



# **Product Highlights**

#### **D-Link Nuclias Cloud Management**

Extensive range of management functions can be performed hassle-free from anywhere through the D-Link Nuclias cloud

#### **Versatile Hardware Options**

Featuring a wide range of models featuring 10, 28, or 52 PoE and non-PoE ports, and 2 or 4 GE/SFP ports configurations

#### **Zero-Touch Deployment**

Cloud-based auto-configuration allows for swift plug and play installation and eliminates the need for on-site setup



## **DBS-2000 Series**

# **Nuclias Cloud-Managed Switches**

### **Features**

**D-Link Nuclias Cloud Management** 

- · Centralized cloud-based management
- · Zero-touch deployment
- Intuitive web and app-based interface
- Real-time at-a-glance network information
- Management of multiple sites and devices through a single pane of glass
- Over-the-air firmware updates through the cloud
- Instant alerts and notifications

#### **Best-in-class Built for Enterprise Switches**

- Energy-Efficient Ethernet (EEE)
- PoE+ support with up to 30 W per port
- Supports 802.1D Spanning Tree (STP) and 802.1w Rapid Spanning Tree (RSTP)
- 802.3ad Link Aggregation
- Loopback protection and IGMP snooping
- Access Control Lists (ACLs)

D-Link's Nuclias Cloud is an innovative cloud networking solution that allows you to centrally manage your entire network from anywhere, any time through its intuitive portal interface or mobile app. Featuring a full range of cloud-managed access points and switches supported by zero-touch deployment, Nuclias Cloud enables small businesses and enterprises to quickly deploy and build a powerful and versatile global wired and wireless network.

The DBS-2000 Series Nuclias Cloud-Managed Switches are deployed as pre-configured, zero-configuration switches controlled through the Nuclias Cloud<sup>1</sup>. They are best-in-class switches designed specifically for distributed networks, featuring a wide range of models featuring 10, 28, or 52 PoE and non-PoE ports with 2 SFP or 4 combo ports configurations.

## Comprehensive L2 and Network Security Features

Equipped with a complete line-up of L2 and security features, the DBS-2000 Series includes IGMP snooping, voice VLAN, Spanning Tree Protocols (STP and RSTP), Access Control Lists (ACLs) and Link Aggregation Control Protocol (LACP). Network maintenance features include loopback detection and cable diagnostics. Loopback detection is used to detect loops created by a specific port and automatically shut down the affected port. The cable diagnostic feature, designed primarily for administrators and customer service representatives, can rapidly discover errors and determine the cable quality, allowing hassle-free diagnostics and maintenance.

To ensure the safety and reliability of all sensitive traffic, all management data to and from the cloud is separated from regular data using an SSL encrypted out-of-band connection. In addition, Nuclias offers a range of industry standard authentication and authorisation methods to control user access. Administrator can configure external RADIUS servers and set up IP and MAC-based access control lists to authenticate and authorise clients and create a safe and trusted network environment.



# DBS-2000 Series Nuclias Cloud-Managed Switches

# **Centralised Management with Nuclias Cloud**

Designed to be managed through the Nuclias Cloud, DBS-2000 Series switches are easily set up with the help of the intuitive browser-based or mobile app interface. Centralised cloud management allows for zero-touch provisioning, enabling businesses to quickly configure, deploy, maintain, and expand their network remotely. Configuration settings can be set up, managed, and deployed through the cloud anytime, anywhere through any web browser or the dedicated mobile app, meaning devices can be deployed at a remote location without any need for trained on-site staff. Save time by configuring switches of the same model series in bulk. Similarly, if the same set of ports of multiple switches uses the same configuration profile, this port configuration can easily be deployed and updated in bulk.

# Hassle-free Administration and Versatile Deployment

Using Nuclias Cloud, businesses can now more effectively organise their entire wireless network, manage multiple switches simultaneously and monitor live network statistics. With the user-friendly management dashboard, administrators have access to an intuitive way of organising the

network into multiple sites, which simplifies management across multiple areas. With no limitation on the number of devices, businesses can easily cater to the demands of a growing network by simply adding more devices to the network. Over-the-air firmware updates can be automatically pushed to devices through the cloud.

## **Automated Monitoring and Alerts**

Through the intuitive dashboard, administrators can remotely view real-time information about the network and get an instant overview of key network statistics such as performance, connectivity, and network usage. Through the dashboard quickly view both switch and access point status information such as link status and number of connected devices. Easily view your switches' real-time port traffic and connection status. For switches with PoE ports, you can even see real-time power consumption statistics. Administrators can filter and customise the dashboard to display only the necessary information for a more focused experience. Be ahead of any problems with instant push notifications and alerts that can be customised to ensure that administrators can swiftly identify problems and perform immediate troubleshooting.

# **Nuclias by D-Link**

is a complete cloud-managed networking solution for small to medium-sized organisations with one or more sites.

## How it works

Wi-Fi coverage and network capacity are provided by high-performance Access Points and Switches deployed on site, while configuration and ongoing management can be carried out remotely through a web browser or tablet.

Zero-touch provisioning and centralised cloud-based control make the network simpler to install and easier to manage.

With Nuclias, network configurations and software updates are pushed to remote devices through the cloud, without the need to have specialised equipment or personnel onsite.

SSL encrypted, out-of-band network monitoring and management ensures secure connectivity whilst minimising bandwidth requirement.

# Main features

- · Zero-touch provisioning
- Role-based administration
- Auditable change logs
- Authentication via customisable captive portal, 802.1x and RADIUS server
- Social login for Wi-Fi access supported
- Advanced traffic report and data analysis
- Intuitive web-based interface with multilingual support
- Automatic monitoring and alerts
- Over-the-web firmware upgrades
- · Searchable network-wide event log
- Intuitive VLAN Configuration
- Cloud based RF Optimisation

manage

Simpler to

install and

easier to

Unlimited scalability of supported APs and switches









# DBS-2000 Series Nuclias Cloud-Managed Switches

Technical Specificat  General	DBS-2000-10MP	DBS-2000-28	DBS-2000-28P	DBS-2000-28MP	DBS-2000-52	DBS-2000-52MI
	DB3-2000-T0IVIP	DB3-2000-28			DB3-2000-32	DB3-2000-52IVII
Hardware Version	• A1					
Number of Ports	• 8 x 10/100/1000 BASE-T POE • 2 x 100/1000 Mbps SFP	• 24 x 10/100/1000 BASE-T • 4 x 1000 Mbps combo	• 24 x 10/100/1000 BASE-T POE • 4 x 1000 Mbps combo	• 24 x 10/100/1000 BASE-T PoE • 4 x 1000 Mbps combo	• 48 x 10/100/1000 BASE-T • 4 x 1000 Mbps combo	• 48 x 10/100/1000 BASE-T PoE • 4 x 1000 Mbps combo
Port Functions	IEEE 802.3 compliant     IEEE 802.3u/802.3z compliant     IEEE 802.3ab compliant     IEEE 802.3af/802.3at compliant			<ul> <li>IEEE 802.3x Flow Control</li> <li>Supports manual/auto MDI/MDIX configuration</li> <li>Supports half/full-duplex operation</li> <li>IEEE 802.3az compliant</li> </ul>		
Performance						
Switching Capacity	• 20 Gbps	• 56 Gbps	• 56 Gbps	• 56 Gbps	• 104 Gbps	• 104 Gbps
Maximum Forwarding Rate	• 14.88 Mpps	• 41.7 Mpps	• 41.7 Mpps	• 41.7 Mpps	• 77.4 Mpps	• 77.4 Mpps
MAC Address Table Size	• 8K Entries	• 8K Entries	• 8K Entries	• 8K Entries	• 16K Entries	• 16K Entries
Packet Buffer	• 4.1 Mbits	• 4.1 Mbits	• 4.1 Mbits	• 4.1 Mbits	• 12 Mbits	• 12 Mbits
Flash Memory	• 32 MB					
PoE						
PoE Standard	• IEEE 802.3af/atf		• IEEE 802.3af/atf	• IEEE 802.3af/atf		• IEEE 802.3af/atf
PoE Capable Ports	• Ports 1 to 8		• Ports 1 to 24	• Ports 1 to 24		• Ports 1 to 48
PoE Power Budget	• 130 W		• 193 W	• 370 W		• 370 W
Power Consumption						
Standby Mode	• 5.2 W	• 6.55 W	• 16.6 W	• 17.1 W	• 13.9 W	• 31.6 W
Maximum Power Consumption	• 152.3 W (PoE on) • 9.4 W (PoE off)	• 17.32 W	• 263.9 W (PoE on) • 30.6 W (PoE off)	• 446.1 W (PoE on) • 29.8 W (PoE off)	• 34.85 W	• 478.9 W (PoE on) • 54.4 W (PoE off)
Physical						
Power Input	• 100 to 240 V AC • 50/60 Hz internal power supply					
MTBF	• 1,274,005 hours	• 992,594 hours	• 469,262 hours	• 277,967 hours	• 400,667 hours	• 236,406 hours
Acoustics	• 0 dB(A)	• 0 dB(A)	• 51.7 dB(A)	• 51.7 dB(A)	• 0 dB(A)	• 52.4 dB(A)
Heat Dissipation	• 519.51 BTU/hr	• 59.09 BTU/hr	• 900.36 BTU/hr	• 1521.99 BTU/hr	• 118.92 BTU/hr	• 1634.01 BTU/hr
Weight	• 1.77 kg (3.90 lbs)	• 2.15 kg (4.74 lbs)	• 3.75 kg (8.27 lbs)	• 3.94 kg (8.68 lbs)	• 3.46 kg (7.63 lbs)	• 6.26 kg (13.80 lbs
Dimensions	• 330 x 180 x 44 mm	• 440 x 140 x 44 mm	• 440 x 250 x 44 mm	• 440 x 250 x 44 mm	• 440 x 210 x 44 mm	• 440 x 430 x 44 mi
Ventilation	• Fanless	• Fanless	• 2 x Fans	• 2 x Fans	• Fanless	• 3 x Fans
Temperature	Operating: -5 to 50 °C (23 to 122 °F) Storage: -20 to 70 °C (-4 to 158 °F)					
Humidity	Operating: 0% to 95% non-condensing Storage: 0% to 95% non-condensing					
EMI	CE, FCC, VCCI, BSMI					
Safety	UL, CB, LVD, BSMI, CCC					

# DBS-2000 Series Nuclias Cloud-Managed Switches

Software Feature	s		
VLAN	802.1Q Tagged VLAN     Management VLAN     Voice VLAN	VLAN Group     Supports 256 static VLAN groups	
L2 Features	<ul> <li>Flow Control</li> <li>802.3x Flow Control</li> <li>HOL Blocking Prevention</li> <li>Jumbo Frames</li> <li>IGMP Snooping</li> <li>IGMP v1/v2/v3 awareness Snooping</li> <li>Supports 256 Groups</li> </ul>	<ul> <li>Cable Diagnostics</li> <li>LLDP</li> <li>Spanning Tree Protocol</li> <li>802.1D STP</li> <li>802.1w RSTP</li> <li>802.3ad Link Aggregation</li> </ul>	
Security	SSL     DHCP Server Screening     Port Security	Access Control List (ACL)     Max # of Entries: 768	
Management	• Cloud-based through Nuclias <sup>1</sup>	Nuclias mobile app	
Green Technology	Compliant with RoHS 6	• Time-based PoE	
Optional SFP Tra	nsceivers		
DGS-712	1000BASE-T copper		
DEM-310GT	1000BASE-LX, single-mode, 10 km		
DEM-311GT	1000BASE-SX, multi-mode, 550 m		
DEM-312GT2	1000BASE-SX, multi-mode, 2 km		
DEM-211	100BASE-FX, multi-mode, 2 km		

<sup>&</sup>lt;sup>1</sup> Active D-Link Nuclias Cloud account and valid device license required.







MODEL	DBA-1210P	DBA-2820P	
Wireless standards	Simultaneous a/n/ac and b/g/n	Simultaneous a/n/ac and b/g/n	
Model Name	AC1300 Wave 2 Access Point	AC2600Wave 2 Access Point	
802.11ac Wave 2	•	•	
Maximum wireless speed	867 Mbps - 5 GHz 300 Mbps - 2.4 GHz	1,733 Mbps - 5 GHz 800 Mbps - 2.4 GHz	
MU-MIMO	•	•	
Power-over-Ethernet	• (802.3af)	• (802.3af)	
Wired interface	1 x Gigabit Ethernet	1 x Gigabit Ethernet	
Maximum number of SSIDs	16	16	

Find out more about Nuclias Cloud access points and switches at <a href="https://www.nuclias.com">www.nuclias.com</a>



#### For more information: www.dlink.com

