

CASCADEMIC Solutions Pvt. Ltd.

In the era of the smart and the convergence of technologies, we at CASCADEMIC extended and evolved our decades of embedded expertise from the SCADA to the M2M & Growing IoT space.

CASCADEMIC is a Fabless ODM Solution Provider in M2M and IoT. Specializing in Wireless Remote Monitoring, Sensors, and Controls & Industrial Automation.

In the process of continuous evolution and upgradation of technology, the process and processor SoC's are evolving and becoming more and more integrated. In addition, the complexities around RF, Ultra low power, Wireless protocols, and Embedded Java & Real time firmware applications built-on many such industrial embedded devices with long term reliability and availability requirements are increasing.

By addressing the above needs from the Concept to Manufacturing Vertical Integration, we act as an ODM partner for our Customer's Intelligent System Solution needs of:

- Wireless Smart Flow Meter
- OEM Thermal Printer Solution
- Wi-Fi RFID Access Control Solution
- Wireless Sensor Networks
- Smart Automation & Control
- GPS NAVITRAK

ADDRESS

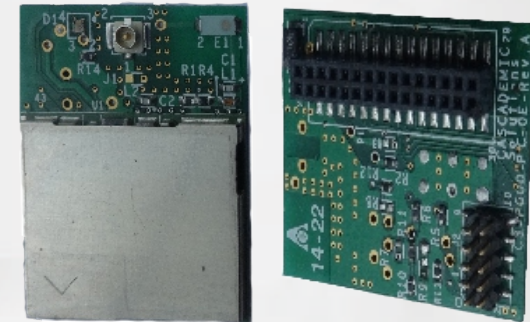
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Ionos B1- SimpleLink CC3200 WiFi Module



Low power Wi-Fi

IEEE 802.11b/g/n standard.

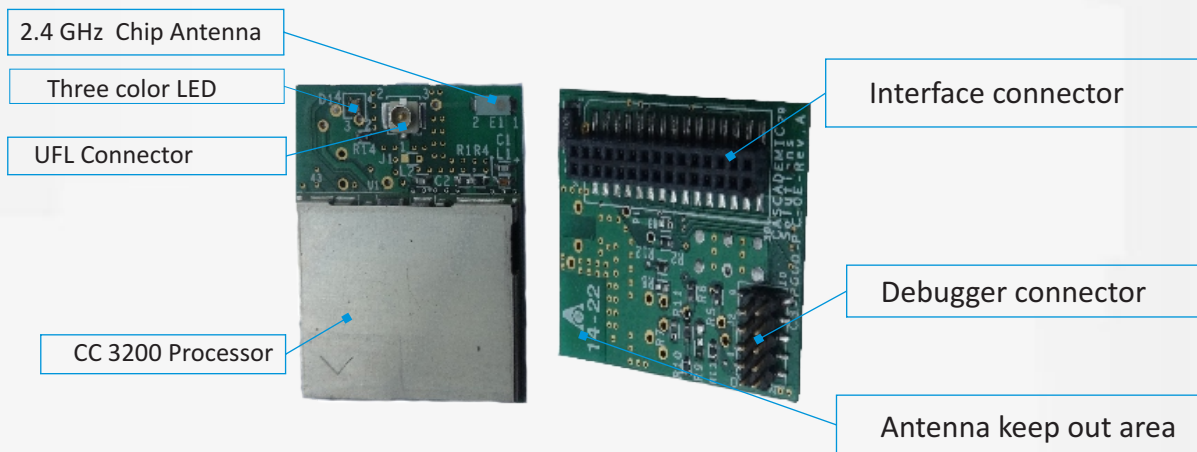
32 bit ARM Cortex M4 MCU with Embedded Wi-Fi
Network Processor.

Small Outline :20.50mm x 26.50mm x 4.55 mm.

Overview

The WAP module is a complete IEEE 802.11bgn Wi-Fi device with a standard serial port or SPI or UART interface to a host processor. It consists of CC3200 which has 32-bit ARM Cortex M4 Microcontroller with Embedded 802.11bgn Wi-Fi Network Processor. ARM Cortex M4 is embedded to provide a solution for a variety of applications. No WLAN driver functionality is required on the host processor.

Since CC3200 includes an embedded processor, it is designed to provide standards compliant wireless connectivity to devices and systems that have a serial port and implement a TCP/IP stack and UDP connections, enabling a variety of M2M applications at low power and small footprint. It uniquely provides connectivity in the single stream 802.11n mode, preserving overall network throughput in the emerging enterprise.



WAP Feature

- 32 bit ARM Cortex M4 MCU with Embedded Wi-Fi Network Processor.
- 256 KB SRAM.
- IEEE 802.11b/g/n standard conformity.
- Security : WEP, AES, WPA/WPA2.
- Low standby current (with advanced power save and sleep mode)
- Transmit speed : 11/5.5/2/1 Mbps(11b), 54/48/36/24/18/12/9/6 Mbps(11g), 54Mbps (11n).
- External Flash (SPI Interface) 1Mbytes.
- Multi Clock support: 32.768KHz, 40 MHz
- Small Outline : 20.50mm x 26.50mm x 4.55 mm
- Supports the module with chip antenna and external antenna.

Application

- Home Automation and Security
- Connected Appliances
- Smart Energy
- Industrial Automation
- Machine-to-Machine (M2M) Communications
- Internet of the Things (IOT)
- Door Bell Camera

WAP Specification

Specification	Description
Processor	ARM cortex M4 at 80MHz
Memory	256 K B SRAM
Radio Protocol	IEEE 802.11b/g/n Computable
Supported Data Rates	11/5.5/2/1 Mbps(11b), 54/48/36/24/18/12/9/6 Mbps(11g), 6.5 Mbps to 150Mbps (11n).
Modulation	DSSS ,CCK and OFDM
RF Operating Frequency	2.4 GHz.
Antenna Options	Both Chip Antenna and External Antenna
Networking Protocols	TCP,UDP,ARP,ICMP,DHCP,ARP, DNS, Mdns
Transmit Power	<ul style="list-style-type: none"> • Hibernate with RTC: < 4 μA • Standby: < 105 μA • RX : 57mA @ 54 OFDM • TX : 200 mA @ 54 OFDM
Power Consumption (Typical)	@ 54OFDM : 13.5dBm.
Receive Sensitivity	@ 54OFDM : -73.00dBm
Security	.WEP, AES, WPA/WPA2. .256-Bit AES Encryption for TLS and SSL Connections.
I/P Interface	SPI, UART, I2C, I2S, ADC and 1SD/MMC Interface.
Power Source	Regulated 3.3V
Module Size	20.50mm X 26.5mm X 4.55mm
Operation Temperature	-40°C ~ 85°C