



SCALANCE XC224 manageable layer 2 IE Switch; 24x 10/100 Mbit/s RJ45-Ports; 1x console port, Diagnostic LED; Redundant power supply; Temp. range -40°C to +70 °C Mounting: Standard Mounting Rail/S7 Profile Rail/Wall Office redundancy functions features (RSTP, VLAN, ...); PROFINET IO device Ethernet/IP-compliant, C-PLUG shaft;

Product type designation	SCALANCE XC224
Transmission rate	
Transfer rate	10 Mbit/s, 100 Mbit/s
Interfaces / for communication / integrated	
Number of electrical connections	
• for network components or terminal equipment	24; RJ45
Number of 10/100 Mbit/s RJ45 ports / Integrated	
• with securing collar	24
Interfaces / others	
Number of electrical connections	
• for operator console	1
• for signaling contact	1
• for power supply	1
• for redundant voltage supply	1
Type of electrical connection	
• for operator console	RJ11
• for signaling contact	2-pole terminal block
• for power supply	4-pole terminal block

design of the removable storage	
<ul style="list-style-type: none"> • C-PLUG 	Yes
Signal-Inputs/outputs	
Operating voltage / of the signaling contacts	
<ul style="list-style-type: none"> • at DC / Rated value 	24 V
Operating current / of the signaling contacts	
<ul style="list-style-type: none"> • at DC / maximum 	0.1 A
Supply voltage, current consumption, power loss	
Type of voltage / of the supply voltage	DC
Supply voltage	
<ul style="list-style-type: none"> • external 	24 V
<ul style="list-style-type: none"> • external / minimum 	9.6 V
<ul style="list-style-type: none"> • external / maximum 	31.2 V
Supply voltage / 4 / Rated value	
<ul style="list-style-type: none"> • Consumed current / 4 / at rated supply voltage / maximum 	0.375 A
Product component / fusing at power supply input	Yes
Fuse protection type / at input for supply voltage	2.5 A / 125 V
Consumed current / maximum	0.75 A
Power loss [W]	
<ul style="list-style-type: none"> • at DC / at 24 V 	9 W
Permitted ambient conditions	
Ambient temperature	
<ul style="list-style-type: none"> • during operation 	-40 ... +70 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +85 °C
<ul style="list-style-type: none"> • during transport 	-40 ... +85 °C
Relative humidity	
<ul style="list-style-type: none"> • at 25 °C / without condensation / during operation / maximum 	95 %
Protection class IP	IP20
Design, dimensions and weight	
Design	compact
Width	120 mm
Height	147 mm
Depth	125 mm
Net weight	0.88 kg
Material / of the enclosure	Polycarbonate (PC-GF10) / pressure die cast aluminum
Mounting type	
<ul style="list-style-type: none"> • 35 mm DIN rail mounting 	Yes
<ul style="list-style-type: none"> • wall mounting 	Yes
<ul style="list-style-type: none"> • S7-300 rail mounting 	Yes

- S7-1500 rail mounting

Yes

Product properties, functions, components / general

Cascading in the case of a redundant ring / at reconfiguration time of $\leq 0.3\text{s}$	50
Cascading in cases of star topology	any (depending only on signal propagation time)
Product function / QoS according to DSCP	Yes
Product feature	
• Cut Through switching method	No
• Store & Forward switching method	Yes

Product functions / management, configuration

Product function	
• CLI	Yes
• web-based management	Yes
• MIB support	Yes
• TRAPs via email	Yes
• Configuration with STEP 7	Yes
• RMON	Yes
• SMTP server	No
• Port mirroring	Yes
• multiport mirroring	Yes
• CoS	Yes
• PROFINET IO diagnosis	Yes
PROFINET conformity class	B
Product function / switch-managed	Yes
Telegram length / for Ethernet / maximum	1632 byte
Protocol / is supported	
• Telnet	Yes
• HTTP	Yes
• HTTPS	Yes
• TFTP	Yes
• BOOTP	No
• GMRP	Yes
• DCP	Yes
• LLDP	Yes
• EtherNet/IP	Yes
• SNMP v1	Yes
• SNMP v2	Yes
• SNMP v3	Yes
• IGMP (snooping/querier)	Yes
Identification & maintenance function	
• I&M0 - device-specific information	Yes

• I&M1 – higher-level designation/location designation	Yes
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Product functions / Diagnosis

Product function	
• Port diagnostics	Yes
• Statistics Packet Size	Yes
• Statistics packet type	Yes
• Error statistics	Yes
• SysLog	Yes

Product functions / VLAN

Product function	
• VLAN - port based	Yes
• VLAN - protocol-based	No
• VLAN - IP-based	No
• VLAN dynamic	Yes
Number of VLANs / maximum	257
Number of VLANs - dynamic / maximum	257
Protocol / is supported / GVRP	Yes

Product functions / DHCP

Product function	
• DHCP server	Yes
• DHCP client	Yes
• DHCP Option 82	Yes
• DHCP Option 66	Yes
• DHCP Option 67	Yes

Product functions / Redundancy

Product function	
• of the PROFINET IO device / is supported / PROFINET system redundancy (S2)	Yes
• Ring redundancy	Yes
• High Speed Redundancy Protocol (HRP)	Yes
• high speed redundancy protocol (HRP) with redundancy manager	Yes
• high speed redundancy protocol (HRP) with standby redundancy	Yes
Protocol / is supported / Media Redundancy Protocol (MRP)	Yes
Product function	
• media redundancy protocol (MRP) with redundancy manager	Yes
• redundancy procedure STP	Yes

<ul style="list-style-type: none"> • redundancy procedure RSTP 	Yes
<ul style="list-style-type: none"> • redundancy procedure MSTP 	Yes
<ul style="list-style-type: none"> • Parallel Redundancy Protocol (PRP)/operation in the PRP-network 	Yes
<ul style="list-style-type: none"> • Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA) 	No
<ul style="list-style-type: none"> • Passive listening 	Yes
Protocol / is supported	
<ul style="list-style-type: none"> • LACP 	Yes

Product functions / Security

Product function	
<ul style="list-style-type: none"> • IEEE 802.1x (radius) 	Yes
<ul style="list-style-type: none"> • Broadcast/Multicast/Unicast Limiter 	Yes
<ul style="list-style-type: none"> • broadcast blocking 	Yes
Protocol / is supported	
<ul style="list-style-type: none"> • SSH 	Yes
<ul style="list-style-type: none"> • SSL 	Yes

Product functions / Time

Product function	
<ul style="list-style-type: none"> • SICLOCK support 	Yes
<ul style="list-style-type: none"> • NTP-client 	Yes
<ul style="list-style-type: none"> • SNTP client 	Yes
Protocol / is supported	
<ul style="list-style-type: none"> • NTP 	Yes
<ul style="list-style-type: none"> • SNTP 	Yes

Standards, specifications, approvals / CE

Certificate of suitability / CE marking	Yes
Product conformity / according to EMC-guideline	2014/30/EU
Standard	
<ul style="list-style-type: none"> • for EMC interference emission 	EN 61000-6-4, EN 50121-4
<ul style="list-style-type: none"> • for immunity to EMI 	EN 61000-6-2, EN 50121-4
Certificate of suitability / RoHS conformity	Yes; 2011/65/EU

Standards, specifications, approvals / hazardous environments

Certificate of suitability	
<ul style="list-style-type: none"> • ATEX 	Yes; EN 60079-0, EN 60079-15
<ul style="list-style-type: none"> • for ATEX / as marking 	II 3 G Ex nA II T4 Gc
<ul style="list-style-type: none"> • for ATEX / as certificate 	KEMA 07ATEX0145 X
<ul style="list-style-type: none"> • IECEx 	Yes; IEC 60079-0, IEC 60079-15
<ul style="list-style-type: none"> • for IECEx / as marking 	Ex nA II T4 Gc
<ul style="list-style-type: none"> • for IECEx / as certificate 	IECEx DEK 14.0025X

- for cULus HazLoc / as marking
- for cULus HazLoc / as File Nr.
- FM registration
- for FM / as marking
- for FM / as certificate

CL1, DIV2, Group A,B,C,D T4, CL1, Zone 2, Group IIC, T4
 E240480 (NWHP, NWHP7)
 Yes; FM class 3600:2011, FM class 3611:2004, FM class
 3810:2005, ANSI/ISA-61010-1:2004
 CL1, DIV2, group A,B,C,D T4, CL1, Zone 2, group IIC, T4 Ta: -
 40 °C +70 °C
 FM16US0205X

Standards, specifications, approvals / miscellaneous

Certificate of suitability

- | | |
|---|-----------------------|
| • Railway application in accordance with EN 50121-4 | Yes |
| • Regulatory Compliance Mark (RCM) | Yes |
| • for UL 61010-2-201 / as File Nr. | E85972 (NRAQ, NRAQ7) |
| • for UL 60950-1 / as File Nr. | E115352 (NWGQ, NWGQ7) |
| • EAC approval | Yes |

Standards, specifications, approvals / ship classification

Marine classification association

- | | |
|---|-----|
| • American Bureau of Shipping Europe Ltd. (ABS) | Yes |
| • Bureau Veritas (BV) | Yes |
| • DNV GL | Yes |
| • Polski Rejestr Statkow (PRS) | Yes |

Accessories

- | | |
|---------------------------------------|-----|
| Product extension / optional / C-PLUG | Yes |
|---------------------------------------|-----|

Further Information / Internet Links

Internet-Link

- | | |
|---|---|
| • to website: Selector SIMATIC NET SELECTION TOOL | http://www.siemens.com/snst |
| • to website: Industrial communication | http://www.siemens.com/simatic-net |
| • to website: Industry Mall | https://mall.industry.siemens.com |
| • to website: Information and Download Center | http://www.siemens.com/industry/infocenter |
| • to website: Image database | http://automation.siemens.com/bilddb |
| • to website: CAx Download Manager | http://www.siemens.com/cax |
| • to website: Industry Online Support | https://support.industry.siemens.com |

Security information

Siemens provides products and solutions with industrial security functions that support the secure operation of plants, solutions, machines, equipment and/or networks. They are important components in a holistic industrial security concept. With this in mind, Siemens' products and solutions undergo continuous development. Siemens recommends strongly that you regularly check for product updates. For the secure operation of Siemens products and solutions, it is necessary to take suitable preventive action (e.g. cell protection concept) and integrate each component into a holistic, state-of-the-art industrial security concept. Third-party products that may be in use should also be considered. For more information about industrial security, visit <http://www.siemens.com/industrialsecurity>. To stay informed about product updates as they occur, sign up for a product-specific newsletter. For more information, visit <http://support.automation.siemens.com>. (V3.4)

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