Novra S300
Enhanced DVB-S2 Receiver/Router

Overview

Novra is pleased to introduce the S300 into our lineup of DVB-based IP data receiver/routers. Based on Novra's latest generation hardware platform, the enhanced performance of the S300 extends the S200 DVB-S2 capabilities as follows:

- Supports DVB-S2 VCM operation with Input Stream Identifier (ISI) filtering,
- Enables DVB-S2 operation to 16 APSK,
- Extends throughput to 80 Mbps, and
- Supports the full range of Gold Code Sequences

The S300 lets you choose your demodulation technique, supporting QPSK, 8PSK, and 16 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.

Installation of the S300 is easy and non-invasive, 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 S300 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.

Applications include: 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

   - 16 APSK Operation

   - VCM Operation with ISI filtering

○ 80 Mbps Sustained Throughput

○ Compatible with TCP/IP Protocol Suite

○ Support for Gold Code Sequences

○ Downloadable Firmware

○ RJ45 10/100BaseT Ethernet Interface

○ Application Transparent

○ Small Footprint

○ IGMP

DVB-S2/DVB-S

Uplink

Optional Return Channel

Content, Internet

For additional information or details on Novra's product offering, please contact us at:
North American Headquarters 900 - 330 St. Mary Avenue, Winnipeg, MB Canada R3C 3Z5
t. 204.989.4724   f. 204.989.4640 e. info@novra.com w. www.novra.com

Technical Specifications: Novra S300 Receiver/Router

RF Tuners

Receiving Frequency: 950 to 2150 MHz
- Frequency Acquisition: ± 50% Symbol Rate   up to ±10 MHz
- Input Signal Level: -70 dBm to -25 dBm

Multi-standard Demodulation
  - QPSK: 300 Ksps to 45 Msps (DVB-S)
  - QPSK: 600 Ksps to 45 Msps (DVB-S2)
  - 8PSK: 600 Ksps to 30 Msps (DVB-S2)
  - 16 APSK: 600 Ksps to 30 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-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 sequences

LNB Power and Control
  - LNB Supply Voltage: Selectable 11/15V, 13/18V, 21V or off
  - LNB Supply with selectable long line compensation
  - LNB Control: Selectable 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: Symbol Rate, Frequency, Polarization, Band, Power
  - Management Console Application Currently Available as both an Executable and a DLL for MS Windows

Status Monitoring

  - Signal Strength
  - Signal Lock, Data Lock
  - Error status: C/N Viterbi BER, 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: 32
  - Internal Hardware Watchdog
  - Non-Volatile Configuration Storage
  - Field upgradable operating system for new s/w releases and functional upgrades

Operating Systems
  - Once Configured, receiver supports all OS's

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)
  - 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

Other S300 Models
  - S300-Pro: DVB-S2/DVB-S IP/MPEG Data Receiver
  - S300CA: DVB-S2/DVB-2 IP/MPEG Data Receiver with CI Slot

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