

# SmartGate OneBeam

DVB-SIS Gateway for DVB-T/T2 combination with DTH



## DO YOU REALLY NEED TWO?

**SmartGate OneBeam is ENENSYS orchestrator that operates at the head-end to fully control the DVB-T/T2 multiplex deterministic generation at the transmission site by the TxEdge for SFN broadcasting.**

Until now two different distribution networks have been required to deliver a content bouquet to DTH and DTT (DVB-T/T2) viewers. OneBeam is the ENENSYS end-to-end solution to build DTT multiplex from one or two DTH sources. It relies on the same satellite transponder to deliver both DTH services and to feed DTT transmitters, reducing drastically the OPEX costs with fast ROI.

### OneBeam Orchestrator

Running at the head-end, the SmartGate OneBeam is the central body of the OneBeam solution, providing in-band control and signaling to remote TxEdge. It provides the whole DTT configuration as a regular MIP inserter or DVB-T2 Gateway and generates the SFN timestamp information. It describes in-band the services stemming from one or two feeds to assign to the resulting DTT multiplex and defines the related SI to update. In DVB-T, it can generate the MIP packet. The SmartGate can be used as a standalone product as an input of the multiplexer.

### Seamless redundancy - TXGuard

ENENSYS' patented technology, TXGuard, is the unique 1+1 redundancy mechanism that guarantees a seamless switch-over to avoid any TV black-out during switch-over operation between redundant SmartGates. The TXGuard applies with ENENSYS' seamless switches, ASIIPGuard or IPGuard V2, to perform the seamless switch-over operation.

### Emergency Warning System

As an option, it offers the support of Emergency Warning System (EWS) to inform about immediate dangers such as earthquakes, tsunamis, ... The TxEdge replaces all the services in the SFN/DTT multiplex by one EWS service under EWS trigger control generated by ENENSYS EWSCaster.

## 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 with Dual inputs
- Emergency Warning System

## Benefits

- Bandwidth optimization to reduce annual OPEX
- Very fast Return on Investment (ROI)
- Transparent for DTH receivers
- Multi-standard (DVB-T and DVB-T2)
- High density to allow multiple SmartGate OneBeam in 1U
- Reuse existing head-end system

# SmartGate OneBeam



## INPUT

Control	1x Gigabit Ethernet (RJ45) for GUI/SNMP
MPEG-2 TS	<ul style="list-style-type: none"> <li>• 2x ASI inputs (BNC)</li> <li>• Up to 2x Gigabit Ethernet (RJ45) for MPEG-2 TS carried over IP inputs</li> </ul>
GPS	<ul style="list-style-type: none"> <li>• 1x PPS (BNC 50 Ω)</li> <li>• 1x TNC for internal GPS - <i>Option</i></li> </ul>

## OUTPUT

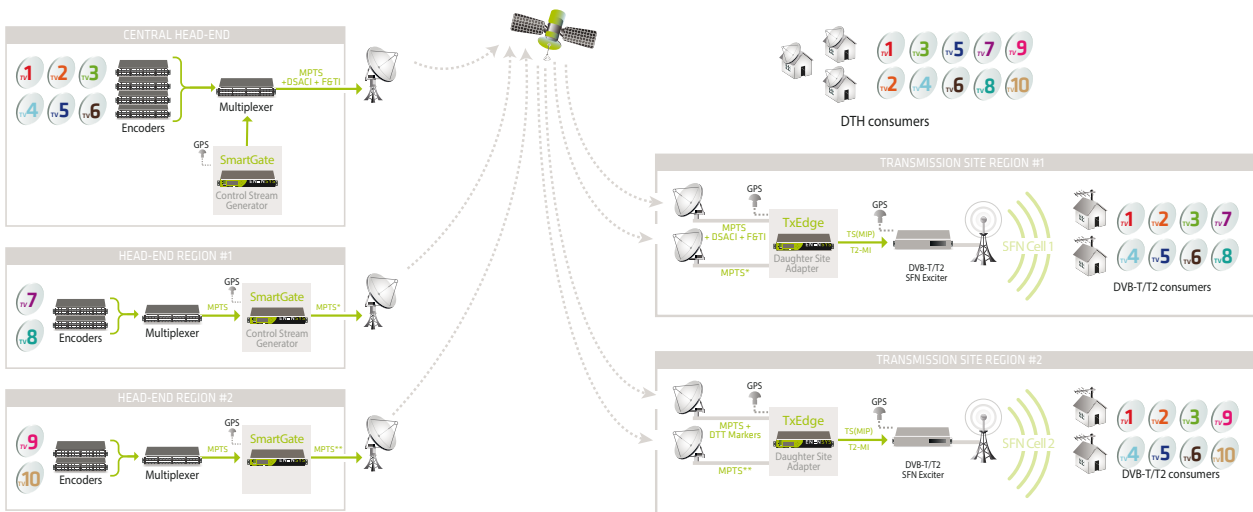
MPEG-2 TS with DTTMarkers	<ul style="list-style-type: none"> <li>• 2x ASI (BNC) outputs</li> <li>• Up to 2x Gigabit Ethernet (RJ45) for TS over IP streams</li> </ul>
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## PHYSICAL

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 - <i>Option</i>
Power supply	100-240V 50/60Hz - 48V DC - <i>Option</i>
Power consumption	25W/module

## FEATURING

F&TI insertion	Generation of Framing and Timing packets to enable remote TxEdge to generate SFN capable DVB-T/T2 multiplex Support satellite bit rate adaptation
DSACI generation	In-band control of remote TxEdge for configuring services and SI related data to be delivered from one or two DTH feeds
DVB-T MIP generation	Inserting MIP packet into the TS for DVB-T SFN broadcasting
DVB-T2 standard	V1.1.1, V1.2.1, V1.3.1, V1.4.1 support Single and Multiple PLP support 2 PLP supported by default
TxGuard 1+1 redundancy	Synchronize 1+1 SmartGate to avoid TV blackout during switch-over with seamless switch ASIIPGuard or IPGuardV2
In-band firmware	Delivering in-band firmware ( <i>Option</i> ) to be sent in broadcast mode towards all TxEdge
IP management	Up to 4x Gigabit ports - <i>Option</i> Allow 1+1 redundant IP input and mirrored IP output
Monitoring	Real-time monitoring of incoming streams, Web-based GUI Full SNMPv2 support



## ORDERING CODES

### HDm-SmartGate-OneBeam DVB-T/T2 Gateway for OneBeam with 2x ASI inputs and 2x ASI outputs

Options	<ul style="list-style-type: none"> <li>SmartGate-OneBeam-IP</li> <li>SmartGate-OneBeam-IPc</li> <li>SmartGate-OneBeam-MPLP-4</li> <li>SmartGate-OneBeam-MPLP-8</li> <li>TxGuard</li> <li>SmartGate-OneBeam-EWS</li> <li>SmartGate-OneBeam-InBand</li> <li>NN6-GPSv2</li> </ul>	<ul style="list-style-type: none"> <li>IP input/output from the module (add 2x Gigabit Ethernet data ports - use one more slot)</li> <li>IP input/output from the chassis (use 2x Gigabit Ethernet data ports of the chassis)</li> <li>Management of up to 4 Multiple-Physical Layer Pipes</li> <li>Management of up to 8 Multiple-Physical Layer Pipes</li> <li>1+1 seamless redundancy</li> <li>Enable EWS management</li> <li>In-band configuration and firmware delivery</li> <li>Built-in GPS receiver</li> </ul>
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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

