

# UVTX-J2K-2022 – 4 Port HD/SD/DVB-ASI/JPEG2000 Universal Video TX Module with Compression

## 4 Port HD/SD/DVB-ASI/ JPEG2000 Universal Video TX Module with Compression

The UVTX-J2K-2022 TX is a “Universal” four port video transmitter card offering video compression and SMPTE 2022 compatibility.

### KEY FUNCTIONS:

- JPEG2000 Compression per ISO/IEC 1544-1 Annex A
- External interface to HD/SD/DVB-ASI user circuit
- Internal electrical interface to MD8000 SW-CNT modules

### KEY FEATURES:

- Outputs 1-4 input signals
- 3G-SDI/1080P
- 3D Dual-Link Supported
- Auto-Sensing on Video Inputs
- ETR290 Performance Monitoring
- Multi-format Signal Generator with ID
- Optical (SFP) or Electrical (BNC) Video Interfaces
- SMPTE 2022 1/2 & 5/6
- Hitless Switching
- Auto Protection Switching
- Passes up to 16 uncompressed audio channels along with the V-Ancillary data and Time code

### APPLICATIONS:

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

A versatile and widely deployed MD8000 line module, the UVTX-J2K-2022 TX is a “Universal” four port video transmitter card offering video compression and SMPTE 2022 compatibility. The UVTX-J2K-2022 transmitter board accepts up to four HD-SDI, HD-SDTI, SD-SDI, SDTI, DVB-ASI, 3D dual-link, and/or 3G-SDI inputs. Using JPEG2000 compression, it delivers visually lossless video quality (4:2:2 10 bit JPEG2000 part 1) at significantly lower bitrates than uncompressed video. Compression rates for SD range from 24Mbps to 100Mbps, HD-SDI from 75Mbps to 250Mbps, 3G-SDI from 100Mbps to 500Mbps, 3D-HD-SDI from 150Mbps to 500Mbps, and 3D-3G-SDI from 200Mbps to 1000Mbps.

Compressed video can be sent over a variety of MD8000 trunk cards, including multiple 1GbE, 10GbE and/or OC-192/48/12/3 network interfaces. Hitless Switching supported for redundant path protection. Each encapsulated video service (HD/SD/DVB-ASI) can have a unique destination or multiple destinations in the network. The SMPTE 425 Dual Link specification is supported for transport of 3D content, Level A 3D-HD-SDI & Level B 3D-3G-SDI.

Four Auto-Sensing inputs (Electrical or Optical) are provided with one monitor output and multiple format inputs supported simultaneously. The Encoder will pass up to 16 uncompressed audio channels along with the V-Ancillary data and time code. The UVTX-J2K-2022 TX module provides TR101-ETR290 performance monitoring and real time analysis of each DVB-ASI stream.



MD8000 - UVTX-J2K-2022 – 4 Port HD/SD/DVB-ASI/J2K Universal Video TX Module



MD8000 – UVTX-J2K-2022 (SDI) – Optical Rear Board Connectors



MD8000 – UVTX-J2K-2022 (SDI) – Electrical Rear Board Connectors

### FUNCTIONAL SPECIFICATIONS:

Input	SD-SDI HD-SDI	Format	625i (50 Hz), 525i (59.94 Hz); SMPTE 259M 525i, 725P, 1080i, 1080P (59.94 Hz)
		Audio / ANC	Full VANC / HANC
		Interface	SMPTE 259M, SMPTE 292M, SMPTE 424M
		HD-SDTI/SDTI	Interface
	DVB-ASI	Format	MPEG2TS
	All	Connectors	4x BNC Female, 4x SFP interface
		Impedance	75 Ohm, unbalanced
		Return Loss	15 dB or more (5 MHz - 270 MHz)
		Max. Cable Length	200 m for SDI, 100 m for DVB-ASI (Belden 1694A)
	Active Output	All	Signal Amplitude
Rise Time			0.4 - 1.5 ns (at 20% - 80% amplitude)
Fall Time			0.4 - 1.5 ns (at 20% - 80% amplitude)
ABS (Rise-Fall)			0.5 ns or less
impedance			75 Ohm, unbalanced
Return Loss			15 dB or more (5 MHz - 270 MHz) 10 dB or more (742.5 MHz - 1.485 GHz) < 10 dB (2.97 GHz)
DC Offset			0.0 V ± 0.5 V
Jitter			Timing: 0.2 UI or less Alignment: 0.2 UI or less

### ORDERING INFORMATION

MODEL	ORDER NUMBER	ORDER CODE
Universal 4 port Video Transmitter - Supports transparent HD-1080P (2 ports), HD-SDI, SD-SDI and DVB-ASI. Supports JPEG2000 Encoding for HD-1080P, HD-SDI, SD-SDI. Includes electrical rear connector panel	MD801058	MD8000-UVTX-J2K-2022-C
Universal 4 port Video Transmitter - Supports transparent HD-1080P (2 ports), HD-SDI, SD-SDI and DVB-ASI. Supports JPEG2000 Encoding for HD-1080P, HD-SDI, SD-SDI. Includes rear connector panel for four SFP cages. SFP's not included	MD801058	MD8000-UVTX-J2K-2022-O

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