



Industrial Automation - Products & Configurations

RK21-ET BASIC SYSTEMS > note 1		POWER [W]
RK21-ET 3G	ARM i.MX 7Dual, Cortex A7 1 GHz dual core • 1 GB RAM • 8GB eMMC • 2G/3G/3G+ modem • without antenna • ASEM UBIQUITY ROUTER runtime • Extended temperature range -20° ÷ +60°C • DIN-RAIL BOOK mounting o WALL BOOK mounting • 12 months warranty	10
RK21-ET 4G/LTE	ARM i.MX 7Dual, Cortex A7 1 GHz dual core • 1 GB RAM • 8GB eMMC • 2G/3G/4G modem • without antenna • ASEM UBIQUITY ROUTER runtime • Extended temperature range -20° ÷ +70°C • DIN-RAIL BOOK mounting o WALL BOOK mounting • 12 months warranty	10
RK21-ET 4G/LTE-AM	ARM i.MX 7Dual, Cortex A7 1 GHz dual core • 1 GB RAM • 8GB eMMC • 2G/3G/4G modem "AM" version • without antenna • ASEM UBIQUITY ROUTER runtime • Extended temperature range -20° ÷ +70°C • DIN-RAIL BOOK mounting o WALL BOOK mounting • 12 months warranty	10
RK21-ET WiFi	ARM i.MX 7Dual, Cortex A7 1 GHz dual core • 1 GB RAM • 8GB eMMC • WiFi module • without antenna • ASEM UBIQUITY ROUTER runtime • Extended temperature range -20° ÷ +60°C • DIN-RAIL BOOK mounting o WALL BOOK mounting • 12 months warranty	7
RK21-ET 3G WiFi	ARM i.MX 7Dual, Cortex A7 1 GHz dual core • 1 GB RAM • 8GB eMMC • 2G/3G/3G+ modem • WiFi module • without antenna • ASEM UBIQUITY ROUTER runtime • Extended temperature range -20° ÷ +60°C • DIN-RAIL BOOK mounting o WALL BOOK mounting • 12 months warranty	11
RK21-ET 4G/LTE WiFi	ARM i.MX 7Dual, Cortex A7 1 GHz dual core • 1 GB RAM • 8GB eMMC • 2G/3G/4G modem • WiFi module • without antenna • ASEM UBIQUITY ROUTER runtime • Extended temperature range -20° ÷ +60°C • DIN-RAIL BOOK mounting o WALL BOOK mounting • 12 months warranty	11
RK21-ET 4G/LTE-AM WiFi	ARM i.MX 7Dual, Cortex A7 1 GHz dual core • 1 GB RAM • 8GB eMMC • 2G/3G/4G modem "AM" version • WiFi module • without antenna • ASEM UBIQUITY ROUTER runtime • Extended temperature range -20° ÷ +60°C • DIN-RAIL BOOK mounting o WALL BOOK mounting • 12 months warranty	11

REMOTE ASSISTANCE	ASEM UBIQUITY Router runtime	-
--------------------------	------------------------------	---

OPTIONS		POWER [W]
3G ANTENNAS	2G/3G/3G+ magnetic antenna with 2mt cable • panel mount • 50W, 50 Ohm • 116mm Ø29,5mm • SMA-M	-
3G / 4G ANTENNAS	2G/3G/4G stilo steerable antenna • RK21 direct mount or panel mount using extention cable • 10W, 50 Ohm • 72mm • SMA-M	-
	2G/3G/4G wall-mount antenna with 3mt cable • wall mount with 90° bracket • IP67 • 2W, 50 Ohm • 250mm • SMA-M	-
CABLES >note 2	2G/3G/4G outdoor antenna with 1mt cable • outdoor panel mount • IP67 • 5W, 50 Ohm • h48mm x Ø50mm • SMA-M	-
	3mt extension cable for antennas • RG58/U low loss cable • IP20 • SMA-M/F	-
	5mt extension cable for antennas • RG58/U low loss cable • IP20 • SMA-M/F	-
WiFi ANTENNAS	10mt extension cable for antennas • RG58/U low loss cable • IP20 • SMA-M/F	-
	Kit for two WiFi BLADE dual band steerable antennas • RK21 direct mount or panel mount using extension cable • omnidirectional, 3W, 50 Ohm • 157mm • RP-SMA-M	-
WiFi CABLES >note 2	Kit for two WiFi STILO dual band steerable antennas • RK21 direct mount or panel mount using extension cable • omnidirectional, 2W, 50 Ohm • 194mm • RP-SMA-M	-
	Kit for two 3mt extension cables for WiFi antenna • LMR-200 low loss cable • IP20 • RP-SMA-M/F	-
	Kit for two 5mt extension cables for WiFi antenna • LMR-200 low loss cable • IP20 • RP-SMA-M/F	-
WARRANTY EXTENSION	Kit for two 10mt extension cables for WiFi antenna • LMR-200 low loss cable • IP20 • RP-SMA-M/F	-
	Warranty extension to 18 months on basic system and its variants	
	Warranty extension to 24 months on basic system and its variants	
	Warranty extension to 36 months on basic system and its variants	

NOTES
For power consumption calculation we recommend to read the tips on pg. 4. The power values does not include the absorbed power of USB devices connected to the ports.
1: Price does not include ASEM UBIQUITY DOMAIN that must be purchased one-off at the first order of a license or system that includes the UBIQUITY runtime. See pg.222
2: The efficiency of the antennas and the extension cables is dependent on the quality of the radio frequency signal present at the installation site therefore we suggest not to use more than one extension cable between the antenna and the router.

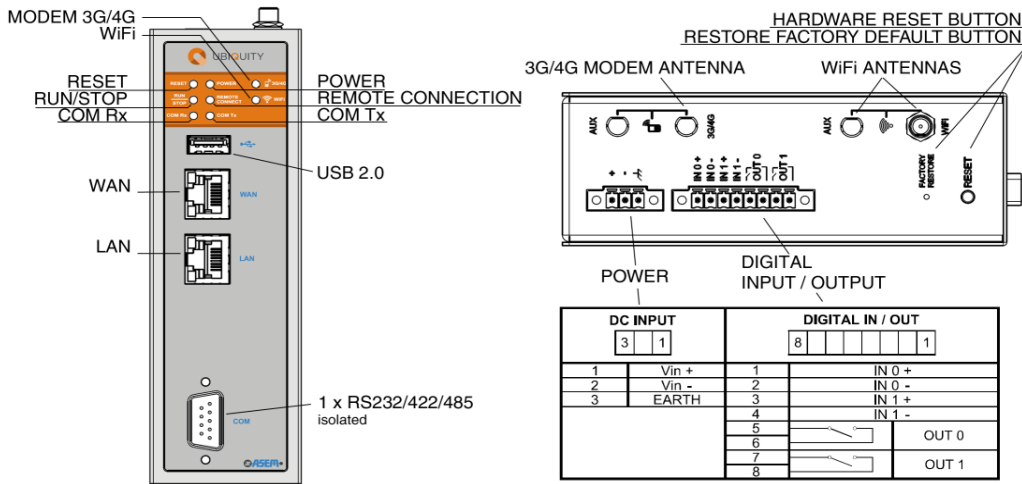
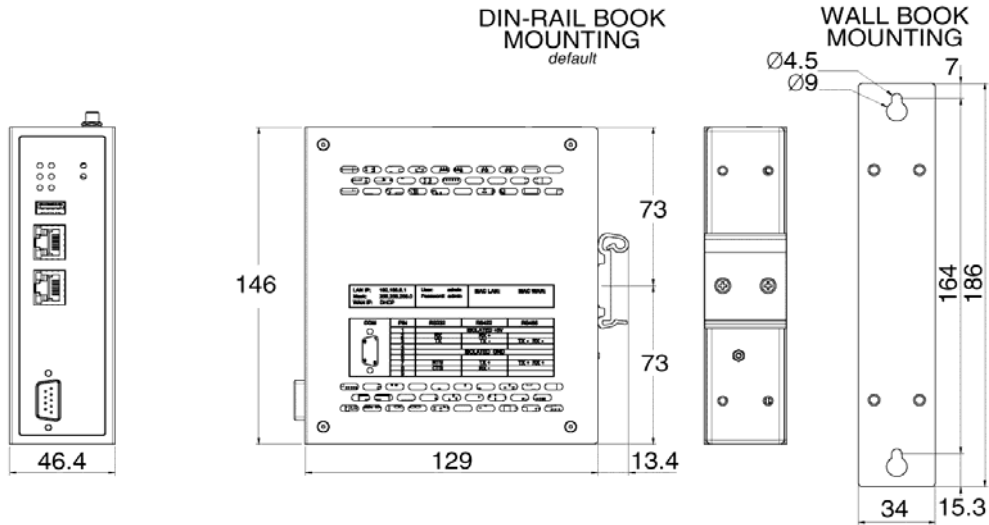


TECHNICAL SPECIFICATIONS	
Case	Aluminium, DIN-RAIL BOOK MOUNTING, WALL BOOK mounting kit included
Overall dimensions & weight	See details on the related section
Software Remote assistance	ASEM UBIQUITY ROUTER runtime
Features	VPN with access to the Ethernet (LAN) subnetwork of the Ubiquity Router
	Serial port virtualization; MPI protocol not supported
	Multiple connection from different Control Center with different VPN for each client
VPN	Technology Proprietary VPN technology optimized for industrial communication protocols with complete access to the Ethernet remote sub-network. Support for UDP broadcast. No need to reconfigure remote network devices. The service computer uses real IP in the IP address space of the remote network.
	Security Secure and protected communication by TLS encrypted connections
Power supply	Input voltage 9÷34V DC • Power supply section integrated on board
Motherboard	ASEM R371
Processor	ARM i.MX 7Dual multicore Heterogeneous • Cortex A7 1 GHz dual core, 533 MHz system memory bus
System memory	1GB DDR3L soldered on board
Storage memory	eMMC MLC 8GB (Solid State Disk), 8bit file system organization
Frontal access interfaces	1 x Ethernet 10/100/1000 Mbps (RJ45) for LAN connection
	1 x Ethernet 10/100/1000 Mbps (RJ45) for WAN connection
	1 x USB 2.0 (Type-A / host)
	1 x RS-232/422/485 (DB9M) multiprotocol, isolated
Digital Input	INO Security key input for WAN connection activation. Function managed by Control Center. Disabled by default.
	INI UBIQUITY Router software reset input
	Type 0÷24V DC, 500V isolation
Digital Output	OUT0 UBIQUITY Router authenticated on Domain and WAN remote connection enabled signalling
	OUT1 Remote assistance service running
	Type Output with relay 200mA@24V DC max for contact (N.O. - normally open)
Buttons	UBIQUITY Router hardware reset
	UBIQUITY Router factory default restore
Approvals	CE (EN 55022, EN 61000-3-2/3, EN 55024, EN 60950-1) • RED pending • cULus LISTED (UL 61010) pending
Protection grade	IP20
Environmental specifications	Operating temperature: -20° ÷ +70°C, -20° ÷ +60°C with WiFi or 3G modem • Storage temperature: -30° ÷ +80°C • humidity: 80% (non-condensing)
Standard warranty	12 months • Warranty management by ASEM headquarters
Only for RK21-ET WiFi	
Module	Tipo Half Mini PCIe module
	Standard IEEE 802.11a/b/g/n • 2.400÷2.4835GHz / 5.15÷5.85GHz • Data rate 802.11b: 11Mbps / 802.11a/g: 54Mbps / 802.11n: 300Mbps
	Features client / access point
	Security WPA2
	Rx Sensitivity 802.11a: -73dBm / 802.11g: -74dBm / 802.11n(2,4GHz): -72dBm@HT20, -69dBm@HT40 / 802.11n(5GHz): -69dBm@HT20, -68dBm@HT40
Antenna 1 x RP-SMA-F connector • no antenna included	
For RK21-ET 3G only	
Modem	Type 2G/3G/3G+ EDGE/HSPA quadriband modem up to 5,76Mbps upload / 21,6Mbps download
	Bands UMTS/HSPA+: B1/B2/B5 • GSM/GPRS/EDGE: 850/900/1800/1900 MHz
	Antenna 1 x SMA-F connector • no antenna included
For RK21-ET 4G/LTE only	
Modem 4G/LTE	Type 2G/3G/4G LTE pentaband modem up to 50Mbps upload / 100Mbps download
	Bands FDD-LTE: B1/B3/B7/B8/B20 • TDD-LTE: B38/B40 • UMTS/HSPA+: B1/B8 • GSM/GPRS/EDGE: 900/1800 MHz
	Antenna 1 x SMA-F connector • no antenna included
Modem 4G/LTE-AM	Type 3G/4G LTE quadriband modem up to 50Mbps upload / 100Mbps download
	Bands FDD-LTE: B2/B4/B5/B17 • UMTS/HSPA+: B2/B5
	Antenna 1 x SMA-F connector • no antenna included

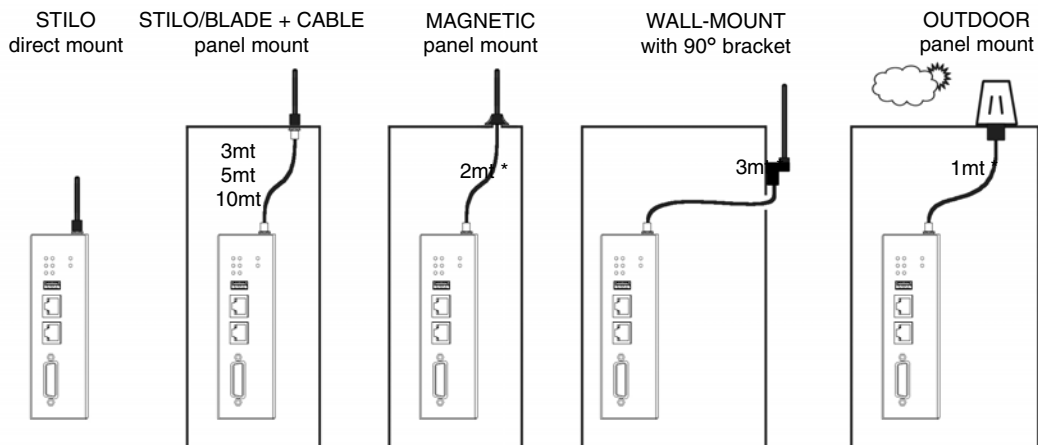
MODEM AND NETWORK COVERAGE				
Note: please consider that the following information are given for guidance only. Mobile networks coverage and supported frequencies have to be verified with local providers in the installation area.				
		RK21 3G	RK21 4G/LTE	RK21 4G/LTE-AM
3G	Europe	✓	✓	-
	North/Latin America	✓	-	✓
	Asia	✓	✓	-
	Africa&Oceania	✓	✓	-
4G/LTE	Europe	n.a.	✓	-
	North America	n.a.	-	✓
	Latin America	n.a.	✓	✓
	Asia	n.a.	✓	-
	Africa&Oceania	n.a.	✓	-



DIMENSIONS (mm)



3G, 4G/LTE and WiFi ANTENNAS INSTALLATION



* it is possible to add 3, 5 or 10mt extention cables