

Dual Band Gigabit Wireless Embedded Board

Model: WPJ344

ac wave series

Features

- CompexWRT and OpenWRT firmware supported
- Qualcomm-Atheros 533MHz Networking Processor, WASP Series
- Dual Radio Solution (one 2x2 11n 2.4GHz on-board radio and one miniPCIe slot that supports all Compex WLE series, including 802.11ac radio)
- Integrated 48V 802.3af (alternative 24V PoE available)
- Support 2 x Gigabit Ethernet Port
- Optional: support USB Extension

Applications

- Dual Band, Dual Concurrent AP
- 802.11ac+802.11bgn AP / 802.11an+802.11bgn AP
- Point to Point / Point to MultiPoint
- Base Station
- CPE

Technical Specifications

System Information						
Processor		Qualcomm-Atheros AR9344 MIPS 74Kc				
System Memory		128MB(64*2) DDR2				
NOR Flash		8MB (max 16MB optional) ¹				
MiniPCI Slot		1 x 9.2mm MiniPCIe slot				
Ethernet		2 Gigabit ports with Auto-MDI/X				
Extras		Serial Port ² , JTAG ³ , Reset Button, Surge Arrestor, Watchdog Timer				
Power Solutions	High voltage	DC Jack Input:24-48V, Passive PoE: 24-48V, IEEE 802.3af/at PoE				
	Low voltage	Standard 802.3af PoE input:(Optional) ⁴				
Power Consumption		7W				
RoHS Compliance		Yes				
Humidity		Operating: 5% to 95% (non-condensing) Storage: Max.90% (non-condensing)				
Temperature Range		Operating: -20°C to 70°C Storage: -40°C to 90°C				
Dimension		117 x 105 x 17 (mm)				
2.4GHz On-board Radio	Transmit Power	Data Rate		Aggregate Power		
		6M		26dBm		
		54M		22dBm		
		HT20 MCS0		26dBm		
		HT20 MCS7		20dBm		
		HT40 MCS0		26dBm		
	HT40 MCS7		20dBm			
	Receiver Sensitivity	Data Rate				
		6M		-90dBm		
		54M		-75dBm		
		HT20 MCS0		-90dBm		
		HT20 MCS7		-72dBm		
HT40 MCS0		-88dBm				
HT40 MCS7		-70dBm				
Max of concurrent associations	Encryption	Client Latency	TCP [each client upload and download randomly from 384Kbps to 768Kbps]		UDP [each client upload and download 2Mbps]	
			Single radio	Dual radio	Single radio	Dual radio
	WPA2-PSK	<100ms	40 clients	70clients (35 per radio)	20 clients	30clients (15 per radio)

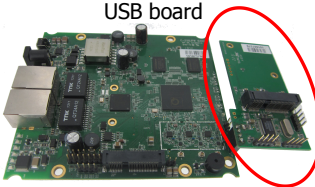
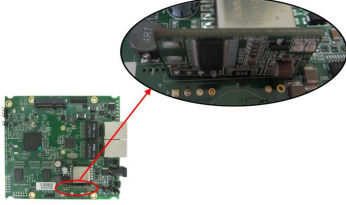
1 Depends on Order Configurations

2 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




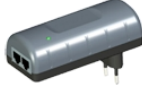
3 JTAG Port is a 14-pin header + JTAG kit is for writing your own developed loader and firmware directly

4 In this mode, it can be powered from 802.3af/3at PoE switches and PoE injectors. It is able to return a PD classification of 0. The DC jack can accept a voltage range of 24V to 56V but the PoE input needs a minimum voltage of 36V

Optional configuration

<p>USB Extension (USB HUB BOARD-1.00-ST)</p>		<p>External board: can support 3 x USB 2.0 ports and 1 x miniPCIe-based USB 2.0 only interface (e.g. 3G modems)</p>
<p>PSE pass-thru module (P-PSE-M-6A03-SPL)</p>		<p>PSE pass-thru module: Optional module to allow power to pass through the 2nd Ethernet port to an IEEE 802.3af/at compatible device, such as a surveillance camera</p>

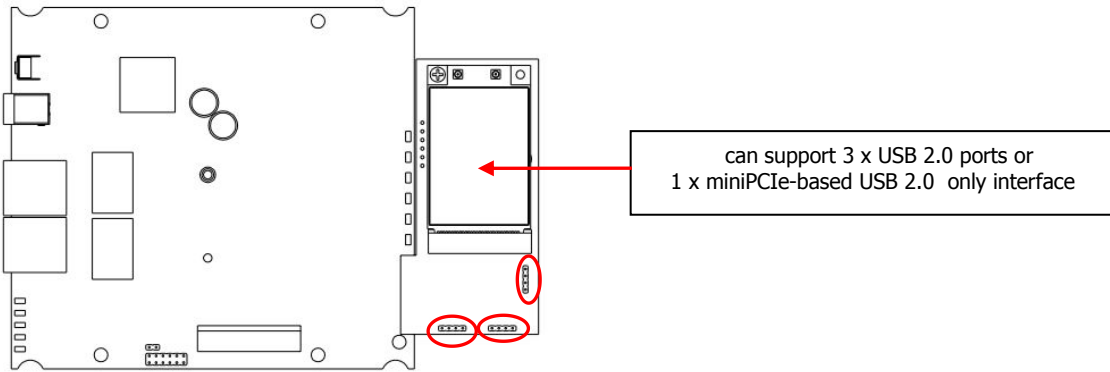
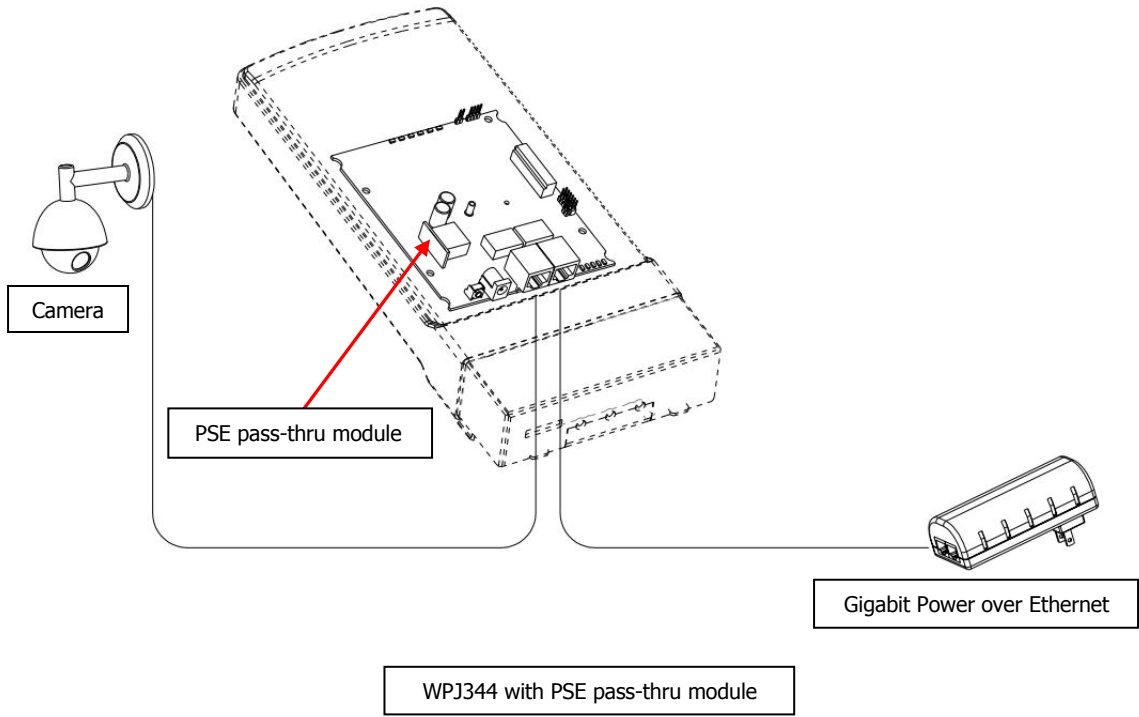
Related Products

802.11ac 5GHz miniPCIe			Gigabit Power over Ethernet
<p>WLE900VX</p> 	<p>WLE600V5-23</p> 	<p>WLE900V5-23</p> 	<p>POE2408</p>  <p>- Output Voltage: 24VDC - Max Output Watts: 19W</p>

Complex embedded board extended applications list

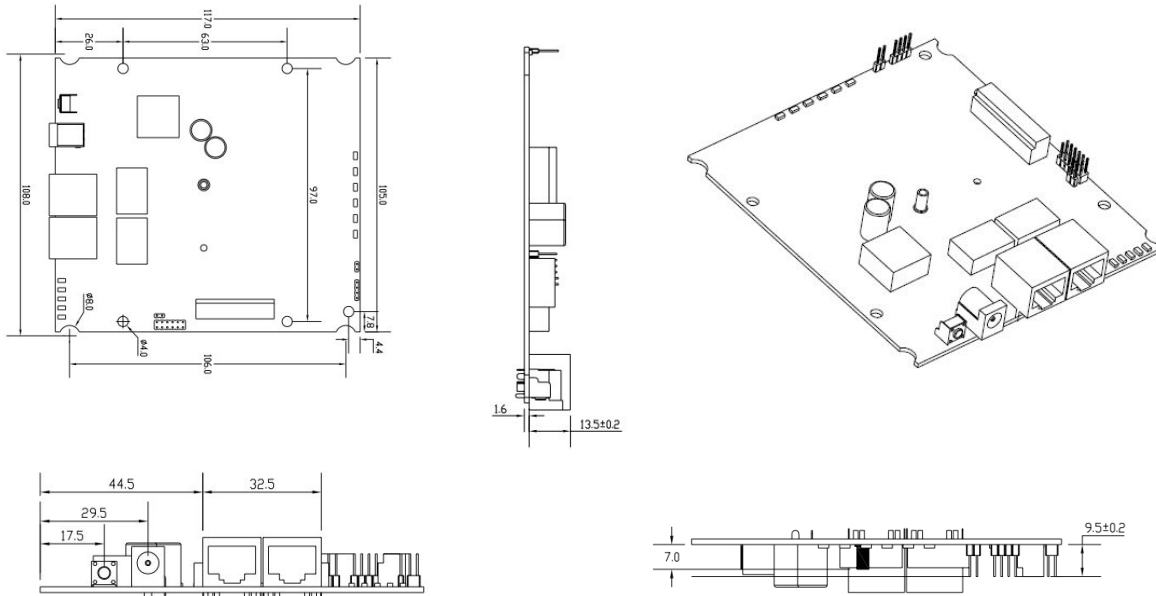
Model	Extended applications			
	USB signal	USB External board (USB HUB BOARD-1.00-ST)	802.3af PoE pass-thru	802.3af PoE power supply
WPJ344	Support 1x USB 2.0 port	support 3 x USB 2.0 ports and 1 x miniPCIe-based USB 2.0 only interface	Optional (PSE pass-thru module)	support
WPJ558	Support 1x USB 2.0 port or PCIe slot Support Third Party 3G/LTE Module	support 3 x USB 2.0 ports and 1 x miniPCIe-based USB 2.0 only interface		support
WPJ342	Support 1x USB 2.0 port or PCIe slot Support Third Party 3G/LTE Module			Optional (802.3af module)
WPJ531	Support 1x USB 2.0 port or PCIe slot Support Third Party 3G/LTE Module			Optional (802.3af module)
WP546	Support 2x USB 2.0 port		Optional (PSE pass-thru module)	support
WP543	Support 2x USB 2.0 port			support

Product application:

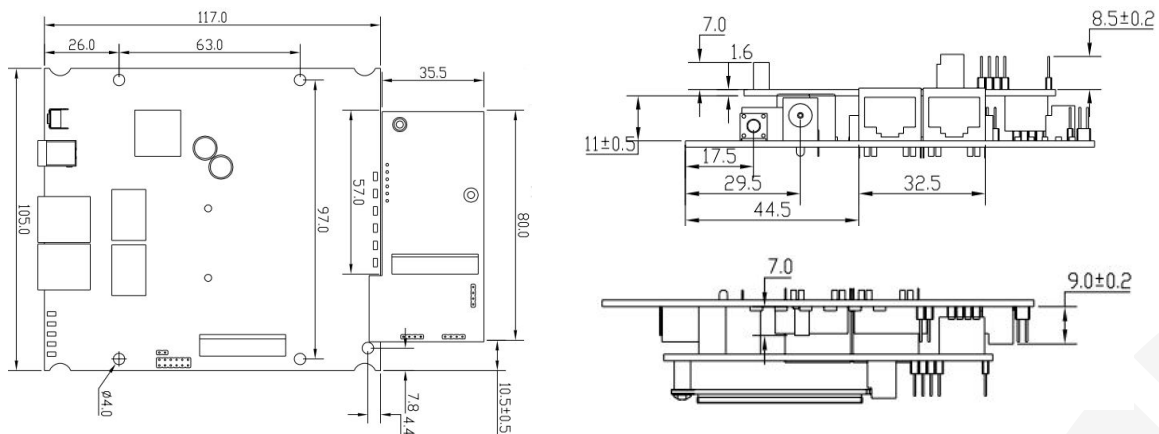


WPJ344 with USB External board

Dimension Drawing



Dimension Drawing with USB external board



Ordering Information

Item Code	Version	PSE module	L/H voltage	Power	NOR Flash	Memory
WPJ344HV 6A06PC8128BR	CompexWRT	NO	High Voltage (48V)		8MB	128MB
WPJ344LV 6A06PC8128BR	CompexWRT	NO	Low Voltage (24V)			
WPJ344HV 6A6BCW8128BRPSE	CompexWRT	Yes	High Voltage (48V)		16MB	128MB
WPJ344LV 6A6BCW8128BRPSE	CompexWRT	Yes	Low Voltage (24V)			
WPJ344HV 6A06PC16128BR	CompexWRT	NO	High Voltage (48V)		16MB	128MB
WPJ344LV 6A06PC16128BR	CompexWRT	NO	Low Voltage (24V)			
P-PSE-M-6A03-SPL			PoE pass-Thru module			
USB HUB BOARD-1.00-ST			USB External board			