D-Link

DTM-570-GS

5G Transit Gateway

Key Features

- 5G SA & NSA
- Wi-Fi 6 AX 1800
- Rugged M12 Connectors
- Rail-Related Certification
- GPS Location
- Wide Voltage Input Range

Applications

- Passenger Wi-Fi hotspot (bus, rolling stock/ high-speed rail, tram)
- In-vehicle network for RS-232 and Wi-Fi devices
- GPS location for fleet management

The DTM-570-GS 5G Transit Gateway provides robust 5G NR and LTE cellular connectivity for wireless uplink and downlink, featuring four Gigabit Ethernet M12/X-coded ports to connect local devices. This solution seamlessly integrates service providers, passengers, vehicles, and ground systems into a unified network. With high-speed, high-capacity Wi-Fi 6 AX1800 wireless connectivity, it facilitates real-time travel data exchange. By integrating advanced networking technologies, the DTM-570-GS helps create a smarter, more convenient, and efficient transportation service. Built on the principles of personal mobility and freedom, it enhances passenger flow and effectively reduces traffic congestion.

Enhanced Onboard Telematics and Infotainment

The DTM-570-GS empowers rail transport with advanced connectivity, linking onboard RS-232 and Ethernet devices to the Internet via a robust 5G network. This setup not only facilitates realtime monitoring for passenger safety through surveillance systems but also ensures seamless operation of railway onboard systems. Additionally, it delivers precise station arrival notifications on the digital signage, enhancing the rail passenger experience.

Optimize Railway Operations with Location-Based Services

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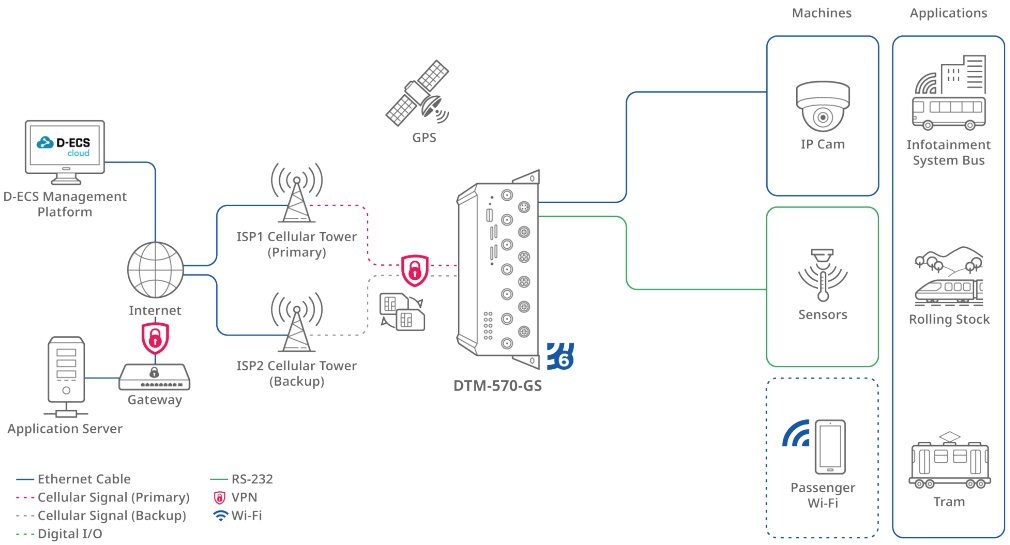
Robust Design for Rail Applications

The DTM-570-GS is engineered to withstand the rigors of rolling stock environments, meeting mandatory requirements of EN45545, EN50155, and EN50121-3-2 rail-related standards. Its robust design includes industrial-rated M12 connectors, a corrosion-resistant zinc-plated steel casing, and wide voltage input range. This ensures reliable and stable M2M connectivity, even under extreme conditions of movement, temperature, and humidity, making it ideal for demanding rail applications where reliable performance is critical.

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 (Mini SIM) with auto failover
- Ethernet: 1 x GE (M12, X-coded) WAN/LAN port, 3 x GE LAN ports
- Wi-Fi: Wi-Fi 6 AX1800 (2.4 GHz/5 GHz)
- GNSS: GPS/GLONASS
- Serial Port: 1 x RS-232 (M12, A-coded)
- Log Storage: 1 x USB port
- Power Input: DC 18-75 V (M12, A-coded) or via PoE (Eth4, X-coded)
- Antenna Connectors: 4 x TNC cellular, 2 x TNC Wi-Fi, 1 x TNC GPS

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 574 Mbps
  - 5 GHz: Up to 1201 Mbps

WAN

- WAN Interface: Cellular, Ether-WAN, Wi-Fi
- Multi-WAN Function: Failover
- 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, station
- Security: WPA2-PSK, WPA2, WPA-PSK/WPA2-PSK, WPA3-SAE, WPA2-PSK/WPA3-SAE, WPA3, 802.1x
- Encryption: WEP, AES, TKIP/AES

Services

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

VPN

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

Security

- Firewall: SPI firewall, IPS, port forward, ALG
- 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

Monitoring

- Device Status: CPU/memory usage, connection sessions, WAN status, client list
- Cellular Status: IMSI, ICCID, operator, connection state, connected band, RSSI, SINR, RSRP, RSRQ, LAC, TAC, cell ID, MCC, and MNC
- Security: VPN status, firewall status
- Statistics and Reports: Cellular signal, cellular usage

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: 207.4 x 135 x 86 mm

Certifications and Approvals

- Certifications: CE, UKCA, EN50155, EN45545, EN50121-3-2

Package Contents (Optional)

- 4 x Cellular SMA Antennas (optional)
- 2 x Wi-Fi Antennas with Converter (optional)
- 1 x RJ-45/M12 Cable (optional)
- 1 x RS232 Cable (optional)
- 2 x Wallmount Brackets (optional)

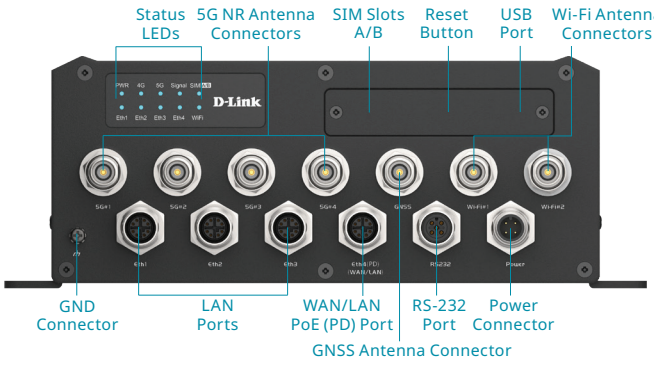
Available Versions

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

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 when applying for D-ECS license.

Hardware

Front View



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