



SCALANCE XC224 manageable Layer 2 IE switch; IEC 62443-4-2 certified; 24x 10/100 Mbit/s RJ45 ports; 1x console port, diagnostics LED; redundant power supply; temperature range -40 °C to +70 °C; assembly: DIN rail/S7 mounting rail/wall Office redundancy functions features (RSTP, VLAN,...); PROFINET IO device Ethernet/IP-compliant, C-plug slot;

<b>product type designation</b>	<b>SCALANCE XC224</b>
<b>transfer rate</b>	
transfer rate	10 Mbit/s, 100 Mbit/s
<b>interfaces / for communication / integrated</b>	
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
<b>interfaces / other</b>	
number of electrical connections	
• for operator console	1
• for signaling contact	1
• for power 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	
• C-PLUG	Yes
<b>signal inputs/outputs</b>	
operating voltage / of the signaling contacts	
• at DC / rated value	24 V
operational current / of the signaling contacts	
• at DC / maximum	0.1 A
<b>supply voltage, current consumption, power loss</b>	
product component / connection for redundant voltage supply	Yes
<b>type of voltage / 1 / of the supply voltage</b>	DC
• supply voltage / 1 / rated value	24 V
• power loss [W] / 1 / rated value	9 W
• consumed current / 1 / at rated supply voltage / maximum	0.375 A
• supply voltage / 1 / rated value	9.6 ... 31.2 V
• consumed current / 1 / maximum	0.75 A
• type of electrical connection / 1 / for power supply	4-pole terminal block
• product component / 1 / fusing at power supply input	Yes
• fuse protection type / 1 / at input for supply voltage	2.5 A / 125 V
<b>ambient conditions</b>	
ambient temperature	

<ul style="list-style-type: none"> <li>during operation</li> <li>during storage</li> <li>during transport</li> </ul>	-40 ... +70 °C
	-40 ... +85 °C
	-40 ... +85 °C
relative humidity	
<ul style="list-style-type: none"> <li>at 25 °C / without condensation / during operation / maximum</li> </ul>	95 %
protection class IP	IP20
<b>design, dimensions and weights</b>	
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
fastening method	
<ul style="list-style-type: none"> <li>35 mm top hat DIN rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>wall mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>S7-300 rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>S7-1500 rail mounting</li> </ul>	Yes
<b>product features, product functions, product components / general</b>	
cascading in the case of a redundant ring / at reconfiguration time of <math>\lt;0.3\text{s}</math>	50
cascading in cases of star topology	any (depending only on signal propagation time)
product function / QoS according to DSCP	Yes
product feature	
<ul style="list-style-type: none"> <li>Cut Through switching method</li> </ul>	No
<ul style="list-style-type: none"> <li>Store &amp; Forward switching method</li> </ul>	Yes
<b>product functions / management, configuration, engineering</b>	
product function	
<ul style="list-style-type: none"> <li>CLI</li> </ul>	Yes
<ul style="list-style-type: none"> <li>web-based management</li> </ul>	Yes
<ul style="list-style-type: none"> <li>MIB support</li> </ul>	Yes
<ul style="list-style-type: none"> <li>TRAPs via email</li> </ul>	Yes
<ul style="list-style-type: none"> <li>configuration with STEP 7</li> </ul>	Yes
<ul style="list-style-type: none"> <li>RMON</li> </ul>	Yes
<ul style="list-style-type: none"> <li>SMTP server</li> </ul>	No
<ul style="list-style-type: none"> <li>port mirroring</li> </ul>	Yes
<ul style="list-style-type: none"> <li>multiport mirroring</li> </ul>	Yes
<ul style="list-style-type: none"> <li>CoS</li> </ul>	Yes
<ul style="list-style-type: none"> <li>PROFINET IO diagnosis</li> </ul>	Yes
PROFINET conformity class	B
product function / switch-managed	Yes
telegram length / for Ethernet / maximum	1632 byte
protocol / is supported	
<ul style="list-style-type: none"> <li>Telnet</li> </ul>	Yes
<ul style="list-style-type: none"> <li>HTTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>HTTPS</li> </ul>	Yes
<ul style="list-style-type: none"> <li>TFTP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>BOOTP</li> </ul>	No
<ul style="list-style-type: none"> <li>GMRP</li> </ul>	Yes
<ul style="list-style-type: none"> <li>DGP</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

**product functions / diagnostics**

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
number of VLANs / at ring redundancy (HRP; MRP; standby link)	35
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	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
• Media Redundancy Protocol Interconnection (MRP-I)	Yes
• of the PROFINET IO device / is supported / H-Sync forwarding	Yes
• redundancy procedure STP	Yes
• redundancy procedure RSTP	Yes
• redundancy procedure RSTP+	Yes
• redundancy procedure MSTP	Yes
• Parallel Redundancy Protocol (PRP)/operation in the PRP-network	Yes
• Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA)	No
• passive listening	Yes
protocol / is supported	
• LACP	Yes

**product functions / security**

product function	
• IEEE 802.1x (radius)	Yes
• broadcast/multicast/unicast limiter	Yes
• broadcast blocking	Yes
protocol / is supported	
• SSH	Yes

• SSL	Yes
<b>product functions / time</b>	
product function	
• SICLOCK support	Yes
• NTP-client	Yes
• SNTP client	Yes
protocol / is supported	
• NTP	Yes
• SNTP	Yes
<b>system modification during operation</b>	
product function / configuration in RUN via CiR/H-CiR	Yes
<b>standards, specifications, approvals</b>	
IT security for industrial automation systems / according to IEC 62443-4-2:2019	Yes
MTBF	41 y
reference code	
• according to IEC 81346-2	KF
• according to IEC 81346-2:2019	KFE
<b>standards, specifications, approvals / CE</b>	
certificate of suitability / CE marking	Yes
product conformity / according to EMC-guideline	2014/30/EU
standard	
• for EMC interference emission	EN 61000-6-4, EN 50121-4
• for immunity to EMC	EN 61000-6-2, EN 50121-4
certificate of suitability / RoHS conformity	Yes; 2011/65/EU
<b>standards, specifications, approvals / hazardous environments</b>	
certificate of suitability	
• ATEX	Yes; EN 60079-0, EN 60079-15
• for ATEX / as marking	II 3 G Ex nA II T4 Gc
• for ATEX / as certificate	KEMA 07ATEX0145 X
• IECEx	Yes; IEC 60079-0, IEC 60079-15
• for IECEx / as marking	Ex nA II T4 Gc
• for IECEx / as certificate	IECEx DEK 14.0025X
• CCC / for hazardous zone according to GB standard	Yes
• for cULus HazLoc / as marking	CL1, DIV2, Group A,B,C,D T4, CL1, Zone 2, Group IIC, T4
• for cULus HazLoc / as File Nr.	E240480 (NWHP, NWHP7)
• FM registration	Yes; FM class 3600:2011, FM class 3611:2004, FM class 3810:2005, ANSI/ISA-61010-1:2004
• for FM / as marking	CL1, DIV2, group A,B,C,D T4, CL1, Zone 2, group IIC, T4 Ta: -40 °C +70 °C
• for FM / as certificate	FM16US0205X
<b>standards, specifications, approvals / other</b>	
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
<b>standards, specifications, approvals / marine classification</b>	
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	Yes
• French marine classification society (BV)	Yes
• DNV GL	Yes
• Korean Register of Shipping (KRS)	Yes
• Lloyds Register of Shipping (LRS)	Yes
• Nippon Kaiji Kyokai (NK)	Yes
• Polski Rejestr Statkow (PRS)	Yes
• Royal Institution of Naval Architects (RINA)	Yes
<b>accessories</b>	
product extension / optional / C-PLUG	Yes

## further information / internet-Links

### Internet-Link

- to web page: selection aid TIA Selection Tool
- to website: Industrial communication
- to website: Industry Mall
- to website: Information and Download Center
- to website: Image database
- to website: CAx-Download-Manager
- to website: Industry Online Support

<http://www.siemens.com/tia-selection-tool>  
<http://www.siemens.com/simatic-net>  
<https://mall.industry.siemens.com>  
<http://www.siemens.com/industry/infocenter>  
<http://automation.siemens.com/bilddb>  
<http://www.siemens.com/cax>  
<https://support.industry.siemens.com>

## security information

### security information

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