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# SmartGate S2/S2X IP/Ethernet Satellite Gateway

# **₽**EN∃NSYS

SmartGate S2/S2X is the ideal solution to manage IP transmissions over Satellite. The SmartGate powerful IP/Ethernet filtering allows you to select any type of service, performs the IP datagram encapsulation according MPE or GSE standards by hardware for ultra low latency and transmits according to DVB-S2 or DVB-S2X standards. Its Multiqueuing ACM process allow you to manage QoE per service. Powerful IP/Ethernet filtering & encapsulation capabilities combined with an advanced high quality modulator for optimized IP applications over satellite.

### **IP/Ethernet Input Management**

SmartGate handles enhanced filtering & QoS through its 1 GigE and 10 GigE ports. The product offers two different types of encapsulation: GSE – with optimized process, and MPE – which guarantees compatibility with existing receivers.

### Full Implementation of DVB-S2 & S2X Standards

SmartGate integrates the latest FPGA technology required to perform high-quality modulation based on the DVB-S2 and DVB-S2X standards. It offers VCM/ACM multiqueuing, low roll-off and VL-SNR modes.

### **Crystal Spectrum**

SmartGate covers the full L-Band spectrum range (950/2150 MHz) with a SR from 0.05 to 120 MSymbol/s and roll-off factor from 5 to 35% with a very high SNR value.

### **Easy Integration in Existing VSAT Systems**

With its standard interfaces, SmartGate can be fully controlled remotely by its GUI or SNMP for an easy and quick integration into any systems.

# Applications

- IP Backhauling
- OTT Contribution / Broadcasting
- IoT (Internet-of-Things) Connectivity
- VSAT systems

# Other benefits

- MPE & GSE
- IP Level 2 & 3
- Ultra low latency
- Multiqueuing ACM

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# SmartGate S2/S2X IP/Ethernet Satellite Gateway

### **Technical specifications**

#### DATA I/O

#### **Ethernet Port**

4 Ethernet ports 1 GigE - RJ45 2 Ethernet ports 10 GigE - RJ45 or SFP+

#### DATA PROCESSING

#### **MPE Encapsulation**

- Up to 4000 independent components (PID)
- L2 or L3 Multiprotocol encapsulation (DSM-CC)
- Standard & QinQ VLAN support
- MAC mapping
- Section packing
- Traffic Management (shaping, policing, priority)
- Program Clock Reference (PCR) Insertion

#### Modulation

- DVB-S2 & DVB-S2X:
- BCH / LDPC (all code rates)
- Constellations: QPSK, 8PSK, 16APSK to 256APSK
- Operating modes: CCM, VCM & ACM
- Frame length: Short & Normal

#### **DVB** Carrier ID

- Compliant to ETSI TS 103 129 Standard

#### **RF OUTPUTS**

#### L-Band Main Output

- L-Band: 950 MHz to 2150 MHz,
- +7 dBm to -35 dBm / N 50  $\Omega$ ,
- 10MHz reference insertion

# CONTROL & MANAGEMENT

Web UI HTML5 Technology Live statistics & monitoring

Front Panel Full control & monitoring

#### PHYSICAL

#### Height x Width x Depth

44 mm / 1.7 in. x 483 mm / 19 in. x 376 mm / 14.8 in.

Power Supply - Power Consumption 100/240 VAC - 100 W

#### ASI Interface 8 ASI Inputs - BNC - 75 Ω

1 ASI Output - BNC - 75  $\Omega$ 

#### GSE Encapsulation

- Standard ETSI TS 102 606-1
- Up to 16000 routes
- Network Clock Reference (NCR) Insertion
- MAC mapping

#### Carrier

- Symbol rate: 0.05 to 120 MSymbol/s
- Standard and custom roll-off from 5 to 35 %
- PL Scrambling codes
- Pilots insertion

#### L-Band Monitoring Output

- Copy of L-Band Main Output
- 20 dB below / SMA 50  $\Omega$

### SNMP

SNMP v2 support TRAP & INFORM notifications

Serial link RS232 / DB9 Connector

Format - Weight 1RU, 19'' width - 8 kgs

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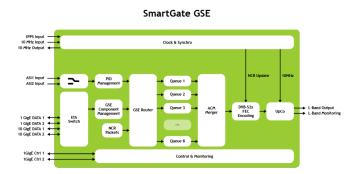
# SmartGate S2/S2X IP/Ethernet Satellite Gateway

### Front

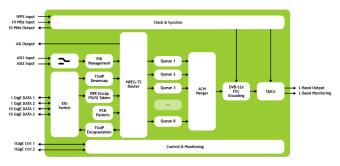


### **Back**





SmartGate MPE



# **Ordering codes**

XSSR-SGT0-3000 SmartGate: IP S2/S2X Satellite Gateway - MPE - GSE -QPSK/64APSK - L Band - 72 Mbaud

# **Ordering options**

XSSO-SGT0-256A 256APSK constellations

XSSO-SGTO-LSNR VL-SNR modes XSSO-SGT0-120M Symbol Rate < 120 MBauds

Specifications Subject To Change Without Notice

Rev 01-24

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