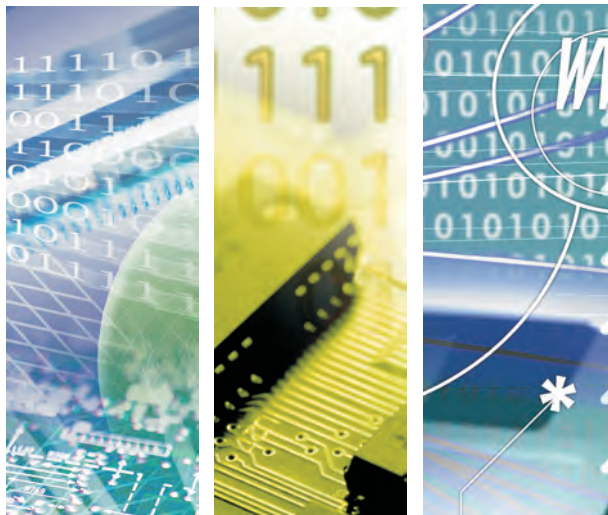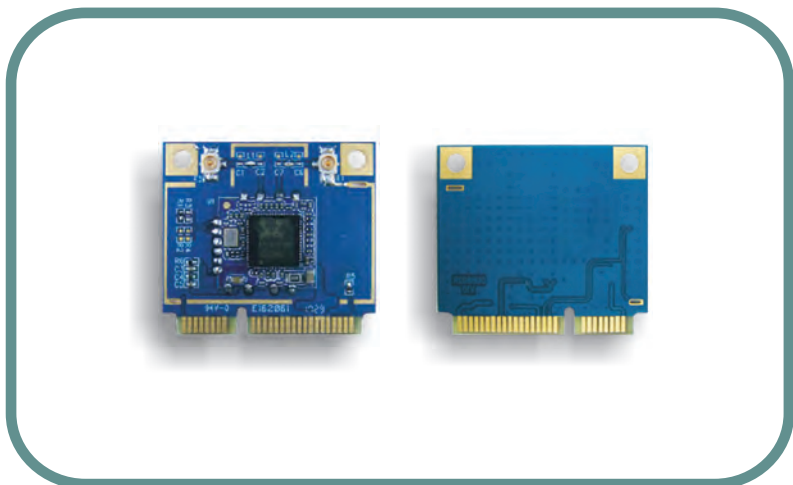# DUB802R
WiFi 802.11 b/g/n and BT4.0 USB Module

802.11 b/g/n with Bluetooth 4.0 Combo 1T1R, miniPCIe Type, USB Module

Introduction of Products

Bointec DUB802R is a solder down module of Wi-Fi 802.11bgn with Bluetooth 2.1/3.0/4.0 multi-function network interface controller by USB 2.0.

It combines a wireless LAN MAC, a 1T1R capable baseband, and RF. Using by Realtek RTL8723BU, it provides a complete solution for a high-performance integrated wireless and Bluetooth device.

The integration provides better coordination between 802.11 and Bluetooth, and with sophisticated dynamic power control and packet traffic arbitration, it is able to provide the best coexistence performance overview.

Product Highlight

- Main Chipset Realtek RTL8723BU

- IEEE 802.11 b/g/n compliant with 2.4GHz frequency band

- Bluetooth 2.1+EDR/3.0 and BT4.0 Dual Mode

- Supporting HT20/HT40 bandwidth

- 1T1R; antenna outlet two; as diversity

- 802.11b: 1, 2, 5.5, 11Mbps;
  802.11g: 6, 9, 12, 24, 36, 48,54Mbps ;
  802.11n: Support PHY rate up to 150Mbps.

- USB /miniPCIe interface

- Complies with USB Specification Revision 2.0

- RoHS & Halogen free compliant / Lead free

BOINTEC WIFI DUB802R ENG v0.1

Specification

General

General	
Main Processor	Realtek® RTL8273BU
Frequency band	2.4GHz (2.412 GHz to 2.4835 GHz)
Antenna	Internal : N/A
	External : via pin assignment
Interfaces	USB miniPCIe formfactor
Dimension(L*W*H)	29.8mm x 26.8mm ;Tolerance: +-0.2mm
Operating Voltage	3.3 V ± 0.3V
Power Consumption	96mA at 3.3V(standby)
	255mA at 3.3V (TX mode)
Clock Source	40MHz
Temperature	0°C to +50°C (Operation)
	-40°C to +85°C (Storage)

WiFi

WiFi	
Standard	IEEE 802.11b
	IEEE 802.11g
	IEEE 802.11n
Bandwidth	HT20 and HT40
RF Input / Output	1T1R
Modulation	802.11b: CCK, DQPSK, DBPSK
	802.11g: 64 QAM, 16 QAM, QPSK, BPSK
	802.11n: 64 QAM, 16 QAM, QPSK, BPSK
Work mode	Infrastructure, Ad-Hoc
Roaming	Support
Data Rate	802.11b: 1, 2, 5.5, 11Mbps
	802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps
	802.11n: MCS 0 to 7 (HT20)
	802.11n: MCS 0 to 7 (HT40)
Spread Spectrum	IEEE 802.11b: DSSS (Direct Sequence Spread Spectrum)
	IEEE 802.11g/n:OFDM (Orthogonal Frequency Division Multiplexing)
RF Output	16dBm@11b,
	14dBm@11g ,
	13dBm@11n
Sensitivity	1M: -92dBm@8%PER
	6M: -89dBm@10%PER
	11M:-86dBm@8%PER
	54M:-73dBm@10%PER
	135M:-67dBm@10%PER
Distance	100M(802.11gn typical)
	300M(open space)
Internet Protocols	IPv4, TCP/IP
Security Protocols	WPA, WPA2-PSK,WEP

Bluetooth

Bluetooth	
Standard	Bluetooth 2.1+EDR
	Bluetooth 3.0
	Bluetooth 3.0+HS
	Bluetooth v4.0
Modulation	8DPSK, π/4 DQPSK, GFSK
Data Rate	1 Mbps for Basic Rate
	2,3 Mbps for Enhanced Data Rate
Spread Spectrum	FHSS(Frequency-Hopping Spread Spectrum)
RF Output	+10dBm (MAX.)
RX: Sensitivity	-89dBm@1Mbps
	-85dBm@2Mbps
	-83dBm@3Mbps
Distance	10M (Maximum)

Product quick glance

ME Drawing/placement
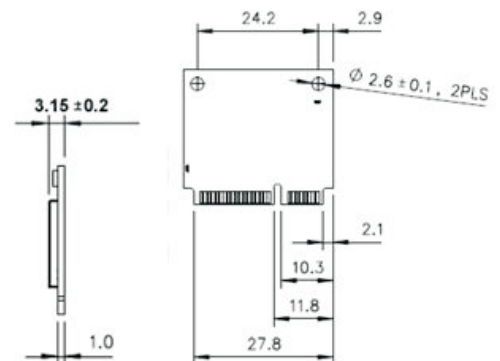
Block Diagram
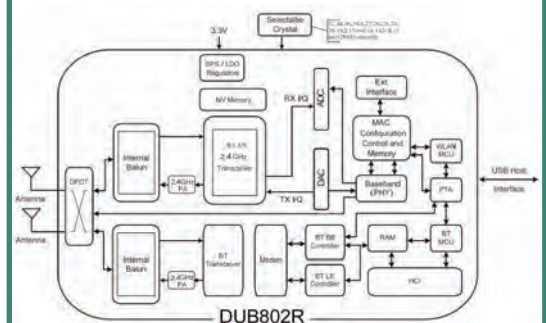
DUB802R

Ordering Information

PART NUMBER	DESCRIPTION
TFGA-DUB802R0-11	Finished non packaing,Bointec,DUB802R

Bointec Authorized Distributer

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1010 1010
We are Your Partner more than Business