



SCALANCE XC424-4 managed Layer 3 IE switch, 24x 10/100/1000 Mbps RJ45, 4x 1G/10 Gbps SFP+ port, LED diagnostics, error signaling contact with select/set button; PROFINET IO; device; network management, redundancy functions; office features (RSTP, VLAN, IGMP,...); CLP included in scope of supply; assembly: DIN rail/S7 mounting rail

product type designation	
product brand name	SCALANCE
product type designation	XC424-4
Technical Product Detail Page	<a href="https://l.siemens.com/1P6GK5428-4TR00-2AC2">https://l.siemens.com/1P6GK5428-4TR00-2AC2</a>
transfer rate	
transfer rate	10, 100, 1000 Mbit/s
transfer rate	10 Gbit/s
interfaces / for communication / integrated	
number of electrical connections	
• for network components or terminal equipment	24; RJ45 with securing collar
number of 10/100/1000 Mbit/s RJ45 ports	
• with securing collar	24
number of electrical connections	
• for SFP+	4; 1000 Mbps and 10000 Mbps SFP usable
interfaces / other	
number of electrical connections	
• for operator console	1
• for signaling contact	1
• for power supply	2
type of electrical connection	
• for operator console	USB (2.0 type B, USB-to-serial adapter)
• for signaling contact	2-pole terminal block
• for power supply	2 x 2-pole terminal block
design of the removable storage	
• CLP	Yes
operating voltage / of the signaling contacts	
• at DC / rated value	24 V
operational current / of the signaling contacts	
• at DC / maximum	0.1 A
supply voltage, current consumption, power loss	
product component / connection for redundant voltage supply	Yes
type of voltage supply / redundant power supply unit	No
<b>type of voltage / 1 / of the supply voltage</b>	DC
• supply voltage / 1 / rated value	24 V
• power loss [W] / 1 / rated value	43.2 W
• power loss [W] / at DC / at 24 V / typical	25.92 W
• supply voltage / 1 / voltage range	19.2 ... 28.8
• consumed current / 1 / maximum	1.8 A
• consumed current / at DC / at 24 V / typical	1.08 A



<ul style="list-style-type: none"> <li>• GMRP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DCP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• LLDP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• EtherNet/IP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v1</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNMP v3</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IGMP (snooping/querier)</li> </ul>	Yes
identification & maintenance function	
<ul style="list-style-type: none"> <li>• I&amp;M0 - device-specific information</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• I&amp;M1 - higher level designation/location designation</li> </ul>	Yes
<b>product functions / diagnostics</b>	
product function	
<ul style="list-style-type: none"> <li>• port diagnostics</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• statistics Packet Size</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• statistics packet type</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• error statistics</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SysLog</li> </ul>	Yes
<b>product functions / VLAN</b>	
product function	
<ul style="list-style-type: none"> <li>• VLAN - port based</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• VLAN - protocol-based</li> </ul>	No
<ul style="list-style-type: none"> <li>• VLAN - IP-based</li> </ul>	No
<ul style="list-style-type: none"> <li>• VLAN dynamic</li> </ul>	Yes
number of VLANs / maximum	257
number of VLANs - dynamic / maximum	257
number of VLANs / at ring redundancy (HRP; MRP; standby link)	257
<b>product functions / DHCP</b>	
product function	
<ul style="list-style-type: none"> <li>• DHCP server</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DHCP client</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DHCP Option 82</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DHCP Option 66</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• DHCP Option 67</li> </ul>	Yes
<b>product functions / routing</b>	
service / routing / note	IP routing integrated
product function	
<ul style="list-style-type: none"> <li>• static IP routing</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• static IP routing IPv6</li> </ul>	No
<ul style="list-style-type: none"> <li>• dynamic IP routing</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• dynamic IP routing IPv6</li> </ul>	No
protocol / is supported	
<ul style="list-style-type: none"> <li>• RIPv2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• RIPnG for IPv6</li> </ul>	No
<ul style="list-style-type: none"> <li>• OSPFv2</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• OSPFv3 for IPv6</li> </ul>	No
<ul style="list-style-type: none"> <li>• VRRP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• VRRP for IPv6</li> </ul>	No
<b>product functions / redundancy</b>	
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
product function	
<ul style="list-style-type: none"> <li>• media redundancy protocol (MRP) with redundancy manager</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Media Redundancy Protocol Interconnection (MRP-I)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• of the PROFINET IO device / is supported / PROFINET system redundancy</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• ring redundancy</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• high speed redundancy protocol (HRP) with redundancy manager</li> </ul>	Yes

<ul style="list-style-type: none"> <li>• high speed redundancy protocol (HRP) with standby redundancy</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• redundancy procedure STP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• redundancy procedure RSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• redundancy procedure RSTP+</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• redundancy procedure MSTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• High-availability Seamless Redundancy (HSR)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Parallel Redundancy Protocol (PRP)/operation in the PRP-network</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• passive listening</li> </ul>	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• LACP</li> </ul>	Yes
<b>system modification during operation</b>	
product function / configuration in RUN via CiR/H-CiR	Yes
<b>product functions / security</b>	
product function	
<ul style="list-style-type: none"> <li>• IEEE 802.1x (radius)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• broadcast/multicast/unicast limiter</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• broadcast blocking</li> </ul>	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• SSH</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SSL</li> </ul>	Yes
<b>product functions / time</b>	
product function	
<ul style="list-style-type: none"> <li>• SICLOCK support</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• NTP-client</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNTP client</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• IEEE 1588 v2 transparent forwarding</li> </ul>	Yes
protocol / is supported	
<ul style="list-style-type: none"> <li>• NTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• SNTP</li> </ul>	Yes
accuracy / at IEEE 1588 v2	
<ul style="list-style-type: none"> <li>• not less than</li> </ul>	100 µs
<ul style="list-style-type: none"> <li>• typical</li> </ul>	50 ns
<b>standards, specifications, approvals</b>	
certificate of suitability	
<ul style="list-style-type: none"> <li>• CE marking</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• UKCA marking</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• KC approval</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Regulatory Compliance Mark (RCM)</li> </ul>	Yes
standard	
<ul style="list-style-type: none"> <li>• for EMC interference emission</li> </ul>	EN 61000-6-4 (Class A)
<ul style="list-style-type: none"> <li>• for immunity to EMC</li> </ul>	EN 61000-6-2
<ul style="list-style-type: none"> <li>• for safety / from CSA and UL</li> </ul>	UL 60950-1; CSA C22.2 No. 213-M1987
<b>standards, specifications, approvals / hazardous environments</b>	
certificate of suitability	
<ul style="list-style-type: none"> <li>• CCC / for hazardous zone according to GB standard</li> </ul>	Yes
<b>standards, specifications, approvals / other</b>	
certificate of suitability	
<ul style="list-style-type: none"> <li>• railway application in accordance with EN 50125-3</li> </ul>	Yes; Section 4.2: Class AX (up to 2000m); section 4.3: T1: Containers N.T.C and T.C. / Buildings N.C.C and C.C, T2: Containers N.T.C and T.C. / Buildings N.C.C and C.C, TX: Containers N.T.C and T.C. / Buildings N.C.C and C.C., derating according to the manual must be observed when SFP/SFP+ transceivers are used --> only for variants with optical connections; In addition, depending on the installation position, the derating according to the manual must be taken into account; section 4.4: T1: Containers C.C. / Buildings N.C.C and C.C., T2: Containers C.C. / Buildings N.C.C and C.C, T3: Containers C.C. / Buildings N.C.C and C.C; section 4.11: C1: Indoor, C2: Indoor (except condensation), C3: Indoor (except condensation), 4B1, 4S10, UL 61010-2-10; section 4.13: partially, Test Fc: Vibration EN 60068-2-6; IEC 60068-2-6, Test Ea: Shock EN 60068-2-27; IEC 60068-2-27, Test Ec: Rough handling, shocks

	EN 60068-2-31; IEC 60068-2-31; section 4.14: yes; section 4.15: yes, according to manual.
resistance to air pollution / conformity according to ANSI/ISA-71.04	Yes; G3
IT security for industrial automation systems / according to IEC 62443-4-2:2019	Yes

**standards, specifications, approvals / Environmental Product Declaration**

Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
• total	1244.3 kg
• during manufacturing	122.74 kg
• during operation	1120.64 kg
• after end of life	0.91 kg

**product functions / general**

warranty period	5 a
product function / is supported / identification link	Yes; acc. to IEC 61406-1:2022

**further information / internet links**

internet link	
• to website: Selection guide for cables and connectors	<a href="https://support.industry.siemens.com/cs/ww/en/view/109766358">https://support.industry.siemens.com/cs/ww/en/view/109766358</a>
• to web page: selection aid TIA Selection Tool	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
• to website: Industrial communication	<a href="https://www.siemens.com/simatic-net">https://www.siemens.com/simatic-net</a>
• to web page: SiePortal	<a href="https://sieportal.siemens.com/">https://sieportal.siemens.com/</a>
• to website: Image database	<a href="https://www.automation.siemens.com/bilddb">https://www.automation.siemens.com/bilddb</a>
• to website: CAX-Download-Manager	<a href="https://www.siemens.com/cax">https://www.siemens.com/cax</a>
• to website: Industry Online Support	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

**security information**

security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit <a href="http://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a> . Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a> . (V4.7)
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**Approvals / Certificates**

General Product Approval	For use in hazardous locations
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For use in hazardous locations	Test Certificates	Environment	Industrial Communication
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