PDS-204GCO

IP67-Rated Outdoor PoE-Managed Switch With Four-Port 802.3bt PoE, Two-Port SFP, 90W Per Port and AC Input

Summary

PDS-204GCO is a next-generation outdoor Power over Ethernet (PoE) switch for smart cities. It allows Wi-Fi® access points, security network cameras and many other IoT devices to receive power and data over standard Ethernet cables, leaving network infrastructure completely unaltered.

With an IP67 rating, PDS-204GCO complies with the highest outdoor environment standards and enables easy installation without the need to open the unit.

The PDS-204GCO includes four PoE Giga ports with a total output power of 150W. It supports the IEEE® 802.3bt Type 4 standard and contains two fiber links that support 1G or 2.5G speeds each. It supports advanced network features to meet the highest cyber security threats at all network levels and enables multiple network topologies such as network daisy chain or ring for easy installation and network redundancy.

It also offers surge protection for both the AC and the PoE ports, ensuring the indoor equipment is protected from outdoor surges.

Key Features

- Four-port Gigabit 802.3bt PoE and two-port 1G/2.5G SFP
- Supports IEEE 802.3bt Type 4 standard PDs with an output power of up to 90W per port and a total power of 150W
- Supports robust L2 features include advanced VLAN management and translation, Quality of Service (QoS)-rich features, multiple and rapid spanning tree protocol (IEEE 802.1w and IEEE 802.1s) and link aggregation (IEEE 802.1ad)
- Supports advanced network features for network redundancy and high availability including 1:1 port protection (G.8031) and ring protection (G.8032)
- Supports robust security features in all security levels: user access level, device management level and network data frames reception and transmission level
- Easy remote network management by a web browser, CLIs and SNMPv3
- Extended temperature range: −40°C to 50°C
- Integral surge protection
- Outdoor rated: IP67
- Plug-and-play installation (installer does not have to open unit)
- Includes the pole mounting kit

Feature	Description
Number of Ports	4+2
Data Rate	PoE Ports: 4 × 10/100/1000 Mbps SFP: 2 × 100M/1G/2.5G
Input Power Requirement	AC Input Voltage: 100 to 240 V_{AC} AC Input Current: 2.5A AC Frequency: 50/60 Hz
Output Power	Up to 90W Per Port Aggregate 152W
PoE Output	Data Pairs 1/2 (-), 3/6 (+) Spare Pairs 7/8 (-), 4/5 (+) Output Voltage: 55 V_{DC} Nominal
Dimensions	L × W × H 225 mm × 195 mm × 85 mm 8.86 in. × 7.68 in. × 3.35 in.
Weight	6.2 lbs (2.8 kg)
Connectors	Shielded Rugged RJ-45 (With gasket), SFP Cage, AC Connector (User supplied power cord required)
Environmental Conditions	Operating Ambient Temperature: −40°F to +122°F (−40ºC to +50ºC) Operating Humidity: 90% Maximum Non-Condensing Storage Temperature: −40°F to +185°F (−40°C to +85°C) Storage Humidity: 95% Maximum, Non-Condensing Operating Altitude: −1312 ft to 10,000 ft (−400 to 3048m)
Hazardous Substances	CE, WEEE
Warranty	Three years
Reliability	MTBF: 150,000 hrs. @ 25°C
Thermal Rating	150 BTU/Hr
Regulatory Compliance	IEEE® 802.3bt
Electromagnetic Emission and Immunity	FCC Part 15, Class B EN 55032 Class B EN 55035, EN 61000-4-5 AC Lines (6 Kv Line-Line, 6 kV Line-Earth) VCCI
Safety	UL/IEC/EN 62368-1 Please contact Microchip for a complete list of certifications.
Surge Protection	Designed to meet surge protection as specified in GR-1089-CORE Issue 6 ITU-T K.21 Enhanced Surge Level Protection (6 kV on Data and AC Lines)
Other Standards and Approvals	Dust Proof and Water Resistant: EN 60529, IP67-Rated; NEMA 250, Level 4X; ASTM B-117 Corrosion Resistance

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Feature		Description
Ethernet L2 Switch Network Capabilities		4K Internal MAC Address Lookup Engine
		Auto MAC Address Learning/Aging and Static MAC Address Assignment
		4k VLANs Management (IEEE 802.1Q) and Provider Bridging (VLAN Q-in-Q) Support (IEEE 802.1ad)
		VLAN Classification and Translation With Pattern Matching Against Layer 2 Through Layer 4 Information Such as MAC Addresses, VLAN Tag Headers, EtherType, DSCP, IP Addresses and TCP/UDP Ports and Ranges
		Access/Trunk/Hybrid Port Configuration Support
		Static Link Aggregation (IEEE 802.3ad) Support
		Link Aggregation (IEEE 802.3ad) Based on LACP
		Rapid and Multiple Spanning Tree Protocol Support (IEEE 802.1w and IEEE 802.1s)
Network Redundancy Capabilities		UNI LAG (LACP) 1:1 Active/Standby
		1:1 Port Protection (G.8031)
		Ring Protection (G.8032)
Network Security Capabilities	**Device Management**	Management Interface: Web via SSL/HTTPS, CLI via Secure Telnet (SSHv2) and SNMPv3 With Authentication Privacy
		Secured Web Browsing Certificate Management (Self-Signed or CA-Signed)
		Static or Dynamic Device IPv4/IPv6 Setting
		Management Access Filtering
		Device Time Setting Based on SNTP/NTP Servers
		Software Upload via Web SSL/HTTPS
		Secure Port
		Loop Detection Restore to Default
		Denial-of-Service (DoS) Attack Prevention
	User Access	Compliance California Law (SB-327)
		Multiple User Privilege Levels in CLI (15 User Levels)
		User Authentication and Authorization by Remote Servers Using RADIUS or TACACS+ Security Mechanism
	Protecting Network Data Traffic	Authentication and Authorization of Connected Devices based on IEEE 802.1x Standard (Port-Based Network Access Control), and/or based on Device's MAC Address
		Network Access Control Lists (ACLs) for Traffic Classification and/or Filtering
		Private VLAN
		Denial-of-Service (DoS) Attack Prevention
		Unknow/Multicast/Broadcast Traffic Storm Control Policing
		DHCP Snooping and Dynamic ARP Inspection (DAI)
		Bridge Protocol Data Unit (BPDU) Guard, Loopback Guard and IP Source Guard (IPSG)
		IP/MAC/Port Binding (IPMB)
		Mirroring of Incoming/Outgoing Traffic
Quality of Service Capabilities		Eight QoS Classes and Two Drop Precedence Levels
		Eight QoS Queues Per Port With Deficit Weighted Round Robin (DWRR) or Frame-Based Round-Robin (FBRR) Scheduling
		QoS Classification Based on Port Number, 802.1p Priority, 802.1Q VLAN Tag or DSCP/TOS Field in IP Packet
		QoS Classification With Pattern Matching Against Layer 2 Through Layer 4 Information
		Full-Duplex Flow Control (IEEE 802.3X) and Half-Duplex Backpressure, Symmetric and Asymmetric
		Priority-Based Full-Duplex Flow Control (IEEE 802.1Qbb)
Ethernet Network Ports Capabilities		10/100/1000 Mbps Half-Duplex/Full-Duplex Ethernet Speed Based on Port Auto-Negotiation (IEEE 802.3)
		Auto MDIX
		100M/1G/2.5G SFP ports
		Jumbo Frame Support
System Network Management Capabilities		Web Interface for Viewing Unit Network and PoE Status, Unit Configuration and Unit Production Information
		SNMP v2/v3 for network management (MIB-II RFC1213) and PoE management (RFC3621) of the unit
		SNMP Traps Reporting Mechanism
		Telnet for Viewing Unit Network and PoE Status, Unit Configuration and Production Information Software Update, Enable/Disable PoE Functionality, Ping Remote Network Device for Connectivity Test
		SysLog to Report security, network and PoE events
PoE Capabilities		IEEE 802.3bt Type 4 Delivers Up to 90 Watts Per Port and With a Total Power of 150 Watts
		Enable/Disable PoE Power Output per Port (Ethernet data is unaffected)
Power Cord		User supplied. Outdoor rated, 300V (or better), 16 AWG-18 AWG (1.0 mm^2 to 1.5 mm^2) with outer diameter 3/16 in. to 3/8 in. (5.0 mm to 9.5 mm).

Network Security Capabilities (vertical label spanning Device Management, User Access, Protecting Network Data Traffic rows)

Technical Support

For technical support, please visit the Microchip Technical Support Portal at www.microchip.com/support.

Ordering Information

Part Number	Name	Description
PDS-204GCO/AC	PDS-204GCO	IP67-Rated Outdoor PoE Managed Switch With Four-Port 802.3bt PoE, Two-Port SFP, 90W Per Port and AC Input, Includes the Pole Mounting Kit

About Microchip mPoE

Microchip multi-Power over Ethernet (mPoE) is a technology that powers any wired network device seamlessly and efficiently, making it the ideal solution for Ethernet-based applications. Leveraging a uniquely designed algorithm, this technology solves interoperability issues between different PoE standards and legacy solutions to provide an international network power standard. As a pioneer in PoE technology, we offer a comprehensive end-to-end portfolio of PoE solutions comprised of PoE ICs and PoE systems (midspans/injectors and switches).