

nSure

TNS4200

Media Monitoring Probe

The TNS4200 is a powerful toolbox for continuous monitoring of broadcast streams and signals. It enables fast fault detection and diagnostics in an easy-to-use and intuitive user interface.

The TNS4200 simplifies error tracking and helps resolving issues faster to ensure higher uptimes. It can continuously monitor a very high number of streams reaching an unrivaled density on 1RU without compromises on the performance. TNS4200 monitors streams on IP/Ethernet and DVB-ASI, offering the required flexibility to operate in different environments and applications.

Thanks to its high density and flexibility, TNS4200 offers a cost effective solution for monitoring video-centric networks at various locations.

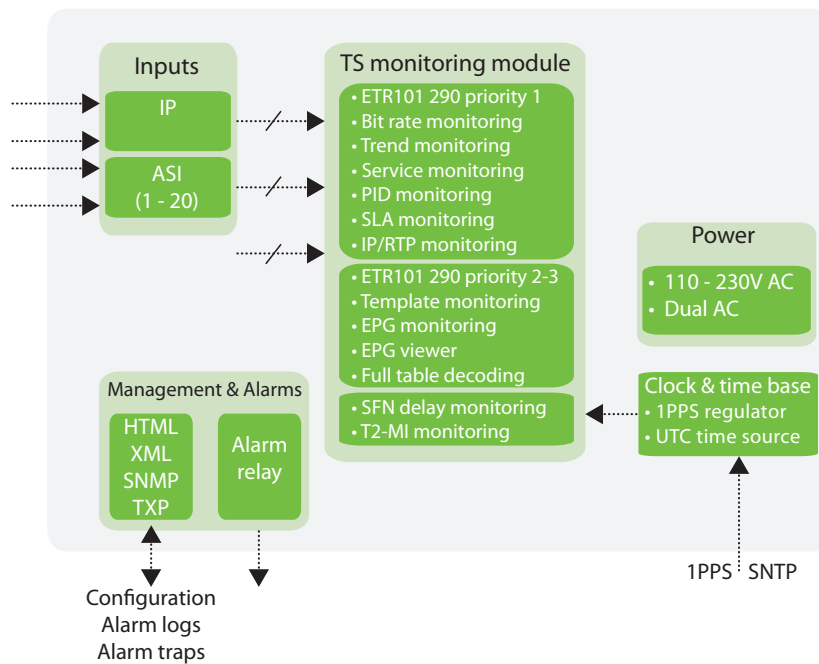
Nevion nSure products can be configured via an easy-to-use web interface and interact with overlaying network management systems. Scheduled software upgrades can be performed via Nevion's NMS or any NMS.

Applications

- Monitoring of central head-ends for IPTV, Satellite, cable and DTT networks
- Remote monitoring of signals in DTT networks
- End-to-end monitoring of contribution links
- SLA compliance monitoring (up time statistics, logs)

Key features

- Up to several hundreds Transport streams (SPTS)
- Monitoring according to ETR101 290 priority 1-3
- Trend monitoring
- Template monitoring
- SLA monitoring
- EPG monitoring with built-in EPG viewer
- T2-MI analysis for DVB-T2
- SFN delay monitoring
- Service and PIDs, bit rate monitoring
- IP/UDP/RTP monitoring



High number of inputs

TNS4200 can monitor a very high number of Transport Streams simultaneously. TNS4200 can receive and monitor several hundreds of SPTS streams over IP and offers an ideal monitoring tool for high density systems. At the same time, with an unrivaled number of MPTS inputs TNS4200 is a cost effective solution for monitoring high bit rate streams offering monitoring features focused on primary distribution.

Transport Stream monitoring

TNS4200 monitors the Transport Streams according to ETR101 290 priority 1-3. The monitoring can be carried out simultaneously on all inputs independently of their interfaces (DVB-ASI and IP/Ethernet).

Template monitoring

Templates add a level of autonomy and simplify operation by comparing the incoming signals to a user defined template for the stream content and syntax. The planning of maintenance work or changes in the programming such as insertion of live content becomes easier.

Alarms and logs

The alarms have severity levels following ITU-TX.733 and are fully configurable. The alarms hierarchy (Unit, inputs, services and PID level) allows for tailoring profiles describing the condition of the streams. Every event and alarm is stored in the circular log. The logs can be exported in different formats for reporting and inspection purposes.

Trend monitoring

Operator can track critical parameters over time (with graphical views) and identify events and recurring issues that might lead to failure. Proactive network management enables the operator to prevent errors before they affect the viewer.

SFN delay monitoring

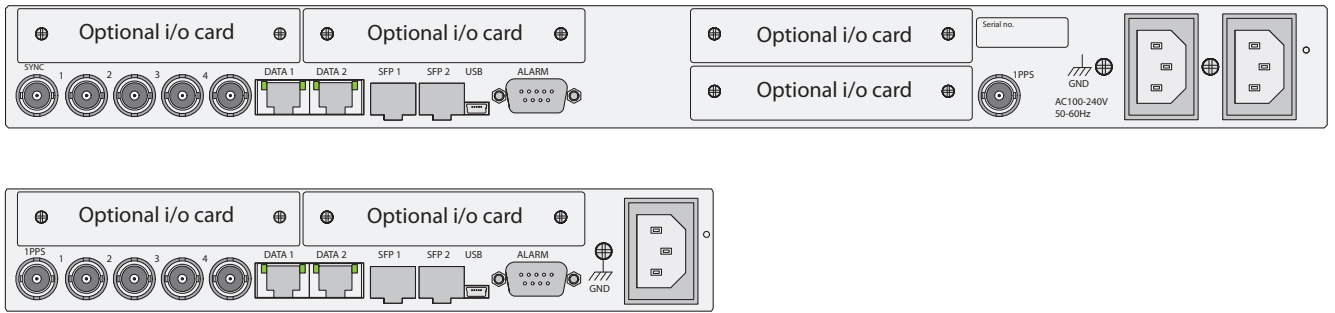
This feature checks the delay of the streams in the network and compares this figure to the time stamp signalled in the MIP packets or DVB-T2 time stamps. If the delay budget is exceeded an alarm will be raised informing the operator of the imminent failure of the SFN network.

T2-MI monitoring

Monitoring the T2-MI (transmitter feed) ensures error free DVB-T2 transmission. TNS4200 helps the operator verify the synchronization and configuration information for the modulators and determine the source of transmission errors.

User-friendly configuration

The user interface of the TNS4200 is simple and very intuitive, it is designed to help the operator configure the unit quickly. The GUI runs on any web browser and can be accessed from any computer.



Transport Stream interfaces

DVB-ASI	<ul style="list-style-type: none"> 4 DVB ASI inputs (EN 50083-9, Annex B) Up to 4 ASI additional daughter boards with 4 ASI ports per board Up to 20 ASI inputs per 1RU 188 or 204 byte packet length Burst and Spread mode (packet and byte mode) Female BNC connectors 75 Ohm Up to 16 additional ports on 4 i/o card (a 4 ports)
Gigabit Ethernet	<ul style="list-style-type: none"> Several hundreds of Transport Streams over IP (SPTS) 2 x 100/1000Base-T Ethernet (2 x RJ45) 2 x 10G SFP+ Protocols: IEEE 802.3 Ethernet, VLAN (802.1Q, 802.1ad "QinQ"), ARP, IPv4, UDP, TCP, RTP, IGMPv2/3) TS Encapsulation SMPTE 2022 -1/2

Monitoring & analysis

Monitoring	<ul style="list-style-type: none"> ETR101 290 priority 1-3 T2-MI monitoring (PLP, L1-signalling, Time stamps) Trend monitoring EPG monitoring (with gap detection and EPG viewer) SLA monitoring (per service, per input, per unit) SFN delay monitoring IP/RTP monitoring (join multicast or IP snooping) Service and PID monitoring
Analysis	<ul style="list-style-type: none"> Full PSI/SI/PSIP table decoding and analysis PCR and PCR jitter analysis with histogram views MIP packets analysis T2-MI analysis Service analysis (service ID, name and components, proportions of PIDs) PID analysis (type, scrambling and bit rates) Bit rate analysis (TS, service, PID) with graphical view
Alarms & logs	<ul style="list-style-type: none"> Standardised alarm levels according to ITU-T X.733 Configurable alarm severity level (individual, PID level, service level, input level) Alarm filters and profiles Exportable (XML, CSV) logs

Time synchronization

Clock reference	1PPS input (50 Ohm female BNC)
UTC time reference	SNTP over the management interface (RJ45)

Control and management

Management port	100/1000Base-T Ethernet Connector: RJ45
Element control through HTTP/WEB based GUI	XML Configuration import and export via HTTP
Protocols	HTTP, XML, SNMPv2c
Alarm Relay	9 pin D-SUB. Two relays supported; one at configurable alarm level
Maintenance Port	USB

Physical and environmental characteristics

Input Voltage	100-240V AC +/- 10%, 50/60 Hz,
Power consumption	200W max
Dimensions	1RU 19", Dual PSU:(WxDxH) 420 x 400 x 44.5mm Single PSU:(WxDxH) 210 x 400 x 44.5mm
Operating temperature	0°C to 50°C
Storage temperature	-20°C to 70°C)
Relative humidity	5% to 95% (non condensing)
Compliance	CE: 73/23/EEC, 89/336/EEC, IEC60950, EN60950, EN55022, EN55024, EN6100-3-2, CSA

Product options

NX4-HW-PSU-AC-150-X2	Dual 100 - 240V power supplies
NX4-HW-ASI-IO-X4	ASI i/o board with 4 ports
NX4-HW-ASI-IO-X8	ASI i/o board with 8 ports
TNS4200-SW-10G	Enable 10G capacity on the SFP sockets
TNS4200-SW-TSIX	MPTS Transport Stream inputs, X= 5, 10, 15, 25, 40
TNS4200-SW-SPTX	SPTS inputs, X=25, 50, 100
TNS4200-SW-AMMX	Advanced monitoring (ETR290 pri2 and 3) for MPTS
TNS4200-SW-AMP2	Monitoring of ETR290 priority 2 alarms for SPTSs
TNS4200-SW-T2ANx	T2-MI monitoring per existing input

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.

CONTACT INFORMATION



The Americas

ussales@nevision.com +1 (805) 247-8560

Asia Pacific

asiasales@nevision.com +65 6872 9361

Europe and Africa

sales@nevision.com +47 33 48 99 99

Middle East

middle-east@nevision.com +971 (0)4 3901018

UK

uksales@nevision.com +44 118 9735831

nevision.com

Nevision reserves the right to make changes without notice to equipment specification or design. The information provided in this document is for guidance purposes only and shall not form part of any contract.

© 2013 Nevision. All rights reserved.

