

M2M-Produkte im Unternehmensumfeld – in Zukunft effizient vernetzt

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Agenda

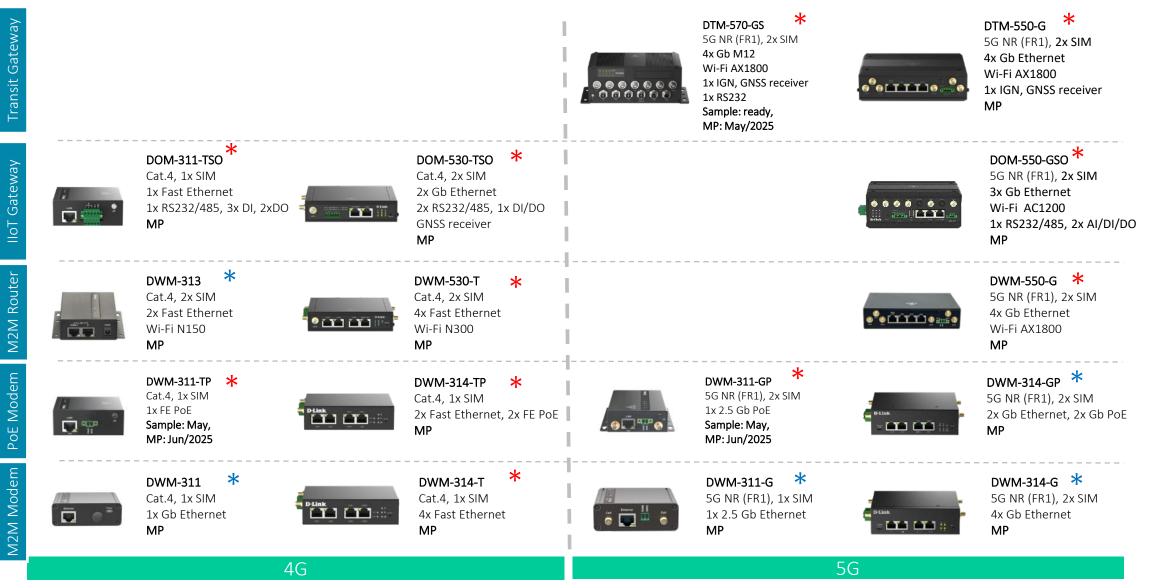
- 4G/5G M2M Solutions
- Introduction
- Available Products for
 - WAN Extension
 - Remote Access
- Project Based Products for
 - Industrial IoT
 - In-Vehicle

4G/5G M2M Solutions - Introduction - WAN Extension - Remote Access - Industrial IoT - In-Vehicle

Enabling Wireless M2M/IoT Connectivity



4G/5G M2M Product Roadmap



Key Benefits that D-Link Can Provide



Zero downtime with multi-SIM design



WAN Connectivity

4G/5G and Ethernet dual-WAN for load balance or failover purpose



Zinc-plated steel casing for extra protection



Network management platform for massive IoT implementation



Integrated VPN Client and Server support for secure connectivity





Integration

Make traditional serialbased fieldbus wirelessly



Central location tracking management 4G/5G M2M Solutions - Introduction - WAN Extension - 4G/5G WAN Access - Backup/Failover - Remote Access - Industrial IoT - In-Vehicle Comm.

Available NOW

D-Link 4G/5G M2M Product Portfolio

4G/5G Data Connectivity





DWM Series

Enable 4G/5G WAN for Data Access

•For Ethernet, Wi-Fi based devices •Router, PoE, WLAN based IP network •SMB, Shops, Industrial network •Fixed-line broadband unreachable area

•IT-Infrastructure •Distributed Enterprise •Public WiFi Access Public Surveillance •Business & Industry device







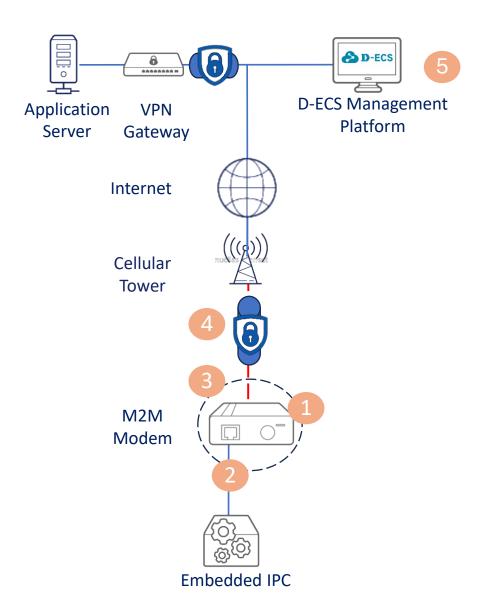




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Smart Business: DWM Series

4G/5G WAN Access - Scenario & Benefits



Plug & Play Quick setup of M2M modem

Ethernet Connectivity Support up to 2.5G Ethernet connectivity for machine or embedded IPC.

Cellular connectivity Provide 4G/5G connection connectivity that embedded IPC can enable WAN Access.

VPN Client

5

Ethernet Cable **Cellular Signal**

Wi-Fi

VPN

Integrated secure connection using OpenVPN protocol.

Centralized Remote Management

Enable centralized remote management via D-ECS platform, simplifying network operations and maintenance.

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4G/5G WAN Access - Target Markets



Smart Bus Stop

Remote access for real-time bus info and ad updates, enhancing commuter experience.



Kiosk

Remote Access of Interactive and device status for improved security and efficiency.



Vending Machine

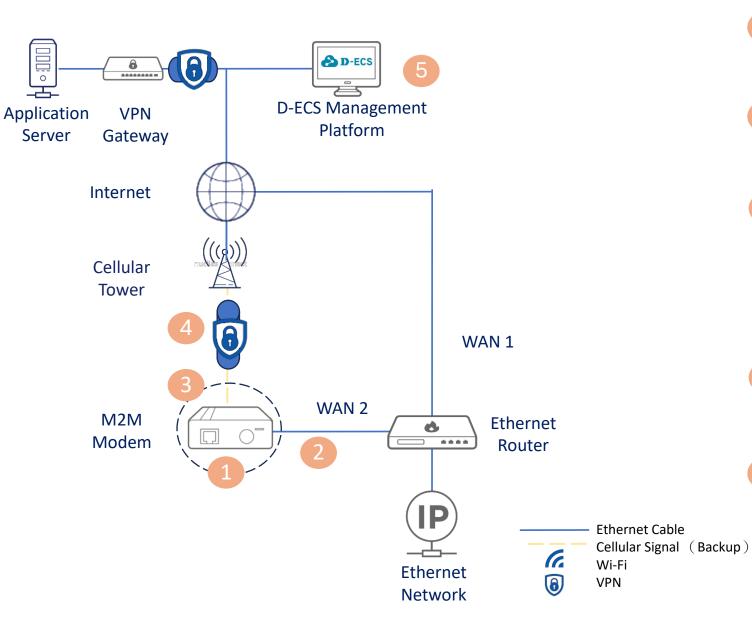
Remote inventory and sales data management for cashless payment , also optimized restocking and offerings



EV Charger

Remote management of charging status and usage for efficient network operation.

Backup/Failover - Scenario & Benefits



Plug & Play Quick setup of M2M modem

Ethernet Connectivity Supports Ethernet network infrastructure

Cellular Backup connectivity When primary Ethernet connection fails, ensuring continuous connectivity. Managed by Ethernet router to activate cellular modem only when needed,

VPN Client

Integrated secure connection using OpenVPN protocol.

Centralized Remote Management

Enable centralized remote management via D-ECS platform, simplifying network operations and maintenance.

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Backup/Failover - Target Markets



Remote Branch

Ensures uninterrupted operations with 4G/5G backup connectivity, safeguarding against primary network failures in remote offices.



ATM

Provides reliable banking services with 4G/5G backup connectivity, ensuring continuous access to financial transactions even during network outages.



Store & Shop

Guarantees continuous transactions with automatic 4G/5G failover, maintaining critical retail operations during network disruptions.



Gas Station

Maintains uninterrupted fuel dispensing and payment operations with 4G/5G failover, securing critical services during primary network failures.

4G/5G WAN Access - Recommended Products



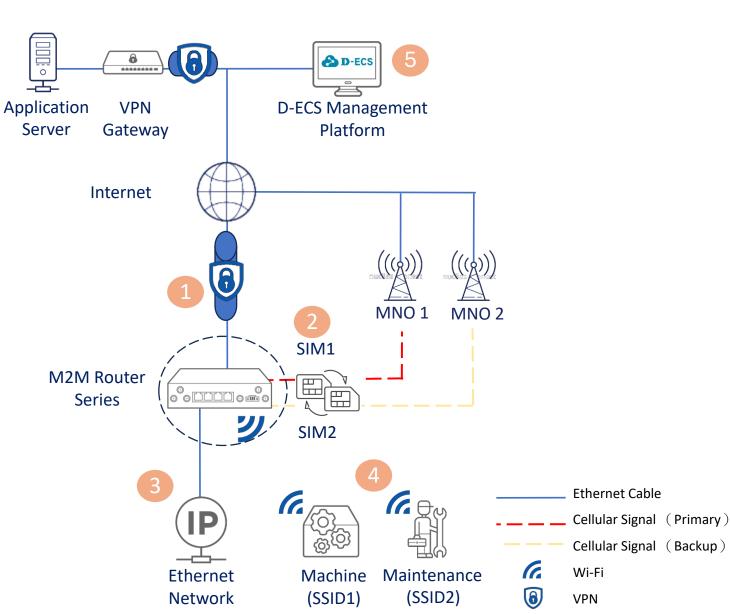
D-Link

	DWM-311	DWM-311-G	DWM-314-G
Model	Ethernet Power	Call Ethernet Cell	
WAN	4G LTE Cat.4 1x SIM	4Ĝ 5Ĝ 5G NR (FR1) 1x SIM	4 G 5G NR (FR1) 2x SIM
Local	1x GE	1x 2.5 GE	4x GE
Key Feature	 WAN Status Monitor Plug & Play Bridge / NAT Mode VPN Tunnel for Security Industrial Grade Design D-ECS Management Platform 	 5G SA & NSA 2.5Gbps LAN Bridge / NAT Mode VPN Tunnel for Security Industrial Grade Design D-ECS Management Platform 	 5G SA & NSA Dual-SIM for Zero Downtime Multi-Port for multi-device VPN Tunnel for Security Industrial Grade Design D-ECS Management Platform
RRP w. Tax	• 155,-€	• 459,-€	• 494,-€
	Cost Effectivity —	High Performance	— High Performance —

4G/5G M2M Solutions - Introduction - WAN Extension - Remote Access - Remote Data Acquisition - PoE Access - Industrial IoT - In-Vehicle Comm.

Available NOW

Remote Data Acquisition - Scenario & Benefits



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VPN Defend Your Network

Establish a protected VPN tunnel for reliable and encrypted data transmission from remote acquisition points to central servers.

Dual-SIM for Zero Downtime

Dual SIM technology offers redundant connection assurance with automated network switching, ensuring uninterrupted connectivity while enabling cost-effective data management across multiple carriers.

Ethernet Connectivity

Provide reliable wired network access for stable and high-speed data transmission.

Multi SSID Network Segregation

Implement separate SSIDs for machines and maintenance, ensuring secure device communication and controlled access for servicing.

Centralized Remote Management

Enable centralized remote management via D-ECS platform, simplifying network operations and maintenance.

Remote Data Acquisition - Target Markets



Smart Bus Stop

Remote access for real-time bus info and ad updates, enhancing commuter experience.



Kiosk

Remote Access of Interactive and device status for improved security and efficiency.



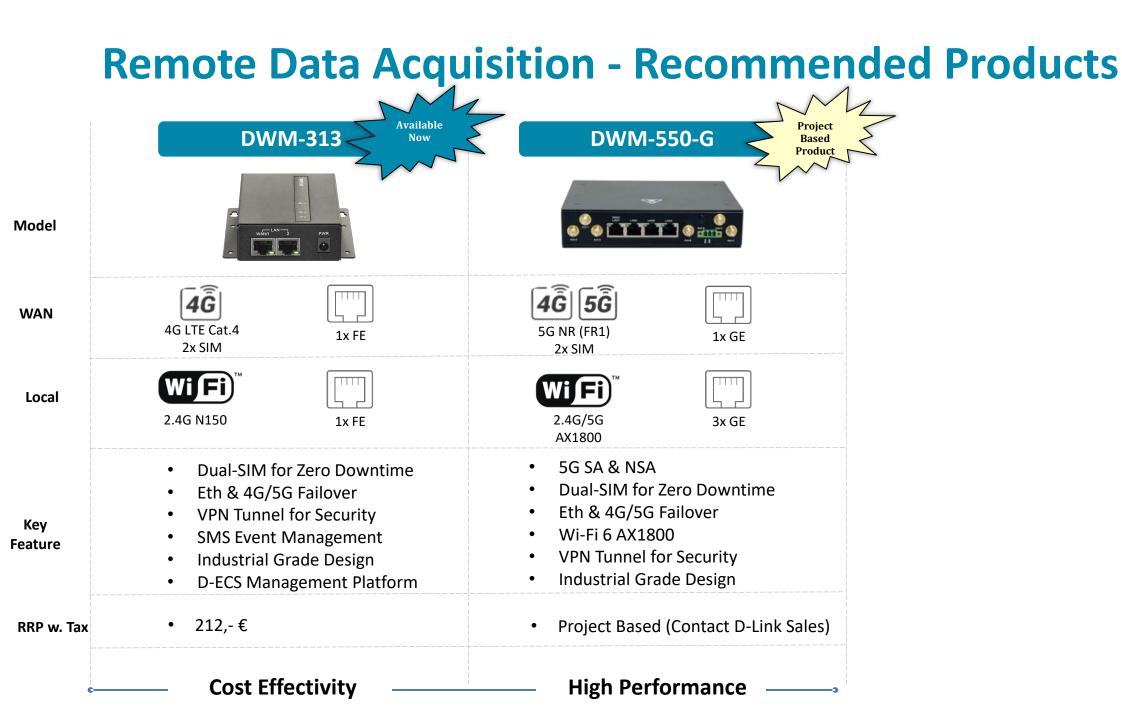
Vending Machine

Remote inventory and sales data management for cashless payment , also optimized restocking and offerings



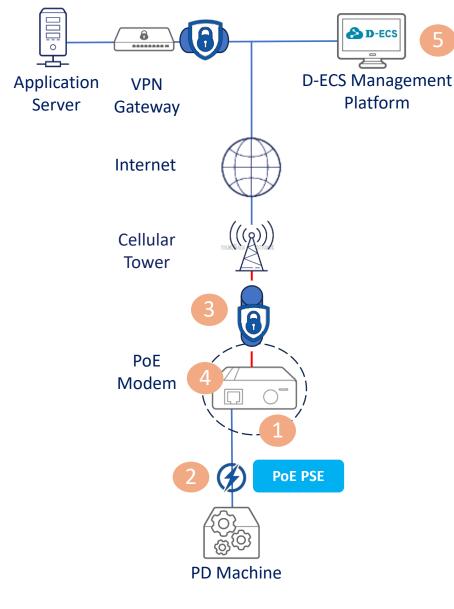
EV Charger

Remote management of charging status and usage for efficient network operation.



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4G/5G PoE Access - Scenario & Benefits



1

Ethernet Cable

Cellular Signal

Wi-Fi

VPN

6

Plug & Play Quick setup of M2M modem

Power over Ethernet

setups with power and data solution via single cable, power up device and transmission data over cellular networks

VPN Client

Integrated secure connection using OpenVPN protocol.

Industrial Grade Design Featuring a metal casing, ensuring durability and operating within a broad temperature range of -30 to 70°C.

Centralized Remote Management

Enable centralized remote management via D-ECS platform, simplifying network operations and maintenance.

4G/5G PoE Access - Target Markets



Surveillance

Streamline surveillance with PoE for power and data via single cable, enabling video transmission over cellular networks.



Access Point

Extend Wi-Fi coverage in remote areas using PoE for power, with 4G/5G PoE Modem providing Internet backhaul.



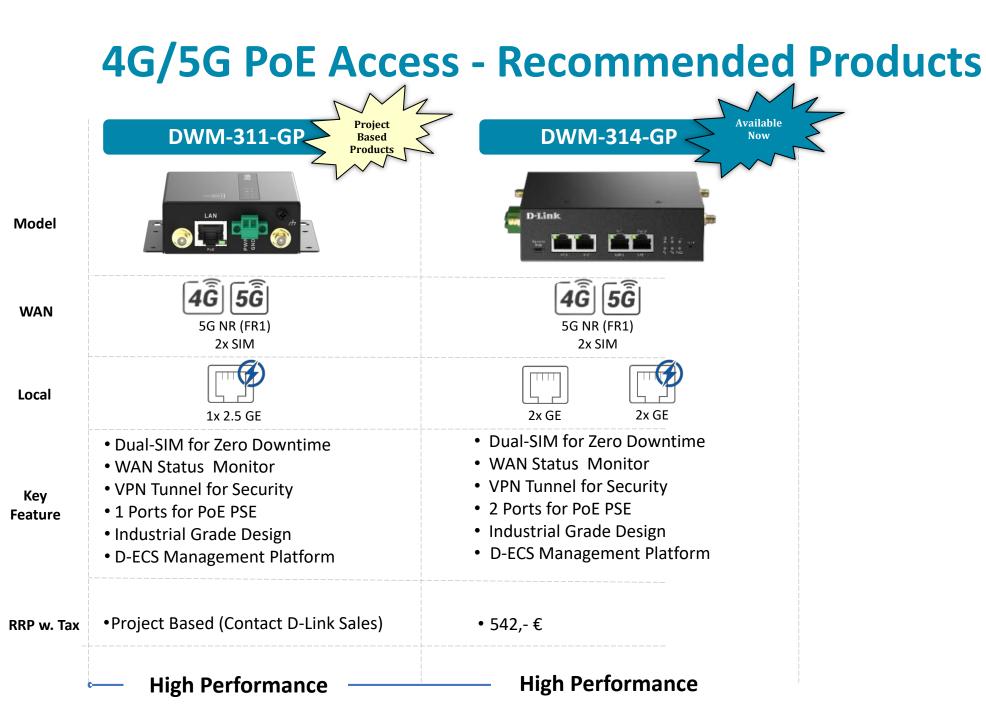
IoT Sensor

Deploy IoT sensors in hard-toreach locations, powered by PoE and connected to the Internet via 4G/5G PoE Modem for realtime data transmission.



Smart Monitor

Integrate into smart monitor with PoE, powering devices and providing advertisement or real-time information for urban services.



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4G/5G M2M Solutions - Introduction - WAN Extension - Remote Access - Industrial IoT - In-Vehicle Comm.

Project Based Products

D-Link 4G/5G M2M Product Portfolio

4G/5G IIoT Connectivity





DOM Series

Connect OT/IT/Cloud for Big Data Analytics
Collect data from OT devices
Modbus RTU/TCP conversion
Wireless IIoT network for OT/IT/Cloud
Edge pre-processing & cloud integration

Smart city infra-structure & SecurityWireless automation for Industry 4.0Smart Building with automation

Telemetry & Environmental monitoring

Smart Industry: DOM Series









Livestock



D-Link 4G/5G M2M Product Portfolio

4G/5G Vehicle Telematics





DTM Series

Rugged Design for Vehicle Telematics

Fleet Tracking, Location-based Service
Passenger WiFi hotspot & Info. System
In-Vehicle Device's Networking Mgmt.
Vibration & shock resistance

Transportation Vehicle
Mission Critical Vehicle
Fleet & Logistics Vehicle
Heavy Duty Vehicle
Marine

Smart Vehicle: DTM Series





Mission Critical









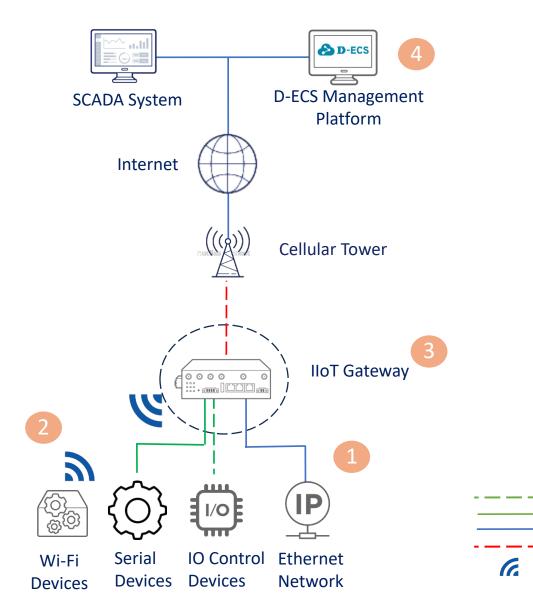
Marine & Flight

4G/5G IIoT Network - Scenario & Benefits

Digital I/O

Wi-Fi

RS-232/485 Ethernet Cable Cellular Signal



Support Multiple Data & control

Built-in LAN switch, RS232/485 interfaces, and DI/DO allow for remote connections between IT and OT using the Modbus protocol.

Wi-Fi Connectivity

Provide reliable wireless network access for stable and high-speed data transmission.

Event notification

Send notifications through various channels such as email, SMS push notifications to ensure rapid delivery.

Centralized Remote Management

Enable centralized remote management via D-ECS platform, simplifying network operations and maintenance.

4G/5G IIoT Network - Target Markets



Factory Automation

Manufacturing companies, automation equipment suppliers, factory Procurement department aim to enhance production efficiency and reduce costs.



Station

Renewable energy companies and utility providers focus on advancing and managing sustainable energy development.



Green House

Farmers, Research Institutions, Food Producers, providing environment and IIoT integration.



Smart Building

Helping building managers, like elevator maintenance Providers focus on enhancing lift efficiency, safety, and integration with smart building systems.

4G/5G IIoT Network – Recommended Products Project Based Products **DOM-530-TSO DOM-550-GSO DOM-311-TSO** Model 4Ĝ 4Ĝ 4Ĝ **5** WAN 4G LTE Cat.4 4G LTE Cat.4 5G NR (FR1) 1x GE 1x GE 1x SIM 2x SIM 2x SIM I/O Local 2x GE 2x RS232/485 1x DI/DO 3x GE 1x RS232/485 2x AI/DI/DO 1x FE 1x RS232/485 3x DI/2x DO Wi Fi) SD SD 2.4G/5G 1x SD Card 1x USB 1x SD Card 1x USB AC1200 Modbus TCP/RTU/ASCII ٠ Modbus TCP/RTU/ASCII 5G SA & NSA • **IIoT Telemetry for Data Analysis IIoT Telemetry for Data Analysis Dual-SIM for Zero Downtime** Key **VPN** Tunnel for Security **Dual-SIM for Zero Downtime** Modbus TCP/RTU/ASCII Feature **IT/OT** Integration **VPN** Tunnel for Security Wi-Fi AC1200 Industrial Grade Design Industrial Grade Design Industrial Grade Design **D-ECS Management Platform GPS** Location IT/OT Integration Proiect Based (Contact D-Link Sales) Project Based (Contact D-Link Sales) Project Based (Contact D-Link Sales) **RRP w. Tax Cost Effectivity High Performance High Performance**

In-Vehicle Network - Recommended Products

Project Based Products

			V
	DTM-550-TSO	DTM-550-G	DTM-570-GS
	4G Transit Gateway	5G Transit Gateway	5G Rail Gateway
Model			
WAN	4G LTE Cat.4 2x SIM	4G 5G 5G NR (FR1) 1x GE 2x SIM	Joint Signed S
Local	2.4/5G AC1200 Lx GNSS 2x GE	2.4/5G AX1800 X GNSS X GE	2.4/5G AX1800 1x GNSS 3x GE (M12)(X-coded) (M12)(A-coded)
Key Feature	 2x DI, 1x DO 1x RS232 Wi-Fi AC1200 Dual-SIM for Zero Downtime VPN Tunnel for Security EN 50155/E-Mark for Vibration/Shock Resistant GPS Location for Location-Based Service Wide Voltage Input Range(DC 9-36V) 	 5G SA & NSA Wi-Fi 6 AX1800 Dual SIM for Failover Redundancy EN 50155/E-Mark for Vibration/Shock Resistant GPS Location for Location-Based Service Wide Voltage Input Range(DC 12-36V) 	 5G SA & NSA Wi-Fi 6 AX1800 M12 Anti-vibration Connectors EN 50155/E-Mark for Vibration/Shock Resistant GPS Location for Location-Based Service Wide Voltage Input Range(DC 18-75V)
RRP w. Tax	 Project Based (Contact D-Link Sales) Cost Effectivity 	Project Based (Contact D-Link Sales) High Performance	 Project Based (Contact D-Link Sales) High Performance

In-Vehicle Network - Recommended Products



	DTM-550-TSO	DTM-550-G	DTM-570-GS
	4G Transit Gateway	5G Transit Gateway	5G Rail Gateway
Model			
WAN	4G LTE Cat.4 2x SIM	J J	Image: SG NR (FR1) Image:
Local	2.4/5G AC1200 2.4/5G AC1200 1x GNSS 2x GE	2.4/5G AX1800	2.4/5G AX1800 1x GNSS 1x GNSS 3x GE (M12)(X-coded) (M12)(A-coded)
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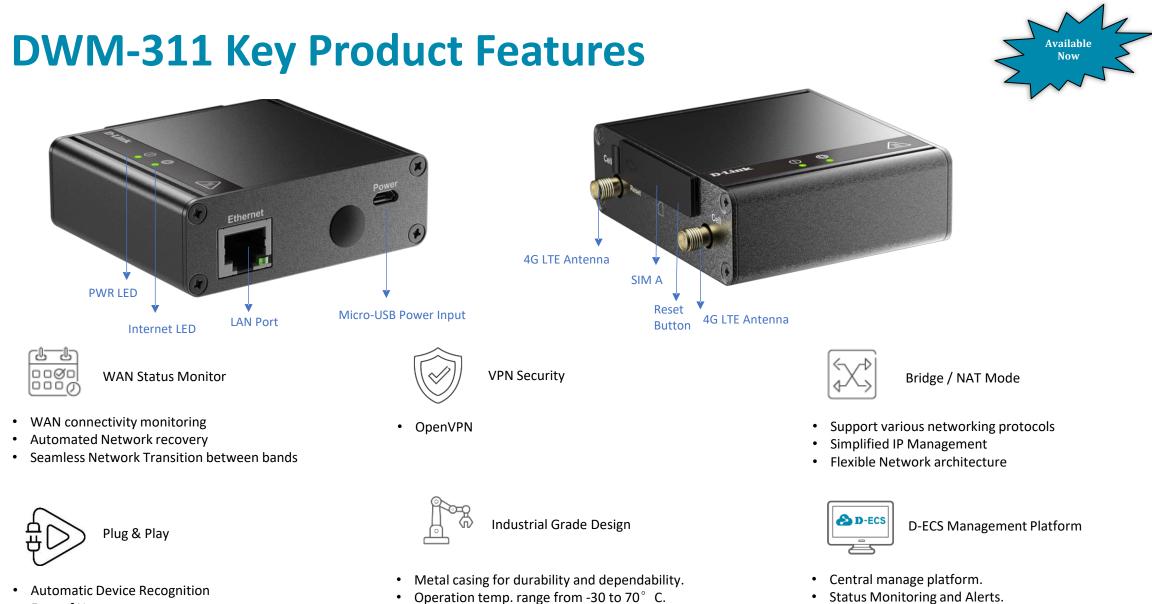
Thank You.

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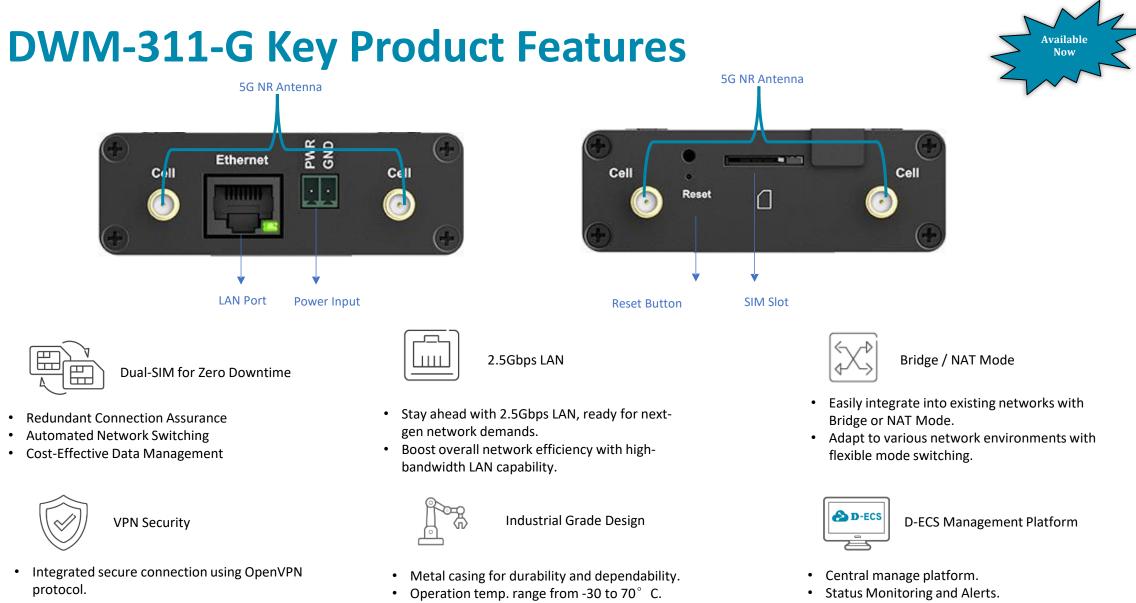
4G/5G M2M - Product Information



- Ease of Use
- Reduced Setup Time

Input voltage DC 5V via Micro USB.

• User-defined scheduled tasks.

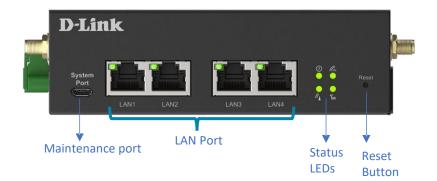


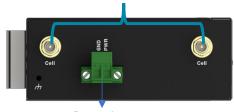
• Wide input voltage range of DC 5-32V.

• User-defined scheduled tasks.

DWM-314-G Key Product Features



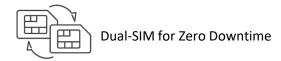




5G NR Antenna







- Redundant Connection Assurance
- Automated Network Switching
- Cost-Effective Data Management



VPN Security

- IPSec, PPTP, L2TP, GRE
- OpenVPN
- WireGuard



- Automatic Device Recognition
- Ease of Use
- Reduced Setup Time



Industrial Grade Design

- Metal casing for durability and dependability.
- Operation temp. range from -30 to 70 $^\circ\,$ C.
- Wide input voltage range of DC 9-36V.



Multi-Port for multi-device

- High-Speed data transfer on multiple ports
- Flexible Network Configurations
- User-Friendly Interface

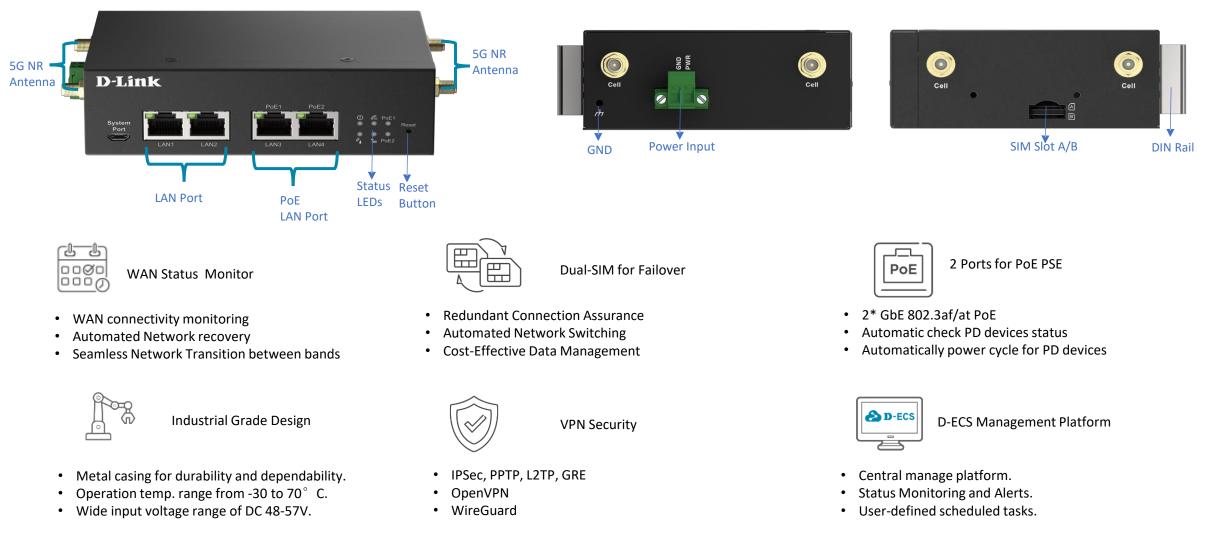


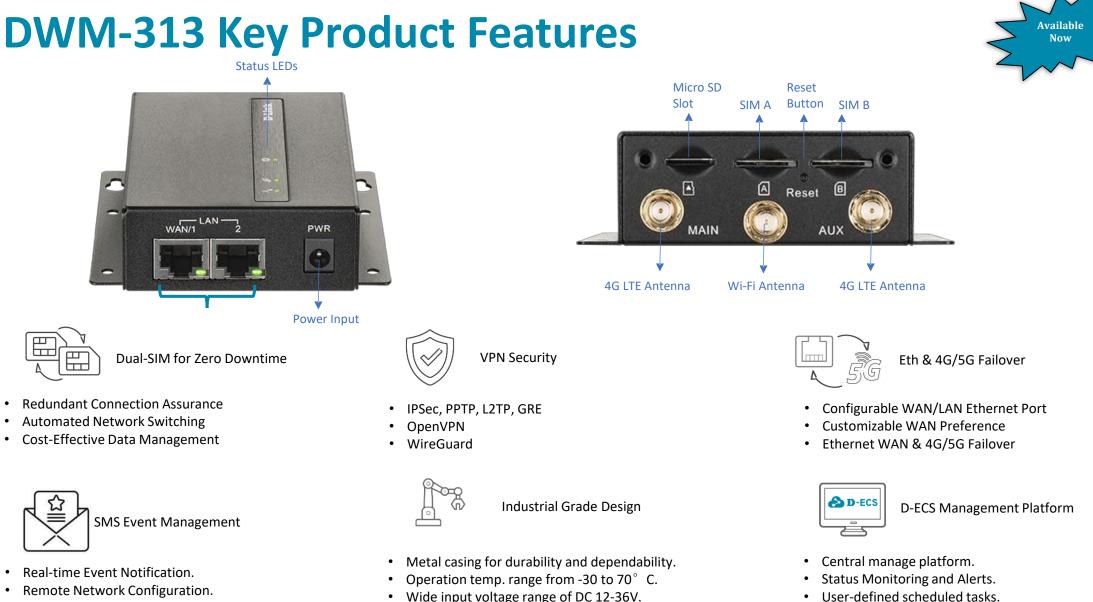
D-ECS Management Platform

- Central manage platform.
- Status Monitoring and Alerts.
- User-defined scheduled tasks.

DWM-314-GP Key Product Features







• User-defined scheduled tasks.

• Automated Response Triggers.

