



TEMPEST POINT-TO-POINT ETHERNET IP LAYER ENCRYPTION DEVICE

IBD84 (*IBD77 TEMPEST*) is a cryptographic device designed to encrypt point-to-point IP layer communication in 1 Gbps Ethernet networks. The communication is protected by the MAD-256-GCM symmetric encryption algorithm. The device offers TEMPEST protection and is compliant with SDIP-27 Level A standard.

Description

The device must be connected between two networks, "CLEAR", considered safe, which contains sensitive data, and "CIPHER", considered unsafe. Data that passes through the "CIPHER" area will be encrypted and transmitted through a cryptographic tunnel. IBD84 can be used to transfer data only to other "CLEAR" networks protected by compatible devices. The communication interfaces of the device enable 1000BASE-X full duplex (using SFP optical interfaces).
Data transmission and reception are compliant with the IEEE 802.3z standard.
The KEY port is used for device initialization and cryptographic key loading.
The device features protection mechanisms against physical tampering and extreme temperature exposure.

Technical specifications

Power supply	230 VAC
Communication interfaces	1000BASE-X
Throughput <i>(depending on the frame length)</i>	40 Mbps
Maximum frame length	1420 bytes
Processing latency time	< 1 ms
Cipher algorithm	MAD-256-GCM
Tempest protection	SDIP-27 LEVEL A
Power consumption	~5 W
Casing dimensions <i>(W x D x H)</i>	300x300x44 mm
Weight	4100 g

Environmental conditions

Operating temperature	0°C ... + 40°C
Maximum relative humidity	80%