

**Product:** GRS106-16TX/14SFP-2HV-2A

**Configurator:** GRS106-16TX/14SFP-2HV-2A



## Configurator Description

The GREYHOUND 105/106 switches' flexible design makes this a future-proof networking device that can evolve alongside your network's bandwidth and power needs. With a focus on maximum network availability under industrial conditions, these switches enable you to select the device's port count and type – even giving you the ability to use the GREYHOUND 105/106 series as a backbone switch.

## Technical Specifications

### Product description

|                        |   |
|------------------------|---|
| Type                   | GRS106-16TX/14SFP-2HV-2A (Product code: GRS106-6F8F16TSGGY9HHSE2A99XX.X.XX)   |
| Description            | GREYHOUND 105/106 Series, Managed Industrial Switch, fanless design, 19" rack mount, according to IEEE 802.3, 6x1/2.5/10GE +8x1/2.5GE +16xGE Design |
| Part Number            | 942 287 011   |
| Availability           | not yet available , expected September 2021   |
| Port type and quantity | 30 Ports in total, 6x GE/2.5GE/10GE SFP(+) slot + 8x GE/2.5GE SFP slot + 16x FE/GE TX ports   |

### More Interfaces

|                                |   |
|--------------------------------|---|
| Power supply/signaling contact | Power supply input 1: IEC plug, Signal contact: 2 pin plug-in terminal block , Power supply input 2: IEC plug |
| SD-card slot                   | 1 x SD card slot to connect the auto configuration adapter ACA31  |
| USB-C                          | 1 x USB-C (client) for local management   |

### Network size - length of cable

|   |                 |
|---|-----------------|
| Twisted pair (TP)                                       | 0-100 m         |
| Single mode fiber (SM) 9/125 µm                         | see SFP modules |
| Single mode fiber (LH) 9/125 µm (long haul transceiver) | see SFP modules |
| Multimode fiber (MM) 50/125 µm                          | see SFP modules |
| Multimode fiber (MM) 62.5/125 µm                        | see SFP modules |

### Network size - cascading

|                        |     |
|------------------------|-----|
| Line - / star topology | any |
|------------------------|-----|

### Power requirements

|                            |   |
|----------------------------|---|
| Operating Voltage          | Power supply input 1: 110 - 240 VAC, 50 Hz - 60 Hz , Power supply input 2: 110 - 240 VAC, 50 Hz - 60 Hz |
| Power consumption          | Basic unit with one power supply max. 35W   |
| Power output in BTU (IT)/h | max. 120  |

### Software

|            |  |
|------------|--|
| Switching  | Independent VLAN Learning, Fast Aging, Static Unicast/Multicast Address Entries, QoS / Port Prioritization (802.1D/p), TOS/DSCP Prioritization, Interface Trust Mode, CoS Queue Management, Queue-Shaping / Max. Queue Bandwidth, Flow Control (802.3X), Egress Interface Shaping, Ingress Storm Protection, Jumbo Frames, VLAN (802.1Q), VLAN Unaware Mode, GARP VLAN Registration Protocol (GVRP), Voice VLAN, GARP Multicast Registration Protocol (GMRP), IGMP Snooping/Querier per VLAN (v1/v2/v3), Unknown Multicast Filtering, Multiple VLAN Registration Protocol (MVRP), Multiple MAC Registration Protocol (MMRP), Multiple Registration Protocol (MRP) , IP Ingress DiffServ Classification and Policing, IP Egress DiffServ Classification and Policing, Protocol-based VLAN, MAC-based VLAN, IP subnet-based VLAN |
| Redundancy | HIPER-Ring (Ring Switch), Link Aggregation with LACP, Link Backup, Media Redundancy Protocol (MRP) (IEC62439-2), RSTP 802.1D-2004 (IEC62439-1), RSTP Guards  |
| Management | Dual Software Image Support, TFTP, SFTP, SCP, LLDP (802.1AB), LLDP-MED, SSHv2, HTTP, HTTPS, IPv6 Management, Traps, SNMP v1/v2/v3, Telnet , DNS Client, OPC-UA Server  |

|                      |  |
|----------------------|--|
| Diagnostics          | Management Address Conflict Detection, MAC Notification, Signal Contact, Device Status Indication, TCPDump, LEDs, Syslog, Persistent Logging on ACA, Port Monitoring with Auto-Disable, Link Flap Detection, Overload Detection, Duplex Mismatch Detection, Link Speed and Duplex Monitoring, RMON (1,2,3,9), Port Mirroring 1:1, Port Mirroring 8:1, Port Mirroring N:1, Port Mirroring N:2, System Information, Self-Tests on Cold Start, Copper Cable Test, SFP Management, Configuration Check Dialog, Switch Dump, Email Notification, RSPAN, SFLOW, VLAN Mirroring   |
| Configuration        | Automatic Configuration Undo (roll-back), Configuration Fingerprint, Text-based Configuration File (XML), Backup config on a remote server when saving, Clear config but keep IP settings, BOOTP/DHCP Client with Auto-Configuration, DHCP Server: per Port, DHCP Server: Pools per VLAN, AutoConfiguration Adapter ACA31 (SD card), HiDiscovery, DHCP Relay with Option 82, Command Line Interface (CLI), CLI Scripting, CLI script handling over ENVN at boot, Full-featured MIB Support, Context-sensitive Help, HTML5 based Management   |
| Security             | MAC-based Port Security, Port-based Access Control with 802.1X, Guest/unauthenticated VLAN, Integrated Authentication Server (IAS), RADIUS VLAN Assignment, Denial-of-Service Prevention, VLAN-based ACL, Ingress VLAN-based ACL, Basic ACL, Access to Management restricted by VLAN, Device Security Indication, Audit Trail, CLI Logging, HTTPS Certificate Management, Restricted Management Access, Appropriate Use Banner, Configurable Password Policy, Configurable Number of Login Attempts, SNMP Logging, Multiple Privilege Levels, Local User Management, Remote Authentication via RADIUS, User Account Locking, Password change on first login, RADIUS Policy Assignment, Multi-Client Authentication per Port, MAC Authentication Bypass, Format options for MAC authentication bypass, DHCP Snooping, IP Source Guard, Dynamic ARP Inspection, LDAP, Ingress MAC-based ACL, Egress MAC-based ACL, Ingress IPv4-based ACL, Egress IPv4-based ACL, Time-based ACL, Egress VLAN-based ACL, ACL Flow-based Limiting |
| Time synchronisation | PTPv2 Transparent Clock two-step, PTPv2 Boundary Clock, BC with Up to 8 Sync / s, Buffered Real Time Clock, SNTP Client, SNTP Server   |
| Miscellaneous        | Manual Cable Crossing, Port Power Down   |

## Ambient conditions

|                                    |              |
|------------------------------------|--------------|
| Operating temperature              | -10 - +60 °C |
| Storage/transport temperature      | -20 - +70 °C |
| Relative humidity (non-condensing) | 5-90 %       |

## Mechanical construction

|                    |                   |
|--------------------|-------------------|
| Dimensions (WxHxD) | 444 x 44 x 355 mm |
| Weight             | 5 kg estimated    |
| Mounting           | Rack mount        |
| Protection class   | IP20              |

## Mechanical stability

|                         |  |
|-------------------------|--|
| IEC 60068-2-6 vibration | 3.5 mm, 5 Hz – 8.4 Hz, 10 cycles, 1 octave/min.; 1 g, 8.4 Hz-200 Hz, 10 cycles, 1 octave/min |
| IEC 60068-2-27 shock    | 15 g, 11 ms duration, 18 shocks  |

## EMC interference immunity

|  |  |
|--|--|
| EN 61000-4-2 electrostatic discharge (ESD) | 6 kV contact discharge, 8 kV air discharge                               |
| EN 61000-4-3 electromagnetic field         | 20 V/m (800-1000 MHz), 10V/m (80-800 MHz ; 1000-6000 MHz); 1 kHz, 80% AM |
| EN 61000-4-4 fast transients (burst)       | 2 kV power line, 4 kV data line STP, 2 kV data line UTP                  |
| EN 61000-4-5 surge voltage                 | power line: 2 kV (line/earth) and 1 kV (line/line); data line: 2 kV      |
| EN 61000-4-6 Conducted Immunity            | 10 V (150 kHz - 80 MHz)  |

## EMC emitted immunity

|          |                  |
|----------|------------------|
| EN 55032 | EN 55032 Class A |
|----------|------------------|

## Approvals

|  |                   |
|--|-------------------|
| Basis Standard                             | CE, FCC, EN61131  |
| Safety of information technology equipment | EN62368, cUL62368 |

## Scope of delivery and accessories

|                                 |   |
|---------------------------------|---|
| Accessories to Order Separately | Network Management Industrial HiVision, ACA31, SFP/SFP+ |
| Scope of delivery               | Device, General safety instructions                     |

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