

# UHD SDI TX

UHD SDI TX is a Serial Digital Interface (SDI) Transmitter IP that supports Standards defined by the Society of Motion Picture and Television Engineers (SMPTE). UHD SDI TX IP comprises SDI TX and SDI Bridge, which converts various incoming data from the user logic for use with SDI TX IP. Supports HD-SDI, 3G-SDI Level A, 3G-SDI Level B, 6G-SDI type1 and type2, 12G-SDI type1 and type2.

## Supported Standards

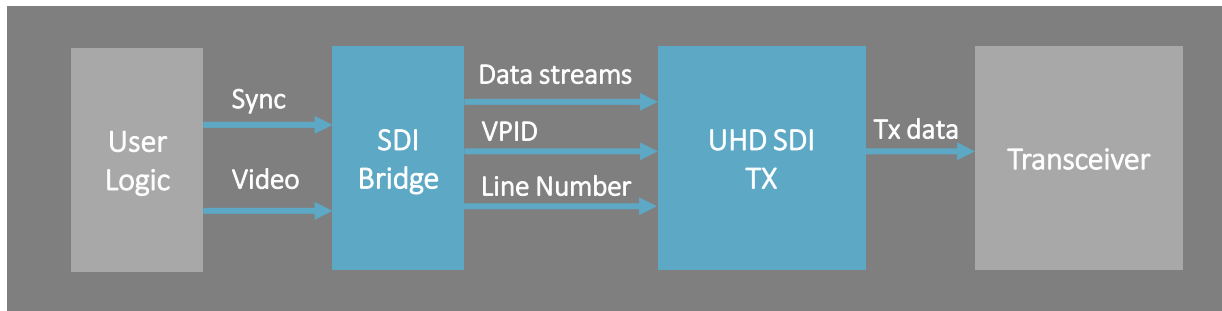
- SMPTE ST 292-1 (HD-SDI)
- SMPTE ST 424 (3G-SDI)
- SMPTE ST 425 (3G Level-A/B)
- SMPTE ST 2081-1 (6G-SDI)
- SMPTE ST 2082-1 (12G-SDI)

## Features

- Generation and insertion of Line Number packets
- Generation and insertion of CRC packets
- Generation and insertion of Video Payload Identification (VPID) packets
- Insertion of Sync-Bits in 12G-SDI and 6G-SDI
- Scrambling and NRZI encoding
- Dynamic switching between SDI modes(12G-SDI, 6G-SDI, 3G/HD-SDI)

## Overview

SDI Bridge is used for normalizing the incoming video stream from the user logic, which then feeds the normalized data into UHD SDI TX for conversion to SDI format of your choice. The combined use of SDI Bridge IP with UHD SDI TX IP makes implementation of SDI TX system on your own design a breeze.



## Resource Utilization

SDI Standard	FFs	SRLs	ADDs	LUTs	COMB4s	RAMs	DSPs	Fmax [MHz]
12G-SDI	2838	0	216	2839	0	0	0	244
6G-SDI	1278	0	108	1332	0	0	0	203
3G(HD)-SDI	623	0	54	603	0	0	0	289

\* Synthesis result of Efinity 2024.2 (Ti375N1156).

## Support

CIS has a dedicated FPGA and software design team comprising 15 seasoned engineers specializing in high speed interface, image processing and embedded software design & development. Please feel free to contact us on whatever project you have in mind.

## Contact

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