

APPLICATIONS

- Weather distribution
- 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

FEATURES

- DVB-S/DVB-S2 compliant
- DVB-S2X roll-off compatible
- Up to 100 Mb/s sustained throughput
- Two RJ45 Ethernet interfaces
- One or Two tuner/demod configurations
- Over-the-air configuration and software updates
- SNMP support for enterprise network management
- IPTV forwarding on multicast (SPTS/MPTS)
- 64 services of 8 PIDs
- RESTful browser GUI for configuration and status
- Decryption options including BISS, and optional Single Common Interface (CI) slot
- USB interface for expanded storage, return channel options or wifi support
- MicroSD slot for expanded memory
- 2 x 16 LCD display with selectable status reporting
- Secure Linux OS with flexible application integration options



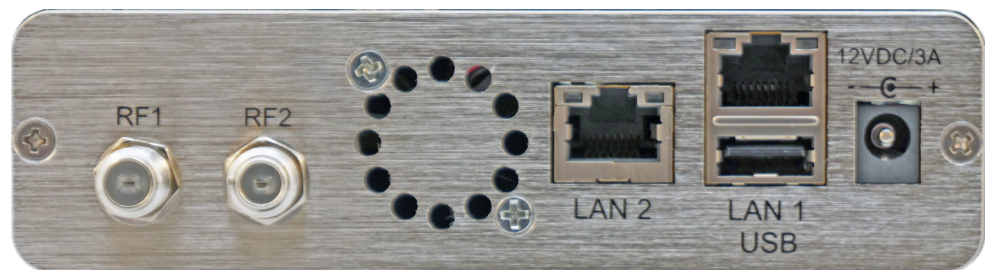
Small form factor with rackmount options

S400 PRO

DVB-S/S2 compliant and DVB-S2X roll-off compatible IP Receiver/Router

Novra's latest **S400 PRO** DVB-S/S2 compliant and DVB-S2X roll-off compatible satellite data receiver. It incorporates new functionality, additional interfaces and 2 transponder capability plus an LCD front panel display.

Enhanced capabilities of the **S400 PRO** family include increased throughput (up to 100 Mb/s), added MPE, ULE, and GSE support for 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. The **S400 PRO** is ideally suited for a range of applications that require a full-featured, flexible, easily integrated satellite receiver.



AVAILABLE MODELS

S400 PRO as shown

S400 PRO with single Common Interface Slot

Compatible with

- GOES Rebroadcast (GRB), CADU, and Baseband Frames
- EUMETSAT
- AWIPS
- NOAAPort
- GK-2A (Korea)
- HimawariCast

TECHNICAL

Features

- DVB-S/S2 compliant and DVB-S2X roll-off compatible IP Receiver/Router
- Single tuner/demod with option for 2nd tuner/demod
- Full Transponder Program Listing
- Selectable SI Table PID pass-through
- Single Program PAT Re-generation
- VCM
- Multi-transport stream support with ISI filtering support
- Delivery of IP SPTS/MPTS or MPEG Services
- CI Slot for CAM and Smart Card option

Satellite L-Band Input

- Receiving Frequency: 950 to 2150 MHz
- Frequency Acquisition: ± 10 MHz above 10 MBaud
- Input Signal Level: -65 dBm to -25 dBm
- Automatic Symbol Rate detection and lock
- Automatic Code Rate detection and lock
- Data Throughput: 100 Mb/s
- Nyquist Root Filter: 5%, 10%, 15%, 20%, 25%, 35% roll-off
- Multi-stream VCM
- Gold Code: 0 to 262143

DVB-S

- Viterbi 1/2, 2/3, 3/4, 5/6, 7/8 puncture rates
- Reed Solomon 16 bit decoder

DVB-S2/S2X

- QPSK 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
- 8PSK 3/5, 2/3, 3/4, 5/6, 8/9, 9/10
- 16APSK 2/3, 3/4, 4/5, 5/6, 8/9, 9/10
- 32APSK 3/4, 4/5, 5/6, 8/9, 9/10
- Normal and short frames
- BCH (Bose-Chaudhuri-Hocquenghem) decoder

LNB Power and Control

- LNB Supply Voltage: 13/18V or off
- LNB Supply with long line compensation +1 volt
- LNB Control: 22 kHz or off

Configuration

- Web based configuration and management
- Over the air configuration and software update

Status Monitoring

- Signal Strength
- Signal Lock, Data Lock
- Error status: C/N, Uncorrectable packets
- Frequency error
- DVB PID counters

Status Indicators

- LCD with multiple status pages
- Power: Green 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 or OTA upgradable operating system for software and functional upgrades

Physical Interfaces

- Two L-Band Input Connectors: F-Type, 75 ohms
- One Ethernet GbE RJ-45 LAN interface for data output
- One Ethernet 100Base-T interface for monitor and control
- Micro SD slot

Mounting Options

- 1RU Mounting Plate for up to three receivers
- 4RU Mounting system for mounting up to 10 S400s to receive up to 20 transponders. See MSR400 brochure

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

Standards/Regulatory

- UDP/IP Protocol
- IP Multicast + Unicast
- IGMP: v1.0, v2.0
- SNMP v2c
- 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 (Emissions)
- EN 55024 (Immunity)
- EN 60960 (Safety)

Redundancy Solutions for High Availability

- See MSR400 brochure for configuration options of two to ten receivers with redundant or backup power supplies

Optional Features

- RS422 interface
- BISS mode 1 decryption
- CI slot for CAM

SYMBOL RATE SPECIFICATIONS				
	Modulation	RF Inputs	Min. (kBaud)	Max. (MBaud)
DVB-S	QPSK	1	100	45
		2	100	45
DVB-S2/S2X	QPSK	1	100	67.5
		2	100	47
	8PSK	1	100	63
		2	100	31.5
	16APSK	1	100	47
		2	100	N/A
	32APSK	1	100	38
		2	100	N/A