

Embedded Board

Catalogue



Revision: 201223

802.11be (WiFi 7)



HARDWARE SPECIFICATIONS

MODEL	AP.AL02.3	WPQ950
PROCESSOR	Qualcomm IPQ9570/IPQ9574	Qualcomm IPQ9574
CPU SPEED	2.2GHz	2.2GHz
SYSTEM MEMORY	2GB	2GB
NAND FLASH	256MB	256MB
NORFLASH	32MB	32MB
WIRELESS	4x4 MU-MIMO OFDMA 802.11be	4x4 MU-MIMO OFDMA 802.11ax
OPERATING FREQUENCY	2.4GHz	2.4GHz
THEORETICAL RATE	1182Mbps @ 2.4GHz	1182Mbps @ 2.4GHz
WIRELESS TRANSMIT POWER (per chain)	24dBm @ 2.4GHz	23dBm @ 2.4GHz
EXPANSION	4x M.2 (NGFF) E Key Socket with PCIe 3.0	2x M.2 (NGFF) E Key Socket with PCIe 3.0
ETHERNET	4x 1Gbps Ethernet Ports, 2 x 10Gbps Ethernet Ports	2x 2.5Gbps Ethernet Ports, 1x 10Gbps Ethernet Port
POWER OPTION	DC Jack	DC Jack
POWER CONSUMPTION	13W (Board only), 23W (with onBoard WiFi, IPQ9574)	21.5W (Max)
OPENWRT SUPPORT	✓	✓
SERIAL PIN	✗	✗
JTAG	✓	✓
RESET BUTTON	✗	✓
SURGE SUPPRESSOR	✗	✗
LED INDICATORS	✓	✓
SIM HOLDER	✗	✗
DUAL SIM HOLDER	✗	✗
OPERATING ENVIRONMENT	-20°C to 70°C	-20°C to 70°C
CERTIFICATION	REACH & RoHS Compliance	REACH & RoHS Compliance
DIMENSIONS (W x H x D) in mm	203 X 139 X 20	205 X 143 X 32 (non-cooling)

802.11ax (WiFi 6)



HARDWARE SPECIFICATIONS

MODEL	HK01.2	WPQ873	WPQ872
PROCESSOR	Qualcomm Atheros IPQ8074A	Qualcomm Atheros IPQ8072A	Qualcomm Atheros IPQ8072A
CPU SPEED	2.2GHz	2.2GHz	2.2GHz
SYSTEM MEMORY	1GB	512MB	512MB
NAND FLASH	QPIC 256MB, eMMC 8GB	256MB	256MB
NORFLASH	32MB	8MB	8MB
WIRELESS	4x4 MU-MIMO OFDMA 802.11ax @ 2.4GHz, 2x (4x4) or 8x8 MU-MIMO OFDMA 802.11ax @ 5GHz	4x4 MU-MIMO OFDMA 802.11ax	4x4 MU-MIMO OFDMA 802.11ax
OPERATING FREQUENCY	2.4GHz and 5GHz concurrent	2.4GHz and 5GHz concurrent	2.4GHz and 5GHz concurrent
THEORETICAL RATE	1147Mbps @ 2.4GHz, 4804Mbps @ 5GHz	1182Mbps @ 2.4GHz, 2475Mbps @ 5GHz	1182Mbps @ 2.4GHz, 2475Mbps @ 5GHz
WIRELESS TRANSMIT POWER (per chain)	23dBm @ 2.4GHz, 20dBm @ 5GHz	17dBm @ 2.4GHz, 17dBm @ 5GHz	17dBm @ 2.4GHz, 17dBm @ 5GHz
EXPANSION	1x MiniPCIe Slot with PCIe 2.0	1x M.2 (NGFF) B Key Socket with PCIe 3.0 1x M.2 (NGFF) B Key Socket with USB 3.0 and PCIe 2.0	1x MiniPCIe Slot with PCIe 3.0
ETHERNET	5x 1Gbps Ethernet Ports, 1x 10Gbps Ethernet Port	3x 1Gbps Ethernet Ports, 1x 2.5Gbps Ethernet Port	1x 1Gbps Ethernet Port, 1x 2.5Gbps Ethernet Port
POWER OPTION	DC Jack	DC Jack	DC Jack
POWER CONSUMPTION	30W	22.5W (Included Bluetooth)	22.5W (Included Bluetooth)
OPENWRT SUPPORT	✓	✓	✓
SERIAL PIN	✓	✓	✓
JTAG	✓	✓	✓
RESET BUTTON	✓	✓	✓
SURGE SUPPRESSOR	✗	✗	✗
LED INDICATORS	✓	✓	✓
SIM HOLDER	✓	✓	✗
DUAL SIM HOLDER	✓	✓	✗
OPERATING ENVIRONMENT	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C
CERTIFICATION	REACH & RoHS Compliance	REACH & RoHS Compliance	REACH & RoHS Compliance
DIMENSIONS (W x H x D) in mm (WITH HEATSINK)	165 x 200 x 32.9	128 x 255 x 36.8	132 x 180 x 41.7

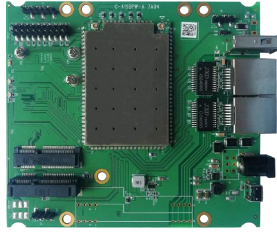
802.11ax (WiFi 6)



HARDWARE SPECIFICATIONS

MODEL	WPQ618	CPO1
PROCESSOR	Qualcomm Atheros IPQ6018	Qualcomm Atheros IPQ6018
CPU SPEED	1.8GHz	1.8GHz
SYSTEM MEMORY	1GB	1GB
NAND FLASH	256MB	256MB
NOR FLASH	32MB	32MB
WIRELESS	2x2 MU-MIMO OFDMA 802.11ax	2x2 MU-MIMO OFDMA 802.11ax
OPERATING FREQUENCY	2.4GHz and 5GHz concurrent	2.4GHz and 5GHz concurrent
THEORETICAL RATE	573Mbps @ 2.4GHz, 1201Mbps @ 5GHz	573Mbps @ 2.4GHz, 1201Mbps @ 5GHz
WIRELESS TRANSMIT POWER (per chain)	20dBm @ 2.4GHz, 20dBm @ 5GHz	23dBm @ 2.4GHz, 23dBm @ 5GHz
EXPANSION	1x M.2 (NGFF) B Key Socket with PCIe 3.0, 1x M.2 (NGFF) B Key Socket with USB 3.0	1x M.2 (NGFF) E Key Socket with PCIe 3.0
ETHERNET	4x 1Gbps Ethernet Ports, 1x 2.5Gbps Ethernet Port	5x 1Gbps Ethernet Ports, 1x 2.5Gbps Ethernet Port
POWER OPTION	DC Jack	DC Jack
POWER CONSUMPTION	17.5W (Including Bluetooth)	17W (Max)
OPENWRT SUPPORT	✓	✓
SERIAL PIN	✓	✓
JTAG	✓	✓
RESET BUTTON	✓	✓
SURGE SUPPRESSOR	✗	✗
LED INDICATORS	✓	✗
SIM HOLDER	✓	✗
DUAL SIM HOLDER	✓	✗
OPERATING ENVIRONMENT	-20°C to 70°C	-20°C to 70°C
CERTIFICATION	REACH & RoHS Compliance	REACH & RoHS Compliance
DIMENSIONS (WxHxD) in mm (WITH HEATSINK)	128 x 210 x 33.9	146.5 x 219.3 x 44.9

802.11ac Wave 2 (WiFi 5)



HARDWARE SPECIFICATIONS

MODEL	WPJ419	WSB419 Wasabi-A	WPJ428
PROCESSOR	Qualcomm Atheros IPQ4019	Qualcomm Atheros IPQ4019	Qualcomm Atheros IPQ4028
CPU SPEED	710MHz	710MHz	710MHz
SYSTEM MEMORY DDR3	256MB (Up to 1GB)	256MB (Up to 1GB)	256MB
NAND FLASH	128MB	128MB	128MB
NORFLASH	16MB	16MB	32MB
WIRELESS	2x2 MU-MIMO 802.11ac Wave 2	2x2 MU-MIMO 802.11ac Wave 2	2x2 MU-MIMO 802.11ac Wave 2
OPERATING FREQUENCY	2.4GHz and 5GHz concurrent	2.4GHz and 5GHz concurrent	2.4GHz and 5GHz concurrent
THEORETICAL RATE	400Mbps @ 2.4GHz, 867Mbps @ 5GHz	400Mbps @ 2.4GHz, 867Mbps @ 5GHz	400Mbps @ 2.4GHz, 867Mbps @ 5GHz
WIRELESS TRANSMIT POWER (per chain)	23dBm @ 2.4GHz, 23dBm @ 5GHz	23dBm @ 2.4GHz, 23dBm @ 5GHz	20dBm @ 2.4GHz, 16dBm @ 5GHz
EXPANSION	2x MiniPCIe Slots with USB 3.0	N.A	1x M.2 (NGFF) B Key Socket with USB 3.0
ETHERNET	2x 1Gbps Ethernet Ports	Supports 1Gbps Ethernet on main board	2x 1Gbps Ethernet Ports
POWER OPTION	DC Jack, IEEE 802.3af/at	Power drawn from main board	DC Jack, Passive PoE 24V or IEEE 802.3af/at
POWER CONSUMPTION	12W (Max)	12W (Max)	19W
OPENWRT SUPPORT	✓	✓	✓
SERIAL PIN	✓	✗	✓
JTAG	✓	✗	✓
RESET BUTTON	✓	✗	✓
SURGE SUPPRESSOR	✗	✗	✓
LED INDICATORS	✓	✗	✓
SIM HOLDER	✓	✗	✓
DUAL SIM HOLDER	✗	✗	✓
OPERATING ENVIRONMENT	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C
CERTIFICATION	REACH & RoHS Compliance	REACH & RoHS Compliance	CE, FCC, REACH & RoHS Compliance
DIMENSIONS (W x H x D) in mm (WITH HEATSINK)	117 x 105 x 20.4	40 x 58 x 4.4	105 x 117 x 31.8