

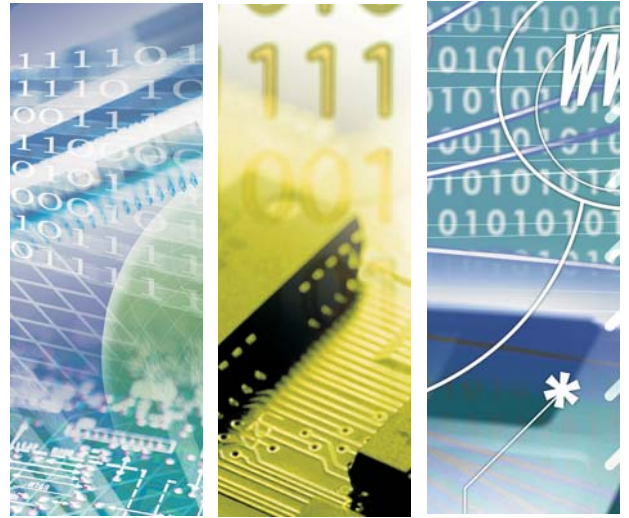


# DPE109A

IEEE 802.11AC/bgn Wi-Fi with BT Module



802.11AC/bgn+BT miniPCIe, 2T2R



DPE109A

## Introduction of Products

DPE109A is an dual band 802.11ac/b/g/n Dual-Band WiFi + Bluetooth miniPCIe. It is a 2T2R (WiFi/BT co-existence supported) technology, with 20/40/80MHz and 256-QAM to maximize bandwidth.

DPE109A 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.

As usual DPE109A incorporated with advanced security encryption, such as WEP, WPA, WPA2, and 802.1x for secure wireless connection

## Product Highlight

- Main Chip:QCA6174A-5
- Bluetooth V4.2, V4.1, V4.0 LE, V3.0+HS, Bluetooth V2.1+EDR system, backward compatible with BT version of 1.1, 1.2 and 2.0
- BT supports Class I (Output power up  $\leq +10$  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)
- 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



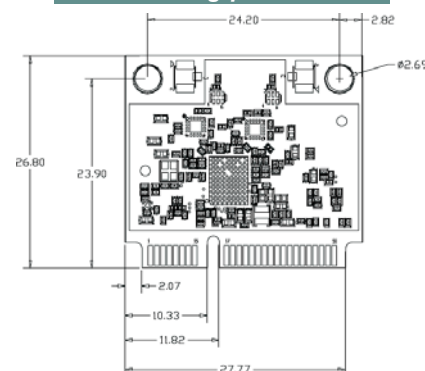
# Specification

Bluetooth	
Standard	Bluetooth 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, $\pi/4$ -DQPSK and 8-DPSK
Frequency Range	2.402~2.480 GHz
Transmit Output Power	0? Output Power ? +10; Class 1Device
Receiver Sensitivity	< 0.1% BER at -70dBm
Software	BluetoothSuite
WiFi	
Standard	IEEE802.11ac, IEEE802.11a , IEEE802.11b , IEEE 802.11g , IEEE 802.11n
BusInterface	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
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
Electronics characteristics	
Operating Voltage	3.3 V $\pm$ 5% I/O supply voltage
OS Supported	Linux/Win7/Win8/Win10
Antenna Type	U.FL connectors x 2
Operating Temperature	0° ~ +70°C
Storage Temperature	-40° ~ +80°C
Operating Humidity	5%~95%, non-condensing
Storage Humidity	5~95%, non-condensing

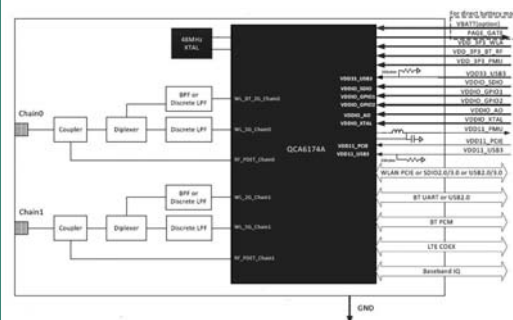
## Product quick glance



## ME Drawing/placement



## Block Diagram



## Ordering Information

PART NUMBER	DESCRIPTION
T.DPE109A	DPE109A, Single packed
T.DPE109A-DK	DPE109A-DK, development kit packed
TFGA-DPE109A0-11	Finished non packing, Bointec, DPE109A

Bointec Authorized Distributer



We are Your Partner more than Business



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