



## WTN-GS 10100S Network Ethernet Switches

The wide range of Ethernet Switches are designed to provide increased Power over Ethernet (PoE) output, a range of physical interface types, multiple management interfaces, and advanced Layer 2 features. With all of these features combined, the WTN-GN 10100S Series provides a cost-efficient and flexible solution for expanding any business network.

## FEATURES

### Flexible Hardware Design:

- Available in multiple configurations:
- Different combinations of 1000BASE-T, 100/1000 GbE/SFP combo, and 10/1000 SFP
- PoE and non-PoE variations
- Designed for standard 1U rack-mounting

### Layer 2 Features:

- 8K or 16K MAC address table
- IEEE 802.1D STP, 802.1w RSTP, and 802.1s
- Loopback detection
- Supports IEEE 802.3ad Link Aggregation
- Port-based Q-in-Q

### **Security and Authentication:**

- Access Control Lists (ACLs)
- IP-MAC-Port Binding (IMPB)
- D-Link Safeguard Engine helps the CPU resist broadcast/multicast/unicast flooding
- Port Security

### **Intuitive Management:**

- Command Line Interface (CLI) through Telnet or SSH

## **Advanced Features**

The Western Network Switches comes equipped with a complete lineup of L2 features, including IGMP snooping, port mirroring, Spanning Tree Protocol (STP), and Link Aggregation Control Protocol (LACP). The IEEE 802.3x Flow Control function allows servers to directly connect to the switch for fast, reliable data transfers. Network maintenance features include loopback detection and cable diagnostics. Loopback detection significantly speeds up troubleshooting by automatically detecting and shutting down switching loops. The cable diagnostics feature, designed primarily for administrators and customer service representatives, determines the cable quality and quickly discovers errors, allowing for hassle-free diagnostics and maintenance.

## **Efficient and Resilient Networking**

The Series supports up to 6 kV surge protection on all Ethernet ports, protecting the switch from the damage caused by power surges due to lightning strikes or faulty electrical cabling. The switches also support 802.3ad Link Aggregation, which allows grouping of multiple ports to provide redundancy and load balancing in mission critical environments. Combined, the two features ensures the reliability of data transmission in your network.

## Security & Authentication

The Series supports Auto Voice VLAN and Auto Surveillance VLAN Mode, which allows voice and video traffic to be automatically identified and handled differently than regular network traffic. Auto Voice VLAN detects Voice over IP (VoIP) traffic and automatically segments it from the rest of the network, adding a layer of isolation and allowing Quality of Service (QoS) to be applied. Surveillance Mode detects compatible ONVIF cameras and places them in a surveillance VLAN, allowing a single switch to be used for voice, video, and data, removing the need for dedicated hardware and reducing maintenance costs. Surveillance Mode also includes its own Web UI, making surveillance features easily accessible and simplifying management of your network.

## Advanced Access Control

Western's innovative Safeguard Engine helps to protect the switches against traffic flooding caused by malicious attacks. Series supports 802.1X port-based authentication, allowing the clients to be authenticated through external RADIUS servers. The Access Control List (ACL) feature helps to enhance network security and helps to protect the internal IT network. To help prevent ARP spoofing attacks, the switch uses packet control ACLs to block invalid packets that contain fake ARP messages.

## Advanced Access Control

The Series comes with the Network Assistant (DNA) utility that enables administrators to remotely control their network down to the port level. The Western Network Assistant utility furthermore allows customers to easily discover multiple D-Link Smart Managed Switches within the same L2 network segment and display them on-screen for instant access. With this utility, users do not need to change the IP address of their PC. This allows for simultaneous configuration and setup of all discovered devices, including password changes and firmware upgrades. The Series also supports Command Line Interface (CLI) through Telnet or SSH.

Technical Specifications			
Model Number	WTN-GN10-10		WTN-GN-10W
Hardware Version	R1		R1
Interface			
Size	11-inch standard rack-mount 1U height		19-inch standard rack-mount 1U height
Interfaces	8 x 10/100/1000BASE-T ports 2 x 100/1000 Mbps SFP ports		8 x 10/100/1000BASE-T PoE 2 x 100/1000 Mbps SFP ports
Port Standards & Functions	Ports 1 to 8 compliant with IEEE 802.3ab		Ports 1 to 8 compliant with IEEE 802.3at
Other Port Standards & Functions	IEEE 802.3i 10BASE-T Ethernet (twisted-pair copper) IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper) IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper) Auto-negotiation IEEE 802.3x Flow Control IEEE 802.3z 1000BASE-X Gigabit Fiber		
Network Cables	UTP Cat. 5, Cat. 5e (100 m max.)		
Full/Half-Duplex	Full/half-duplex for 10/100 Mbps speeds Full-duplex for 1000 Mbps speed		
Media Interface Exchange	Auto MDI/MDIX adjustment for all twisted-pair ports		
Performance			
Switching Capacity	20 Gbps		
Forwarding Method	Store-and-forward		
MAC Address Table Size	8K entries		
MAC Address Update	Up to 256 static MAC entries		
64-byte Max. Forwarding	14.88 Mpps		
CPU Memory	256 MB DDR3		
Packet Buffer	4.1 Mbits		
Flash Memory	32 MB		
Physical/Environmental			
MTBF	100,087,100 hours	1,082,534 hours	992,594 hours
Heat Dissipation	44.62 TU/hr	51.93 TU/hr	59.09 TU/hr
Power Surge Protection	6KV surge protection		
Operating Temperature	-5 to 50 °C (23 to 122 °F)		
Storage Temperature	-40 to 70 °C (-40 to 158 °F)		
Operating Humidity	10% to 90% non-condensing		

## Order Information

Part Number	Description
WTN-GN-10100-10	8-Port 10/100/1000BASE-T + 2-Port 100/1000 Mbps SFP Ports Metro Ethernet Switch
WTN-GN-10100-10W	8-Port 10/100/1000BASE-T PoE + 2-Port 100/1000 Mbps SFP Ports Metro Ethernet Switch
WTN-GN-10100-10WN	8-Port 10/100/1000BASE-T PoE + 2-Port 100/1000 Mbps SFP Ports Metro Ethernet Switch
WTN-GN-10100-20	16-Port 10/100/1000BASE-T+ 4-Port 100/1000 Mbps GbE/SFP Combo Ports Metro Ethernet Switch
WTN-GN-10100-26	24-Port 10/100/1000BASE-T + 2-Port 100/1000 Mbps GbE/SFP Ports Metro Ethernet Switch
WTN-GN-10100-28	24-Port 10/100/1000BASE-T + 4-Port 100/1000 Mbps GbE/SFP Combo Ports Metro Ethernet Switch
WTN-GN-10100-28W	24-Port 10/100/1000BASE-T PoE + 4-Port 100/1000 Mbps GbE/SFP Combo Ports Metro Ethernet Switch
WTN-GN-10100-28WN	24-Port 10/100/1000BASE-T PoE + 4-Port 100/1000 Mbps GbE/SFP Combo Ports Metro Ethernet Switch
WTN-GN-10100-52	48-Port 10/100/1000BASE-T + 4-Port 100/1000 Mbps GbE/SFP Combo Ports Metro Ethernet Switch
WTN-GN-10100-52WN	48-Port 10/100/1000BASE-T PoE + 4-Port 100/1000 Mbps GbE/SFP Combo Ports Metro Ethernet Switch