

TIDA-00352 SDI Video Aggregation Test Report

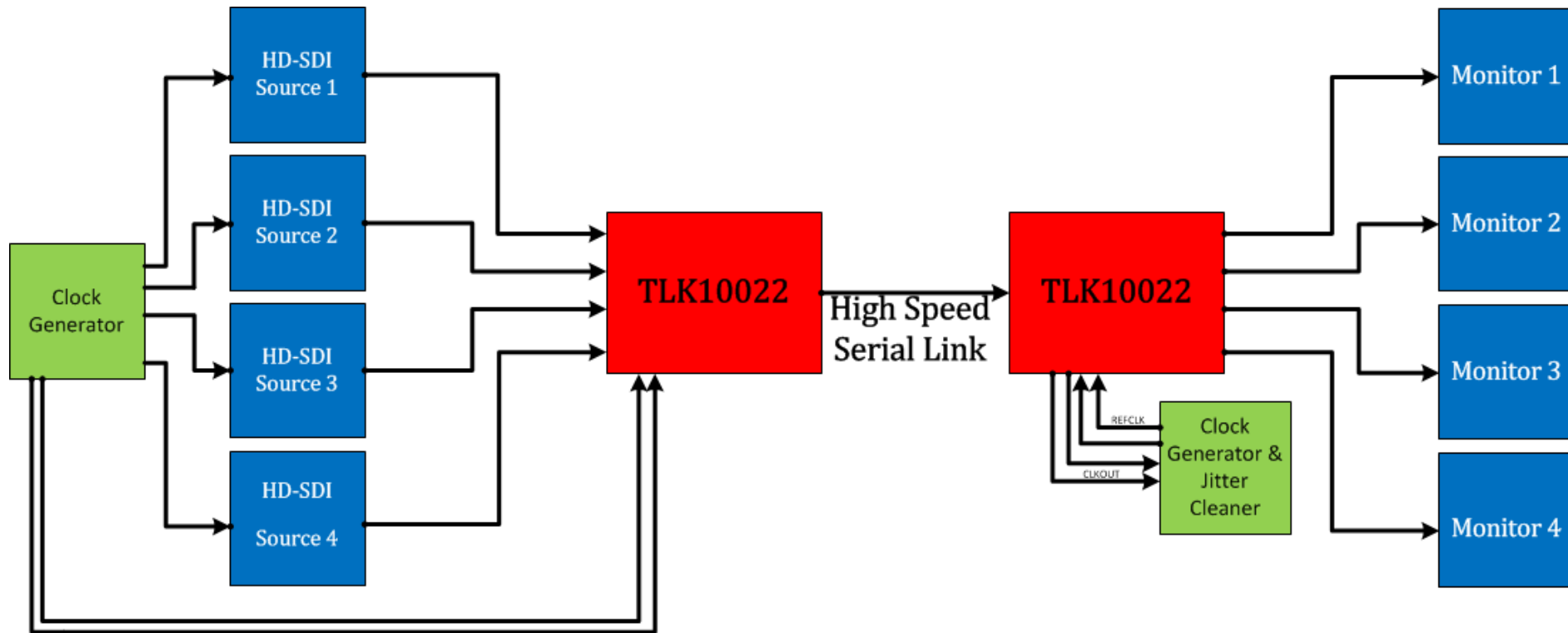
Communication Interface – CIF

December 2014

HD-SDI Test Setup

- The TLK10022 is used to aggregate four synchronous HD-SDI sources together into one high speed serial link.
- The high speed serial link is then de-aggregated by an additional TLK10022 and the original HD-SDI source signals are displayed via four monitors.
- The HD-SDI data sources used during testing put out a resolution of 720p and have an individual line rate of 1.485Gbps.
- The data is a raw un-encoded format and will make up the four low speed inputs and outputs of the two TLK10022s.
- The high speed differential link from the aggregating TLK10022 puts out the combined HD-SDI sources at a rate of 6Gbps which is transmitted via an optical fiber to the de-aggregating TLK10022.

HD-SDI Aggregation Block Diagram



HD-SDI Aggregation Test Results

HD-SDI Sources

Video link aggregation

HD-SDI Data After De-Aggregation

6Gbps HS Optical Link

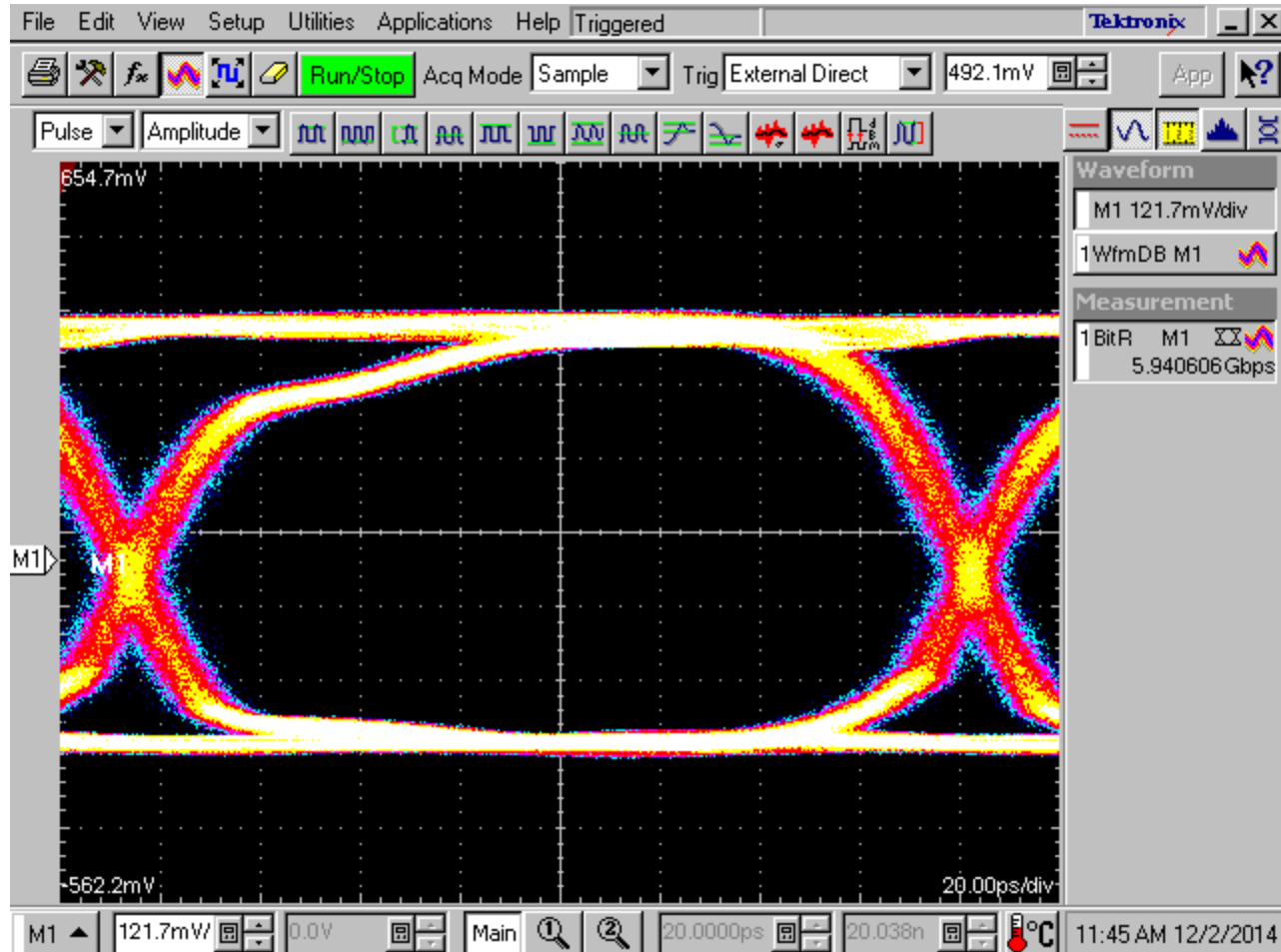


Transmitter Performance Report

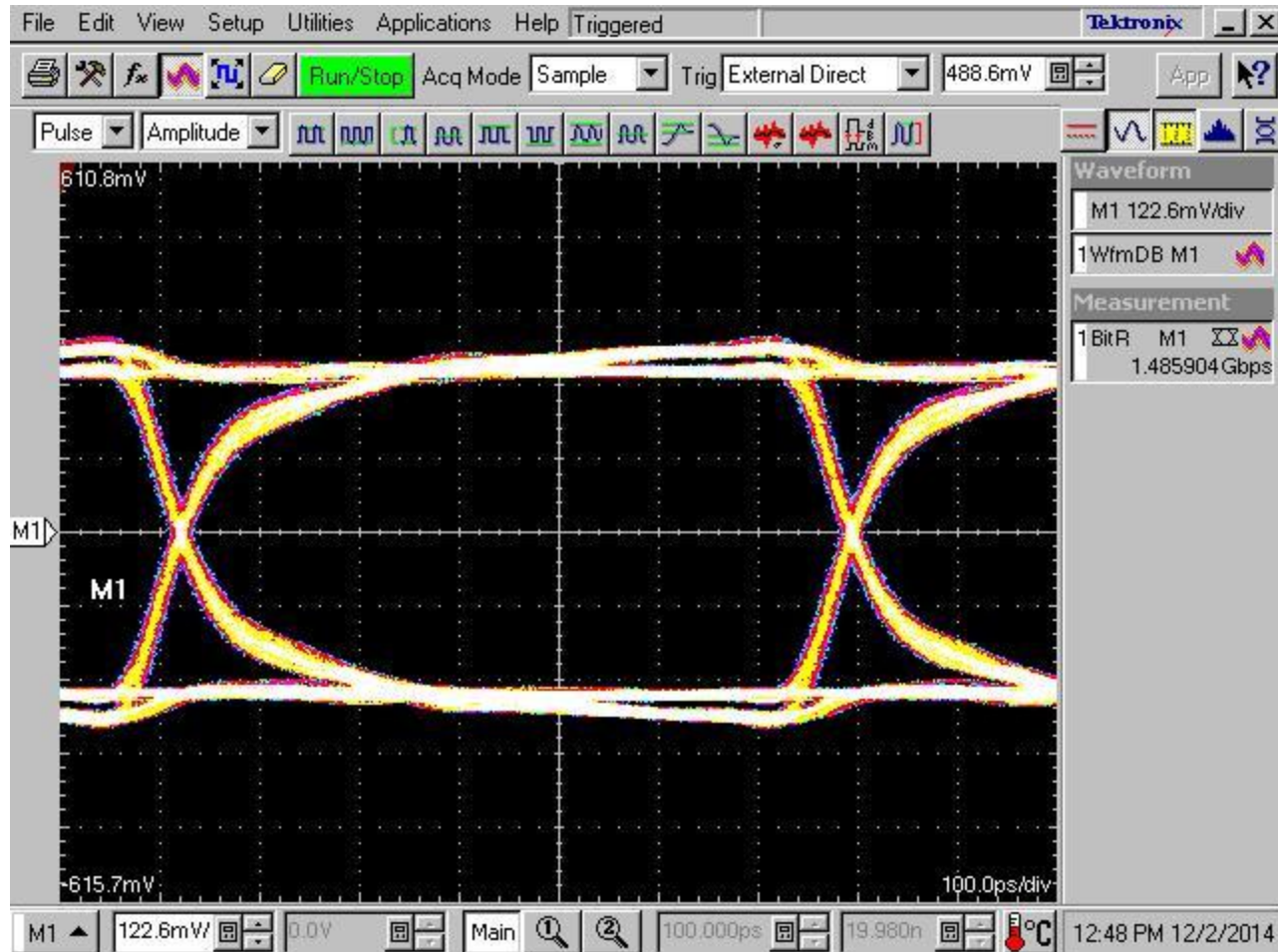
Test Setup

- TLK10022 is configured to aggregate 4 lanes of HD-SDI data:
 - Low Speed Data Rate: 1.485 Gbps
 - High Speed Data Rate: 5.94 Gbps
 - Output Swing: 1050mV
 - Data Type: Aggregated HD-SDI data scrambled together by the TLK10022

High Speed Transmitter Output Eye Diagram @ 25°C



Low Speed Transmitter Output Eye Diagram @ 25°C



For Further Information Contact:

Texas Instruments

CIF – Communication Interface

http://e2e.ti.com/support/interface/high_speed_interface/default.aspx

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