MODEL NO: DCN-UPOE-8P-GB280

DCN 8 Port Gigabit UPoE+ Switch with 2 Gigabit SFP Uplink

An important breakthrough, Configure-free Gigabit UPoE+ (bt 90W) Switch for System Integrators.

DCN-UPOE-8P-GB280, an ideal Gigabit UPoE+ Switch, provides a cost-effective advantage to local area networks of SMBs. Offering Layer 2 data packet switchingand stable operation, this model also complies with IEEE 802.3bt ultra Power over Ethernet Plus (UPoE+) at an affordable price. By offering reliable switching technology and advanced networking features, the DCN-UPOE-8P-GB280 optimizes the installation and power management of network devices such as wireless access points, VoIP phones, and PTZ cameras.

The DCN-UPOE-8P-GB280 is equipped with 8 10/100/1000BASE-T Gigabit Ethernet ports and 2-1000BASE-X SFP interfaces with inner power system. Its 4 Gigabit Ethernet ports are integrated with an 802.3bt PoE++ up to 90W injector function, 4 Gigabit Ethernet ports are integrated with an 802.3at PoE+ up to 30W injector function. It offers a rack-mountable, safe and reliable power solution for SMBs deploying Power over Ethernet networks.

The PoE in-line power following the IEEE 802.3bt/at/af standard makes the DCN-UPOE-8P-GB280 able to deliver Gigabit speed data and up to 90 watts of power port to 8 PoE compliant powered devices (PDs) with a combined power output budget of up to 300 watts. The DCN-UPOE-8P-GB280 provides more flexibility in power requirement for all kinds of PDs with affordable installation costs.

Highlights

The Datacomm network gigabit unmanaged UPoE+ switches provides a great value, By offering reliable switching technology and advanced networking features, the UPoE+ switch optimizes the installation and power management of network devices such as wireless access points, LED lighting, and PTZ cameras.It also eliminates time and cost of deployment by integrating power and data switching into one unit and freeing network devices from restrictions of power outlet locations and the additional AC wiring.

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Key features include:

- Complieswith IEEE 802.3af/at/bt Power over Ethernet end-span PSE
- Up to 90W of IEEE 802.3af/802.3at/802.3bt devices powered
- Supports PoE power up to 90 watts for 1-4 PoE port, 30 watts for 5-8 PoE port, all power up to 280W PoE budget.
- PD alive check function
- Each port supports 52V DC power to PoE powered device
- Auto detects powered device (PD)
- Circuit protection prevents power interference between ports
- Remote power feeding up to 100m
- Hardware-based 10/100/1000Mbps auto-negotiation and auto MDI/MDI-X
- Flow control for full duplex operation and back pressure for half duplex operation
- Integrates address look-up engine, supporting 8K absolute MAC addresses
- Automatic address learning and address aging
- Supports Energy-Efficient Ethernet (EEE) function (IEEE 802.3az)

Build a future-proof network with DCN:

- Solidperformance withnon-blockingarchitecture, 8K MAC addresses, 24Gbps Backplane bandwidth, 16.37Mpps Switch Throughput ，9216 bytes Jumbo Frame
- Up to 4 ports of IEEE 802.3af/802.3at/802.3bt and 4 ports of IEEE 802.3af/802.3at devices powered
- UPoE+ support on 1-4 ports，PoE power up to 90 watts for each PoE port
- PoE+ support on 5-8 ports，PoE power up to 30 watts for each PoE port
- 2 Dedicated SFP fiber uplink, Extends network distance with highly Gigabit performance via fiber optic cable.

802.3bt UPoE+ 90-watt for high power consuming network PD

• Adopts the IEEE802.bt UPoE+ standardtechnology, it iscapable to source up to 90 watts of power by using all the four pairs of standard Cat5e/6 Ethernet cabling to deliver power and full-speed data to each remote PoE compliant powered device (PD). Its power capability is three times more than that of the conventional 802.3at PoE+ and it is an ideal solution for those high power consuming network PDs.

DCN Quality and Reliability

- Low powerconsumption, fanless, high-strength metal casing.
- high redundancy design, providing a long termand stable PoE power output.
- CE, FCC, RoHS,CB.
- The user-friendly panel can show the device status through the LED indicator of PWR, Link.

Easy operation and maintenance

- Hardware-based 10/100/1000Mbps auto-negotiation and auto MDI/MDI-X.
- Flow control for full duplex operation and back pressure for half duplex operation
- Supports Energy-Efficient Ethernet (EEE) function (IEEE 802.3az)
- Rack mount installation, Silent Operation
- Plug and play, No configuration required

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Hardware at a Glance

FRONT					REAR		SIDE
Model Name	10/100/1000Base-T RJ45 ports	1GBASE-X Fiber SFP Ports	UPoE+ 802.3bt Ports	PoE+ 802.3bt Ports	Power Budget	Power Supply	Fans
DCN-UPOE-8P-GB280	8	2	4 UPoE+	4 PoE+	300W	1 internal PSU, fixed	Fanless

Performance at a Glance

Model Name	Packet buffer	Chip	Fabric	Switch Throughput@64bytes	MAC Address Table	Jumbo Frame	Latency (Max Connection Speed)
DCN-UPOE-8P-GB280	1.2MB	Realtek	24Gbps line-rate	14.88Mpps	8K	9216 bytes	1G Copper: <3.35µs 1G Fiber: <2.5µs

Features and Benefits

Hardware Features	
1000BASE-T Copper Ethernet UPoE+ connections	Support LED lighting, PTZ Camera and Wi-Fi 6 AP deployments, scal-able for future growth. Never face the risk of running out of PoE ports. Two 1G SFP ports for aggregation to the network core. Support for Fiber and
1GBASE-X Fiber SFP ports	Copper modules. 280W PoE budget available across 4 Gigabit UPoE+ ports and 4 Gigabit
Great choice of PoE port counts and PoE power budgets that can adapt to the business's needs	PoE+ ports– Connect multiple power demanding devices to your network with a single wire for power and connectivity. Maximum power reduction for onging operational cost savings.
Energy Efficient Ethernet (IEEE 802.3az)	

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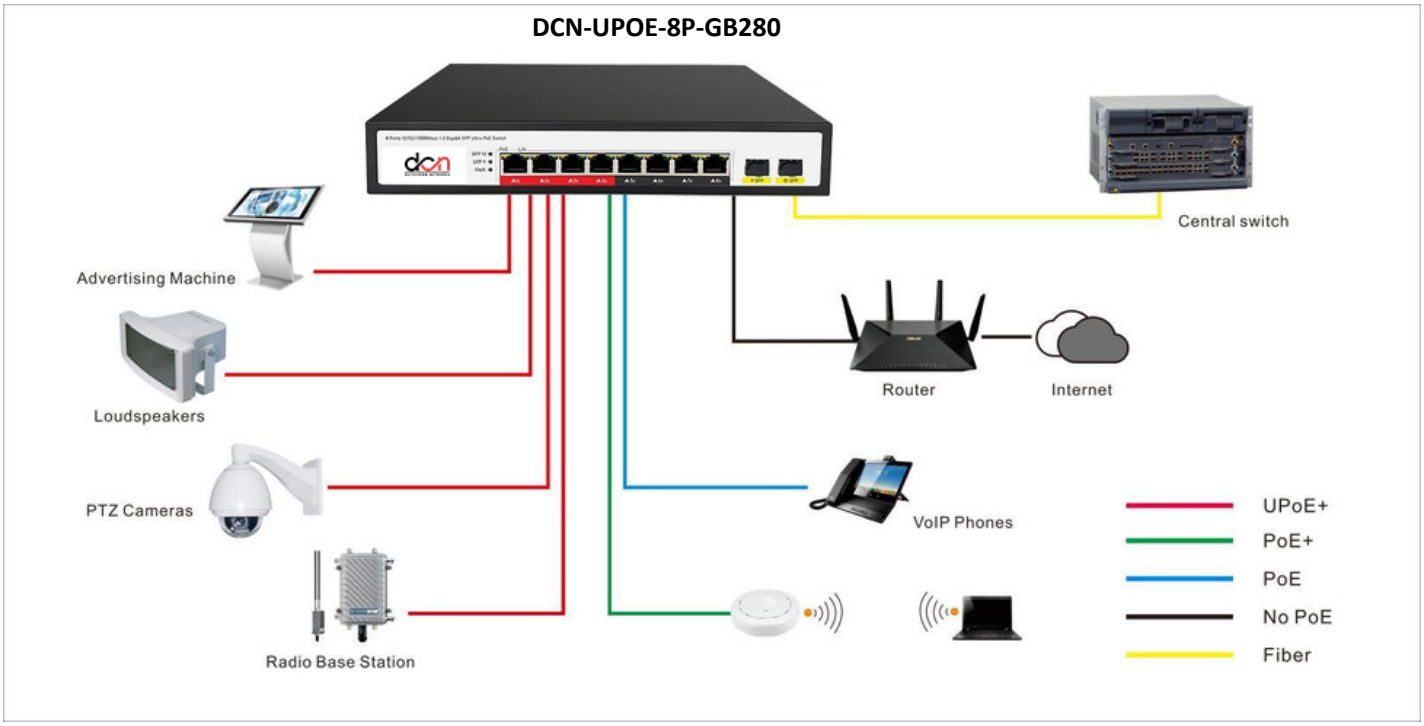
Target Application

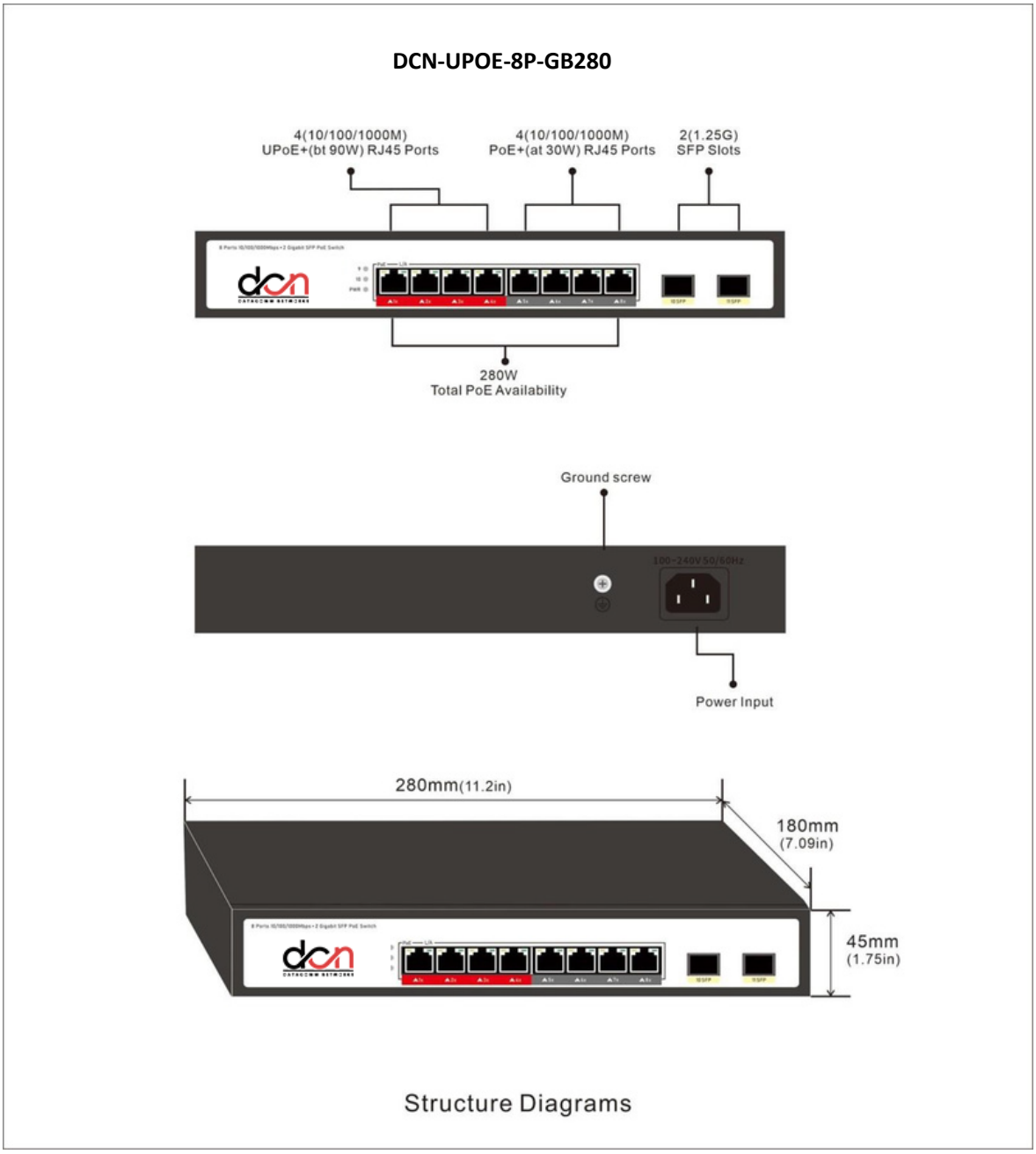
Network Convergence



Within small and medium-sized organizations — especially in the hospitality, catering, education, and retail industries — there is growing deployment of VoIP phones, IP security cameras, video-over-IP endpoints, proximity sensors, LED lighting, secure access door locks, and other IoT devices. The dense proximity of these devices requires network switches capable of supporting PoE so a network manager can add power-hungry devices to the network with a single wire for power AND connectivity. Wave 2 802.11ac wireless access points and pan-tilt-zoom HD surveillance cameras with features such as night vision and built-in motion tracking also require UPoE+ power (802.3bt), increasing the power demands on UPoE+ switches. The new 8-port DCN UPoE+ Switches support dense deployments of these modern high-power UPoE+ devices. with enhanced performance and a focus on usability within commercial environments:

- 280W PoE budget across 4 Gigabit UPoE+ ports and 4 Gigabit PoE+ Ports
- 2 x 1Gb SFP fiber ports for aggregation to the network core to facilitate users' flexible networking
- Comply with IEEE 802.3 af/at/bt PoE power supply standard, automatically identify PoE equipment for power supply.
- Built-in 802.3bt type-4 PoE 90W injector function
- PoE ports support priority mechanism. When the remaining power is insufficient, priority is given to ensuring the power supply of high-priority ports to avoid equipment overload.
- Support non-blocking wire-speed forwarding.
- Plug and play, no configuration, simple and convenient.
- Limited Lifetime* Warranty, Tech support

Structure Diagrams



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Technical Specifications	DCN-UPOE-8P-GB280
10M/100M/1G RJ-45 copper ports	**8**
1G SFP (fiber) ports PoE /	**2**
PoE+/UPoE+ ports	**4 UPoE+**
PoE / PoE+ ports	**4 UPoE+**
Power over Ethernet	
PoE Standard	IEEE 802.3bt Power over Ethernet Plus+/PSE IEEE 802.3at Power over Ethernet Plus/PSE Backward compatible with IEEE 802.3af Power over Ethernet
PoE Power Supply Type	1/2 /4/5(+), 3/6/7/8 (-)
PoE Power Output	Per port 52V DC, 300mA. max. 15.4 watts (IEEE 802.3af) Per port 52V DC, 600mA. max. 30 watts (IEEE 802.3at) Per port 52V DC, 1800mA. max. 90 watts (IEEE 802.3bt)
PoE Power Budget	280 Watts
Number of PDs, 15 watts	8
Number of PDs, 30 watts	8
Number of PDs, 45 watts	4 (1-4 Port)
Number of PDs, 60 watts	4 (1-4 Port)
Number of PDs, 75 watts	3 (1-4 Port)
Performance Specification	
Chip	Realtek
Packet buffer memory (Dynamically shared across only used ports)	1.2 Mb
Forwarding modes	Store-and-forward
Bandwidth	24 Gbps
Packet forwarding rate (64 byte packet size) (Mpps)	14.88Mpps
MAC address database size (48-bit MAC addresses)	8K
Jumbo frame support (bytes)	Up to 9K packet size
Forwarding Mode	Store and Forward(Full Wire Speed)
Mean Time Between Failures (MTBF) @ 25°C	121,136 hours
100M Copper Latency (64-byte; 1518-byte; 9216-byte frames)	8.314µs; 8.412µs; 8.551µs
1G Copper Latency (64-byte; 1518-byte; 9216-byte frames)	3.414µs; 3.545µs; 3.628µs
1G Fiber Latency (64-byte; 1518-byte; 9216-byte frames)	2.980µs; 3.101µs; 3.179µs

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IEEE Network Protocols	DCN-UPOE-8P-GB280
• IEEE 802.3i 10BASE-T • IEEE 802.3u 100BASE-T • IEEE 802.3ab 1000BASE-T • IEEE 802.3z Gigabit Ethernet 1000BASE-SX/LX • IEEE 802.3az Energy Efficient Ethernet (EEE)	• IEEE 802.3af PoE • IEEE 802.3at PoE+ • IEEE 802.3bt PoE++ • IEEE 802.3x Full-Duplex Flow Control
Monitoring	
LEDs	Yes
Per port	Speed, Link, Activity;PoEindifferent mode
Per device	Power
Physical Specifications	
Dimensions	280x 180 x 44.5mm(11.02x7.09 x 1.75 in)
Weight	1.6 kg(3.53lb)
Power Requirements	AC 100~240V 50/60Hz
Power Consumption (when all ports used, line-rate traffic and max PoE)	300W
Max power (worst case, all ports used, full PoE, line-rate traffic) (Watts)	12W
Idle power consumption (all ports link-down standby) (Watts)	8W
Energy Efficient Ethernet (EEE) IEEE 802.3az	Yes (deactivated by default)
Fan	Fanless
Environmental Specifications	
Operating	
Operating Temperature	-20° to 50°C(-4° to 122°F)
Humidity	90% maximum relative humidity (RH), non-condensing
Altitude	10,000 ft (3,000m) maximum
Storage	
Storage Temperature	–20° to 70°C(–4° to 158°F)
Humidity (relative)	95% maximum relativehumidity, non-condensing
Altitude	10,000 ft (3,000m) maximum

Electromagnetic Emissions and Immunity	
Certifications	CE mark, commercial FCC Part 15 Class A, VCCI Class A Class A EN 55022 (CISPR 22) Class A Class A C-Tick EN 55024 CCC 47 CFR FCC Part 15, SubpartB, Class A ICES-003: 2016 Issue 6, Class A ANSI C63.4:2014 IEC 60950-1:2005 (ed.2)+A1:2009+A2:2013AN/NZS CISPR 22:2009+A1:2010 CLASS A

Safety	
Certifications	CB mark, commercial CSA certified (CSA 22.2 #950) UL listed (UL 1950)/cUL IEC 950/EN 60950 EN 60950-1: 2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013 IEC 60950-1:2005 (ed.2)+A1:2009+A2:2013 AN/NZS 60950.1:2015 CCC (China Compulsory Certificate)

Warranty and Support	
Hardware Limited Warranty Technical	Limited Lifetime*
Support via Phone and Email*	Limited Lifetime*
Limited Lifetime* 24x7 Online Chat Technical Support	Limited Lifetime*

Package Contents	
All models	Smart PoE++ Switch AC Power cord with C13 connector (localized to region of sale) Brackets and screws for rack mounting Rubber protection caps, which are already installed in the SFP sockets Installation guide User's manual

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