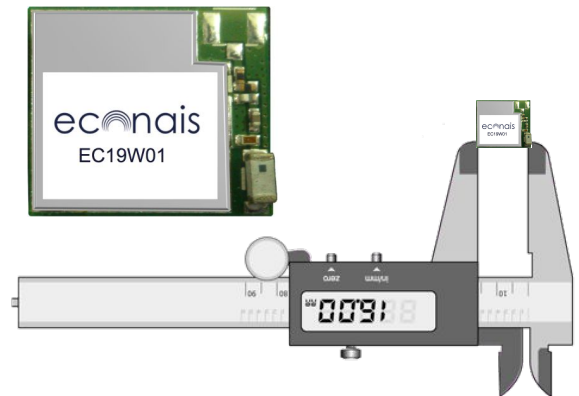


# EC19W01 802.11 b/g/n 14x16x2.8mm Wi-Fi Modules

The EC19W01 module is the ultimate choice for product designers who want to integrate Wi-Fi into any device or appliance with minimal impact on budget, space, power, and development time.

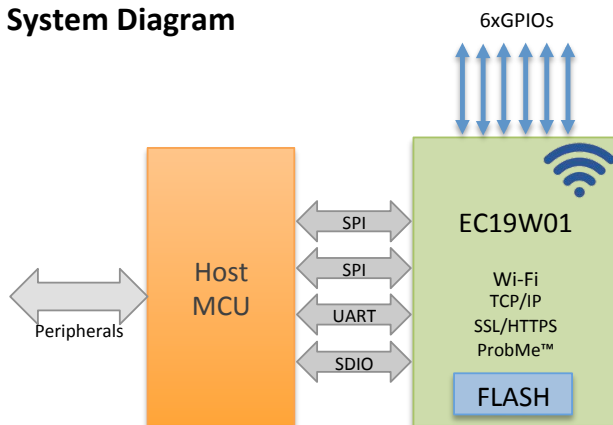
The EC19W is the world's smallest IoT ready Wi-Fi module with full networking capabilities, UART and SPI to Wi-Fi functions with a powerful command set and patented mass configuration method using any Wi-Fi capable device.



## Highlights

- Smallest self contained Wi-Fi module with embedded antenna and IoT capabilities in the world
- Integrated 32-bit processor to support application customization
- Power consumption as low as 10uA Standby and 1.16mA with Wi-Fi associated and IP configured
- UART to Wi-Fi and SPI to Wi-Fi functions
- Wi-Fi Direct supporting P2P Client and P2P Group Owner modes
- ProbMe patented method for out of the box mass configuration
- Network Tx/Rx performance of up to 12/13Mbps TCP and 20Mbps UDP
- On module antenna and FLASH
- FCC/CE/IC/TELEC
- Ideal for Wi-Fi connected OEM/ODM products, audio/video/media streaming, and M2M applications

## System Diagram



## Applications

- Home Automation and Smart Appliances
- Wi-Fi Audio Speakers and Headphones
- Wireless Sensors and Sensor Networks
- Wireless Monitoring (Audio and Video)
- Smart Appliances
- Healthcare and Fitness Devices
- Wearable Devices
- Security, Authentication, and Admittance Control
- Lighting
- Toys
- Building/Energy/Industrial Management/Control
- Cloud Connected Devices
- Remote Control, Data Acquisition & Monitoring

# Product Brief

## Features

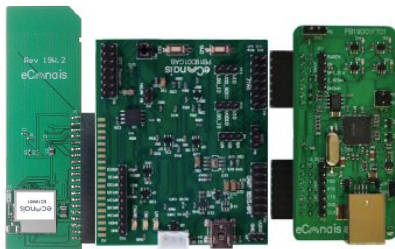
- UART to Wi-Fi
- SPI to Wi-Fi
- Wi-Fi Direct supporting P2P-Client
- Wi-Fi Direct supporting P2P-Group Owner
- Wi-Fi Client and AP mode with up to 8 clients
- WPS 2.0
- WPA/WPA2 Personal
- WPA/WPA2 Enterprise\*
- HTTPS/SSL
- Over-The-Air (OTA) Firmware upgrade\*
- ProbMe Patented mass configuration method
- DHCP Client/Server
- Configurable Web Server
- TCP/UDP Sockets
- Free Linux based development tools
- DLNA with DMR (Media audio renderer)\*
- Integrated Cloud Service Support
- On module antenna and FLASH

\*Q3 2014

## Specifications

EC19W01	
Radio Technology	2.4GHz IEEE 802.11b/g/n
Power supply	3.3VDC (3.6VDC supported)
Max TX power (802.11b/g)	Typical 21 dBm
Max TX power (802.11n)	Typical 17 dBm
Max RX sensitivity (802.11b/g)	-99.6 dBm (1 Mbps)
Max RX sensitivity (802.11n)	-93.5 dBm (7.2 Mbps)
Storage Temp.	-65°C to 125°C
Optimal Operating Temp.	-30°C to 70°C
Max Operating Temp.	-40°C to 85°C
Antenna	Onboard SMD Antenna
Certifications	RoHS, FCC, EC, IC, TELEC
Processor	32bit
Clock	80MHz
RAM available to user apps	140KB
FLASH available to user apps	500KB
GPIOs	6x
USARTs	1x
I2S	1x
SPI	2x20Mbps
JTAG	1x
SDIO	Yes
Standby	10uA
Idle & Wi-Fi Associated	1.16mA
Active (RX/TX)	40mA/185mA
Max Distance	300m+
TX/RX max Wi-Fi Speed	11Mbps/54Mbps/72Mbps

## Evaluation and Development Kits



EC19W01SD EC19W01EX EC19W01DBG

## EC19W01 Dimensions

