





## 24/48-Port Web Smart Switch III

### Technical Specifications

#### General

Port Standards & Functions	<ul style="list-style-type: none"> <li>▪ IEEE 802.3 10BASE-T Ethernet (twisted-pair copper)</li> <li>▪ IEEE 802.3u 100BASE-TX Fast Ethernet (twisted-pair copper)</li> <li>▪ IEEE 802.3ab 1000BASE-T Gigabit Ethernet (twisted-pair copper)</li> <li>▪ IEEE 802.3z Gigabit Ethernet (fiber) ANSI/IEEE 802.3</li> <li>▪ Auto-negotiation</li> <li>▪ IEEE 802.3x Flow Control</li> </ul>
Number of Ports	<ul style="list-style-type: none"> <li>▪ DES-1210-28: 24 10/100Mbps, 2 10/100/1000BASE-T, 2 combo 10/100/1000BASE-T/SFP</li> <li>▪ DES-1210-52: 48 10/100Mbps, 2 10/100/1000BASE-T, 2 combo 10/100/1000BASE-T/SFP</li> </ul>
Network Cables	<ul style="list-style-type: none"> <li>▪ UTP Cat. 5, Cat. 5e (100 m max.)</li> <li>▪ EIA/TIA-568 100-ohm STP (100 m max.)</li> </ul>
Full/Half Duplex	<ul style="list-style-type: none"> <li>▪ Full/half duplex for 10/100Mbps speeds</li> <li>▪ Full duplex for Gigabit speed</li> </ul>
Media Interface Exchange	Auto MDI/MDIX adjustment for all twisted-pair ports

#### Performance

Switching Capacity	<ul style="list-style-type: none"> <li>▪ DES-1210-28: 12.8Gbps</li> <li>▪ DES-1210-52: 17.6Gbps</li> </ul>
Transmission Method	Store-and-forward
MAC Address Table	8K entries per device
MAC Address Update	<ul style="list-style-type: none"> <li>▪ Up to 256 static MAC entries</li> <li>▪ Enable/disable auto-learning of MAC addresses</li> </ul>
Maximum 64 bytes packet forwarding rate	<ul style="list-style-type: none"> <li>▪ DES-1210-28: 9.5 Mpps</li> <li>▪ DES-1210-52: 3.1 Mpps</li> </ul>
RAM Buffer	<ul style="list-style-type: none"> <li>▪ DES-1210-28: 512KB per device</li> <li>▪ DES-1210-52: 1MB per device</li> </ul>

#### Physical & Environmental

AC Input	100 to 240 VAC 50/60Hz internal universal power supply
Maximum Power Consumption	<ul style="list-style-type: none"> <li>▪ DES-1210-28: 17.6W</li> <li>▪ DES-1210-52: 28.9W</li> </ul>
Standby Power Consumption	<ul style="list-style-type: none"> <li>▪ DES-1210-28: 7.6W/110V, 7.9W/240V</li> <li>▪ DES-1210-52: 13.2W/110V, 13.3W/240V</li> </ul>
Fan Quantity	<ul style="list-style-type: none"> <li>▪ DES-1210-28: 0</li> <li>▪ DES-1210-52: 0</li> </ul>
Acoustics	<ul style="list-style-type: none"> <li>▪ DES-1210-28: 0dBA</li> <li>▪ DES-1210-52: 0dBA</li> </ul>
Heat Dissipation	<ul style="list-style-type: none"> <li>▪ DES-1210-28: 60.05 BTU/hr</li> <li>▪ DES-1210-52: 98.61 BTU/hr</li> </ul>
Operating Temperature	0° to 40° C
Storage Temperature	-10° to 70° C
Operating Humidity	10% to 95% non-condensing



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Storage Humidity	5% to 95% non-condensing
Dimensions	<ul style="list-style-type: none"> <li>DES-1210-28: 440 mm x 210 mm x 44mm</li> <li>DES-1210-52: 441 mm x 250 mm x 44 mm</li> <li>19-inch standard rack mounting width, 1U height</li> </ul>
Weight	<ul style="list-style-type: none"> <li>DES-1210-28: 2.6 kg</li> <li>DES-1210-52: 3.3 kg</li> </ul>
Diagnostic LEDs	<ul style="list-style-type: none"> <li>Power (Per device)</li> <li>Link/Activity/Speed (Per 10/100/1000Mbps port)</li> <li>Link/Activity/Speed (Per 10/100Mbps port)</li> <li>Link/Activity/Speed (Per SFP port)</li> </ul>
Emission (EMI)	<ul style="list-style-type: none"> <li>FCC Class A</li> <li>CE Class A</li> <li>VCCI Class A</li> <li>C-Tick</li> </ul>
MTBF	<ul style="list-style-type: none"> <li>DES-1210-28: 419,467hrs</li> <li>DES-1210-52: 289,012hrs</li> </ul>
Safety	cUL, LVD

## Software Features

<b>L2 Features</b> <ul style="list-style-type: none"> <li>MAC Address Table <ul style="list-style-type: none"> <li>DES-1210-28: 8K</li> <li>DES-1210-52: 8K</li> </ul> </li> <li>Flow Control <ul style="list-style-type: none"> <li>802.3x Flow Control</li> <li>HOL Blocking Prevention</li> </ul> </li> <li>IGMP Snooping <ul style="list-style-type: none"> <li>IGMP v1/v2 Snooping</li> <li>Support 256 IGMP groups</li> <li>Supports at least 64 static multicast addresses</li> <li>IGMP per VLAN</li> <li>Supports IGMP Snooping Querier</li> </ul> </li> <li>Spanning Tree Protocol <ul style="list-style-type: none"> <li>802.1D STP</li> <li>802.1w RSTP</li> </ul> </li> <li>Loopback Detection</li> <li>802.3ad Link Aggregation <ul style="list-style-type: none"> <li>DES-1210-28: Max. 8 groups per device/8 ports per group</li> <li>DES-1210-52: Max. 8 groups per device/8 ports per group</li> </ul> </li> <li>Port Mirroring <ul style="list-style-type: none"> <li>One-to-One</li> <li>Many-to-One</li> <li>Supports Mirroring for Tx/Rx/Both</li> </ul> </li> <li>Cable Diagnostics</li> <li>Configurable Auto MDI/MDIX</li> <li>Multicast Filtering* <ul style="list-style-type: none"> <li>Forwards all groups</li> <li>Forwards all unregistered groups</li> <li>Filters all unregistered groups</li> </ul> </li> </ul>	<b>VLAN</b> <ul style="list-style-type: none"> <li>802.1Q</li> <li>VLAN Group <ul style="list-style-type: none"> <li>Max. 256 static VLAN groups</li> <li>Max. 4094 VIDs</li> </ul> </li> <li>Management VLAN</li> <li>Asymmetric VLAN</li> <li>Auto Voice VLAN <ul style="list-style-type: none"> <li>Max. 10 user defined OUI</li> <li>Max. 8 default OUI</li> </ul> </li> </ul>	<b>QoS (Quality of Service)</b> <ul style="list-style-type: none"> <li>802.1p Quality of Service <ul style="list-style-type: none"> <li>4 queues per port</li> </ul> </li> <li>Queue Handling <ul style="list-style-type: none"> <li>Strict</li> <li>Weighted Round Robin (WRR)</li> </ul> </li> <li>CoS based on <ul style="list-style-type: none"> <li>802.1p Priority Queues</li> <li>DSCP</li> </ul> </li> <li>Bandwidth Control <ul style="list-style-type: none"> <li>Port-based (Ingress/Egress, min. granularity 64Kb/s)</li> </ul> </li> </ul>
		<b>Access Control List (ACL)</b> <ul style="list-style-type: none"> <li>Max. 50 profiles</li> <li>Max. 240 rules shared by profiles</li> <li>ACL based on <ul style="list-style-type: none"> <li>MAC Address</li> <li>IPv4 Address (ICMP/IGMP/TCP/UDP)</li> </ul> </li> <li>ACL Actions <ul style="list-style-type: none"> <li>Permit</li> <li>Deny</li> </ul> </li> </ul>

\* Available in future release



## 24/48-Port Web Smart Switch III

### Security

- 802.1X
- Port Security
  - Supports up to 64 MAC addresses per port
- Broadcast/Multicast/Unicast Storm Control
- IP-MAC-Port Binding
  - DHCP Snooping\*
- Static MAC
- D-Link Safeguard Engine
- DHCP Server Screening\*
- ARP Spoofing Prevention\*
  - Max. 64 entries
- SSL\*
  - Supports v1/v2/v3
  - Supports IPv4

### MIB

- MIB II
- Bridge MIB
- SNMPv2 MIB
- MIB Traps Convention
- Interface Group MIB
- Private MIB
- **Management**
  - Web-based GUI
  - Compact CLI through Telnet
  - Telnet Server
  - TFTP Client
  - SNMP
    - Supports v1/v2/v3\*
  - SNMP Trap

- Trap for SmartConsole Utility
- System Log
  - Max. 500 log entries
  - Supports IPv4 log server
- BootP/DHCP Client
- Time Setting
  - SNTP

\* Available in future release

## Optional Products

### Optional SFP Transceivers

DEM-310GT	1000BASE-LX, Single-mode, 10km
DEM-311GT	1000BASE-SX, Multi-mode, 550m
DEM-312GT2	1000BASE-SX, Multi-mode, 2km
DEM-314GT	1000BASE-LX, Single-mode, 50km
DEM-315GT	1000BASE-LX, Single-mode, 80km
DEM-210	100BASE-FX, Single-mode, 15km
DEM-211	100BASE-FX, Multi-mode, 2km

### Optional WDM SFP Transceivers

DEM-220T	100BASE-BX, Wavelength Tx:1550nm Rx:1310nm, Single-mode, 20km
DEM-220R	100BASE-BX, Wavelength Tx:1310nm Rx:1550nm, Single-mode, 20km
DEM-330T	1000BASE-LX, Wavelength Tx:1550nm Rx:1310nm, Single-mode, 10km
DEM-330R	1000BASE-LX, Wavelength Tx:1310nm Rx:1550nm, Single-mode, 10km

DEM-331T	1000BASE-LX, Wavelength Tx:1550nm Rx:1310nm, Single-mode, 40km
DEM-331R	1000BASE-LX, Wavelength Tx:1310nm Rx:1550nm, Single-mode, 40km



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