Dual Band Gigabit Wireless Embedded Board
Model: WPJ558

Features

- CompexWRT and OpenWRT firmware supported

- Qualcomm-Atheros 700MHz Networking Processor AR9558

- 2.4GHz up to 28dBm aggregate power 3 x 3 on-board radio

- 3 x 3 On-board radio up to 450Mbps physical data rate

- Integrated Power-over-Ethernet

- 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

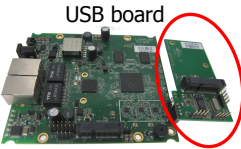- Support Third Party 3G/LTE Module
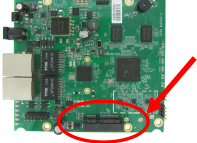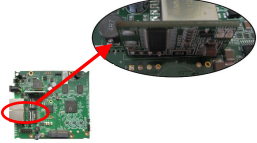
Technical Specifications

System Information	
Processor	Qualcomm-Atheros AR9558
System Memory	128MB DDR2
NOR Flash	16MB
PCIe Slot	9.2mm height miniPCIe slot
On-board radio power	28dBm(aggregate)
Antenna Connector	3 x U.FL
Ethernet	2 X Gigabit ports with Auto-MDI/X
Extras	Serial Port[1], JTAG[2], Reset Button, Surge Arrestor, Watchdog Timer
Power Solutions	Standard 802.3af PoE input[3]
Power Consumption	8.6W
ROHS Compliance	Yes
Humidity	Operating: 5% to 95% (non-condensing) Storage: Max.90% (non-condensing)
Temperature Range	Operating: -20ºC to 70ºC Storage: -40ºC to 90ºC
Dimension	117 x 105 x 17 (mm)

2.4G On-board Radio			
2.4G On-board Radio	**Transmit Power**	Data Rate	2.4GHz (aggregate)
		6Mbps	28dBm
		54Mbps	24dBm
		HT20 MCS0	28dBm
		HT20 MCS7	23dBm
		HT40 MCS0	28dBm
		HT40 MCS7	23dBm
	Receiver Sensitivity	Data Rate	2.4GHz
		HT20 MCS0	-94dBm
		HT20 MCS7	-77dBm
		HT40 MCS0	-93dBm
		HT40 MCS7	-75dBm

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]	
Max of concurrent associations	WPA2-PSK	<100ms	Single radio	Dual radio	Single radio	Dual radio
			40 clients	70clients (35 per radio)	20 clients	30clients (15 per radio)

1 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 subjec to change without notification
2 JTAG Port is a 14-pin header + JTAG kit is for writing your own developed loader and firmware directly
3 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

|		

USB Extension
(USB HUB BOARD-1.00-ST)
	USB board
	
		External board:
		    can support 3 x USB 2.0 ports and
		    1 x miniPCIe-based USB 2.0 only interface
		    (e.g. 3G modems)

3G/LTE Module		PCIe slot can Support Third Party 3G/LTE Module
PSE pass-thru module (P-PSE-M-6A03-SPL)		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 *Note:When the board operate with PSE module, please don't use Passive PoE power to the Ethernet port close to DC jack,otherwise will be damaged

Related Products

	802.11ac miniPCIe radio			Gigabit Power over Ethernet
	WLE600VX	WLE600VX-itemp	WLE600V5-27ESD	
Model				POE24125
Max data rate	867Mbps			
	WLE900VX	WLE900VX-itemp	WLE900V5-27ESD	- Output Voltage: 24VDC - Max Output Watts: 30W
Model				
Max data rate	1.3Gbps			

Compex 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 1× 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 1× 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	Optional (PSE pass-thru module)	support
WPJ342	Support 1× USB 2.0 port or PCIe slot Support Third Party 3G/LTE Module			Optional (802.3af module)
WPJ531	Support 1× USB 2.0 port or PCIe slot Support Third Party 3G/LTE Module			Optional (802.3af module)
WP546	Support 2× USB 2.0 port		Optional (PSE pass-thru module)	support
WP543	Support 2× USB 2.0 port			support

Product application:

can support 3 x USB 2.0 ports or
1 x miniPCIe-based USB 2.0 only interface
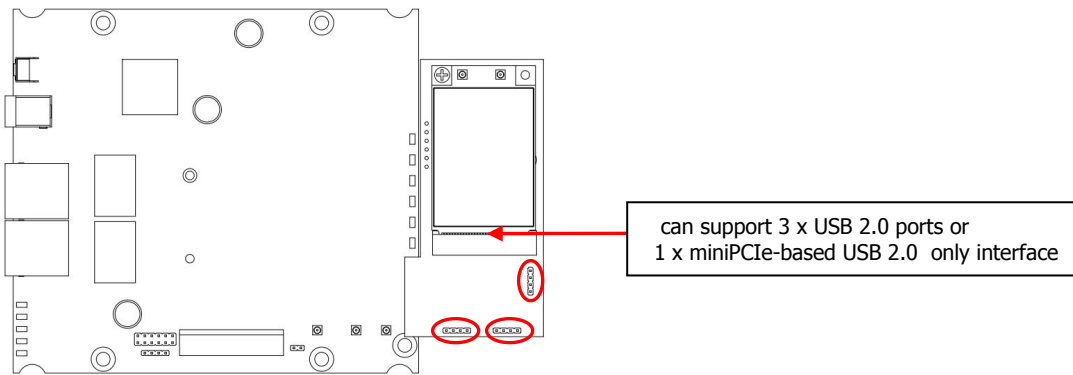
WPJ558 with USB External board

3G/LTE Module or mini PCIe radio
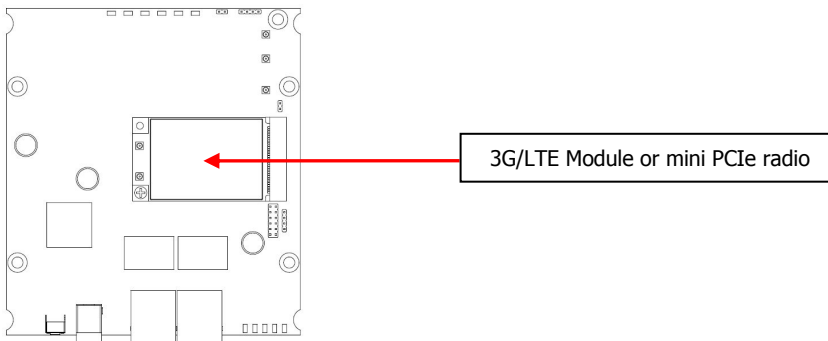
PCIe slot can Support mini PCIe radio or Third Party 3G/LTE Module
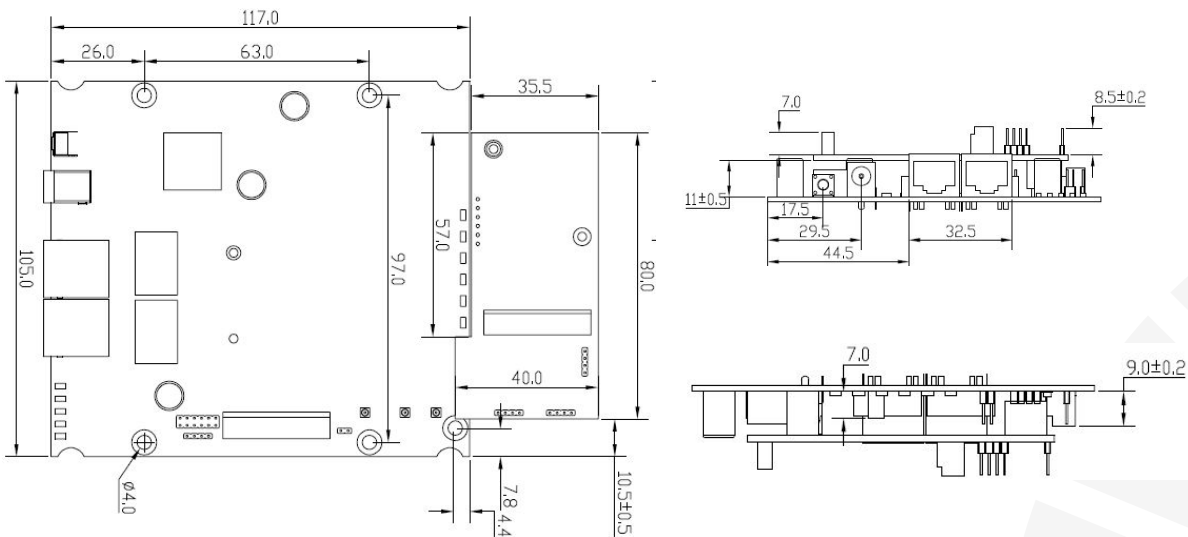

Camera

PSE pass-thru module
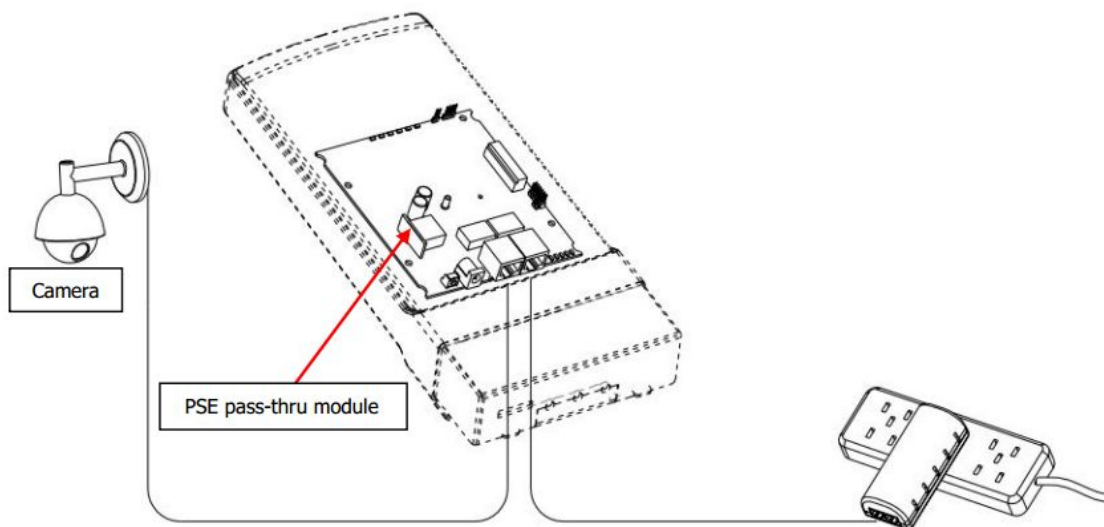
WPJ 558 with PSE pass-thru module

Dimension Drawing
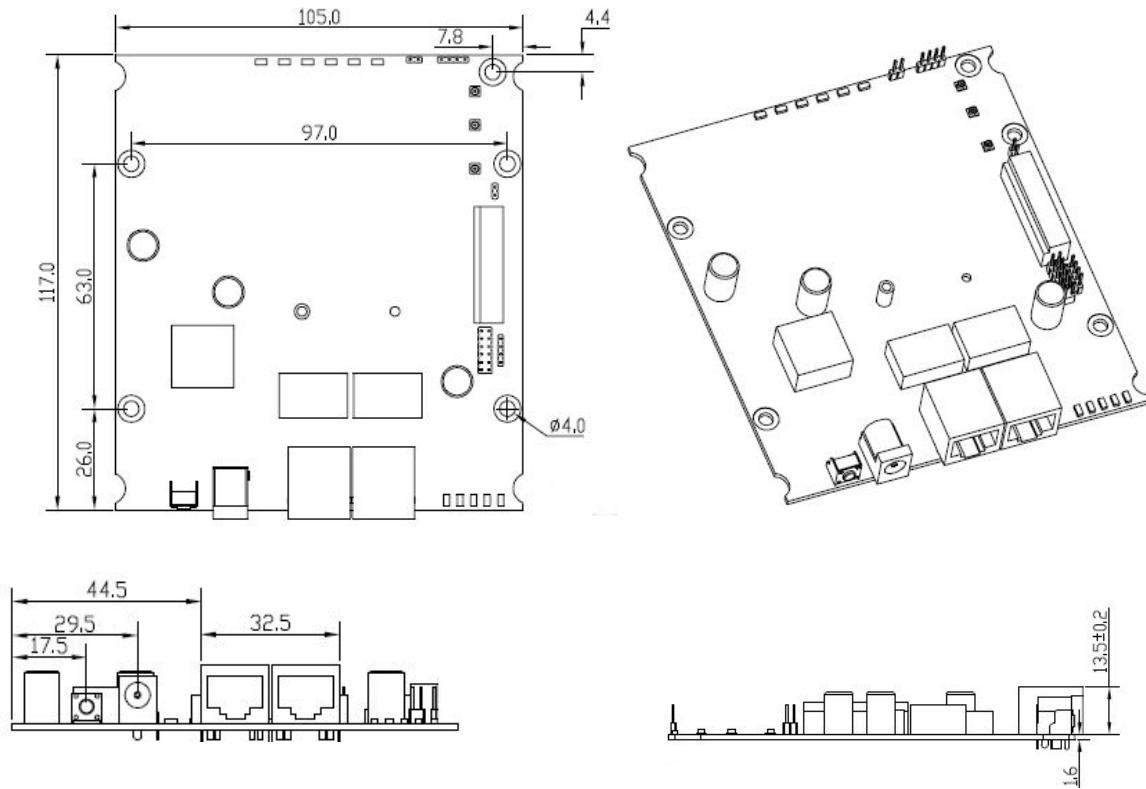
Dimension Drawing with USB external board

Ordering Information

Item Code	Version	Processor	L/H voltage Power Solutions	NOR Flash	Memory	Socket Height
WPJ558HV 6A05PCW8128	Compex-WRT	QCA9558	High Voltage (48V)	8MB	128MB	9.2mm
USB HUB BOARD-1.00-ST	USB External board					
P-PSE-M-6A03-SPL	PoE pass-Thru module					
Carton Dimension	**Dimension**		**Weight**		**Dimensional Weight**	
Packing BOX（50pcs）	871*320*190mm		7.08 kg		11 Kg	