



T2GatewayDTH

DVB-T2 Gateway for DTH

T2GATEWAY DTH IS ENENSYS' DVB-T2 GATEWAY WITH THE ONEBEAM OPTION. ONEBEAM IS THE ENENSYS SOLUTION TO REDUCE SATELLITE OPEX COSTS BY DELIVERING DIRECT TO HOME (DTH) TV AND DIGITAL TERRESTRIAL TV (DTT) DISTRIBUTION OVER ONE SATELLITE FEED.

Until now two different distribution networks have been required to deliver a content bouquet to DTH and DTT (DVB-T2) viewers. **OneBeam** is the ENENSYS end-to-end solution to build DTT multiplex from a DTH source. It relies on the same satellite transponder to deliver both DTH and DTT services, reducing drastically the OPEX costs with fast ROI. **OneBeam** for DVB-T2 is a genuine industry advance that applies for DVB-T2 services and designed for Single Frequency Networks.

CONTROL SYSTEM OF ONEBEAM SOLUTION

T2Gateway DTH is ENENSYS DVB-T2 Gateway for DTH in the **OneBeam** for DVB-T2 solution. Running at the head-end, the **T2Gateway DTH** is the central body of the DVB-T2 network, providing in-band control and signaling to remote **T2EdgeDTH**. It defines the whole T2 configuration as a regular DVB-T2 Gateway and generates the SFN timestamp information. It describes the DTH services to map to the different PLP and inserts the in-band control information as well the synchronization information within the DTH stream without any impact for DTH consumer.

EWS MANAGEMENT

Operating in conjunction with **T2Edge DTH** units at the transmission sites, the **T2Gateway DTH** applies for building national or regional DVB-T2 multiplex, and also for providing redundancy of primary T2-MI stream. As an option, it offers the support of Emergency Warning System (EWS) to inform about immediate dangers such as earthquakes, flood, tsunami, ... It can generate in-band the EWS trigger to allow **T2Edge DTH** to update the T2 multiplex with the EWS stream for SFN operation.

APPLICATIONS

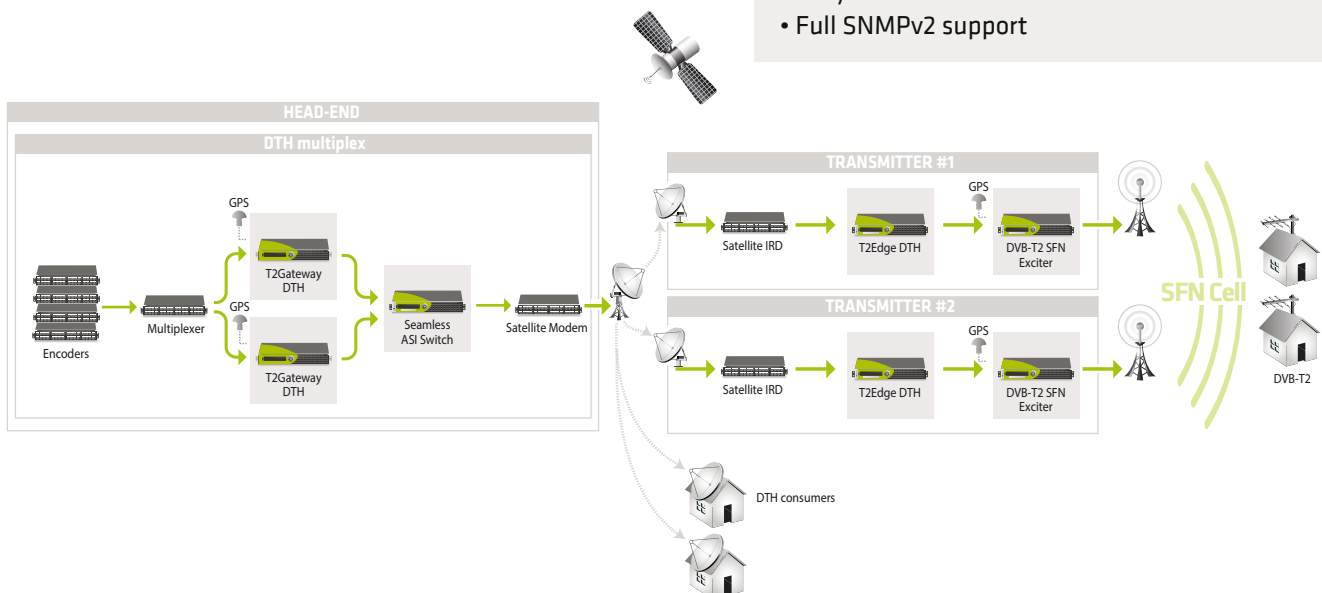
- Use existing DTH services to build T2 multiplex
- Backup DTT transmission site with DTH stream
- Simultaneous FTA DTT and Pay TV DTH services
- Covering DTT 'black spots' with DTH services
- Regionalization support

BENEFITS

- Bandwidth optimization to reduce annual OPEX
- Very fast Return On Investment (ROI)
- Full support of DTH and DVB-T2 standards
- Avoid TV black-out during 1+1 redundancy
- Reuse existing network equipment
- DVB-T2 transmitter agnostic
- Straight integration into any NMS

CHARACTERISTICS

- DVB-S/S2 and DVB-T2 standard based
- No modification of DTH bit rate
- Central control of DVB-T2 network
- Single and Multiple PLP management
- 1+1 seamless redundancy (DTHGuard)
- SFN/MISO support
- Validation of DVB-T2 parameters
- In-band configuration of T2Edge DTH
- Optional EWS management
- Optional built-in GPS receiver
- Easy-to-use web based GUI
- Full SNMPv2 support



INPUTS

| | |
|------------|---|
| Control | 2x Gigabit Ethernet (RJ45) for GUI/SNMP |
| DTH source | 2x redundant ASI (BNC) inputs 1x Gigabit Ethernet (RJ45) for UDP/IP input stream - Option |
| GPS | 1x PPS and 1x 10Mhz inputs 1x TNC for internal GPS |

OUTPUTS

| | |
|------------|---|
| DTH stream | 2x mirrored ASI (BNC) outputs 1x Gigabit Ethernet (RJ45) for UDP/IP output streams - Option |
| GPS | 1x PPS and 1x 10Mhz outputs |

FEATURING

| | |
|----------------------|--|
| DVB-T2 standard | V1.1.1, V1.2.1, V1.3.1 support |
| DVB-T2 configuration | In-band control of T2Edge DTH and DVB-T2 exciters DTH services mapping to T2 MUX |
| Regionalization | Definition of multiple T2 multiplex from the same DTH source |
| SFN Adaptation | SFN timestamp generation Built-in GPS receiver |
| PLP management | Single and Multiple PLP handling Type1 and type2 management |
| DTHGuard | Patented 1+1 seamless switch-over between two T2GatewayDTH |
| EWS support | In-band insertion of EWS trigger Regional EWS service management |
| Output | DTH source with in-band control and synchronization information MPEG-2 TS over IP generation with FEC generation (Pro MPEG CoP#3) |
| Monitoring | Real-time monitoring of incoming streams, Web-based GUI |
| Supervision | Full SNMP v2 support |



**DO YOU REALLY
NEED TWO?**

PHYSICAL

| | |
|-------------------|-------------------------------------|
| Height | 44 mm / 1.7 in. |
| Width | 444 mm / 17.48 in. |
| Depth | 274 mm / 10.79 in. |
| Format | 1 RU, width 19" |
| Front Panel | LCD Display and pushbutton controls |
| Power supply | 100-240V 50/60Hz 48V DC (option) |
| Power consumption | 20W |



ORDERING CODES

T2Gateway DTH **DVB-T2 Gateway for DTH**

Options

| | |
|----------------------------|----------------------------------|
| Multi-PLP-4 | Management of up to 4 PLP |
| Multi-PLP-8 | Management of up to 8 PLP |
| DTHGuard | 1+1 seamless redundancy |
| T2GatewayDTH-IP | IP input/output management |
| T2GatewayDTH-EWS | Emergency Alert management |
| NN6-GPSv2 | Built-in GPS receiver |
| NN6-In48V | 48 V input instead of 110V/220V |
| NN6-In220VRedundant | 110V/220V redundant power supply |
| NN6-In48VRedundant | 48V DC redundant power supply |



ENENSYS Technologies | 6 rue de la Carrière
CS 37734 | 35577 CESSON-SÉVIGNÉ | FRANCE
Tel: +33 (0) 1 70 61 76 30 | Fax: +33 (0) 2 99 36 03 84

