INet4+ PoE+

IFOTEC

MADE IN FRANCE

PoE+ managed Gigabit Ethernet switch - 4 ports including 2 PoE ports

FEATURES & BENEFITS

- **2 Gigabit PoE+ ports - 35W/port**
- **2 Gigabit ports on SFP modules to create a loop and secure an optical network**
- **Contact Input and output**
- **Secure management interface (HTTPS, SNMP V3, SSH V2)**
- **VLAN configuration and QoS management**
- **Compact, small-footprint housing that can fit into a box**
- **Power supply 48 to 57VDC (54VDC nominal)**
- **Designed to operate in a harsh environment (-20°C to+ 60°C) and in electronically disturbed environments**

DESCRIPTION

INet4+ is a secure manageable 4-port Gigabit Ethernet switch with:

✓ 2 RJ45 ports, 10/100/1000 Mbps, PoE+ compatible with IEEE 802.3af and IEEE 802.3at standards.
   Each PSE (Power Supply Equipment) PoE+ port can supply up to 35W to a PoE PD (Powered Device).
   The power to the PoE+ Ethernet ports can be switched off by software supervision.

✓ 2 SFP ports, 100/1000 Mbps, to receive optical SFPs and RJ45 SFPs.

INet4+ has been designed to be used in highly secure networks. Thanks to its two SFP ports, it allows to build a chained optical network or a self-healing loop to connect 1 to 2 IP devices (IP camera, Wifi access point, VoIP phone, sensor,...) on each switch.

This equipment is perfectly suited for:

✓ Motorway networks
✓ Video protection networks
✓ Sensitive and industrial sites
✓ Telecommunications premises

Each port can be controlled independently, based on Ethernet Layer 2 (VLAN) functions. Various management protocols allow secure remote access to product status and configuration. The web-based configuration interface is intuitive and easy to use, making it quick to learn.

Function indicators are associated with the main functions of the product and provide diagnostic support.

Its DC power input provides power to the switch and two PoE PD (Powered Device) devices at the same time.

The INet4+ is presented in a stand-alone housing which is very compact, robust (aluminium) and easy to install. An optional kit allows DIN rail mounting.

Other Gigabit Ethernet switches from the IFOTEC range can be combined.

TECHNICAL SPECIFICATIONS

Ethernet interfaces (IEEE 802.3)	
10/100/1000BASE-T PoE+ PSE 35W Port	
Number of interface(s)	2
Connector	**RJ45**
Support	10BASE-T (IEEE 802.3i), 100BASE-TX (IEEE 802.3u), 1000BASE-T (IEEE 802.3ab)
Rate auto-negotiation	Yes
Auto-MDI/MDI-X	Yes
Energy saving management	Energy Efficiency Ethernet (IEEE 802.3az)
Category 5e cable length	100 m
PoE Standard	PoE (IEEE 802.3af), PoE+ (IEEE 802.3at)
PoE Power supplied	35W per port
100/1000 SFP slot with auto-negotiation	
Number of interface(s)	2
Connector	**SFP**
Support	SERDES 100Mbps (IEEE 802.3u), SERDES 1Gbps (IEEE 802.3z)
Speed/duplex auto-negotiation	Yes
Digital Diagnostic Monitoring (DDM)	Yes
I/O interfaces	
Isolated Dry Contact input	
Number of interface(s)	1
Connector	**Screw terminal block (3.81 mm pitch)**
Number of contacts	2 points (IN-, IN+)
«Closed» state	IN- and IN+ inputs connected
«Open» state	IN- and IN+ inputs not connected
Max. voltage	10V
Isolation	Non
COM-NC relay output	
Number of interface(s)	1
Connector	**Screw terminal block (3.81 mm pitch)**
Number of contacts	2 points (COM, NC)
Max current	1A

Max. voltage	60VDC
Isolation	200VDC
Max. contact resistance	200mOhms
Operating indicators	
Power	Product powered
Alarm	Problem detected
Status	Product operating status
SFP status	SFP operating status
Link/Act Ethernet	Ethernet connection/activity
PoE	PoE operating status
Contact	Wet/Dry Contact interface status
Layer 2 Ethernet Switch Features	
General	
Bandwidth	Store and Forward system (no rate limiting)
Buffer memory	2Mbits
MTU (Layer 2)	64 to 2048 bytes (10240 bytes if Jumbo Frame mode)
Jumbo Frame	Yes
Number of entries in MAC address table	8192
IEEE 802.3x flow control	Yes
VLAN	
Modes	IEEE 802.1Q et IEEE 802.1ad
Nombre	32
VLAN configuration range (VID)	1 to 4094
Port Configuration modes	ACCESS, TRUNK, HYBRID
VLAN stacking (QinQ)	Yes
QoS	
Traffic classification	IEEE 802.1p, DSCP/TOS/DiffServ, Port priority
Queue management mode	WRR (Weighted Round Robin), SP (Strict Scheduling Scheduling Priority), Mixte
Number of output queues per port	4
Queue weight configuration	Yes
IEEE 802.1p queues mapping	Yes
IEEE 802.1p ingress remapping	Yes
Ingress rate limiting	
Limiting mode	Policing
Traffic classification	Unicast, unknow unicast, multicast, broadcast, queue
Number of limiting rules per port	4
Egress rate limiting	
Mode	Shaping
Traffic classification	None
Number of limiting rules per port	1

Multicast	
Multicast MAC address filter (egress traffic)	Yes
Securing access	
Enable/disable Ethernet ports	Yes
MAC ACL: MAC address filtering (ingress traffic)	5 per port
MAC address filter unknow unicast (egress traffic)	Yes
Link redundancy management	
Rapid-Spanning Tree (RSTP IEEE 802.1w)	Yes (IEEE 802.1D STP compatible)
Troubleshooting help	
Ethernet ports: link, speed, duplex status	Yes
Ethernet ports: packet counters	Yes (unicast, multicast, broadcast, Checksum error, discard)
Ethernet ports: packet counters per queue	Yes
Ethernet Virtual Interfaces: packet counters	Yes (unicast, multicast, broadcast, Checksum error, discard, unknow protocol)
Buffer saturation counter	Yes
Command to clear MAC address table	Yes
Filters on MAC address table display	Yes
Management interface	
IP configuration	Static or DHCP
Secondary IP interface for troubleshooting purposes	Yes
Client/server ping (ICMP)	Yes
Alarm manager	Yes
Event log	Local newspaper (10000 entries)
Web server	HTTPS (TLS 1.2, RSA/ECDSA)
Command Line Interface (CLI)	SSH (version 2)
SNMP Monitoring	SNMP V1/V2C/V3
SNMP Notification	Trap/Inform
SNMP MIBs	SNMPv2-MIB, IF-MIB, BRIDGE-MIB, Q-BRIDGE-MIB, RSTP-MIB, IP-MIB, UDP-MIB, TCP-MIB, IFOTEC-SMI (rev.202104130000Z), IFOTEC-PRODUCTLIST-MIB
Import/export configuration file via web server	Yes
Configuration file format	Text file (command line)
Firmware update management	Yes
Firmware protection by digital signature	Yes
Date/time management via SNTP	Yes
Data security algorithms	
TLS version	1,2
Supported TLS key types	RSA 2048bits, Elliptic curve ECDSA (secp256r1/secp384r1)
Supported TLS cryptographic suites	TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384

SSH version	SSHv2
Supported SSH key types	RSA 2048bits, Elliptic curve ECDSA (secp256r1/secp384r1)
Supported SSH key encryption algorithms	rsa-sha2-256, ecdsa-sha2-nistp256, ecdsa-sha2-nistp384
Supported SSH key exchange algorithms	diffie-hellman-group14-sha256, ecdh-sha2-nistp256, ecdh-sha2-nistp384
Supported SSH exchange encryption algorithms	aes128-ctr, aes192-ctr, aes256-ctr
Supported SSH HMAC algorithms	hmac-sha2-256, hmac-sha2-256-etm@openssh.com (encrypt-then-MAC)
SNMPv3 authentication protocols	MD5, SHA-1, SHA-224, SHA-256, SHA-384, SHA-512
SNMPv3 private protocols	DES, AES
Power supply	
Supply voltage	48 to 57VDC
Electrical isolation	Housing and PCB isolated from the power supply
Max. power consumption	80W (10W + PoE 2 x 35W)
Connector	3-point screw terminal block (5.08 mm pitch)
Physical characteristics	
Housing type	Stand-alone housing in painted aluminum
Housing dimensions	106 x 94 x 38 mm (L x l x h)
DIN rail mounting	Optional Kit ref. KIT-RD-008
Environmental conditions	
Operating temperature	-20 to +60°C
Storage temperature	-40 to +85 °C
Relative humidity	Relative humidity: 0 to 85 % (not condensed)
Conformal coating option	0 to 95% (consult us)
Standards/Certifications	
EMC > EMI	
EN 55032: conducted and radiated emission	Classe A (Industrial)
EMC > EMS	
IEC 61000-4-2 ESD	Contact : ±4kV, Air : N/A
IEC 61000-4-3 RS	80MHz-6GHz : 10V/m
IEC 61000-4-4 EFT	Power supply: ±2kV, Signal: ±1kV
IEC 61000-4-5 Surge	Power supply: ±0.5kV
IEC 61000-4-6 CS	Power supply: 10V, Signal: 10V
Guarantee	
Production location and after sales service	Voiron (France)
Guarantee	3 years
Guarantee information	https://www.ifotec.com/support/

DIMENSIONS
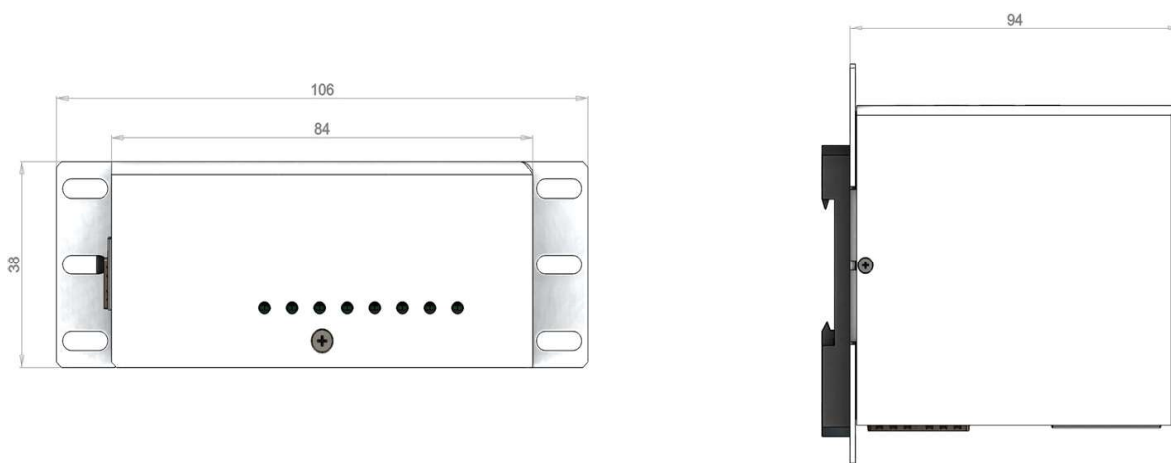
ORDERING INFORMATION

Reference	Application	Optical connection	Power supply
INET-2GP2GF-AS-101	Gigabit Ethernet transmission for optical networks	According to SFP inserted	48 to 57VDC

SFP SELECTION TABLE

For more information, see our SFP data sheet

Reference	Number and type of fibres	Transmission	Wavelength (Tx/Rx)	Max. Distance*	Connection
SFPL-1GD31-20	2 single mode optical fibres	1000Base-LX	1310 nm	20 km	LC/PC
SFPL-1GX31-20	1 single mode optical fibre	1000Base-BX-U	1310 nm /1550 nm	20 km	LC/PC
SFPL-1GX49-20	1 single mode optical	1000Base-BX-D	1490 nm /1310 nm	20 km	LC/PC
SFPL-FED31-20-VB	2 single mode optical fibres	100Base-FX	1310 nm	20 km	LC/PC
SFPL-FEX31-20-VB	1 single mode optical fibre	100Base-BX-U	1310 nm /1550 nm	20 km	LC/PC
SFPL-FEX55-20-VB	1 single mode optical fibre	100Base-BX-D	1550 nm /1310 nm	20 km	LC/PC

for longer distances please consult us

In line with the company policy of continuous improvement, product specifications are subject to change without prior notice.

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