

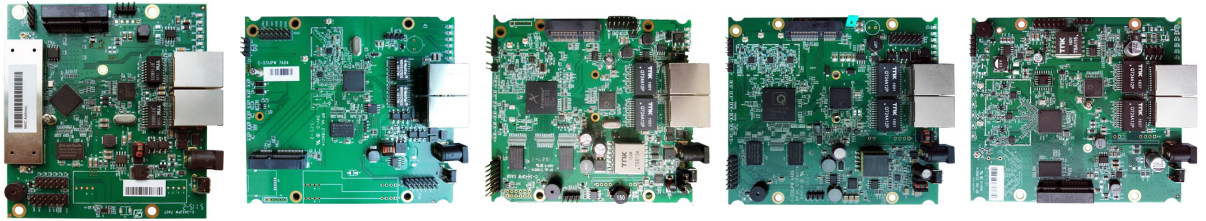
Embedded Board

Catalogue



Revision: 121018

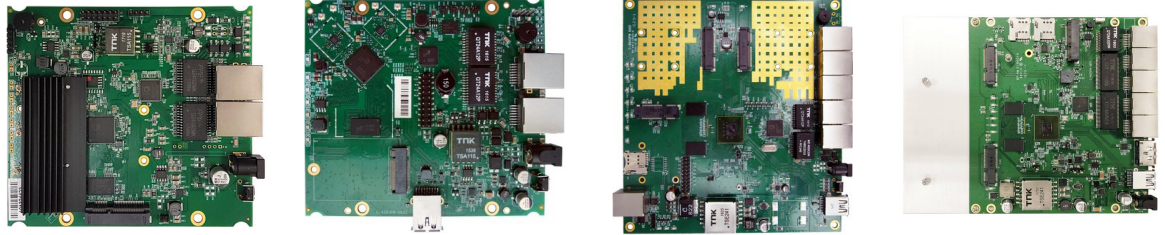
Early Boards



HARDWARE SPECIFICATIONS

TYPE OF BOARD	Cost Effective	Cost Effective	Reliable Performance	Powerful Enterprise	Affordable Enterprise
MODEL	WPJ342	WPJ531	WPJ344	WPJ558	WPJ563
PROCESSOR	Qualcomm Atheros AR9342	Qualcomm Atheros QCA9531	Qualcomm Atheros AR9344	Qualcomm Atheros QCA9558	Qualcomm Atheros QCA9563
CPU SPEED	560MHz	650MHz	560MHz	700MHz	775MHz
SYSTEM MEMORY DDR2	64MB	128MB	128MB	128MB	128MB
NAND FLASH	x	x	x	x	x
NOR FLASH	16MB	16MB	16MB	16MB	16MB
WIRELESS	2x2 MIMO 802.11n	2x2 MIMO 802.11n	2x2 MIMO 802.11n	3x3 MIMO 802.11n	3x3 MIMO 802.11n
OPERATING FREQUENCY	5GHz	2.4GHz	2.4GHz	2.4GHz	2.4GHz
THEORETICAL RATE	300Mbps	300Mbps	300Mbps	450Mbps	450Mbps
WIRELESS TRANSMIT POWER (per chain)	23dBm	23dBm	23dBm	23dBm	23dBm
EXPANSION	1x 9.2mm height MiniPCIe Slot	1x 9.2mm height MiniPCIe Slot	1x 9.2mm height MiniPCIe Slot	1x 9.2mm height MiniPCIe Slot	1x 9.2mm height MiniPCIe Slot
ETHERNET	2x FE with Auto MDI-X	2x FE with Auto MDI-X	2x GE Port with Auto MDI-X	2x GE Port with Auto MDI-X	2x GE Port with Auto MDI-X
POWER OPTION	DC Jack, Passive PoE 24V or IEEE 802.3af/at	DC Jack, Passive PoE 24V or IEEE 802.3af/at	DC Jack, Passive PoE 24V or IEEE 802.3af/at	DC Jack, Passive PoE 36V, IEEE 802.3af/at	DC Jack, Passive PoE 24V or IEEE 802.3af/at
POWER CONSUMPTION (board only)	5W (Max)	6.9W (Max)	7W (Max)	8.6W (Max)	9.96W (Max)
OPENWRT SUPPORT	✓	✓	✓	✓	✓
CONSOLE RJ45 PORT	x	x	x	x	x
SERIAL PIN	✓	✓	✓	✓	✓
JTAG	✓	✓	✓	✓	✓
RESET BUTTON	✓	✓	✓	✓	✓
SURGE SUPPRESSOR	✓	✓	✓	✓	✓
LED INDICATORS	✓	✓	✓	✓	✓
SIM HOLDER	x	Optional	x	x	✓
DUAL SIM HOLDER	x	x	x	x	x
OPERATING ENVIRONMENT	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C
CERTIFICATION	FCC, CE	FCC, CE	FCC, CE	N.A	N.A
DIMENSIONS (W x H x D) in mm	105 x 95 x 18	117 x 105 x 17	117 x 105 x 17	117 x 105 x 17	117 x 105 x 17.7

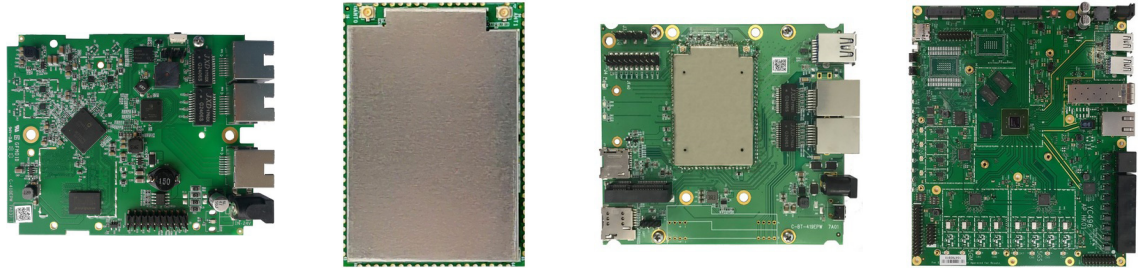
Recent Boards



HARDWARE SPECIFICATIONS

TYPE OF BOARD	Affordable High Power	Affordable IIac Wave 2	Next Gen Versatility	Multi-function
MODEL	WPJ564	WPJ428	WPQ864	WPQ865
PROCESSOR	Qualcomm Atheros QCA9563	Qualcomm Atheros IPQ4028	Qualcomm Atheros IPQ8064	Qualcomm Atheros IPQ8065
CPU SPEED	775MHz	710MHz	1.4GHz	1.7GHz
SYSTEM MEMORY	128MB DDR2	256MB DDR3	1GB DDR3	1GB DDR3
NAND FLASH	x	128MB	256MB	256MB
NOR FLASH	16MB	32MB	32MB	32MB
WIRELESS	3x3 MIMO 802.11n	2x2 MU-MIMO 802.11ac Wave 2	N.A	N.A
OPERATING FREQUENCY	2.4GHz	2.4GHz and 5GHz concurrent	N.A	N.A
THEORETICAL RATE	450Mbps	400Mbps @ 2.4GHz 867Mbps @ 5GHz	N.A	N.A
WIRELESS TRANSMIT POWER (per chain)	30dBm	20dBm @ 2.4GHz 16dBm @ 5GHz	N.A	N.A
EXPANSION	1x 9.2mm height MiniPCIe Slot	1x M.2 Slot	3x 9.2mm height MiniPCIe Slot	2x 4.0mm, 1x 9.2mm height MiniPCIe Slot
ETHERNET	2x GE Port with Auto MDI-X	2x GE Port with Auto MDI-X	5x GE Port with Auto MDI-X	5x GE Port with Auto MDI-X
POWER OPTION	DC Jack, Passive PoE 36V, IEEE 802.3af/at	DC Jack, Passive PoE 24V or IEEE 802.3af/at	IEEE 802.3af/at	DC Jack, IEEE 802.3af/at
POWER CONSUMPTION (board only)	19.8W (Max)	19W	4.65W	4.5W
OPENWRT SUPPORT	✓	✓	✓	✓
CONSOLE RJ45 PORT	x	x	✓	x
SERIAL PIN	✓	✓	✓	✓
JTAG	✓	✓	✓	x
RESET BUTTON	✓	✓	✓	✓
SURGE SUPPRESSOR	✓	✓	✓	✓
LED INDICATORS	✓	✓	✓	✓
SIM HOLDER	✓	✓	✓	✓
DUAL SIM HOLDER	x	✓	✓	✓
OPERATING ENVIRONMENT	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C	-20°C to 70°C
CERTIFICATION	N.A	FCC, CE	CE	N.A
DIMENSIONS (W x H x D) in mm	117 x 105 x 17.7	PCBA with heatsink below, 117 x 105 x 32	159 x 168 x 15.1	PCBA 137 x 148 x 17.5, heatsink 60 x 148 x 30

Latest Designs



HARDWARE SPECIFICATIONS

TYPE OF BOARD	Small size 11ac Wave 2	System on Module (SoM)	Main board using WSB419	12x12 MU-MIMO 802.11ax
MODEL	WPE418	WSB419 Wasabi-A	WPJ419	HK01
PROCESSOR	Qualcomm Atheros IPQ4018	Qualcomm Atheros IPQ4019	Qualcomm Atheros IPQ4019	Qualcomm Atheros IPQ8074
CPU SPEED	710MHz	710MHz	710MHz	2.2GHz
SYSTEM MEMORY DDR3	256MB	256MB	256MB	1GB
NAND FLASH	128MB	128MB	128MB	QPIC 256MB, eMMC 8GB
NOR FLASH	32MB	32MB	32MB	32MB
WIRELESS	2x2 MU-MIMO 802.11ac Wave 2	2x2 MU-MIMO 802.11ac Wave 2	2x2 MU-MIMO 802.11ac Wave 2	4x4 MU-MIMO 802.11ax @ 2.4GHz 8x8 MU-MIMO 802.11ax @ 5GHz
OPERATING FREQUENCY	2.4GHz and 5GHz concurrent	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	1147Mbps @ 2.4GHz 4804Mbps @ 5GHz
WIRELESS TRANSMIT POWER (per chain)	20dBm @ 2.4GHz 16dBm @ 5GHz	23dBm @ 2.4GHz 23dBm @ 5GHz	23dBm @ 2.4GHz 23dBm @ 5GHz	23dBm @ 2.4GHz 20dBm @ 5GHz
EXPANSION	N.A	N.A	1x 9.2mm height MiniPCIe Slot	2x 4.0mm height MiniPCIe Slot
ETHERNET	3x GE Port with Auto MDI-X	Supports GE Ethernet on main board	2x GE Port with Auto MDI-X	5x GE Port with Auto MDI-X, 1x 10GE Port with Auto MDI-X
POWER OPTION	DC Jack, Passive PoE 36V, IEEE 802.3af/at	Power drawn from main board	DC Jack, IEEE 802.3af/at	DC Jack
POWER CONSUMPTION	15W	11.75W (Max)	12W (Max)	TBD
OPENWRT SUPPORT	✓	✓	✓	✓
CONSOLE RJ45 PORT	✗	✗	✗	✗
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	-20°C to 70°C
CERTIFICATION	N.A	N.A	N.A	N.A
DIMENSIONS (W x H x D) in mm	108 x 84 x 22.1	40 x 58 x 5.5	120 x 105 x 15	PCBA 168 x 201 x 18, with heatsink 168 x 201 x 42