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## Data sheet 6GK5534-5TR00-3AR3

SCALANCE XR502-32; managed layer 3 IE switch, 19" rack; 2x 1G/2.5G/5G/10 Gbps RJ45 port 24x 100M/1G SFP port; 8x 1G/10G SFP+ port; LED diagnostics; error signaling contact; select/ set button; PROFINET I/O device; network management; integrated redundancy manager; office features (RSTP, VLAN, IGMP,..); CLP included in scope of supply; power supply 1x 230 V AC;



| | |
|---|---|
| **product type designation** | |
| product brand name | SCALANCE |
| product type designation | XR502-32 |
| Technical Product Detail Page | https://i.siemens.com/1P6GK5534-5TR00-3AR3 |
| **transfer rate** | |
| transfer rate | 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 | 2; RJ45 with securing collar |
| number of 1000/2500/5000/10000 Mbps RJ45 ports / with securing collar | 2 |
| number of electrical connections | |
| ● for SFP | 24; 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 | 1 |
| 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 | No |
| type of voltage supply / redundant power supply unit | No |
| **type of voltage / 1 / of the supply voltage** | DC |
| ● supply voltage / 1 / rated value | 100 V ... 250 V DC |
| ● power loss [W] / 1 / rated value | 99 W |
| ● supply voltage / 1 / voltage range | 77 ... 300 |
| ● consumed current / 1 / maximum | 1.2 A |
| ● type of electrical connection / 1 / for power supply | 2-pole terminal block |


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| ● product component / 1 / fusing at power supply input | Yes |
| ● 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) |
| ● supply voltage / 2 / rated value | 240 V; 100V ... 240V AC |
| ● power loss [W] / 2 / rated value | 99 W |
| ● supply voltage / 2 / voltage range | 85 ... 264 |
| ● consumed current / 2 / maximum | 1.2 A |
| ● type of electrical connection / 2 / for power supply | IEC plug C14 |
| ● 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 ... +55 °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 | |
| ● 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 | 8.2 kg |
| material / of the enclosure | metal |
| fastening method | |
| ● 19-inch installation | 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) |
| number of automatically learnable MAC addresses | 16382 |
| number of QoS queues / per port | 8 |
| product function | |
| ● QoS according to IEEE 802.1Q | Yes |
| product feature | |
| ● 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 |
| ● port mirroring | Yes |
| ● multiport mirroring | Yes |
| ● CoS | Yes |
| ● PROFINET IO diagnosis | Yes |
| ● switch-managed | Yes |
| PROFINET conformity class | B |
| network load class / according to PROFINET | III |
| telegram length / for Ethernet / maximum | 9194 byte |
| protocol / is supported | |
| ● Telnet | Yes |
| ● HTTP | Yes |
| ● HTTPS | Yes |
| ● TFTP | Yes |


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| ● 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 function / VXLAN according to RFC 7348 | 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 / 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 manager | Yes |


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|---|---|
| ● Media Redundancy Protocol Interconnection (MRP-I) | Yes; LC mode |
| ● 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 | |
| ● STP/RSTP | Yes |
| ● STP | Yes |
| ● RSTP | Yes |
| ● MSTP | Yes |
| ● RSTP big network support | Yes |
| ● 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 ns |
| ● typical | 50 ns |
| **standards, specifications, approvals** | |
| certificate of suitability | |
| ● CE marking | Yes |
| ● UKCA marking | 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 |
| **standards, specifications, approvals / other** | |
| certificate of suitability | |


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|---|---|
| ● 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 | 2882 kg |
| ● during manufacturing | 173 kg |
| ● during operation | 2708 kg |
| ● after end of life | 1 kg |
| **product functions / general** | |
| MTBF | 9.9 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, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7) |

| **Approvals / Certificates** | |
|---|---|
| Environmental Product Declaration | |
| ● global warming potential [CO2 eq] / during manufacturing | 173 kg |
| ● global warming potential [CO2 eq] / during operation | 2708 kg |
| ● global warming potential [CO2 eq] / after end of life | 1 kg |


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| | |
|---|---|
| ● global warming potential [CO2 eq] / total | 2882 kg |

| Environment | General Product Approval | | | | |
|---|---|---|---|---|---|
|  |  |  |  | TUEV | China RoHS |

| Test Certificates | Industrial Communication |
|---|---|
| Type Test Certific-ates/Test Report | PROFINET |

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