

SMPTE OVERVIEW

SMPTE Bit-Serial Interfaces at 6 Gb/s — Overview for the SMPTE ST 2081 Document Suite



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Document Overview

The SMPTE ST 2081 suite of documents defines the mapping of various source image formats onto a single-link, dual-link and quad-link serial digital interface operating at a nominal rate of 6 Gb/s. This informative “overview” describes the documents in the SMPTE ST 2081 suite.

The SMPTE ST 2081 series specify a common virtual interface that is carried on both electrical and optical physical interfaces which are also defined in the document suite.

The diagram of Figure 1 illustrates a simplified ‘Image mapping data flow’ overview for the 6G-SDI profile as defined by the SMPTE ST 2081 document suite. The individual roadmaps of the SMPTE ST 2081 standards include full details of reference standards.

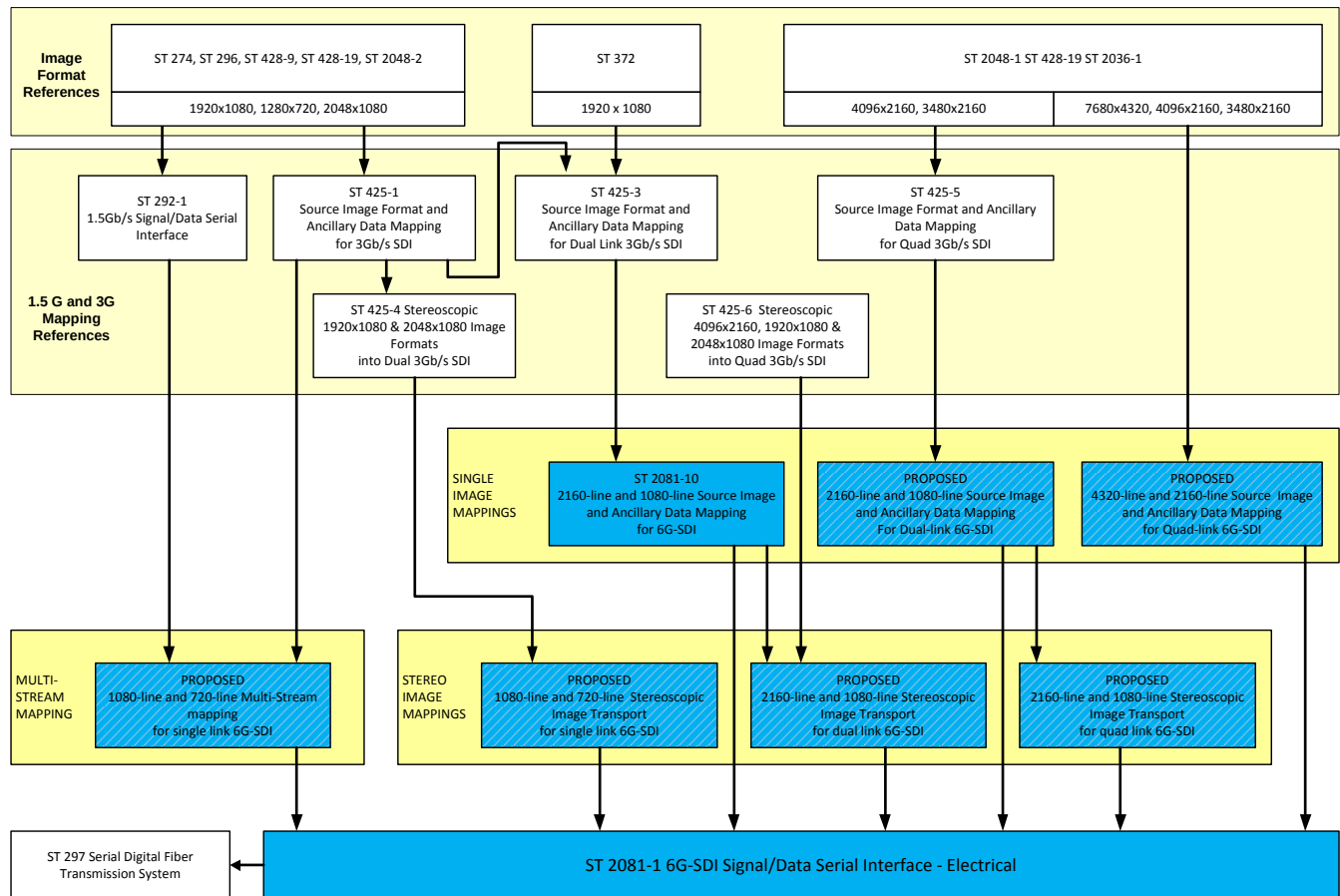


Figure 1 – 6G-SDI Profile

1 SMPTE ST 2081-1 – 6 Gb/s Signal/Data Serial Interface — Electrical

This standard defines a bit-serial data structure, electrical signal and coaxial cable interface for the transport of signals with a total payload of 5.940 Gb/s or 5.940/1.001 Gb/s.

This standard also specifies the electrical and physical characteristics of coaxial cables and connectors.

2 SMPTE ST 2081-10 – 2160-line and 1080-line Source Image and Ancillary Data Mapping for Single-link 6G-SDI

This standard defines several mapping modes for the carriage 2160-line and 1080-line image formats and associated ancillary data into a Single-link 6 Gb/s [nominal] SDI bit-serial interface as follows:

MODE 1: 2160-line source image formats into a single link 6 Gb/s [nominal] SDI bit-serial interface

MODE 2: 1080-line source image formats into a single link 6 Gb/s [nominal] SDI bit-serial interface

This standard also defines the carriage of ancillary data, and the SMPTE ST 352 payload ID's for the single-link 6 Gb/s SDI interface.