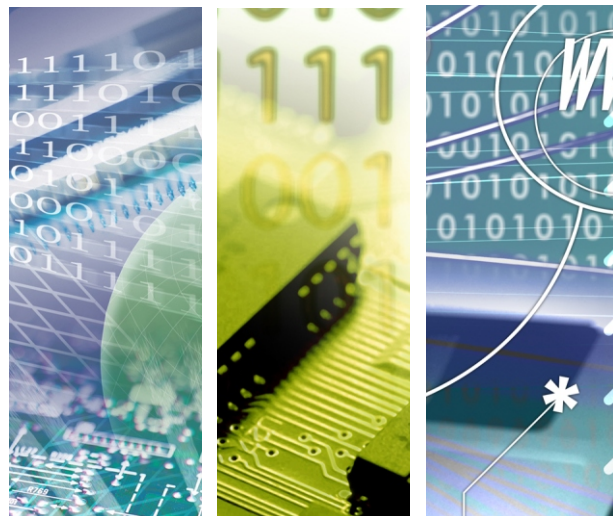# CPE102A
IEEE 802.11ac/abgn miniPCIe 2T2R Module

802. l l ac/abgn miniPCIe, 2T2R

Introduction of Products

Bointec CPE102A is a WLAN module supporting IEEE 802.11 ac/abgn standard via the miniPCe full size card.

The CPE102A is a highly integrated wireless local area network (WLAN) system-on-chip (SoC) for 2.4GHz and 5GHz applications. It enables high-performance 2x2 MIMO with two spatial streams for wireless demanding the highest robust link quality, maximum throughput and range such as Home Entertainment, Health Care, Monitor System or Industry and Enterprise applications. Thus, the CPE102A will be a perfect solution to meet these advanced conditions.

CPE102A is truly a cost-effective solution for the current wireless market with the powerful performance. Besides, it possesses 2X2 MIMO technology (2T2R). It can achieve the max throughput of 867Mbps based on its comprehensive modulation technique and supporting HT80. It is convenient for all users to use miniPCIe interface in order to assemble on customer's host board or custom boards. Based on the standard size module and robust setup scheme, CPE102A provides those advantages to enhance the value of our customer's target product.

Product Highlight

- Main Chip Qualcomm Atheros QCA9882
- IEEE 802.11 ac/abgn based on 2.4GHz and 5GHz frequency band
- 2x2 MIMO Technology (2T2R)
- Support 20MHz, 40MHz and 80MHz Bandwidth
- Support 256QAM Modulation
- Max throughput 867Mbps
- 30 X 50.8 mm size with the same mounting hole location as the standard full mini card
- 2 SMT Ultra-miniature coaxial connectors (U.FL type)
- Operation Voltage: 3.3V
- Operating temperature: -20~70 degrees C
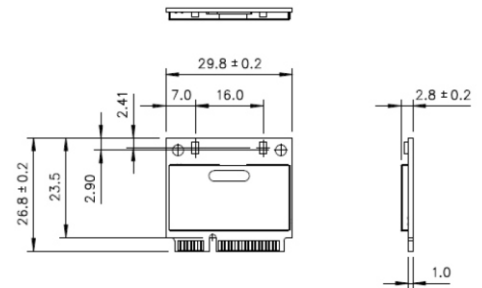- RoHS compliance

Specifications	
Chipset	Qualcomm Atheros QCA9882
Data Rate	11b : up to 11Mbps 11a/g : up to 54Mbps 11n : up to 300Mbps 11ac : up to 867Mbps
Host Interface	Mini PCIe
Radio Operation	Output Power Tx +/- 2dB	Receiver Sensitivity Rx +/- 2dB

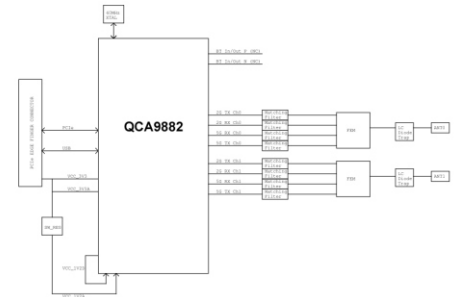|	Output Power Tx +/- 2dB	Receiver Sensitivity Rx +/- 2dB
IEEE 802.11 b/g/n	20dBm @ 1~11Mbps 21dBm @ 6~24Mbps 18dBm @ 54Mbps 24/23dBm @ MCS0 (HT20/40) 22/21dBm @ MCS7 (HT20/40)	-90dBm @ 1~11Mbps -91dBm @ 6Mbps -90dBm @ 12Mbps -75dBm @ 54Mbps -92/-90dBm @ MCS0 (HT20/40) -76/-73dBm @ MCS7 (HT20/40)
IEEE 802.11a/n/ac	20dBm @ 6~24Mbps 15dBm @ 54Mbps 22/21dBm @ MCS0 (HT20/40) 19/18dBm @ MCS7 (HT20/40) 22/21/21dBm @ MCS0 (VHT20/40/80) 17/17/17dBm @ MCS8 (VHT20/40/80) 16/16dBm @ MCS9 (VHT40/80)	-92dBm @ 6Mbps -88dBm @ 12Mbps -74dBm @ 54Mbps -93/-90dBm @ MCS0 (HT20/40) -74/-72dBm @ MCS7 (HT20/40) -93/-91/-87dBm @ MCS0 (VHT20/40/80) -70/-68/-64dBm @ MCS8 (VHT20/40/80) -66/-62dBm @ MCS9 (VHT40/80)
Antenna Interface	U.FL x2 for 2T2R	
Dimension	26.75 (L) mm X 29.79 (W) mm	
Operating Voltage	3.3V+/- 5%	
Operating Temperature	Operating Temperature Range: -20°C to 70°C Storage Temperature Range: -40ºC to +80ºC Operating Humidity (non-condensing): 10% ~ 90% Storage Humidity (non-condensing): 5% to 90%	

Product quick glance

ME Drawing/placement

- **PCB Dimension**

Block Diagram

Ordering Information

PART NUMBER	DESCRIPTION

Bointec Authorized Distributer

Bointec
IOIO IOIO
We are Your Partner more than Business