



Industrial wireless routers

WiFi + Cellular devices



ACKSYS
COMMUNICATIONS & SYSTEMS

WiFi access points, clients, mesh, repeaters and routers



	 AirLink	 AirBox	 AirXroad/4P	 AirXroad	 RuggedAir100	 RuggedAir1000	 RailBox	 WaveNet-Ex
APPLICATIONS	MtoM Industrial automation Mobile applications: AGVs, AMRs, robots... Remote access to equipment	MtoM Industrial automation WiFi coverage and repeater	Embedded applications: forklifts, machines, AGVs, buses... Severe and outdoor environments	Embedded applications: forklifts, machines, AGVs, buses... Severe and outdoor environments (extended temperature range)	Embedded applications: heavy machinery, overhead cranes... WiFi coverage: factories, warehouses, port areas Extremely harsh environments	High-speed WiFi coverage : port areas, factories, warehouses, railways... Extremely harsh and outdoor environments	On-board and ground applications in harsh industrial and rail environments High-speed WiFi coverage	WiFi coverage in explosive environments : ATEX zones 1 and 2
WIFI INTERFACE	1 radio WiFi 4 2.4 / 5 GHz 300 Mbps	1 or 2 radios WiFi 4 or WiFi 5* 2.4/5 GHz 300 Mbps (+ 1.3 Gbps)*	1 radio WiFi 4 2.4 / 5 GHz 300 Mbps	1 radio WiFi 4 2.4 / 5 GHz 300 Mbps	1 radio WiFi 4 2.4 / 5 GHz 300 Mbps	1 radio WiFi 5 2.4 / 5 GHz 1.3 Gbps	1 or 2 radios WiFi 6 / WiFi 6E* 2.4 / 5 / 6 GHz* 1 or 2 x 4.8 Gbps*	1 or 2 radios WiFi 4 or WiFi 5 2.4 / 5 GHz Up to 600 Mbps
SECURITY	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication
MESH	✓	✓	✓	✓	✓	N/A	✓*	✓*
WIFI FAST ROAMING	< 30 ms	< 30 ms or 0ms with CBB (2 radios model)	< 30 ms	< 30 ms	< 30 ms	N/A	< 30 ms or 0ms with CBB (2 radios model)	< 30 ms
ETHERNET PORTS CONNECTOR TYPE	1 Gbps RJ45	2 x 1 Gbps RJ45	100 Mbps M12	1 Gbps M12	2 x 100 Mbps M12	2 x 1 Gbps M12	2 x 2.5 Gbps M12	1 Gbps M25 x 1.5 or 3/4" x npt-f cable gland
ANTENNA CONNECTORS	2 x RP-SMA F	2 or 4 x RP-SMA F*	2 x RP-SMA F	2 x RP-SMA F	2 x NF	3 x NF	8 x QMA F	2 x NF
DIMENSIONS (mm) FORMAT MOUNTING	127 x 78 x 24 Compact Universal / DIN rail	141.2 x 99 x 35 Compact Universal / DIN rail	115 x 64 x 34 Rugged housing Universal	115 x 64 x 34 Rugged housing Universal	175 x 80 x 57 Rugged housing Fixing plate	175 x 80 x 57 Rugged housing Fixing plate	175 x 80 x 57 Rugged housing Fixing plate	297 x 238 x 90 Aluminum or stainless steel ATEX enclosure
POWER SUPPLY	9 to 48 VDC PoE	Redundant 9 to 48 VDC or PoE	9 to 48 VDC or PoE	9 to 48 VDC or PoE	Redundant 9 to 48 VDC or PoE	Redundant 12 to 36 VDC or PoE Isolated	Redundant 24 to 110 VDC or PoE+* Isolated*	10 to 30 VDC or PoE
INPUTS / OUTPUTS	N/A	2 inputs & 2 outputs (isolated)	N/A	N/A	1 alarm input and output	1 alarm input and output	1 alarm input and output	N/A
BACKUP KEY	N/A	N/A	N/A	N/A	✓	✓	✓	N/A
OPERATING TEMPERATURE IP RATING	-20°C to +60°C IP30	-20°C to +60°C IP30	-20°C to +60°C IP66	-40°C to +70°C IP66	-40°C to +70°C IP66	-40°C to +70°C IP66	-25°C to +70°C or -40°C to +85°C* IP66	-40°C to +60°C IP66
SPECIFIC STANDARDS	EN61373 (shocks & vibrations)	ECE R10 (vehicles) EN61373 (shocks & vibrations)	ECE R10 (vehicles) EN61373 (shocks & vibrations) EN60068-2 (climatic tests)	ECE R10 (vehicles) EN61373 (shocks & vibrations) EN60068-2 (climatic tests)	EN50155 [IEC60571] (railway) EN50121-3-2, EN50121-4 (EMC) EN60068-2 (climatic tests) EN61373 (shocks & vibrations) EN45545-2 (smoke-fire)	EN50155 [IEC60571] (railway) EN50121-3-2, EN50121-4 (EMC) EN60068-2 (climatic tests) EN61373 (shocks & vibrations) EN45545-2 (smoke-fire)	EN50155 [IEC60571] (railway) EN50121-3-2, EN50121-4 (EMC) EN60068-2 (climatic tests) EN61373 (shocks & vibrations) EN45545-2 (smoke-fire)	II 2G Ex db IIC T5-T4 Gb II 2D Ex tb IIIC T110°C/T140°C Db I M2 Ex db I Mb*

* Depending on the model

Cellular Routers + WiFi

	 AirWan	 AirBox LTE	 RailBox 4G LTE / 5G
APPLICATIONS	Industrial automation Mobile applications: AGVs, buses... Remote access to equipment	Industrial automation Mobile applications: AGVs, buses... Remote access to equipment	On-board and ground applications in harsh industrial and rail environments
CELLULAR INTERFACE	4G/LTE category 4 LTE, UMTS/HSPA+, GSM/GPRS/EDGE (worldwide)	4G/LTE category 4 LTE, UMTS/HSPA+, GSM/GPRS/EDGE (worldwide)	4G/LTE category 12 or 5G* LTE-A, UMTS/HSPA+, GSM/GPRS/EDGE (worldwide)
CELLULAR FUNCTIONALITIES	Auto APN Multi APN DDNS	Auto APN Multi APN DDNS	Auto APN Multi APN DDNS
GNSS	GPS, Galileo, BeiDou, GLONASS	GPS, Galileo, BeiDou, GLONASS	GPS, Galileo, BeiDou, GLONASS
SIM	Single	Dual	Dual
SECURITY	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication
ETHERNET PORTS CONNECTORS	100 Mbps + 1 Gbps RJ45 ou M12	2 x 1 Gbps RJ45	2 x 2.5 Gbps M12
ANTENNA CONNECTORS	2 x RP-SMA F + 3 x SMA F ou 5 x FAKRA*	2 x RP-SMA F + 3 x SMA F	8 x QMA F
DIMENSIONS (mm) FORMAT MOUNTING	147 x 41 x 100 Compact Universal / DIN rail	141.2 x 99 x 35 Compact Universal / DIN rail	175 x 80 x 57 Rugged housing Fixing plate
POWER SUPPLY	7 to 48 VDC or PoE	Redundant 9 to 48 VDC or PoE	Redundant 24 to 110 VDC* or PoE+* Isolated*
INPUTS / OUTPUTS	N/A	2 inputs & 2 outputs (isolated)	1 input & 1 output
BACKUP KEY	N/A	N/A	✓
OPERATING TEMPERATURE IP RATING	-20°C to +60°C IP40	-20°C to +60°C IP30	-25°C to +70°C or -40°C to +85°C* IP66
SPECIFIC STANDARDS	ECE R10 (vehicles) EN61373 (shocks & vibrations)	ECE R10 (vehicles) EN61373 (shocks & vibrations)	EN50155 [IEC60571] (railway) EN50121-3-2, EN50121-4 (EMC) EN60068-2 (climatic tests) EN61373 (shocks & vibrations) EN45545-2 (smoke-fire)

* Depending on the model

Embedded wireless modules

	 EmbedAir100	 EmbedAir1000	 EmbedAir1000 LTE
APPLICATIONS	Manufacturers of electronic equipment, machinery, robots	Manufacturers of electronic equipment, machinery, robots	Manufacturers of electronic equipment, machinery, robots
WIFI INTERFACE	1 radio WiFi 4 2.4 / 5 GHz 300 Mbps	2 radios WiFi 4 or WiFi 5 2.4 / 5 GHz 300 Mbps + 1.3 Gbps	1 radio WiFi 4 2.4 / 5 GHz 300 Mbps
MESH	✓	✓	✓
WIFI FAST ROAMING	< 30 ms	< 30 ms or 0ms with CBB (2 radios model)	< 30 ms
CELLULAR INTERFACE	N/A	N/A	4G/LTE category 4 LTE, UMTS/HSPA+, GSM/GPRS/EDGE (worldwide)
CELLULAR FUNCTIONALITIES	N/A	N/A	Auto APN Multi APN DDNS
GNSS	N/A	N/A	GPS, Galileo, BeiDou, GLONASS
SIM	N/A	N/A	Dual
SECURITY	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication	SSID broadcast enable/disable Firewall, VPN (Open VPN, IPsec) DoS, WIDS Secure TLS/SSL administration (https), SNMP V3 WPA2 / WPA3 802.1X authentication
ETHERNET PORTS CONNECTOR TYPE	100 Mbps RJ45 or HE10 (TTL)	1 Gbps RJ45 or HE10 (TTL)	1 Gbps RJ45 or HE10 (TTL)
ANTENNA CONNECTORS	2 x UFL	5 x UFL	5 x UFL
DIMENSIONS (mm) FORMAT MOUNTING	89 x 51 x 28 Mezzanine card	89 x 51 x 28 Mezzanine card	92.6 x 50.8 x 27.2 Mezzanine card
POWER SUPPLY	5 VDC	5 VDC	5 VDC
INPUTS / OUTPUTS	N/A	N/A	N/A
BACKUP KEY	N/A	N/A	N/A
OPERATING TEMPERATURE	-20°C to +60°C	-40°C to +70°C	-40°C to +70°C
SPECIFIC STANDARDS	N/A	N/A	N/A

Why choose ACKSYS ?

> RELIABILITY AND ROBUSTNESS

ACKSYS' products are designed to be used in harsh environment, this is why their manufacturing components are carefully selected, controlled and submitted to endurance tests. They come with a 5-year warranty (except for embedded wireless modules which come with a 1-year warranty).

> LONG LASTING PRODUCTS

In order to provide long lasting solutions to its customers, ACKSYS works closely with its suppliers to foresee any eventual obsolete products and thus back-up its product line to avoid any stock rupture. ACKSYS also pays attention to develop products compatible with existing solutions.

> RELEVANT SOLUTIONS

ACKSYS develops tailored solutions designed to fit its customers' specific business needs or unique application environment and is also able to adapt its products upon request. All ACKSYS' products are compliant with the standards in the various targeted markets.

> CUSTOMER SERVICE COMMITMENT

ACKSYS has developed a solid pre-sales and after-sales process to ensure that customers receive the highest level of support at every stage of their projects. ACKSYS is committed to provide state-of-the-art technology, products and training to keep its customers, distributors and VARs in the forefront of the communication age.

ACKSYS
COMMUNICATIONS & SYSTEMS

Since 1984, ACKSYS Communications & Systems has acquired a solid know-how in designing and manufacturing industrial communication solutions (WiFi and cellular).

Its expertise and high quality standards allows it to meet the most stringent requirements of its target markets: transport (rail, road), industry (M2M, IIoT, automation), mining, oil & gas.

Its highly qualified, closely-knit R&D, technical and sales teams are able to respond precisely to its customers' expectations, assisting them from the definition of their needs right through to on-site deployment. Thanks to a structured distribution network, ACKSYS is present on all five continents.

ACKSYS Communications & Systems

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