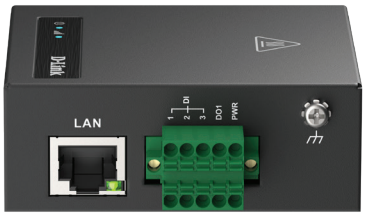
D-Link

DOM-311-TSO

4G IIoT RTU



Key Features

- Modbus TCP/RTU/ASCII
- IIoT Telemetry
- VPN Security
- IT/OT Integration
- Industrial Grade Design
- Management Platform

Applications

- Environmental Monitoring (flood, air pollution, landslide, disaster detection)
- Livestock
- Fish Farming
- Wastewater Treatment Plant
- Greenhouse

The DOM-311-TSO 4G IIoT RTU provides LTE Cat 4 speeds up to 150 Mbps for downlink. It is equipped with one Fast Ethernet port and expanded IO capabilities including one RS232/485 port, three digital inputs, and two digital outputs, making it suitable for a wide range of IT/OT applications.

Seamless IT/OT Integration for Enhanced Efficiency

The DOM-311-TSO 4G IIoT RTU (Remote Terminal Unit) is key to converging business operations with production processes, offering advantages such as enhanced decision-making, streamlined process automation, preventive maintenance, and maximized production output. Leveraging reliable 4G connectivity, it facilitates quick integration of remote sensors, devices, and machinery, ensuring centralized manageability and boosting competitive edge.

With its multi-interface compatibility including RS-232/485 and digital I/O (DI/DO), the DOM-311-TSO promptly responds to IoT sensor criteria and enables digital output to end devices in the OT field, improving responsiveness and automation in industrial applications. It supports various industrial communication protocols and utilizes the Modbus transfer protocol between RTU and TCP, simplifying integration into complex automation and remote control systems, thus enhancing operational efficiency and system reliability.

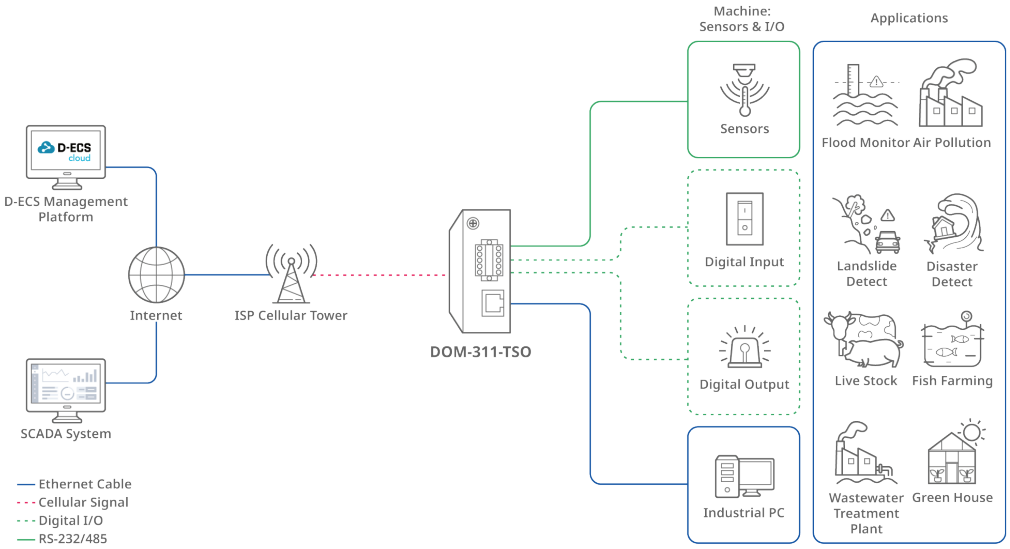
Data Telemetry

The DOM-311-TSO provides centralized control for data acquisition from remote devices via Modbus TCP, RTU, and ASCII protocols to streamline monitoring and analytics. With multi-interface compatibility, including RS-232/485 and digital I/O (DI/DO), the device enables real-time data transfer to the control center, providing comprehensive insights and improved operational efficiency.

Robust Build Quality

The DOM-311-TSO is designed to maximize M2M connection reliability and availability, featuring a corrosion-resistant zinc-plated steel casing, wide voltage input range, wide operating temperature range and humidity tolerance, making it suitable for the most demanding M2M applications in virtually any environment. Convenient DIN-Rail design allows the DOM-311-TSO to be mounted virtually anywhere to optimize signal quality.

Connection Diagram



Specifications

Device Interface

- Cellular: 4G LTE Cat 4
- SIM Slot: 1 x SIM (Nano SIM)
- Ethernet: 1 x FE LAN port
- Serial Ports:
  - 1 x RS-232 or RS-485 terminal block
  - 3 x DI (logic 0: 0-2 V, logic 1: 5-30 V)
  - 2 x DO (open collector, max. 30 V) terminal block
- Power Input: DC 9-36 V terminal block
- Antenna Connectors: 2 x SMA (F) cellular

Performance[1]

- Maximum Cellular Data Throughput:
  - LTE: 150 Mbps (DL) / 50 Mbps (UL)

WAN

- WAN Interface: Cellular
- Cellular: NAT
- Connection Monitoring: Ping query reboot

Network

- LAN: DHCP server
- Routing: Static
- DDNS: DynDNS, No-IP, dynamic DO

Services

- Event Management: SMS

VPN

- VPN Tunnel: OpenVPN

Security

- Firewall: IPS, port forward
- Access Control: MAC/IP filter

Administration

- Management: D-Link D-ECS[2]
- Maintenance: Web UI
- System: FW upgrade, reboot and reset

Monitoring

- Device Status: Connection information
- Cellular Status: Cellular information/status, cellular signal quality
- Security: VPN status

Field Communication

- Virtual COM: TCP client, TCP server, UDP
- Modbus: Modbus TCP/RTU/ASCII master/slave access

Operating Environment

- Operating Temperature: -30 to 70˚C (-22°F to 158°F)
- Storage Temperature: -40 to 85˚C (-40°F to 185°F)
- Operating Humidity: 10% to 95% non-condensing
- Storage Humidity: 0 to 95% non-condensing
- Dimensions: 78 x 70 x 29 mm

Certifications and Approvals

- Certifications: CE, UKCA
- Cyber Security: EN 18031-1, EN 18031-2, EN 303645

Package Contents (Standard)

- 2 x Cellular SMA Antennas
- 1 x RJ-45 Cable
- 1 x Power Adapter
- 1 x Terminal Block (10-pin)
- 1 x DIN-Rail Kit

Available Versions

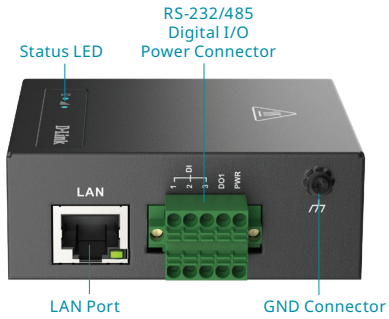
EU SKU (HW: A1)	
4G LTE	FDD: B1/B3/B7/B8/B20/B28A
	TDD: B38/B40/B41

1 Data rates are theoretical. Data transfer rate depends on network capacity and signal strength.

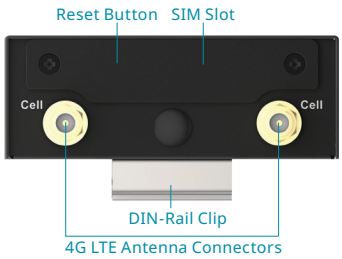
2 You only have to pay a M2M device license fee required when applying for D-ECS license.

Hardware

Front View



Back View

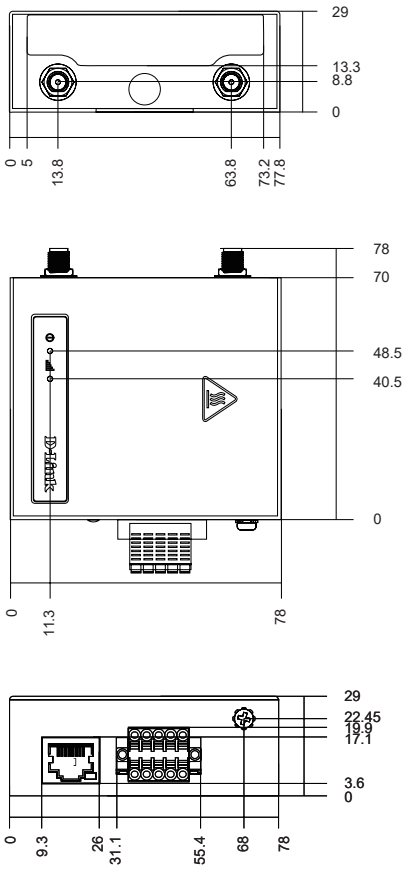


Actual performances may vary due to settings, cabling, temperature, network configuration, interface, device compatibility, environmental and on-site conditions, and other similar factors. References to power capability, signal or processing speed, signal range or distance, data encryption, storage capacity, display properties, or other performance metrics are based on optimal conditions derived from industry standards and provided for informational purposes only. Specifications may be subject to change without prior notice.

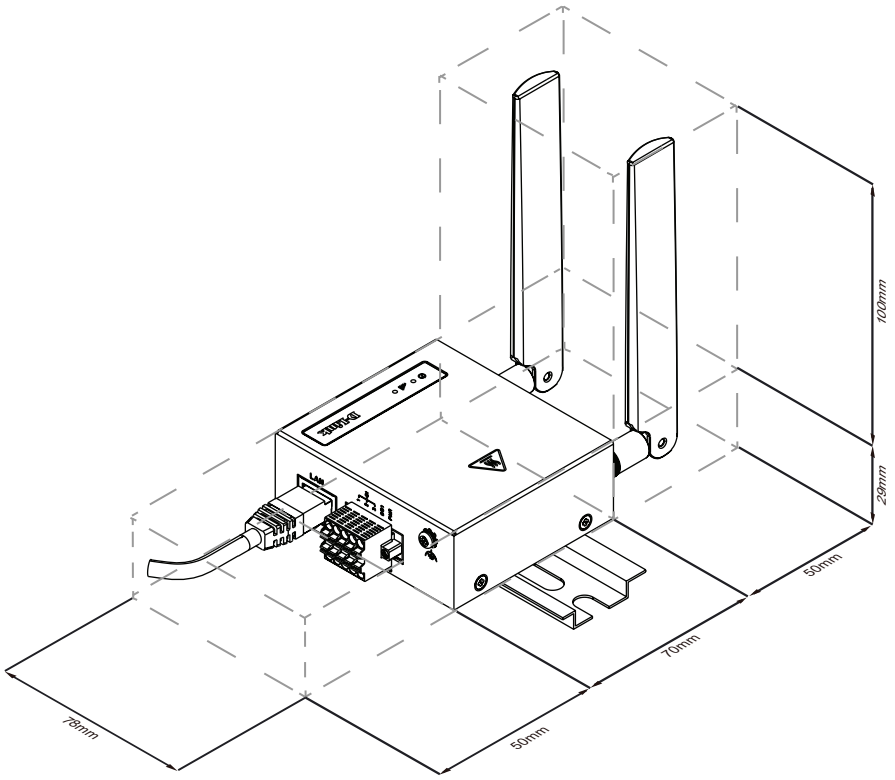
Spatial Measurement

The following diagrams provide the product's physical dimensions measured from top, front, left, and right views for installation and integration reference.

Unit: mm



Mounting Space Requirements



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