Carat10-D2GF8GP-DPC

DIN-Rail Unmanaged Industrial Ethernet Switch

Features

- 2 x Gigabit SFP optical port slots, 8 x 10/100/1000 Base-T(X) Ports (RJ45 Connector)
- Electrical ports support IEEE 802.3at standard (PoE+)
- 48VDC (44-57VDC) wide voltage redundant power input
- Relay alarm output upon power failure
- High-strength metal sealed enclosure, shock and vibration resistant, rugged and durable
- Industrial fanless dustproof design, stable and reliable for long-term operation



Product Overview

The Carat10-D2GF8GP-DPC DIN-Rail Unmanaged Industrial Ethernet Switch is designed for network communication in industrial fields such as smart city, new energy, intelligent transportation, and industrial automation. It complies with relevant industry standards and has obtained multiple certifications including CE, FCC, and UL62368. It is

suitable for harsh industrial environments with strict EMC (Level 3) requirements, providing highly reliable industrial network connection solutions for various industrial applications.

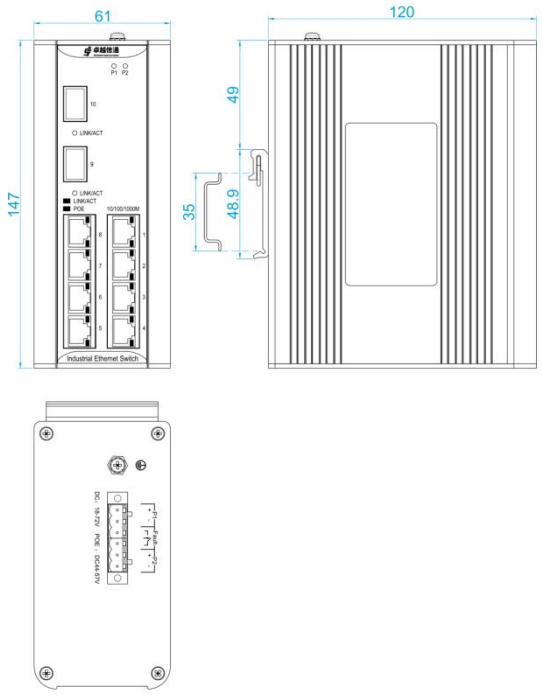
The Carat10-D2GF8GP-DPC features a high-strength metal enclosure that shields against electromagnetic interference and provides resistance to vibration and shock. The industrial fanless design eliminates the failure point caused by fan malfunction. Additionally, the built-in relay alarm function alerts network administrators upon power failure, ensuring long-term stable, reliable, and safe operation in various harsh industrial environments.

Specifications

Standards Compliance	
Standard	IEEE 802.3i(10Base-T) IEEE 802.3u(100Base-TX) IEEE 802.3ab(1000Base-T) IEEE 802.3z(1000Base-X)
Switch Properties	
Switching Mode	Store and Forward
Switching Capacity	20Gbps
Packet Forwarding Rate	14.88Mpps
Buffer	2Mbit
MAC Address Table	8K
Switching Latency	<10μs
Port Performance	
Electrical Port	8 x 10/100/1000Base-TX ports, RJ45, all ports support max. 30W (802.3at standard) PoE+ power supply
Optical Port	2 x Gigabit SFP optical port slots, LC
LED Indicators	Power indicators (P1, P2), Port indicators (Link/ACT)
Mechanical	
Dimensions	51mm x 117mm x 148mm (W x D x H)
Weight	820g
Mounting	DIN-Rail, optional wall-mounted
Other	IP40 Protection Rating, Metal Enclosure
Electrical Performance	

Input Voltage	48VDC (44-57V) redundant power input, overload and reverse polarity protection, 6-pin 5.08mm pitch terminal block (2 pins for relay)	
Alarm Port	1 x relay alarm output, terminal block	
Wattage	Non-PoE <4.1W; PoE: each port supports max. 30W (802.3at standard)	
Operating Environment		
Operating Temperature	-40℃~75℃	
Storage Temperature	-40℃~85℃	
Relative Humidity	5% ~ 95% (non-condensing)	
Standards and Certifications		
System Certification	ISO9001, ISO14001, ISO22163 (IRIS)	
Standard Certification	CE, FCC	
Safety	Complies with EN60950	
EMC	EMI	FCC CFR47 Part 15B Class A, CE EN55032 Class A
	EMS	ESD Immunity
		RF Electromagnetic Field Radiation Immunity (RS)
		Electrical Fast Transient Burst Immunity (EFT)
		Surge Immunity
		Conducted Susceptibility Immunity to RF Field (CS)
		Power Frequency Magnetic Field Immunity (PFMF)
Vibration	Complies with IEC 60068-2-6	
Shock	Complies with IEC 60068-2-27	
Free Fall	Complies with IEC 60068-2-32	
MTBF	MTBF greater than 500,000 hours	

Physical Dimensions



Ordering Information

Model	Description
Carat10-D2GF8GP-DPC	DIN-Rail Unmanaged Industrial Ethernet Switch, 2 x Gigabit SFP optical port slots, 8 x Gigabit electrical ports, all ports support max. 30W (802.3at standard) PoE+ power supply, 48VDC redundant power inputs, IP40 Protection Rating
Carat10-D8GT-D2C	DIN-Rail Unmanaged Industrial Ethernet Switch, 8 x Gigabit electrical ports, 9-36VDC redundant power inputs, IP40 Protection Rating
Carat10-D8GT-HVC	DIN-Rail Unmanaged Industrial Ethernet Switch, 8 x Gigabit electrical ports, 220VAC dual power inputs, IP40 Protection Rating
Carat10-D2GF8GT-D2C	DIN-Rail Unmanaged Industrial Ethernet Switch, 2 x Gigabit SFP optical port slots, 8 x Gigabit electrical ports, 9-36VDC redundant power inputs, IP40 Protection Rating
Carat10-D2GF8GT-HVC	DIN-Rail Unmanaged Industrial Ethernet Switch, 8 x Gigabit electrical ports, 2 x Gigabit SFP optical port slots, 220VAC dual power inputs, IP40 Protection Rating
Carat10-D8GT2ST02D3-D2C	DIN-Rail Unmanaged Industrial Ethernet Switch, 2 x Gigabit optical ports (ST multi-mode dual fiber, 1310nm, 2km), 8 x Gigabit electrical ports, 9-36VDC redundant power inputs, IP40 Protection Rating
Carat10-D8GT2ST20D3-D2C	DIN-Rail Unmanaged Industrial Ethernet Switch, 2 x Gigabit optical ports (ST single-mode dual fiber, 1310nm, 20km), 8 x Gigabit electrical ports, 9-36VDC redundant power inputs, IP40 Protection

More Information

For more information about Transcend products, please visit our website or contact us via our

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web：**www.transcendcom.com**

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