DGS-3620 Series
xStack Gigabit Layer 3+ Managed Switches

dlink green

XSTACK

IPv6 READY

Product Highlights:

Flexible Choices
- 20/48 10/100/1000BASE-T Ports or 20 SFP Slots
- 4 Combo 10/100/1000BASE-T/SFP ports [1]
- 4 10-Gigabit SFP+ Ports Uplinks
- 802.3af and 802.3at Power Over Ethernet support [2]
- Optional External Redundant Power Supply

High Bandwidth Physical/Virtual Stacking
- Physical Stack of Up to 12 Units, 576 Gigabit Ports
- Stackable through 2 10-Gigabit SFP+ Ports
- Up to 40 Gbps Full-Duplex Stacking Bandwidth
- Virtual Stack of Up to 32 Units Using Single IP Management

Quality of Service (QoS)
- 802.1p Priority Queues/Multi-Layer CoS
- IP Multicast Support for Bandwidth-Intensive Applications
- Committed Information Rate

Reliability
- Redundant Power Supply (RPS) support
- 802.1D/802.1w/802.1s Spanning Tree
- Loopback Detection (LBD)
- Ethernet Ring Protection Switching (ERPS)

Security
- L2/L3/L4 Multi-Layer Access Control
- External RADIUS/TACACS+ Authentication
- SSH/SSL Support
- 802.1X Guest VLAN
- Web-based Access Control (WAC)
- MAC-based Access Control (MAC)
- D-Link Safeguard Engine
- Supports Microsoft® NAP

Traffic Monitoring/Bandwidth Control
- Traffic Segmentation
- Granular Bandwidth Control Down to 64 Kbps Per Port
- Granular Broadcast Storm Control Down to 1 pps Per Port
- 802.3ad Link Aggregation
- RMON Support
- Port Mirroring

OAM
- 802.3ah Ethernet Link OAM
- 802.1ag, ITU-T Y.1731 Service OAM

Configuration/Management
- Web-based GUI
- Command Line Interface (CLI)
- SNMP v1, v2c, v3
- D-Link Single IP Management (SIM)
- Telnet
- Dual Images/Configurations
- DHCP Server
- sFlow
- LLDP
- Standard Image (SI) and for advanced features, Enhanced Image (EI)

D-Link Green
- Time-based PoE [2]
- Power Saving

[1] For DGS-3620-28TC/28SC/28PC models only
[2] For DGS-3620-28PC/52P models only

The xStack DGS-3620 Series of next generation Gigabit Layer 3+ Managed switches deliver performance, flexibility, security, multi-layer QoS and access control, along with redundant power solutions for businesses. With high Gigabit port densities, Gigabit SFP and 10-Gigabit SFP+ support, and advanced software solutions, these switches can act as either departmental access layer devices or core switches to form a multilevel network structured with backbone and centralised high-speed servers. Service providers can take advantage of the high SFP density switches to structure the cores of Fiber to the Building (FTTB) networks that they extend to the subscriber's sites.

Standard and Enhanced Images
The DGS-3620 Series is embedded with two different software images, the Standard Image (SI) and the Enhanced Image (EI). The Standard Image provides fundamental features for businesses such as switching, routing, multicasting, advanced Quality of Service (QoS), and robust security features. The Enhanced Image supports OAM, BGP, IPv6 dynamic routing, and tunneling which are all suitable for the service provider network.

Unparalleled Flexibility
Easily deployed and simple to manage, the DGS-3620 can be stacked with any switch that supports D-Link's Single IP Management to form a multi-level network structured with backbone and centralised high-speed servers. The virtual stack can include units located anywhere on the same network domain. The stack can also eliminate single point of failures, cable distance barriers, limitations of physical stacking, and the need for stack cabling.

Redundant Ring Stacking
Alternatively, depending on whether linear or fault-tolerant ring stacking is implemented, users can use one or two optional 10-Gigabit SFP+ ports to create a physical stack, uplinks to move intra-stack traffic at 20 Gbps full duplex. 12 units or 576 Gigabit ports can be configured for a stack using direct attached cables allowing high-bandwidth on the already cost efficient DGS-3620 Series.

Security, Performance & Availability
The DGS-3620 Series provides a complete set of security features including L2/L3/L4 multi-layer Access Control Lists and 802.1X user authentication via TACACS+ and RADIUS servers. D-Link ZoneDefense technology is built-in allowing businesses to integrate the switch stack with D-Link NetDefend firewalls to implement a complete and proactive security infrastructure.

The DGS-3620 Series offers extensive VLAN support including GVRP and 802.1Q VLAN to enhance security and performance. A robust set of L2/L3/L4 QoS/CoS solutions help ensure that critical network services such as VoIP, ERP, Intranet, and video conferencing are served with proper priority. The DGS-3620 Series provides D-Link's Safeguard Engine to increase the switch's reliability, serviceability, and availability to prevent malicious flooding traffic caused by worms/virus infections. Bandwidth Control can be flexibly set for each port using pre-defined thresholds to assure a committed level of service for end-users. For advanced applications, flow-based bandwidth control allows easy fine-tuning of service types based on specific IP addresses or protocols.

IPv6 Technology
The DGS-3620 Series also features comprehensive IPv6 support, including IPv6 Tunnel, ICMPv6, DHCPv6, RIPng, OSPFv3, BGP+ and more. With 10-Gigabit connectivity and IPv6 support, the DGS-3620 Series enables businesses to future-proof their network for cost efficiency and longevity while meeting the requirements for IPv6 capable network devices in the coming years.

D-Link Green Technology
D-Link is striving to take the lead in developing innovative and power-saving technology that does not sacrifice operational performance or functionality. The DGS-3620 Series implements the D-Link Green Technology, which includes a power saving mode, smart fan, reduced heat dissipation, and cable length detection. The power saving feature automatically powers down ports that have no link or link partner. The Smart Fan feature allows for the built-in fans to automatically turn on at a certain temperature, providing continuous, reliable and eco-friendly operation of the switch.

The heart of the network

25 YEARS
of technology & innovation

D-Link®

DGS-3620 Series
xStack Gigabit Layer 3+ Managed Switches

D-LinkAssist
Rapid Response Support

If the worst should happen to your network you need the very best support and fast. Downtime costs your business money. D-Link Assist maximises your uptime by solving technical problems quickly and effectively. Our highly-trained technicians are on standby around the clock, ensuring that award-winning support is only a phone call away.

With a choice of three affordable service offerings covering all D-Link business products, you can select the package that suits you best:

D-Link Assist Gold - for comprehensive 24-hour support
D-Link Assist Gold is perfect for mission-critical environments where maximum uptime is a high priority. It guarantees four hour around-the-clock response. Cover applies 24/7 for every day of the year including holidays.

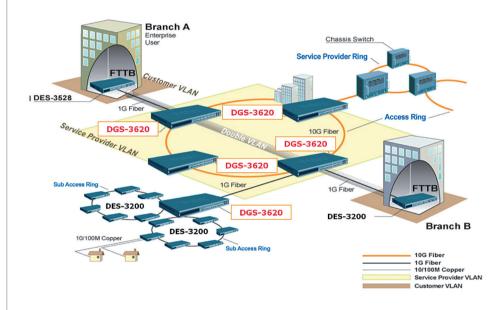### D-Link Assist Silver - for prompt same-day assistance
D-Link Assist Silver is designed for 'high availability' businesses that require rapid response within regular working hours. It provides a four hour response service Monday to Friday from 8am to 5pm, excluding holidays.

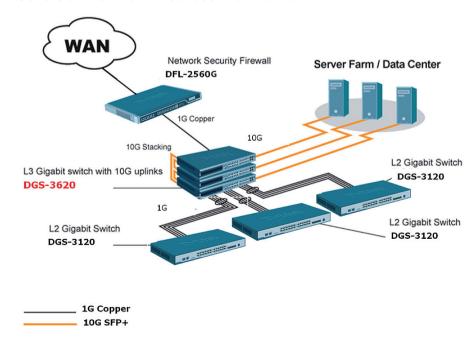### D-Link Assist Bronze - for guaranteed response on the next business day
D-Link Assist Bronze is a highly cost-effective support solution for less critical environments. Response is guaranteed within eight business hours Monday to Friday from 8am to 5pm, excluding holidays.

D-Link Assist can be purchased together with any D-Link business product. So whether you're buying switching, wireless, storage, security or IP Surveillance equipment from D-Link, your peace of mind is guaranteed. D-Link Assist also offers installation and configuration services to get your new hardware working quickly and correctly.

Aggregation Solution for Service Provider Network

Core Solution for Business Networks

The heart of the network

25YEARS
of technology & innovation

D-Link®

DGS-3620 Series
xStack Gigabit Layer 3+ Managed Switches

Technical Specifications

		DGS-3620-28TC	DGS-3620-28SC	DGS-3620-28PC	DGS-3620-52T	DGS-3620-52P
Interface	10/100/1000Base-T ports	20		20	48	48
	SFP slots		20			
	Combo 10/100/1000Base-T/SFP ports	4	4	4		
	10-Gigabit SFP+ slots	4	4	4	4	4
	Console port (RJ-45)	1				
	10/100Base-T management port	1				
	Alarm ports	1				
	SD card slot	1 (SD card not included)				
Performance	Switch fabric	128 Gbps	128 Gbps	128 Gbps	176 Gbps	176 Gbps
	Packet forwarding rate	95.24 Mpps	95.24 Mpps	95.24 Mpps	130.95 Mpps	130.95 Mpps
	Packet buffer	2 MB				
	MAC address table	32K entries				
	IPv4/v6 routing table	12K entries (shared)				
	IPv6 routing table	6 K entries				
	IPv4 host table	8 K entries				
	IPv6 host table	4 K entries				
	Jumbo frame size	13 Kbytes				
Physical stacking	Stacking modes	Linear / Redundant Ring				
	Stacking speed (per port)	20 Gbps (full duplex)				
	Max. Number of units in one stack	12				
	Max. Number of stacking ports	2 SFP+				
	Installable SFP+ modules for stacking	DEM-431XT-DD, DEM432XT-DD, DEM-433XT-DD, DEM-435XT-DD				
	Stacking cables (not included)	DEM-CB100S, DEM-CB300S, DEM-CB700S				
PoE	PoE ports			24		48
	802.3af PoE			ü		ü
	802.3at PoE+			ü		ü
	PoE budget			370W /740W[3]		370W /740W[3]
Power	Power supply	100 to 120 V AC, 200 to 240 V AC, 50/60 Hz, Internal Power Supply				
	Max. Power consumption	50.8W	60.2W	478.0W	81.0W	505.4W
	Optional Redundant Power Supply	DPS-500	DPS-500	DPS-700	DPS-500	DPS-700
Environmental	MTBF (Hours)	287763	299801	230619	255608	202462
	Acoustic	<30°C: 38.7 dB max. >30°C: 46.5 dB max.	<30°C: 38.9 dB max. >30°C: 46.2 dB max.	<30°C: 40.3 dB max. >30°C: 52.5 dB max.	<30°C: 40.6 dB max. >30°C: 51.1 dB max.	<30°C: 43.2 dB max. >30°C: 54.8 dB max.
	Ventilation	Smart Fan (<35°C: low speed, >40°C: high speed)[4]				
	Dimensions (W x D x H)	441 x 310 x 44 mm	441 x 310 x 44 mm	441 x 380 x 44 mm	441 x 380 x 44 mm	441 x 380 x 44 mm
	Weight	4.15 Kg	4.10 Kg	5.76 Kg	5.13 Kg	6.30 Kg
	Operating temperature	0-50°C				
	Operating humidity	10%-90% RH				
Certifications	EMI	FCC Class A, CE Class A, VCCI Class A, IC, C-Tick				
	Safety	CB, cUL, LVD				
	Other	IPv6 Ready Logo Phase 2				

[3] With DPS-700 redundant Power Supply
[4] By default, the fan speed is low. When the temperature inside the chassis is over 40°C, the fan switches to high speed and remains high until the temperature is down to 35 °C

The heart of the network

25 YEARS of technology & innovation

D-Link®

DGS-3620 Series
xStack Gigabit Layer 3+ Managed Switches

Software Features

Stackability
- Virtual Stacking Support
  - D-Link Single IP Management
  - Up to 32 devices per virtual stack
  - Up to 20G stacking bandwidth
- Physical Stacking
  - Supports Duplex Chain/Ring topology
  - Up to 40G stacking bandwidth
  - Up to 12 units per stack

L2 Features
- MAC Address Table: 32K
- Flow Control
  - 802.3x Flow Control
  - HOL Blocking Prevention
- Jumbo Frame up to 13K Bytes
- IGMP snooping
  - IGMP v1/v2/v3 Snooping
  - Supports 1 K groups
  - Port/Host-based
  - IGMP Snooping -Fast Leave
- MLD Snooping
  - MLD v1 Snooping
  - Supports 1K groups
  - Host-based MLD Snooping Fast Leave
- Spanning Tree
  - 802.1D-2004 STP
  - 802.1w RSTP
  - 802.1Q-2005 MSTP
  - BPDU filtering
  - Root Restriction
- Loopback Detection
- 802.3ad Link Aggregation
  - Max. 32 groups per device
  - 8 Gigabit ports or 2 10 Gigabit ports per group
- Port Mirroring
  - Support 4 Mirroring Groups
  - Support One-to-One, Many-to-One, Flow-based, and RSPAN mirroring
- L2 Protocol Tunneling
- ERPS (Ethernet Ring Protection Switching

VLAN
- VLAN Group
  - Max. 4K Static VLAN Groups
  - Max. 255 Dynamic VLAN Groups
- 802.1Q Tagged VLAN
- 802.1v Protocol VLAN
- GVRP
- Double VLAN (Q-in-Q)
  - Port-based Q-in-Q
  - Selective Q-in-Q
- MAC-based VLAN
- VLAN Trunking
- Super VLAN

L3 Features
- 256 IP interfaces
- Loopback interface
- VRRP
- IPv6 Ready Phase 2
- Proxy ARP
- Gratuitous ARP
- IPv6 Tunnelling [5]
  - Static
  - ISATAP
  - GRE
  - 6to4

L3 Routing
- 12K hardware routing entries shared by IPv4/v6
  - Max. 12K IPv4 routes
  - Max. 6K IPv6 routes
- 8K hardware L3 forwarding entries shared by IPv4/v6
  - Max. 8K IPv4 entries
  - Max. 4K IPv6 entries
- 256 static routing entries for IPv4, 128 entries for IPv6
  - Supports ECMP/WCMP
- Policy-based Routing

- RIP v1/v2
- RIPng (IPv6) [5]
- OSPF
  - OSPF v2
  - OSPF v3 (IPv6) [5]
  - OSPF Passive Interface
  - Stub/NSSA Area
  - OSPF Equal Cost Route
- BGP v4 [5]
- BGP+ [5, 6]

MPLS [5]
- VRF [6]
- Label Management [6]
- LDP [6]
- MPLS L3 VPN (MPLS/BGP VPN) [6]
- MPLS L2 VPN [6]
- VPLS [6]

Multicasting
- 2K hardware multicast groups
- PIM-DM
- PIM-SM
- PIM Sparse - Dense Mode
- IGMP v1/v2/v3
- PIM-SM v6 [5]
- DVMRP v3 [5]

QoS (Quality of Service)
- 802.1p Class of Service (CoS)
- 8 queues per port
- Queue Handling
  - Strict
  - Weighted Round Robin (WRR)
  - Strict + WRR
- CoS based on
  - Switch Port
  - VLAN ID
  - 802.1p Priority Queues
  - MAC Address
  - IPv4/v6 Address
  - DSCP
  - Protocol Type
  - IPv6 Traffic Class
  - IPv6 Flow Label
  - TCP/UDP Port
  - User-defined Packet Content
- Supports following actions for flows:
  - Remark 802.1p Priority Tag
  - Remark TOS/DSCP Tag
  - Bandwidth Control
  - Flow Statistics
  - Committed Information Rate (CIR), min granularity 1 Kbps.
- Bandwidth Control
  - Port-based (Ingress/Egress, min granularity 64 Kbps)
  - Flow-based (Ingress, min. granularity 64 Kbps)
- Time-based QoS

ACL (Access Control List)
- Ingress ACL: support up to 6 profiles and 256 rules per profile
- Egress ACL: support up to 4 profiles and 128 rules per profile
- ACL based on
  - 802.1p Priority
  - VLAN ID
  - MAC Address
  - Ether Type
  - IPv4/v6 Address
  - DSCP
  - Protocol Type
  - TCP/UDP Port Number
  - IPv6 Traffic Class
  - IPv6 Flow Label
  - User-defined Packet Content
- ACL Statistics
- Time-based ACL
- CPU interface filtering

Security
- SSH v2
- SSL v1/v2/v3
- Port Security up to 16 MAC addresses per port
- Broadcast/Multicast/Unicast Storm Control
- Traffic Segmentation
- IP-MAC
  - Port Binding
  - ARP Packet Inspection
  - IP Packet Inspection
  - DHCP Snooping
  - DHCPv6 and NDP Snooping
  - Supports up to 500 Address Binding Entries per device
- D-Link Safeguard Engine
- DHCP Server Screening
- CPU Interface Filtering
- ARP Spoofing Prevention
- BPDU Attack Protection

AAA
- 802.1X -Port-based Access Control
  - Host-based Access Control
  - Dynamic VLAN Assignment
- Web-based Access Control (WAC)
  - Port-based Access Control
  - Host-based Access Control
  - Dynamic VLAN Assignment
- MAC-based Access Control (MAC)
  - Port-based Access Control
  - Host-based Access Control
  - Dynamic VLAN Assignment
- Japan Web-based Access Control (JWAC)
  - Host-based Access Control
- Microsoft® NAP
  - Supports 802.1X NAP
  - Supports DHCP NAP
- Guest VLAN
- RADIUS and TACACS+ authentication for switch access
- 4-Level user account

Management
- Web-based GUI
- Command Line Interface (CLI)
- Telnet Server
- Telnet Client
- TFTP Client
- ZModem
- SNMP v1/v2c/v3
- SNMP Trap
- System Log
- RMON v1
  - Supports 1,2,3,9 Groups
- RMON v2
  - Supports ProbeConfig Group
- sFlow
- LLDP/LLDP-MED
- BootP/DHCP Client
- DHCP Auto-Configuration
- DHCP Relay
- DHCP Relay Option 60; 61
- DHCP Relay Option 82
- DHCP Server
- Flash File System
- Multiple Images
- Multiple Configurations
- CPU Monitoring
- Debug Command
- SNTP
- ICMPv6
- DHCPv6 Client
- DHCPv6 Relay
- DHCPv6 Server
- Trusted Host
- MTU Setting
- Microsoft® NLB Support
- UDP helper [6]

The heart of the network

25YEARS
of technology & innovation

D-Link®

DGS-3620 Series
xStack Gigabit Layer 3+ Managed Switches

Software Features

OAM
- 802.3ah Ethernet Link OAM
- 802.3ah D-Link Extension: D-Link Unidirectional Link Detection (DULD)
- IEEE1588 Precision Time Protocol (PTP)
- Cable Diagnostics [5]
- 802.1ag Connectivity Fault
- Management (CFM) [5]
- ITU-T Y.1731 [5]

MIB/IETF Standards
- RFC1213 MIB-II
- RFC1493 Bridge MIB
- RFC1907 SNMPv2 MIB
- RFC2571~2576 SNMP MIB
- RFC1271, 2819 RMON MIB
- RFC2021 RMON v2 MIB
- RFC2665 Ether-like MIB

- RFC2668 MAU MIB
- RFC2674 802.1p MIB
- RFC2233, 2863 IF MIB
- RFC2618 RADIUS Authentication Client MIB
- RFC1724 RIP v2 MIB
- RFC1850 OSPF v2 MIB
- RFC2096 IP Forwarding Table MIB (CIDR)
- RFC2787 VRRP MIB
- RFC2932 IPv4 Multicast Routing MIB
- RFC2934 PIM MIB for IPv4
- RFC2620 RADIUS Accounting Client MIB
- RFC2933 IGMP MIB
- Ping MIB
- Traceroute MIB
- D-Link Private MIB
- RFC768 UDP

- RFC768 UDP
- RFC 791 IP
- RFC 792 ICMP
- RFC 793 TCP
- RFC 826 ARP
- RFC854 Telnet
- RFC951, 1542 BootP
- RFC2068 HTTP
- RFC2338 VRRP
- RFC2529, 3053, 3056 IPv6 Tunnel
- RFC2138 RADIUS
- RFC2139 RADIUS Accounting
- RFC1492 TACACS
- RFC3176 sFlow
- RFC2598 DiffServ Expedited Forwarding
- RFC2460 IPv6
- RFC4861 IPv6 Neighbor Discovery (ND)
- RFC4862 IPv6 Stateless Address Autoconfiguration
- RFC1981 IPv6 Path MTU Discovery

Ordering Information

DGS-3620-28TC/SI	20 10/100/1000BASE-T and 4 Combo 10/100/1000BASE-T/SFP and 4 SFP+ with embedded SI image (stacking cable and SD card are not included)
DGS-3620-28TC/EI	20 10/100/1000BASE-T and 4 Combo 10/100/1000BASE-T/SFP and 4 SFP+ with embedded EI image (stacking cable and SD card are not included)
DGS-3620-28SC/SI	20 SFP and 4 Combo 10/100/1000BASE-T/SFP and 4 SFP+ with embedded SI image (stacking cable and SD card are not included)
DGS-3620-28SC/EI	20 SFP and 4 Combo 10/100/1000BASE-T/SFP and 4 SFP+ with embedded EI image (stacking cable and SD card are not included)
DGS-3620-28PC/SI	20 10/100/1000BASE-T PoE and 4 Combo 10/100/1000BASE-T/SFP and 4 SFP+ with embedded SI image (stacking cable and SD card are not included)
DGS-3620-28PC/EI	20 10/100/1000BASE-T PoE and 4 Combo 10/100/1000BASE-T/SFP and 4 SFP+ with embedded EI image (stacking cable and SD card are not included)
DGS-3620-52T/SI	48 10/100/1000BASE-T and 4 SFP+ with embedded SI image (stacking cable and SD card are not included)
DGS-3620-52T/EI	48 10/100/1000BASE-T and 4 SFP+ with embedded EI image (stacking cable and SD card are not included)
DGS-3620-52P/SI	48 10/100/1000BASE-T PoE and 4 SFP+ with embedded SI image (stacking cable and SD card are not included)
DGS-3620-52P/EI	48 10/100/1000BASE-T PoE and 4 SFP+ with embedded EI image (stacking cable and SD card are not included)

[5] Function available in Enhanced Image (EI) only
[6] Implemented in future firmware upgrade

The heart of the network

25 YEARS
of technology & innovation

D-Link®

DGS-3620 Series
xStack Gigabit Layer 3+ Managed Switches

Optional Products

Optional Management Software

DV-600S

D-View 6.0 Network Management Software Standard Edition

DV-600P

D-View 6.0 Network Management Software Professional Edition

DV-601P [7]

E2ES Console Plug-in for D-View 6.0

Optional 10 Gbps SFP+ Transceivers

DEM-431XT

10 GBASE-SR SFP+ Transceiver (w/o DDM), 80m: OM1 & OM2 MMF, 300m: OM3 MMF

DEM-431XT-DD

10GBASE-SR SFP+ Transceiver (with DDM), 80m: OM1 & OM2 MMF, 300m: OM3 MMF

DEM-432XT

10GBASE-LR SFP+ Transceiver (w/o DDM), 10km

DEM-432XT-DD

10GBASE-LR SFP+ Transceiver (with DDM), 10km

[7] Product available in the future
[8] Supported in DGS-3620-28PC and DGS-3620-52P only.

Optional 1 Gbps SFP Transceivers

DEM-310GT

SFP transceiver, 1000BASE-LX standard, single-mode fiber, max. distance 10 km, 3.3 V operating voltage

DEM-311GT

SFP transceiver, 1000BASE-SX standard, multi-mode fiber, max. distance 550 m, 3.3 V operating voltage

DEM-312GT2

SFP transceiver 1000BASE-SX standard, multi-mode fiber, max. distance 2 km, 3.3 V operating voltage

DEM-314GT

SFP transceiver, 1000BASE-LX standard, single-mode fiber, max. distance 50 km, 3.3 V operating voltage

DEM-315GT

SFP transceiver, 1000BASE-LX standard, single-mode fiber, max. distance 80 km, 3.3 V operating voltage

DEM-330T

WDM SFP transceiver, 1000BASELX standard, single-mode fiber, max. distance 10 km, 3.3 V operating voltage, Tx wavelength 1550 nm, Rx wavelength 1310 nm

DEM-330R

WDM SFP transceiver, 1000BASELX standard, single-mode fiber, max. distance 10 km, 3.3V operating voltage, Tx wavelength 1310 nm, Rx wavelength 1550 nm

DEM-331T

WDM SFP transceiver, 1000BASELX standard, single-mode fiber, max. distance 40 km, 3.3V operating voltage, Tx wavelength 1550 nm, Rx wavelength 1310 nm

DEM-331R

WDM SFP transceiver 1000BASELX standard, single-mode fiber, max. distance 40 km, 3.3V operating voltage, Tx wavelength 1310 nm, Rx wavelength1550 nm

DEM-211

SFP transceiver, 100BASE-FX multi-mode fiber, max. distance 2 km, 3.3 V operating voltage

DEM-210

SFP transceiver, 100BASE-FX single-mode fiber, max. distance 15 km, 3.3 V operating voltage

Optional 10 Gbps SFP+ Direct Attach Cables

DEM-CB100S

10-GbE SFP+ 1m Direct Attach Cable

DEM-CB300S

10-GbE SFP+ 3m Direct Attach Cable

Optional Redundant Power Supplies

DPS-500

140-watt redundant power supply

DPS-700 [8]

589-watt redundant power supply

For further information: www.dlink.eu

The heart of the network

25 YEARS of technology & innovation

D-Link ®