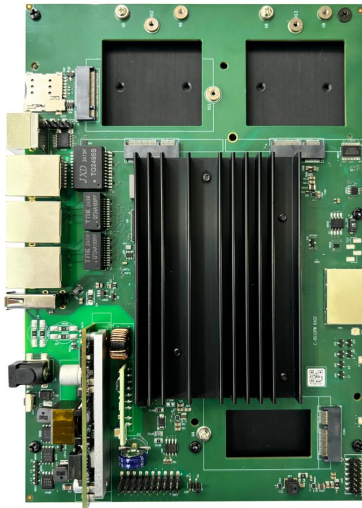# Qualcomm's IPQ9550 Embedded Board Supporting WiFi 7

WiFi 7 support / 2 x 2.5Gbps / 1x 10Gbps
3 x E Key Socket with PCIe 3.0 compatibility /
4x4 MU-MIMO OFDMA

Model: WPQ951

KEY FEATURES

- Qualcomm IPQ9550 Quad-Core ARM Cortex-A73 @ 1.5 GHz processor.
- Flexible Wi-Fi 7 radio configurations via 3x (NGFF) E Key Socket with PCIe 3.0
- 2x 2.5Gbps ethernet port, 1x 10Gbps ethernet port
- 1x USB 2.0 port
- Supports up to 3bt standard through the 10Gbps Ethernet port

APPLICATIONS

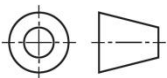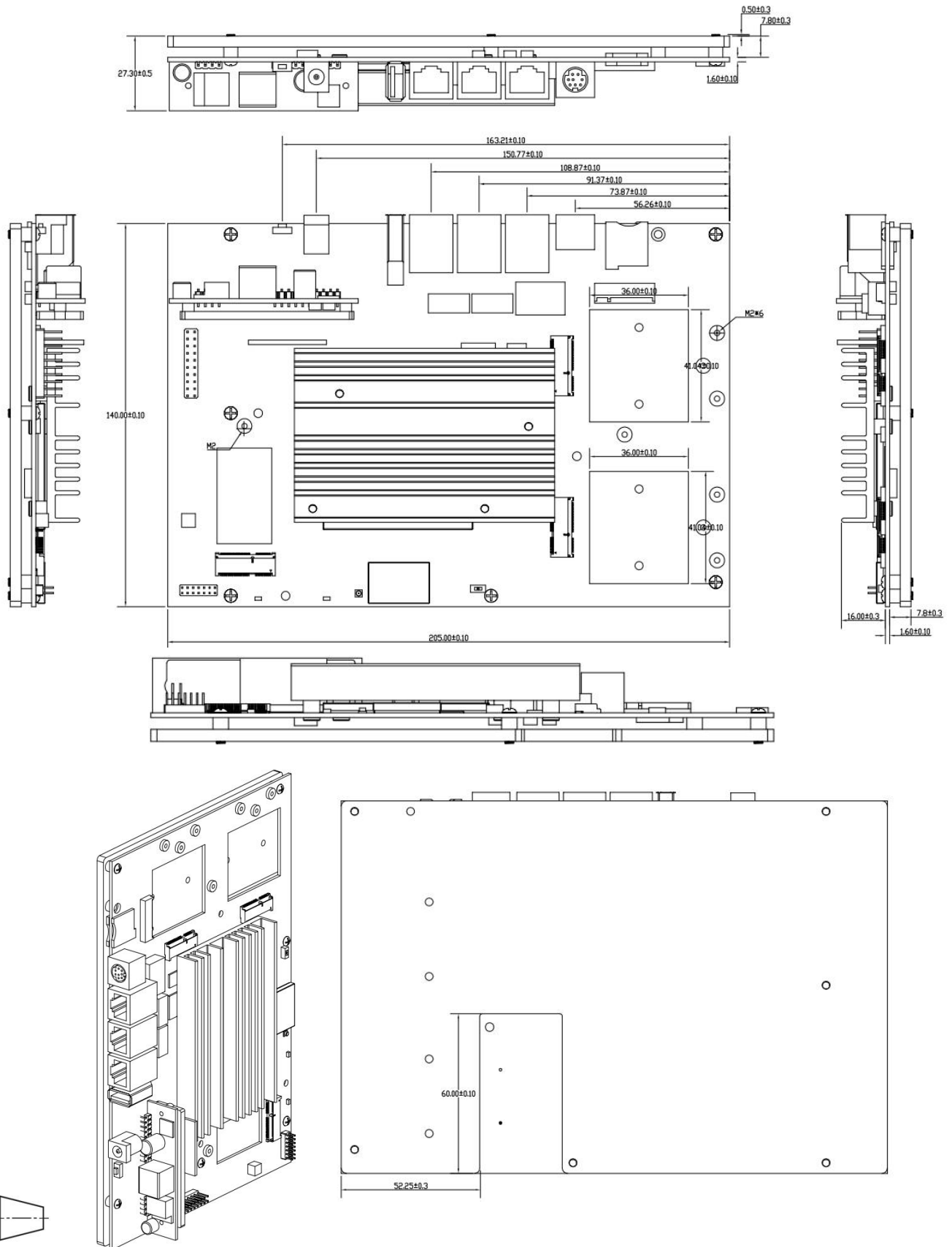- Internet of Things (IoT)
- HD streaming and gaming

Specifications

Chipset	Qualcomm IPQ9550 Quad-Core ARM Cortex-A73 @ 1.5GHz processor 'Alder' Series
Reference Design	Qualcomm AP.AL02.3
System Memory	2GB (2x1GB), DDR4 32-bit (2x16-bit) interface
Flash	NAND Flash: 256MB
	NOR Flash: 32MB
	eMMC: 16GB
NGFF Slot	3x M.2 (NGFF) E Key Socket with PCIe 3.0
Interface	2x 2.5Gigabit Ethernet LAN/WAN RJ45 Port
	1x 10Gigabit Ethernet LAN/WAN RJ45 Port
	1x USB 2.0 Port
	1x UART 4 Pin Connector
	1x JTAG 20 Pin Connector
	1x LED 14 Pin Connector
	1x MINI DIN8P
	1x Reset Button
LED	2x LED Indicators
DC Power	1x DC Jack Connector: 12V
Power Consumption (Board only)	8.5W (Max)
Power over Ethernet (PoE)	Supports up to 3bt standard through the 10Gbps Ethernet port
Certification	REACH & RoHS Compliance
Environmental Temperature	Operating temperature: -20º C to 70º C, Storage: -40º C to 90º C
Environmental Humidity, Non-Condensing	Operating: 5% to 95%, Storage: Max. 90%
Dimensions (W x H x D) in mm	205 x 140 x 27.8

1. *The Serial Port is a 4-pin header (TTL). A Serial Converter is available to change the TTL signals on the board to RS-232 signals for debugging.*
2. *The JTAG Port is a 20-pin header. A JTAG kit is for writing your self-developed loader and firmware directly.*
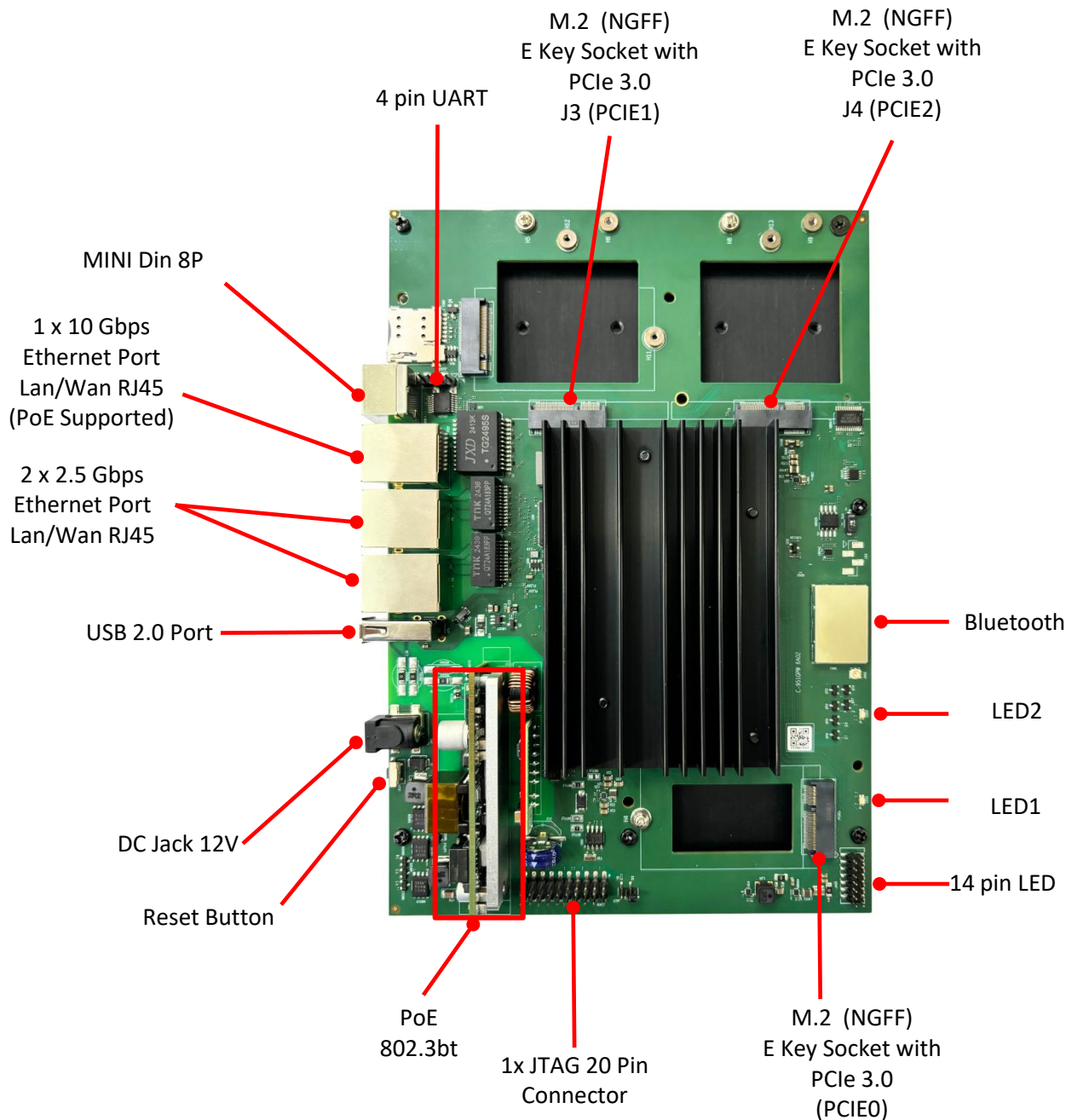
*Configurations are subject to change without notifications.

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Mechanical Dimensions

All dimensions are in mm.

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Component Map

M.2 (NGFF) E Key Socket with PCIe 3.0 J3 (PCIE1)

M.2 (NGFF) E Key Socket with PCIe 3.0 J4 (PCIE2)

4 pin UART

MINI Din 8P

1 x 10 Gbps Ethernet Port Lan/Wan RJ45 (PoE Supported)

2 x 2.5 Gbps Ethernet Port Lan/Wan RJ45

USB 2.0 Port

Bluetooth

LED2

LED1

DC Jack 12V

14 pin LED

Reset Button

PoE 802.3bt

1x JTAG 20 Pin Connector

M.2 (NGFF) E Key Socket with PCIe 3.0 (PCIE0)

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Firmware / Software

Firmware	OpenWRT 19.07

Development Kits

SDK	SDKs with QCA binary drivers are available for software developers.
Accessory	JTAG Programmer, Serial Converter, Power Supply Only if available

Ordering Options

Item Code	Processor	Onboard WiFi radio
WPQ951 6A02NR32F2GB-TE	IPQ9550	-