Datasheet

Fibersystem Data Diodes support:

Syslog
NTP Broadcast
SNMP Traps
UDP Unicast
UDP Broadcast
UDP Multicast

No extra software needed!

Data Diodes are used to allow secure networks to receive data from open/general purpose networks. Unidirectional transfer of data over fiber cable or copper cable between two networks with hardware separation to guarantee security. This completely eliminates the risk of data flowing in false direction.

The Fibersystem Data Diodes communication gives the following advantages

- One-way connection between two networks (also known as Simplex)
- Based on hardware, no extra software needed. This completely eliminates the risk for data flowing in false direction
- Fibre optical links for galvanic seperation between networks
- Can be used in any Ethernet application using fibre or copper connectivity
- All data will be transparently forwarded
- Ethernet and/or fibre based
- Supports: Syslog, NTP Broadcast, SNMP traps
- Supports: UDP (Unicast, Broadcast, Multicast, Manycast)
- For Queue Mgmt, Logging, Mail, FTP, SNMP and SDK, additional software is needed.

Fibersystem Data Diodes manage UDP traffic without additional software

NTP client connects to the specified NTP server. IP address of NTP server must be set in ntp-server and/or second-ntp-server parameters. At first client synchronizes to NTP server. Afterwards client periodically (64...1024 s) sends time requests to NTP server. Unicast mode is the only one which uses ntp-server and second-ntp-server parameters.

UDP Broadcast mode

NTP client listens for broadcast messages sent by any NTP server. After receiving first broadcast message, client synchronizes local clock using unicast mode, and afterwards does not send any packets to that particular NTP server, but rather waits for the next broadcast messages.

UDP Multicast mode

Acts the same as broadcast mode, but instead of broadcast messages (IP address 255.255.255.255), multicast messages are received (IP address 224.0.1.1).

UDP Manycast mode

Actually is unicast mode, but with unknown IP address of NTP server. To discover NTP server, client sends multicast message (IP 239.192.1.1). If NTP server is configured to listen for these multicast messages (manycast mode is enabled), it replies. After client receives reply, it enters unicast mode and synchronizes to that NTP server. But in parallel client continues to look for more NTP servers by sending multicast messages periodically.

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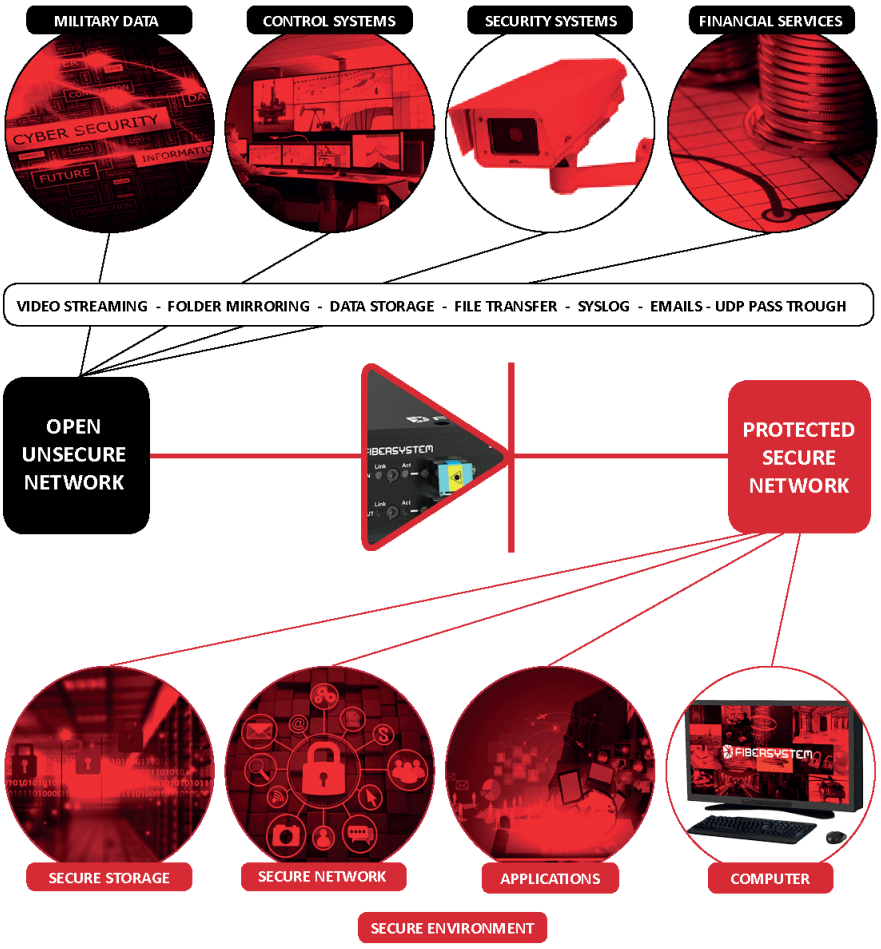
User Scenarios



Secure File Transfer (additional software needed)

Transfer files from one network to another with no the risk of sending information in the opposite direction.

Secure Plant Monitoring (additional software needed)

Send continuous plant monitoring information from Production Network to Corporate Network securely.

Secure CCTV Recordings (additional software needed)

Ensure integrity of CCTV recordings by sending the unprocessed camera stream to safe storage and keep the network safe from hijackers trying to connect to the company network through the CCTV Camera wire.

Information Management

Control direction of information streams in your network.

Isolate secret networks

Create working isolated secret networks with necessary input sent unidirectionally from Open/Unclassified networks.

Distribute NTP to secret networks

Securely distribute and synchronize NTP in secret networks.

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Technical data

Data Diode - Stand Alone Unit

Galvanic/Electrical link	
Data speed	100 Mbps or 1 Gbps, depending on model
Media	100BaseTX or 1000BaseTX
Environmental	
Temperature range	Operating: 0 °C to +50 °C. Storage: -40 °C to +70 °C
Relative humidity	Operating: 5 to 95 %RH. Storage: 5 to 95 %RH non condensing.
Power Supply	
AC	230 VAC ±20 %, 50–60 Hz, max 10 W
	120 VAC, 60 Hz, max 10 W (60-00-6984, 60-00-6985)
AC-connector	IEC 320, 3-pin
Regulatory compliance	
Safety	CE
Environmental	Complies with appropriate requirements of RoHs and WEEE
Dimensions and weight	
Physical size	35(H), 105(W), 190(D) mm / 1.4(H), 4.1(W), 7.5(D) inch
Weight	0.75 kg / 1.65 lbs

Ordering information

Part number	Model	M-Number	Description	In	Out
60-00-7332	50-805	M3196-608010	Data Diode 100BaseTX to 100BaseTX Multimode	RJ45	RJ45
60-00-6985	50-809	M3196-501210	Data Diode 1000BaseTX to 1000BaseTx Multimode	RJ45	RJ45

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