

Professional Satellite Receiver

Description



PRO RX S2



PRO RX S2 In 1+1 configuration

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)

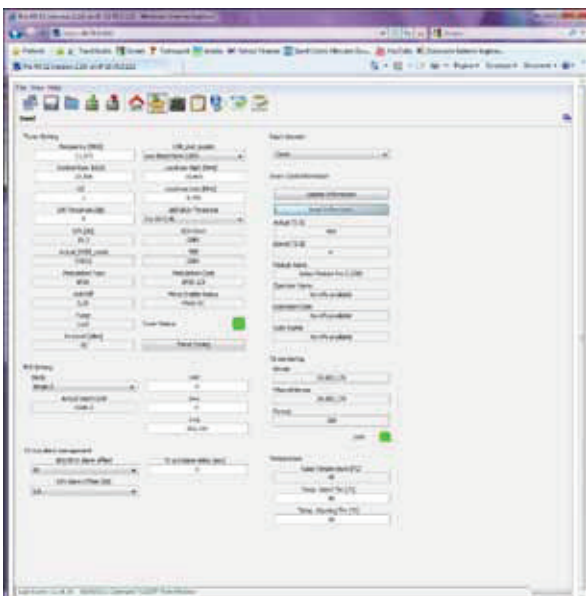
- TS Descrambled (TSD)
- Connector type: BNC
- Input: 75 ohm, 800 mVpp (500 to 1200mVpp)
- MPEG-2 TS ISO/IEC 13818-1
- CEI EN 50083-9,

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 configuration)
- 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, channel coding and modulation for 11/12 GHz satellite services DVB-S2 EN 302 307 v1.1.2: Digital Video Broadcasting (DVB); Second generation framing structure, channel coding and modulation systems for Broadcasting, Interactive Services, News Gathering and other broadband Satellite applications
Input Sat RF	
Tuning Setting	Frequency
	Symbol Rate
	ISI
	S/N Threshold
	LNb_pwr_supply
	Local osc Low
	BER/BCH Threshold
Monitoring	Force Tuning
	Actual_DVBS_mode
	Modulation Code
	Modulation Type
	Pilots Enable Status
	Rx Level [dBm]
	S/N [dB]
	Tuner Lock Flag
	Error Values
DVB-S Demodulator Features	
Setting Demodulator	QPSK
	FEC: 1/2, 2/3, 3/4, 5/6, 7/8
	Broadcast operating range 45 MSymbols/s
Automatic configurations monitoring	CCM
	Modulation type
	Filter roll-off
	Pilot presence (on/off)
	Long frames only
	Forward error correction
	Viterbi and Reed-Solomon dual decoder
Error monitoring	
Demodulator Features DVB-S2	
Setting Demodulator	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
	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
Automatic configurations monitoring	Modulation type
	Filter roll-off
	Pilot presence (on/off)
	Long frames only
	Forward error correction
	LDPC + BCH dual decoder
	Error monitoring

Physical layer scrambling	
Adjustable parameters	Mode
	First Physical Layer Scrambling sequence
	Second Physical Layer Scrambling sequence
	Third Physical Layer Scrambling sequence
Monitoring	Actual Used Code
DVB descrambler	DVB
	TS0 (TS Descrambled) output interface
	Descrambler - max 12 Services
	Encryption systems supported: all mayors CA suppliers
	CAM supported: all mayors CA suppliers
Cam Reader	Smart Card Information
	Read Information
	Actual TS ID
	Stored TS ID
	Module Name
	Operator Name
	Expiration Date
Services Informations	Subs Rights
	Scrambled and not scrambled services
	Information
	Service Name
	Service ID
	Video PID
	Audio PID
PCR PID	
	TTX PID
TS Out	Output TS Monitoring
	Bitrate
	Filtered Bitrate
	Format
	Lock
	BB Frame and T2 MI out supported

ALARM MANAGEMENT

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 Matrix Management	Alarm notification
	Alarm notification via Java GUI
	LED alarm on the front panel
	Enable logging event alarm
	SNMP trap
	Disable Mask TS out for alarm
Event Log	SNMP v1

Professional Satellite Receiver



PRO RX S2 with Decoder

Description

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).

Audio and Video services are decoded and available on several interface.

Main Features

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- 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
- BISS descrambling – up to full TS
- CA Methods : MultiCrypt, SimulCrypt

1 x FastEthernet (Management)

- Connector: RJ45
- Standard supported: IEEE 802.3

3 x ASI Output (same content)

- 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 configuration)
- 110/220V AC Auto Switching
- 48V DC (Option on Request)

Audio/Video decoder section description:

Video standard supported:

- H.264/AVC: Level 4.1 high profile video decoder
- MPEG-2: MP@HL

HD video resolution supported:

- 1920x1080i30
- 1920x1080i25
- 1280x720p60
- 1280x720p50

SD video resolution supported:

- 720x576i25 compliant PAL-BG
- 720x576i29 compliant PAL-M
- 720x480i compliant NTSC

Audio standard supported:

- MPEG-2, layer I
- MPEG-2, layer II

Decoder Output:

1 x SDI-SD Output

- Connector: BNC
- Input: 75 Ohm, 800mVpp (500 to 1200 mVpp)
- Standard: SMPTE 259M,292M

1 x RGB-SD (R,G,B) Outputs

- Connector: RCA

1 x CVBS-SD Output

- Composite Video Blanking Sync
- Connector: RCA

1x HDMI-HD/SD Output

- Connectors: HDMI Type A

1 x YUV-HD (Y,U,V) Outputs

- Connector: XLR

1 x YPbPr (Y, U, V) (HD)

- Connector: RCA

1 x Audio out (Left e Right)

- Connector: mini XLR



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Force Tuning	
Monitoring	Actual_DVBS_mode
	Modulation Code
	Modulation Type
	Pilots Enable Status
	Rx Level [dBm]
	S/N [dB]
	Tuner Lock Flag
	Error Values
DVB-S Demodulator Features	
Setting Demodulator	QPSK
	FEC: 1/2, 2/3, 3/4, 5/6, 7/8
	Broadcast operating range 45 MSymbols/s
Automatic configurations monitoring	CCM
	Modulation type
	Filter roll-off
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	Long frames only
	Forward error correction
Viterbi and Reed-Solomon dual decoder	
Error monitoring	
Demodulator Features DVB- S2	
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	FECFRAME: both normal and short
	Broadcast operating range from 1 to 67 MSymb/s
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Automatic configurations monitoring	Modulation type
	Filter roll-off
	Pilot presence (on/off)
	Long frames only
	Forward error correction
	LDPC + BCH dual decoder
Error monitoring	

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Monitoring	Third Physical Layer Scrambling sequence
	Actual Used Code
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	Descrambler - max 12 Services
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Cam Reader	CAM supported: all mayors CA suppliers
	Smart Card Information
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	Actual TS ID
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Services Informations	Subs Rights
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	Information
	Service Name
	Service ID
	Video PID
	Audio PID
	PCR PID
TSX PID	
TS Out	Output TS Monitoring
	Bitrate
	Filtered Bitrate
	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 Matrix Management	Alarm notification
	Alarm notification via Java GUI
	LED alarm on the front panel
	Enable logging event alarm
	SNMP trap
Event Log	Disable Mask TS out for alarm
	SNMP v1



HARDWARE CONNECTORS

RF input to the device	
N° input	1
Connector type	LNB (female)
R input	75 Ω
V input	16 dBuV to 115 dBuV
Frequency	42 to 866 MHz
Smart-card input	
N° input	1
Connector type	PCMCIA
N° connectors	1
Connector	RJ45
Standard supported	IEEE 802.3
TS output from the system	
N° Output	1
Connector type	MCX
R input	75 Ω
V input	800 mVpp (500 to 1200mVpp)
Standard	CEI EN 50083-9

DECODER FEATURES

SD-SDI-OUT	Connector Used as output to the systems
	N° Outputs: 1
	Connector: BNC
	R Input: 75 Ohm
	V Input: 800 mVpp (500 to 1200 mVpp)
RGB -SD-OUT	Standard: SMPTE 259M,292M
	Connector Used as output to the systems
	N° Outputs: 3 (R, G, B)
	Connector: RCA
	R Input
CVBS -SD-OUT	V Input
	Standard
	Connector Used as output to the systems
	N° Outputs: 1
	Composite Video Blanking Sync
HDMI (HD/SD) OUT	Connector: RCA
	R Input
	V Input
	Standard
	Connector Used as output to the systems
YUV (HD)	N° Outputs: 1
	Connectors: HDMI Type A
	Connector Used as output to the systems
	N° Inputs: 3 (Y, U, V)
	Connector: RCA
Audio (Out)	R Input: -
	V Input: -
	Standard: -
	Audio connector
	Connettori audio
Audio (Out)	N° Outputs: 2 (Usati per Left e Right)
	Connector: 2 pin su scheda
	R Input:V Input
	Standard

Power Supply

Dual Power Supply (only in 1+1 or 2+0 configuration)

110/220V AC Autoswitching

48V DC

