PRO RX S2 with Decoder

Professional Satellite Receiver

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Description

The The PRO RX S2 is a DVB-S/S2 receiver with up to three ASI outputs desi-gned 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 separa-ted 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 in-put 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.

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

Options:
• DolbyÆ Digital (AC-3) stereo down-mix
• Dolby Digital 5.1 passthrough
• Dolby Digital Plus (E-AC-3)
• Dolby E passthrough
• AAC

Close Caption supported

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

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
• 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 confinguration)
• 110/220V AC Auto Switching
• 48V DC (Option on Request)

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	
Tuning Setting	Frequency
	Symbol Rate
	ISI
	S/N Threshold
	LNB_pwr_supply
	Local osc Low
	BER/BCH Threshold
	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
	CCM
Automatic configurations monitoring	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
	TSD (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
	Subs Rights
Services Informations	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 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 Managment	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