DVB-S MODULATOR

Digital TV

The **DVB-S MODULATOR** is a compact, top-performance, totally **ETSI EN 300 421 compliant** QPSK IF modulator offered by Neetra for the extremely demanding Digital Television market. It provides great flexibility together with an extreme simplicity of operation and offers a highly stable digital modulation core, capable of adapting the RF bandwidth allocation to the input Transport Stream rate. It perfectly matches the European Standard ETSI EN 300 421 which describes the framing structure, the channel coding and the modulation scheme for digital satellite services, and provides an optimal cost effective solution to build high data rate **digital terrestrial microwave links** and **digital satellite uplinks** for TV distribution networks.

The **DVB-S MODULATOR** is manufactured in a single 1U case containing a flexible DVB-ASI receiving interface, an **FPGA-based digital processing** engine for the framing, coding and modulation operations and an IF analogue output interface capable of driving up conversion systems for terrestrial and satellite transmission applications. The **exceptionally accurate digital processing stage**, together with the flexible real time digital TS input interface allow the DVB-S modulator to achieve excellent performances with optimal RF bandwidth utilisation.

The **DVB-S MODULATOR** parameters are **completely configurable by the user** and are locally stored in a flash memory to allow automatic configuration recall after a power failure. A special **"SFN Transport"** feature is available to allow perfectly trasparent distribution of Transport Streams to DVB-T transmitters operating in Single Frequency Networks (this feature requires the Neetra DVB-S RECEIVER in the "SFN Transport" version at the receiving site). The **DVB-S MODULATOR** is the perfect solution for any state-of-the-art audio video applications, including digital TV, high quality video surveillance, videoconference, remote education, news gathering,etc.

Main characteristics

- 1U Rack / DVB-ASI Input / SPTS and MPTS Input Formats
- ISO/IEC 13818-1 Compliant Input / ETSI EN 300 421 Compliant Output
- Input Bit-Rate Auto-adaptation / Distribution Applications
- Up to 30MSamples/s Throughput Rate
- Complete Remote Control / Perfect for any Terrestrial and Satellite

Applications

- Digital Microwave Links for digital audio/video/data Distribution Networks
- Digital Satellite Uplinks for TV Broadcasting and Content Distribution
- DVB-T Studio-to-Transmitter Links
- TS Transport in DVB-T SFN Networks
- Direct Satellite Broadcasting / High-quality Video Surveillance
- Digital News Gathering / Remote Education

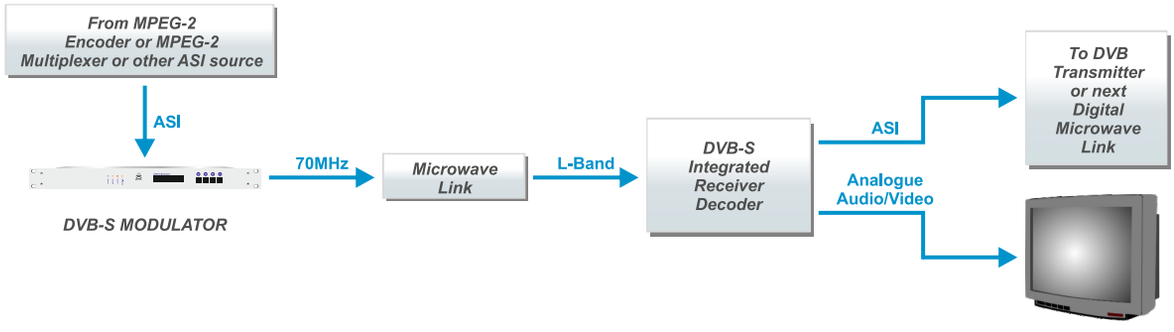
Features and Options

- Up to 30MSamples/s Output Symbol-Rate
- SPTS/MPTS DVB-ASI Input
- Excellent BER performances over Digital Terrestrial Microwave Links
- 70MHz IF Output / Automatic PCR Restamping on Input Transport Stream
- Available in 'SFN Transport' (version) operating in conjuction with the Neetra DVB-S RECEIVER)

DVB-S MODULATOR
Technical characteristics

SIGNAL PROCESSING SETION	
Reference Standard	ETSI EN 300 421
Modulation	Gray-coded QPSK
Symbol Rate	1 to 30MS/s step 0.5MS/s
Input Processing	Transport Multiplex Adaptation and Energy Dispersal
Outer Coder	Reed Solomon Encoder (204, 188, 8)
Convolutional Interleaver	12-branches Forney Scheme
Inner Coder	Punctured Convolutional
Code Rates	1/2, 2/3, 3/4, 5/6, 7/8
Baseband Shaping	Roll-off Factor = 0.35
Optional TS Processing	SFN Transport (in conjuction with Neetra DVB-S RECEIVER)
INPUT SECTION	
TS Input	DVB-ASI Interface BNC 75Ohm
Input Bit-Rate	Up to 48.38Mbit/s
Intput TS Format	SPTS/MPTS
MPEG-2 Packet Lenght	188/204 with Automatic Adaptation
OUTPUT SECTION	
IF Output Frequency	70MHz
Output Level	0dBm (-20dBm/0dBm tuning range)
Output Impedance	BNC 50 Ohm
IF Bandwidth [MHz]	1.35xSymbol Rate (expressed in MSamples/s)
GENERAL	
Physical	Case 19"-1U, 4kg
Local Control Port	USB
Remote Control Port	RS485
Remote Control Options	PSTN-GSM-Ethernet (with external RCU equipment)
User Interface on Front Panel	LCD Display + Keyboard + Status LEDs
Power Supply Voltage	90 - 250VAC
Power Consumption	< 15W
Operating Temperature	0 - 45°C

Specifications and characteristics are subject to change without notice



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