SIEMENS

Data sheet



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

product type designation	SCALANCE 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 / integrated	
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
signal inputs/outputs	
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
ambient conditions	
ambient temperature	

	40 70.00
during operation	-40 +70 °C
during storage	-40 +85 °C
during transport	-40 +85 °C
relative humidity	
 at 25 °C / without condensation / during operation / 	95 %
maximum	
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 top hat DIN rail mounting	Yes
wall mounting	Yes
• S7-300 rail mounting	Yes
S7-1500 rail mounting	Yes
	1.77
product features, product functions, product components	
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, engineeri	ng
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	В
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	

Moto- device-special information Yes		
product function profuge function	• I&M0 - device-specific information	Yes
product function product functions product functions (Yes) stratistics Packet Size (Yes) stratistics packet type (Yes) sorror statistics (Yes) product functions (YUAN) product function (YUAN) product fu		Yes
opt diagnostics statistics packet type ord estatistics packet type error statistics Systog yes oysuca oysu		
e statistics Packet Size statistics packet type error statistics Syst.cg roduct functions Product functions - VLAN - prot based - VLAN - prot based - VLAN - protocol-based - VLAN - protocol-based		
• statistics packet type • error statistics • SysLog • Yes • VLAN - protocol-based • VES • Product functions / DHOP • Protocol-function • DHCP Saver • DHCP Saver • DHCP Saver • DHCP Option 80 • DHCP Option 82 • DHCP Option 86 • Ves • DHCP Option 87 • DHCP Option 87 • OHCP PROFINET IO device / is supported / PROFINET system redundancy • ring redundancy protocol (HRP) with • redundancy manager • high speed redundancy protocol (HRP) with • redundancy manager • Media Redundancy protocol (HRP) with standby redundancy manager • Media Redundancy Protocol (HRP) with redundancy • manager • Media Redundancy Protocol (HRP) with redundancy • manager • Media Redundancy Protocol (HRP) with redundancy • media redundancy procedure RSTP • resulted Redundancy Protocol (PRP)/Redundant Network Access (RNA) • Produce functions • Preduce funct		
emror statistics		
Product functions / VLAN port based		
product functions / VLAN product function		
product function VLAN - protocol-based VLAN - protocol-based No VES Ductor of VLANs - dynamic / maximum protocol function OHCP - protocol function In protocol function In protocol function No No No No No No No No No		Yes
VLAN - port based VLAN - protocol-based No VLAN - Pr-based No No VLAN - Pr-based No VLAN - Pr-based No VLAN - Pr-based No No VLAN - Pr-based No VLAN - Pr-based No No VLAN - Pr-based No VLAN - Pr-based No No VLAN - Pr-based No No VLAN - Pr-based No VLAN - Pr-based No VLAN - Pr-based No No No No VLAN - Pr-based No No No No VLAN - Pr-based No		
VLAN - IP-based No VLAN (Aynanic) Yes VLAN (Aynanic) Yes number of VLANs - dynamic / maximum 257 protocol / is supported / GVRP Yes product functions / DNCP product function DHCP server Yes DHCP Option 82 Yes DHCP Option 86 Yes DHCP Option 66 Yes DHCP Option 67 Yes Product functions / DNCP product functions / Product function / Product funct	·	
VLAN - IP-based VLAN dynamic ves number of VLANs - maximum 257 number of VLANs - maximum 257 product functions / DHCP product functions / DHCP product functions DHCP genere DHCP Client PHCP Option 66 DHCP Option 66 Pes DHCP Option 67 Product functions of the PROFINET IO device / is supported / PRP High Speed Redundancy Protocol (HRP) with redundancy redundancy product function in the Redundancy Protocol (MRP) with redundancy product function of the PROFINET IO device / is supported / PROFINET system redundancy ing redundancy redundancy redundancy protocol (HRP) with sead was a supported / PROFINET system redundancy protocol / is supported / Media Redundancy Protocol (MRP) product function of the PROFINET IO device / is supported / Preserved or supported or supported or supported / Preserved or supported	•	
e VLAN dynamic number of VLANs - dynamic / maximum 257 protocol / is supported / GVRP product functions / DHCP product functions / DHCP product function • DHCP server • DHCP Client • DHCP Option 82 • DHCP Option 82 • DHCP Option 66 • DHCP Option 67 • OHCP DRIVER TO device / is supported / PROFINET IO device / is supported / PROFINET System redundancy redundancy • High Speed Redundancy Protocol (HRP) • high speed redundancy protocol (HRP) with standby redundancy product function • media redundancy protocol (HRP) with standby redundancy • high speed redundancy protocol (HRP) with standby redundancy protocol / is supported / Media Redundancy Protocol / Wes manager • Media Redundancy protocol (MRP) product function • media redundancy protocol (MRP) • New Media Redundancy Protocol (MRP) • Parallel Redundancy Protocol (PRP)/Specific MRP • redundancy procedure RSTP • redundancy proc		
number of VLANs / maximum 257 number of VLANs - dynamic / maximum 257 protocol / is supported / GVRP Yes product functions / OHCP product functions / OHCP product function		
number of VLANs - dynamic / maximum protocol / is supported / GVRP product functions / DHCP product function • DHCP server • DHCP Client • DHCP Option 82 • DHCP Option 82 • DHCP Option 68 • DHCP Option 67 **Product functions / redundancy product functions / redundancy product functions / redundancy product functions / redundancy product function / of the PROFINET IO device / is supported / PROFINET system redundancy • ring redundancy • ring redundancy protocol (HRP) with redundancy menager • high speed redundancy protocol (HRP) with standby redundancy menager • high speed redundancy protocol (HRP) with standby redundancy protocol / is supported / Media Redundancy Protocol / Wes menager • Media Redundancy protocol (MRP) with redundancy manager • Media Redundancy Protocol Interconnection (MRP-1) • of the PROFINET IO device / is supported / H-Sync forwarding • redundancy procedure STP • redundancy procedure RSTP • redundancy procedure MSTP • Parallel Redundancy Protocol (PRP)/Redundant No Network Access (RNA) • passive listening protocol / is supported • LACP product function • IEEE 802.1x (radius) • Proadcoast/multicast/unicast limiter • Product function • IEEE 802.1x (radius) • Product function • Product functions / security	•	
protocol / is supported / GVRP product functions / DHCP product function DHCP server DHCP Option 82 DHCP Option 82 DHCP Option 66 Yes DHCP Option 67 Product functions redundancy product function of the PROFINET IO device / is supported / PROFINET yes redundancy yes yes redundancy yes redundancy yes yes redundancy procedure STP Media Redundancy Protocol Interconnection (MRP-1) of the PROFINET IO device / is supported / H-Sync forwarding redundancy procedure RSTP redundancy procedure RSTP redundancy procedure RSTP redundancy procedure MSTP Perallel Redundancy Protocol (PRP)/Redundant No		
product functions / DHCP product function	•	
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redundancy protocol / is supported / Media Redundancy Protocol (MRP) product function • media redundancy protocol (MRP) with redundancy manager • Media Redundancy Protocol Interconnection (MRP- I) • of the PROFINET IO device / is supported / H-Sync forwarding • redundancy procedure STP • redundancy procedure RSTP • redundancy procedure RSTP • redundancy procedure RSTP • redundancy procedure MSTP • Parallel Redundancy Protocol (PRP)/operation in the PRP-network • Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA) • passive listening protocol / is supported • LACP product functions / security product function • IEEE 802.1x (radius) • broadcast/multicast/unicast limiter Yes		Yes
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forwarding • redundancy procedure STP • redundancy procedure RSTP • redundancy procedure RSTP+ • redundancy procedure MSTP • redundancy procedure MSTP • Parallel Redundancy Protocol (PRP)/operation in the PRP-network • Parallel Redundancy Protocol (PRP)/Redundant No Network Access (RNA) • passive listening protocol / is supported • LACP product functions / security product function • IEEE 802.1x (radius) • broadcast/multicast/unicast limiter Yes Yes		Yes
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Parallel Redundancy Protocol (PRP)/operation in the PRP-network Parallel Redundancy Protocol (PRP)/Redundant No No Network Access (RNA) passive listening Protocol / is supported LACP Product functions / security product function IEEE 802.1x (radius) broadcast/multicast/unicast limiter Yes Yes	redundancy procedure RSTP+	Yes
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Network Access (RNA) • passive listening protocol / is supported • LACP Yes product functions / security product function • IEEE 802.1x (radius) • broadcast/multicast/unicast limiter Yes		Yes
protocol / is supported • LACP Product functions / security product function • IEEE 802.1x (radius) • broadcast/multicast/unicast limiter Yes		No
	passive listening	Yes
product functions / security product function • IEEE 802.1x (radius) Yes • broadcast/multicast/unicast limiter Yes	protocol / is supported	
product function • IEEE 802.1x (radius) • broadcast/multicast/unicast limiter Yes	• LACP	Yes
 IEEE 802.1x (radius) broadcast/multicast/unicast limiter Yes 	product functions / security	
• broadcast/multicast/unicast limiter Yes	product function	
	• IEEE 802.1x (radius)	Yes
• broadcast blocking 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
system modification during operation	
product function / configuration in RUN via CiR/H-CiR	Yes
standards, specifications, approvals	
IT security for industrial automation systems / according to IEC 62443-4-2:2019	Yes
MTBF	41 y
standards, specifications, approvals / CE	
certificate of suitability / CE marking	Yes
product conformity / according to EMC-guideline	2014/30/EU
standard	2014/30/E0
for FMC interference emission	EN 64000 6 4 EN 50424 4
	EN 61000-6-4, EN 50121-4
for immunity to EMC contificate of quitability / Ball's conformative	EN 61000-6-2, EN 50121-4
certificate of suitability / RoHS conformity	Yes; 2011/65/EU
standards, specifications, approvals / hazardous environn	nents
certificate of suitability	V
• 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
standards, specifications, approvals / other	
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 / marine classificatio	
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
	Yes
Royal Institution of Naval Architects (RINA)	165
accessories	

product extension / optional / C-PLUG	Yes
further information / internet-Links	
Internet-Link	
 to web page: selection aid TIA Selection Tool 	http://www.siemens.com/tia-selection-tool
 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	
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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