

2.4GHz industrial wireless LAN Access Point only choice

Introduction of Products

Bointec CPE902A included industrial grade chipset, is a single-chip, dual-band (2.4/5 GHz), 2-stream 11n solution. With PCIe interface, It packs the Atheros Signal-Sustain Technology (SST) technology that enhances rate-over-range performance. Features are enabled by 802.11n including LDPC, TxBF and MLD. Impressively increase in rate-over-range of ~+100% at short range, ~+50% at mid range and ~+25% at long range.

Bointec CPE902A consumes less power in every operation mode active TX, active RX, idle associated and sleep than other Atheros previous chipsets. It keeps the notebook and other computing platforms running much longer on a single battery-charge, while providing TCP throughput of more than 200 Mbps when used in 2x2 mode.

Bointec CPE902A is also optimized for Atheros Direct Connect[™] P2P applications. With its Fast Channel Switch (FCS) feature, the channel switching time between the 2.4 GHz and 5 GHz bands is reduced from 10 ms to as little as 1 ms.

Product Highlight

- -Industrial grade highly integrated Single-chip, 802.11ncertified wireless LAN client solution
- -IEEE 802.11a/b/g/n compliant 2.4/5 GHz dual band
- -Based on Atheros' fourth-generation 802.11n technology Fully Support 2-stream MIMO performance with data rate up to 300 Mbps
- -PCI Express Half-Mini Card 1.2 compliant
- -Compliant with IEEE 802.11b, 802.11g, 802.11d, 802.11e, 802.11i, and 802.11n
- -Signal-Sustain Technology (SST) rate-over-range enhancements: LDPC, MLD, TxBF
- -Conserves power with 1x1 downshift, using Dynamic MIMO Power Save
- -Driver offering includes Linux, Windows 7 and Embedded XP
- -Linux supplicant available for WPA/WPA2-PSK & 802.1x EAP
- -Customer Driver development available
- -IEEE 802.11e QOS support
- -Lead-free RoHS compliant



Specification

		Spe	cification				
Dimensions	26 80(+/-0 1mm)			7(+/-0 1mm)			
Main Chip	26.80(+/-0.1mm)* 29.85(+/-0.1mm) * 3.37(+/-0.1mm) Atheros [®] AR9592						
Host Interface							
	PCI Express® Mini Card Electromechanical Specification Revision 1.2.						
Operation voltage	3.3V +/- 5%						
Transfer data rate	• 802.11a: 6, 9, 12, 18, 24, 36, 48, 54Mbps						
	• 802.11b: 1, 2, 5.5, 11Mbps						
	• 802.11g: 6, 9, 12, 18, 24, 36, 48, 54Mbps						
	• 802.11n: @800Gl(400Gl)						
	20MHz BW						
	1 Nss: 65(72.2) Mbps maximal						
	2 Nss: 130(144.444) Mbps maximal						
		MHz BW					
	1 Nss: 135(150) Mbps maximal						
	2 Nss: 270(300)						
RF connector	2 x SMT Ultra-m		cial connecto	ors			
TX/RX	2T2R (2x2 with N	,					
		Electronics	characteri	stics			
Operating Temperature	-40° ~ 85°C						
Storage Temperature	-40° ~ 105°C						
	1 1	Power (Consumptio	n			
	(mA)	802.11a	802.11b	802.11g	802.11n (2.4GHz)	802.11n (5GHz)	
Transmit Power consumption @ 25°C		Avg	Avg	Avg	Avg	Avg	
	100% TX duty	550	405	436	365	445	
	This can be treated as the peak current consumption during operation.						
		F	Radio				
Radio TX & Power Setting	802.11a :						
	802.11b :						
	802.11g :						
	802.11n :						
Transmit spectrum mask	Frequency mask	is marginal	to comply w	ith IEEE 802	2.11spec.		
Radio RX Sensitivity	Comply with IEEE 802.11 a/b/g/n standard						
TX Center Frequency	11a · +/- 20ppm	11b/a · +/-	11a + 1/ 20mm 11b/a + 1/ 25mm				
Tolerance	11a : +/- 20ppm, 11b/g : +/- 25ppm (The transmitted center frequency tolerance shall be ± 25 ppm maximum.)						
	(The transmitted			ce shall be -	+ 25 ppm maximum)	
Power Control Accuracy				ce shall be :	± 25 ppm maximum.)	
Power Control Accuracy	+1.5dB/-1.5dB	center frequ	ency toleran		± 25 ppm maximum. 25GHz, 5.725 ~ 5.8	,	
	+1.5dB/-1.5dB USA: 2.400 ~ 2.4	center frequ 483GHz, 5.1	ency toleran 5 ~ 5.35GH	z, 5.47 ~ 5.7	25GHz, 5.725 ~ 5.8	,	
Power Control Accuracy Frequency range	+1.5dB/-1.5dB USA: 2.400 ~ 2.4 Europe: 2.400 ~	center frequ 483GHz, 5.1 2.483GHz, 5	ency toleran 5 ~ 5.35GH: 5.15 ~ 5.35G	z, 5.47 ~ 5.7 GHz, 5.47 ~ \$	25GHz, 5.725 ~ 5.8 5.725GHz	,	
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Product quick glance



Ordering Information

PART NUMBER	DESCRIOPTION
T.CPE902A	CPE902A,Single packed
T.CPE902A-DK	CPE902A-DK development kit packed
TFGA-CPE902A0-11	finished non packaing,Bointec,CPE902A



BOINTEC TAIWAN CO LTD 1F,#3,A20,L790,SEC.5,CHUNGHSIAO E.RD.,TAIPEI 110,TAIWAN TEL:+886-2-2759-0081 FAX:+886-2-2759-1659 WWW.BOINTEC.COM

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