The Ursalink UR35 is a cost-effective industrial cellular router with embedded intelligent software 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 UR35 provides 3G/4G cellular network with 150 Mbps download and 50 Mbps uplink, it also has 5 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 UR35 versatile in most of IoT/M2M applications.
Benefits
- Dual SIM cards for backup between multiple carriers networking and global 2G/3G/LTE options make it easy to get connected
- Flexible modular design provides users with different connection modules like Ethernet, I/O, serial port, Wi-Fi, GPS for connecting diverse field assets
- FXS port for telephone communication
- Embedded Python SDK for second development
- Rugged enclosure, optimized for DIN rail or shelf mounting
- 3-year warranty included

Easy Maintenance
- Uralink 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

Security & Reliability
- Automated failover/failback between Ethernet and Cellular (dual SIM)
- Enable unit with security frameworks like IPsec/OpenVPN/GRE/L2TP/PPTP/DMVPN
- Embed hardware watchdog, able to automatically recover from various failure, ensure highest level of availability
- To establish a secured mechanism on centralized 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 802.11b/g/n, as AP or client mode, to establish versatile wireless network or be the backup WAN link for 3G/4G
- Support rich protocols like SNMP, Modbus bridging, RIP, OSPF
- Support wide operating temperature ranging from -40°C to +70°C/-40°F to +158°F
Application Example

Public transportation
- Terminal Device
- IP Camera
- Payment Machine
- IPC
- Lan or Serial
- 3G/4G
- Base Station
- Cloud
- 528 MHz, ARM Cortex A7
- 128 MB Flash, 128 MB DDR3 RAM
- 1 × Micro SD
- 5 × RJ-45
- 1 × WAN +4 × LAN (PoE PSE Optional)
- 10/100 Base-T (IEEE 802.3)
- Auto MDI/MDIX
- Full or half duplex (Auto-Sensing)
- 2 × 50 Ω SMA (Center PIN: SMA Female)
- 2
- IEEE 802.11b/g/n
- 802.11b: 16 dBm +/-1.5 dBm (11 Mbps)
- 802.11g: 14 dBm +/-1.5 dBm (54 Mbps)
- 802.11n: 13 dBm +/-1.5 dBm (65 Mbps, HT20/40 MCS7)
- AP and Client mode
- WPA/WPA2 authentication, WEP/TKIP/AES encryption

Smart transportation
- Sensor
- Transformer or Inverter
- PLC or RTU
- Lan or Serial
- UR35
- Firewall
- Application Server
- Remote Data Center

Specifications

Hardware System
- CPU: 528 MHz, ARM Cortex A7
- Memory: 128 MB Flash, 128 MB DDR3 RAM
- Storage: 1 × Micro SD

Ethernet Interface
- Ports: 5 × RJ-45
- Property: 1 × WAN +4 × LAN (PoE PSE Optional)
- Physical Layer: 10/100 Base-T (IEEE 802.3)
- Data Rate: 10/100 Mbps (Auto-Sensing)
- Interface: Auto MDI/MDIX
- Mode: Full or half duplex (Auto-Sensing)

Cellular Interfaces
- Connectors: 2 × 50 Ω SMA (Center PIN: SMA Female)
- SIM Slots: 2

Wi-Fi Interface (Optional)
- Connectors: 1 × 50 Ω SMA (Center PIN: SMA Male)
- Standards: IEEE 802.11b/g/n
- Tx Power: 802.11b: 16 dBm +/-1.5 dBm (11 Mbps)
- 802.11g: 14 dBm +/-1.5 dBm (54 Mbps)
- 802.11n: 13 dBm +/-1.5 dBm (65 Mbps, HT20/40 MCS7)
- Modes: AP and Client mode
- Security: WPA/WPA2 authentication, WEP/TKIP/AES encryption
### GPS (Optional)

<table>
<thead>
<tr>
<th>Connectors</th>
<th>1 × 50 Ω SMA (Center PIN: SMA Female)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Protocols</td>
<td>NMEA 0183</td>
</tr>
</tbody>
</table>

### Voice Interface (Optional)

<table>
<thead>
<tr>
<th>Port</th>
<th>1 × RJ-11 (also be used for landline telephone’s power supply)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standards</td>
<td>ITU Q.512 (SLIC), ITU K.20 (overcurrent and overvoltage protection)</td>
</tr>
</tbody>
</table>

#### Subscriber line interface circuit (SLIC)

- Ring voltage: 40 to 90 Vpk configurable
- Ring frequency: 20 to 25 Hz
- Ring waveform: sine wave
- Maximum ring load: 2 ringer equivalence numbers (RENs)
- On-hook voltage (tip/ring): -46 to -56V
- Off-hook current: 18 to 20mA
- Terminating impedance: configurable

### Serial Interface

<table>
<thead>
<tr>
<th>Ports</th>
<th>1 × RS232 + 1 × RS485</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>Terminal block</td>
</tr>
<tr>
<td>Baud Rate</td>
<td>300bps to 230400bps</td>
</tr>
</tbody>
</table>

### IO

<table>
<thead>
<tr>
<th>Connector</th>
<th>Terminal block</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital</td>
<td>1 × DI + 1 × DO</td>
</tr>
</tbody>
</table>

### Software

#### Network Protocols
- PPP, PPPoE, SNIPv1/v2/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DDNS, VRRP,
- HTTP, HTTPS, DNS, ARP, QoS, SNTP, Telnet, VLAN, SSH, etc.

#### VPN Tunnel
- DMVPN/IPsec/OpenVPN/PPTP/L2TP/GRE

#### Access Authentication
- CHAP/PAP/MS-CHAP/MS-CHAPV2

#### Firewall
- ACL/DMZ/Port Mapping/MAC Binding/SPI/URL Filter/IP Passthrough

#### Management
- Web, CLI, SMS, On-demand dial up, 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 Gateway (Modbus RTU to Modbus TCP)

#### Power Supply and Consumption

<table>
<thead>
<tr>
<th>Power Input Connector</th>
<th>2-pin with 5.08 mm terminal block</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage</td>
<td>9-48 VDC (48 V power input is needed for PoE output)</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>Typical 3.9 W, Max 4.6 W (In Non-PoE mode)</td>
</tr>
</tbody>
</table>
### Power Output

4 × 802.3 af/at PoE output

### Physical Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingress Protection</td>
<td>IP30</td>
</tr>
<tr>
<td>Housing &amp; Weight</td>
<td>Metal, 485 g</td>
</tr>
<tr>
<td>Dimensions</td>
<td>135 x 103 x 45 mm (5.31 x 4.06 x 1.77 in)</td>
</tr>
<tr>
<td>Mounting</td>
<td>Desktop, Wall or DIN Rail Mounting</td>
</tr>
</tbody>
</table>

### Others

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reset Button</td>
<td>1 × RESET</td>
</tr>
<tr>
<td>LED Indicators</td>
<td>1 × POWER, 1 × SYSTEM, 1 × SIM, 1 × Wi-Fi, 1 × VPN, 3 × Signal strength</td>
</tr>
</tbody>
</table>

### Environmental

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Temperature</td>
<td>-40°C to +70°C (-40°F to +158°F) Reduced Cellular Performance Above 60°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-40°C to +85°C (-40°F to +185°F)</td>
</tr>
<tr>
<td>Ethernet Isolation</td>
<td>1.5 kV RMS</td>
</tr>
<tr>
<td>Relative Humidity</td>
<td>0% to 95% (non-condensing) at 25°C/77°F</td>
</tr>
</tbody>
</table>

### Product Images/Dimensions (mm)
### Ordering Information

<table>
<thead>
<tr>
<th>Model</th>
<th>UR35</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Interface</strong></td>
<td>LTE(LTE-FDD/LTE-TDD)/CDMA(CDMA 1x/EVDO)/TD-SDMA/DC-HSPA+/HSPA+/HSDPA/WCDMA/EDGE/GPRS/GSM</td>
</tr>
</tbody>
</table>
| **4G** | - **EC**: B1/B3/B5/B7/B8/B20/B28A@FDD LTE  
             - **AF**: B2/B4/B5/B12/B13/B14/B66/B71@FDD LTE  
             - **AU**: B1/B2/B3/B4/B5/B7/B8/B28@FDD LTE, B40@TDD LTE  
             - **J**: B1/B3/B8/B18/B19/B26 @FDD LTE, B41@TDD LTE  
             - **CE**: B1/B3/B5/B8@FDD LTE, B38/B39/B40/B41@TDD LTE |
| **3G** | - **EC**: B1/B8@WCDMA  
             - **AF**: B2/B4/B5@WCDMA  
             - **AU**: B1/B2/B5/B8 WCDMA  
             - **J**: B1/B6/B8/B19@WCDMA  
             - **CE**: B1/B8@WCDMA, B34/B39@TD-SCDMA, BC0@CDMA2000 1x/EVDO |
| **2G** | - **EC**: B3/B8@GSM  
             - **AU**: B2/B3/B5/B8@GSM  
             - **CE**: 900/1800@GSM |

*: Any other frequency bands requirements please contact us.