

Tyger

HTS & Beam Hopping Satellite Modulator



Tyger is a versatile powerful and up to date modulator designed for HTS satellite transmissions and Beam Hopping

Tyger is a Very High-Symbol-Rate (HSR) & Very high data rate Satellite Modulator for new satellite applications such as HTS (High Throughput Satellite) and Beam Hopping satellite systems.

Numerous inputs & data formats

Tyger manages data rate up to 2.4 Gbits/s and combines a variety of data formats: MPEG-TS, IP (GSE) as well as BBFrame.

Full Implementation of DVB-S2 & S2X Standards

Based on the latest FPGA technology, Tyger performs high quality modulation compliant to DVB-S2 and DVB-S2X standards from BPSK to 256 APSK. It offers VCM/ACM multiqueuing, low roll-off and Timeslicing.

Crystal Spectrum

Tyger fully covers L-Band spectrum range (950/2150 MHz) with a Symbol Rate from 0.05 to 480 MSymbol/s and a roll-off factor from 5 to 35%. Its best-in-class RF output provides a high SNR value, excellent shoulder levels and a very low phase noise.

Quick and Easy Integration

The entire set-up and configuration of Tyger can be performed remotely using SNMP and can easily and seamlessly be integrated into most existing systems to improve efficiency (Wideband, DVB-S2X), flexibility (ACM/VCM multiqueueing, Timeslicing) and reliability (NCR insertion).

Applications

- Wideband for HTS satellite
- Beam Hopping system
- Very High bitrate links
- Service aggregation
- Hub uplink upgrade

Other benefits

- Time Slicing & Multistream
- TS and IP-GSE
- Annexe I – DSF
- Annexe E – 5/6/7
- VL-SNR Modes to 256APSK
- 480 MSymbol/s – 2.3 Gbits/s

Technical specifications

DATA I/O

Ethernet Port

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

ASI Interface

- 8 ASI Inputs - BNC - 75 Ω
- 1 ASI Output - BNC - 75 Ω

DATA PROCESSING

DVB-S2 & DVB-S2X Modulation

- BCH / LDPC (all code rates)
- Constellations: BPSK, QPSK, 8PSK, 16APSK to 256APSK
- Operating modes: CCM, VCM & ACM
- Frame length: Short & Normal
- Network Clock Reference (NCR)

Carrier

- Symbol rate: 0.05 to 480 MSymbol/s
- Standard & custom roll-off from 5 to 35 %
- PL Scrambling
- Pilot insertion

GSE Encapsulation

- GSE-Lite profiles according to annex D of the ETSI TS 102 606-1 standard.
- GSE-HEM as described in the EN 302 307 part 2.

Annex M / Multistream

- Up to 8 Time Slices (TSN)
- Up to 8 streams (ISI)

Annex I.2

- Dummy Synchronisation Frames (DSF) Insertion

Annex E

- Super Framing Structure, format 5, 6 & 7

DVB Carrier ID

- Compliant to ETSI TS 103 129 Standard

Signal processing

- Linear & Non-Linear predistortions

RF OUTPUTS

Main Output

- L Band 950 MHz to 2150 MHz,
- 0 dBm to -35 dBm / N 50 Ω
- 10MHz reference insertion

Monitoring Output

- Copy of the Main Output
- 20 dB below / SMA 50 Ω

CONTROL & MANAGEMENT

Web UI

- HTML5 Technology
- Live statistics & monitoring

SNMP

- SNMP v2 support
- TRAP & INFORM notifications

Front Panel

- Full control & monitoring

Serial Link

- RS232 / DB9 Connector

PHYSICAL

Height x Width x Depth

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

Format - Weight

1RU, 19" width - 8 kgs

Power Supply - Power Consumption

100-240 VAC - 100 W

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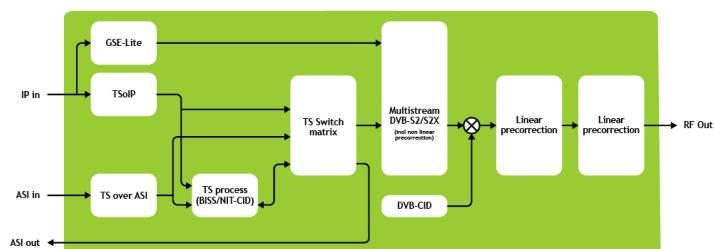
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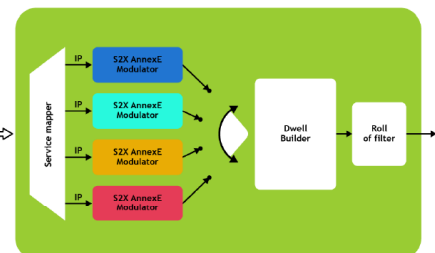
Back



Tyger HTS



Tyger Beam Hopping



Ordering codes

XSSR-TYG0-3000

WideBand (500MHz) S2/S2X Modulator - GSE - NCR - 10GigE - L-Band output - 1U Rack

Ordering options

xSSO-TYGX-WBAM

DVB-S2/S2X Time Slicing (Annex M) - Software option

xSSO-TYGX-WBAI

DVB-S2/S2X Annex I.2 (DSF) - Software option

xSSO-TYGX-WBAE

DVB-S2/S2X Annex E Frame format 5/6/7 - Software option