








Part	RS9110-N-11-02	RS9110-N-11-03	RS9110-N-11-22-04	RS9110-N-11-22-05	RS9110-N-11-24	RS9110-N-11-24-02	RS9110-N-11-28-04	RS-WC-201	RS-WC-301
Feature	Rutronik order code WLAN1072	Rutronik order code WLAN1073	Rutronik order code WLAN1119	Rutronik order code WLAN1121	Rutronik order code WLAN1084	Rutronik order code WLAN1120	Rutronik order code WLAN1122	Rutronik order code WLAN1129	Rutronik order code WLAN1130
Frequency Band	Single 2.4 GHz	Dual 2.4/5 GHz	Single 2.4 GHz	Single 2.4 GHz	Single 2.4 GHz	Single 2.4 GHz	Dual 2.4/5 GHz	Single 2.4 GHz	Dual 2.4/5 GHz
Wi-Fi Client	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wi-Fi Direct™	Yes	Yes	No	No	No	No	No	Yes	Yes
Access point functionality	Yes	Yes	No	No	No	No	No	Yes	Yes
TCP/IP integrated	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
TCP/IP Bypass option on module to enable IP stack on MCU	NA	NA	Yes	Yes	No	Yes	Yes	Yes	Yes
WLAN supplicant on module	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Integrated antenna	No	No	Yes	antenna connector	No	No	No	Yes, plus antenna connector	Yes, plus antenna connector
WiFi Protocols supported	802.11b 802.11g 802.11n 802.11i 802.11d 802.11e 802.11k	802.11a 802.11b 802.11g 802.11n 802.11i 802.11d 802.11e 802.11k	802.11b 802.11g 802.11n 802.11i 802.11d	802.11b 802.11g 802.11n 802.11i 802.11d	802.11b 802.11g 802.11n 802.11i 802.11d	802.11b 802.11g 802.11n 802.11i 802.11d	802.11a 802.11b 802.11g 802.11n 802.11i 802.11d	802.11b 802.11g 802.11n 802.11i 802.11d	802.11a 802.11b 802.11g 802.11n 802.11i 802.11d
Networking Protocols Support on Module	Networking protocols on external host processor	Networking protocols on external host processor	TCP, ARP, UDP, IPv4, DHCP Client, HTTP, DNS	TCP, ARP, UDP, IPv4, DHCP Client, HTTP, DNS	TCP, ARP, UDP, DHCP Client	TCP, ARP, UDP, DHCP Client, HTTP, DNS	TCP, ARP, UDP, DHCP Client, HTTP, DNS	TCP, UDP, DHCP Server, ARP, IGMP, DNS, HTTP, HTTPS, SSL, webserver	TCP, UDP, DHCP Server, ARP, IGMP, DNS, HTTP, HTTPS, SSL, webserver
Host Processor Requirements	TCP/IP WLAN Supplicant	TCP/IP WLAN Supplicant	None	None	None	None	None	None	None
MCU Integration	Renesas: SH Freescale: i.MX TI: OMAP, Sitara Marvell: PXA270/PXA320 Intel: x86, x64 Atmel: SAM9, SAM3 and more	Renesas: SH Freescale: i.MX TI: OMAP, Sitara Marvell: PXA270/PXA320 Intel: x86, x64 Atmel: SAM9, SAM3 and more	Renesas: R8C, RX, RL78, SH2A Freescale: Kinetis K40/K60, Cold fire V1/V2 Cypress: P50C3/P50C5 Atmel: ATmega, ATXMega, UC3, SAM3 NXP: LPCExpresso, Marvell: PXA270/PXA320 & more	Renesas: R8C, RX, RL78, SH2A Cypress: P50C3/P50C5 Freescale: Kinetis K40/K60, Cold fire V1/V2 Atmel: ATmega, ATXMega, UC3, SAM3 NXP: LPCExpresso, Marvell: PXA270/PXA320 & more	Renesas: R8C, RX, RL78, SH2A Cypress: P50C3/P50C5 Freescale: Kinetis K40/K60, Cold fire V1/V2 Atmel: ATmega, ATXMega, UC3, SAM3 NXP: LPCExpresso, Marvell: PXA270/PXA320 & more	Renesas: R8C, RX, RL78, SH2A Cypress: P50C3/P50C5 Freescale: Kinetis K40/K60, Cold fire V1/V2 Atmel: ATmega, ATXMega, UC3, SAM3 NXP: LPCExpresso, Marvell: PXA270/PXA320 & more	Renesas: R8C, RX, RL78, SH2A Cypress: P50C3/P50C5 Freescale: Kinetis K40/K60, Cold fire V1/V2 Atmel: ATmega, ATXMega, UC3, SAM3 NXP: LPCExpresso, Marvell: PXA270/PXA320 & more	Renesas: RX Atmel: SAM3	Renesas: RX Atmel: SAM3
Drivers Availability	SDIO: Linux WinCE (5,6 and 7) WinXP Android Windows 7 SPI: Linux, WinCE 6	SDIO: Linux WinCE (5,6 and 7) WinXP Android Windows 7 SPI: Linux, WinCE 6	Generic SPI library (Non-OS based)	Generic SPI library (Non-OS based)	Generic SPI library (Non-OS based)	Generic SPI library (Non-OS based)	Generic SPI library (Non-OS based)	Generic SPI library (Non-OS based)	Generic SPI library (Non-OS based)
Max Throughputs	SDIO: 40 Mbps SPI: 20 Mbps	SDIO: 48 Mbps SPI: 20 Mbps	UART: 2Mbps SPI: 8 Mbps	UART: 2Mbps SPI: 8 Mbps	UART: 2Mbps SPI: 8 Mbps	UART: 2Mbps SPI: 8 Mbps	UART: 2Mbps SPI: 8 Mbps	UART: 2Mbps SPI: 8 Mbps	UART: 2Mbps SPI: 8 Mbps USB: 4 Mbps
Output Tx power@2.4GHz	17dBm	17dBm	17dBm	17dBm	17dBm	17dBm	17dBm	17dBm	17dBm
Output Tx power @ 5GHz	n/a	12dBm	n/a	n/a	n/a	12dBm	12dBm	n/a	12dBm
Rx Sensitivity @1Mbps	-97dBm	-97dBm	-97dBm	-97dBm	-97dBm	-97dBm	-97dBm	-97dBm	-97dBm
Rx Sensitivity @54Mbps	-75dBm	-75dBm	-75dBm	-75dBm	-75dBm	-75dBm	-75dBm	-75dBm	-75dBm
Hardware Interfaces	SDIO SPI	SDIO SPI	SPI UART	SPI UART	UART	SPI UART	SPI UART	SPI UART, USB	SPI UART, USB
Package Type	Surface Mount	Surface Mount	Surface Mount	Surface Mount	Surface Mount	Surface Mount	Surface Mount	Surface Mount	Surface Mount
Size (mm)	12.9 x 13.7	17.5 x 20.0	22.0 x 28.0	22.0 x 28.0	12.9 x 13.7	12.9 x 13.7	17.5 x 20.0	35.0 x 22.0	40.0 x 22.0
Antenna	None	None	Chip Antenna	U.FL connector	None	None	None	Chip Antenna and U.FL option	Chip Antenna and U.FL option
FCC/IC/CE/SAR/Telec Certifications	Certified for all	Certified for all	Compliant. Reference Design certified	Compliant. Reference Design certified	Compliant. Reference Design certified	Compliant. Reference Design certified	Compliant. Reference Design certified	Compliant	Compliant
Wi-Fi Security	WEP, WPA, WPA2, WPA2-Enterprise, WPS	WEP, WPA, WPA2, WPA2-Enterprise, WPS	WEP, WPA, WPA2, WPS	WEP, WPA, WPA2, WPS	WEP, WPA2	WEP, WPA, WPA2, WPS	WEP, WPA, WPA2, WPS	WEP, WPA, WPA2, WPA2-Enterprise, WPS	WEP, WPA, WPA2, WPA2-Enterprise, WPS
Temp Range(°C)	Industrial -40 to +85 C	Industrial -40 to +85 C	Industrial -40 to +85 C	Industrial -40 to +85 C	Industrial -40 to +85 C	Industrial -40 to +85 C	Industrial -40 to +85 C	Industrial -40 to +85 C	Industrial -40 to +85 C
Development Kit Part Number	RS9110-N-11-02-EVB  WLAN1092	RS9110-N-11-03-EVB  WLAN1093	RS9110-N-11-22-04-EVB  WLAN1127	RS9110-N-11-22-05-EVB  WLAN1128	RS9110-N-11-24-EVB  WLAN1104	RS9110-N-11-24-02-EVB  WLAN1116	RS9110-N-11-28-04-EVB  WLAN1126	RS-WC-201-EVB  WLAN1131	RS-WC-301-EVB  WLAN1133