



DTM-570-GS 5G Transit Gateway

Key Features



5G
SA & NSA



Wi-Fi 6
AX 1800



Rugged M12
Connectors



Rail Related
Certified



GPS
Location



Wide Voltage
Input Range

D-Link's 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 5G Transit Gateway empowers rail transport with advanced connectivity, linking onboard RS232 and Ethernet devices to the Internet via a robust 5G network. This setup not only facilitates real-time 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

The DTM-570-GS enhances railway operations with precise GPS location positioning, enabling effective real-time asset utilization. This gateway supports operators by offering detailed insights into the location and mileage of trains, facilitating optimal routing services that assure punctuality and enhance efficiency through timely service.

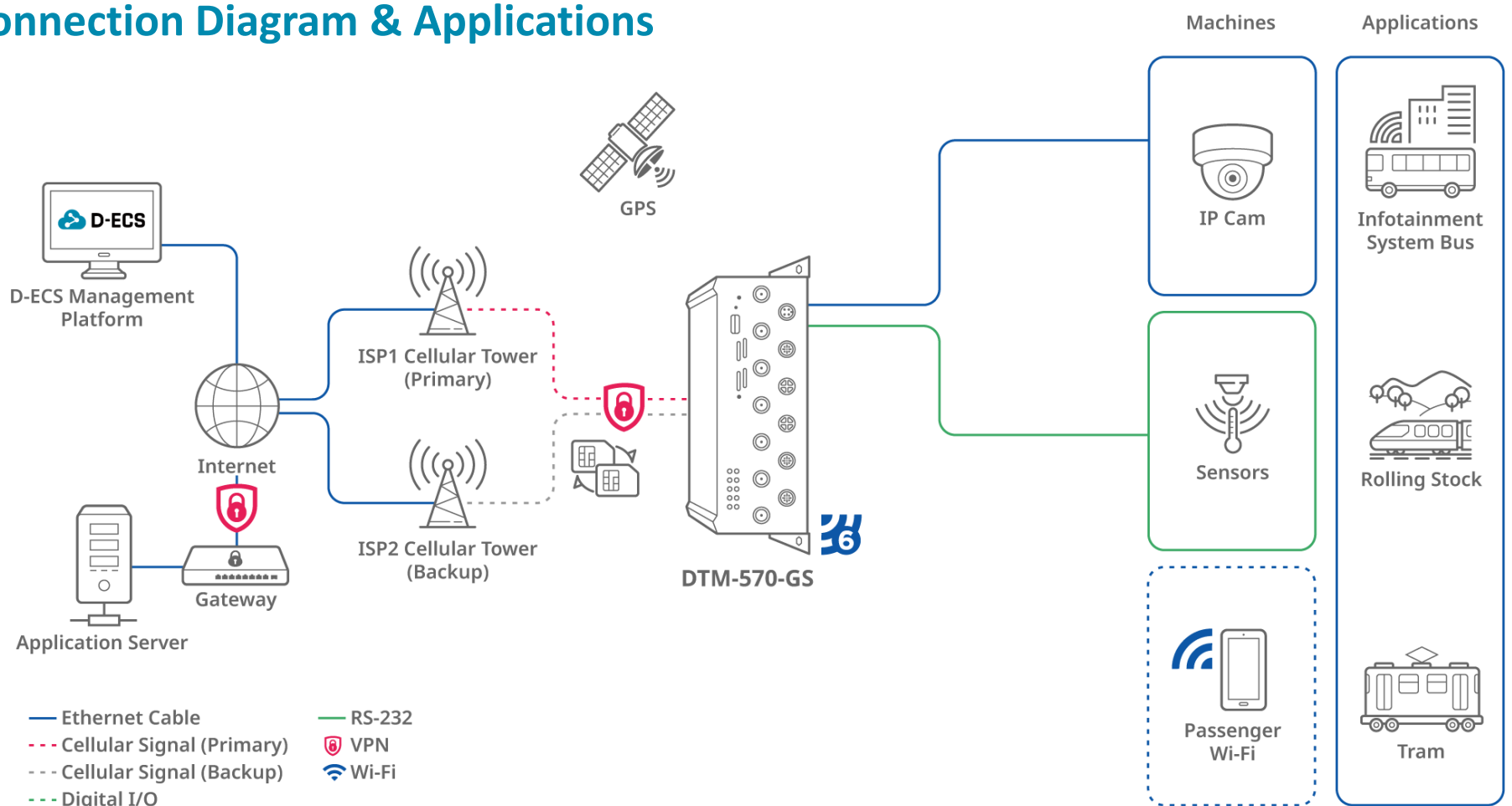
Applications

- 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

Robust Design for Rail Application

The DTM-570-GS 5G Transit Gateway 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 & Applications



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(Mini SIM)
- Ethernet: 1*WAN/LAN GE(M12)(X-Coded), 3*LAN GE(M12)(X-Coded)
- RS-232: 1 x RS-232(M12)(A-coded)
- USB Port: 1 x USB port for log.
- WiFi: WiFi6 AX1800(2.4G/5GHz)
- GNSS: GPS/GLONASS
- Power Input: DC 18-75V (M12)(A-Coded), or through PoE (Eth4) (X-coded)
- Antenna Connector: 4*TNC-Cellular, 2*TNC-WiFi, 1*TNC-GPS

Performance¹

- 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
- 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, Special AP&ALG, 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 ax/ac/n/g/b/a/h
- Modes: AP Router
- Function: Multi SSID, Auto Channel Selection, Station Isolation
- Security: WPA2-PSK (AES), WPA2, WPA-PSK/WPA2-PSK(AES,TKIP/AES), WPA/WPA2, WPA3-SAE(AES), WPA2-PSK/WPA3-SAE(AES), WPA3-Enterprise, 802.1x
- Advanced Function: WIDS, Wi-Fi 5G Band Steering
- 2.4GHz Data Rate: 574 Mbps
- 5GHz Data Rate: 1201 Mbps

Service

- Cellular Toolkit: Data usage, SMS, SIM PIN, Network Scan
- Device Location: GPS or GPS+ GLONASS

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, URL Blocking, MAC Control

Administration

- Configuration: Web UI, CLI, Command Script
- Management: SNMPv1/2/3, D-Link D-ECS², RESTful API
- System: FW Upgrade, Backup & Restore Config, Reboot & Reset, System Log, NTP Service
- FTP: FTP, SFTP
- Diagnostic: Diagnostic Tools, Ethernet Port Setup

Status

- 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: 207.4 x 135 x 86 mm

Optional Package

- 4* Cellular Antennas
- 2* Wi-Fi Antennas
- 1* GPS Antennas
- 5* Cellular/GPS Convertor: TNC to SMA
- 2* Wi-Fi Convertor: TNC to RP-SMA
- 4* RJ-45 Cable: M12(X-Coded) to RJ-45
- 1* RS-232 Cable: M12 (A-coded, 5-pin) to RS-232
- 1* Power Connector: M12(A-coded, 4-pin)
- 1* Power Adapter: 54V

Available Versions

SKU List³

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/US 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

Certifications & Approvals

Certification

- CE
- UKCA

Approval

- Rail Related Certification:
EN45545, EN50155, EN50121-3-2

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.

