

File Transfer for Air Gapped Networks

Where Every IoT Counts

There are so many reasons why files need to move between computers, servers, and networks. Air Gapped networks pose a real security problem when the need to move files is frequent, but since the networks are not connected, users devise elaborate procedures to move the files, often totally compromising the Air Gap.

Terafence File-Transfer Solution keeps a galvanic network separation at the physical network layer and denies any attempt to reach the secured side, just like a data-diode, by a Terafence designed hardware chip, rather than relying on optic fibers.

Terafence File-Transfer Solution enables multiple File-Transfer options within an All-In-One compact desktop unit connected to both networks.

The unit maintains the galvanic Air-Gap while forwarding files at 1Gbps from the secure side to the less secured side. No human intervention, no surprises

Key Features

- Total galvanic network separation
- Terafence proprietary hardware chip (FPGA)
- Multiple file transfer protocols
- Protocol conversion with ease
- HTTP/S file upload to cloud
- Simple GUI for configuration (from 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 with encryption keys

Technical Specification

- Hardened Linux operating system on accompanying CPUs
- Core security hardware has no OS, no MAC/IP
- Secure unit access (HTTPS) to GUI with encryption keys
- 1Gbps data throughput
- Power - 12-48VDC @60 Watt
- 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)OC
- In-door use only



File Transfer for Air Gaped Networks

Solution Highlights

- Total Galvanic, physical network separation, hardware based on proprietary CHIP
- Solution includes two accompanying CPUs for protocol support and termination
- Multiple file transfer protocols support at once
- Mix at will, load SMB, upload SFTP for example
- All-in-One solution, no need for additional HW/SW supplements
- No hidden costs
- Small footprint, desktop or DYN rail mount.
- Stand-alone unit, not interacting with external entities
- Simple configuration via secure HTTPS internal webservice GUI.

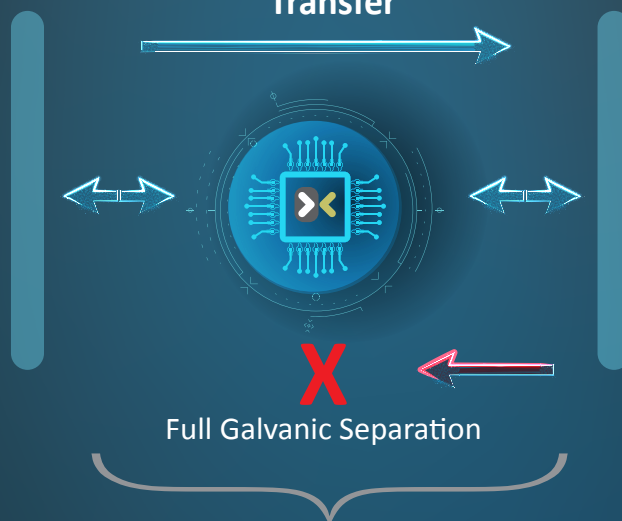
Terafence TFG121 technical specification

- Processor - Intel® ATOM x5-E3940 CPU (x2)
- Memory - Slim Bootloader 16 MiB Bios
Memory LPDDR4 Dual Channel 1600MHz 8GB Storage
- Network - 2 x Intel® I210-IT 10/100/1000 Mbps
- Ports - 2 x USB 3.0 (external), 2 x USB 2.0 (PL2303)
- Approx 95 x 200 x 160 mm Dimensions
- Approx 2 KG Weight Aluminum and Steel Construction
- Desktop, Din Rail, Wall-Mount Mounting
- -40 ~ 85°C (-40 ~185°F) Operating Temperature
- -40 ~ 85°C (-40 ~185°F) Storage Temperature
- 95% @ 40°C non-condensing Relative Humidity
- CE & FCC Class B

Secured Network (OT)

- S/FTP
- SAMBA
- SMB
- HTTP/S (post, put)

Uninterrupted File Transfer



Full Galvanic Separation

OT/IT Air Gap

Less Secured Network (IT)

- S/FTP
- SAMBA
- SMB
- HTTP/S (post, put)