



CROSS DOMAIN SOLUTIONS

# X-Arc

## Trusted Security Filter TSF 201

### TSF 201 – Connecting IP networks of different security domains

The TSF 201 interconnects networks with different security classifications by filtering the data traffic between the two security domains.

The TSF 201 is designed to operate in mobile environments, providing a continuous 24/7 operation on platforms like vehicles and vessels.

The TSF 201 packet inspection filters are tailored to the specific need of the operation, application and product.

#### Key features

- 10 different user profiles for quick and easy reconfiguration
- Diode mode (default)
- Filter mode
- Protected audit log
- Rugged and small

# TSF 201

## Trusted Security Filter

**The main purpose** of the TSF 201 is to inspect and filter data addressed from one security domain to another, and transfer data that comply with the filter specification. Only IP/UDP/TCP datagrams compliant with the specified rules are transferred.

Non-compliant data is discarded and metadata are logged in an audit log. The TSF 201 has a default mode as a data diode with only traffic flow from the lower trusted security domain to the higher trusted security domain.

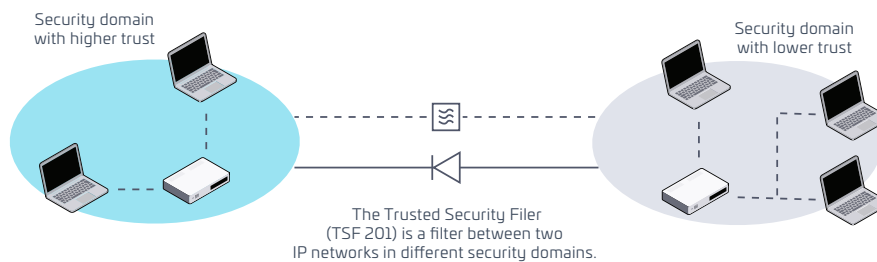
**A profile** is a pre-defined setting of IP parameters and a set of filtering rules. The TSF 201 can have up to 10 different profiles enabling fast change of deployment. The user can easily change between profiles using the local configuration PC.



**The filtering rules** are configured using the Filter Maker application, and each rule can be applied to any field with a fixed position within the IP datagram.

**A web based** configuration management interface is available through a locally connected PC. Operational status information is given through several LEDs on the front panel.

### Connecting IP networks of different security domains



#### Security Characteristics

- **Certifications:** Common Criteria EAL5+ certified
- **Protected configuration:** Cryptographically signed filter configuration files
- **Tempest:** SDIP-27 Level A
- **Operational Security:**
  - Removable CIK
  - User authentication based on role, password and PIN code
  - Tamper protection
  - Emergency erase
  - Night mode

#### Interface and protocols

- **Red interface:** 100 Mbit/s Ethernet for connection of high classified end system(s) or network
- **Black interface:** 100 Mbit/s Ethernet for connection of low classified end system(s) or network
- **Management interface:** 100 Mbit/s Ethernet for connection of Local Management PC
- **Fill device interface:** ISO/IEC 7816 (Smart card by separate smart card reader)
- **Power interface:** 10–30 VDC or 110–240 VAC by separate AC/DC convertor
- **Human machine interface:** Web management, keypad and LED indicators

#### Physical Characteristics

- **Dimensions:** 160 x 44 x 120 mm (W, H, D)
- **Weight:** 850 g
- **Power consumption:** Nominal: 6W
- **EMC:** MIL-STD-461F, EN 55022 Class B
- **Environment:** MIL-STD-810-F, RoHS, WEEE, IP67
- **Temperature:**
  - Operation: – 40° C to + 55° C
  - Storage: – 40° C to + 70° C
  - Solar radiation: + 44° C, 120 W/m<sup>2</sup>
- **Humidity:**
  - (95 % RH non condensing)
  - Operation: + 20° C to + 50° C
  - Storage: + 20° C to + 60° C
- **Low pressure:**
  - Operation: 15 000 ft altitude
  - Storage: 30 000 ft altitude

#### Performance

- 30 Mbit/s (e.g., 15 Mbit/s in both directions)
- 3000 pps
- Latency < 1 ms

#### Support components

- Smart card reader
- Mounting brackets for 19" rack
- AC/DC adapter (110–240 VAC)
- Optical adapter (MT-RJ, LC)