Novra S300E

DVB-S2 IP Receiver/Router

Overview

Novra is pleased to introduce the S300E into our lineup of DVB-based IP data receiver/routers. Based on Novra's latest generation hardware platform, the enhanced performance of the S300E has been developed to ensure reliable reception of EUMETSAT weather data services. Key attributes of the S300E include:

  - Supports for DVB-S2 VCM/ACM operation, including multi-stream VCM with ISI filtering
  - DVB-S2 operation to 32 APSK,
  - Throughput to 80 Mbps, and
  - Support for the full range of Gold Code Sequence Selection

The S300E lets you choose your demodulation technique, supporting QPSK, 8PSK, 16 APSK and 32 APSK over a variety of coding rates. Compatibility with the DVB-S2 standard enables you to take advantage of the significant efficiency gains when compared with DVB-S; higher data rates without increased bandwidth.

Installation of the S300E is easy and non-invasive, as the client does not need to be opened, nor are any drivers required. The S300E works with any OS and makes the received IP data available to any client on the LAN.

Applications

The S300E is perfectly suited for a range of consumer or small-medium enterprise applications including the reception of IP-based services with the flexibility of Variable or Constant Coding/Modulation. Key applications include: reception of EUMETSAT weather images and data, distance education, digital signage, data content distribution, streaming content, Internet over satellite, and IPTV content distribution to single or multiple viewers.

Features

- ○ DVB-S2/DVB-S Compliant, including

  - Multistream VCM Operation with ISI Filtering

  - 32 APSK Operation

- ○ 80 Mbps Sustained Throughput

- ○ Support for ACM operation

- ○ Gold Code Sequence Selection

- ○ Downloadable Firmware

- ○ RJ45 10/100BaseT Ethernet Interface

- ○ Application Transparent

- ○ IGMP Filtering

DVB-S2/DVB-S

Uplink

Optional
Return Channel

Content, Internet

RF Tuners

Receiving Frequency: 950 to 2150 MHz
- Frequency Acquisition: ± 10 MHz above 10 Msps
- Input Signal Level: -70 dBm to -25 dBm

Multi-standard Demodulation
- QPSK: 100 Ksps to 45 Msps (DVB-S)
- QPSK: 100 Ksps to 45 Msps (DVB-S2)
- 8PSK: 100 Ksps to 45 Msps (DVB-S2)
- 16 APSK: 100 Ksps to 45 Msps (DVB-S2)
- 32 APSK: 100 Ksps to 45 Msps (DVB-S2)
- Automatic Symbol Rate detection and lock
- Automatic Code Rate detection and lock
- Data Throughput: 80 Mbps
- Nyquist Root Filter: 0.2, 0.25, 0.35 rolloff
- Multi-stream VCM
- ISI Filteirng
- ACM Support

Multi-Standard Decoding FEC
DVB-S
- Viterbi 1/2, 2/3, 3/4, 5/6, 6/7, 7/8 puncture rates
- Reed Soliman 16 bit decoder
DVB-S2
- LDPC 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 rates
- BCH (Bose-Chaudhuri-Hocquenghem) decoder

Gold Code Sequencing
- 0 to 262143 Sequence Selection

LNB Power and Control
- LNB Supply Voltage: 11/15V, 13/18V, 21V or off
- LNB Supply with long line compensation
- LNB Control: 22 KHz, 44 KHz, or off
- LNB Supply Current: 400 mA with Short Circuit
  and Surge Protection

Configuration
- IP Address Configuration
- PID Selection
- LNB Power
- Transponder Settings
- Management Console Application available as an
MS Windows Executable
- Command Line tool available for Linux, Windows,
MAC OS, and FreeBSD

Status Monitoring
- Signal Strength
- Signal Lock, Data Lock
- Error status: S/N, Uncorrectable Errors

Status Indicators
- Power: Red LED
- Lock: Blue LED
- Data: Blue LED
- Ethernet Link (green) and Transmit (yellow)

Hardware Capabilities
- Multiprotocol Encapsulation (MPE)
- PID Filters: 16
- Internal Hardware Watchdog
- Non-Volatile Configuration Storage
- Field upgradable operating system for new s/w
releases and functional upgrades

Physical Interfaces
- RF Input Connector: F-Type, 75 ohms
- Ethernet 10/100 Base-T LAN Interface: RJ-45

Physical/Environmental
- Height: 1.41 in (3.58 cm)
- Width: 5.22 in (13.26 cm)
- Depth: 4.10 in (10.42 cm)
- Weight: 1 lbs (0.46 Kg)
- Operating Temperature: 0C to 40C
- Storage Temperature: -55C to 85C
- Operating Humidity: 10 to 90% Non-Condensing

Standards/Regulatory
- UDP/IP Protocol
- IP Multicast
- IGMP: V1.0, V2.0
- ETSI 301.192 DVB
- ISO/IEC 13818-1
- ISO/IEC 13818-6
- IEEE 802.3 10/100 Mbps
- FCC/Industry Canada
- EN 55022 (Emission)/EN 55024 (Immunity)
- Safety EN 60950

Mounting Options
- 1RU Mounting Plate for a single S300E
- 1RU Mounting Plate for up to three S300E's

Redundancy Solutions for 100% Availability
- 1 RU enclosure for multiple S300's
- Redundant or Backup Power Supplies
- See MSR300 Brochure for Configuration options

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