D-Link®

DOM-550-GSO
5G IIoT Gateway

Key Features

5G
SA & NSA

Dual-SIM
Failover

Modbus
TCP/RTU/ASCII

Wi-Fi
AC 1200

Industrial
Grade Design

IT/OT
Integration

Applications
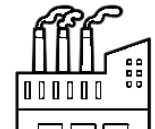
- Factory Automation
- Solar Power Station
- Environment Monitoring
- Power Plant
- Traffic Light
- Street Light
- Elevator
- Gas Station

D-Link's DOM-550-GSO 5G IIoT Gateway provides 5G-NR and 4G-LTE dual-mode connectivity, achieving download speeds of up to 3.4 Gbps. It is equipped with three Gigabit Ethernet ports, one of which can be configured as an Ethernet WAN. This allows easy switching between broadband and 4G/5G. Additionally, it features Wi-Fi 5 AC1200 connectivity, making it suitable for a wide range of IIoT applications. The device also includes versatile IO options: 1x RS232/485 port, 2x digital inputs, 2x digital outputs, and 2x analog inputs, as well as USB 2.0 and SD-Card slots for expanded functionality , making it suitable for a wide range of IT/OT applications.

Optimize Operations with IT/OT Integration

Leverage the DOM-550-GSO 5G IIoT Gateway to merge business operations with production processes, offering benefits like enhanced decision-making, improved process automation, and increased output. It harnesses powerful 5G connectivity for swift integration with remote sensors, devices, and machinery, providing substantial competitive advantages.

Featuring versatile interface compatibility, including RS-232/485 and Digital I/O, the DOM-550-GSO responds dynamically when IoT sensors meet specified criteria, enhancing automation and responsiveness in industrial settings. This boosts operational efficiency and streamlines complex industrial tasks, making it an essential tool for modernizing and optimizing industrial operations.

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 time-sensitive applications.

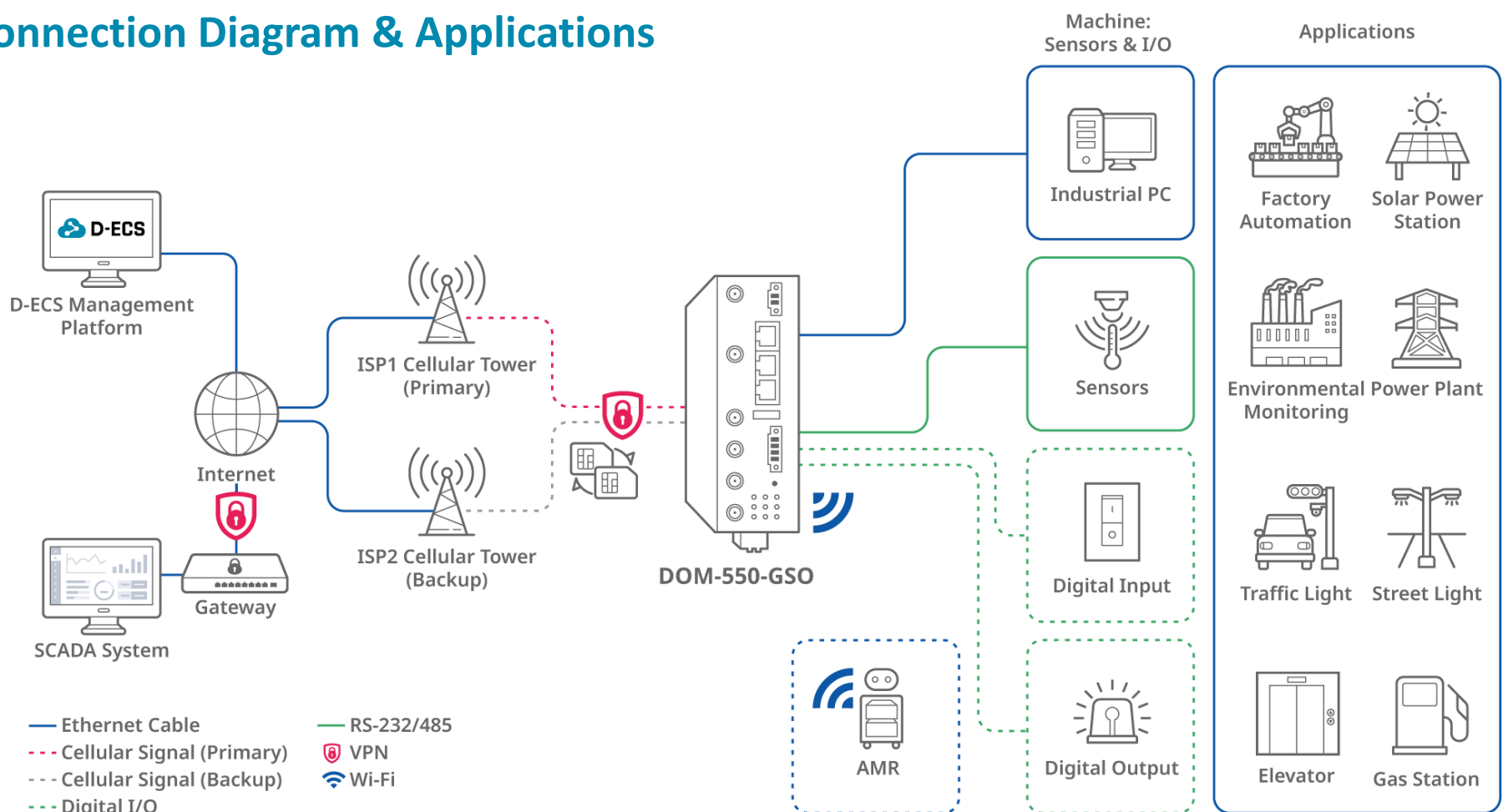## Revolutionize Connectivity for Industrial Automation with 5G Technology

Harness the transformative power of the DOM-550-GSO 5G IIoT Gateway to redefine business operations and reshape industries. This gateway offers revolutionary connectivity with high-speed, real-time data exchange across all connected devices, utilizing 5G's low latency to ensure responsive, reliable automation processes that minimize errors and downtime, and maximize production efficiency.

With its multi-interface compatibility, including RS-232/485 and digital I/O (DI/DO), the DOM-550-GSO drives advanced 5G technology deep into operational technology (OT) networks. It seamlessly converts data between Modbus RTU/ASCII and TCP protocols, facilitating easy configuration, troubleshooting, and network integration.

Connection Diagram & Applications

Machine:
Sensors & I/O

Applications

D-ECS Management Platform

Internet

ISP1 Cellular Tower (Primary)

ISP2 Cellular Tower (Backup)

DOM-550-GSO

Gateway

SCADA System

Industrial PC

Sensors

Digital Input

AMR

Digital Output

Factory Automation

Solar Power Station

Environmental Monitoring

Power Plant

Traffic Light

Street Light

Elevator

Gas Station

— Ethernet Cable
--- Cellular Signal (Primary)
--- Cellular Signal (Backup)
--- Digital I/O
— RS-232/485
🔒 VPN
📶 Wi-Fi

Specifications

Device Interface
- Cellular Module: 5G/4G 3GPP Rel. 16
- Cellular Standards: 5G NR(Sub-6GHz), 4G LTE(DL Cat.19/UL Cat.18)
- SIM Slot: 2*SIM(Micro SIM)
- Ethernet: 1*WAN/LAN GE, 2*LAN GE
- Wi-Fi: WiFi5 AC1200(2.4G/5GHz)
- Serial Port: 1* (RS-232 or RS-485)(TB)
- Digital I/O:
  2*DI(Isolated, "Logic 0": 0~2V, "Logic 1": 5V~30V),
  2*DO(Isolated, Non-Relayed Output, 24V/300mA for each port) (TB)
  2*AI (0~10V, 12bit ADC, sampling rate up to 125KHz)
- Micro SD Slot: 1*Micro SD for log.
- USB Port: 1* USB 2.0 Type A port for log.
- Power Input: DC 9-36V (TB)
- Antenna Connector: 4*SMA(F)-Cellular, 2*SMA(RP-F)-WiFi,

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)

WAN
- Multi-WAN: Cellular, Ether-WAN, Failover, Load Balance
- Cellular: NAT, Bridge
- Ether-WAN: Dynamic IP, Static IP, PPPoE
- Network Monitor: ICMP Check/DNS Query

Network
- LAN & VLAN: DHCP Server/Relay, Port/Tag based VLAN
- Port Forward: NAT Loopback, DMZ, Virtual Server & Computer, VPN Pass-through
- Routing: Static, Dynamic RIPv1/v2, OSPF, BGP
- DDNS: DynDNS, No-IP, Dynamic DO
- QoS: Rule for Service (DSCP, TOS, Well-known Service)
- IGMP, IPv4/v6

Wi-Fi
- Standard: IEEE 802.11 ac/n/g/b/a
- Modes: AP Router
- Function: Multi SSID, Auto Channel Selection, Station Isolation
- Security: WPA/WAP2, WPA2, WPA2-PSK(AES), WPA-PSK/WPA2-PSK(AES, TKIP/AES), 802.1x
- Advanced Function: WIDS, Wi-Fi 5G Band Steering
- 2.4GHz Data Rate: 300 Mbps
- 5GHz Data Rate: 866 Mbps

Service
- Cellular Toolkit: Data usage, SMS, SIM PIN, Network Scan
- Event Handling: Event Management, Notifying Events

External Server
Ext. Server: Email, Syslog Server

VPN
- VPN Tunnel: IPSec, OpenVPN, PPTP,L2TP,GRE, WireGuard
- IPsec Scenario: Site/Host to Site/host; Dynamic VPN

Security
- Firewall: SPI Firewall with Stealth Mode, IPS, Block WAN Ping
- Access Control: Packet Filter, MAC Control, URL Blocking

Administration
- Configuration: Web UI, CLI, Command Script
- Management: SNMPv1/2/3, D-Link D-ECS[2]
- System: FW Upgrade, Backup & Restore Config, Reboot & Reset, System Log, NTP Service
- FTP: FTP, SFTP
- Diagnostic: Diagnostic Tools, Packet Analyzer

Field Communication
- Virtual COM: TCP Client, TCP Server, UDP
- Modbus: Modbus TCP/RTU/ASCII Master/Slave Access;
- Data Logging: Modbus Proxy Rule, Scheme Configuration for Sniffer/Off-Line Proxy/Full-Time Proxy/Sniffer&Off-Line Proxy/Sniffer&Full-Time Proxy.

Status
- Dashboard: System Information
- Network Status: Connection information, Cellular Signal Quality
- Cellular Mobile: WAN & LAN Interface Network Status, Cellular Modem Status
- Security: VPN Status, Firewall Status
- Statistics&Reports: Connection Session, Login Statistics, Cellular Usage, Cellular Signal

Environment
- OP/Store Temp.:
  Operating Temperature -30 to 70 °C (-22 °F to 158 °F)
  Storage Temperature -40 to 85 °C (-40 °F to 185 °F)
- Humidity:
  Operating Humidity 10% to 95% non-condensing
  Storage Humidity 0 to 95% non-condensing
- Dimensions: 62 x 125 x 160 mm

Standard Package
- 4* Cellular SMA Antennas
- 2* Wi-Fi RP-SMA Antennas
- 1* RJ-45 Cable
- 1* Power Adapter
- 1* Terminal Block (2-pin)
- 1* Terminal Block (4-pin)
- 1* Terminal Block (10-pin)
- 1* DIN-Rail kit

Available Versions

SKU List[3]

EU SKU (HW: A1):	Global/US SKU (HW: A2):
5G NR: n1/n3/n5/n7/n8/n20/n28/n38/n40/n41/n71/n75/n76/n77/n78	**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/B3/B5/B7/B8/B20/B28/B32/B71 TDD: B38/B40/B41/B42/B43	**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

Certifications & Approvals

Certification
- CE
- UKCA

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[1] Data rates are theoretical. Data transfer rate depends on network capacity and signal strength.
[2] D-ECS License fees will apply.
[3] Supported frequency band is dependent upon hardware SKU.

5G NR Antenna / Wi-Fi Antenna
LED Indicators | Reset Button | RS-232/485 Connectors | USB Port | LAN Port | LAN/WAN Port | Power Connectors

WiFi-2 | 4G-2 | MAIN | AUX
SIM-A Slot / SIM-B Slot
MicroSD Slot | DI/DO/AI Connector

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