



nSure

FCS1000-PLUS

In-service monitor

The FCS1000-PLUS unit is a compact, high-density and cost effective in-service monitoring system.

Designed to receive transport streams on DVB-ASI or on IP and video signals on SD or HD SDI the FCS1000-PLUS is a multipurpose and cost saving monitoring system.

Monitoring of video signals allows the operator to identify quality issues along the transport path and proactively correct problems before they affect services. These are typically quality issues that may be difficult to detect by simply monitoring the equipment.

With its high port density FCS1000-PLUS is ideal for central deployment in national broadcaster or service provider video headend locations.

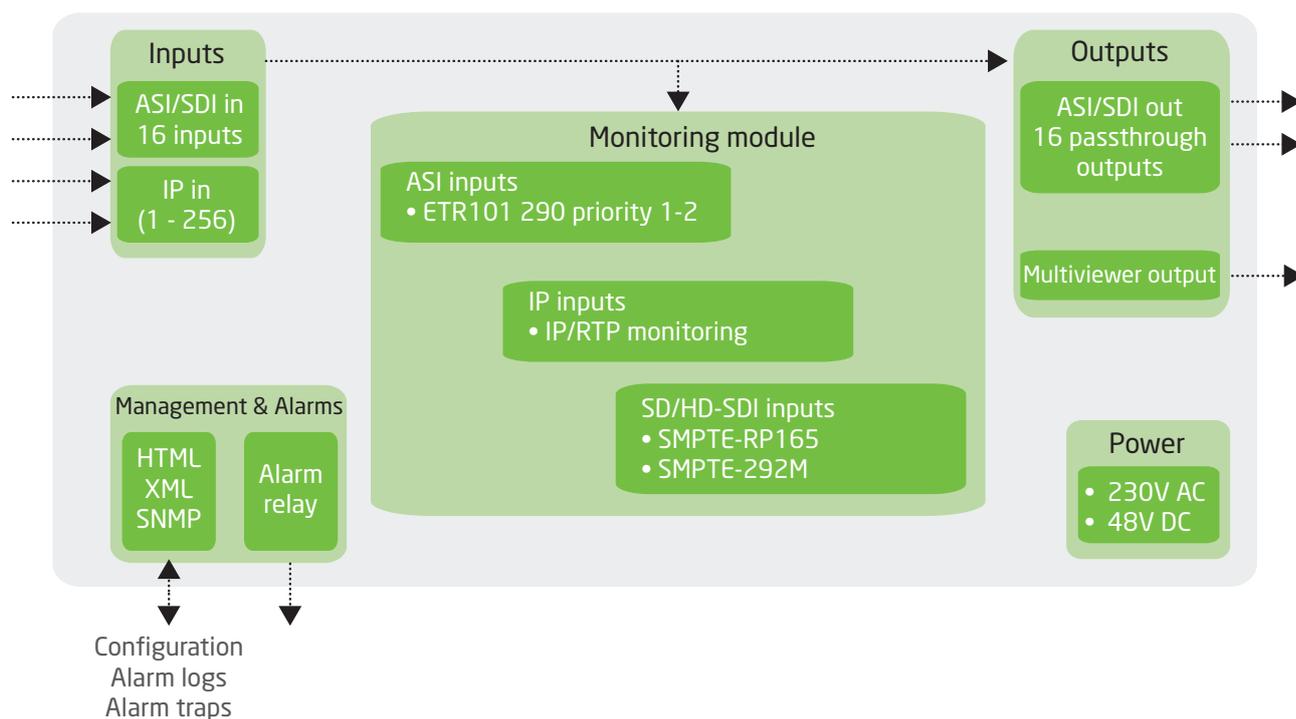
Nevion nSure products can be configured via an easy-to-use web interface and interact with overlaying network management systems. Scheduled software upgrades can be performed via Connect, VideoPath, or any NMS.

Applications

- Central head-end monitoring for service providers
- IPTV head-end monitoring
- Monitoring of signals in the active transmission path
- 24/7 continuous supervision of signals
- SLA monitoring (up time statistics)

Key features

- Monitoring according to ETR101 290 priority 1-2, SMPTE 259 and SMPTE-292
- Automated SLA compliance monitoring
- Full monitoring of integrity, presence and activity
- Front panel summary view per channel
- Non-intrusive monitoring of DVB-ASI, SD/HD-SDI and TSolP streams and signals
- SNMP and XML support
- Easy to use web interface



Transport stream monitoring

The FCS1000-PLUS monitors the transport streams according to ETR101 290 pri1-2. The monitoring can be carried out simultaneously on all 16 ASI ports.

IP/RTP monitoring

The IP/RTP parameters can be monitored on up to 256 streams simultaneously, allowing for an unmatched density.

SDI monitoring

The FCS1000-PLUS can monitor 16 SD/HD-SDI signals simultaneously and verify the vital parameters of the video signals.

Passthrough outputs

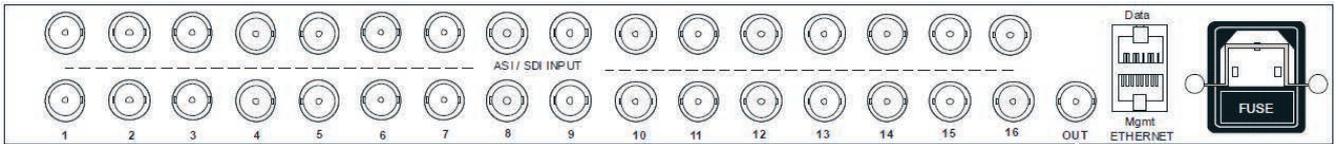
The unit has 16 passthrough ASI/SDI outputs on the rear side. These outputs allow for monitoring the signals in the active transmission path. The rear panel is detachable and allows for replacement of the unit without interruption of the signals.

Intuitive front panel

The front panel of the unit provides visual information about the condition of the streams and allows for quick configuration of the device.

User-friendly configuration

The user interface of the FCS1000-PLUS is simple and very intuitive; it is designed to help the operator configure the unit quickly. Running on any web browser, the GUI can be accessed from any computer.



Video Interfaces

DVB-ASI	<ul style="list-style-type: none"> 16 DVB ASI inputs (EN 50083-9, Annex B) 16 DVB ASI passthrough outputs 188 or 204 byte packet length Burst and Spread mode Female BNC connectors 75 Ohm Removal of the unit does not disable passthrough
SDI	<ul style="list-style-type: none"> 16 SD/HD-SDI inputs (SMPTE 259M, SMPTE 292M, SMPTE 424M, SMPTE 274M, SMPTE 296M) 16 SD/HD-SDI passthrough outputs Female BNC connectors 75 Ohm Removal of the unit does not disable passthrough
Gigabit Ethernet	<ul style="list-style-type: none"> Up to 256 transport streams over IP (TSolP) Connectors: SFP TS Encapsulation: SMPTE 2022 -1/2 Protocols: IEEE 802.3 Ethernet, VLAN (802.1Q) ARP, IPv4, UDP, TCP, RTP, IGMPv2/3)
Multiviewer output	<ul style="list-style-type: none"> 2 ASI/SDI output ports Female BNC connectors 75 Ohm

Monitoring

ASI monitoring	<ul style="list-style-type: none"> ETRI01 290 priority 1-2 Synchronization error Reed-Solomon Error DVB error Stream configuration error Carrier clock frequency error Linearity error Null packet stream error
SDI monitoring	<ul style="list-style-type: none"> Loss of sync Loss of frequency reference TRS sync error Stream continuity profile alarm Video source frequency error AP EDH/ IDA/UES/EDA error FF EDH/EDA error ANC EDH/EDA/IDA error AP IDA/UES error
SDI monitoring	<ul style="list-style-type: none"> SMPTE-292M Mode and video standard Current configuration Signal present Stream sync Source frequency Accuracy TRS sync Error count C CRC/ Y CRC error count, HD AP error Line number error Stream content profile Freeze frame alarm

TSolP monitoring	<ul style="list-style-type: none"> IP bit rate, frame rate, flow summary, destination/source addresses/ports, Ethernet frame rate VLAN IDs UDP frame rate Traffic type Packet delay variation and error status
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SLA monitoring

Control and management

Management port	10/100 Base-T Ethernet Connector: RJ45
Element control through HTTP/WEB based GUI	
XML Configuration import and export via HTTP	
SNMP agent for integration with Network Management System (NMS)	
Protocols	HTTP, SNMPv2c, XML, FTP
Alarm relay	9 pin D-SUB male
GPIO	DB26 female connector
Maintenance port	RS232 DB26 female connector

Physical and environmental characteristics

Input voltage	100-240V AC +/- 10%, 50/60 Hz, optional: -48V DC
Power consumption	35W max
Dimensions	1RU, 1/2-width 19" (WxDxH) 210 x 300 x 44.5mm
Operating temperature	5°C to 50°C
Storage temperature	-10°C to 70°C
Relative humidity	10% to 90% (non condensing)
Compliance	<ul style="list-style-type: none"> CE: 73/23/EEC (Low voltage equipment) 89/336/EEC (Electromagnetic compatibility) CSA: Designed for CSA approval Safety: EN60950 EMC: EN55022, EN6100-2/3/4



nSure

By adding intelligence to monitoring and switching, our nSure products protect both the content owner and the network operator.

We deliver solutions for service fallback, redundancy switching including seamless switching and continuous monitoring of Video signals, transport streams, services, PIDs and PSI/SI/PSIP tables. In an increasingly complex broadcast infrastructure, our solutions simplify the day to day operations of the network operator and provide an ideal tool for video signals and transport stream handling, redundancy, error detection and correction and fast diagnostics of erroneous signals.

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