BLUE bean is a high performance and ultra low power surface mount USB module combining single-stream 11ac Wave2 Wi-Fi and Bluetooth® 5.0 in a very small form factor

BLUE bean is IEEE 802.11b/g/n/a/ac Wave2 dual-band wireless LAN and Bluetooth 4.2 USB module optimised for small size and low power consumption.

It is based on Qualcomm QCA9377-7 chipset. Has an integrated dual-band (2.4 and 5 GHz) 1x1 802.11ac Wave2 WiFi (supporting MU-MIMO) and Bluetooth® 4.2 transceivers and combined in to very small form factor (17 x 12 mm with RF connector and 24 x 12mm with integrated antenna).
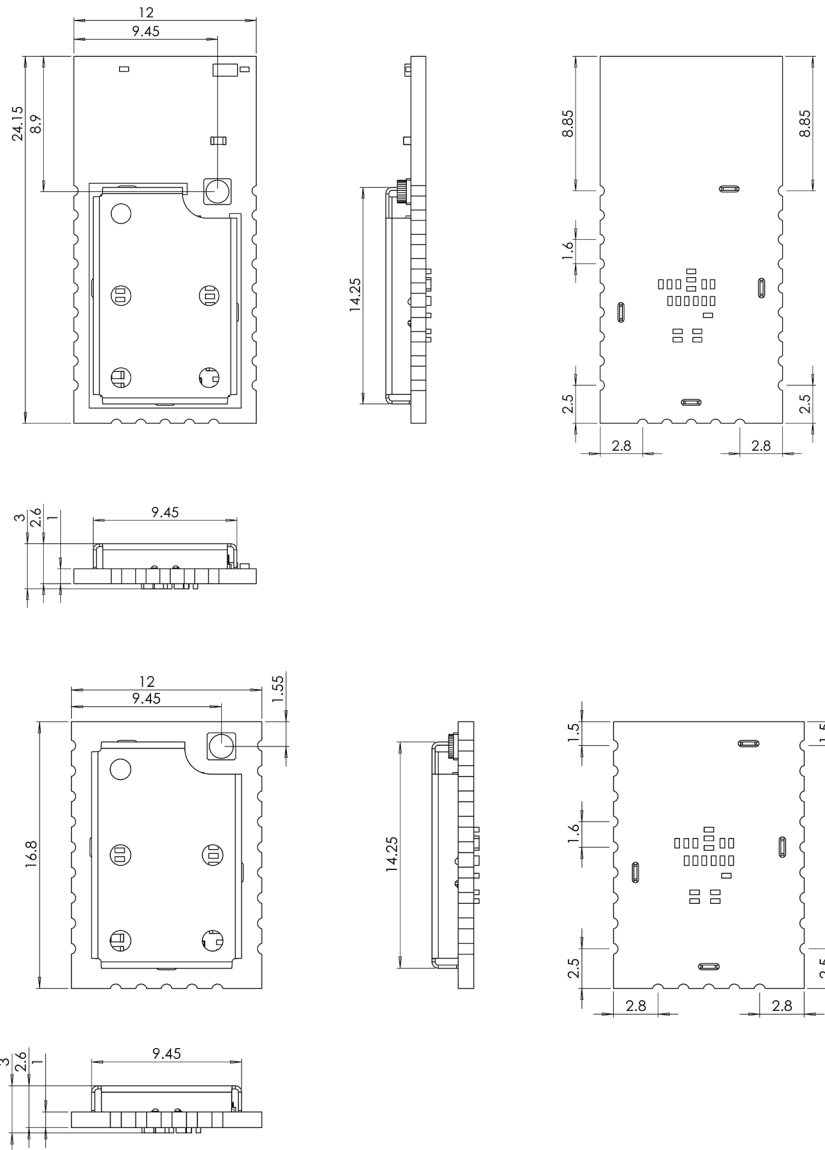
The radio module supports advanced power saving techniques. Bluetooth supports both Class1 and Class2 transmissions and advanced coexistence mechanisms allow it to work seamlessly with Wi-Fi ensuring good quality and high performance.

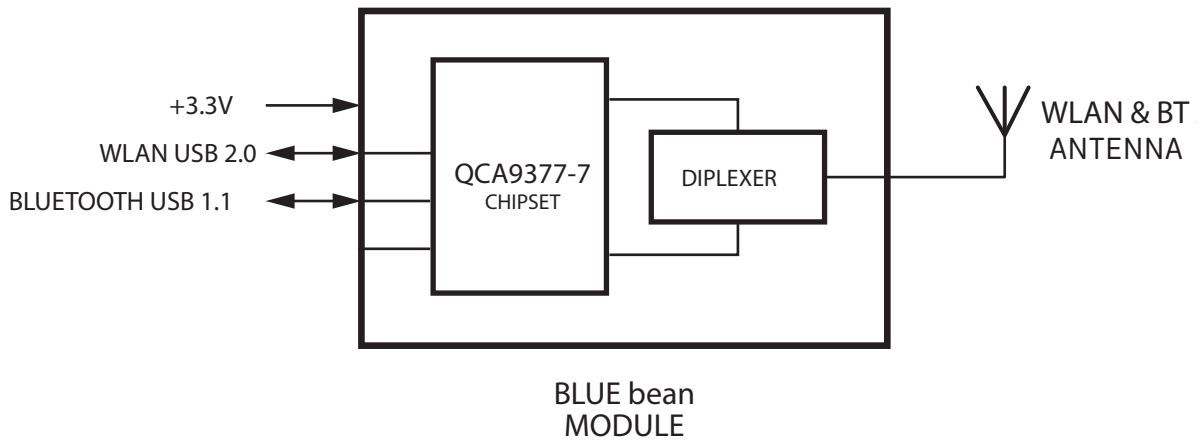BLUE bean software drivers are available for Linux, Windows 10 and Android operating systems.

Quick specs

- 802.11a/b/g/n/ac, 2.4 and 5 GHz, 1x1 SISO, 433 Mbps data rate, up to 20 dBm output power
- 20/40/80 MHz channel size support
- MU-MIMO
- Bluetooth v5.0 + HS backwards compatible with v1.x and v2.x
- Connectorized (Murata HSC type connector: MM4829-2702RB0) or an integrated dual-band antenna version
- Linux, Windows and Android drivers available
- Based on QCA9377-7 chipset
- Industrial temperature range -40 to +85 C°
- Very small form factor (17 by 12 mm without antenna or 24 by 12 mm with antenna)
- Surface mount, dual-side design
- Available interfaces - Bluetooth USB 1.1, WLAN USB 2.0
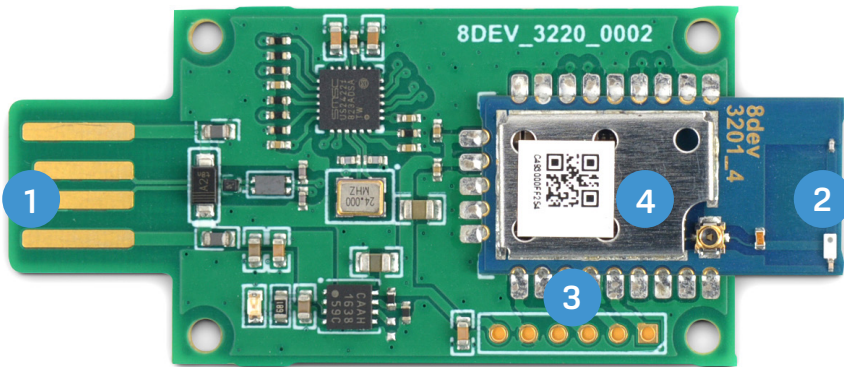
Module dimensions (with antenna/ without antenna)

Block diagram

BLUE bean
MODULE

Development kit

1 - USB Wi-Fi and Bluetooth

2 - Dual-band ceramic antenna

3 - Turn on/off WLAN and Bluetooth

4 - BLUE bean A module

Pinout Information

GND — 1		23 — GND
GND — 2		22 — N.C.
BT_USB_P — 3		21 — N.C.
BT_USB_N — 4		20 — N.C.
GND — 5		19 — $\overline{\text{WLAN\_RF\_KILL}}$
WLAN_USB_N — 6		18 — GND
WLAN_USB_P — 7		17 — BT_WAKE_HOST
GND — 8		16 — N.C.
WL_EN — 9		15 — BT_EN

10 — VDD33
11 — VDD33
12 — GND
13 — GND
14 — GND

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