



DPE109R

IEEE 802.11abgn/AC+BT4.2 miniPCle,2T2R,MHF4



802.11abgn/AC+BT,miniPCle,2T2R



Introduction of Products

Bointec Technologies, Inc. introduces the pioneer of the IEEE 802.11 a/b/g/n/ac WIFI with Bluetooth 4.2 combo half mini card (HMC) --- DPE109R.

The DPE109R IEEE 802.11 a/b/g/n/ac PCIE WIFI with Bluetooth 4.2 combo HMC is a highly integrated single-chip MIMO (Multiple In, Multiple Out) wireless local area network (WLAN) solution to let users enjoy the digital content through the latest wireless technology without using the extra cables and cords.

It combines a WLAN MAC, a 2T2R capable WLAN baseband, and RF in a single chip. It enables a high performance, cost effective, low power, compact solution that easily fits onto the PCI Express and USB half mini card.

Product Highlight

- Main Chip:RTL8822BE
- Support 802.11ac 2x2,Wave-2 compliant with MU-MIMO
- Maximum PHY data rate up to 173.3 Mbps using 20MHz bandwidth.
- Maximum PHY data rate up to 400Mbps using 40MHz bandwidth.
- Maximum PHY data rate up to 866.7Mbps using 80MHz bandwidth.
- Wi-Fi Direct supports wireless peer to peer applications.
- Supports Wake-On-WLAN via Magic Packet and Wake-up frame.
- Support Network List Offload



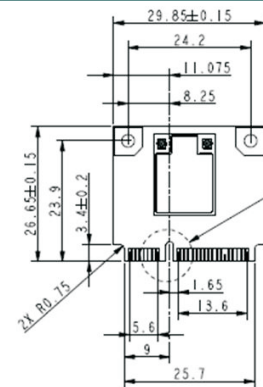
Specification

Bluetooth	
Standard	Bluetooth 2.1+Enhanced Data Rate (EDR) + BT4.2
Bus Interface	USB2.0
Data Rate	Bluetooth 2.1+EDR data rates of 1,2, and 3Mbps
Modulation Scheme	GFSK (1Mbps), $\pi/4$ DQPSK (2Mbps) and 8DPSK (3Mbps)
Frequency Range	2.402~2.480GHz
Transmit Output Power	Class 2 : 0~6 dBm
Receiver Sensitivity	BER<0.1% (Anritsu 8852B Tx-70dBm)
Software	Bluetooth Suite
Wi-Fi	
Standard	IEEE802.11ac, IEEE802.11a, IEEE802.11b, IEEE 802.11g, IEEE 802.11n
Bus Interface	PCI Express
Data Rate	802.11b: 1, 2, 5.5, 11Mbps
	802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54Mbps
	802.11n: up to 150Mbps-single
	802.11n: up to 300Mbps-2x2 MIMO
	802.11ac: up to 192.6Mbps (20MHz channel) 802.11ac: up to 400Mbps (40MHz channel) 802.11ac: up to 866.7Mbps (80MHz channel)
Modulation Techniques	SSSS, OFDM, DBPSK, DQPSK, CCK, 16-QAM, 64-QAM for WLAN
Operation Channel	2.4GHz:
	USA, NORTH AMERICA, Canada and Taiwan – 1 ~ 11
	China, Australia, Most European Countries – 1 ~ 13
	Japan – 1 ~ 14(CH14 only for 802.11b)
	802.11g:
USA, Canada and Taiwan – 1 ~ 11	
China, Australia, Most European Countries – 1 ~ 13	
5GHz:	USA, EUROPE – 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 149, 153, 157, 161, 165
Frequency Range	2.4 GHz : 2.412 ~ 2.484 GHz 5 GHz: 4.915 ~5.925Ghz
Security	WAPI
	WEP 64-bit and 128-bit encryption with H/W TKIP processing
	WPA/WPA2 (Wi-Fi Protected Access)
	AES-CCMP hardware implementation as part of 802.11i security standard
Electronics characteristics	
Operating Voltage	3.3 V
OS Supported	Microsoft Windows
Antenna Type	I-PEX MHF4 Connector Receptacle (20449)
	ANT1: Wi-Fi → TX/RX ANT2: Wi-Fi/Bluetooth → TX/RX

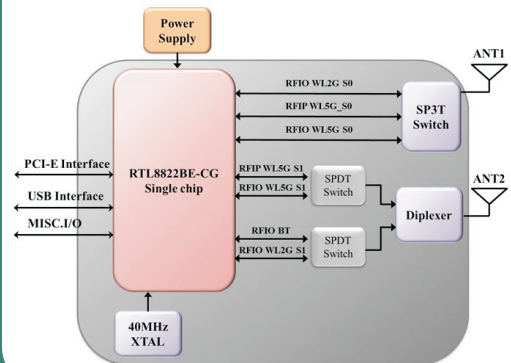
Product quick glance



ME Drawing/placement



Block Diagram



Ordering Information

PART NUMBER	DESCRIPTION
TFGA-DPE109R0-11	finished non packing, Bointec, DPE109R



We are Your Partner more than Business



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