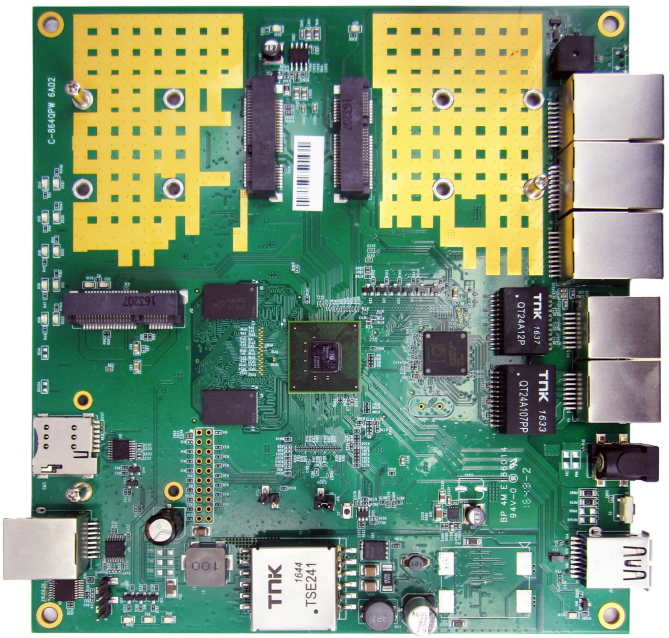
Multi-function IPQ8064 Embedded Board with 1.4GHz CPU

1x USB 3.0 / Supports 4x4 802.11ac / 5x Gigabit LAN / 3x Mini PCIe 2.0 Slots



Model: WPQ864 6A02

KEY FEATURES

- Qualcomm Atheros IPQ8064 ARM Dual Core CPU
- 1GB DDR3 System Memory
- 5x Gigabit LAN RJ45 with Auto MDI-X
- 1x USB 3.0 Port
- 2x SIM Card Slot

APPLICATIONS

- Optimized for 4x4 MU-MIMO 802.11ac Module Support
- Tri Band MU-MIMO 802.11b/g/n/ac Access Point
- Dual Concurrent MU-MIMO 802.11a/n/ac Access Point
- Wireless Base Station
- 3G/LTE AP

Specifications

Chipset	Qualcomm Atheros Dual Core Krait ARMv7 IPQ8064 1.4GHz CPU
Reference Design	Qualcomm Atheros AP148
System Memory	2x 512MB = 1GB DDR3
NOR Flash	32MB
NAND Flash	256MB
Expansion	3x Mini PCI Express v2.0 Slot at 9.2mm Height
Interface	5x Gigabit Ethernet LAN RJ45 Port[1] (Auto MDI-X) 1x RJ45 Serial Console Port 1x Serial Port 4 Pin Connector[2] 1x JTAG 20 Pin Connector[3] (optional)
Reset Button	1x H/W Reset Button
LED	12x LED Indicators
Power Over Ethernet	1x IEEE 802.3af/at POE Standard Port, 48V ~ 57V, up to 70W (4-pair power feed) on LAN4
DC Power	1x DC Jack Connector: 12V, 4A (Optional, absent by default)
Power Consumption	4.65W (Board Only)
Supported Operating System	CompexWRT or OpenWRT/LEDE[4]
Certification	CE and RoHS Compliance
Environmental Temperature	Operating: -20°C to 70°C, Storage: -40°C to 90°C
Environmental Humidity, non-condensing	Operating: 5% to 95%, Storage: Max. 90%
ESD Sensitivity	Class 1C
Dimensions (W x H x D) in mm	159 x 168 x 15.1
Other Features	Watchdog Timer, Buzzer, Heat Sink with Heat Pads on Bottom Side

1. Avoid using LAN2 as speed drops to 100Mbps. This hardware issue is solved in WPQ865.

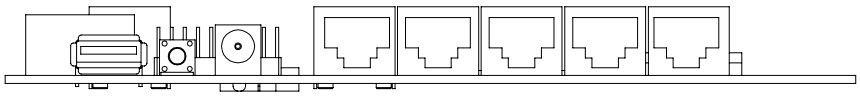
2.The Serial Port is a 4-pin header (TTL). A Serial Converter is available to change the TTL signals on board to RS-232 signals for debugging.

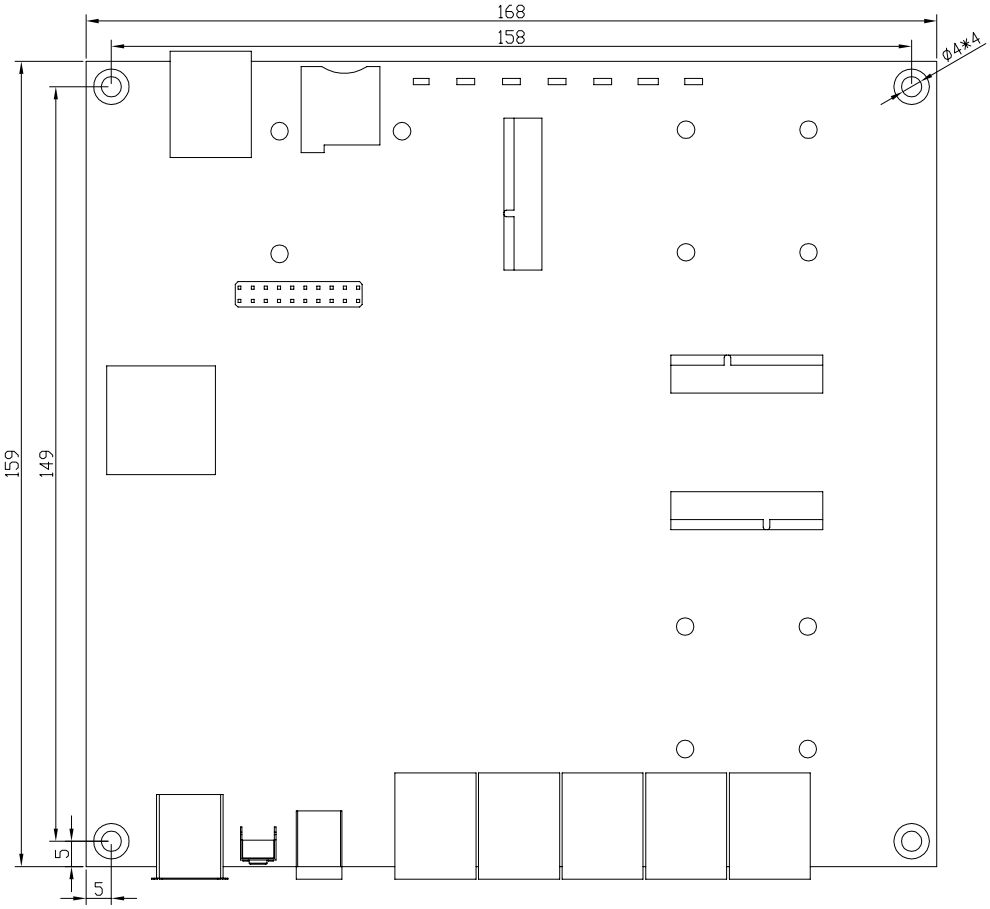
3.The JTAG Port is a 20-pin header (optional). A JTAG kit is for writing your self-developed loader and firmware directly.

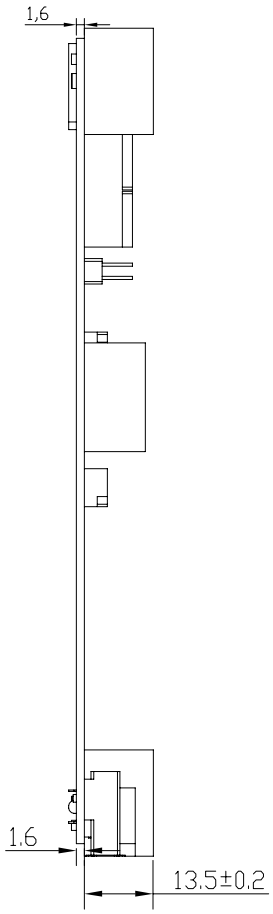
4. For more information on Operating System, please refer to the Firmware / Software Section on Page 4.

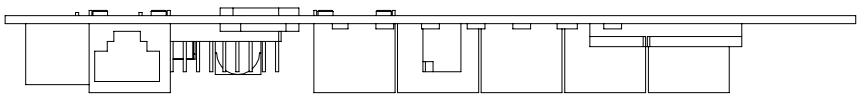
**Configurations are subject to change without notifications.*

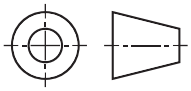
Mechanical Dimensions











All dimensions are in mm.

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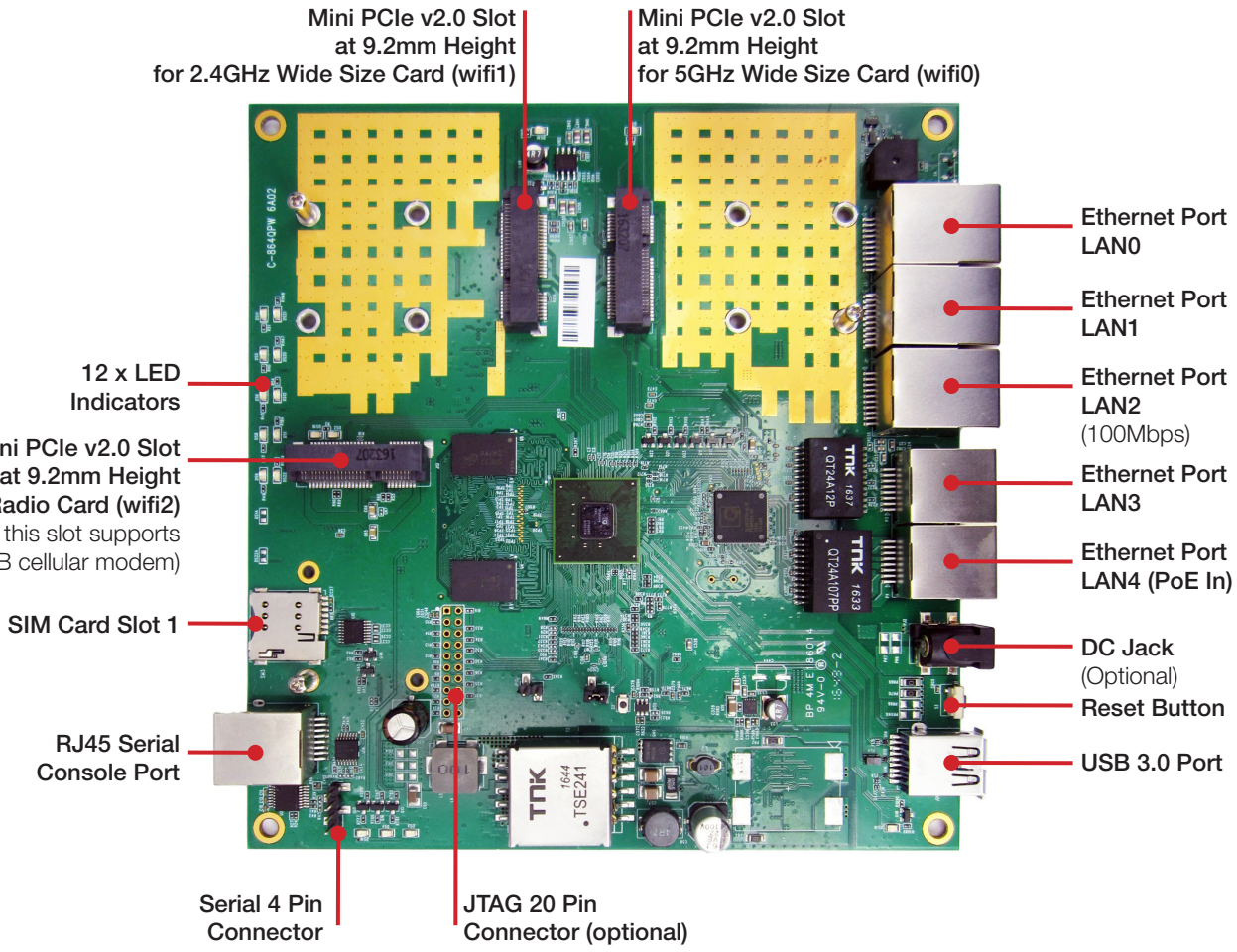
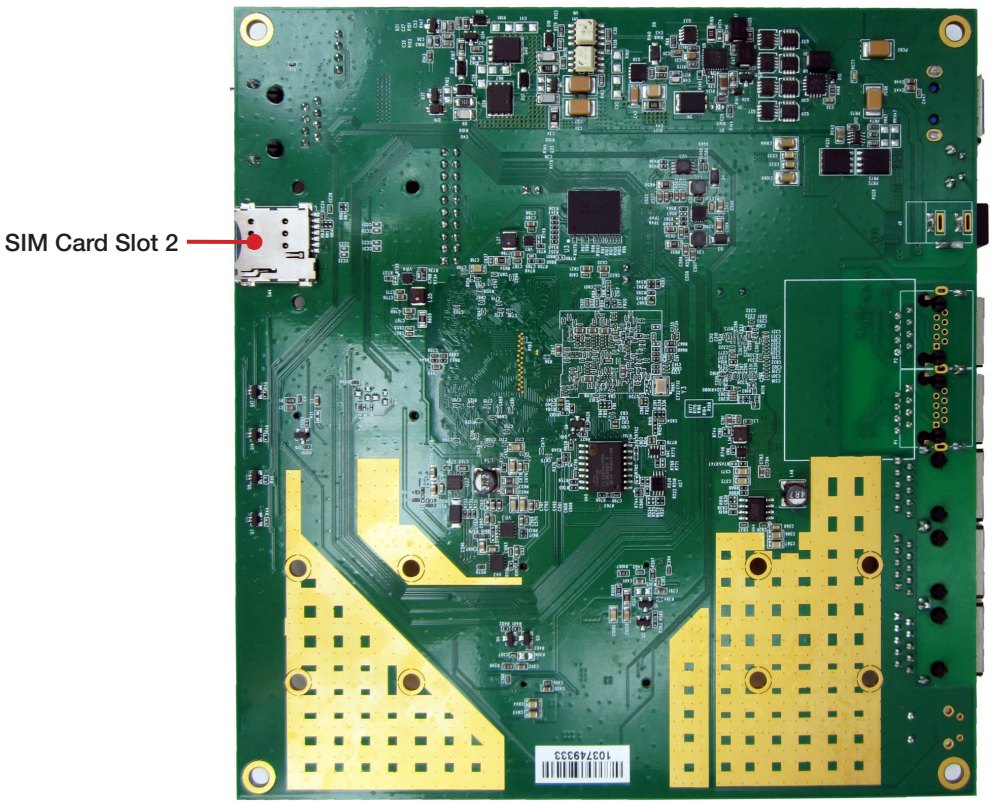
Component and Connector Map





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Customization Options

The WPQ864 can be customized for volume applications. Contact our sales representatives for more information.

Custom Embedded Board layout
For more customization, contact us at sales@compex.com.sg

Firmware / Software

The WPQ864 is shipped with CompexWRT firmware. SDKs with QCA binary drivers are available for software developers.

Supported Operating System	• CompexWRT Operating System • OpenWRT/LEDE Operating System[1]

1. OpenWRT SDK is available without any technical support by Compex unless otherwise stated.

Ordering Options

Item Code	Model	Description
WPQ864AHV 6A2PR32F1GBR-3S	WPQ864AHV 6A02	Embedded board, reference version
SUA3004RWEF	Power adapter	EU power plug supplying 12V, 4A DC jack
SUA3004RWUF	Power adapter	US power plug supplying 12V, 4A DC jack
POEGAT25-EU	POEGAT25	Gigabit IEEE802.3at 25W PoE injector with EU power plug
POEGAT25-US	POEGAT25	Gigabit IEEE802.3at 25W PoE injector with US power plug
P-SERIAL CONVERTER	Serial converter	Onboard 4-pin to COM port bridge

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