Novra S300N

DVB-S2 IP Receiver/Router

Overview

Novra is pleased to introduce the S300N into our lineup of DVB-based IP data receiver/routers. Based on Novra's latest generation hardware platform, the enhanced performance of the S300N has been developed to ensure reliable reception of NOAAPort weather data services. Key attributes of the S300N include:

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

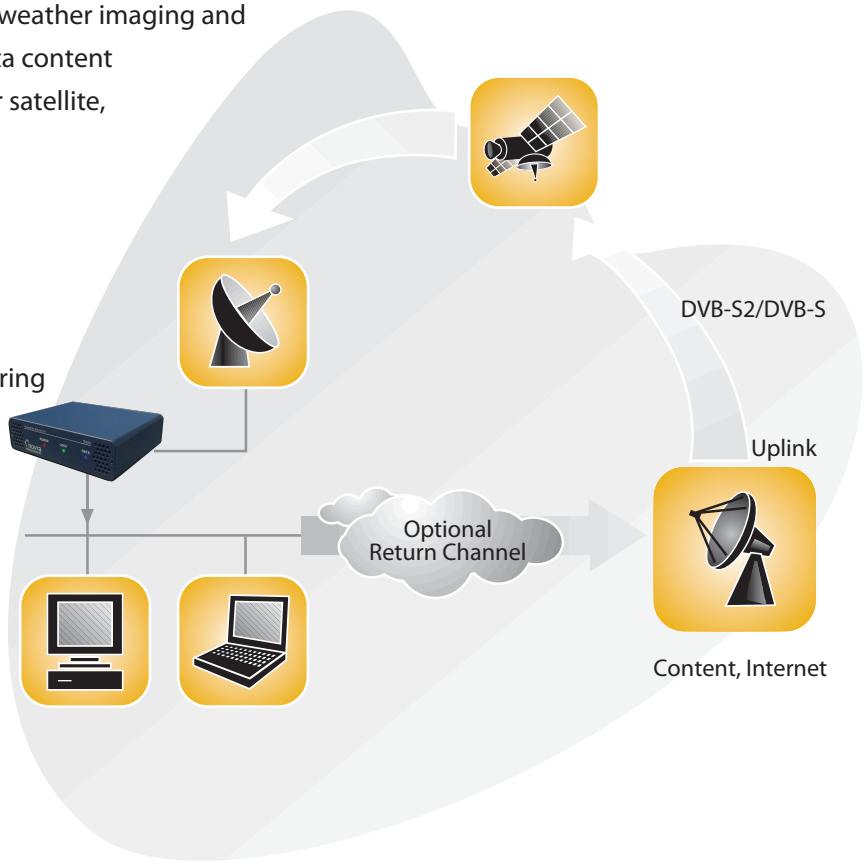
The S300N lets you choose your demodulation technique, supporting QPSK, 8PSK, 16APSK, and 32APSK over a variety of coding rates. Compatibility with the DVB-S2 standard enables you to take advantage of the significant efficiency gains when compared with DVB-S.

Installation of the S300 is easy and noninvasive, as the client does not need to be opened, nor are any drivers required. The S300 works with any OS and makes the received IP data available to any client on the LAN.

Applications

The S300N 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 NOAA weather imaging 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
  - 32APSK Operation
- 80 Mb/s Sustained Throughput
- Support for ACM operation
- Gold Code Sequence Selection
- Downloadable Firmware
- RJ45 10/100BaseT Ethernet Interface
- Application Transparent
- IGMP Filtering

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Technical Specifications: Novra S300N Receiver/Router

RF Tuners

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

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

Multi-Standard Decoding FEC (Forward Error Correction)
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: 0°C to 40°C
- Storage Temperature: -55°C to 85°C
- Operating Humidity: 10 to 90% Non-Condensing
- Altitude: up to 2000m (6500 feet)

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 Mb/s
- FCC/Industry Canada
- EN 55022 (Emission)/EN 55024 (Immunity)
- Safety EN 60950

Mounting Options
- 1 RU Mounting Plate for a single S300N
- 1RU Mounting Plate for up to three S300N'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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