

Description

The STTX-JXS-2022 is a four port video transmitter card offering JPEG-XS video compression 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

- Transmits 1-4 video input signals
- External interface to 3G/HD/SD-SDI and DVB-ASI user circuits
- Uncompressed and/or Compressed Video Processing
- Auto-Sensing on Video Inputs
- ETSI TR 101-290 Performance Monitoring
- Multi-format Signal Generator with ID
- Optical (SFP) or Electrical (BNC) Video Interfaces
- SMPTE 2022 1/2 & 5/6
- Hitless Switching: SMPTE 2022-7
- Interoperable with other SMPTE 2022 compatible products
- Passes up to 16 uncompressed audio channels along with Ancillary data and HDR/WCG information

Technical overview

- Made for the MD8000 and MD8000-100G media networking platforms
- JPEG-XS Compression 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

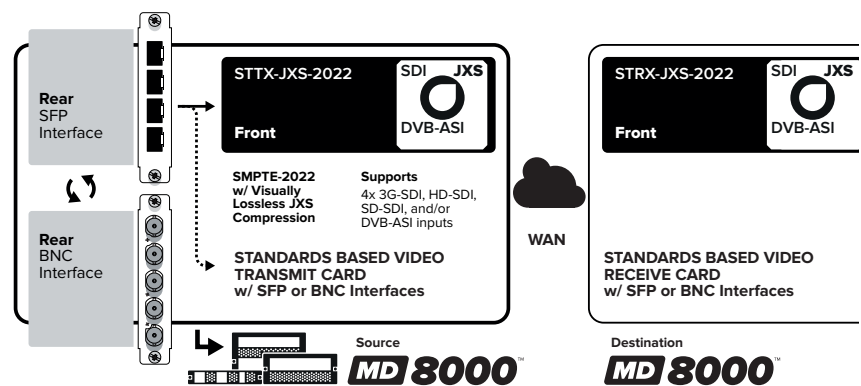
DATASHEET

STTX-JXS-2022

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

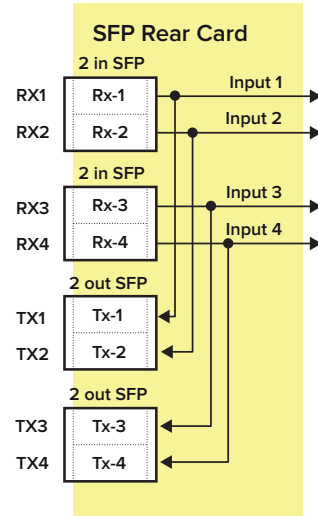
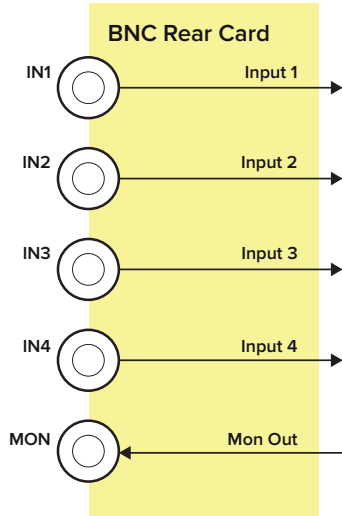
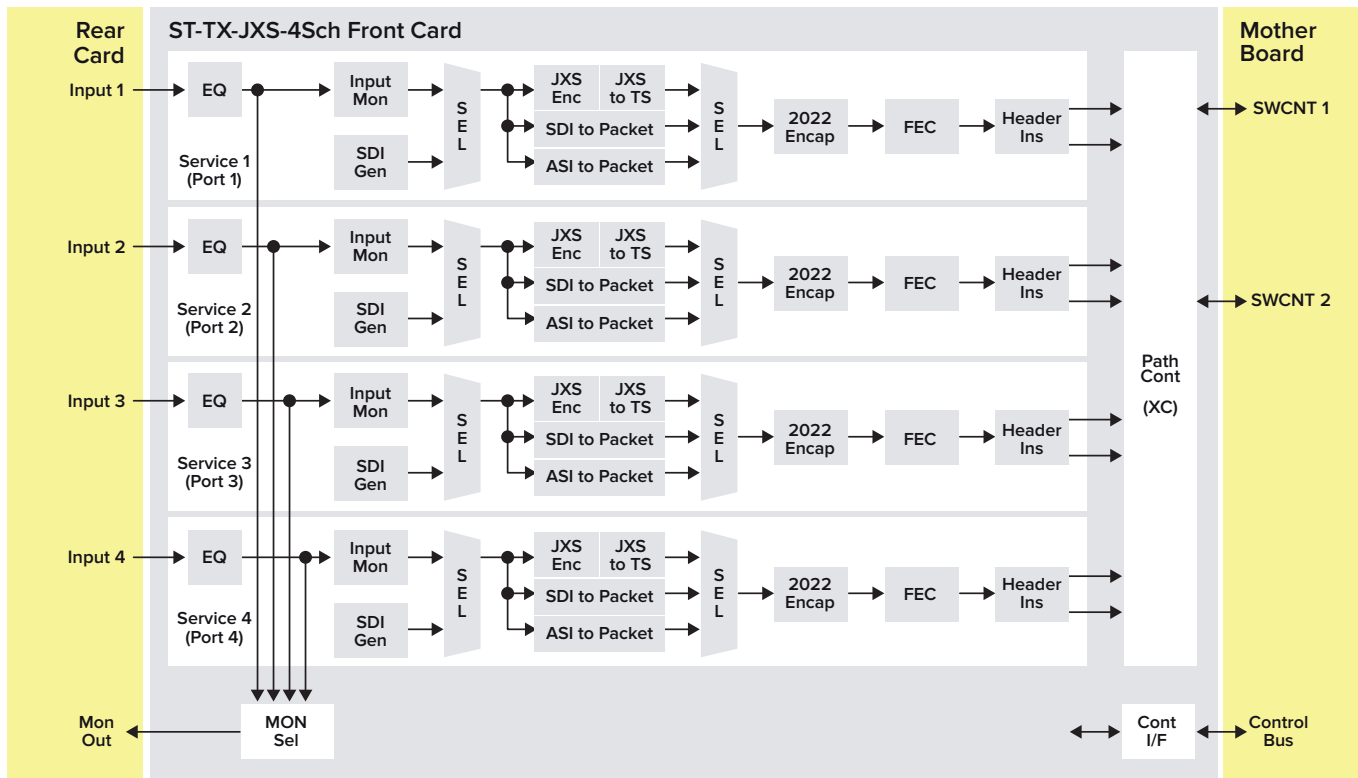
A versatile and widely deployed MD8000 line module, the STTX-JXS-2022 is a standards-based four port video transmitter card offering uncompressed and/or JPEG-XS video compression processing along with SMPTE 2022 compatibility. The card accepts up to four 3G-SDI, HD-SDI, SD-SDI, and/or DVB-ASI inputs. When selecting JPEG-XS compression, visually lossless video quality with low single digit millisecond processing latency is transmitted at significantly lower bitrates than uncompressed video.

Compression rates for 3G-SDI video range from 150 to 530 Mbps and for HD-SDI video range from 80 to 265 Mbps, settable in 1Mbps increments. Simultaneous multiple format inputs (in either Electrical or Optical interfaces) are supported and auto-sensed, along with a monitor output.

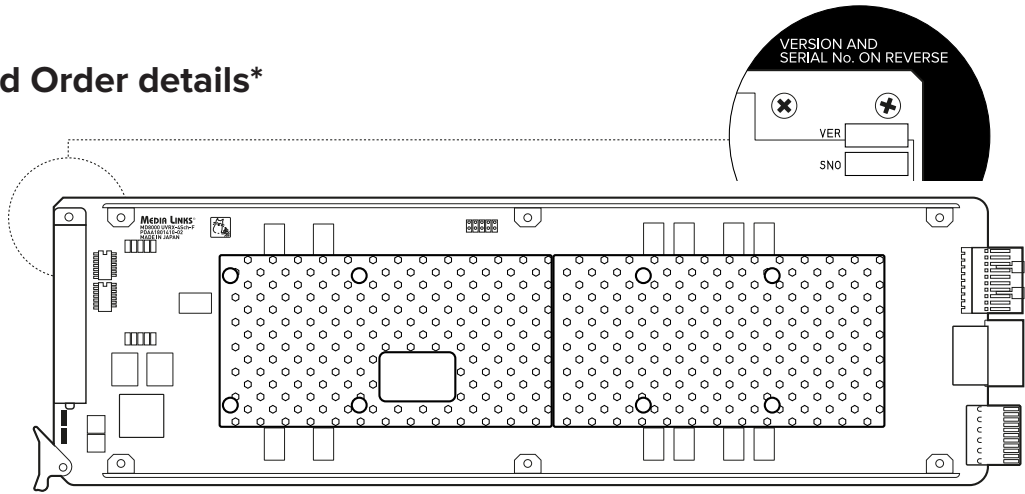
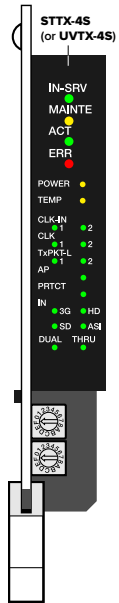


Encapsulated compressed or uncompressed video IP packets can be sent over multiple MD8000 1GbE and/or 10GbE trunk card interfaces. Hitless Switching is also supported for redundant path protection. Each encapsulated video service (3G/HD/SD/DVB-ASI) can have a unique destination or multiple destinations in the network.

STTX-JXS-2022 Functional Block Diagram



Product views and Order details*



ORDER YOUR PRODUCT

STTX-JXS-2022 4 Port Universal Video TX Module

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

Provides JPEG-XS Compression Encoding for 3G-SDI and HD-SDI video signals

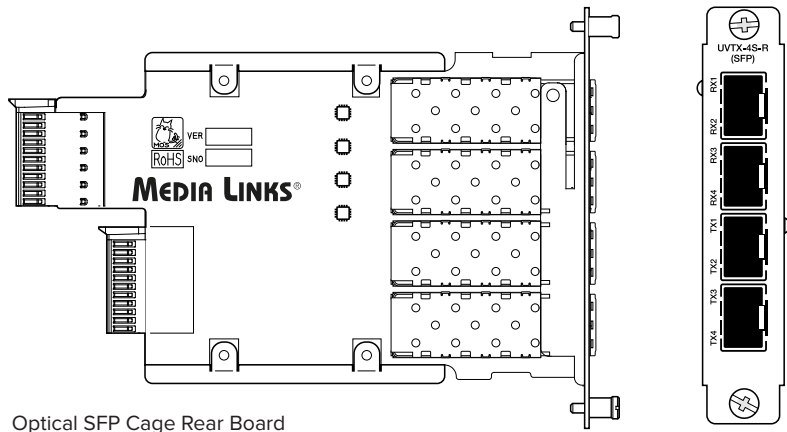
Encoder Card Set WITH OPTICAL REAR

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

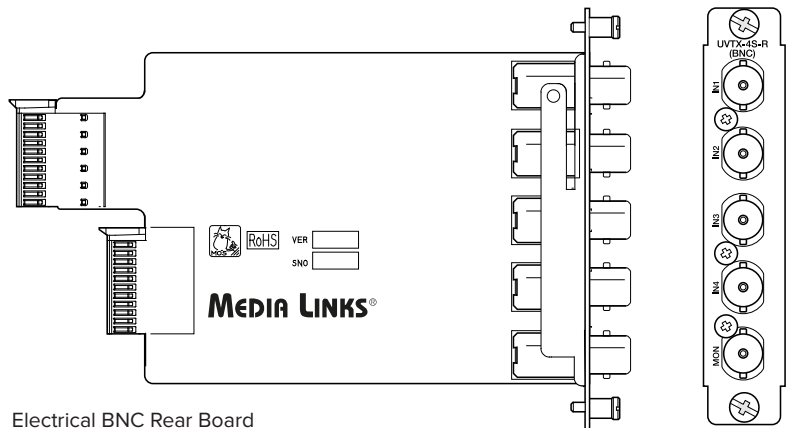
(SFP's not included)

Encoder Card Set WITH ELECTRICAL REAR

Order Code (Front and Rear Card Set):
MD8000-STTX-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[†]

STTX-JXS-2022 – Standards Based Video Transmit Module: Video Service Specifications

Item	Description	Remarks
Number of Ports / Services	4	
Supported Input 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
Video Input Select	Choose from port input or built-in SDI signal source. Supports 4 types of switching modes	
Built-in SDI Signal Generator	Support Signal : 3G-SDI, HD-SDI, SD-SDI Signal Pattern : Color bar+ Moving Box Display Text: Up to 16 characters can be set. Audio Signal : Multiplex 2x AES3 (1kHz)	Video format is same as the support input signal. SDR only for 3G-SDI
Input Signal Monitor	SDI Error Status (CRC Error, EDH Error)	
Input Signal Monitor (DVB-ASI)	ETSI TR 101-290 Monitor (Priority1 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)	
Encapsulation method	3G-SDI, HD-SDI, SD-SDI: Uncompressed SMPTE2022-6 Compliant 3G-SDI, HD-SDI : JPEG-XS Compressed SMPTE2022-2, VSF TR-07 Compliant DVB-ASI : Packed TS only, SMPTE 2022-2 Compliant	
Forward Error Correction	SMPTE 2022-1/5 Compliant (Level A only)	
Line Redundancy Method	Hitless Switching (SMPTE 2022-7)	
Packet Transmission Format	MAC / VLAN / IPv4 / UDP / RTP	
Packet Transmission Mode	Blind Send (Static) Only	
Number of Transmission Streams	Up to 2 groups (Line1, Line2) Up to 2 streams /groups (Video, FEC)	
VPID Processing	Supports Input Monitor and Overwrite Functions	

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	35 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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Media Links (Headquarters)
Kawasaki Tech Center 18F
580-16 Horikawa-cho,
Saiwai-ku, Kawasaki-shi,
Kanagawa 212-0013 Japan
Phone: +81 44-589-3440
query@medialinks.co.jp

Media Links Americas
431-C Hayden Station Road
Windsor, CT 06095
USA
Phone: +1 860-206-9163
Fax: +1 860-206-9165
info@medialinks.com

Media Links EMEA
Suite 18242, PO Box 6945,
London W1A6US
UK
Phone: +44 207 096 9569
emea_info@medialinks.com

Media Links Australia
2-12 Rokeby Street,
Collingwood, VIC 3066,
Australia
Phone: +61 3-9017-0175
Fax: +61 3-8456-6339
info@medialinksaustralia.com.au

www.medialinks.com

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