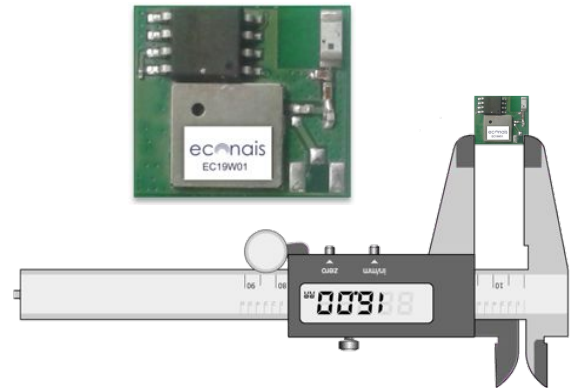


EC19W01 802.11 b/g/n 14x16x2.8mm Wi-Fi Modules



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.

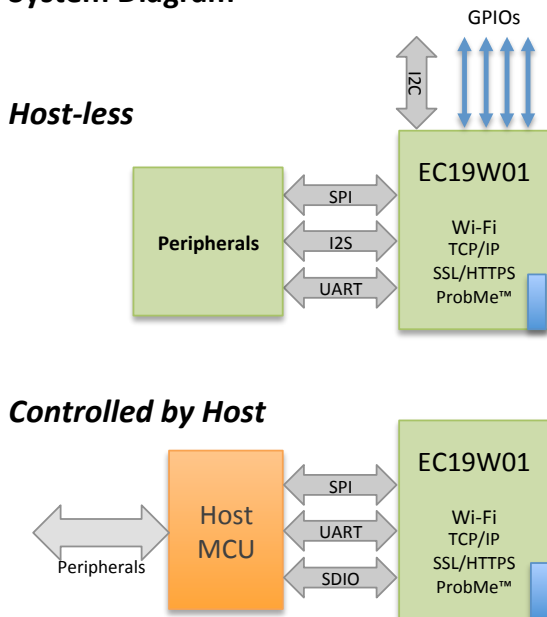
The EC19W is the world's smallest IoT ready Wi-Fi module with full networking capabilities, UART and SPI to Wi-Fi functions with a powerful command set and patented mass configuration method using any Wi-Fi capable device.



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 12.33uA Shutdown and 1.8mA 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 proprietary 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/RoHS
- 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 proprietary 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

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 / U.FL connector
Certifications	RoHS, FCC, EC, IC, TELEC
Processor	32bit
Clock	80MHz
RAM available to user apps	128KB
FLASH	1.5MByte
GPIOs (dedicated + multiplexed)	6x + 7x
USARTs	1x
I2C (Software Simulated)	1x
I2S	1x
SPI (Master and Slave)	2x20Mbps
JTAG	1x
SDIO	Yes
Shutdown	12.33uA
Idle & Wi-Fi Associated (DTIM:3)	1.8mA
Active (RX/TX)	40mA/220mA
Max Distance	300m+
TX/RX max Wi-Fi Speed	11Mbps/54Mbps/72Mbps

Development Kit: EC19W01DK



EC19W01SD

EC19W01 Dimensions

