

Wi-Fi & Bluetooth Modules Product Matrix

	BC118	BC127	BX3100	BX3105	BX3110	BX3115
Regional	Global	Global	Global		Global	
Wi-Fi / Bluetooth Specification	Bluetooth: Version 4.1, BLE Hostless	Bluetooth: Version 4.2, Dual-mode Hostless	Bluetooth: Version 4.2, Dual-mode Wi-Fi: 802.11 b/g/n Hostless			
Antennas	Embedded antenna	Embedded antenna (BC127), Connection for external antenna (BC127-EXT)	LGA pad for external antenna	Embedded antenna	LGA pad for external antenna	Embedded antenna
Maximum Data Rate	270kbps (typical 60kbps)	3Mbps (typical 1.6Mbps)	100 Mbps (UDP) – 1Mbps over UART			
Frequency Bands	2.4GHz	2.4GHz	2.4GHz		2.4GHz, 5GHz	
Form Factor Dimensions	19.3mm x 14.4mm x 2.8mm	11.8mm x 18mm x 3.2mm	9.5mm x 11.5mm x 2.4mm	13.5mm x 11.5mm x 2.4mm	9.5mm x 11.5mm x 2.4mm	13.5mm x 11.5mm x 2.4mm
Temperature	-40°C / +85°C	-40°C / +85°C	-40°C / +85°C		-40°C / +85°C	
Approvals	FCC, CE	FCC, CE, IC, JRF, KC	FCC, CE, IC, JRF, KC		FCC, CE, IC, JRF, KC	
Audio	None	Yes	Yes		Yes	

AirPrime® BX310x Specifications

Specifications

Wi-Fi BLE Classic

Wi-Fi

- 802.11 b/g/n
- 2.4GHz 1x1 SISO

Bluetooth

- 4.2 dual-mode support
- Simultaneous BLE and Classic Bluetooth with backward compatibility to 1.1, 2.0, 2.1 + EDR and 3.0

Hardware Specs



Dimensions:

- 9.5mm x 11.5mm x 2.4mm (BX3100)
- 13.5mm x 11.5mm x 2.4mm (BX3105)
- [LGA:42 pins]

Main Interfaces

- UART, 2xI2C
- SDIO or SPI (Multiplexed)
- I2S digital audio
- 6 GPIOs
- LGA pad for external antenna (BX3100)
- Embedded antenna (BX3105)

Temperature Ranges: -40C to +85C

Input voltage: 1.8V or 3.3V

Key Features



Wi-Fi

- Embedded TCP/IP stack with TCP, UDP, FTP, HTTP/S
- Integrated DHCP & web server
- AP, Station(client), and concurrent modes
- Wi-Fi Protected Access (WPA)/WPA2/WPA2-Enterprise/Wi-Fi Protected Setup (WPS)

Bluetooth

- Integrated Bluetooth dual-mode protocol stack
- Profile support for SPP, A2DP, AVRCP, HFP, PBAP, MAP and GATT
- 6LoWPAN for IP connections for Bluetooth
- Simultaneous central and peripheral mode support

Standard Features

- **AT Commands** allows for easy integration to a host platform
- **Secure boot** prevents unauthorized code on the target
- **Free, unlimited FOTA** through AirVantage® FOTA Edition

Certifications and Approvals

- FCC, CE, RED, NCC, JRF/JPA
- Bluetooth SIG & Wi-Fi Alliance

AirPrime® BC127 Specifications

Specifications

BLE Classic

- Bluetooth: Version 4.2, Dual-mode
- Frequency Bands: 2.4GHz

Hardware Specs

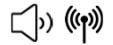
Dimensions: 11.8mm x 18mm x 3.2mm

Main Interfaces

- I2S, PCM, SPDIF, 3 LED, UART, I2C, USB, IOs
- Embedded antenna (BC127)
- Connection for external antenna (BC127-EXT)

Temperature Ranges: -40C to 85C

Key Features



- Integrated dual-mode protocol stack and profiles with simple UART interface
- Simultaneous BLE and Classic Bluetooth with backward compatibility to 1.1, 2.0, 2.1 + EDR and 3.0
- Integrated chip antenna with regulatory certifications (FCC, CE, IC, JRF, KC, and BQB Bluetooth)
- Multiple Connections: Sink or Source
- True Wireless, APTX, APTX-HD, AAC
- Power: < 16mA when streaming music
- Audio: Digital and Analog Output at -96dB SNR
- Device Firmware Upgrade via UART

Certifications and Approvals

- FCC, CE, IC, JRF, KC

AirPrime® BC118 Specifications

Specifications

BLE

- Bluetooth: Version 4.1
- Frequency Bands: 2.4GHz

Hardware Specs

Dimensions: 19.3mm x 14.4mm x 2.8mm

Main Interfaces

- UART, I2C, Analog, GPIO
- Embedded antenna

Temperature Ranges: -40C to 85C

Key Features



- Integrated Bluetooth Stack with simple UART interface
- Integrated antenna with regulatory certifications (FCC, CE, and BQB Bluetooth)
- Power Consumption: <0.9uA Sleep, <16mA Rx/Tx
- Up to 30m Range
- Transparent and Command Mode for I2C and UART
- Audio over BLE Ready
- Connection to Smart Phones
- Can Run as Standalone or Controlled by a Host
- Over the Air Secure Firmware Upgrade

Certifications and Approvals

- FCC, CE