

SCALANCE XR522-12; managed layer 3 IE switch, 19" rack; 20x 100/1000 Mbps RJ45 port; 2x 1G/2.5G/5G/10 Gbps RJ45 port 4x 100M/1G SFP port; 8x 1G/10G SFP+ port; LED diagnostics; error signaling contact; select/set button; PROFINET IO device; network management; integrated redundancy manager; office features (RSTP, VLAN, IGMP,..); CLP included in scope of supply; power supply 2x 230 V AC;



product type designation	
product brand name	SCALANCE
product type designation	XR522-12
Technical Product Detail Page	https://i.siemens.com/1P6GK5534-3TR00-4AR3
transfer rate	
transfer rate	10, 100, 1000 Mbit/s
transfer rate	2.5, 5, 10 Gbit/s
interfaces / for communication / integrated	
number of electrical connections	
• for network components or terminal equipment	22; RJ45 with securing collar
number of 10/100/1000 Mbit/s RJ45 ports	
• with securing collar	20
number of 1000/2500/5000/10000 Mbps RJ45 ports / with securing collar	2
number of electrical connections	
• for SFP	4; 100 Mbps and 1000 Mbps SFP usable
• for SFP+	8; 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	IEC plug C14 AC supply or 2-pole terminal block for DC supply
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	Yes
type of voltage / 1 / of the supply voltage	DC
• supply voltage / 1 / rated value	100V ... 250V DC
• power loss [W] / 1 / rated value	99 W
• supply voltage / 1 / voltage range	77 ... 300

<ul style="list-style-type: none"> consumed current / 1 / maximum 	0.8 A
<ul style="list-style-type: none"> type of electrical connection / 1 / for power supply 	2-pole terminal block
<ul style="list-style-type: none"> product component / 1 / fusing at power supply input 	Yes
<ul style="list-style-type: none"> fuse protection type / 1 / at input for supply voltage 	F 4 A / 250 V
type of voltage / 2 / of the supply voltage	AC (50 / 60 Hz)
<ul style="list-style-type: none"> supply voltage / 2 / rated value 	240 V; 100V ... 240V AC
<ul style="list-style-type: none"> power loss [W] / 2 / rated value 	99 W
<ul style="list-style-type: none"> supply voltage / 2 / voltage range 	85 ... 264
<ul style="list-style-type: none"> consumed current / 2 / maximum 	0.8 A
<ul style="list-style-type: none"> type of electrical connection / 2 / for power supply 	IEC plug C14
<ul style="list-style-type: none"> fuse protection type / 2 / at input for supply voltage 	F 4 A / 250 V
ambient conditions	
ambient temperature / in horizontal mounting position / during operation	-25 ... +60 °C; Starting at -25 °C; The maximum ambient temperature during operation depends on the operating height and the plug-in transceivers, see also manual.
installation altitude / at height above sea level / maximum	3000 m
relative humidity	
<ul style="list-style-type: none"> at 25 °C / without condensation / during operation / maximum 	95 %
operating condition / fanless operation	Yes
protection class IP	IP20
design, dimensions and weights	
design	19-inch rack
number of modular height units / relating to 19-inch cabinet	1
width	446 mm
height	43.6 mm
depth	374.8 mm
net weight	8.4 kg
material / of the enclosure	metal
fastening method	
<ul style="list-style-type: none"> 19-inch installation 	Yes
product features, product functions, product 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)
number of automatically learnable MAC addresses	16382
number of QoS queues / per port	8
product function	
<ul style="list-style-type: none"> QoS according to IEEE 802.1Q 	Yes
product feature	
<ul style="list-style-type: none"> Store & Forward switching method 	Yes
product functions / management, configuration, engineering	
product function	
<ul style="list-style-type: none"> CLI 	Yes
<ul style="list-style-type: none"> web-based management 	Yes
<ul style="list-style-type: none"> MIB support 	Yes
<ul style="list-style-type: none"> TRAPs via email 	Yes
<ul style="list-style-type: none"> configuration with STEP 7 	Yes
<ul style="list-style-type: none"> RMON 	Yes
<ul style="list-style-type: none"> port mirroring 	Yes
<ul style="list-style-type: none"> multiport mirroring 	Yes
<ul style="list-style-type: none"> CoS 	Yes
<ul style="list-style-type: none"> PROFINET IO diagnosis 	Yes
<ul style="list-style-type: none"> switch-managed 	Yes
PROFINET conformity class	B
network load class / according to PROFINET	III
telegram length / for Ethernet / maximum	9194 byte
protocol / is supported	
<ul style="list-style-type: none"> Telnet 	Yes
<ul style="list-style-type: none"> HTTP 	Yes

• HTTPS	Yes
• TFTP	Yes
• FTP	Yes
• SFTP	Yes
• BOOTP	Yes
• NETCONF	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
• VLAN dynamic	Yes
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 / routing	
service / routing / note	IP routing integrated
product function	
• static IP routing	Yes
• static IP routing IPv6	No
• dynamic IP routing	Yes
• dynamic IP routing IPv6	No
protocol / is supported	
• RIPv2	Yes
• RIPnG for IPv6	No
• OSPFv2	Yes
• OSPFv3 for IPv6	No
• VRRP	Yes
• VRRP for IPv6	No
product functions / redundancy	
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
product function	
• media redundancy protocol (MRP) with redundancy	Yes

manager	
• Media Redundancy Protocol Interconnection (MRP-I)	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
• High-availability Seamless Redundancy (HSR)	Yes
• Parallel Redundancy Protocol (PRP)/operation in the PRP-network	Yes
• Parallel Redundancy Protocol (PRP)/Redundant Network Access (RNA)	Yes
• 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
• 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
• IEEE 1588 v2 transparent forwarding	Yes
protocol / is supported	
• NTP	Yes
• SNTP	Yes
accuracy / at IEEE 1588 v2	
• not less than	100 µs
• typical	50 ns
standards, specifications, approvals	
certificate of suitability	
• CE marking	Yes
• UKCA marking	Yes
• EC Declaration of Conformity EN 61010, IEC 61010-1, UL 61010A-1	Yes
• KC approval	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 50121-9
• for immunity to EMC	EN 61000-6-2, EN 50121-4
• for safety / from CSA and UL	UL 62368-1, UL 61010 - 2
standards, specifications, approvals / other	
certificate of suitability	
• railway application in accordance with EN 50121-4	Yes; use only in areas not accessible to the public
• railway application in accordance with EN 50125-3	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; 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 62368-1, 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.
• 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	
certificate of suitability / shipbuilding approval / note	Certifications marked 'No' are currently under renewal.
Marine classification association	
• American Bureau of Shipping Europe Ltd. (ABS)	No
• French marine classification society (BV)	No
• Chinese Classification Society (CCS)	No
• Det Norske Veritas (DNV)	No
• Korean Register of Shipping (KRS)	No
• Lloyds Register of Shipping (LRS)	No
• Nippon Kaiji Kyokai (NK)	No
• Polski Rejestr Statkow (PRS)	No
• Royal Institution of Naval Architects (RINA)	No
standards, specifications, approvals / Environmental Product Declaration	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
• total	1274.81 kg
• during manufacturing	225.96 kg
• during operation	1048 kg
• after end of life	0.85 kg
product functions / general	
MTBF	10.6 a
reference temperature / for MTBF determination	40 °C
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,

Approvals / Certificates

General Product Approval



[China RoHS](#)



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Test Certificates

Environment

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