ENENSYS

ASIIPGuard
Innovative ASI switch

ASIIPGUARD IS ENENSYS INNOVATIVE AND DENSE ASI SWITCH THAT ENABLES AUTOMATIC 2:1 OR 3:1 SWITCH REDUNDANCY OF ASI AND IP FEEDS. AS AN OPTION, IT CAN PROVIDE SEAMLESS SWITCHING CAPABILITIES OF IDENTICAL MPEG-2 TS OR T2-MI STREAMS.

ASIIPGuard aims at providing automatic redundancy switch between two or three MPEG-2 Transport Streams according to the validity of the incoming streams. Upon ETR290 errors, SFN errors, T2-MI errors or advanced MPEG-2 TS errors, **ASIIPGuard** switches automatically from the faulty input to the valid input.

Additionally, the **ASIIPGuard** can supports up to 6 switch functions in the same chassis providing 6 ASI switches in 1RU. As an option, it can switch over ASI and IP feeds and outputs the selected input over ASI and IP.

The **ASIIPGuard** strives to provide a true seamless switch-over under the following conditions:

• In DVB-T Single Frequency Networks, the **ASIIPGuard** enables a unique, automatic and secured SFN seamless change-over between two ENENSYS SFN Adapter, **NN6-MIP DVB**, with the patented technology SFNguard™. This is mandatory to guarantee SFN broadcasting, where all DVB-T SFN transmitters must receive the same content to transmit it over the same frequency at the very same time.

• In DVB-T2, the **ASIIPGuard** can seamlessly switch-over redundant T2-MI streams. It can provide an automatic 1+1 redundancy mechanism between two DVB-T2 Gateways. Combined with the ENENSYS DVB-T2 Gateway, **NN6-T2 Gateway**, and the patented technology T2Guard™, the **ASIIPGuard** offers a safe and seamless redundancy solution for SFN and MFN DVB-T2 broadcasting.

• MPEG-2 Transport Streams can be carried over redundant links. Both links may have different delays (satellite-IP, IP-IP). The **ASIIPGuard** enables to realign both streams to seamlessly and automatically switch from ASI or IP input to ASI or IP input. Thus, changing-over one network to another network as no effect on the audiovisual content carried over MPEG-2 TS. This applies also for T2-MI streams delivered on different network paths.

APPLICATIONS

• 2:1 or 3:1 automatic switch redundancy
• Automatic redundancy of ASI and IP feeds
• Switching over IP feeds and delivering over ASI
• Seamless switch-over of identical TS
• Seamless switch-over of T2-MI streams
• Seamless switch-over of SFN/DVB-T streams

BENEFITS

• Dense solution with up to 6 ASI switches in 1U
• Cost effective solution:
 • 3:1 switch avoid to cascade two 2:1 switches
 • Includes TSoIP function
• Avoid TV black-out in SFN (and MFN in DVB-T2)
• Seamless switch-over with delayed source
• Multi-standard applicable (DVB, ATSC, ISDB,...)
• **Video agnostic**: MPEG-2 or MPEG-4/H.264
• Maintain service continuity for ASI and IP inputs

CHARACTERISTICS

• Automatic switch between 2 or 3 MPEG-2 TS
• Seamless switching between 2 or 3 T2-MI streams
• Up to 6 ASI switch in the same unit
• Switch between 2 or 3 ASI feeds
• Switch between ASI feeds and IP feeds
• IP outputs with ProMPEG CoP#3
• Several switching modes
• Flexible switching conditions configuration
• ETR290 based switching conditions
• MIP, T2-MI and advanced TS switching conditions
• Bypass mechanisms for ASI and IP inputs
• Real-time monitoring of incoming streams
• Easy to use web-based GUI
• Full SNMP v2 support

HDc ▶ M U L T I

| DENSITY | MODULAR | HOT PLUG | SCALABLE | RELIABLE |
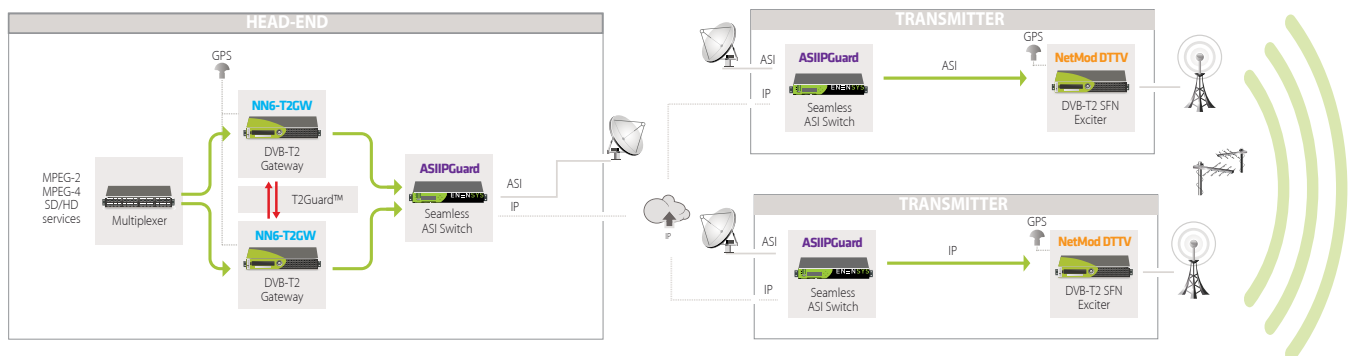
INPUTS

Control	1x Gigabit Ethernet (RJ45) for GUI/SNMP
MPEG-2 TS	2x ASI inputs (BNC 75Ω)
	1x additional ASI input (BNC 75Ω) for switching over 3 inputs - Option
	Up to 2x Gigabit Ethernet (RJ45) for TSoIP input streams - Option

OUTPUTS

MPEG-2 TS	Up to 4x ASI outputs (BNC 75Ω) - 2x ASI outputs as minimum
	Up to 2x Gigabit Ethernet (RJ45) for TSoIP output streams - Option
Availability	ASI bypass to always output inputs in case of power outage
	IP bypass for first IP input - Option

FEATURING

Switch capabilities	2:1 automatic redundancy switch 3:1 automatic switch - Option Switch over ASI feeds Switch over ASI and IP feeds (option) Output selected input over ASI and IP (option)
Switching modes	Automatic switch upon input failure Automatic switch with input priority Manual switch
Switching conditions	ETR290 Level 1/2/3 MIP and T2-MI alarms Video, audio, service bit rate Advanced TS errors
Seamless switching	Maintaining DTT transmitters synchronization to avoid TV blackout DVB-T/SFN and DVB-T2 applicable
Inputs resynchronization	Realign the stream stemming from network paths with different delays to avoid video glitches
Monitoring	Real-time monitoring of incoming streams, Web-based GUI
Supervision	Full SNMP v2 support SNMP v2C INFORM

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-ASIIPGuard	Innovative ASI switch

Options

HDc-Multi	Enable to embed several switch*
HDc-LCD	Display for monitoring & control
SeamlessTS	MFN and SFN seamless TS switch
SeamlessT2-MI	T2-MI MFN & SFN seamless switch
ASIIPGuard-IP	IP input/output management
ASIIPGuard-1ASIin2ASIOut	Additional ASI input and outputs
ASIIPGuard-3TSIn	Automatic switch over 3 inputs
NN6-In48V	48 V input instead of 110V/220V
NN6-In220VRedundant	110V/220V redundant power supply
NN6-In48VRedundant	48V DC redundant power supply

For managing several switch functions, please contact ENENSYS

ENENSYS Networks

RoHS 2002/95/EC