ADVANCED TECHNOLOGIES INSTITUTE

IBD88

POINT-TO-MULTIPOINT IP 10G LAYER ENCRYPTION DEVICE WITH SFP+ OPTICAL INTERFACES

IBD88 is a cryptographic device designed to encrypt point-to-multipoint IP layer communication in 10 Gbps 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. IBD88 can manage up to 128 cryptographic tunnels and can be used to transfer data only to other “CLEAR” networks protected by compatible devices.
The communication interfaces of the device enable 10GBASE-R full duplex communication using SFP+ optical interfaces. Data transmission and reception are compliant with the IEEE 802.3ae standard.
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	10GBASE-R
Throughput *(depending on the frame length)*	9,9 Gbps
Maximum frame length	9000 bytes
Processing latency time	< 0,1 ms
Number of cryptographic tunnels	128
Number of networks per tunnel	8
Management interface	1000BASE-X
Cipher algorithm	MAD-256-GCM
Power consumption	~ 10 W
Casing dimensions *(W x D x H)*	400 x 240 x 88 mm
Weight	5000 g

Environmental conditions

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

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