

Description

The STRX-JXS-2022 board is a four port video receiver card offering JPEG-XS video decompression and SMPTE 2022 compatibility

Applications

- Carrier Class Media Networks
- Flawless Contribution Video-Transport
- High Performance Studio Interconnects
- Reliable Content Delivery Systems
- Integrated Live, Recorded and File-Based Communications

Features & Benefits

- Outputs 1-4 multi-format received signals
- External interface to 3G/HD/SD/DVB-ASI user circuits
- Optical or Electrical Video Interfaces
- SMPTE 2022 1/2 & 5/6
- ETSI TR 101-290 Performance Monitoring
- Passes up to 16 uncompressed audio channels along with Ancillary data and HDR/WCG information
- Hitless Switching: SMPTE 2022-7
- Interoperable with other SMPTE 2022 capable products
- Reduced WAN network bandwidth consumption using JPEG-XS
- Very Low JPEG-XS Decompression/Decoding Latency

Technical overview

- Made for the MD8000 and MD8000-100G media networking platforms
- JPEG-XS Decompression per ISO/IEC 21122 or Uncompressed processing on 3G-SDI and HD-SDI video signals
- 4:2:2 10-bit video processing

Compatible with

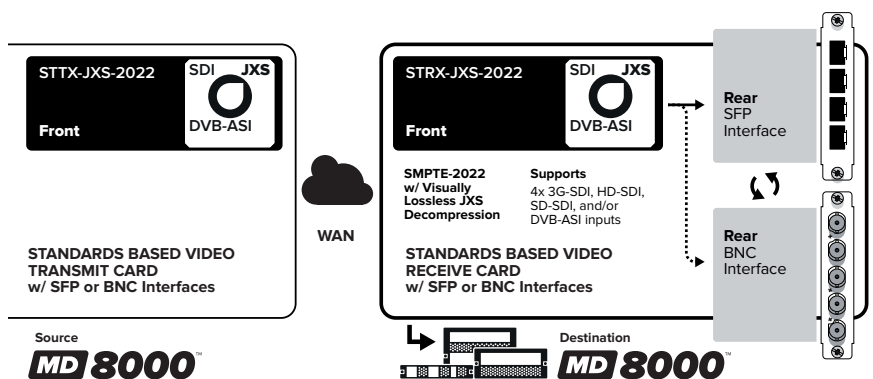
MD8000SX, MD8000, MD8000 EX and MD8000-100G Platforms

DATASHEET

STRX-JXS-2022

4 Port 3G/HD/SD-SDI & DVB-ASI Video Receive Module with JPEG-XS Decompression

A versatile and widely deployed MD8000 line module, the STRX-JXS-2022 is a 'standards-based' four port video receiver card offering uncompressed and/or JPEG-XS decompression video processing along with SMPTE 2022 compatibility. The SMPTE 2022 specification describes a standardized method of encapsulating/de-encapsulating video signals for transmission across IP transport networks. Pairing this module with a compression card like the STTX-JXS-2022 results in contribution quality video with significantly reduced bandwidth and very low processing latency for applications such as interactive remote production, saving transport costs and allowing more channels to be sent across the network.

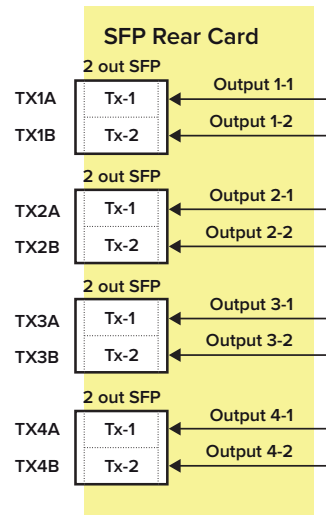
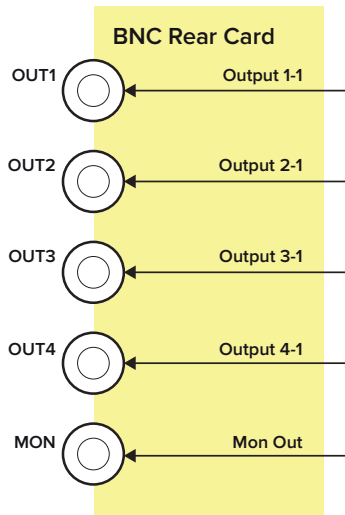
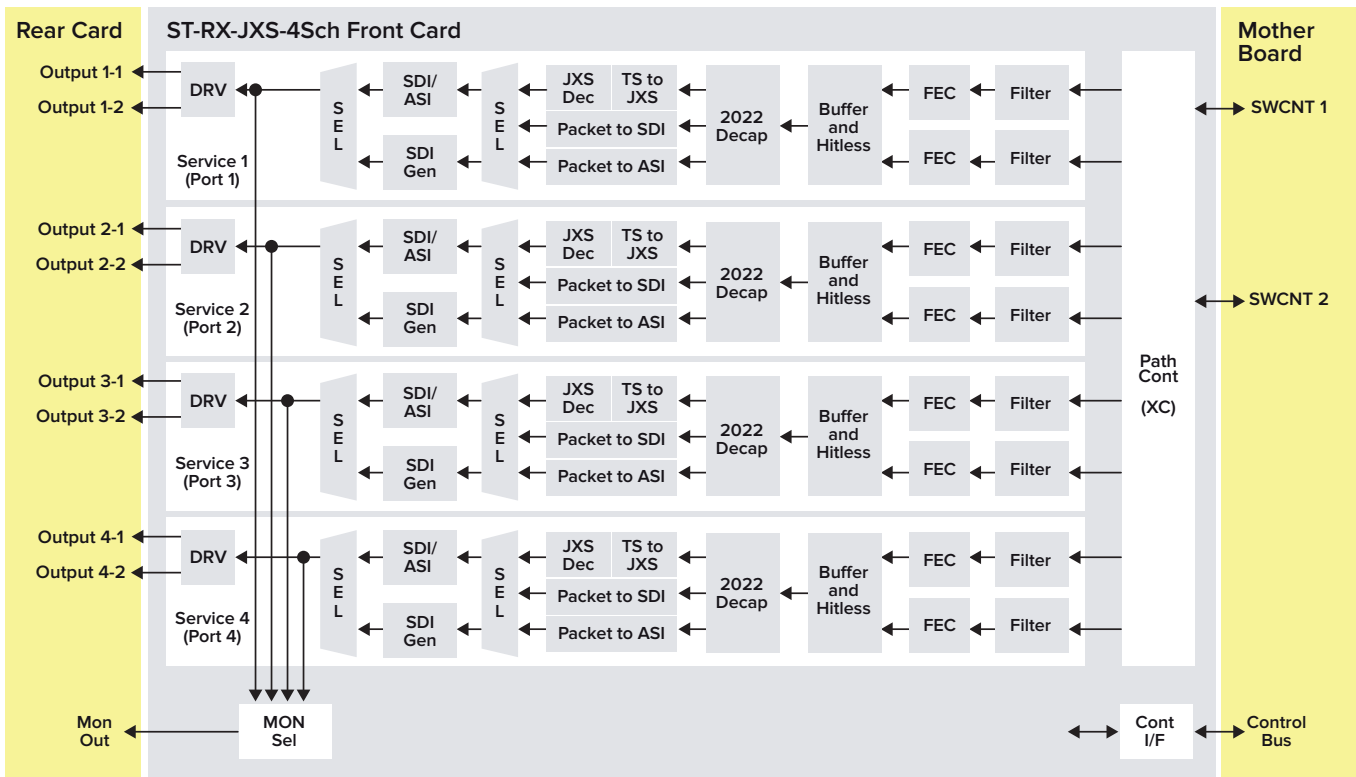


The STRX-JXS-2022 module can output up to four multiple format uncompressed 3G/HD/SD-SDI and/or DVB-ASI signals simultaneously. It also provides resilient Forward Error Correction (FEC) and Lossless/Hitless path protection switching for extremely robust signal transport reception.

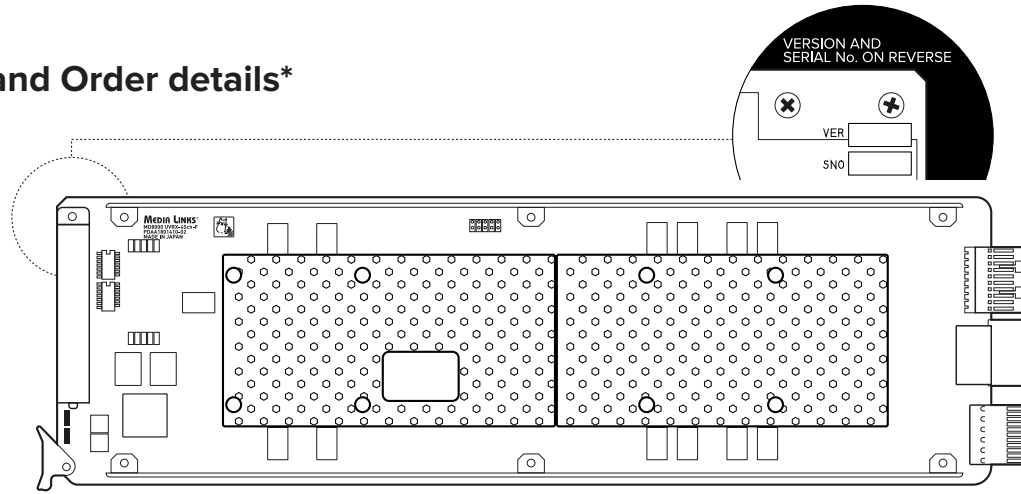
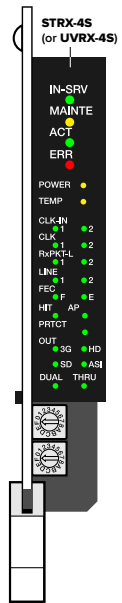
The four Ethernet streams entering and terminating on this line module can originate anywhere in the Wide Area IP network. JPEG-XS decompression is applied to those 3G and HD-SDI packets that have been previously compressed in corresponding JPEG-XS compression encoders/transmitters.

DVB-ASI output signals are reconstructed from the transparent Ethernet transport of MPEG2TS. ETSI TR 101-290 performance monitoring and real time analysis is performed on each DVB-ASI stream.

STRX-JXS-2022 Functional Block Diagram



Product views and Order details*



ORDER YOUR PRODUCT

STRX-JXS-2022 4 Port Universal Video RX Module

Supports 3G/HD/SD-SDI/DVB-ASI

Provides JPEG-XS Decompression Decoding
for 3G-SDI and HD-SDI video signals

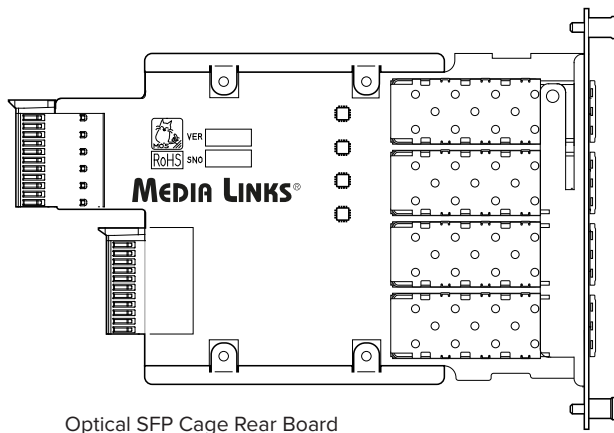
Decoder Card Set WITH OPTICAL REAR

Order Code (Front and Rear Card Set):
MD8000-STRX-JXS-2022-O

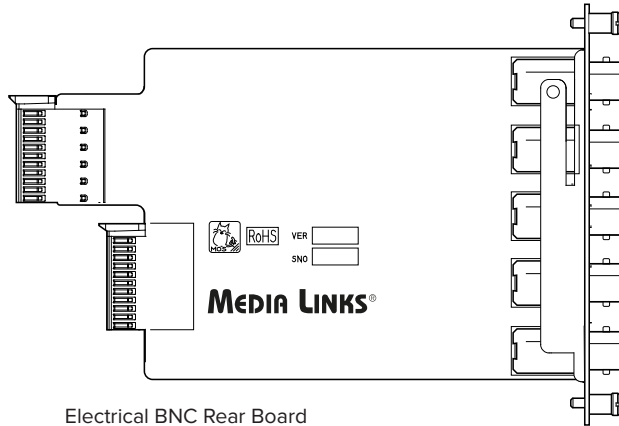
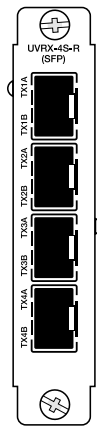
(SFP's not included)

Decoder Card Set WITH ELECTRICAL REAR

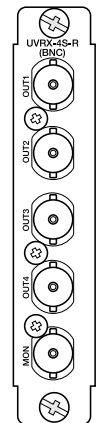
Order Code (Front and Rear Card Set):
MD8000-STRX-JXS-2022-C



Optical SFP Cage Rear Board



Electrical BNC Rear Board



*Cards shown not to scale. Media Links reserves the right to alter specifications without notice.

Service Specifications & Supported Parameters[†]

STRX-JXS-2022 – Standards Based Video Receive Module: Video Service Specifications

Item	Description	Remarks
Number of Ports / Services	4	
Supported Output Signal	3G-SDI : 1080p/59.94, 1080p/50 HD-SDI : 1080i/59.94, 1080i/50, 720p/59.94, 720p/50 SD-SDI : 525i, 625i DVB-ASI : TS size = 188Byte, 204Byte	TS Rate: Maximum 213Mbps
Built-in SDI Signal Generator	Can be used as correction output at the time of failure and output when not in use Support Signal : 3G-SDI, HD-SDI, SD-SDI Signal Patterns: Color Bar, Black, Gray	Video format is same as the support output signal. SDR only for 3G-SDI
Output Signal Monitor	SDI Error Status (CRC Error, EDH Error)	
Output Signal Monitor (DVB-ASI)	ETSI TR 101-290 Monitor (Priority 1 and 2) TS Packet Rate Measurement	ETSI TR 101-290 monitor is applicable to JPEG-XS transmission TS
Video Transmission Mode	3G-SDI, HD-SDI Uncompressed and JPEG-XS compressed SD-SDI : Uncompressed DVB-ASI : TS packet (TS only)	
De-encapsulation method	3G-SDI, HD-SDI, SD-SDI: Uncompressed. SMPTE2022-6 compliant 3G-SDI, HD-SDI: JPEG-XS Compressed. SMPTE2022-2, VSF ST TR-07 compliant DVB-ASI : Packed TS only SMPTE 2022-2 compliant	
Forward Error Correction	SMPTE 2022-1/5 Compliant (Level A only)	
Transmission Packet Format	MAC / VLAN / IPv4 / UDP / RTP	
Transmission Packet Mode	Blind Send (Static) Only	
Received Buffer Control Mode	Packet, Time, Auto	Selectable
Receive Buffer Size	65,535 packets (maximum value)	
Receive Stream Switching	SMPTE 2022-7 compliant (Hitless Switching)	Switch automatically or manually
Number of Receive Streams	Up to 2 groups (Line 1, Line 2) Up to 2 streams /groups (Video, FEC)	Since it supports hitless switching, up to 2 groups can be received
VPID Processing	Support Output Monitor	

General specifications

External dimensions	Front board: 17 mm (W) * 113 mm (H) * 367 mm (D) Rear board: 19 mm (W) * 96 mm (H) * 126 mm (D)	Weight	1 kg or less	Power consumption	40 VA or less
Board Structure	Front and Rear	Compliance	CE/CSA, NEBS Level 3	Operating temperature	0 ~ 40°C Ambient, 20-80% humidity, non-condensing
Chassis slots needed	Front board occupies a 1-slot width Rear board occupies a 1-slot width	Redundancy modes	All MD8000 modes of operation are supported (Single/Class B/Class C/Class J)		

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