

RAK310_Operational Description

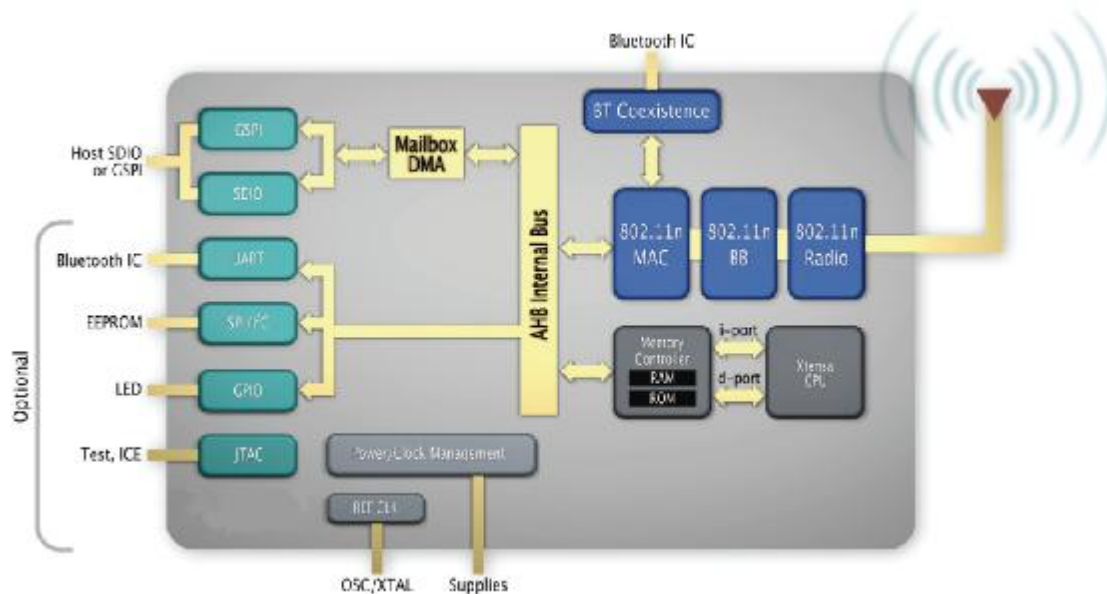
WiFi specification included:

Protocol	Modulation
802.11b	CCK
802.11g	OFDM
802.11n	OFDM

The data buffer is supported by the AR6302 internal RF modulation technology.

The module is only operated from 2412 to 2462 Mhz (not for channel 12 and 13).

The 3.3V DC power of the module is from the main board directly. And the 1.8V is regulated from 3.3V with SGM2019-1.8V. A 26MHz crystal is used on the module. The RF IC of RAK310 is Atheros AR6302, and the block diagram of the IC is shown as below:



The Antenna Electrical Specifications is list as below:

Electrical Specifications	
Frequency Range (MHz)	2400-2500
Bandwidth (MHz)	100
Input Impedence (Ω)	50
V.S.W.R	≤ 1.7
Gain (dBi)	3.5
Polarization Type	Vertical
Lightning Protection	DC to GND
Power Capacity (w)	50

The crystal oscillator used on the module is 26.000MHz.