SIEMENS

Data sheet   6GK5224-0BA00-2AC2

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;

product type designation	
product brand name	SCALANCE
product type designation	XC224
transfer 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	
● with securing collar	24
interfaces / other	
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
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 / 1 / of the supply voltage	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
ambient conditions	
ambient temperature	
● during operation	-40 ... +70 °C
● during storage	-40 ... +85 °C

2/27/2025

● during transport	-40 ... +85 °C
relative humidity	
● at 25 °C / without condensation / during operation / maximum	95 %
protection class IP	IP20
design, dimensions and weights	
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	
● 35 mm DIN-rail mounting	Yes
● wall mounting	Yes
● S7-300 rail mounting	Yes
● S7-1500 rail mounting	Yes
product features, product functions, product components / general	
cascading in the case of a redundant ring / at reconfiguration time of <\~0.3\~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, engineering	
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
● switch-managed	Yes
PROFINET conformity class	B
telegram length / for Ethernet / maximum	1632 byte
protocol / is supported	
● Telnet	Yes
● HTTP	Yes
● HTTPS	Yes
● TFTP	Yes
● SFTP	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
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
number of VLANs / maximum	257
number of VLANs - dynamic / maximum	257
number of VLANs / at ring redundancy (HRP; MRP; standby link)	257

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	
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
● of the PROFINET IO device / is supported / PROFINET system redundancy	Yes
● ring redundancy	Yes
● high speed redundancy protocol (HRP) with redundancy manager	Yes
● high speed redundancy protocol (HRP) with standby redundancy	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

system modification during operation	
product function / configuration in RUN via CiR/H-CiR	Yes

product functions / security	
product function	
● IEEE 802.1x (radius)	Yes
● RADIUS client	Yes
● broadcast/multicast/unicast limiter	Yes
● broadcast blocking	Yes
protocol / is supported	
● SSH	Yes
● SSL	Yes

product functions / time	
product function	
● SICLOCK support	Yes
● NTP-client	Yes

● SNTP client	Yes
protocol / is supported	
● NTP	Yes
● SNTP	Yes

standards, specifications, approvals

certificate of suitability	
● CE marking	Yes
● Regulatory Compliance Mark (RCM)	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
● for safety / from CSA and UL	UL 60950-1 E115352

standards, specifications, approvals / hazardous environments

certificate of suitability	
● ATEX	Yes
● UKEX	Yes
● IECEx	Yes
● ULhazloc approval	Yes
● CCC / for hazardous zone according to GB standard	Yes
● FM registration	Yes

standards, specifications, approvals / other

certificate of suitability	
● railway application in accordance with EN 50121-4	Yes
● RoHS conformity	Yes
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 / marine classification

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

standards, specifications, approvals / Environmental Product Declaration

Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
● total	441.1 kg
● during manufacturing	47.67 kg
● during operation	392.82 kg
● after end of life	0.57 kg

product functions / general

MTBF	41 a
reference code	
● according to IEC 81346-2	KF
● according to IEC 81346-2:2019	KFE
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	https://support.industry.siemens.com/cs/ww/en/view/109766358
● to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
● to website: Industrial communication	https://www.siemens.com/simatic-net
● to web page: SiePortal	https://sieportal.siemens.com/
● to website: Image database	https://www.automation.siemens.com/bilddb
● to website: CAx-Download-Manager	https://www.siemens.com/cax

● to website: Industry Online Support	https://support.industry.siemens.com

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 www.siemens.com/cybersecurity-industry. 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 https://www.siemens.com/cert. (V4.7)

Approvals / Certificates

General Product Approval

CE EG-Konf. — Declaration of Conformity — CCC — EAC — UKCA — UL

General Product Approval			EMV	For use in hazardous locations	
Declaration of Conformity	RCM	TÜV	KC	IECEx	ATEX

For use in hazardous locations		Test Certificates	Marine / Shipping		
FM	CCC-Ex	Type Test Certificates/Test Report	ABS	BUREAU VERITAS	DNV

Marine / Shipping				Environment	
Lloyd's Register LRS	NK / Nippon Kaiji Kyokai	PRS	RINA	Confirmation	EPD

Industrial Communication

PROFINET

---

last modified:	2/26/2025

2/27/2025