# PRO RX S2

## Professional Satellite Receiver



PRO RX S2



PRO RX S2 In 1+1 configuration

## Description

The The PRO RX S2 is a DVB-S/S2 receiver with up to three ASI outputs designed for the primary distribution of mobile and/or terrestrial television over satellite. Operating in compliance with the DVB-S2 standard, the PRO RX S2 is capable of demodulating multiple MPEG transport stream in multi-stream mode: once received the input multi-stream, the transport streams are separated again based on their DVB-S2 Input Stream Identifier (ISI), then the desired services are descrambled by a CAM (Smart Card – common interface) modules with commonly adopted CAS in the market. With ASI and IP interfaces for input and output, PRO_RX_SAT 2 can be integrated into any head end systems for content delivery and re-distribution. (Professional Satellite Receiver, DVB S2 Professional Receiver).

## Main Features

### RF Input
Connector used as input to the systems
- N° input: 1 for each receiver board
- Connector type: LNB (female)
- R input: 75 Ω
- V input: 1.75 V
- Frequency: 950 to 2150 MHz
- DVB-S (ETSI EN 300 421)
- DVB-S2 (ETSI EN 302 307)

### 1 x Common Interface (for each receiver)
Connector used as input CAM
- Connector type: PCMCIA
- DVB-CI EN 50221-1997

### 1 x FastEthernet (Management)
- Connector: RJ45
- Standard supported: IEEE 802.3

### 3 x ASI Output (same content) / 6 x ASI Output (1+1 or 2+0 configuration)
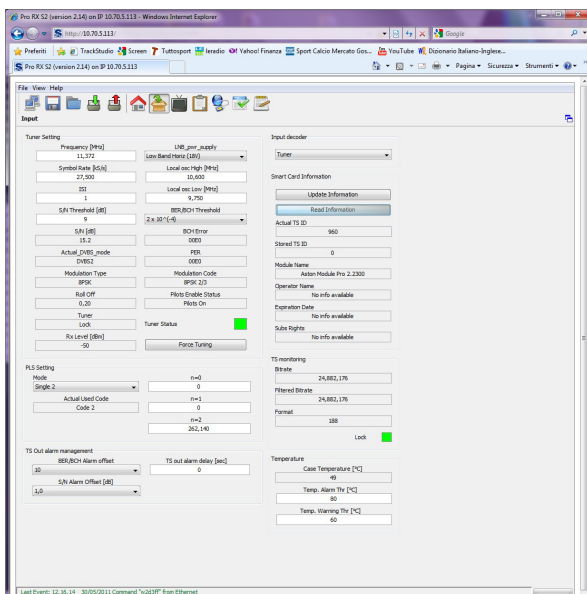- TS Descrambled (TSD)
- Connector type: BNC
- Input: 75 ohm, 800 mVpp (500 to 1200mVpp)
- MPEG-2 TS ISO/IEC 13818-1
- CEI EN 50083-9,

### Management of the devices is made through:
- Java GUI on Ethernet connection.
- SNMP agent.

### Power Supply
- Dual Power Supply (only in 1+1 or 2+0 confinguration)
- 110/220V AC Auto Switching
- 48V DC (Option on Request)



JAVA INTERFACE

## SATELLITE RECEIVER DESCRIPTION

**Tuner**

| Frequency range | 950 to 2150 MHz |
|---|---|
| Supported Standard | DVB-S EN 300 421 v1.1.2: Digital Video Broadcasting (DVB); Framing structure, channelcoding and modulation for 11/12 GHz satellite services |
| | DVB-S2 EN 302 307 v1.1.2: Digital Video Broadcasting (DVB); Second generation framingstructure, channel coding and modulation systems for |
| | Broadcasting, Interactive Services, News Gathering and other broadband |
| | Satellite applications |

**Input Sat RF**

| | |
|---|---|
| | Frequency |
| | Symbol Rate |
| | ISI |
| | S/N Threshold |
| Tuning Setting | LNB_pwr_supply |
| | |
| | Local osc Low |
| | BER/BCH Threshold |
| | Force Tuning |
| | Actual_DVBS_mode |
| | Modulation Code |
| | Modulation Type |
| | |
| Monitoring | Pilots Enable Status |
| | Rx Level [dBm] |
| | S/N [dB] |
| | |
| | Tuner Lock Flag |
| | Error Values |

**DVB-S Demodulator Features**

| | |
|---|---|
| | QPSK |
| | FEC: 1/2, 2/3, 3/4, 5/6, 7/8 |
| Setting Demodulator | |
| | Broadcast operating range 45 MSymbols/s |
| | CCM |
| | Modulation type |
| | Filter roll-off |
| | Pilot presence (on/off) |
| Automatic configurations monitoring | Long frames only |
| | Forward error correction |
| | Viterbi and Reed-Solomon dual decoder |
| | Error monitoring |

**Demodulator Features DVB- S2**

| | |
|---|---|
| | FEC QPSK: 1/4, 1/3, 2/5, 1/2, 3/5, 2/3,3/4, 4/5, 5/6, 8/9, 9/10 |
| | B. FEC 8PSK: 3/5, 2/3, 3/4, 5/6, 8/9,9/10 |
| | FEC 16APSK: 2/3, 3/4, 4/5, 5/6, 8/9,9/10 |
| Setting Demodulator | FEC 32APSK: 3/4, 4/5, 5/6, 8/9, 9/10 |
| | FECFRAME: both normal and short |
| | Broadcast operating range from 1 to 67 MSymb/s |
| | CCM, VCM and ACM |
| | Modulation type |
| | Filter roll-off |
| | Pilot presence (on/off) |
| Automatic configurations monitoring | Long frames only |
| | Forward error correction |
| | LDPC + BCH dual decoder |
| | Error monitoring |

**Physical layer scrambling**

| | |
|---|---|
| | Mode |
| Adjustable parameters | First Physical Layer Scrambling sequence |
| | Second Physical Layer Scrambling sequence |
| | Third Physical Layer Scrambling sequence |
| Monitoring | Actual Used Code |
| | DVB |
| | TSD (TS Descrambled) output interface |
| DVB descrambler | Descrambler - max 12 Services |
| | Encryption systems supported: all mayors CA suppliers |
| | CAM supported: all mayors CA suppliers |
| | Smart Card Information |
| | Read Information |
| | Actual TS ID |
| | Stored TS ID |
| Cam Reader | Module Name |
| | Operator Name |
| | Expiration Date |
| | Subs Rights |
| | Scrambled and not scrambled services |
| | Information |
| | Service Name |
| Services Informations | Service ID |
| | Video PID |
| | Audio PID |
| | PCR PID |
| | TTX PID |
| | Output TS Monitoring |
| | Bitrate |
| | Filtered Bitrate |
| TS Out | Format |
| | Lock |
| | BB Frame and T2 MI out supported |

## ALARM MANAGMENT

| Tuner unlocked | |
|---|---|
| CAM presence | |
| Smart Card presence | |
| Rights Absence | |
| TS Id changed | |
| Decrypt error | |
| Hardware | |
| Temperature High | |
| Temperature Warning | |
| S/N Alarm | |
| BER/PER Alarm | |
| PS1 Voltage low | |
| PS2 Voltage low | |
| 32 bit alarms available | |
| | Alarm notification |
| | Alarm notification via Java GUI |
| | LED alarm on the front panel |
| Alarm Matrix Managment | Enable logging event alarm |
| | SNMP trap |
| | Disable Mask TS out for alarm |
| Event Log | SNMP v1 |