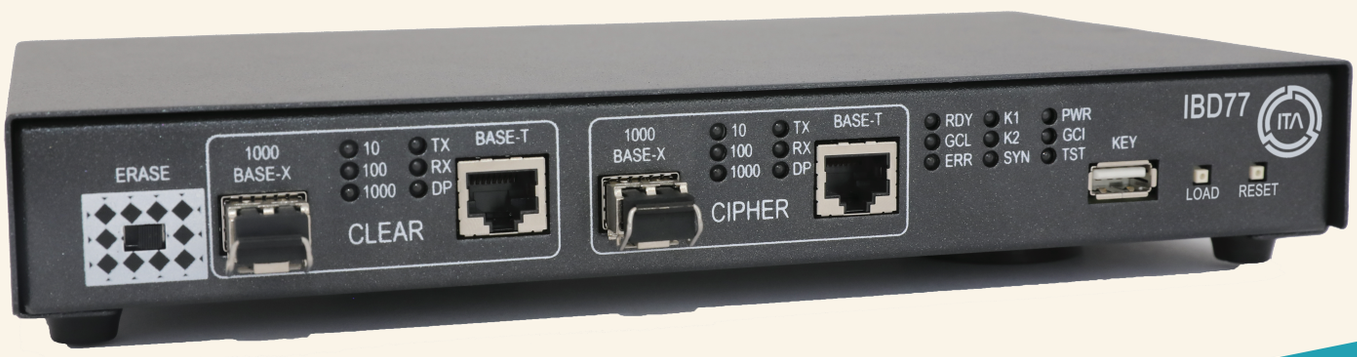
ADVANCED TECHNOLOGIES INSTITUTE

IBD77



POINT-TO-POINT IP ENCRYPTION DEVICE

IBD77 is a cryptographic device designed to encrypt point-to-point IP communication in 10/100/1000 Mbps 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 a cryptographic tunnels. The IBD77 can be used to transfer data only to other “CLEAR” networks protected by compatible devices.
The communication interfaces of the device enable two operating modes: 10/100/1000BASE-T full duplex *(using electrical interfaces)* and 1000BASE-X full duplex *(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 ERR and RDY LEDs from the front panel.
The device features protection mechanisms against physical tampering and extreme temperature exposure.

Technical specifications

Power supply	5 VCC
Communication interfaces	10/100/1000BASE-T, 1000BASE-X
Throughput *(depending on the frame length)*	40 Mbps
Maximum frame length	1420 bytes
Processing latency	< 1 ms
Cipher algorithm	MAD -256 - GCM
Power consumption	~5 W
Casing dimensions *(W x D x H)*	254x153x36 mm
Weight	1100 g

Environmental conditions

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

ADVANCED TECHNOLOGIES INSTITUTE
10 Dinu Vintilă Street, 021102, Bucharest, Romania
Phone +4.021.610.70.95, Fax +4.021.210.04.54, e-mail: cooperare.ita@dcti.ro