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Pro Series

Industrial Router



UR32 is a cost-effective industrial cellular router with embedded intelligent features that are designed for multifarious M2M/IoT applications. Global WCDMA and 4G LTE carrier supported make this drop-in connectivity a great help for operators in maximizing uptime.

Integrating embedded cellular modem and dual SIM function, the UR32 provides 3G/4G cellular network with 150 Mbps download and 50 Mbps uplink, it also has 2 fast Ethernet ports and supports Wi-Fi that compliance with 802.11b/g/n standard. All these capabilities deliver users an uninterrupted internet access.

Easy deployment and comprehensive remote device management makes UR32 versatile in most of IoT/M2M applications.

Application Example



UR32 Datasheet

Benefits

- NXP industrial grade processor
- Global 4G LTE CAT4/3G network with dual SIM cards for backup between multiple carrier networks
- Embedded Python SDK for secondary development
- Flexible modular design provides users with different connection modules like Ethernet, I/O, serial port, Wi-Fi, GPS for connecting diverse field assets
- Rugged enclosure, optimized for DIN rail or shelf mounting
- 3-year warranty included

Security & Reliability

- Automated failover/failback between
 Ethernet, Cellular (dual SIM) and Wi-Fi
- Secure transmission with VPN tunnels like IPsec/OpenVPN/GRE/L2TP/PPTP/DMVPN
- Embeds hardware watchdog to automatically recover from various failures, ensure highest level of availability
- Establishes a secured mechanism on centr alized authentication and authorization of device access by supporting AAA (Radius, TACACS+, LDAP, local Authentication) and multiple levels of user authority

Capabilities

- Link remote devices in an environment where communication technologies are constantly changing
- Support 802.11 b/g/n, as AP or client mode, to establish versatile wireless network or be the backup WAN link for 4G/3G
- Support rich protocols like SNMP, TR069, MQTT, Modbus bridging, RIP, OSPF
- Support wide operating temperature ranging from -40°C to +70°C/-40°F to +158°F

Easy Maintenance

- DeviceHub provides easy setup, mass configuration, and centralized management of remote devices
- The user-friendly web interface design and more than one option of upgrade help administrator to manage the device as easy as pie
- WEB GUI and CLI enable the admin to achieve simple management and quick configuration among a large quantity of devices
- Efficiently manage the remote routers on the existing platform through the industrial standard SNMP and TR069

UR32 Datasheet

Specifications

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Hardware System		
CPU	ARM Cortex-A7, 528 MHz	
Memory	128 MB DDR3 RAM and 128MB Flash	
Extendable Storage	1 × Micro SD Slot	
Cellular Interface		
Antenna Connector	$2 \times 50 \ \Omega$ SMA Connectors (Center PIN: SMA Female)	
SIM Slots	2 (Mini SIM-2FF)	
Ethernet Interface		
Numbers	2 × 10/100 Mbps	
Property	1 × WAN + 1 × LAN or 2 × LAN	
Mode	Full or half duplex (Auto-Sensing)	
PoE (Optional)	2 × 802.3 af/at PoE PSE on LAN Ports	
Wi-Fi Interface (Optional)		
Antenna Connector	1 × 50 Ω SMA Connector (Center PIN: RP-SMA Female)	
Standards	IEEE 802.11 b/g/n, 2.4GHz	
	802.11b: 16 dBm +/-1.5 dBm (11 Mbps)	
Tx Power	802.11g: 14 dBm +/-1.5 dBm (54 Mbps)	
	802.11n: 13 dBm +/-1.5 dBm (65 Mbps, HT20/40 MCS7)	
Modes	AP or Client mode	
Security	WPA/WPA2 authentication, WEP/TKIP/AES encryption	
GPS (Optional)		
Antenna Connector	1 × 50 Ω SMA Connector (Center PIN: SMA Female)	
Protocol	NMEA0183, PMTK	
Serial Interface		
Numbers	1 × RS232 (RS485 Hardware Optional)	
Connector	3.5mm Terminal Block	
Baud Rate	300bps to 230400bps	
DI/DO		
Numbers	1 × DI (dry contact) + 1 × DO (wet contact), Galvanic Isolation	
Connector	3.5mm Terminal Block	
Maximum V/A	0.3A@30VDC (DO)	
Others		
Reset Button	1 × RESET	

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LED Indicators	1 × POWER, 1 × SYSTEM, 1 × SIM, 3 × Signal strength	
Built-in	Watchdog, Timer	
Software		
Network Protocols	IPv4/IPv6, PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QOS, SNTP, Telnet, VLAN, SSH, MQTT, TR069, etc.	
VPN	DMVPN, IPsec, OpenVPN, PPTP, L2TP, GRE, MilesightVPN	
Security	Access Control, DMZ, Port Mapping, MAC Binding, SPI Firewalls, DoS&DDoS Protection, Filtering(IP&Domain), IP Passthrough	
Management	Web, CLI, SMS, On-demand dial up, SNMP v1/v2/v3, DeviceHub	
AAA	Radius, Tacacs+, LDAP, Local Authentication	
Multilevel Authority	Multiple Levels of User Authority	
Reliability	VRRP, WAN Failover, Dual SIM Backup	
Serial Port	Transparent(TCP Client/Server, UDP), Modbus Server/Client, Modbus Gateway (Modbus RTU to Modbus TCP)	
Power Supply and Consumption		
Power Connector	2-pin 5.08 mm Terminal Block	
Input Voltage	9-48 VDC, with Surge-Protection and Reverse Polarity Protection	
Power Consumption	Typical 1.9 W, Max 2.4 W (In Non-PoE mode)	
Physical Characterist	ics	
Ingress Protection	IP30	
Housing & Weight	Metal, 271 g	
Dimension	108 x 90 x 26 mm (4.25 x 3.54 x 1.02 in)	
Installation	Desktop, Wall or DIN Rail Mounting	
Environmental		
Operating Temperature	-40°C to +70°C (-40°F to +158°F)	
	Reduced Cellular Performance Above 60°C	
Storage Temperature	-40°C to +85°C (-40°F to +185°F)	
Ethernet Isolation	1.5 kV RMS	
Relative Humidity	0% to 95% (non-condensing) at 25°C/77 $^\circ\mathrm{F}$	
Approvals		
Regulatory	CE, FCC, RCM, NBTC, SPDDI, JATE	
Carrier	PTCRB, AT&T	
Environmental	RoHS	
EMC	EN 55032, EN 55035	

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EMS	IEC 61000-4-2 Level 3
	IEC 61000-4-3 Level 2
	IEC 61000-4-4 Level 2
	IEC 61000-4-5 Level 2
	IEC 61000-4-6 Level 3
	IEC 61000-4-8 Level 1
	IEC 61000-4-11 Level 3
Radio Frequency	EN 301 489-1/17/19/52, EN 301 511, EN 301 908-1/2/13, EN 303 413,
	EN300 328
Safety	EN62368-1

Dimensions(mm)



