



# Dual Band Wireless Embedded Board

Model: YBT531

Revision:1.01 IL  
Date: 2015,3,16

## Features

- CompexWRT and OpenWRT firmware supported
- Qualcomm-Atheros 650MHz Networking Processor AR9531
- Dual Radio Solution (one on-board radio and one miniPCIe slot that supports all Compex 802.11ac/abgn WLE series)
- Integrated Power-over-Ethernet
- Support 2 x FE Port

## Applications

- Dual Band, Dual Concurrent AP
- 802.11a/n+802.11b/g/n AP
- 802.11ac+802.11b/g/n AP
- Point to Point / Point to MultiPoint
- Base Station
- CPE
- Support Third Party 3G/LTE Module and SIM holder(optional<sup>1</sup>)

## Technical Specifications

System Information						
<b>Processor</b>		Qualcomm-Atheros AR9531				
<b>System Memory</b>		64MB DDR2				
<b>NOR Flash</b>		16MB				
<b>PCIe Slot</b>		9.2mm height miniPCIe slot				
<b>Antenna Connector</b>		2 x U.F L				
<b>Extras</b>		Serial Port <sup>3</sup> , JTAG <sup>4</sup> , Reset Button, Surge Arrestor, Watchdog Timer				
<b>Power Solutions</b>	Low voltage	DC Jack Input: 9 -24V, Passive PoE: 24V				
	High voltage	IEEE 802.3af module(Optional) <sup>5</sup> ,DC Jack input:36-48V, Passive PoE:48v, compatible with802.3af/802.3at PoE switches and injectors				
<b>ROHS Compliance</b>		Yes				
<b>Humidity</b>		Operating: 5% to 95% (non-condensing) Storage: Max.90% (non-condensing)				
<b>Temperature Range</b>		Operating: -20°C to 70°C Storage: -40°C to 90°C				
<b>Dimension</b>		117 x 105 x 17 (mm)				
<b>2.4G On-board Radio</b>	<b>Transmit Power</b>	Data Rate		2.4GHz (aggregate)		
		6M		26dBm		
		54M		20dBm		
		HT20 MCS0		25dBm		
		HT20 MCS7		20dBm		
		HT40 MCS0		24dBm		
		HT40 MCS7		20dBm		
	<b>Receiver Sensitivity</b>	Data Rate				
		6Mbps		-90dBm		
		54Mbps		-75dBm		
		HT20 MCS0		-90dBm		
		HT20 MCS7		-72dBm		
		HT40 MCS0		-88dBm		
		HT40 MCS7		-70dBm		
<b>Max of concurrent associations</b>	Encryption	Client Latency	TCP [each client upload and download randomly from 384Kbps to 768Kbps]		UDP [each client upload and download 2Mbps]	
	WPA2-PSK	<100ms	Single radio	Dual radio	Single radio	Dual radio
			40 clients	70clients (35 per radio)	20 clients	30clients (15 per radio)

1 miniPCIe slot with USB Co-layout,can support SIM holder

2 Depends on ordering configuration

3 Serial Port is a 4-pin header (TTL) + Serial Converter is available to change the TTL signals on board to RS232 signals for debugging.Configurations are subject to change without notification

4 JTAG Port is a 14-pin header + JTAG kit is for writing your own developed loader and firmware directly

5 This is a factory option to turnYBT531LV to YBT531HV It is compatible with 802.3af/802.3at PoE switches and injectors