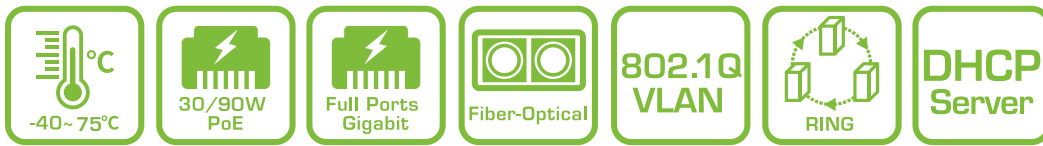


# D51-DC/D51-DC-V2 series

## Industrial L2 Gigabit PoE Switches w/ 12~56VDC Input



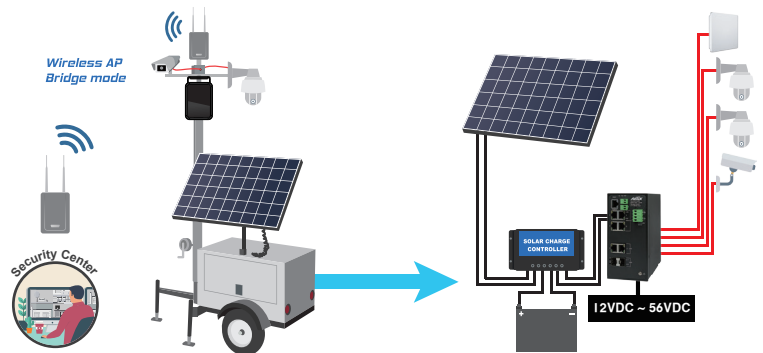
The D51-DC / D51-DC-V2 series of Industrial L2 PoE Switches are designed harden-graded standard to operate between -40°C and 75°C for harsh weather conditions. They enable outdoor connections of PoE PDs to the network such as outdoor IP cameras, wireless APs, and other outdoor industrial applications.

The D51-DC / D51-DC-V2 series provides multi-port Gigabit PoE (10M/100M/1G) delivering data and power to PoE PDs over a single network cable and additional SFP transceiver slots for flexible uplink. The D51 series has three sub models classified as power source equipment (PSE) and provide PoE budget up to 30W or 90W per port.

### Features

- Layer 2 Switch
  - 802.1d (STP), 802.1w (RSTP), 802.1s (MSTP)
  - Loop protection
  - SNMP v1/v2c/v3
  - QoS
  - VLAN
  - Ethernet cable length measurement
  - DHCP Server
- Flexible SFP transceiver ports for uplink
- Operating temperature between -40°C and 75°C
- Compliant IEEE802.3at 30W per port (D51-044-30-DC-V2, D51-084-30-DC-V2)
- Configures proper 90W mode each port via GUI to fit respective PoE PD (D51-044-91-DC)
- Supports 10/100/1000Mbps data rates
- IEEE 802.3az Energy Efficient Ethernet standard for green power

### Applications






## Technical Specifications - Software

PoE Management	
Port Configuration	Supports per port PoE configuration function
PoE Scheduling	Supports per port PoE scheduling to turn on/off the PoE devices (PDs).
Auto-checking	Check the link status of PDs. Reboot PDs if there is no responses
Power Delay	The switch provides power to the PDs based on delay time when PoE switch boots up, in order to protect switch from misuse of the PDs.
Layer 2 Switching Specifications	
Spanning Tree Protocol	MAC Bridges Standard Spanning Tree (STP) 802.1d, Rapid Spanning Tree (RSTP) 802.1w, Multiple Spanning Tree (MSTP) 802.1s
IP/Mac Port Trunking	Link Aggregation Control Protocol (LACP) IEEE 802.3ad , Static aggregation.
VLAN	Supports up to 4K VLANs simultaneously (out of 4096 VLAN IDs), Port-based VLAN, 802.1Q tag-based VLAN
IGMP v1/v2 Snooping	IGMP limits bandwidth-intensive multicast traffic to only the requesters.
Layer 3 Switching Specifications	
DHCP Server	Assign IP to DHCP clients
Security	
IEEE 802.1X	IEEE802.1X: RADIUS authentication, authorization and accounting, MD5 hash, guest VLAN, single/multiple host mode and single/multiple sessions, Supports IGMP-RADIUS based 802.1X, Dynamic VLAN assignment
Port Security	Locks MAC addresses to ports, and limits the number of learned MAC address
Storm Control	Prevents traffic on a LAN from being disrupted by a broadcast, multicast, or unicast storm on a port
Loop Protection	To prevent unknown unicast, broadcast and multicast loops in Layer 2 switching configurations.
RADIUS/ TACACS+	Supports RADIUS and TACACS+ authentication. Switch as a client
QoS	
Classification	Port based, 802.1p VLAN priority based
Bandwidth Control	Ingress policer, Egress shaping and rate control, Per port
Management software	
Port Mirroring	Traffic on a port can be mirrored to another port for analysis with a network analyzer or RMON probe. Up to N-1 (N is Switch's Ports) ports can be mirrored to single destination port. A single session is supported.
IEEE 802.1ab (LLDP)	Used by network devices for advertising their identities, capabilities, and neighbors on an IEEE 802ab local area network, Support LLDP-MED extensions
Web GUI Interface	Built-in switch configuration utility for browser-based device configuration
SNMP	SNMP version 1, 2c, 3
Flow Control	The IEEE 802.3x standard for monitoring high speed switched networks. It gives complete visibility into the use of networks enabling performance optimization, accounting/billing for usage, and defense against security threats
Firmware Upgrade	Web browser upgrade HTTP and TFTP
NTP	Network Time Protocol (NTP) is a networking protocol for clock synchronization between computer systems over packet-switched
Other Management	System, HTTP, DHCP Client, Cable Diagnostics, Syslog, IPV4 Management, SSH, Telnet

## Specifications

	D51-044-30-DC-V2	D51-084-30-DC-V2	D51-044-91-DC
<b>Networking Specifications</b>			
Total Gigabit Ports	8	12	8
Gigabit PoE Ports (10M/100M/1G)	4 x 30W at PoE	8 x 30W at PoE	4 x 90W bt PoE
SFP Slots (100M/1G)	2	4	2
Gigabit Ports (RJ45)	2	-	2
Forwarding Capacity	11.904Mpps	17.856Mpps	11.904Mpps
Mac Table	8 k	8k	8 k
Jumbo Frames	9,216 Bytes	9,216 Bytes	9,216 Bytes
Switching Capacity	16 Gbps	24 Gbps	16 Gbps
<b>Power Specifications</b>			
Input Voltage	12VDC ~ 56VDC x2	12VDC ~ 56VDC x2	12VDC ~ 56VDC x2
Output Voltage Range / per PoE Port	PoE 802.3af (15.4W)output PoE+ 802.3at (30W) output	PoE 802.3af (15.4W)output PoE+ 802.3at (30W) output	PoE 802.3af (15.4W)output PoE+ 802.3at (30W) output PoE++ 802.3bt (90W) output
PSE Power Pin Assignment	12(-),36(+)	12(-),36(+)	12(-),36(+),45(+),78(-)
Switch power consumption (without PoE)	7W	7W	7W
PoE Power Budget	12VDC:90W 24VDC:120W 48VDC:120W	12VDC:90W 24VDC:160W 48VDC:240W	12VDC:90W 24VDC:160W 48VDC:360W
<b>Mechanical Specifications</b>			
Dimensions (L x W x H)	72 x 122 x 150 mm	72 x 122 x 150 mm	72 x 122 x 150 mm
Weight	0.785KG	0.785KG	0.86KG
DI/DO	1/1	1/1	1/1
Console	RJ45	RJ45	RJ45
Reset Button	Yes	Yes	Yes
<b>Environmental Specifications</b>			
Operating Temperature	-40°C~75°C (-40°F~167°F)	-40°C~75°C (-40°F~167°F)	-40°C~75°C (-40°F~167°F)
Storage Temperature	-40°C~85°C (-40°F~185°F)	-40°C~85°C (-40°F~185°F)	-40°C~85°C (-40°F~185°F)
Operating Humidity	5%~95% non-condensing	5%~95% non-condensing	5%~95% non-condensing
<b>Certifications</b>			
EMC	CE,FCC,C-Tick	CE,FCC,C-Tick	CE,FCC,C-Tick

## Ordering Information

PoE Switches			
	<p><b>D51-044-30-DC-V2</b></p> <ul style="list-style-type: none"> <li>• 4xGbE 30W at PoE + 2xGbE SFP + 2xGbE RJ45</li> <li>• 12~56VDC Input</li> </ul>		<p><b>D51-044-91-DC</b></p> <ul style="list-style-type: none"> <li>• 4xGbE 90W bt PoE + 2xGbE SFP + 2xGbE RJ45</li> <li>• 12~56VDC Input</li> </ul>
	<p><b>D51-084-30-DC-V2</b></p> <ul style="list-style-type: none"> <li>• 8xGbE 30W at PoE + 4xGbE SFP</li> <li>• 12~56VDC Input</li> </ul>		

## Optional Accessories

### SFP Modules



**SFP-ISX-X5**  
Industrial Gigabit SFP Transceiver

- MMF
- 0.5 km
- -40°C ~85°C



**SFP-ISX-02**  
Industrial Gigabit SFP Transceiver

- MMF
- 2 km
- -40°C ~85°C



**SFP-ILX-10**  
Industrial Gigabit SFP Transceiver

- SMF
- 10 km
- -40°C ~85°C



**SFP-ILX-40**  
Industrial Gigabit SFP Transceiver

- SMF
- 40 km
- -40°C ~85°C

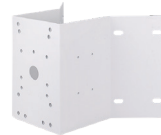
### Pole Mount



**AT-100**  
Pole Mount Adapter



**AT-101**  
Pole Mount Adapter



**AT-200**  
Corner Mount Adapter



**JB-200**  
Junction Box

### Industrial Power Supply



**NDR-120-48**  
Indoor Industrial Din Rail Power Supply, 48-55VDC/120W, -20°C ~ 70°C



**NDR-240-48**  
Indoor Industrial Din Rail Power Supply, 48-55VDC/240W, -20°C ~ 70°C



**NDR-480-48**  
Indoor Industrial Din Rail Power Supply, 48-55VDC/480W, -20°C ~ 70°C

### Industrial Power Supply



**DRL-48V120W1EN**  
Indoor Industrial Din Rail Power Supply, 48V/120W



**DRL-48V240W1EN**  
Indoor Industrial Din Rail Power Supply, 48V/240W



**DRL-48V480W1EN**  
Indoor Industrial Din Rail Power Supply, 48V/480W