SIEMENS

Data sheet

product type designation



M816-1 ADSL2+ (Annex B)

SCALANCE M816-1 ADSL router; for wire-bound IP communication from Ethernetbased automation devices via Internet service provider; VPN, Firewall, NAT; 4-port switch; 1x digital input, 1x digital output; ADSL2+,Annex B,yes.

transfer rate	
transfer rate / for Industrial Ethernet	10 Mbit/s, 100 Mbit/s
transfer rate	
• for ADSL2+ transmission / with downlink / maximum	25 Mbit/s
• for ADSL2+ transmission / with uplink / maximum	1.4 Mbit/s
interfaces	
number of electrical connections	
 for internal network 	4
for external network	1
number of electrical connections	
for power supply	2
type of electrical connection	
 for internal network 	RJ45 port (10/100 Mbit/s, TP, autocrossover)
 for external network 	RJ45 DSL Port
• for power supply	Terminal strip
WAN connection	
type of WAN connection / is supported	ADSL, ADSL2, ADSL2+
operating mode for ADSL2/ADSL2+ / is supported	Annex B, Annex J
supply voltage, current consumption, power loss	
supply voltage / rated value	24 V
supply voltage / rated value	10.8 28.8
type of voltage / of the supply voltage	DC
consumed current	
at DC / at 24 V / typical	0.33 A
power loss [W]	
• maximum	8 W
ambient conditions	
ambient temperature	
 during operation 	0 60 °C
during storage	-40 +70 °C
relative humidity / at 25 °C / during operation / maximum	95 %
protection class IP	IP20
design, dimensions and weights	
design	compact
depth	127 mm
height	147 mm
width	35 mm
net weight	400 g
fastening method	

See may be at Diff and mounting See Set 7-1500 rail mounting See				
* Ves val mounting val mounting val mounting val mounting product fastures, product functions, product components / general product function * OyunDNS client * OyunD	 35 mm top hat DIN rail mounting 	Yes		
well mounting product fautiers, product functions, product components / general product function • bynONS client • no lo no mich • ron op no mich • ron	 S7-300 rail mounting 	Yes		
product function - Dyn'NS client - Oyn'NS cli	 S7-1500 rail mounting 	Yes		
product functions - DynDNS client - Project functions / management, configuration, engineering product functions / management - CLI - CVE - Web based management - Ves - MIB support - TRAPs via email - product functions / disapnostics - SNAMP v2 - SNAMP v3 - Product function - statistics Packet Size - No - statistics Packet filer - SNAMP v3 - SPACE - SPACE - SNAMP v3 - SNAMP v4 - SNAMP v4 - SNAMP v5 - SNAMP v5 - SNAMP v6 - SNAMP v6 - SNAMP v7 - SNAMP v7 - SNAMP v7 - SNAMP v8 - SNAMP v8 - SNAMP v8 - SNAMP v8 - SNAMP v9 - SNAMP v9	wall mounting	Yes		
PypDNS client Product functions / nanagement, configuration, engineering product functions / nanagement, configuration, engineering product functions CLI PVes PVes PVes PVes PVes PVes PVes PVes	product features, product functions, product components / gen	product features, product functions, product components / general		
product functions / management, configuration, engineering product function / CLI	product function			
product functions / management, configuration, engineering product function CLI ves ves **RAF8 via email prolocol / is supported **Tahet **T	 DynDNS client 	Yes		
product function CLI Ves - web-based management Ves - MIB support - TRAP's variental Profozor / is supported - Telnet - HTTP Ves - SNMP va - SNMP v1 - SNMP v2 - SNMP v2 - SNMP v2 - SNMP v3 - SNMP v4 - SNMP v4 - SNMP v3 - SNMP v3 - SNMP v4 - SNMP v4 - SNMP v4 - SNMP v5 - SNMP v6 - SNMP v6 - SNMP v6 - SNMP v6 - SNMP v7 - SNMP v8	 no-ip.com client 	Yes		
CUI Web-based management Ves TRAPs Via email Protector / is supported * Teinet * HTTP	product functions / management, configuration, engineering			
web based management	product function			
* MIB support Protocol / is supported * Tenet * HTTP * HTTTP * HTTP * HTTTP * HTTTP * HTTTP * HTTTP	• CLI	Yes		
TRAP's via email Protocol' is supported Telnet Tel	 web-based management 	Yes		
protocol / is supported * Teinet * HTTP * HTTP * HTTP * HTTP * Yes * HTTP * Yes * HTTP * Yes * HTTP * Yes * HTTP * Yes * Teinet * Yes * Web-based management product functions / diagnostics protocol / is supported * SMMP v1 * SMMP v2 * SMMP v2 * SMMP v2 * SMMP v3 * Yes * Systacs * Systacs * Systacs * Systacs * Systacs * Systacs * Yes * Systacs * Yes * OHCP client *	MIB support	Yes		
Telnet HTTP HTTPS Yes HTTTPS Yes Oconfiguration Web-based management product functions / dispnostics protocol / is supported SMMP v1 SMMP v2 SMMP v2 SMMP v2 SMMP v3 Yes SMMP v3 SMMP v3 Yes SMMP v3 SMMP v3 Yes SMMP v3 S	TRAPs via email	Yes		
HTTPS Type of configuration product functions / diagnostics protocol / is supported SMMP v1 SMMP v1 SMMP v2 SMMP v2 SMMP v2 SMMP v3 Yes SMMP v3 Yes Product function statistics Packet Size No statistics Packet Size statistics packet type re- ror statistics SysLog packet filter log Product function DHCP client Product function No SMCP client Product function No SMCP client Product function No SMCP client Product functions / DMCP Product functions / DMCP Product functions / routing Trouter function NAT (IP masquerading) Yes Packet Size SMCP yes SMC	protocol / is supported			
yee of configuration product functions / diagnostics protocol / is supported	• Telnet	Yes		
type of configuration Web-based management product functions / diagnostics protocol / is supported • SNMP v1 • SNMP v2 • SNMP v2 • SNMP v2 • SNMP v3 yes • SNMP v3 product function • statistics packet Size • statistics packet type • or or statistics • statistics packet type • ror statistics No • statistics packet type • product function / vyes • post forwarding	• HTTP	Yes		
product functions / diagnostics protocol / is supported • SNMP v1 • SNMP v2 • SNMP v2 • SNMP v2c • SNMP v3 product function • statistics Packet Size • No • statistics Packet Size • No • statistics packet type • or or statistics • No • statistics packet type • or or statistics • No • syst.0g • packet filter log product functions / DHCP product functions / DHCP product functions • DHCP client • DHCP client • DHCP server - internal network • Product functions / routing router function • NAT (IP masquerading) • NAT (IP masquerading) • NAT traversal • 1:1 NAT • DNS cache product function / security suttability for operation / Virtual Private Network frewall version product function • password protection • pasket filter • broadcast/multicast/unicast limiter Product function • broadcast blocking • with VPN connection • UPN connection • Droadcast blocking • with VPN connection / Virtual Private Network / PSK Yes protocol / is supported • IPsec tunnel and transport mode • Yes protocol / is supported • IPsec tunnel and transport mode • Yes lexe yeignith	• HTTPS	Yes		
protocol / is supported SNMP v1 SNMP v2 SNMP v2 SNMP v2 SNMP v2 SNMP v3 Product function Statistics Packet Size Statistics packet type Systog Product function Product function Product function DHCP client DHCP client DHCP product function NA NA Pes Product function NA NA Pes Product function NAT (IP masquerading) Protocompact function No protocompact function No protocompact function Product function		Web-based management		
SNMP v2 SNMP v2 SNMP v2 SNMP v3 Yes SNMP v3 Yes statistics Packet Size No statistics packet type error statistics SysLog spacket filter log Product function DHCP client DHCP server - internal network Yes Product functions / routing NAT (IP masquerading) Port of warding NAT (IP masquerading) SysLog NAT (IP masquerading) SysLog SysLo	product functions / diagnostics			
SNMP v2 SNMP v3 SNMP v3 Yes SNMP v3 Product function statistics Packet Size No statistics packet type very statistics spacket type very statistics SysLog yes Product function DHCP client DHCP client DHCP client OHCP client Specifications of the specification	protocol / is supported			
SNMP v2c SNMP v3 Yes Yes SNMP v3 Yes Yes Yes Yes SNMP v3 No statistics packet Size No error statistics Packet type No error statistics Systud product function / DHCP Product function / Yes DNS cache Product function / Virtual Private Network / Yes Product function / Statefull Inspection Product function / Yes packet filter / Yes Droactast blocking No Product function /	• SNMP v1	Yes		
SNMP v3 product function statistics packet Size No statistics packet type No error statistics Syst.og product functions / DHCP product functions / DHCP product function DHCP client DHCP client DHCP server - internal network Yes product functions / routing router function NAT (IP masquerading) PAT Traversal Stat Traversal State full roperation / Yes product functions / security suitability for operation / Virtual Private Network firewall version Product function packet filter Product function NAT (VP masquerading) Pesc Product functions / Security suitability for operation / Virtual Private Network firewall version Product function packet filter Product function packet filter Product function product function packet filter Product function packet filter Product function product function packet filter Product function product function product function product function packet filter Product function product function product function product function product function packet filter Product function product functions	• SNMP v2	Yes		
product function statistics Packet Size statistics packet type seror statistics SysLog product function / PHOP product function / DHOP product function DHCP client DHCP server - internal network Possuble function NAT (IP masquerading) port forwarding NAT (IP masquerading) NAT traversal Suitability for operation / Virtual Private Network frewall version product function password protection product function / Statefull Inspection product function / Ves firewall version product function / Ves pasket filter broadcast/multicast/unicast limiter No product function product functio	SNMP v2c	Yes		
• statistics packet Size No • statistics packet type No • error statistics • SysLog Yes • packet filter log Yes **product functions / DHCP** **product function Yes • DHCP client Yes • DHCP server - internal network Yes **product function Yes • DHC function Youting **router function • NAT (IP masquerading) Yes • port forwarding Yes • NAT traversal Yes • 1:1: NAT Yes • DNS cache Yes **product functions / Security **suitability for operation / Virtual Private Network Yes **product function • pasker filter • proadcast/multicast/unicast limiter • broadcast/multicast/unicast limiter • broadcast/multicast/unicast limiter • broadcast blocking • with VPN connection IPsec (OpenVPN (as Client) **unumber of possible connections / with VPN connection **unumber of possible connections /	SNMP v3	Yes		
* statistics packet type * error statistics * SysLog * packet filter log * Yes * product functions / DHCP product function * DHCP client * DHCP client * DHCP server - internal network * Yes product functions / routing router function * NAT (IP masquerading) * Pes * port forwarding * Pes * 1:1 NAT * Yes * 1:1 NAT * Yes * ONS cache product functions / security suitability for operation / Virtual Private Network firewall version * password protection * password protection * password protection * pasket filter * broadcast/multicast/unicast limiter * No product function * product function * pasaket filter * product function * password protection * pasket filter * product function * pasket filter * product function * product function * pasket filter * product function * pasket filter * product function * product function * product function * product function * pasket filter * product function * product functi	product function			
error statistics SysLog packet filter log product functions / DHCP product function OHCP client OHCP client OHCP count of tunctions / routing router function NAT (IP masquerading) Port forwarding NAT traversal ONS cache Product functions / Yes 1:1 NAT ONS cache product function / Virtual Private Network firewall version password protection password protection passed filter broadcast/multicast/unicast limiter broadcast blocking with VPN connection purble connections / with VPN connection purble connections / with VPN connection protocol / is supported Psec tunnel and transport mode Psec key length key length Product function Yes Protocol / is supported Psec tunnel and transport mode Psec Protocol / is supported Psec Protocol / is supported	statistics Packet Size	No		
SysLog product functions / DHCP product functions OHCP client OHCP client OHCP server - internal network Product functions / routing router function NAT (IP masquerading) OHAT (raversal OHAT traversal OHAT traversal OHAT (DHAT (PRESCUPPLE) **Suttability for operation / Virtual Private Network **Freeding of author of the product function **password protection OHAT (PRESCUPPLE) **product function of security **suitability for operation / Virtual Private Network **firewall version **password protection OHAT (PRESCUPPLE) **product function OHAT (PRES	 statistics packet type 	No		
packet filter log Yes product functions / DHCP product function	• error statistics	No		
product function • DHCP client • DHCP server - internal network Product functions / routing router function • NAT (IP masquerading) • NAT traversal • NAT traversal • 1:1 NAT • DNS cache Product functions / security suitability for operation / Virtual Private Network • password protection • password protection • password protection • product function • password protection • password protection • product functions • product functions • password protection • product function • product subject filter • broadcast/multicast/unicast limiter No product function • broadcast blocking • with VPN connection number of possible connections / with VPN connection type of authentication / with Virtual Private Network / PSK protocol / is supported • IPsec tunnel and transport mode Ves key length	 SysLog 	Yes		
product function • DHCP client • DHCP client • DHCP server - internal network Yes product functions / routing router function • NAT (IP masquerading) • port forwarding • NAT traversal • 1:1 NAT • DNS cache product functions / security suitability for operation / Virtual Private Network firewall version product function • password protection • password protection • packet filter • broadcast/multicast/unicast limiter No product function • broadcast blocking • with VPN connection number of possible connections / with VPN connection type of authentication / with Vrnual Private Network / PSK protocol / is supported • IPsec tunnel and transport mode key length	• packet filter log	Yes		
DHCP client DHCP server - internal network Yes product functions / routing router function NAT (IP masquerading) Port forwarding NAT traversal NAT traversal Suitability for operation / Virtual Private Network Product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product function product functi	product functions / DHCP			
DHCP server - internal network product functions / routing router function NAT (IP masquerading) Post forwarding NAT traversal NAT traversal In NAT DNS cache Product functions / security suitability for operation / Virtual Private Network firewall version Password protection Password protection Password protection Product function Product function Password protection Product function P	product function			
router function NAT (IP masquerading) port forwarding port forwarding NAT traversal NAT traversal DNS cache router functions / security suitability for operation / Virtual Private Network product function product funct	DHCP client	Yes		
router function • NAT (IP masquerading) • port forwarding • NAT traversal • NAT traversal • 1:1 NAT • DNS cache product functions / security suitability for operation / Virtual Private Network firewall version product function • password protection • pasket filter • broadcast/multicast/unicast limiter product function • broadcast blocking • with VPN connection • with VPN connections / with VPN connection type of authentication / with Virtual Private Network / PSK protocol / is supported • iPsec tunnel and transport mode key length	DHCP server - internal network	Yes		
NAT (IP masquerading) port forwarding NAT traversal NAT traversal Yes 1:1 NAT Yes DNS cache product functions / security suitability for operation / Virtual Private Network firewall version product function product function password protection product function	product functions / routing			
Port forwarding NAT traversal NAT traversal 1:1 NAT Yes DNS cache Product functions / security suitability for operation / Virtual Private Network firewall version product function preserved pre	router function			
NAT traversal 1:1 NAT Pyes DNS cache Product functions / security suitability for operation / Virtual Private Network firewall version Product function product function product function product function product function product function password protection pasket filter product filter product function product functio	 NAT (IP masquerading) 	Yes		
1:1 NAT DNS cache Product functions / security suitability for operation / Virtual Private Network firewall version product function product function password protection pasket filter packet filter product function product f	 port forwarding 	Yes		
DNS cache product functions / security suitability for operation / Virtual Private Network firewall version Product function password protection password protection product full inspection product function product full inspection product function produ	NAT traversal	Yes		
suitability for operation / Virtual Private Network firewall version product function • password protection • pasket filter • broadcast/multicast/unicast limiter product function • broadcast blocking • with VPN connection number of possible connections / with VPN connection type of authentication / with Virtual Private Network / PSK protocol / is supported • IPsec tunnel and transport mode key length	• 1:1 NAT	Yes		
suitability for operation / Virtual Private Network firewall version product function password protection packet filter broadcast/multicast/unicast limiter product function broadcast blocking with VPN connection number of possible connections / with VPN connection type of authentication / with Virtual Private Network / PSK protocol / is supported Psec tunnel and transport mode key length	DNS cache	Yes		
firewall version product function password protection packet filter product function product function product filter broadcast/multicast/unicast limiter No product function broadcast blocking with VPN connection number of possible connections / with VPN connection type of authentication / with Virtual Private Network / PSK protocol / is supported Psec tunnel and transport mode key length	product functions / security			
product function • password protection • password protection • packet filter • broadcast/multicast/unicast limiter No product function • broadcast blocking • with VPN connection number of possible connections / with VPN connection type of authentication / with Virtual Private Network / PSK protocol / is supported • IPsec tunnel and transport mode key length	suitability for operation / Virtual Private Network	Yes		
 password protection packet filter proadcast/multicast/unicast limiter broadcast/multicast/unicast limiter No product function broadcast blocking with VPN connection IPsec, OpenVPN (as Client) number of possible connections / with VPN connection type of authentication / with Virtual Private Network / PSK protocol / is supported IPsec tunnel and transport mode key length 	firewall version	Statefull Inspection		
 packet filter broadcast/multicast/unicast limiter product function broadcast blocking with VPN connection number of possible connections / with VPN connection type of authentication / with Virtual Private Network / PSK protocol / is supported IPsec tunnel and transport mode key length 	product function			
broadcast/multicast/unicast limiter product function broadcast blocking	 password protection 	Yes		
product function • broadcast blocking • with VPN connection number of possible connections / with VPN connection type of authentication / with Virtual Private Network / PSK protocol / is supported • IPsec tunnel and transport mode key length	• packet filter	Yes		
broadcast blocking with VPN connection IPsec, OpenVPN (as Client) number of possible connections / with VPN connection type of authentication / with Virtual Private Network / PSK protocol / is supported IPsec tunnel and transport mode key length No IPsec, OpenVPN (as Client) Yes	 broadcast/multicast/unicast limiter 	No		
 with VPN connection number of possible connections / with VPN connection type of authentication / with Virtual Private Network / PSK protocol / is supported IPsec tunnel and transport mode key length 	product function			
number of possible connections / with VPN connection type of authentication / with Virtual Private Network / PSK protocol / is supported • IPsec tunnel and transport mode key length	 broadcast blocking 	No		
type of authentication / with Virtual Private Network / PSK protocol / is supported • IPsec tunnel and transport mode key length	with VPN connection	IPsec, OpenVPN (as Client)		
protocol / is supported • IPsec tunnel and transport mode Key length Yes	number of possible connections / with VPN connection	20		
	type of authentication / with Virtual Private Network / PSK	Yes		
key length	protocol / is supported			
	IPsec tunnel and transport mode	Yes		
• 1 / with IPsec AES / with Virtual Private Network 128 bit	key length			
	• 1 / with IPsec AES / with Virtual Private Network	128 bit		
• 2 / with IPsec AES / with Virtual Private Network 192 bit	• 2 / with IPsec AES / with Virtual Private Network	192 bit		
• 3 / with IPsec AES / with Virtual Private Network 256 bit	• 3 / with IPsec AES / with Virtual Private Network	256 bit		



with IPsec 3DES / with Virtual Private Network	168 bit
type of Internet key exchange / with Virtual Private Network	
main mode	Yes
• guick mode	Yes
type of packet authentication / with Virtual Private Network	MD5, SHA-1, SHA-256, SHA-384, SHA-512
IETF profile / with Virtual Private Network / X.509v3 certificate	Yes
product functions / time	
protocol / is supported	
• NTP	Yes
• SNTP	Yes
standards, specifications, approvals	
standard	
• for EMC	EN 55022, EN 55024
• for FM	FM16US0205X, FM 3611: Class I, Division 2, Groups A,B,C,D, T4 / Class 1, Zone 2, Group IIC, T4
• for hazardous zone	EN 60079-15, EN 60079-0, II 3 G Ex nA IIC T4 Gc, KEMA 07ATEX0145 X
• for hazardous zone / from CSA and UL	ANSI/ISA 12.12.01-2013, CAN/CSA C22.2 No.213-M1987, Cl. 1, div. 2, GP. A, B, C, D, T4 / Cl. 1, Zone 2, GP IIC E240480
• for emitted interference	EN 55022 Class A
for interference immunity	EN 55024
certificate of suitability	
CE marking	Yes
CCC approval	Yes; GB3836.1, GB3836.8, Ex nA IIC T4 Gc
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: Selection guide for cables and connectors 	http://www.siemens.com/snst
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)

last modified: 11/9/2023 🖸

