DUB812R
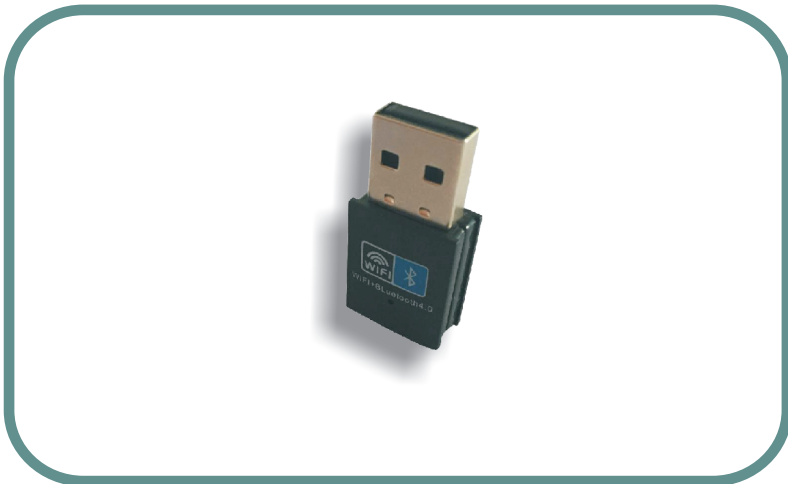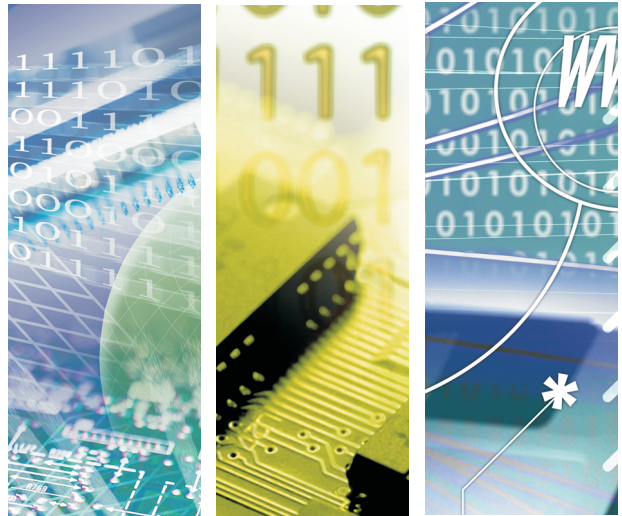## IEEE 802.11b/g/n WiFi + BT4.0 USB dongle

DUB812R

802.11b/g/n with Bluetooth 4.0 Combo 1T1R USB Dongle(XH)

Introduction of Products

Bointec DUB812R USB adapter is a highly integrate solution to 802.11b/g/n with Bluetooth 2.1 / 3.0 / 4.0 and with small size. It provides good coordination and superb coexistence performance between 802.11 and Bluetooth.

Product Highlight

WiFi Features
- Comply with IEEE 802.11b/g/n standards.
- High transfer data rate – 1T1R, up to 150Mbps.
- Supports 64/128-bit WEP, WPA, WPA2 and IEEE802.1x functions for enterprise level of security.
- Support the most popular operating system: Windows 7 / 8 / 10, Linux
- Supports USB 2.0/1.1 interface.
- Supports software WPS (WiFi Protected Setup) connection.
- Supports WMM wireless QoS feature.

Bluetooth Features
- Bluetooth Class 1 radio.
- Supports Bluetooth v4.0 Low Energy (BLE).
- Bluetooth v4.0 Dual Mode support : Simultaneous LE and BR/EDR.
- Compatible with Bluetooth v1.1, v1.2, v2.1 and v3.0. • Bluetooth v3.0 +HS compliant.
- Supports AFH (Adaptive Frequency Hopping) to dynamically detect channel quality to improve transmission quality.
- Supports 4 Pico nets in a scatter net.
- Supports Secure Simple Pairing.
- Supports Low Power Mode (Sniff / Sniff Sub rating / Hold / Park).
- Enhanced BT/WiFi Coexistence control to improve transmission quality in different profiles.
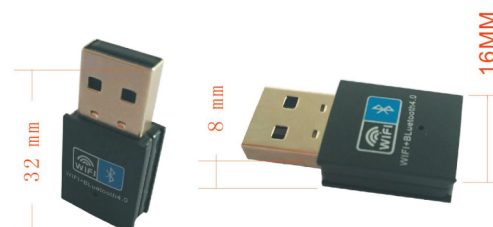
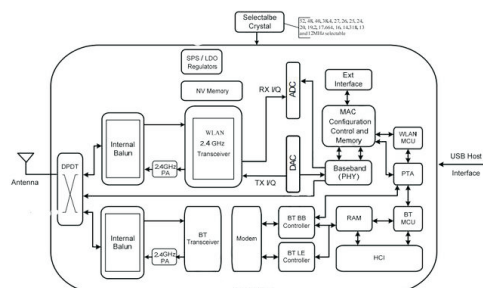| Product	11n Wireless LAN with Bluetooth USB Adapter
Chipset Solution	Realtek RTL8723BU
Standard	**WiFi:** IEEE 802.11b/g/n
	BT: Class 1 radio, supports BT v4.0/ 3.0/ 2.1/ 1.2/ 1.1
Bus Type	USB 1.1/2.0 Type A (WiFi and BT)
Frequency Band	2.4000~2.4835GHz (Industrial Scientific Medical Band)
Modulation	**WiFi:**
	802.11b: CCK(11,5.5Mbps), QPSK(2Mbps), BPSK(1Mbps),
	802.11 g/n: OFDM
	BT:
	8DPSK, Pi/4 DQPSK, GFSK
Data Rate	**WiFi:**
	11b: 1/2/5.5/11Mbps
	11g: 6/9/12/18/24/36/48/54Mbps
	11n (20MHz): MCS0-7, up to 72Mbps
	11n (40MHz): MCS0-7, up to 150Mbps
	BT:
	Basic rate: 1Mbps
	Enhanced rate: 2/3 Mbps
	High Speed: 6/9/12/18/24/36/48/54 Mbps
Output Power	**WiFi:** 11b: 16±1.5dBm , 11g: 14±1.5dBm, 11n: 12±1.5dBm
	BT: Max +10dBm
Receive Sensitivity	**WiFi:**
	11b@11Mbps: -87dBm± 2dBm
	11g@54Mbps: -65dBm± 2dBm
	11n@108Mbps: -65dBm± 2dBm
	11n@130Mbps: -65dBm± 2dBm
	BT:
	-89dBm@ 1Mbps
	-90dBm@ 2Mbps
	-83dBm@ 3Mbps
Operating Channel	**WiFi 2.4GHz:**
	11: (Ch 1-11) – United States
	13: (Ch 1-13) – Europe
	14: (Ch 1-14) – Japan
	BT 2.4GHz: Ch 0~78
Media Access Control	**WiFi:** CSMA/CA with ACK
	BT: AFH, Time Division
Network Architecture	**WiFi:** Ad-hoc mode(Peer-to-Peer)
	Infrastructure mode
	Software AP
	WiFi Direct
	BT: Pico Net Scatter Net
Security	**WiFi:** WEP 64/128, WPA, WPA2 and IEEE 802.1x
	BT: Simple Paring
Antenna	Internal Antenna x 1 (1T1R)
Drivers	Windows 7 / 8 / 10, Linux
Dimension	8.0(H) x 16.0(W) x 32.0(D) mm
Temperature	Operating: -20~45°C , Storage: -40~70°C
Humidity	Operating: 10~90% (NonCondensing),
	Storage: 5~90% (NonCondensing)

Product quick glance

ME Drawing/placement

Block Diagram

Ordering Information

PART NUMBER	DESCRIPTION
TFGA-DUB812R0-31	Finished non packing, DUB812R

Bointec Authorized Distributer

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