

NN6-T2Gateway

DVB-T2 Gateway



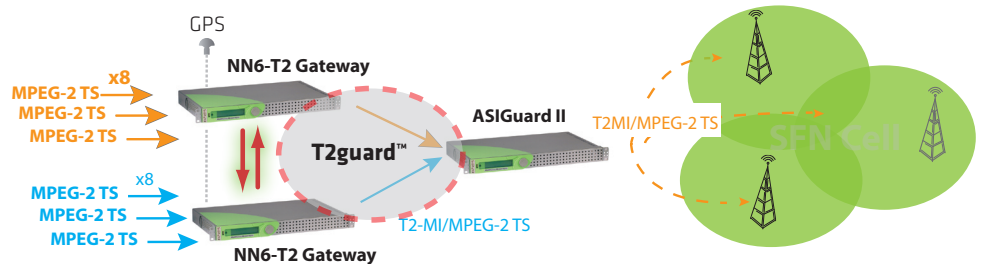
NN6-T2 Gateway is ENENSYS' DVB-T2 Gateway that encapsulates one or several MPEG-2 Transport Streams into a DVB-T2 multiplex, inserts synchronization data to allow Single Frequency Network broadcasting, allocate data into the different Physical Layer Pipes and generates T2-MI packets over ASI and IP.

Running at the head-end, the **NN6-T2 Gateway** encapsulates the MPEG-2 TS stemming from a typical DVB-T multiplexer into DVB-T2 Base Band frames. It outputs the resulting DVB-T2 multiplex using the T2-MI (Modulator Interface) protocol through ASI and IP.

The **NN6-T2 Gateway** is the central body of the operational DVB-T2 network as it provides in-band control and signaling to all the DVB-T2 modulators. When using Multiple PLP (Physical Layer Pipes) to provide service-specific robustness, the **NN6-T2 Gateway** enables all the modulators to generate the same data in a deterministic manner.

Also the **NN6-T2 gateway** enables **SFN broadcasting** over DVB-T2. It provides in-band and out-of-band synchronization information to all modulators to generate the same data at the very same time over the same frequency. It also supports **MISO broadcasting** to increase SFN performance.

ENENSYS' patented technology, **T2Guard**, is the unique 1+1 redundancy mechanism that guarantees a seamless switch-over in SFN and MFN modes to avoid any TV black-out during switch-over operation between two redundant T2 Gateways. The **T2Guard** applies with two T2Gateways that are redundant with **ASIGuard II**, ENENSYS' seamless ASI switch.



Applications

- DVB-T2 SFN/MISO build-up
- DVB-T2 Network control
- DVB-T2 Multi-PLP management
- Seamless 1+1 redundancy (patented technology)
- DVB-T2 regionalisation

Benefits

- Broadcast-grade equipment
- Central body of the DVB-T2 network
- Quick handling of the DVB-T2 complexity
- Improve coverage when broadcasting over SFN
- Avoid TV black-out during 1+1 redundancy
- Interoperability proven with major DVB-T2 transmitters
- Straight integration into any NMS
- Reuse existing network equipment

Characteristics

- Encapsulation into DVB-T2 baseband frame
- Configuration of DVB-T2 modulators
- DVB-T2 SFN Adaption with MISO support
- Single and Multiple PLP management
- Individual addressing of T2 transmitters
- Future Extension Frame (FEF) broadcasting
- Generation of T2-MI packets over ASI and IP
- Validation of DVB-T2 transmission parameters
- Easy-to-use web based GUI
- Full SNMPv2 support

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Inputs

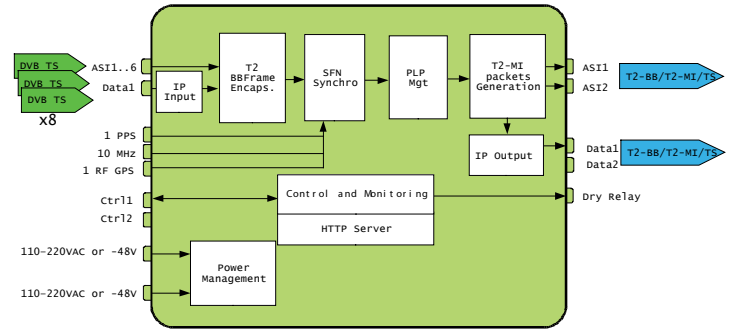
Control	2x Fast Ethernet for GUI and SNMP
MPEG2-TS	6x ASI inputs 1x Gigabit Ethernet IP input
GPS	1x TNC input for internal GPS 1x PPS and 1x 10 Mhz inputs

Outputs

T2-MI/MPEG2-TS	1x Gigabit Ethernet IP output 2x Mirrored ASI outputs
GPS	1xPPS and 1x10MHz outputs

Featuring

DVB-T2 encapsulation	Encapsulation into baseband frames Full support of BB frame modes
DVB-T2 network configuration	In-band control of T2 modulators Individual addressing FEF management
SFN Adaptation	Integrated SFN adapter MISO Support T2-MIP generation
PLP management	Single and Multi-PLP handling Type1 and type2 management Static and dynamic PLP allocation
T2-MI output	Generation of T2-MI packets IP output featuring Pro MPEG Forum CoP#3/SMPTE 2022 Optimized bandwidth output
T2Guard	Patented 1+1 seamless switch-over between two T2 Gateways One-click configuration
Monitoring and Supervision	Validation of DVB-T2 parameters Easy-to-use web based GUI User management Full SNMPv2 support



Physical

Height	44 mm / 1.7 in.
Width	444 mm / 17.48 in.
Depth	274 mm / 10.79 in.
Format	1 RU, width 19"
Power supply	100-240VAC/48V DC (option)
Power consumption	20W



Ordering

NN6-T2Gateway : Encapsulation of TS into DVB-T2 Stream

Options

- Multi-PLP-2 : Management of 2 PLP
- Multi-PLP-4 : Management of 4 PLP
- Multi-PLP-8 : Management of 8 PLP
- NN6-T2G-IPInput : Up to 8 TS IP input
- T2guard : 1+1 seamless redundancy
- NN6-In48V : 48 V input instead of 110V/220V
- NN6-DualPower : Redundant power supply
- NN6-GPSv2 : Built-in GPS

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