ADVANCED TECHNOLOGIES INSTITUTE

IBD83V2

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

IBD83V2 *(IBD83 TEMPEST)* is a cryptographic device designed to encrypt point-to-multipoint 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 cryptographic tunnels. IBD83V2 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 1000BASE-X full duplex communication 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. These operations are indicated on the management port *(as response packets to the request status packets)*.
The device features protection mechanisms against physical tampering and extreme temperature exposure.

Technical specifications

Power supply	230 VAC
Communication interfaces	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 network tunnels	8
Management interface	1000BASE-X
Cipher algorithm	MAD-256-GCM
Tempest protection	SDIP-27 LEVEL A
Power consumption	~5 W
Casing dimensions *(W x D x H)*	436x308x45 mm
Weight	4500 g

Environmental conditions

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

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