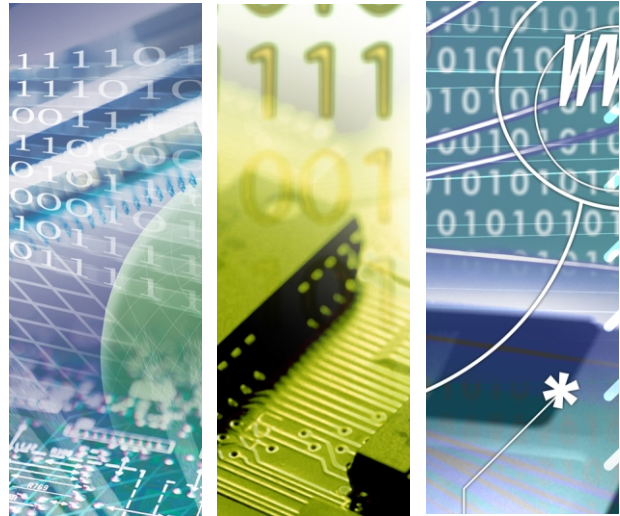
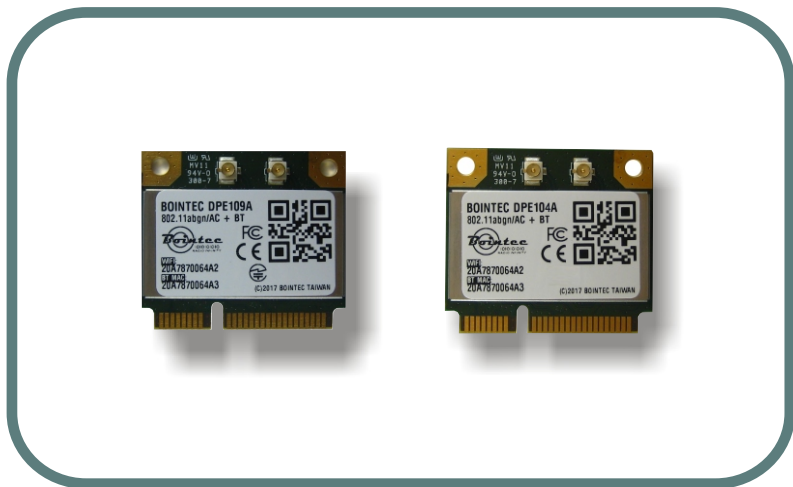




DPE109A/DPE104A

802.11abgn/AC WiFi+BT4.2, 2T2R Combo miniPCle



DPE109A/DPE104A

802.11abgn/AC+BT4.2, 2T2R, miniPCle, QCA6174A-5

Introduction of Products

Bointec DPE109A/DPE104A is a Dual-Band 802.11ac/a/b/g/n WiFi + Bluetooth miniPCle adapter. It is a 2T2R (WiFi/BT co-existence supported) technology, with 20/40/80MHz and 256-QAM to maximize bandwidth. DPE109A/DPE104A lets you move at the speed of life with faster speeds (up to 867 Mbps, 1~3Mbps EDR for Bluetooth), higher capacity, broader coverage and longer battery life. Dramatically reshapes your connected experience.

Bointec DPE109A/DPE104A incorporated with advanced security encryption, such as WEP, WPA, WPA2, and 802.1x for secure wireless connection.

Bointec DPE109A/DPE104A also supports the latest Bluetooth 4.2 specification, which includes both High Speed and Low-Energy operation to extend personal area connectivity to a variety of devices.

DPE109A/DPE104A also delivers superior WLAN/Bluetooth coexistence to ensure the best possible wireless experience. DPE109A/DPE104A offers advanced algorithms developed to mitigate interference and takes advantage of the physical proximity of the WLAN and Bluetooth radios to provide maximum performance.

Product Highlight

- IEEE Standards Support, 802.11a, 802.11b, 802.11g, 802.11n and 802.11ac
- Wi-Fi using Low power PCI Express interface
- Enterprise level security supporting: WPA, WPA2
- Two-stream spatial multiplexing up to 867Mbps data rate
- Main Chip:QCA6174A-5
- Bluetooth V4.2, V4.1, V4.0 LE, V3.0+HS, V2.1+EDR system, backward compatible with V1.1, 1.2 and 2.0.
- BT supports Class I (Output power up <=+10 dBm)
- BT transmission speed including 1M, 2M and 3Mbps EDR operations
- Support for Simple Pairing (SP) and Enhanced Inquiry Response (EIR) function
- Support for SCATTERNET and PICONET
- HCI USB interface to work with Windows upper layer stack
- Operates at ISM frequency Band(2.4/5GHz)
- With industrial temperature grade support (DPE104A)

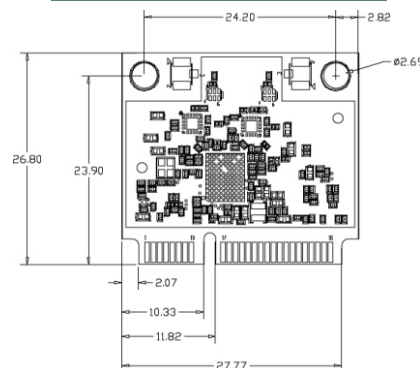


WiFi		
Standard	IEEE802.11ac, IEEE802.11a, IEEE802.11b, IEEE 802.11g, IEEE 802.11n	
Bus Interface	Low Power PCI Express	
Data Rate	802.11a: 54, 48, 36, 24, 18, 12, 9, 6 Mbps	
	802.11b: 11, 5.5, 2, 1 Mbps	
	802.11g: 54, 48, 36, 24, 18, 12, 9, 6 Mbps	
	802.11n: MCS 0 to 15 for HT20MHz, MCS 0 to 15 for HT40MHz,	
	802.11ac: MCS 0 to 8 for HT20MHz MCS 0 to 9 for HT40MHz MCS 0 to 9 for HT80MHz	
	Media Access Control	CSMA/CA with ACK
Modulation Techniques	802.11ac: 256QAM, 64QAM, 16QAM, QPSK, BPSK	
	802.11a: 64QAM, 16QAM, QPSK, BPSK	
	802.11b: CCK, DQPSK, DBPSK	
	802.11g: 64QAM, 16QAM, QPSK, BPSK 802.11n: BPSK, QPSK, 16QAM, 64QAM	
RF Output Power	2.4GHz: 802.11b : 18 dBm±2dB 2.4GHz: 802.11n : 14 dBm±2dB 5GHz: 802.11a : 13 dBm±2dB 5GHz: 802.11ac : 10 dBm±2dB (for detail, check specification document)	
	RF Sensitivity	11a,20MHz:- MCS=0 PER @ -90 dBm, typical 11n,20MHz:- MCS=0 PER @ -90 dBm, typical 11b,20MHz@8%PER:- 11Mbps PER @ -91 dBm, typical (for detail, check specification document)
	Network Architecture	Ad-hoc mode (Peer-to-Peer) Infrastructure mode
Security	WEP 64&128bit, WPA, WPA-PSK, WPA2, WPA2-PSK, WPS, IEEE 802.1X, IEEE 802.11i	
Bluetooth		
Standard	Bluetooth V4.2, V4.1, V4.0LE, V3.0+HS, V2.1+EDR	
Bus Interface	USB1.1	
Data Rate	1 Mbps, 2Mbps and Up to 3Mbps	
Modulation Scheme	GFSK, π/4-DQPSK and 8-DPSK	
Frequency Range	2.402~2.480 GHz	
Transmit Output Power	0 ≤ Output Power ≤ +10 dBm; Class 1 Device	
Receiver Sensitivity	< 0.1% BER at -70dBm	
Software	BluetoothSuite	
Electronics characteristics		
Operating Voltage	3.3 V ±5% I/O supply voltage	
OS Supported	Linux/Win7/Win8/Win10	
Antenna Type	U.FL connectors x 2	
Operating Temperature	-20 ~ +70 C (DPE109A) -40 ~ +85 C (DPE104A)	
Storage Temperature	-40 ~ +85 C (DPE109A) -40 ~ +105 C (DPE104A)	
Operating Humidity	10%~95%, non-condensing	
Storage Humidity	5~95%, non-condensing	

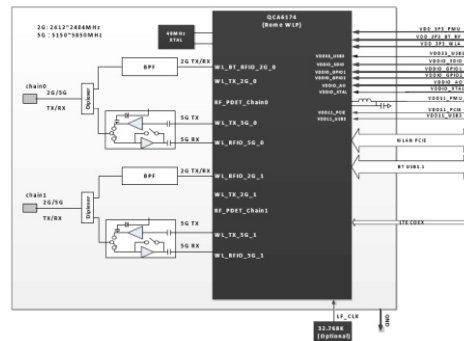
Product quick glance



ME Drawing/placement



Block diagram



Ordering Information

TFGA-DPE104A-13	Finished good non packing, Bointec, DPE104A (I-temp)
TFGA-DPE109A-13	DPE109A-DK, development kit packed
TFGA-DPE109A-13	Finished good non packing, Bointec, DPE109A

Bointec Authorized Distributer



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