

## 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

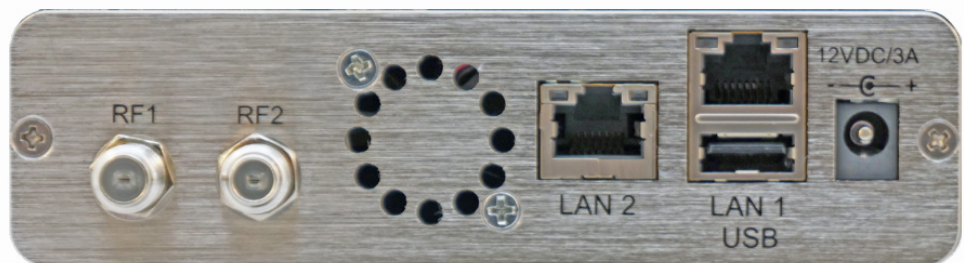
- DVB-S/S2/S2X compliant
- IPv4 & IPv6 network support
- Up to 100 Mb/s sustained throughput
- Two RJ45 Ethernet interfaces
- One or Two tuner/demod configurations
- Over-the-air configuration and software updates
- SNMP support for enterprise network management
- IPTV forwarding on multicast (SPTS/MPTS)
- 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
- TRANSEC option available upon request
- DVB-TS to IP forwarding and filtering

## S401 PRO

DVB-S/S2/S2X compliant IP Receiver/Router

The **S401 PRO** DVB-S/S2/S2X compliant satellite data receiver. It incorporates new functionality, additional interfaces and 2 transponder capability plus an LCD front panel display.

Enhanced capabilities of the **S401 PRO** family include increased throughput (up to 200 Mb/s), added MPE and ULE de-encapsulation 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 **S401 PRO** is ideally suited for a range of applications that require a full-featured, flexible, easily integrated satellite receiver.



### AVAILABLE MODELS

**S401 PRO** as shown

Compatible with

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

## TECHNICAL

### Features

- DVB-S/S2/S2X compliant 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 option

### Satellite L-Band Input

- Receiving Frequency: 950 to 2150 MHz
- Frequency Acquisition:  $\pm 10$  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

- 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

### DVB-S2X

- all MODCODs per ETSI TR 102 376-2

### 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

### 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 MSR401 brochure for configuration options of two to ten receivers with redundant or backup power supplies

### Optional Features

- RS422 interface
- BISS and BISS 2
- CI slot for CAM

#### SYMBOL RATE SPECIFICATIONS

S401	Modulation	Demodulators	Min. (kBaud)	Max. (MBaud)
DVB-S	QPSK	1	100	675
		2	100	675
DVB-S2 DVB-S2X  Note: sample MODCODs for DVB-S2X "narrowband" mode. "wideband" mode, with higher symbol rates, available upon request.	QPSK	1	100	64
		2	100	64
	8PSK	1	100	64
		2	100	64
	16APSK	1	100	64
		2	100	64
	32APSK	1	100	51
		2	100	51
	64APSK	1	100	43
		2	100	43