

## Novra S400 DVB-S2 IP Receiver/Router

Novra's latest S400 DVB-S2 receiver is the follow-on to the successful S300 product family. It incorporates new functionality and additional interface ports to enable even more flexible, efficient and cost effective solutions.

Enhanced capabilities of the S400 family include increased throughput (up to 170 Mb/s), added GSE support for more efficient data and stream delivery, on-board storage useful for data applications, additional interfaces for dedicated secure receiver management and simplified integration with other peripherals and systems, and an architecture specifically designed to enable factory customization for specialized applications.



## Applications

The S400 is ideally suited for a range of applications that require a full-featured, flexible, easily integrated satellite receiver. Typical applications include: IPTV content aggregation (head end) and/or delivery, hotel or cruise ship infotainment, cable network head-ends, digital cinema, business television, distance education, digital signage and corporate LANs.

## Features

Enhanced features of S400 adds the following capabilities to the existing S300 performance and functionality baseline:

- DVB-S/DVB-S2 compliant
- Up to 170 Mb/s sustained throughput
- RJ45 100/1000BaseT Ethernet output interface
- Dual tuner or dual stream reception on a single F-jack
- Over-the-air configuration and firmware updates
- SNMP support for enterprise network management
- IPTV forwarding on multicast (SPTS/MPTS)
- Encryption options including BISS, an optional CA card slot and others
- USB interface for possible expanded storage, return channel options or wifi support
- MicroSD slot for expanded memory
- Optional 2 x 16 LCD display with configurable status reporting
- Secure Linux OS with flexible application integration options

# Technical Specifications: **Novra** S400 Receiver/Router

## Features

- DVB-S/DVB-S2 Compliant
- Dual tuners for multiple transport systems
- Full Transponder Program Listing
- Selectable SI Table PID pass-through
- Single Program PAT Re-generation
- Exceptional Flexibility
- Delivery of IP SPTS/MPTS or MPEG Services
- CI Slot for CAM and Smart Card

## 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

Receiving Frequency: 950 to 2150 MHz

- Frequency Acquisition:  $\pm 10$  MHz above 10 MBaud

- Input Signal Level: -70 dBm to -25 dBm

- Multi-standard Demodulation
- QPSK: 100 kBaud to 67.5 MBaud
- 8PSK: 100 kBaud to 63 MBaud
- 16APSK: 100 kBaud to 47 MBaud
- 32APSK: 100 kBaud to 38 MBaud
- Automatic Symbol Rate detection and lock
- Automatic Code Rate detection and lock
- Data Throughput: 170 Mb/s
- Nyquist Root Filter: 0.2, 0.25, 0.35 rolloff
- Multi-stream VCM
- ISI Filtering
- ACM Support

## Gold Code

- 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 +1 volt
- LNB Control: 22 kHz, 44 kHz, or off
- LNB Supply Current: 400 mA with Short Circuit and Surge Protection

## Configuration

- Web based configuration and management
- Over the air configuration and firmware update
- OTA and scheduled record content
- Management Console Application available as a Microsoft 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
- Frequency error
- DVB PID counters

## Status Indicators

- Power: Red LED
- Lock/Data: Green LED
- Ethernet Link (green) and Transmit (yellow)

## Hardware Capabilities

- Encapsulation MPE, ULE, GSE
- PID Filters
- Simultaneous MPEG Programs: 64
- 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 10/1000 Base-T LAN Interface: RJ-45
- CI Slot: PCMCIA (physical)
- USB 2.0, 500mA
- MicroSD slot

## Physical/Environmental

- Height: 1.41 in (3.58 cm)
- Width: 5.22 in (13.26 cm)
- Depth: 4.95 in (12.56 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

## Standards/Regulatory

- UDP/IP Protocol
- IP Multicast + Unicast
- IGMP: V1.0, V2.0
- SNMP 2c
- ETSI 302307 PUB-S2
- ISO/IEC 13818-1
- ISO/IEC 13818-6
- IEEE 802.3 10/100 Mb/s
- FCC/Industry Canada /CE
- EN 55022 (Emission)/EN 55024 (Immunity)
- Safety EN 60950

## Mounting Options

- 1RU Mounting Plate for a single receivers
- 1RU Mounting Plate for up to three receivers

## Redundancy Solutions for High Availability

- 1 RU enclosure for multiple receivers
- Redundant or Backup Power Supplies
- See MSR300CA Brochure for Configuration options

## Optional Features

- Second 10/1000 Base-T LAN
- Second USB 2.0, 500mA
- RS232 interface
- BISS mode 1 decryption
- CI slot for CAM or smartcard
- 2 x 16 character LCD display

