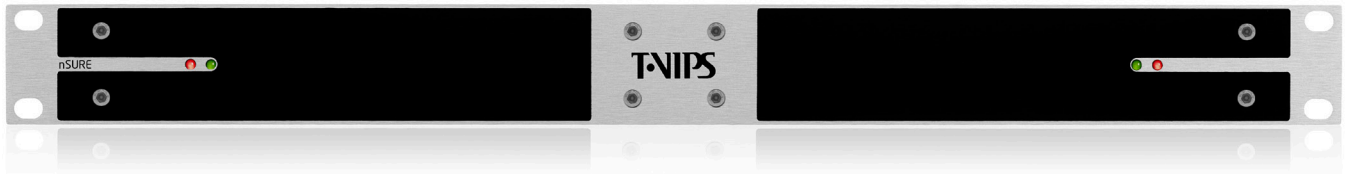


# TNS546 TS Monitor



TNS546 provides efficient monitoring of Transport Streams on IP/Ethernet, DVB-ASI, or SMPTE-310.

The TS monitor is a powerful tool for continuous monitoring of transport streams, services, PIDs and PSI/SI/PSIP tables, and enables fast fault-detection and diagnostics in an easy-to-use and intuitive web user interface.

The TNS546 is part of T-VIPS' nSure product line which is designed to ensure the delivery of high-quality video content. The nSure product line simplifies the monitoring, analysis and switching of transport streams and services throughout video broadcast networks.

As broadcast infrastructures become increasingly complex, the TNS546 provides an ideal tool for continuous monitoring of MPEG-2 Transport Streams. Error detection and alarms are based on ETSI TR 101 290 for DVB signals and ATSC A/78 for ATSC DTV signals.

Alarms are flagged via an easy-to-use web user interface as well as through SNMP. In addition to its monitoring capabilities, the TNS546 also allows in-depth analysis of signal, services, components as well as PSI, SI and PSIP table decoding. In total, these features enable fast diagnostics of an erroneous signal.

The TNS546 provides remote supervision and monitoring of up to 8 DVB-ASI/SMPTE-310 transport streams, and up to 16 IP/Ethernet transport streams (numbers are subject to limitations on maximum bit-rate and PSI/SI/PSIP bit-rate).

## Applications

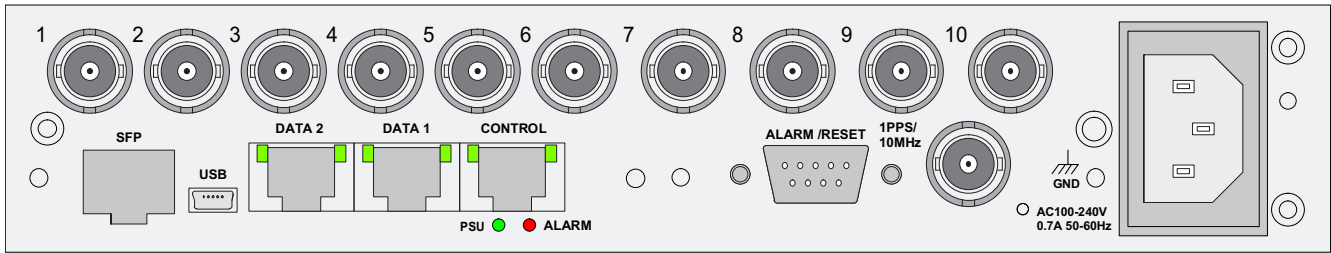
- Central head-end monitoring
- Remote monitoring of signals
- Monitoring of signals in transmission chain
- 24/7 continuous supervision of signals
- Stand-alone monitoring

## Key Features

- **Transport Stream monitoring and error detection**
  - Error detection in accordance with ETSI TR 101 290 specification
  - Support for PSIP monitoring according to ATSC A/78
  - Bit-rate alarms
- **Powerful analysis**
  - TS, Service and PID analysis
  - PSI/SI (DVB) and PSIP (ATSC) table analysis
  - PCR analysis
- **SLA monitoring**
  - Monitors service level agreement parameters
  - Continuous internal alarm log
- **Compact, cost-effective solutions**
  - Simultaneous, real-time monitoring of up to 16 ASI/SMPTE-310 streams using two units side by side in 1 RU
- **User-friendly configuration and control**
  - WEB/XML based remote control
  - SNMP agent for easy integration with NMS systems
  - Integrated with T-VIPS Connect
  - Integrated with Data Miner



## TNS546 - TS MONITOR



### Transport Stream Interfaces

Inputs: Up to 8 DVB-ASI or SMPTE-310

Output: 2 test outputs

Connector: Female BNC

Total Bitrate: Max. 400 Mbit/s total TS bitrate

Max. 10 Mbit/s PSI/SI/PSIP bitrate

#### Gigabit Ethernet (option):

Inputs: Up to 16 IP streams

Type: 2 x 100/1000Base-T Ethernet

1 x SFP (option)

Connectors: RJ45 (100/1000Base-T), SFP

TS Encapsulation: SMPTE 2022-1/2

### Features

Error detection: Error detection based on TR 101 290.

Configurable threshold values.

Transport Stream analysis: Effective and total bitrate

Overview of all Services and PIDs

Service analysis: Service Id, name and components

PID analysis: Type, scrambling and dynamic bitrate

Graphical view of bitrate

PCR analysis: Graphical histogram view

of jitter analysis

Table analysis: Comprehensive PSI/SI/PSIP table

analysis with decoding of all standard descriptors.

SLA monitoring: Top level statistics of up time

PID rate alarms: Configurable min/max rate thresholds

Service rate alarms: Configurable min/max rate thresholds

Configurable alarm levels: Alarm levels can be configured for all alarms. PID-specific levels possible.

Service streaming: Stream programs to PC for viewing

Alarm log: Circular persistent log of up to

10 000 entries

### Control and Management

Type: 10/100 Base-T Ethernet

Connector: RJ45

Features: Element control through HTTP/

WEB. XML Configuration import and

export via HTTP. SNMP traps for

integration with Network Management

System (NMS).

Protocol: HTTP, XML, SNMPv2c

Alarm Relay: 9 pin D-SUB, Two relays supported;

one at configurable alarm level.

Maintenance Port: USB version 1.1

### Physical and Power

Input Voltage: 100-240V AC +/- 10%, 50/60 Hz

Input Voltage Option: -48V DC

Dimensions: 1RU, 1/2-width 19"

210 x 300 x 44.5mm (WxDxH)

Two units in 19" 1RU rack space

Installation: 19" rack mounting kit supplied

### Environmental Conditions

Operating Temperature: 0°C - +50°C

Storage Temperature: -20°C - +70°C

Relative Humidity: 5% to 95%

(non condensing)

### Compliance

CE: 73/23/EEC (Low voltage equipment)

89/336/EEC (Electromagnetic compatibility)

CSA: Designed for CSA approval

Safety: IEC60950 and EN60950

EMC: EN55022, EN55024, EN6100-3-2