## ENENSYS

# **T2Edge DTH**DTH to T2-MI adapter



T2EDGE DTH IS ENENSYS' DVB-T2 LOCAL ADAPTER 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.

**T2Edge DTH** is ENENSYS DTH to T2-MI adapter in the **OneBeam** DVB-T2 solution. **T2Edge DTH** operates in the ENENSYS **HDc** platform to provide high density, to allow simultaneous operation with other ENENSYS modules such as T2Edge or ASIIPGuard, to ease operation and maintenance with hot swap features.

Running on the transmission site prior to the DVB-T2 transmitter, the T2Edge DTH aims at receiving a DTH stream to build a new DVB-T2 multiplex. It selects the services from the DTH stream, allocates them to the different PLP and generates a deterministic T2-MI stream without external reference to operate over Single Frequency Networks. The T2Edge DTH performs an advanced PSI/SI processing to update PSI/SI information related to the filtered services.

Operating in conjunction with T2Gateway DTH units at head-end, the T2Edge 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 <a href="Emergency Warning System">Emergency Warning System</a> (EWS) to inform about immediate dangers such as earthquakes, flood, tsunami, ... It replaces all services in the T2 multiplex by one EWS service under trigger control.

#### **APPLICATIONS**

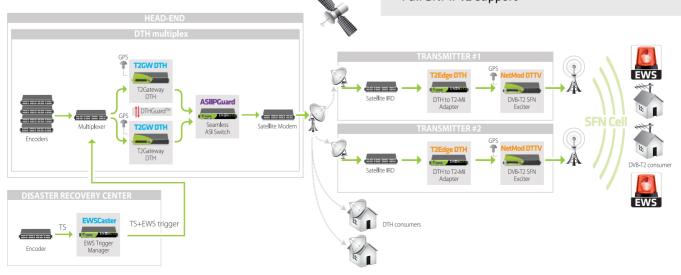
- Use existing DTH services to build T2 multiplex
- Backup DTT transmission site with DTH stream
- Simultaneous FTA DTT and Pay TV DTH services
- Covering DTT 'black spots' with DTH services
- Regionalization support
- Emergency Warning System

#### **BENEFITS**

- Bandwidth optimization to reduce annual OPEX
- Very fast Return On Investment (ROI)
- Full support of DTH and DVB-T2 standards
- Embedded in High Density chassis (HDc):
  - to allow multiple T2Edge DTH in 1U
- to combine with T2Edge, ASIIPGuard, ...
- to enable future-proof technology
- Reuse existing network equipment
- DVB-T2 transmitter agnostic
- · Straight integration into any NMS

#### **CHARACTERISTICS**

- DVB-S/S2 and DVB-T2 standard based
- Single and Multiple PLP support
- PSI/SI update on T2 multiplex
- IP input and output support
- Deterministic T2-MI generation for SFN/MISO
- No external reference required
- Generation of T2-MI stream over ASI or IP
- In-band configuration to ease maintenance
- Optional EWS management
- Easy-to-use web based GUI
- Full SNMPv2 support



### **T2Edge DTH** DTH to T2-MI adapter



#### **INPUTS**

Control	1x Gigabit Ethernet (RJ45) for GUI/SNMP
DTH source	2x redundant ASI (BNC) inputs 1x Gigabit Ethernet (RJ45) - Option for UDP/IP input streams

#### **OUTPUTS**

T2-MI stream	2x mirrored ASI (BNC) ouputs
	1x Gigabit Ethernet (RJ45) - Option
	for UDP/IP output streams

#### **FEATURING**

DTH services filtering	In-band configuration Service renaming Mapping DTH services to PLP Multiple PLP support
PSI/SI Update	Update SI information of T2 services PAT, PMT, CAT, NIT, SDT, EIT P/F, EIT Schedule tables management
EWS support	Update all TV programs with EWS audiovisual stream SFN compliant
T2-MI generation	V1.1.1, V1.2.1, V1.3.1 support Deterministic T2-MI generation for SFN broadcasting No external reference required
FEC management	SMPTE 2022-1 (Pro MPEG CoP#3) FEC input correction (TSoIP)
Monitoring	Real-time monitoring of incoming streams, Web-based GUI
Supervision	Full SNMP v2 support Easy integration into NMS





#### **PHYSICAL**

Height	43 mm / 1.69 in.
Width	443,7 mm / 17.46 in.
Depth	322,8 mm / 12,70 in.
Format	1 RU, width 19"

Front Panel LCD Display and controls - Option
Power supply 100-240V 50/60Hz - 48V DC (option)

Power consumption 20W



#### **ORDERING CODES**

HDc-T2Edge DTH DTH to T2-MI adapter

#### Options

HDc-Multi	Enable to embed several functions*
HDc-LCD	Display for monitoring & control
T2EdgeDTH-IP	IP input/output management
T2EdgeDTH-EWS	Emergency Alert management
T2EdgeDTH-MultiEdge	Migration to T2Edge
NN6-In48V	48 V input instead of 110V/220V
NN6-In220VRedundant	110V/220V redundant power supply
NN6-In48VRedundant	48V DC redundant power supply

<sup>\*</sup> For managing several functions, please contact ENENSYS



**ENENSYS Technologies** | 6 rue de la Carrière CS 37734 | 35577 CESSON-SÉVIGNÉ | FRANCE Tel: +33 (0)170 6176 30 | Fax: +33 (0)2 99 36 03 84

