TFG : 121 DATA SHEET



Technology Overview

Designed to protect IoT and IIoT equipment, Terafence **TFG-121** uses Air-Gap to segmentize and isolate industrial enddevices from any harmful, or abusive, malware attacks and thus secure them from any form of cyber-attacks.

Terafence's proprietary hardware chip (FPGA), developed and manufactured in Israel, creates a fully controlled datapath between two network segments and while allowing normal protocol data to flow from one side to the other, the return path simply does not exist, hence Air-Gapped.

Terafence is acting as a Protocol Proxy, terminating TCP/IP sessions on both ends and only moving raw data between the two unidirectional gateway sides. RAW data is not stored within the unit thus eliminating the requirement to safeguard such data by encryption or other methods. As nothing is stored, no such tools are used (like data encryption, compression or alike). Terafence technology and network mechanisms do not use cryptology to secure data exchange but instead denies network access.

Terafence **TFG-121** not only protects IoT/IIoT end-devices from cyber-attacks but also can protect other network assets by blocking any malicious attempts by an already infected end-devices to infiltrate and infect devices with malicious code or cause other kind of damage.

Terafence **TFG-121** supports multiple, simultaneous protocols:

- **SFTP -** File transfer
- **SMTP –** Email Relay
- **SYSLOG** Forwarding
- **RTSP –** CCTV live streaming
- **HTTP/S –** File / data upload to web servers / cloud
- **Local SYSLOG** forwarding
- **Modbus –** Multiple PLC's to multiple HMI's
- **IEC-104 –** Power utilities
- **MQTT –** Data Broker and Publisher

Why choose 121 ?

Key Features:

- Total galvanic network separation
- Terafence proprietary hardware chip (FPGA)
- HTTP/S Simple GUI for configuration (from the secure side only)
- Two accompanying CPUs for protocol support

Security Features:

- Hardened Linux operating system on accompanying CPUs
- Core security hardware has no OS, no MAC/IP
- Secure unit access (HTTPS) to GUI

Technical Specifications:

- **Data Throughput:** 1 Gbps
- **Power Supply:** 12-48VDC @60 Watt (2 inputs for redundancy)
- **Network Ports -** 2xRG-45 CAT5E ports
- **No moving mechanical parts**
- **Measurements:** 95 x 160 x 200 (mm)
- **Desktop or DYN Rail mounting**
- **Operating temperature :** (- 40) ~ (+80) °C
- **In-door use only**

Solution Highlights:

- Total Galvanic, physical network separation, hardware based on Terafence's proprietary FPGA Chip.
- Solution includes two accompanying CPUs for protocol support and termination.
- Simple, easy configuration using HTTPS GUI
- 1 Gbps backplane
- CE & FCC Class B
- IEC62443-4-2 – SL2
- MIL-STD-810F Method 516.5
- 20 Year MTBF

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