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IBD83

POINT-TO-MULTIPOINT ETHERNET IP LAYER ENCRYPTION DEVICE WITH ELECTRICAL AND OPTICAL INTERFACES

IBD83 is a cryptographic device designed to encrypt point-to-multipoint IP layer communication in 10/100/1000Mbps Ethernet networks. The communication is protected by the MAD-256-GCM symmetric encryption algorithm.

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 cryptographic tunnels. IBD83 can manage up to 128 cryptographic tunnels and can be used to transfer data only to other "CLEAR" network areas protected by compatible devices.

The communication interfaces of the device enable 10/100/1000BASE-T full duplex communication using electrical interfaces and 1000BASE-X full duplex communication using SFP optical interfaces. Data transmission and reception are compliant with the IEEE 802.3i, IEEE 802.3u, IEEE 802.3z and IEEE 802.3ab standards.

The KEY port is used for device initialization and cryptographic key loading. These operations are indicated by the alphanumeric display from the front panel.

The device features protection mechanisms against physical tampering and extreme temperature exposure.

Technical specifications

Power supply	230 VAC
Communication interfaces	10/100/1000BASE-T, 1000BASE-X
Throughput *(depending on the frame length)*	990 Mbps
Maximum frame length	9000 bytes
Processing latency time	< 0.1 ms
Number of cryptographic tunnels	128
Number of networks per tunnel	8
Management interface	10/100/1000BASE-T
Cipher algorithm	MAD-256-GCM
Power consumption	~ 5 W
Casing dimensions *(W x D x H)*	385 x 190 x 45 mm
Weight	2600 g

Environmental conditions

Operating temperature	0°C ... + 50°C
Maximum relative humidity	80%