D-Link

DOM-550-GSO

5G IIoT Gateway

Key Features

- 5G SA & NSA
- Dual-SIM Failover
- Modbus TCP/RTU/ASCII
- Wi-Fi AC1200
- Industrial Grade Design
- IT/OT Integration

Applications

- Factory Automation
- Solar Power Station
- Environmental Monitoring
- Power Plant
- Traffic/Street Lights
- Elevator
- Gas Station

The DOM-550-GSO 5G IIoT Gateway offers dual-mode 5G NR and 4G LTE connectivity, delivering download speeds of up to 3.4 Gbps. It includes three Gigabit Ethernet ports—one configurable as an Ethernet WAN—for seamless switching between broadband and cellular networks. With Wi-Fi 5 (AC1200) support, it suits a broad range of IIoT deployments. The gateway also provides flexible I/O options, including one RS-232/485 port, two digital inputs, two digital outputs, two analog inputs, as well as USB 2.0 and SD card slots, making it ideal for diverse IT/OT integration scenarios.

Optimize Operations with IT/OT Integration

Leverage the DOM-550-GSO 5G IIoT Gateway to seamlessly integrate business operations with production processes, enabling enhanced decision-making, greater process automation, and increased productivity. Powered by high-speed 5G connectivity, it ensures rapid integration with remote sensors, devices, and machinery—delivering a significant competitive edge. With versatile interfaces including RS-232/485 and digital I/O, the DOM-550-GSO dynamically responds to input from IoT sensors, boosting automation and real-time responsiveness in industrial environments. This results in streamlined operations and improved efficiency, making it a vital asset for modernizing and optimizing industrial systems.

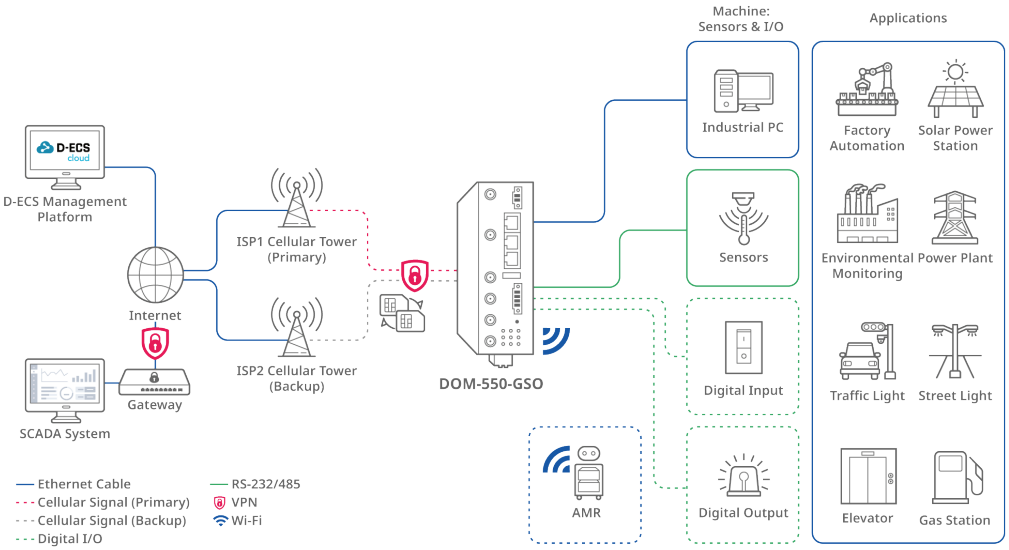
Advanced Event Management for Efficient IIoT Operations

The DOM-550-GSO 5G IIoT Gateway significantly streamlines event management by responsive event trigger capabilities. It is engineered to provide immediate notifications through SMS or email when IIoT sensor readings exceed pre-set thresholds, allowing the control center to monitor and control IIoT sensor status remotely via SMS. This feature enhances the efficiency of IIoT monitoring, automation, and timesensitive applications.

Revolutionize Industrial Automation Connectivity with 5G

The DOM-550-GSO 5G IIoT Gateway delivers high-speed, low-latency 5G connectivity for real-time automation, reducing errors and downtime while boosting efficiency. With multi-interface support and seamless Modbus protocol conversion, it enables easy integration between IT and OT systems, transforming industrial operations.

Connection Diagram



Specifications

Device Interface

- Cellular: 3GPP Rel. 16, 5G (sub-6 GHz), 4G (DL Cat 19/UL Cat 18)
- SIM Slot: 2 x SIM (Micro SIM) with auto failover
- Ethernet: 1 x GE WAN/LAN port, 2 x GE LAN ports
- Wi-Fi: Wi-Fi 5 AC1200 (2.4 GHz/5 GHz)
- Serial Ports:
  - 1 x RS-232 or RS-485 terminal block
  - 2 x DI (isolated, logic 0: 0-2 V, logic 1: 5-30 V)
  - 2 x DO (isolated, non-relayed output, 24 V/300 mA per port) terminal block
- Log Storage: Micro SD slot, USB 2.0 type A
- Power Input: DC 9-36 V terminal block
- Antenna Connectors: 4 x SMA (F) cellular, 2 x SMA (RP-F) Wi-Fi

Performance[1]

- Maximum Cellular Data Throughput:
  - 5G NSA: 3.4 Gbps (DL) / 550 Mbps (UL)
  - 5G SA: 2.4 Gbps (DL) / 900 Mbps (UL)
  - LTE: 1.6 Gbps (DL) / 200 Mbps (UL)
- Maximum Wi-Fi Data Rate:
  - 2.4 GHz: Up to 300 Mbps
  - 5 GHz: Up to 866 Mbps

WAN

- WAN Interface: Cellular, Ether-WAN
- Multi-WAN Function: Failover, load balance
- Cellular: NAT, bridge
- Ether-WAN: Dynamic IP, static IP, PPPoE
- Connection Monitoring: Ping/DNS query reboot

Network

- LAN & VLAN: DHCP server/relay, port/tag-based VLAN
- Routing: Static, dynamic RIPv1/v2, OSPF, BGP
- DDNS: DynDNS, No-IP, dynamic DO
- QoS: Traffic priority queuing by source/destination, service

Wi-Fi

- Function: Multi SSID, WIDS, AP router mode
- Security: WPA2-PSK, WPA2, WPA-PSK/WPA2-PSK, 802.1x
- Encryption: WEP, AES, TKIP/AES

Services

- Cellular Toolkit: Data usage, SMS, SIM PIN, network scan
- Event Management: SMS, e-mail, digital I/O

VPN

- VPN Tunnel: IPSec, OpenVPN, PPTP, L2TP, GRE, WireGuard
- VPN Pass Through: IPSec, PPTP, L2TP

Security

- Firewall: SPI firewall, IPS, port forward
- Access Control: MAC/IP filter, URL blocking

Administration

- Management: SNMPv1/2/3, D-Link D-ECS[2]
- Maintenance: Web UI, diagnostic tools via ping/tracert
- System: FW upgrade, backup and restore config, reboot and reset
- Logging: System log, external syslog server, Modbus data

Monitoring

- Device Status: CPU/memory usage, WAN status, client list
- Cellular Status: IMSI, ICCID, operator, band, RSSI, SINR, RSRP, RSRQ
- Security: VPN status, firewall status
- Statistics and Reports: Cellular signal, cellular usage

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: 62 x 125 x 160 mm

Certifications and Approvals

- Certifications: CE, UKCA

Package Contents (Standard)

- 4 x Cellular SMA Antennas
- 2 x Wi-Fi RP-SMA Antennas
- 1 x RJ-45 Cable
- 1 x Power Adapter
- 1 x Terminal Block (2-pin)
- 1 x Terminal Block (4-pin)
- 1 x Terminal Block (10-pin)
- 1 x DIN-Rail Kit

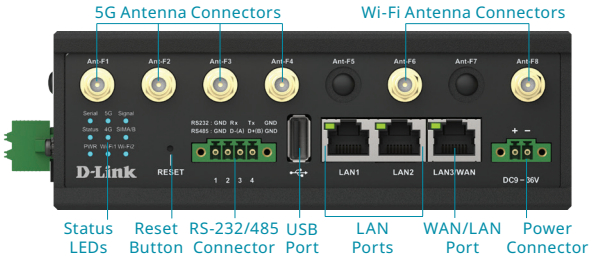
Available Versions

EU SKU (HW: A1)	
5G NR	n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n71/n75/n76/n77/n78
4G LTE	FDD: B1/B3/B5/B7/B8/B20/B28/B32/B71
	TDD: B38/B40/B41/B42/B43
Global SKU (HW: A2)	
5G NR	n1/n2/n3/n5/n7/n8/n12/n13/n14/n18/n20/n25/n26/n28/n29/ n30/n38/n40/n41/n48/n66/n70/n71/n75/n76/n77/n78/n79
4G LTE	FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B17/B18/B19/B20/ B25/B26/B28/B29/B30/B32/B66/B71
	TDD: B34/B38/B39/B40/B41/B42/B43/B46(LAA)/B48

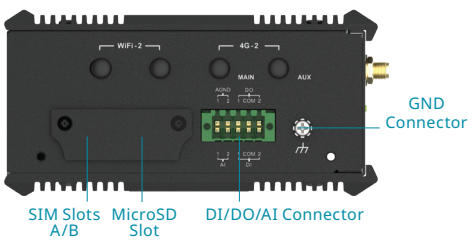
1 Data rates are theoretical. Data transfer rate depends on network capacity and signal strength.
2 You only have to pay a M2M device license fee required when applying for D-ECS license.

Hardware

Front View



Side View



HQ | No. 289, Xinhu 3rd Road, Neihu District, Taipei 11494

A1/A2 v1.20 WW