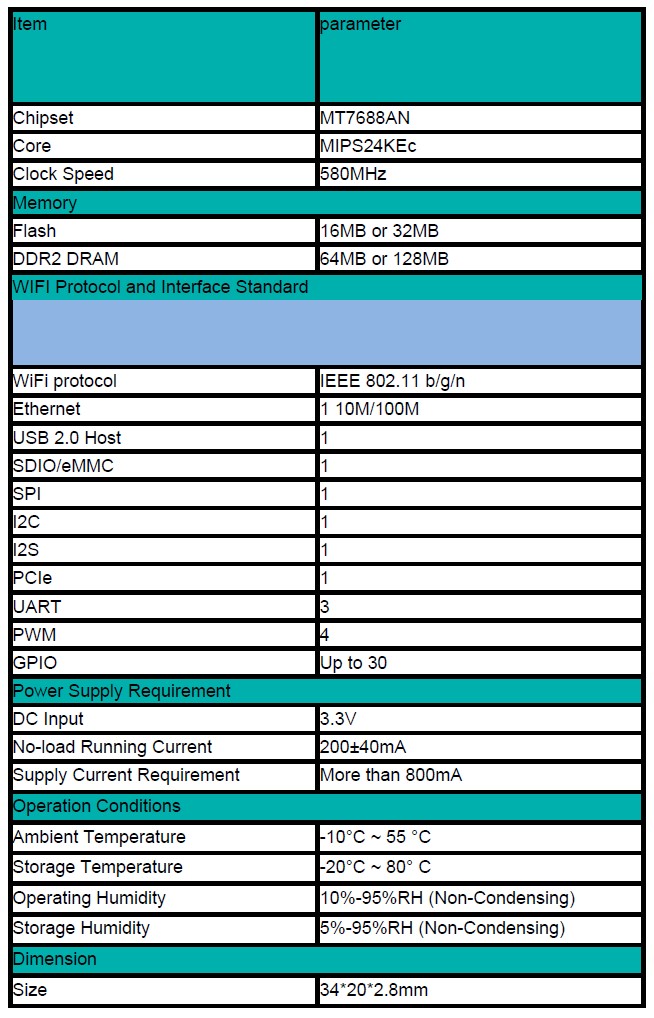
**2. Key features**

* Embedded MIPS24KEc (580 MHz) with 64 KB I-Cache and 32 KB D-Cache
* 1T1R 2.4 GHz with 150 Mbps PHY data rate
* Legacy 802.11b/g and HT 802.11n modes
* 20/40 MHz channel bandwidth
* Green AP/STA - Intelligent Clock Scaling (exclusive) - DDRII: ODT off, Self-refresh mode
* 1-port 10/100 FE PHY
* x1 USB 2.0 Host
* SPI/SD-XC/eMMC
* SPI, I2C, I2S, PWM, PCIe, UART, GPIO
* An optimized PMU
* WEP64/128, AES, WPA, WPA2, WAPI
* LEDE Linux Operating System

**3. Block Diagram**

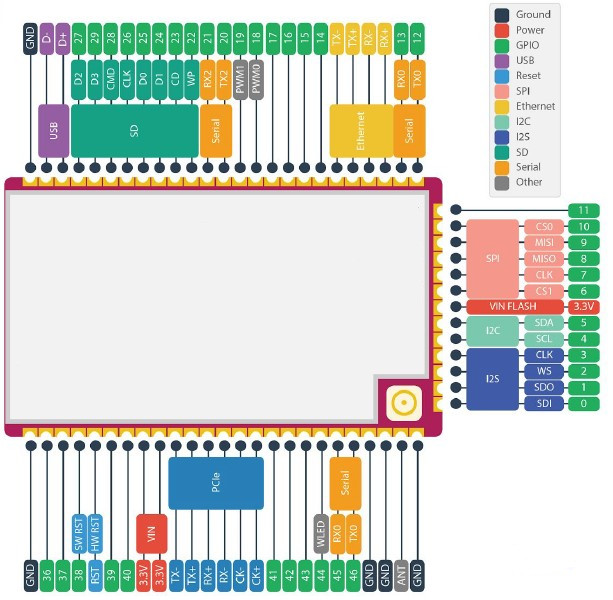


**3.1 Specifications**

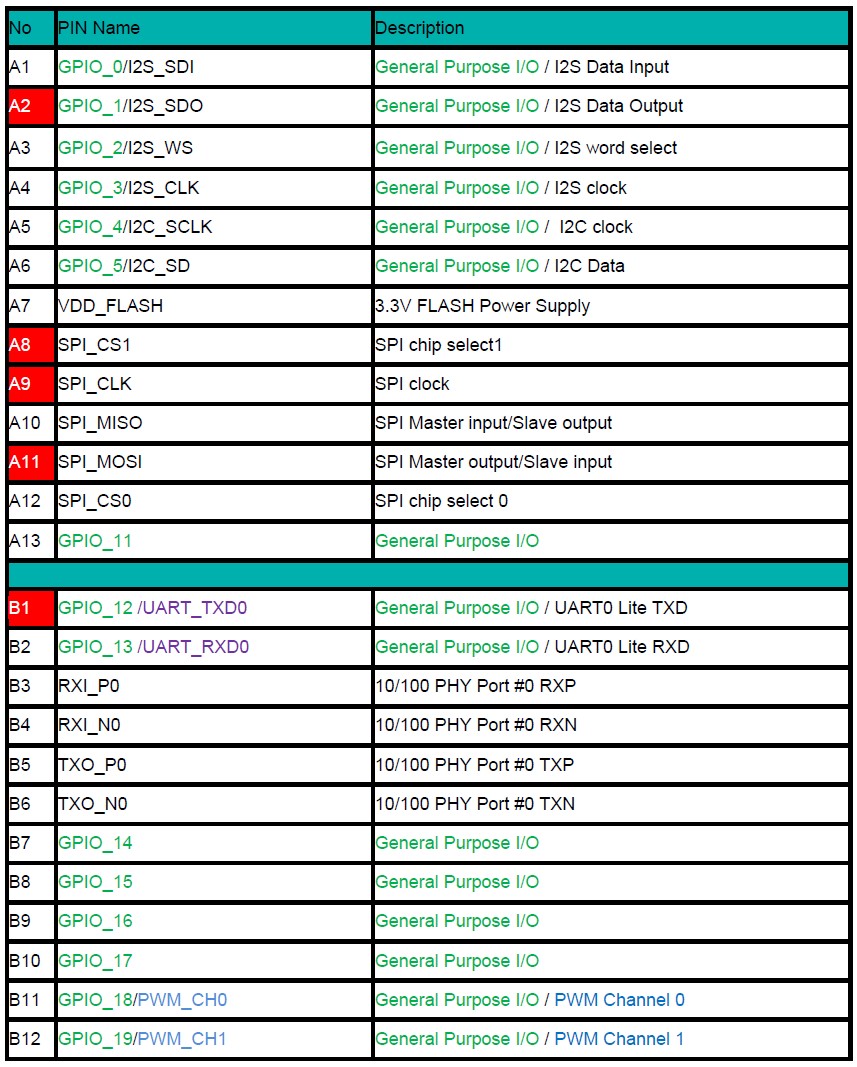
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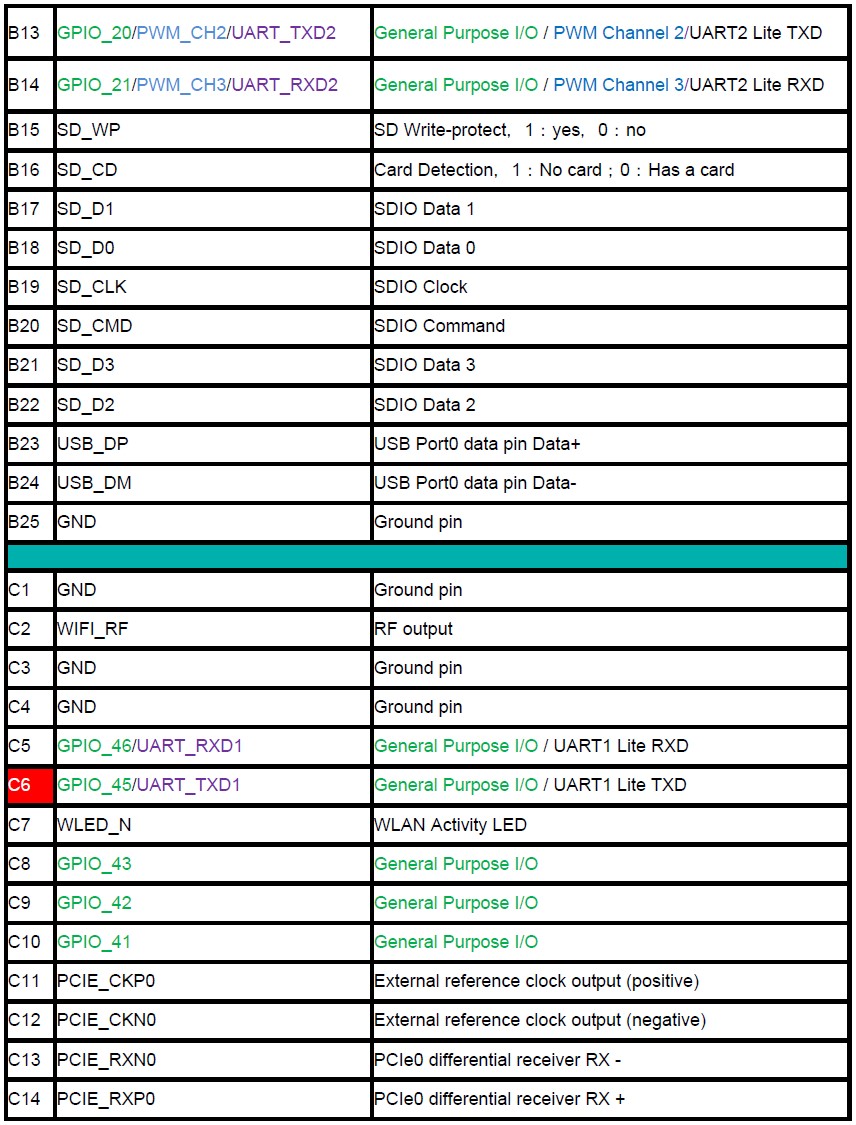
**4. Pin-Out Information**

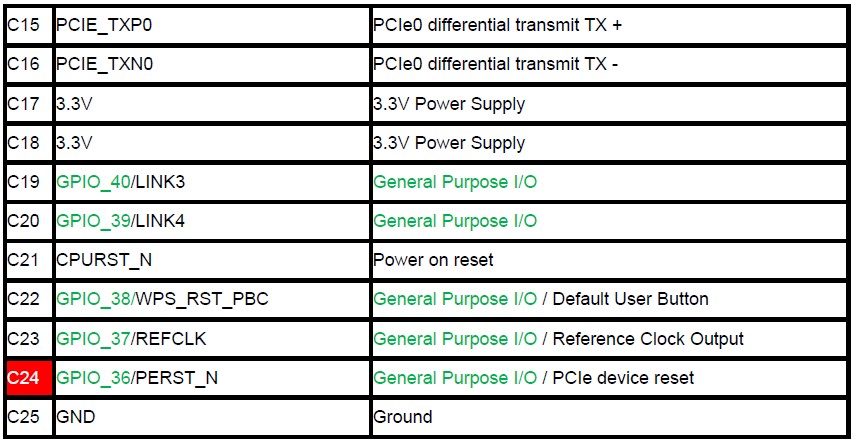
**4.1. PinOut Diagram**



**4.2 Pin Definations**

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**5. Mechanical Drawing and Specifications**

