



Outstanding Network Solution for Hardened
Environment
Choose only the best for your business!

As a leading provider of network equipment for Industrial Communication, Benchu group understands the importance of providing stability and safety that can adapt to your business' needs, whether in the Safe City, Traffic, Mining, industrial automatic, Power or energy. The IES7211-5FE-DC with IP40 protection class and meet EMC industrial level 3 requirements. The product supports wide power input voltage range of 12-54VDC redundant power with reverse polarity protection and wide operating temperature range of -40 to the +85°C.

The switches can be easily installed on a DIN rail as well as in distribution boxes. In addition to its compact size for space-saving installation, each product has passed a 100% burn-in test to ensure its quality high-reliability transmission. The IES7211-5FE-DC is equipped with 5-10/100BASE-T fast ethernet ports with redundant power input. It offers a safe and reliable power solution for outdoor industrial environments deploying Power over Ethernet networks

Plug-and-play functionality simplifies the installation process, Users can quickly identify and resolve connectivity issues without needing to delve into complex configurations, ensuring their network remains operational with minimal effort.

Highlights

Benchu group IES7211-5FE-DC industrial ethernet switch, featuring 5-10/100BASE-T ports, Its in a IP40 rugged metal case, can be installed in any difficult environment. Support 8kV lightning protection, ensures high network availability by preventing downtime caused by power surges. support redundant power input ,ensures continuous operation even if one power source fails, the risk of network outages due to power supply failure is significantly reduced.DIN-Rail mounting allows for compact and organized installation of industrial switches, maximizing the use of available space. Wide temperature range, low-power consumption and fanless design, It is able to operate reliably, stably and quietly in the temperature range from -40 to 85 degrees C.

Key features include:

- Hardware-based 10/100Mbps 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 2K absolute MAC addresses
- Automatic address learning and address aging
- Supports Energy-Efficient Ethernet (EEE) function (IEEE 802.3az)

Build a future-proof network with BENCHU:

- Solid performance with non-blocking architecture, 2K MAC addresses, 1.6Gbps Backplane bandwidth, 0.75Mpps Switch Throughput

Fast Access

- The remote units provide the full line-speed forwarding capability. All ports support non-blocking data packet forwarding, providing users with high-speed access experience and meeting the requirements of high-bandwidth services such as HD video conferencing, online video, and large file download.

BENCHU Quality and Reliability

- Low power consumption, fanless.
- High strength aluminum alloy shell
- IP40 Industrial design
- Contact Discharge 8KV DC; Air Discharge 15KV DC
- -40 to 85 degrees operating temperature
- Dual power input
- Din Rail mounting installation
- CE, FCC, RoHS,CB.

Easy operation and maintenance

- Hardware-based 10/100Mbps 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)
- Din Rail mount installation and dual power input
- Plug and play, No configuration required
- The user-friendly panel can show the device status through the LED indicator of PWR, Link.



Hardware at a Glance

FRONT			REAR	SIDE
Model Name	Form-Factor	10/100Base-T RJ45 ports	Power Supply	Fans
IES7211-5FE-DC	Din Rail Mounting	5	Dual power input DC12~54V	Fanless

Performance at a Glance

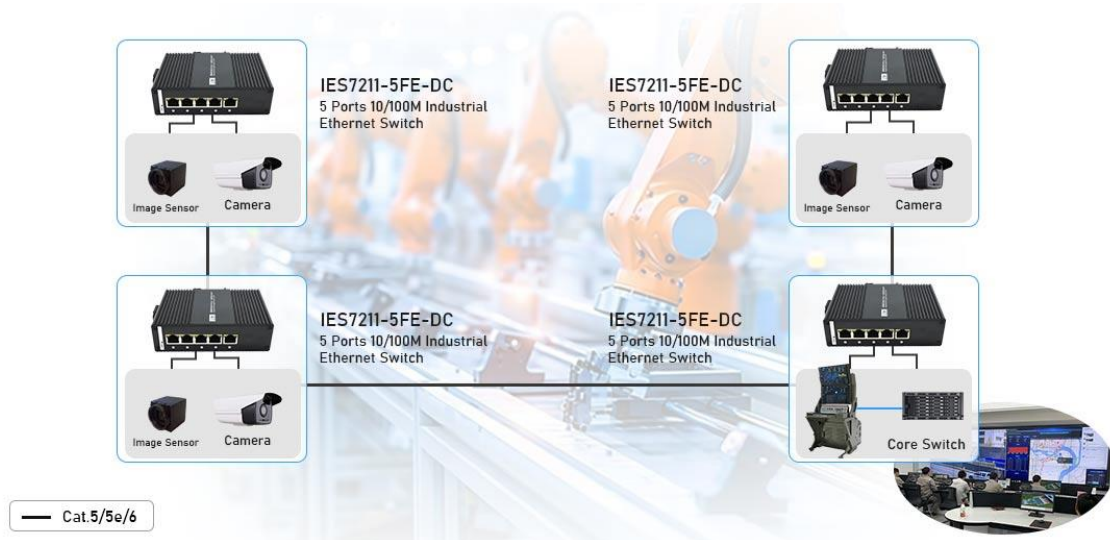
Model Name	Chip	Packet buffer	Fabric	Switch Throughput	MAC Address Table	Latency (Max Connection Speed)
IES7211-5FE-DC	Realtek	0.4MB	1.6Gbps	0.75Mpps line-rate	2K MAC	100M Copper: <8.6μs

Features and Benefits

Hardware Features	
10/100BASE-T Copper Ethernet Connections	Support Surveillance, Wi-Fi AP, VoIP, PLC, Access control and Speaker, deployments, scal-able for future growth.
Redundant Power Input	By having a secondary power supply, the switch can seamlessly switch to the backup power, maintaining network connectivity without interruption.
8kV Lightning Protection	Enhanced protection minimizes the risk of costly repairs and replacements, maintaining network stability and reliability in environments prone to lightning activity.
Wide Operating Temperature Range of -40 to 85°C	Remains reliable in both extremely cold and hot environments. Reliable performance in extreme conditions reduces downtime and maintenance needs, ensuring continuous operation.
IP40 Industrial Design	Features an IP40-rated industrial design, which provides a high level of protection against dust and debris, ensuring reliable operation in demanding environments.

Target Application

Network Convergence

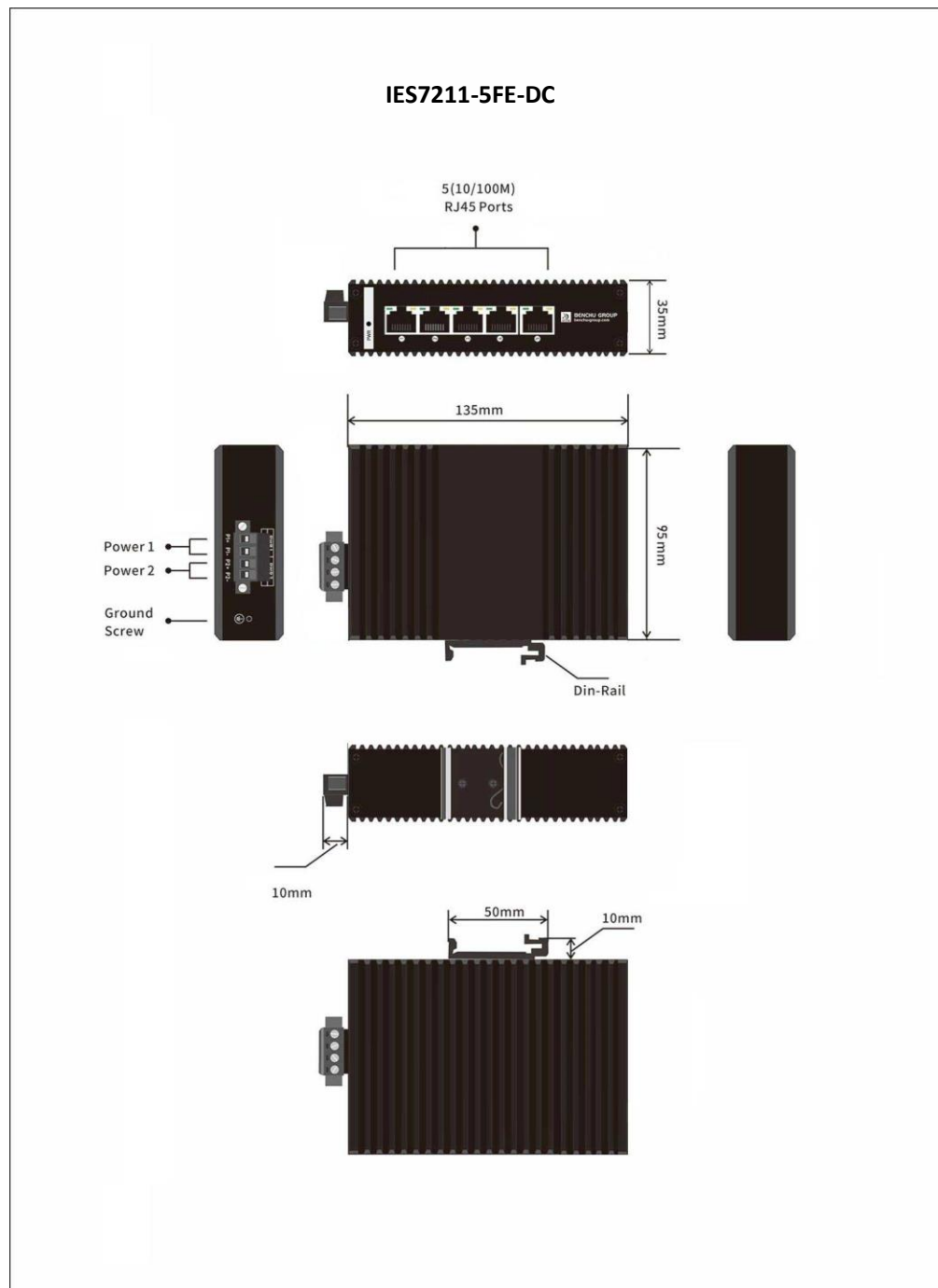


Across sectors like industrial parks, power and utilities, industrial automation, and energy, there is a rapid rise in the use of IoT devices such as VoIP phones, IP security cameras, video-over-IP endpoints, proximity sensors, LED lighting, and secure access door locks. This growing deployment of devices requires reliable and stable industrial network switches to maintain consistent network performance. Additionally, the challenging conditions of outdoor and harsh environments call for industrial-grade switches built with durability and resilience to endure extreme conditions, including temperature changes, dust, and moisture exposure. These industrial ethernet switches are engineered to ensure dependable performance, enabling uninterrupted operations. As industrial networks become increasingly complex, selecting high-quality industrial-grade switches has become critical to supporting the expanding IoT infrastructure and addressing the needs of modern industrial applications.

The 5-port industrial Ethernet switches support dense deployments of these modern high-uniformity network devices. They offer enhanced performance and a focus on usability within Industrial environments:

- Provide 5-10/100M fast ethernet ports
- Dual power input --- the risk of network outages due to power supply failure is significantly reduced.
- Wide Operating Temperature Range of -40 to 85°C
- Contact Discharge 8KV DC; Air Discharge 15KV DC
- High strength aluminum alloy shell, IP40 Industrial design
- Excellent features such as fast response, resisting vibration, enduring dust, adapting for the hard environment, etc.
- Plug and play, No configuration required --- simplifies the installation process
- Limited Lifetime* Warranty, Tech support

Structure Diagrams





Technical Specifications		IES7211-5FE-DC
10M/100M RJ-45 copper ports		5
Performance Specification		
Chip		Realtek
Packet buffer memory (Dynamically shared across only used ports)		0.4 MB
Forwarding modes		Store-and-forward
Bandwidth		1.6 Gbps
Packet forwarding rate (64 byte packet size) (Mpps)		0.75Mpps
MAC address database size (48-bit MAC addresses)		2K
Mean Time Between Failures (MTBF) @ 25°C		152,315 hours
100M Copper Latency (64-byte; 1518-byte; 9216-byte frames)		8.314µs; 8.412µs; 8.551µs
IEEE Network Protocols		
<ul style="list-style-type: none">• IEEE 802.3i 10BASE-T• IEEE 802.3u 100BASE-T• IEEE 802.3x Full-Duplex Flow Control		
Monitoring		
LEDs		Yes
Per port		Speed, Link, Activity;
Per device		Power
Physical Specifications		
Dimensions		135 x 95 x 35 mm (5.31 x 3.74 x 1.38 in)
Weight (includes packaging accessories)		0.55 kg (1.21 lb)
Power Input (Dual power input)		DC 48~54V
Max power (worst case, all ports used, line-rate traffic) (Watts)		6W
Idle power consumption (all ports link-down standby) (Watts)		4W
Fan		Fanless



Environmental Specifications

Operating

Operating Temperature	-40° to 85°C (-40° to 185°F)
Humidity	95% maximum relative humidity (RH), non-condensing
Altitude	10,000 ft (3,000 m) maximum

Storage

Storage Temperature	-40° to 85°C (-40° to 185°F)
Humidity (relative)	95% maximum relative humidity, non-condensing
Altitude	10,000 ft (3,000 m) maximum

Executive Standard & Protection

Lightning Protection

IEC61000-4-3 (RS)	10V/m (80~1000MHz)
FCC Part 15/CISPR22 (EN55022)	Class B
CE	EN55032,EN55035
IEC61000-6-2	Common Industrial Standard
IEC61000-4-9 (Pulsed magnet field)	1000A/m
IEC61000-4-10 (Damped oscillation)	30A/m, 1MHz
IEC61000-4-12/18 (Shockwave)	CM 2.5kV, DM 1kV
IEC61000-4-4(EFT)	Power cable:±4kV, Data cable: ±2kV
IEC61000-4-16(Common-mode transmission)	30V, 300V, 1s
IEC61000-4-2 (ESD)	±8kV contact discharge, ±15kV air discharge
IEC61000-4-6 (Radio frequency transmission)	10V(150kHz~80MHz)
IEC61000-4-8 (Power frequency magnetic field)	100A/m, 1000A/m, 1s-3s
IEC61000-4-5 (Surge): Power cable	CM±4kV/ DM±2kV, Data cable: ±4kV

Mechanical Properties

IEC60068-2-6	Anti Vibration
IEC60068-2-32	Free Fall
IEC60068-2-27	Anti Shock

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+A2:2013 AN/NZS CISPR 22:2009+A1:2010 CLASS A

Safety

Certifications	CB mark, commercial
	CSA certified (CSA 22.2 #950)
	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	Limited Lifetime*
Technical Support via Phone and Email*	Limited Lifetime*
Limited Lifetime* 24x7 Online Chat Technical Support	Limited Lifetime*

Package Contents

All models	Industrial ethernet Switch
	Brackets and screws for DIN-Rail mounting which are already installed in the industrial switch
	User's manual