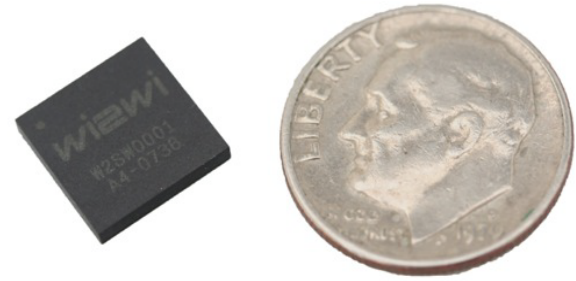




Wireless 2 Wireless

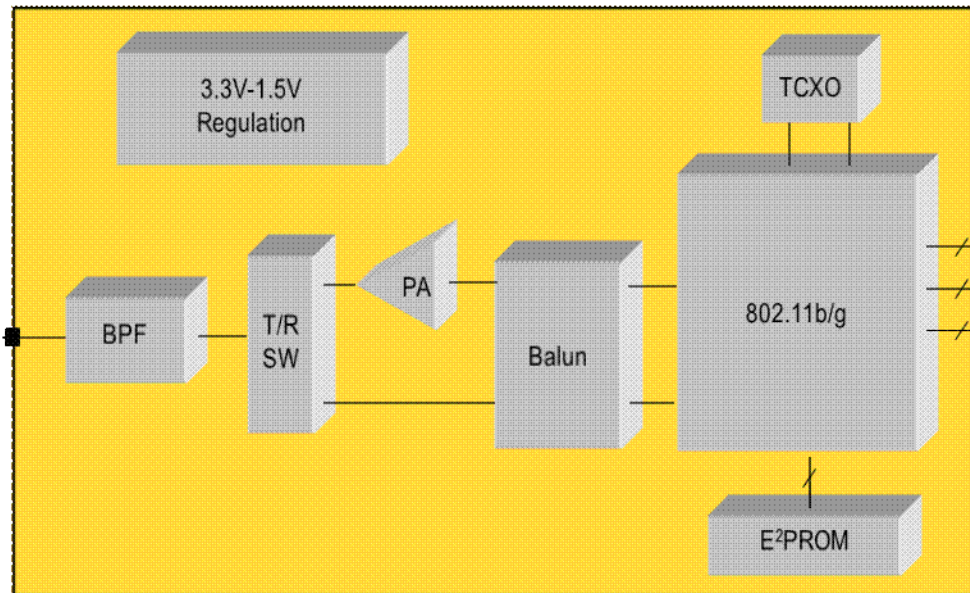


## W2SW0001 - 802.11 b/g System-in-Package

The W2SW0001 is a complete 802.11 b/g radio solution based on the industry standard Marvell 8686 architecture. Designed for handheld or portable warehousing/logistics, medical, and industrial applications, it is a complete WiFi solution that includes an LDO for single rail operation, all crystals, all filtering, local memory for MAC address storage, and diagnostics capability. A full array of certifications have been performed on this device, making the certification process for the final system's design much easier and less costly. Full driver support is available for most OS's for the Marvell PXA family processors, as well as many other ARM-9 based processors using a Linux OS.

### Applications

- Warehousing and logistics handhelds
- Automotive aftermarket
- Medical equipment
- Industrial handhelds
- M2M applications
- POS terminals
- Internet-enabled consumer devices
- VoFi and other smartphones
- WiFi enabled security cameras



Host Interface

- SDIO
- SPI
- GPIO

- VDD
- VSS

### Ordering Information

- W2SW0001-TR - WiFi SiP, Tape and Reel
  - W2SW0001-T - WiFi SiP, Tray
  - W2SW0001-SAM - WiFi SiP Sample Pack
  - W2SW0001-DEV - WiFi SiP Evaluation Kit
- (Note, please specify GSPI or SDIO interface will be used)

### Features

- Small form factor SiP solution, 9.5mm x 9.5mm x 1.4mm, 81 Pin LGA, .75mm pitch
- Low power consumption and power save mode
- Full support for 802.11 e(QOS) and 802.11i (Security)
- Integrated RF-friendly LDO for single rail operation
- Integrated PA, EEPROM, Balun, and clocking
- Optimized front-end design for receive sensitivity
- Full driver support for popular OSs for the Marvell PXA processor family, Linux support for many other ARM-9 based processors
- Includes both an SDIO and a GSPI interface
- RoHS compliant
- 7 GPIOs

## W2SW0001 - Specifications

### Package Dimensions

- 9.5mm (L) x 9.5mm(W) x 1.4mm(H)

### Package Type

- 81-pin LGA, 0.75 mm pitch

### Power Ratings

- Supply Voltage : 3.3VDC, regulated to 1.5V
- Peak Current: 260 mA (continuous transmit, 802.11g)
- IEEE Power Save Mode: 10 mA
- Deep Sleep Mode: 2mA

### Temperature Range

- Operating: -20° C to + 75° C
- Storage: -40° C to + 85° C
- Humidity: 5% to 95%, Non-condensing

### Data Rates

- CCK: 1,2,5.5, and 11Mb/s
- OFDM: 6,9,12,18,24,36,48,and 54 Mb/s

### Host Interfaces

- SDIO 1 bit and 4 bit
- GSPI (slower data rate)

### Transmit Power

- +15dBm typical for both 802.11 b and g

### Security

- WEP,TKIP, WPA and WPA2, AES/CCMP per 802.11 i

### Baseband Modulation

- 802.11g: OFDM
- 802.11b: DSSS/CCK

### Receiver Sensitivity

- 54 Mb/s @ -74 dBm OFDM
- 6Mb/s @ -90 dBm OFDM
- 11Mb/s @ -88 dBm CCK
- 1Mb/s @ -90 dBm DSSS

### Quality of Service

- 802.11 e EDCF

### Host Processors/OS With Driver Support

- Marvell PXA Family - most OSs
- Freescale i.MX21 and 31 - Linux OS, SDIO
- Samsung SC2443, 2412 - Linux (SDIO), WinCE
- WinMobile (GSPI)
- X86 - Vista, XP, and Linux
- Please contact your Wi2Wi sales rep if your processor is not listed!

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