

Specification

Standards

- IEEE 802.11b
- IEEE 802.11g

Wireless Signal Rates

- IEEE 802.11b: 11, 5.5, 2 and 1Mbps
- IEEE 802.11g: 54, 48, 36, 24, 18, 12, 9 and 6Mbps

Security

- 64/128-bit WEP
- WPA —Wi-Fi Protected Access
- WPA-PSK (Pre-Shared Key)

Radio and Modulation Type

- IEEE 802.11b: DSSS and CCK
- IEEE 802.11g: DSSS, CCK and OFDM

Channels

- For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

Wireless Frequency Band

- 2.4GHz ISM Band(2412M-2462MHz)

Bandwidth

- 20MHz

Output power

- 17dBm(MAX)

Antenna

- 3dBi fixed omnidirectional antenna
- 0.5dBi Internal auxiliary omnidirectional antenna.
This antenna is working on the RX Diversity mode when the master antenna is failed.

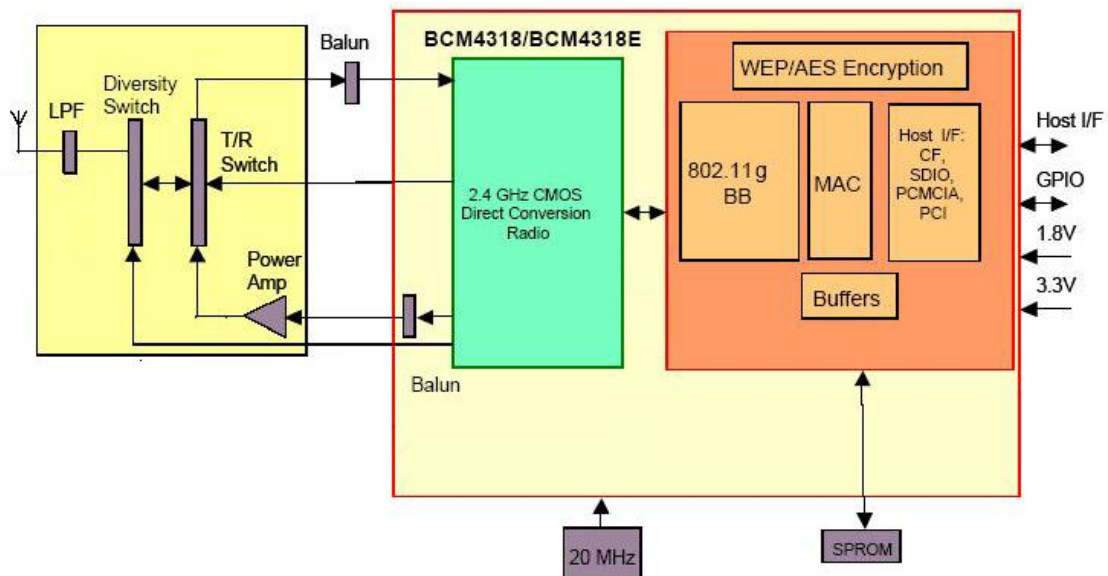
Power Supply

- 12V 1A DC

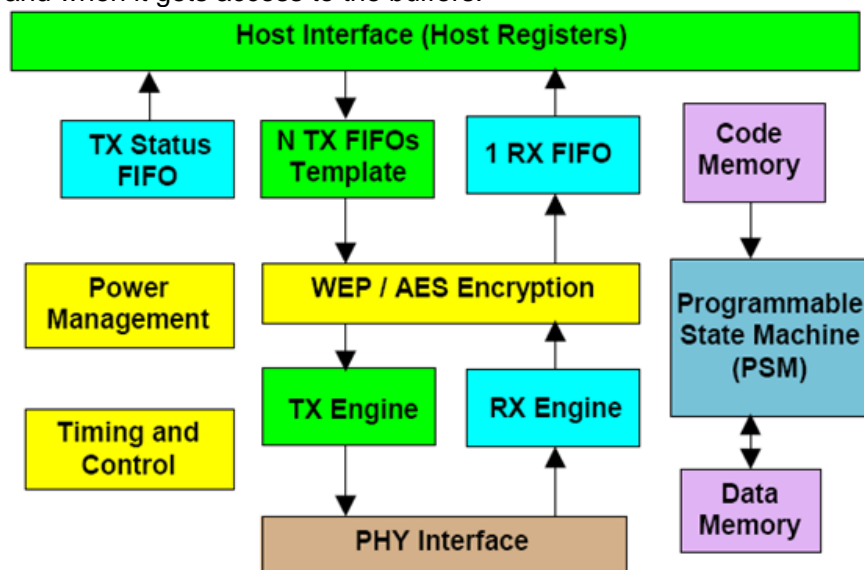
Wireless Operating Range

- Indoors: Up to 328 feet (100 meters)
- Outdoors: Up to 1,312 feet (400 meters)

Function Diagram



MAC Block and its Diagram: The MAC core provides support required for the transmission and reception of sequences of packets, together with related timing, without any packet-by-packet driver interaction. Time-critical tasks requiring response times of only a few milliseconds are handled in the MAC core. This achieves the required timing on the medium while keeping the host driver easier to write and maintain. Also, incoming packets are buffered in the MAC core, which allows the MAC driver to process them in bursts as and when it gets access to the buffers.



Integrated Radio Transceiver and its Diagram.

The BCM4318E include an integrated RF transceiver that has been optimized for use in 2.4-GHz Wireless LAN systems. It has been designed to provide low-power, low-cost, and robust communications for applications operating in the globally available 2.4-GHz unlicensed ISM band. With an external transmit power amplifier, it develops full output power per the IEEE 802.11b/g Specification. The transmit and receive sections include all on-chip filtering, mixing, and gain control functions.

