

## Line Encryptors for Network Layer 2





### Benefits:

- » No need for changes to the network infrastructure
- » Maintenance-free operation
- » Full duplex encryption at line speed
- » Efficient encryption (no overhead) up to RESTRICTED

The SINA L2 product line provides high-performance encryption components for the secure exchange of information in networks. The flexible and modular architecture makes it possible to use different applications in MAN, WAN and SAN areas up to a transfer rate of 10 gigabits per second. **SINA L2 encryption components provide the best possible protection for point-to-point, point-to-multipoint and multipoint-to-multipoint connections.** This makes them an ideal addition to our IPsec VPN SINA Box products (for example 1HU, 3HU, Box 1000).

With the increasing availability of direct interconnection of fast or gigabit Ethernet structures, a LAN can span several locations. Since this LAN is linked via public lines there is a risk of data being tapped or manipulated. Furthermore, third parties may gain access to the internal infrastructure of the network. In such cases, reliable encryption is the only way to ensure the security of the data. SINA L2 products offer precisely this security for classifications up to "RESTRICTED", "NATO RESTRICTED" or "RESTREINT UE".

SINA L2 allows you to combine your networks with ease and efficiency. SINA L2 components are immediately ready for use and require no further network configuration. The device works with complete transparency with a speed of up to 10 GBit/s. The encryption has no effect on the functionality and performance of the LAN applications. The additional packet delay amounts to just a few microseconds. Various versions are available for different data transmission speeds to suit your requirements. If you are already using SINA, integrating SINA L2 components is also simple and can be administrated via the common SINA Management.

Component			
SINA L2 (100, 1000, 10000)	RESTRICTED	NATO RESTRICTED	EU RESTRICTED

**Technology**

SINA L2 secures gigabit Ethernet WAN connections without any change to the network structure by means of integration into the line between the provider and the LAN. There is no determination of a specific protocol and high availability is guaranteed by the proven technology. In addition to reliability, the uncomplicated network operation plays a key role in reducing


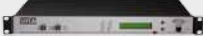

operating costs to a minimum. All in all, SINA L2 products are the ideal choice for high-speed networks.

**Sources of supply**

SINA L2 is available through secunet or authorised SINA distributors.

Features	
	Real-time encryption of the Ethernet payload (IEEE 802.3)
	Key change without interruption of the link
	Very low latency (100 M: < 0,040 ms, 1 G: < 0,008 ms, 10 G: < 0,004 ms)
Encryption technology	
	AES with 256 bit keys in ECB or CBC mode.
	Symmetrical key exchange with optional support through
	Diffie-Hellman/ECC protocol.
	Conformity with the requirements of FIPS 140-2 L3 and CC EAL3
Key management	
	Ad hoc authentication
	Device authentication with passphrase/host key
	Manipulation-protected key storage
	Automatic time-triggered (configurable) change of session keys
	Autonomous operation without external key management

System management	
Ethernet:	10/100Base-T, RJ45, min. CAT5e
Serial console:	RS 232, 9 Pin male, DTE, 9600 8N1
	Integrated monitoring of line status and operation
	Audit and event logging
	Remote operation status monitoring via SNMP (V2c/V3)
	Link status monitoring
Hardware	
	Transparent with regard to VLAN, MPLS
	Tamper-resistant housing design
Operating temperature:	1°C – 40°C, recommended operating temperature: ≤ 25°C
Humidity:	10 % – 85 %, not condensing
Conformity:	CE, FCC

			
Versions:	SINA L2 100	SINA L2 1000	SINA L2 10000
Throughput:	Ethernet line rate in frame mode 100 MBit/s, full duplex	Ethernet line rate in frame mode 1 GBit/s, full duplex	Ethernet line rate in frame mode 10 GBit/s, full duplex
Delay:	100 M: ≤ 40 µs per device	1 G: ≤ 8 µs per device	10 G: ≤ 4 µs per device
Supply voltage:	Redundant power supply 110–240 V AC 50–60 Hz, 11 W	110–240 V AC 50–60 Hz or –48 V DC, 90 W, redundant hot-swap	110–240 V AC 50–60 Hz or –48 V DC, 115 W, redundant hot-swap
Dimensions:	Height: 44 mm (1 HU), Length: 230 mm, Width: 430 mm (19")	Height: 44 mm (1 HU), Length: 320 mm, Width: 430 mm (19")	Height: 88 mm (2 HU), Length: 370 mm, Width: 430 mm (19")
Weight:	4 kg	7 kg	10 kg
Approvals:	RESTRICTED, NATO RESTRICTED, RESTREINT UE	RESTRICTED, NATO RESTRICTED, RESTREINT UE	RESTRICTED, NATO RESTRICTED, RESTREINT UE

**About SINA**

secunet developed SINA, the secure inter-network architecture, for the German Federal Office for Information Security (BSI). With approval conformity, the product family of crypto systems enables requirements-specific and secure processing, storage and transmission of classified documents as well as other sensitive data.

The product portfolio covers different gateways, line encryptors, clients and management systems which have been in use in the public sector, armed forces and companies handling classified information for many years. Selected SINA components are approved for processing and transmitting classified documents up to and including the classification levels TOP SECRET, NATO SECRET and SECRET UE.

More information:  
[www.secunet.com/en/L2](http://www.secunet.com/en/L2)



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