D-Link®

DTM-550-G
5G Transit Gateway

The D-Link DTM-550-G 5G Transit Gateway offers seamless 5G NR and LTE connectivity for wireless uplink and downlink. It features a 5G/4G cellular module with dual SIM slots, four Gigabit Ethernet ports, and Wi-Fi 6 AX1800 technology for high-capacity connections. It enables real-time data exchange for passengers and vehicles, enhancing travel experiences. Connects service providers, passengers, vehicles, and ground systems into a unified network, improving communication and efficiency. Its rugged design complies with EN50155 standards, ensuring reliable performance in tough environments. With support for various protocols and advanced security features, the DTM-550-G is a versatile solution for modern transportation applications.

Key Features

5G
SA & NSA

Wi-Fi 6
AX 1800

Dual-SIM
Failover

EN50155/
E-Mark

GPS
Location
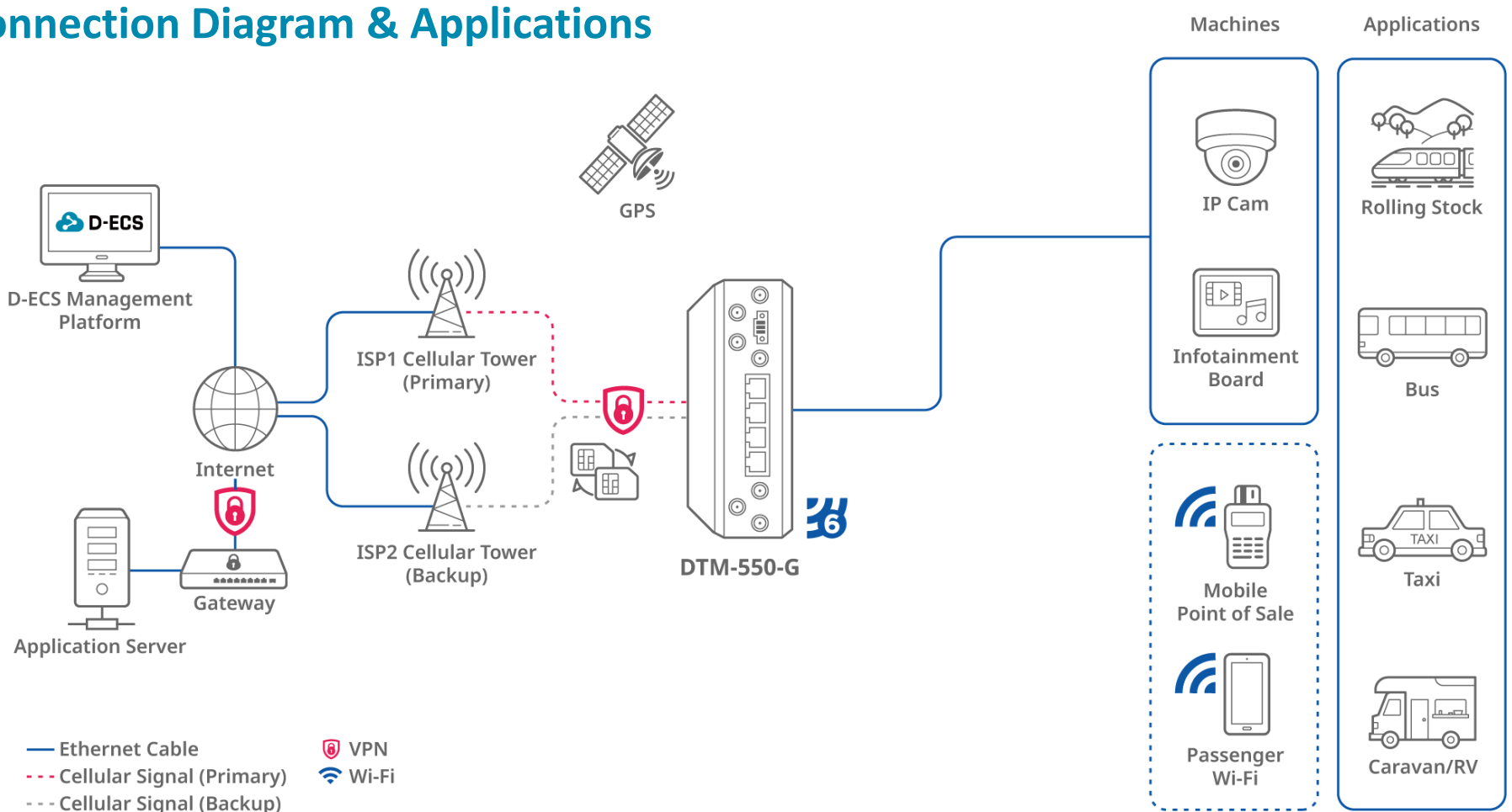
Wide Voltage
Input Range

Applications

- In-Vehicle Passenger Wi-Fi Hotspot (Rolling Stock/High Speed Rail,, Bus, Caravan, Taxi)
- In-Vehicle Combo WAN (5G NR and Wi-Fi Uplink Service)
- GPS location for fleet management

Enhanced Passenger Wi-Fi and Real-Time Telematics

The DTM-550-G 5G Transit Gateway transforms public transport experiences by providing high-speed in-vehicle Wi-Fi and real-time content updates. Passengers can enjoy seamless internet access and receive instant updates on weather and advertisements directly on digital signage, enhancing satisfaction in intelligent public transportation.

Optimize Vehicle Operation with Location-Based Services

The DTM-550-G equips fleet vehicles with precise GPS location positioning, integrating seamlessly into customer's fleet management for real-time vehicle tracking, and optimizing route planning. This enhances operational visibility and efficiency and supports improved decision-making.

Robust Design with Vibration/Shock Resistance

Certified with EN50155 and E-Mark, the DTM-550-G design withstands vibrations, shocks, and extreme temperatures, ensuring data transmission stability even in moving vehicles. Ideal for demanding M2M applications in public transportation, it meets rigorous safety and regulatory standards for seamless automotive integration.

Connection Diagram & Applications

Machines   Applications

D-ECS

D-ECS Management Platform

GPS

ISP1 Cellular Tower (Primary)

Internet

Gateway

Application Server

ISP2 Cellular Tower (Backup)

DTM-550-G

IP Cam

Rolling Stock

Infotainment Board

Bus

Mobile Point of Sale

Taxi

Passenger Wi-Fi

Caravan/RV

— Ethernet Cable
--- Cellular Signal (Primary)
--- Cellular Signal (Backup)
🔒 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(Nano SIM)
- Ethernet: 1*WAN/LAN GE, 3*LAN GE
- WiFi: WiFi6 AX1800(2.4G/5GHz)
- GNSS: GPS/GLONASS
- Ignition Sense: 1*IGN (Ignition Sense)
- Power Input: DC 12-36V TB
- Antenna Connector: 4*SMA(F)-Cellular, 2*SMA(RP-F)-WiFi, 1*SMA(F)-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)

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, 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
- Event Handling: Event Management, Notifying Events
- Device Location: GPS or GPS+ GLONASS
- Power Control: Ignition Sense

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-ECS[2], 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: 160 x 125 x 47mm

Standard Package
- 4* Cellular SMA Antennas
- 2* Wi-Fi RP-SMA Antennas
- 1* RJ-45 Cable
- 1* Terminal Block(3-pin)
- 2* Wall-Mount Brackets

Available Versions

SKU List[3]	
EU SKU (HW: A1):	**Global/US SKU (HW: A2):**

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
- EN50155
- E-Mark

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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.

GPS Antenna — WAN/LAN Port — LAN Ports — Wi-Fi Antenna — 5G NR Antenna — PWR/GND/IGN Connector

LED Indicators — SIM A — SIM B — Reset Button