

The MOD1250 is a DVB-S2X high performance Software Defined Radio (SDR) modulator designed for High Throughput Satellites (HTS) VSAT networks

Overview

Based on a "Software Defined Radio" architecture, the MOD1250 is SpaceBridge's DVB-S2X Wideband modulator designed to support data transmissions over High Throughput Satellites from a central side towards a group of remote terminals.

MOD1250 modulator is a very powerful unit that allows the most efficient use of the satellite segment by combining the full implementation of the modcodes stated as part of the DVB-S2X standards and the use of a roll-off factor as small as 5%.

It also supports Time Slicing what reduces considerably the data processing time at the user terminal by exposing the decoder only to data that is destined to it.

Furthermore, MOD1250 also supports Direct Sequence Spread Spectrum (DSSS).

Features

- Symbol rate from 1.5 Msps to 500 Msps
- Software Defined Radio architecture
- Modulations of up to 256APSK
- Pay-As-You-Grow (PAYG) licensing
- Time Slicing support
- Carrier ID (CID) support
- Very Low SNR (VLSNR) MODCODS available
- Direct Sequence Spread Spectrum (DSSS) Support



Specifications

Unit Characteristics

Form Factor	19" Rack mountable
Application	High-speed Satellite modulator

Forward Link (Transmission)

Technology	DVB-S2X TDM Forward Link.
Channel Rate	1.5 Msps to 125 Msps 250 Msps and 500 Msps- Optional
Waveform	DVB-S2X CCM, VCM and ACM, QPSK up to 256APSK LDPC/BCH Up to 32 TSNs annex M (time slicing)
Channel Spacing	5%, 10%, 20%, 25%, 30% or 35% channel spacing (roll-off factor)
Carrier ID	Per DVB-CID specifications

Connectivity

L-band Output Interface	N-type 50 Ohm, 950-2150MHz
Data Input Ports	2x 1 GbE Ethernet Port
Management Interface	2x 1 GbE Ethernet Port
Timing and Frequency	1 PPS and 10 MHz reference, BNC inputs

Environmental and Mechanical

Dimensions	435 x 44 (1RU) x 458 mm (W x H x D)
Weight	~ 4Kg
Power Consumption	60W.
Operating Temp.	0 – 55°C