

intercel

go anywhere communication and data transfer

Ultra eSAM

4G LTE Wi-Fi Router with a Robust Design for Industrial M2M and IoT Applications.



MONITORING



TECHNOLOGY



COMMUNICATION



DATA



IOT



AUTOMATION



NETWORKING



METERING



CCTV



Overview

Ultra eSAM is a robust 4G Wi-Fi Router for Industrial M2M/IoT applications. It has one LAN and one LAN/WAN port to provide real-time data connectivity, even in harsh environment. The simple integration of Ultra eSAM in a design or application will benefit any IoT Service Manager, System Integrator or End-User. Ultra eSAM provides a secure, reliable connection to industrial machines on third party sites or remote locations.

Quick Overview

Features

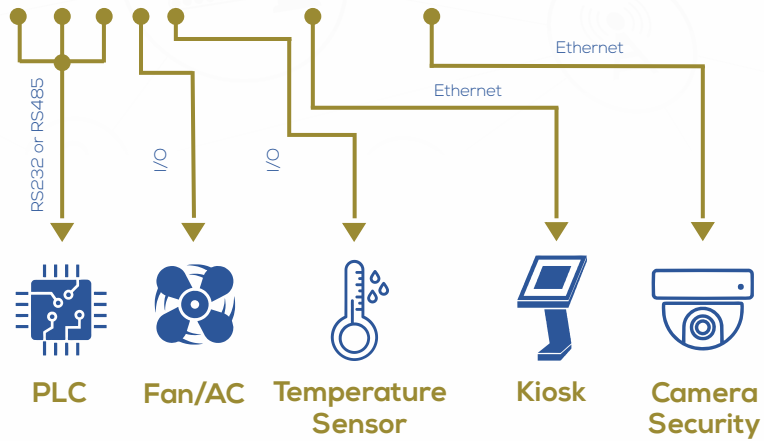
1. Wi-Fi Antenna
2. Reset
3. USB 2.0
4. 3G/4G Antenna (Main)
5. GPS Antenna
6. 3G/4G Antenna (Div)
7. SIM Card Tray
8. RS232 or RS485
9. GPIO1 Port
10. GPIO2 Port
11. LAN
12. LAN / WAN
13. Power

Applications

-  Digital Signage
-  Security Monitoring Services
-  Smart Grid Assets
-  Building Automation
-  Kiosk
-  PLC
-  ScadaPhone
-  ClearSCADA
-  Traffic Lights
-  Remote Data Loggers
-  Flow Meter and Sensing Equipment



Applications Overview



Features and Benefits

- Industrial designed rugged enclosure with IP30 rating, with Multiple mounting options
- High Speed Wi-Fi (IEEE 802.11/b/g/n) supports Access
- Support SCADA Managed Protocols, Modbus, DTU and DNP3
- Advanced IP Passthrough to another device on LAN
- AT commands & SMS over Ethernet
- Option to use LAN to WAN port connection
- Two Ethernet ports for networking flexibility
- WAN supports ADSL(PPPoE), Static IP and DHCP client
- Supports EoGRE, VLAN port based and tag based Multi-VLAN
- Advanced firewall with MAC/IP filtering, port mapping, Black, White listing IP
- Embedded watchdog for auto recovery
- Serial and I/O for connecting diverse field assets
- Port Forwarding rules, traffic rules and custom rules
- Static and Dynamic IP allocation, DHCP Client
- USB for storage or additional interface
- Integrated standalone GPS
- Supports DynDNS, DuckDNS, NoIP, DNS-O-Matic and others
- Supports IPSec, PPTP Server /Client and L2TP Server Client, GRE/IPIP, VPDN tunnelling for establishing secure connections
- OpenVPN with multiple clients with encryption certificates of Intercel OpenVPN Server
- Intercel Remote Management System (IRMS) for remote configuration and troubleshooting of the Intercel devices
- Firmware upgrade and configuration via Web, CLI and Intercel Remote Management System (IRMS)
- Wide range input voltages from 5 to 36 VDC

Model Description

Model	Peak & Speed	Frequency Band
Ultra eSAM-4QX	LTE Category 4 150Mbps Download 50Mbps Upload	4G LTE: B1, B2, B3, B4, B5, B7, B8, B28, B40 3G WCDMA: B1, B2, B5, B8 2G GSM: B2, B3, B5, B8
Ultra eSAM-4S	LTE Category 6 300Mbps Download 50Mbps Upload	4G LTE: B1, B3, B5, B7, B8, B18 B19, B20, B26, B28A, B28B, B38, B39, B40, B41 3G WCDMA: B1, B5, B6, B8

Mounting Option



Holding Bridles

Holding bridles are sold separately



35mm Din-Rail Clip

Package Content

1. Ultra eSAM
2. Power Supply
3. GPS Antenna
4. Ethernet Cable
5. 3G/4G Antennas
6. Wi-Fi Antenna
7. 35mm Din-Rail Clip
8. 5 Way Terminal Block



Technical Specifications

CPU & Storage

- Powerful 580MHz CPU
- 1GB DDR2 SDRAM
- 128Mb flash memory

Ethernet Interface

- 1 x LAN (10/100Mbps)
- 1 x LAN (10/100Mbps) / WAN Support (ADSL) PPPoE, Static IP, DHCP client
- IEEE 802.3, IEEE 802.3u standard
- 1.5KV magnetic isolation protection

Antenna Connectors

- 2 x SMA-K connectors for 3G/4G
- 1 x SMA-K connector for 2.4G wireless LAN
- 1 x SMA-K connector for GPS

USB Port

- 1 x USB Type A
- USB 2.0 standard

Serial Port

- Support SCADA managed protocols, MODBUS, DTU and DNP3.
- 1 x RS232 interface (Rs485 or RS232 optional made to order only)
- Serial RS232 via terminal block with TX, RX and GND

I/O Port

- GPIO1 Port
- GPIO2 port

Wi-Fi

- IEEE 802.11b/g/n standard
- 300Mbps data speed
- 2.412 -2.485 GHz frequency band support
- AP, Client, Bridge mode
- WEP, WPA, WPA2 encryption

Network & Routing

- IEEE 802.11b/g/n standard
- 300Mbps data speed
- 2.412 -2.485 GHz frequency band support
- AP, Client, Bridge mode
- WEP, WPA, WPA2 encryption

Network Protocols

- TCP, UDP, IPv4, IPv6, ICMP, NTP, DNS, HTTP, HTTPS, DNP3, MQTT.
- FTP, SMTP, TLS, PPP, PPPoE, SSH, DHCP, Telnet, SMPP, SMNP.

Firewall & Filter

- IP packet/Domain/MAC filter
- SNAT
- DNAT

VPN

- PPTP Server/Client
- L2TP Server/Client
- GRE/IPIP Tunnel
- OpenVPN
- OpenVPN Encryption

Device Management

- Local or remote web browser HTTP/HTTPS.
- MQTT/WMMMP based Cloud Platform.

Intercel Remote Management System (IRMS)

- View Online/Offline status of a device
- Remote terminal management & maintenance
- Check the status of internet data consumed at specific date
- Device location via GPS
- Debug remotely
- Flow statistics and data analysis

System

- Reset button
- LED indicators for power, network connectivity, network signal and Wi-Fi
- 1 x Standard SIM/R-UIM with push button to release lockable tray and 1.5KV ESD protection

Power Supply & Consumption

- 1 x 4-pin Micro fit connector
- Wide range 5 -36 VDC input voltage
- Power consumption:
Idle: 90mA @ 24VDC
150mA @ 12VDC
Communications: 240mA@+12VDC

Mounting Options

- 35mm DIN rail mount
- Wall mount with holding bridle
- Desktop

Physical & Temperature

- Dimension: 112mm (L) x 98mm (W) x 29.7mm (H) without antenna connectors
- Weight: 278g without accessories
- Operation temperature: -30~+70°C
- Related humidity: <95% (non-condensing)

Warranty & Subscription

- Warranty: One year
- Intercel Remote Management System (IRMS)
- 30 days free subscription.



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