

TSD-0572

Multi Format Integrated Receiver and Decoder System



2019 Datasheet

SAMIM TSD-0572 is a complete professional receiver and decoder system. This system is designed to decode MPEG-2, MPEG-4/H.264 compressed video to either HD or SD, and 2 different compressed audio services. It finds a wide range of applications in monitoring, production and distribution environments. The TSD-0572 system can be fed with DVB-ASI, DVB-S/S2 satellite and DVB-T/T2 terrestrial broadcast signals (optional) to provide either HD-SDI or SD-SDI video with embedded audio as well as AES audio, composite video and analog audio. Decoding transport stream for IP input is another feature of this card. It provides frame synchronization and up/down/cross conversion. The TSD-0572 is able to redirect transport streams received on either RF or DVB-ASI input to its ASI output. The TSD-0572 supports BISS-1/BISS-E descrambling of multiple encrypted services. It provides DiSEqC switch control in both committed and uncommitted mode and can switch between at most 64 different LNBs. The TSD-0572 can be used in conjunction with systems such as RMX-0510, STC-0530 and STC-0535 to provide a complete set of tools for signal monitoring to broadcasters. This receiver can be controlled and monitored over IP networks using SNMP or monitoring software.

Key Features

- Receiving DVB-ASI, DVB-S/S2, DVB-T/T2 and IP (Ethernet) input streams
- Decoding of MPEG-4/H.264 (optional) and MPEG-2 formats (HD or SD, 4.2.0)
- Controlling different DiSEqC switches with switch cascading support
- Frame synchronization and Up/Down/Cross Conversion
- Audio decoding (MPEG-1, MPEG-2, AAC, HEAAC, ...)
- Dual decoding of two different audio services simultaneously
- BISS-1 and BISS-E decryption support
- 2 Digital HD/SD-SDI video outputs with embedded audio
- 2 composite Video CVBS outputs
- AES Digital audio and Analog balanced audio outputs
- ASI output from RF or ASI inputs
- Controlling all of parameters using front panel
- SNMP based control and monitoring
- Control and monitoring using monitoring software
- Fast service switching and start-up

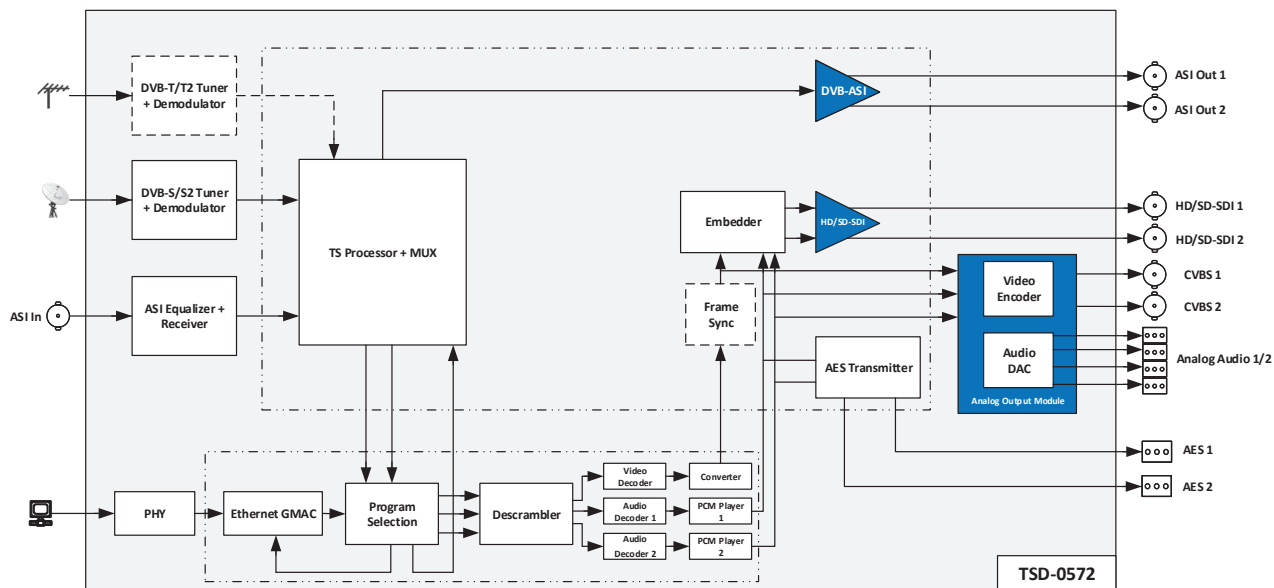
Applications

- Usable at TV transmitters in order to receive signals (relays) and as signaling for analog, FM and DVB-T/T2 transmitters
- Usable at IP-based networks for monitoring and signaling gateways to convert IP to HD/SD-SDI
- DVB-T/T2 input module for MVP-0570 multiviewer
- Terrestrial and satellite signaling centers

Back Panel



Block Diagram



Specifications

Input RF Signal		Digital Video Output	
Signal type	DVB-S/S2 or DVB-T/T2	Signal type	HD/SD-SDI
Standards	DVB-S: EN 300 421, DVB-S2: EN 302 307, DVB-T: EN 300 744, DVB-T2: EN 302 755		HD-SDI: SMPTE 292M, SMPTE 299M SD-SDI: SMPTE 259M, SMPTE 272M
Modulation type	DVB-S/S2 (QPSK, 8PSK, 16APSK, 32APSK); DVB-T (QPSK, 16-QAM, 64-QAM); DVB-T2 (QPSK, 16-QAM, 64-QAM, 256-QAM)	Number of outputs	2
		Connector	BNC
		Impedance	75Ω
		Voltage level	800 mV ± 10%
Input level	DVB-S/S2 (-25 dBm to -65 dBm)	Jitter	<0.2 UI (SD, HD)
Connector	DVB-S/S2 (1x F-Type 75Ω + One loop output); DVB-T/T2 (1x IEC-Type 75Ω + One loop output)	Rise and fall time	0.4 to 1.5 ns (SD) <270 ps (HD)
		Overshoot	<10% Amplitude
		DC offset	0 V ± 0.5 V
Frequency range	DVB-S/S2 (950-2150 MHz); DVB-T/T2 (174-862 MHz)	IP Input (optional)	
Analog Audio Output		Standard	IEEE Std 802.3-2002, 10/100 Base-T
Signal type	Balanced Analog Audio	Number of inputs	1
Number of outputs	2 , (4 option)	Connector	RJ-45
Connector	3 pin	ASI Input/output	
Impedance	<50Ω	Signal type	DVB-ASI
Frequency Response	± 0.2 dB (20 Hz to 20 kHz) at 48 kHz Sample Rate	Standard	ISO-13818-1/2/3
Cross-talk	<-90 dB (20 Hz to 20 kHz)	Number of inputs/outputs	1 in+ 2 out
Distortion	<0.004% (20 Hz to 20 kHz)	Connector	BNC
Minimum noise level	<-90 dB	Impedance	75Ω
THD+N	<-96 dB	Voltage level	800 mV ± 10%
DC offset	<±30 mV	Rise and fall time	1.2 ns
Sampling frequency	48 ,96 kHz	Data rate	0–100 Mb/s
Analog Video Output		Packet size	188 or 204
Standards	CVBS (PAL/NTSC)	Performance	
Number of outputs	1 + 1	Video decoding	MPEG-4 SD & HD 4:2:0 MPEG-2 SD & HD 4:2:0
Connector	BNC	Aspect ratio	16:9 ,4:3
Digital Audio Output		Video formats	1080i at 25 Hz, 29.97 Hz, 30 Hz 720p at 50 Hz, 59.94 Hz, 60 Hz 480p at 59.94 Hz 480i at 29.95 Hz 576i at 25 Hz
Signal type	AES3	Audio decoding	MPEG-1 layer I/II MPEG-2 Layer II, AAC & HEAAC
Number of outputs	1 + (2 option)	Control and Monitoring	
Connector	3 pin	All settings associated to the card, with control card of RCT-0622 and windows software monitoring with web browser clients and the CMS-620 and also via SNMP protocol can be done	
Impedance	110Ω		
Sampling frequency	48 kHz		
Jitter	<10 ns		
Voltage level	2-7 V		

Electrical		Environmental	
Voltage	90-220V AC	Temperature	5 °C to 40 °C
Power	<30W	Humidity	0% to 90%
Mechanical			
Dimensions	470 mm × 330 mm (19" ,1RU standard frame)		
Weight	3.3 kg		

Ordering Information

Product	Description
TSD-0572	ASI Broadcast Quality Decoder Module (SD-SDI with Embedded Audio and Digital Audio Outputs) (1RU)
TUS	Tuner DVB-S/S2 QPSK/8PSK "Option for TSD-0572"
TUSOM	Tuner DVB-S/S2 16APSK/32APSK "Option for TSD-0572"
TUT	Tuner DVBT/T2 "Option for TSD-0572"
ASIO	DVB ASI Output "Option for TSD-0572"
BISS	BISS-1, BISS-E injected, BISS-E buried Decoding "Option for TSD-0572"
MP4	SD 4:2:0 H.264, HD 4:2:0 H.264 "Option for TSD-0572"
HD	HD/SD-SDI with Embedded Audio Output "Option for TSD-0572"
AV	Analog Video (Composite) and Audio Outputs "Option for TSD-0572"
DA	Dual Audio Decoding "Option for TSD-0572"
AAC/AAC+	AAC/AAC+ audio decoding "Option for TSD-0572"
UDCC	Video Up/Down/Cross Conversion "Option for TSD-0572"
IP	IP Input Service Decoding LAN 100/10 Adaptor "Option for TSD-0572"

With the mighty R&D approach in the market, we are an innovation company, perpetually breaking ground with game changing technology advancements. Consequently, we enable our customers to create and broadcast higher quality media, with less complexity and cost.

Our products provide high flexibility over conventional broadcast channels and Video-on-Demand to TV stations and smart devices. Our cutting-edge IP solutions are based on open standards to help enhance broadcasting companies' trade nimbleness and their capability to broadcast mighty stories with astonishing pictures. Either HD or 4K, HDR, SDI or IP, SAMIM group provides solutions that make our customers more successful with the great flexibility to create, manage and connect the media reliably.

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