D-Link®

DTM-550-TSO
4G Transit Gateway

D-Link's DTM-550-TSO offers LTE Cat 4 speeds up to 150 Mbps for downlink and includes three Gigabit Ethernet ports, with one configurable as Ethernet WAN, and Wi-Fi 5 AC1200 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-TSO is a versatile solution for modern transportation applications.

Key Features

IoT Telemetry

Wi-Fi 5 AC1200

Dual-SIM Failover

EN50155/ E-Mark

GPS Location

Wide Voltage Input Range

Applications

- Reliable Mission Critical Connection (Police car, Cash Truck, Fire Engine, Ambulance)
- Passenger Wi-Fi Hotspot (Bus, High Speed Rail)
- GPS location for fleet management
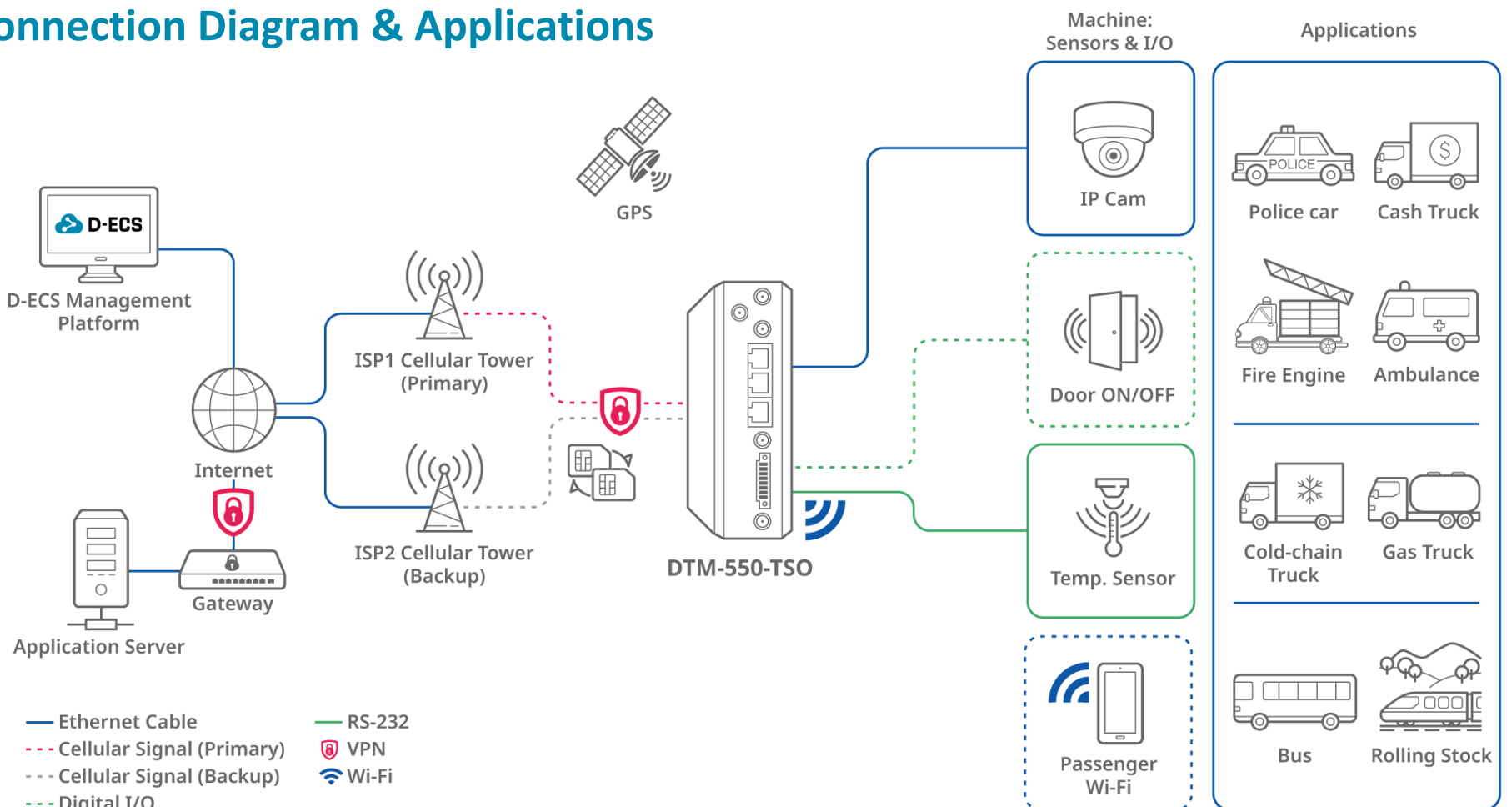- In-Vehicle Network for RS-232 and Digital IO

Real-Time Telematics for Transportation Communications

The DTM-550-TSO 4G Transit Gateway offers comprehensive network services by integrating on-board Wi-Fi, RS-232, and in-vehicle digital I/O equipment, enabling seamless internet access and Wi-Fi connectivity. Optimized for challenging environments like cold-chain and gas trucks, and Mission-Critical applications, this high-speed gateway ensures continuous, smooth wireless connections and supports real-time telematics to enhance fleet management, simplify predictive maintenance and prevent costly downtimes, ensuring reliable and efficient vehicle operations.

Optimize Fleet Operation with Location-Based Services

The DTM-550-TSO 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 feature boosts operational visibility and efficiency, supports improved decision-making.

Robust Design with Vibration/Shock Resistance

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

Connection Diagram & Applications

Machine: Sensors & I/O

Applications

- IP Cam
- Door ON/OFF
- Temp. Sensor
- Passenger Wi-Fi

- Police car
- Cash Truck
- Fire Engine
- Ambulance
- Cold-chain Truck
- Gas Truck
- Bus
- Rolling Stock

- D-ECS Management Platform
- Internet
- Application Server
- Gateway
- ISP1 Cellular Tower (Primary)
- ISP2 Cellular Tower (Backup)
- GPS
- DTM-550-TSO

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

Specification

Device Interface

- Cellular Module: 4G LTE-Cat.4
- SIM Slot: 2*SIM(Mini SIM)
- Ethernet: 1*WAN/LAN GE, 2*LAN GE
- WiFi: WiFi5 AC1200(2.4G/5GHz)
- GNSS: GPS/GLONASS
- Serial Port: 1* (RS-232)(TB)
- Digital I/O:
  2* DI ("Logic 0": 0~1V, "Logic 1": 5V~30V)
  1* DO (Relay Mode, maximum voltage :36V) (TB)
- Ignition Sense: 1*IGN (Ignition Sense)
- USB Port: 1* USB 2.0 Type A port for log.
- Power Input: DC 9-36V (TB)
- Antenna Connector: 2*SMA(F)-Cellular, 2*SMA(RP-F)-WiFi, 1*SMA(F)-GPS

Performance[1]

- Maximum Cellular Data Throughput:
  LTE: 150 Mbps (DL) / 50 Mbps (UL)

WAN

- Multi-WAN: Cellular, Ether-WAN, Failover, Load Balance
- Cellular: NAT, Bridge
- Ether-WAN: Dynamic IP, Static IP, PPPoE, PPTP, L2TP
- 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 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

External Server

Ext. Server: Email, Syslog, RADIUS, UAM, TACACS+, FTP Server

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
- 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, Content Filter, MAC Control
- Authentication: Captive Portal

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: RFC2217, TCP Client, TCP Server, UDP

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
- Administration: GNSS Status, Storage Information, SNMP Linking Status

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 47 mm

Standard Package

- 2* Cellular SMA Antennas
- 2* Wi-Fi RP-SMA Antennas
- 1* RJ-45 Cable
- 1* Terminal Block (8-pin)
- 2* Wall-Mount Brackets

Available Versions

SKU List[3]

EU SKU (HW: A1): 4G LTE

- LTE-FDD: B1/B3/B7/B8/B20/B28A
- LTE-TDD: B38/B40/B41

US SKU (HW: A2): 4G LTE

- LTE: B2/B4/B5/B12/B13/B14/B66

Certifications & Approvals

Certification

- CE
- UKCA
- RCM

Approval

- EN50155
- E-Mark

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.

LED Indicators   USB Port   SIM A   SIM B

4G LTE Antenna (Main)   PWR/GND/IGN /DI/DO/Tx/Rx Connector   WAN/LAN Port   LAN Ports   4G LTE Antenna (AUX)   Wi-Fi Antenna   Wi-Fi Antenna   GPS Antenna

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