## SIEMENS

## Data sheet

## 6GK5416-4GR00-2AM2



SCALANCE XM416-4C; managed modular IE switch; 16x 10/100/1000 Mbit/s RJ45; 4x 100/1000 Mbit/s SFP; contains 4 combo ports; in total 16 ports can be used; expandable to 24 ports electrical or optical; assembly: DIN rail/S7 mounting rail, PROFINET IO device; redundancy functions; office features (RSTP, VLAN, IGMP,...); C-PLUG in scope of supply; Layer 3 integrated;

product type designation	SCALANCE XM416-4C	
transfer rate		
transfer rate	10 Mbit/s, 100 Mbit/s, 1000 Mbit/s	
number of ports / maximum	24	
interfaces / for communication / maximum configuration for mo	dular devices	
number of electrical ports / maximum	24	
number of electrical ports / with PoE / maximum	8	
number of optical ports / maximum	12	
interfaces / for communication / integrated		
number of electrical connections		
<ul> <li>for network components or terminal equipment</li> </ul>	16; RJ45 with securing collar	
number of 10/100/1000 Mbit/s RJ45 ports / integrated		
with securing collar	16	
number of electrical connections		
• for SFP	4; 100 Mbit/s or 1000 Mbit/s SFP plug-in transceiver	
number of combo ports / with RJ45 interface for optical plug-in transceiver	4; 100 Mbit/s or 1000 Mbit/s SFP plug-in transceiver	
number of connectable extender modules	1	
interfaces / for communication / plug-in		
number of 10/100/1000 Mbit/s RJ45 ports		
with securing collar	8	
<ul> <li>with securing collar / with PoE</li> </ul>	8	
number of 100 Mbit/s LC ports		
for multimode	12	
• for single mode (LD)	12	
<ul> <li>for single mode (LH+)</li> </ul>	12	
<ul> <li>for single mode (ELH200)</li> </ul>	12	
number of 1000 Mbit/s LC ports		
for multimode	12	
<ul> <li>for single mode (LD)</li> </ul>	12	
<ul> <li>for single mode (LH)</li> </ul>	12	
• for single mode (LH+)	12	
• for single mode (ELH)	12	
number of electrical connections		
• for SFP	12; 100 Mbit/s or 1000 Mbit/s SFP plug-in transceiver	
interfaces / other		
number of electrical connections		
<ul> <li>for operator console</li> </ul>	1	
<ul> <li>for management purposes</li> </ul>	1	
<ul> <li>for signaling contact</li> </ul>	1	

for power supply	1
type of electrical connection	
<ul> <li>for operator console</li> </ul>	RJ11
for management purposes	RJ45
for signaling contact	2-pole terminal block
number of extender expansion interfaces	2
design of the removable storage	N
• C-PLUG	Yes
C-PLUG/KEY-PLUG	Yes
product feature / hot-swappable interface modules	Yes
signal inputs/outputs	
operating voltage / of the signaling contacts	24.1/
at DC / rated value	24 V
operational current / of the signaling contacts <ul> <li>at DC / maximum</li> </ul>	0.1 A
supply voltage, current consumption, power loss	0.1 A
product component / connection for redundant voltage supply	Yes
supplied active power / of PSE / with PoE	Tes
per port / maximum	30 W
• total / maximum	180 W
type of voltage / 1 / of the supply voltage	DC
supply voltage / 1 / rated value	24 V
power loss [W] / 1 / rated value	48 W
supply voltage / 1 / rated value	19.2 28.8 V
consumed current / 1 / maximum	2 A
• type of electrical connection / 1 / for power supply	4-pole terminal block
<ul> <li>product component / 1 / fusing at power supply input</li> </ul>	Yes
ambient conditions	
ambient temperature	
during operation	-40 +70 °C
during storage	-40 +85 °C
during transport	-40 +85 °C
relative humidity	
<ul> <li>at 25 °C / without condensation / during operation /</li> </ul>	95 %
maximum	
protection class IP	IP20
design, dimensions and weights	
design	modular
width	140 mm
height	147 mm
depth	125 mm
net weight	1.25 kg
fastening method	
<ul> <li>35 mm top hat DIN rail mounting</li> </ul>	Yes
<ul> <li>S7-300 rail mounting</li> </ul>	Yes
S7-1500 rail mounting	Yes
product features, product functions, product components / gene	eral
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 functions / management, configuration, engineering	
product function	
• CLI	Yes
<ul> <li>web-based management</li> </ul>	Yes
MIB support	Yes
• TRAPs via email	Yes
configuration with STEP 7	
	Yes
RMON	Yes
RMON     port mirroring	
	Yes
port mirroring	Yes Yes

PPOCHNET contermity class     B       product functions vinder managed     Yes       Integrate wheth for Element / maximum     9216 byte       protoch / a supported     Yes       Integrat     Yes       Integrations     Yes       Integrat     Yes	PROFINET IO diagnosis	Yes
Integram length // fr Ethemet / maximum         9216 byte           protocol / is supported         Yes           • Telmet         Yes           • ITTP         Yes           • ITTP         Yes           • ITTP         Yes           • ITTP         Yes           • IDOP         Yes           • ISMM Yd         Yes           • ISMM Pay         Yes		В
product // is supported         Yes           • Trinitel         Yes           • HTTPP         Yes           • HTTPB         Yes           • ITTPB         Yes           • FTP         Yes           • BOOTP         Yes           • BOOT In-Pine Ired designation         Yes           product function         Yes           • Status David Status         Yes           • Status David Status         Yes           • Status David Status         Yes           • Tord Status         Yes           • Status David Status         Yes           • Tord Status         Yes           • Status	product function / switch-managed	Yes
YesHTTPYesHTTPSYesHTTPSYesHTTPSYesHTTPSYesSBOTPYesSBOTPYesORAPYesORAPYesORAPYesSIMP v1YesSIMP v2YesSIMP v2YesSIMP v2YesSIMP v2YesSIMP v2YesSIMP v2YesSIMP v2YesSIMP v2YesSIMP v2YesSIMP v3YesSIMP v4YesSIMP v5YesSIMP v5YesSIMP v6YesSIMP v6YesSIMP v7YesSIMP v6YesSIMP v7YesSIMP v7YesSIMP v6YesSIMP v7YesSIMP v7Yes <t< td=""><td>telegram length / for Ethernet / maximum</td><td>9216 byte</td></t<>	telegram length / for Ethernet / maximum	9216 byte
HTTPYes•HTTPSYes•FTPYes•FTPYes•FRPYes•BOOTPYes•BOOTPYes•COPYes </td <td>protocol / is supported</td> <td></td>	protocol / is supported	
• HTTPSYes• FTPYes• BOOTPYes• BOOTPYes• GMRPYes• GMRPYes• GMRPYes• LDPYes• EthenheutPYes• SMMP v2Yes• SMMP v3Yes• SMMP v4Yes• SMO device specific informationYes• SMO device specific informationYes• Soluto specific informationYes• statistics packet SteeYes• statistics packet SteeYes• statistics packet SteeYes• statistics packet SteeYes• SylogYes• Soluto InnotionYes• VLAN + port basedYes• VLAN + port basedYes• VLAN + port basedYes• VLAN + St mainturn255• DHCP Opton 67Yes• DHCP Opton 71Yes• DHCP Opton 72Yes• DHCP Opton 74Yes• DHCP Opton 75Yes• Statist IP routing IntegratedYes• DHCP Opton 74Yes• Statist IP routing IntegratedYes• Statist IP routing IntegratedYes• Statist IP routing IntegratedYes• Statist IP routing Integrated <td>• Telnet</td> <td>Yes</td>	• Telnet	Yes
TTPYes• FTPYes• BOOTPYes• BOOTPYes• DCPYes• DCPYes• DCPYes• SMMP visYes• SyslopYes• SyslopYes• SyslopYes• SyslopYes• VLAN - port basedYes• DHCP Opton 78Yes•	• HTTP	Yes
• FTPYes• BOOTPYes• GMRPYes• DCPYes• LLDPYes• SMMP v1Yes• SMMP v2Yes• SMMP v3Yes• SMMP v3Yes• SMMP v3Yes• SMMP v3Yes• SMMP v4Yes• SMMP v3Yes• SMMP v3Yes• SMMP v4Yes• SMMP v4Yes• SMMP v5Yes• SMMP v5Yes• SMMP v6Yes• SystopYes• SystopYes• SystopYes• SystopYes• SystopYes• SystopYes• VLAN - port basedYes• VLAN + ProbasedYes• VLAN s - opnime / maximum285• NUMP of VLANs - opnime / maximum285• DHCP Option 82Yes• Systop of J CYPPYes• DHCP Option 82Yes• DHCP Option 82Yes• Sold UnctionYes• Static Product IncelineIP routing integrated• DHCP Option 82Yes• Static Product InvelineYes•	• HTTPS	Yes
• BOOTPYes• DOCPYes• LDPYes• LDPYes• LIMPYes• SMMP v1Yes• SMMP v2Yes• SMMP v3Yes• ISMMP v3Yes• VIAN - Protocol-basedYes• VIAN - Protocol-based	• TFTP	Yes
- AMRPYes- DCPYes- ELRPNeUPYes- ELRPNeUPYes- SNMP V1Yes- SNMP V2Yes- SNMP V3Yes- SNMP V4Yes- SNMP v6Yes- Snd statistics Packet SizeYes- UNAN - protoend-basedYes- VLAN - protoend-basedYes- VLAN - protoend / Samu255- number of VLANs - dynamic / maximum255- DHCP Option 82Yes- DHCP Option 82Yes- DHCP Option 82Yes- DHCP Option 82Yes- Static IP routing INPAYes- Static IP routing INPAYes- Static IP routing INPAYes- Static IP routing INPAYes- Static	• FTP	Yes
• DCPYes• LLDPYes• EtherNet//PYes• SINIP v1Yes• SINIP v2Yes• SINIP v3Yes• V1AN v1Protoci-basedYes• DHCP Option 8	• BOOTP	Yes
• LLDPYes• EMPN 4UPYes• SNMP V1Yes• SNMP V2Yes• SNMP V3Yes• ISMO (encoping/querier)Yes• ISMO + device specific informationYes• product functions / diagnosticsYes• product functions / diagnosticsYes• statistics packet SizeYes• SyslogYesproduct functions // LANYesproduct functions // LANYes• VLAN - protosedYes• VLAN - protosedYes• VLAN - protosedYes• VLAN - Maximum255runter of VLANs - dynamic / maximum255product functionYes• DHCP Option 82Yes• DHCP Option 83Yes• DHCP Option 83Yes• DHCP Option 83Yes• DHCP Option 84Yes• DHCP Option 85Yes• DHCP Option 86Yes• DHCP Option 87Yes• DHCP Option 86Yes• DHCP Option 87Yes• DHCP Option 86Yes• DHCP Option 86Yes• DHCP Option 87Yes• DHCP Option 86Yes• DHCP Option 86Yes<	• GMRP	Yes
• EtherNet/IPYes• SIMIP v1Yes• SIMIP v2Yes• IGMP (snoophgquer)Yes• IEdMC (acophgquer)Yes• IEdMC (acophgquer)Yes• IEdMC (acophgquer)Yes• IEdMC (acophgquer)Yes• IEdMC (acophgquer)Yes• IEdMC (acophgquer)Yesproduct function & maintenance functionYes• IEdMC (acopher)Yesproduct functions / clapnosticsYes• statistics Packet SizeYes• statistics Packet SizeYes• endr statisticsYes• endr statisticsYes• yord dagmet functionYes• VLAN - portosedYes• VLAN - IP-basedYes• VLAN - IP-basedYes• VLAN - IP-basedYes• VLAN - Option 65Yes• DHCP Option 82Yes• DHCP Option 82Yes• DHCP Option 82Yes• DHCP Option 85Yes• DHCP Option 66Yes• otatic IP routing IPv6Yes• OSFrV	• DCP	Yes
• SNMP v1Yes• SNMP v2Yes• SNMP v3Yes• Identification & maintenance functionYes• Identification & JeaporatesYes• product functionYes• statisticsYes• statistics packet typeYes• statistics packet typeYes• statistics packet typeYes• statisticsYes• statistics packet typeYes• VLAN - port basedYes• VLAN - port basedYes• VLAN - protocal functionYes• product functionYes• product functionYes• DHCP Option 63Yes• DHCP Option 66Yes• DHCP Option 67Yes• static IP routingYes• static IP routing IPv6Yes• other IPv6Yes• other IPv6Yes• other IPv6Yes• other IPv6Yes• OSFPv2Yes• O	• LLDP	Yes
• SNMP v2Yes• SNMP v3Yes• IGMP (exoping/querier)Yesidentification & maintenance functionYes• IRM0 - device-specific informationYes• RAM1 - higher level designation/location designationYesproduct functions / diagnosticsYesproduct functionsYes• exot diagnostics packet typeYes• exot function / VLANYes• VLAN - port basedYes• VLAN - port basedYes• VLAN - protocol-basedYes• VLAN - protocol-basedYes• VLAN - In-basedYes• VLAN - Indexinum255• product functionsYesproduct functionsYes• DHCP Option 62Yes• DHCP Option 63Yes• DHCP Option 64Yes• UHCP Option 65Yes• UHCP Option 66Yes• UHCP Option 67Yes• exite: IP routing IPv6Yes• otatic IP routing IPv6Yes• otatic IP routing IPv6Yes• otatic IP routing	EtherNet/IP	Yes
• SNMP v3     Yes       • IGMP (encoping/querier)     Yes       • IGMP (encoping/querier)     Yes       • IBMO - device-specific information     Yes       • IBMO - device-specific information     Yes       • Product function     Yes       • product function     Yes       • product function     Yes       • ialiatics packet Size     Yes       • aliatics packet Size     Yes       • error statistics     Yes       • ordut functions / / LAN     Yes       product functions / / LAN     Yes       • aliatics packet Size     Yes       • systol     Yes       • ordut functions / / LAN     Yes       product functions / / LAN     Yes       • VLAN - port based     Yes       • UROP Option 82     Yes       • DHCP Cleint     Yes       • DHCP Option 82     Yes       • DHCP Option 87     Yes <td>• SNMP v1</td> <td>Yes</td>	• SNMP v1	Yes
• IGMP (snooping/querier)         Yes           identification & maintenance function         Yes           • IGMO - devices-specific information         Yes           product functions / lagnostics         Yes           product functions         Yes           • statistics Packet Size         Yes           • statistics packet type         Yes           • orror statistics         Yes           • vickan - protocol-based         Yes           • VLAN - protocol-based         Yes           • VLAN - protocol-based         Yes           • VLAN - IP-based         Yes           • VLAN - Myamin / maximum         255           number of VLANs - dynamic / maximum         255           protoci / tissupported / CVPP         Yes           protoci functions / DHCP         Yes           protoci functions / DHCP         Yes           protoci function / PhCP         Yes           protoci function / PhCP         Yes           protoci function / PhCP         Yes           protoci function	• SNMP v2	Yes
identification & maintenance function     Yes          i.MM - device-specific information       Yes          i.MM - device-specific information       Yes          product functions / diagnostics       Yes          product functions / diagnostics       Yes          e. ord diagnostics       Yes          e. etailstics packet Size       Yes          e. etailstics packet type       Yes          e. error statistics       Yes          error statistics       Yes          product functions / VLAN        Yes          product function              vLAN - port based        Yes           vLAN - protocol-based        Yes           vLAN - protocol-based        Yes           vLAN - protocol-based        Yes           vLAN - suppratic / maximum        255           product functions / DHCP        Yes           product functions         Yes           o HHCP Option 65        Yes           o HHCP Option 65        Yes           orduct functions / routing        Yes           product function	• SNMP v3	Yes
• I&M0 - device-specific information     Yes       • I&M1 - higher level designation/location designation     Yes       product function     -       • port diagnostics     Yes       • elatistics Packet Size     Yes       • elatistics Packet Size     Yes       • elatistics packet type     Yes       • elatistics packet type     Yes       • elatistics packet type     Yes       • statistics packet type     Yes       • Syst.cg     Yes       product function     Yes       • VLAN - port based     Yes       • VLAN - port based     Yes       • VLAN - port based     Yes       • VLAN - IP-based     Yes       • VLAN - IP-based     Yes       • VLAN - IP-based     Yes       product functions / DICP	IGMP (snooping/querier)	Yes
i&M1 - higher level designation/location designation         Yes           product functions            • port diagnostics         Yes           • statistics Packet Size         Yes           • statistics packet type         Yes           • error statistics         Yes           • error statistics         Yes           • ordeut functions / VLAN         Yes           product functions / VLAN         Yes           ordeut functions / VLANs / maximum         255           number of VLANs / maximum         255           product functions / DRCP         Yes           product function         Yes           • DHCP Option 82         Yes           • DHCP Option 63         Yes           • DHCP Option 67         Yes           product function         Yes           • DHCP Option 67         Yes           • DHCP Option 67         Yes           • DHCP Option 67         Yes           • OHCP Option 67	identification & maintenance function	
product functions         / diagnostics                • port diagnostics             • estatistics packet Size             • tatistics packet type             • tatistics packet type             • estatistics             • estatistic             • estatistics             • estatic	<ul> <li>I&amp;M0 - device-specific information</li> </ul>	Yes
product function         Yes           • part diagnostics         Yes           • statistics Packet Size         Yes           • statistics packet type         Yes           • error statistics         Yes           • statistics packet type         Yes           • statistics packet type         Yes           • statistics packet type         Yes           • product functions / VLAN         Product functions / VLAN           product functions         Yes           • VLAN - port based         Yes           • VLAN - protocol-based         Yes           • VLAN - IP-based         Yes           • VLAN - IP-based         Yes           • VLAN dynamic         Yes           number of VLANs / maximum         255           product functions / DHCP         Yes           product function            • DHCP Option 62         Yes           • DHCP Option 63         Yes           • DHCP Option 64         Yes           • DHCP Option 67         Yes           product function            • static IP routing         Yes           • optical function            • static IP routing IPv6         Yes	<ul> <li>I&amp;M1 - higher level designation/location designation</li> </ul>	Yes
• port diagnosticsYes• statistics Packet SizeYes• error statisticsYes• error statisticsYes• SysLogYesproduct function///////////////////////////////	product functions / diagnostics	
• statistics Packet SizeYes• statistics packet SizeYes• error statisticsYes• SysLogYesproduct functions /VLAN///////////////////////////////	product function	
• statistics packet type     Yes       • error statistics     Yes       • SysLog     Yes       product function     //LAN       • VLAN - port based     Yes       • Draduct function     255       product functions / DHCP     Yes       product functions / DHCP     Yes       • DHCP Option 62     Yes       • DHCP Option 63     Yes       • DHCP Option 66     Yes       • DHCP Option 67     Yes       product function     IP routing integrated       product function     Yes       • static IP routing IPv6     Yes       • dynamic IP routing IPv6     Yes	<ul> <li>port diagnostics</li> </ul>	Yes
• error statistics     Yes       syst.og     Yes       product functions / VLAN       • VLAN - port based     Yes       • VLAN - port based     Yes       • VLAN - protocol-based     Yes       • VLAN - dynamic     Yes       • VLAN - dynamic     Yes       product functions / DVP     Yes       • DHCP Option 62     Yes       • DHCP Option 63     Yes       • DHCP Option 66     Yes       • DHCP Option 67     Yes       product function     Image: Static IP routing IPV6       * estatic IP routing IPv6     Yes       • dynamic IP routing IPv6     Yes       • RIPv2     Yes       • RIPv3 for IPv6     Yes       • OSPFv3 for IPv6     Yes	<ul> <li>statistics Packet Size</li> </ul>	Yes
• SysLogYesproduct functions / VLANproduct function• VLAN - port based• VLAN - port based• VLAN - port based• VLAN - protocol-based• VLAN - IP-based• VLAN dynamicrumber of VLANs - maximum255number of VLANs - dynamic / maximum255product functions / DICPproduct function• DHCP Option 62• DHCP Option 65• VEAP Option 667vesproduct functions / routing• static IP routing IPv6• static IP routing IPv6• dynamic IP routingYes• dynamic IP routing• static IP routing IPv6• Systend• dynamic IP routingYes• dynamic IP routingYes• dynamic IP routing IPv6• Systend• RIPv2• RIPv2• Sign Piv6• Satic IP routing IPv6• Systended• RIPv6 for IPv6• VRRP• VRRP for IPv6• VRRP• VRRP for IPv6• VRRP• VRRP for IPv6• VRRP• VRRP• VRRP for IPv6• VRRP• VRRP• VRRP• VRRP• VRRP• VRRP• VRRP• VRRP• VRRP <t< td=""><td><ul> <li>statistics packet type</li> </ul></td><td>Yes</td></t<>	<ul> <li>statistics packet type</li> </ul>	Yes
product function           product function           • VLAN - protocol-based           • VLAN dynamic           • VLAN dynamic           • VLAN dynamic           rumber of VLANs / maximum           255           number of VLANs - dynamic / maximum           255           product functions / DHCP           product function           • DHCP Option 62           • DHCP Option 66           Yes           • DHCP Option 66           Yes           • DHCP Option 67           yes           • obtic IP routing           service / routing / note           istalic IP routing IPv6           yes           • dynamic IP routing IPv6           yes           odynamic IP routing IPv6           istalic IP routing IPv6           ves <tr< td=""><td>error statistics</td><td>Yes</td></tr<>	error statistics	Yes
product function     Yes       • VLAN - prot based     Yes       • VLAN - protocol-based     Yes       • VLAN - protocol-based     Yes       • VLAN - protocol-based     Yes       • VLAN dynamic     Yes       • VLAN dynamic     Yes       number of VLANs / maximum     255       number of VLANs / aximum     255       protocol / is supported / GVRP     Yes       product functions / DHCP     Yes       product function        • DHCP Option 82     Yes       • DHCP Option 66     Yes       • DHCP Option 67     Yes       product function     IP routing integrated       product function        service / routing / note     IP routing integrated       product function     Yes       • bHCP Option 67     Yes       otatic IP routing IPv6     Yes       • static IP routing IPv6     Yes       • dynamic IP routing IPv6     Yes       • dynamic IP routing IPv6     Yes       • RIPnG for IPv6     Yes       • OSPFv2     Yes       • OSPFv3 for IPv6     Yes       • VRP     Yes       • VRPP     Yes	• SysLog	Yes
VLAN - port basedYes·VLAN - protocol-basedYes·VLAN - IP-basedYes·VLAN dynamicYesnumber of VLANs / maximum255number of VLANs - dynamic / maximum255protocol / is supported / GVRPYesproduct functionYesDHCP Option 82YesDHCP Option 66YesDHCP Option 67Yesproduct function / o DHCP Option 67Yesservice / routing / noteIP routing integratedproduct functionYesservice / routing IPv6Yesother Drouting IPv6Yesestatic IP routing IPv6Yesodynamic IP routing IPv6Yesetter IP routing IPv6Yesprotoced / is supportedYesprotoced / washic IP routing IPv6Yesetter IPv6Yesvorting IPv6Yesvorting IPv6Yesvorting IPv6Yesvorting IPv6Yesvorted IPv6Yesvorted IPv6Yesvorted Virs IPv6Yes<	product functions / VLAN	
• VLAN - protocol-basedYes• VLAN - IP-basedYes• VLAN dynamicYesnumber of VLANs / maxinum255number of VLANs / maxinum255protocol / is supported / GVRPYesproduct functionYesproduct function S2Yes• DHCP Option 82Yes• DHCP Option 66Yes• DHCP Option 67Yesproduct functionIP routing integratedproduct functionYes• DHCP Option 67Yes• DHCP Option 67Yesproduct functionYes• product functionYes• product functionYes• product functionYes• product functionYes• product functionYes• product functionYes• static IP routingYes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• RIPv2Yes• RIPv2Yes• RIPv2Yes• OSPFv3 for IPv6Yes• VRRP For IPv6Yes• VRRP for IPv6Yes• VRRP for IPv6Yes	product function	
• VLAN - IP-basedYes• VLAN dynamicYesnumber of VLANs / maximum255protocol / is supported / GVRPYesproduct functions / DHCPYesproduct function 66Yes• DHCP Option 62Yes• DHCP Option 66Yes• DHCP Option 67Yesproduct functionYes• DHCP Option 67Yesproduct functionYes• DHCP Option 67Yesproduct functionYes• DHCP Option 67Yesproduct functionYesproduct functionYes• DHCP Option 67Yesproduct functionYesproduct functionYes• product functionYes• product functionYes• static IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• RIPv2Yes• RIPv2Yes• RIPr04 for IPv6Yes• OSPFv3 for IPv6Yes• VRRP for IPv6Yes• VRRP for IPv6Yes	<ul> <li>VLAN - port based</li> </ul>	Yes
• VLAN dynamicYesnumber of VLANs / maximum255number of VLANs - dynamic / maximum255protocol / is supported / GVRPYesproduct functions / DHCPproduct functions / DHCP Option 82Yes• DHCP Option 66Yes• DHCP Option 67Yesproduct functions / routingService / routing / noteproduct functionIP routing integratedproduct functionYes• DHCP Option 67Yesproduct functions / routingYes• DHCP Option 67Yesproduct functions / routingYesservice / routing / noteIP routing integratedproduct functionYes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• RIPv2Yes• RIPv2Yes• OSPFv3 for IPv6Yes• OSPFv3 for IPv6Yes• VRRP for IPv6Yes• VRRP for IPv6Yes• VRRP for IPv6Yes	<ul> <li>VLAN - protocol-based</li> </ul>	Yes
number of VLANs / maximum255number of VLANs - dynamic / maximum255protocol / is supported / GVRPYesproduct functions / DHCPproduct function/ HCPo DHCP Option 82Yes• DHCP Option 66Yes• DHCP Option 67Yesproduct function/ Yes• DHCP Option 67Yes• DHCP Option 67Yesproduct functions / routing/ Yesservice / routing / noteIP routing integratedproduct function/ Yes• static IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• RIPv2Yes• RIPv2Yes• RIPv2Yes• OSPFv2Yes• OSPFv2Yes• OSPFv2Yes• VRRPYes• VRRP for IPv6Yes• VRRP for IPv6Yes	VLAN - IP-based	Yes
number of VLANs - dynamic / maximum255protocol / is supported / GVRPYesproduct functions / DHCPproduct function• DHCP clientYes• DHCP Option 82Yes• DHCP Option 66Yes• DHCP Option 67Yesproduct functions / routingYesservice / routing / noteIP routing integratedproduct functionYesotting / noteYesproduct functionYesestrice / routing IPv6Yesotting IPv6Yesedynamic IP routing IPv6Yesotting IPv2YeseRIPro2YeseRIPro2Yese RIPv2Yese OSPFv2Yese OSPFv2Yese OSPFv2Yese OSPFv2Yese OSPFv2Yese VRRPYese VRRPYese VRRP for IPv6Yese VRRP for IPv6Yes	VLAN dynamic	Yes
protocol / is supported / GVRPYesproduct functions / DHCP• DHCP clientYes• DHCP Option 82Yes• DHCP Option 66Yes• DHCP Option 67Yes• DHCP Option 67Yesproduct functions / routingYesservice / routing / noteIP routing integratedproduct functionYes• static IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• RIPv2Yes• RIPv2Yes• OSPFv2Yes• OSPFv2Yes• VRRPYes• VRRP for IPv6Yes• VRRP for IPv6Yes	number of VLANs / maximum	255
product functions / DHCPproduct function• DHCP client• DHCP Option 82• DHCP Option 66• DHCP Option 67Yes• DHCP Option 67Yesproduct functions / routingservice / routing / noteIP routing integratedproduct function• static IP routingYes• static IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• RIPv2• RIPv2• RIPv6 for IPv6• OSPFv2• OSPFv2• VRRP• VRRP for IPv6Yes• VRRP for IPv6• Ves• VRRP for IPv6• Ves	number of VLANs - dynamic / maximum	255
product function• DHCP clientYes• DHCP Option 82Yes• DHCP Option 66Yes• DHCP Option 67Yesproduct functions / routingYesservice / routing / noteIP routing integratedproduct function'Yes• static IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• RIPv2Yes• RIPv2Yes• OSPFv2Yes• OSPFv2Yes• OSPFv2Yes• VRRPYes• VRRP for IPv6Yes• VRRP for IPv6Yes	protocol / is supported / GVRP	Yes
• DHCP clientYes• DHCP Option 82Yes• DHCP Option 66Yes• DHCP Option 67Yesproduct functions / routingIP routing integratedservice / routing / noteIP routing integratedproduct functionYes• static IP routing IPv6Yes• static IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• RIPv2Yes• RIPv2Yes• RIPv5Yes• OSPFv2Yes• OSPFv2Yes• OSPFv2Yes• VRRPYes• VRRP for IPv6Yes• VRRP for IPv6Yes	product functions / DHCP	
• DHCP Option 82Yes• DHCP Option 66Yes• DHCP Option 67Yesproduct functions / routingIP routing integratedservice / routing / noteIP routing integratedproduct functionYes• static IP routingYes• static IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• RIPv2Yes• RIPv2Yes• RIPv2Yes• OSPFv2Yes• OSPFv2Yes• OSPFv2Yes• VRRPYes• VRRP for IPv6Yes• VRRP for IPv6Yes	product function	
• DHCP Option 66Yes• DHCP Option 67Yesproduct functions / routingIP routing integratedservice / routing / noteIP routing integratedproduct functionYes• static IP routing IPv6Yes• static IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• RIPv2Yes• RIPv2Yes• RIPv6 for IPv6Yes• OSPFv2Yes• OSPFv2Yes• VRRPYes• VRRP for IPv6Yes• VRRP for IPv6Yes	DHCP client	Yes
• DHCP Option 67Yesproduct functions / routingIP routing integratedservice / routing / noteIP routing integratedproduct functionYes• static IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• RIPv2Yes• RIPv2Yes• OSPFv2Yes• OSPFv2Yes• OSPFv3 for IPv6Yes• VRRPYes• VRRP for IPv6Yes• VRRP for IPv6Yes	DHCP Option 82	Yes
product functions / routingservice / routing / noteIP routing integratedproduct functionYes• static IP routing IPv6Yes• dynamic IP routingYes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• grotocol / is supportedYes• RIPv2Yes• RIPnG for IPv6Yes• OSPFv2Yes• OSPFv3 for IPv6Yes• VRRPYes• VRRP for IPv6Yes• VRRP for IPv6Yes	DHCP Option 66	Yes
service / routing / noteIP routing integratedproduct functionYes• static IP routing IPv6Yes• dynamic IP routingYes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yesprotocol / is supportedYes• RIPv2Yes• RIPnG for IPv6Yes• OSPFv2Yes• OSPFv3 for IPv6Yes• VRRPYes• VRRP for IPv6Yes		Yes
product functionYes• static IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yesprotocol / is supportedYes• RIPv2Yes• RIPnG for IPv6Yes• OSPFv2Yes• OSPFv2Yes• OSPFv2Yes• OSPFv3 for IPv6Yes• VRRPYes• VRRP for IPv6Yes• VRRP for IPv6Yes	product functions / routing	
• static IP routingYes• static IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• protocol / is supportedYes• RIPv2Yes• RIPnG for IPv6Yes• OSPFv2Yes• OSPFv2Yes• OSPFv2Yes• OSPFv2Yes• OSPFv2Yes• OSPFv2Yes• OSPFv2Yes• VRRPYes• VRRP for IPv6Yes	service / routing / note	IP routing integrated
• static IP routing IPv6Yes• dynamic IP routing IPv6Yes• dynamic IP routing IPv6Yes• protocol / is supportedYes• RIPv2Yes• RIPnG for IPv6Yes• OSPFv2Yes• OSPFv2Yes• OSPFv2Yes• VRRPYes• VRRP for IPv6Yes• VRRP for IPv6Yes	product function	
• dynamic IP routingYes• dynamic IP routing IPv6Yesprotocol / is supportedYes• RIPv2Yes• RIPnG for IPv6Yes• OSPFv2Yes• OSPFv3 for IPv6Yes• VRRPYes• VRRP for IPv6Yes• VRRP for IPv6Yes	static IP routing	Yes
• dynamic IP routing IPv6Yesprotocol / is supportedYes• RIPv2Yes• RIPnG for IPv6Yes• OSPFv2Yes• OSPFv2Yes• OSPFv3 for IPv6Yes• VRRPYes• VRRP for IPv6Yes	static IP routing IPv6	
protocol / is supported     Yes       • RIPv2     Yes       • RIPnG for IPv6     Yes       • OSPFv2     Yes       • OSPFv3 for IPv6     Yes       • VRRP     Yes       • VRRP for IPv6     Yes	dynamic IP routing	Yes
RIPv2YesRIPnG for IPv6YesOSPFv2YesOSPFv3 for IPv6YesVRRPYesVRRP for IPv6Yes	dynamic IP routing IPv6	Yes
• RIPnG for IPv6Yes• OSPFv2Yes• OSPFv3 for IPv6Yes• VRRPYes• VRRP for IPv6Yes		
• OSPFv2         Yes           • OSPFv3 for IPv6         Yes           • VRRP         Yes           • VRRP for IPv6         Yes	• RIPv2	Yes
• OSPFv3 for IPv6         Yes           • VRRP         Yes           • VRRP for IPv6         Yes	RIPnG for IPv6	Yes
VRRP for IPv6 Yes Yes	OSPFv2	Yes
VRRP for IPv6 Yes	OSPFv3 for IPv6	Yes
	• VRRP	Yes
needuct functions / redundancy		Yes
product functions / redundancy	product functions / redundancy	
product function		

<ul> <li>of the PROFINET IO device / is supported / PROFINET system redundancy</li> </ul>	Yes
<ul> <li>ring redundancy</li> </ul>	Yes
	Yes
High Speed Redundancy Protocol (HRP)     bigh apped redundancy protocol (HRP)	Yes
<ul> <li>high speed redundancy protocol (HRP) with redundancy manager</li> </ul>	res
<ul> <li>high speed redundancy protocol (HRP) with standby redundancy</li> </ul>	Yes
protocol / is supported / Media Redundancy Protocol (MRP)	Yes
product function	
<ul> <li>media redundancy protocol (MRP) with redundancy manager</li> </ul>	Yes
<ul> <li>Media Redundancy Protocol Interconnection (MRP-I)</li> </ul>	Yes
<ul> <li>of the PROFINET IO device / is supported / H-Sync forwarding</li> </ul>	Yes
<ul> <li>redundancy procedure STP</li> </ul>	Yes
<ul> <li>redundancy procedure RSTP</li> </ul>	Yes
<ul> <li>redundancy procedure RSTP+</li> </ul>	Yes
<ul> <li>redundancy procedure MSTP</li> </ul>	Yes
passive listening	Yes
protocol / is supported	
• LACP	Yes
product functions / security	
product function	
ACL - MAC-based	Yes
ACL - port/MAC-based	Yes
● IEEE 802.1x (radius)	Yes
broadcast/multicast/unicast limiter	Yes
<ul> <li>broadcast blocking</li> </ul>	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	
standard	
• for FM	FM3611: Class 1, Divison 2, Group A, B, C, D / T4, Class 1, Zone 2, Group IIC, T4
<ul> <li>for safety / from CSA and UL</li> </ul>	UL 508, UL 60950-1, CSA C22.2 Nr. 60950-1-03
for emitted interference	EN 61000-6-4 (Class A)
for interference immunity	EN 61000-6-2
MTBF	22 a
reference code	
according to IEC 81346-2	KF
<ul> <li>according to IEC 81346-2:2019</li> </ul>	KFE
standards, specifications, approvals / CE	
certificate of suitability / CE marking	Yes
certificate of suitability / RoHS conformity	Yes; 2011/65/EU
standards, specifications, approvals / hazardous environments	
standard / for hazardous zone	EN 60079-0: 2009, EN60079-15: 2010, II 3 G Ex nA IIC T4 Gc, KEMA 07 ATEX
	0145 X, IECEx DEK 14.0025X
from CSA and UL	ISA 12.12.01-2012 (Hazardous Location), Class 1 / Division 2 / Group A, B, C, D / T4, Class 1 / Zone 2 / Group IIC / T4
from CSA and UL certificate of suitability	ISA 12.12.01-2012 (Hazardous Location), Class 1 / Division 2 / Group A, B, C,
	ISA 12.12.01-2012 (Hazardous Location), Class 1 / Division 2 / Group A, B, C,

• CCC / for hazardous zone according to GB standard / as
marking

Ex nA IIC T4 Gc

marking	
standards, specifications, approvals / other	
certificate of suitability	EN 61000-6-2, EN 61000-6-4
• C-Tick	Yes
KC approval	Yes
standards, specifications, approvals / marine classification	
Marine classification association	
<ul> <li>American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>	Yes
<ul> <li>French marine classification society (BV)</li> </ul>	Yes
• DNV GL	Yes
<ul> <li>Lloyds Register of Shipping (LRS)</li> </ul>	Yes
<ul> <li>Nippon Kaiji Kyokai (NK)</li> </ul>	Yes
<ul> <li>Polski Rejestr Statkow (PRS)</li> </ul>	Yes
<ul> <li>Royal Institution of Naval Architects (RINA)</li> </ul>	Yes
further information / internet links	
internet link	
<ul> <li>to web page: selection aid TIA Selection Tool</li> </ul>	http://www.siemens.com/tia-selection-tool
<ul> <li>to website: Industrial communication</li> </ul>	http://www.siemens.com/simatic-net
<ul> <li>to website: Industry Mall</li> </ul>	https://mall.industry.siemens.com
<ul> <li>to website: Information and Download Center</li> </ul>	http://www.siemens.com/industry/infocenter
<ul> <li>to website: Image database</li> </ul>	http://automation.siemens.com/bilddb
<ul> <li>to website: CAx-Download-Manager</li> </ul>	http://www.siemens.com/cax
<ul> <li>to website: Industry Online Support</li> </ul>	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)

last modified:

8/11/2023 🖸

## **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens: 6GK54164GR002AM2