**SMPTE 2048-0:2012**
Revision of
SMPTE 2048-0:2011

# SMPTE ROADMAP

## 2048 × 1080 and 4096 × 2160 Digital Cinematography Production Image Formats FS/709 — Roadmap for the 2048 Document Suite



### Document Roadmap

The SMPTE 2048 suite of documents defines a family of progressive sample structures of 2048 × 1080 and 4096 × 2160 images intended for Digital Cinematography content creation.

It also defines the mapping of the 2048 × 1080 pixel array into an 1125-line interface structure required for the real time transport over SDI interfaces.

This informative “roadmap” describes the documents in the SMPTE 2048 suite.

### 1 SMPTE ST 2048-1

This standard defines a family of progressive sample structures of 2048 × 1080 and 4096 × 2160 images specifying:

— R’G’B’ color encoding and digital representation

— $Y'C'_BC'_R$ color encoding and digital representation

— $R'_{FS}G'_{FS}B'_{FS}$ color encoding and digital representation

This standard also defines tristimulus values and reference white of Free Scale-Gamut (FS-Gamut), Free Scale-Log (FS-Log) curve and a Color VANC packet.

An auxiliary component A may optionally accompany R’G’B’, $Y'C'_BC'_R$ and $R'_{FS}G'_{FS}B'_{FS}$;

Sampling structures supported by this standard include, 4:4:4:4, 4:4:4, and 4:2:2.

### 2 SMPTE ST 2048-2

This standard defines the mapping of the 2048 × 1080 pixel array into an 1125-line interface structure as defined in SMPTE ST 274.

This standard specifies:

— Pixel array structure, Digital Timing Reference Sequences (SAV, EAV) and Digital Representation for transmission with single link or multi-link SMPTE ST 292-1 or SMPTE ST 424 interface.

— Recommended Location of the color VANC packet defined in SMPTE ST 2048-1.



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## 3 SMPTE ST 2048-3

This standard references 4096×2160 Digital Cinematography Production Image Formats FS/709 — Mapping into a Multi-link 10G-SDI Mode B defined in SMPTE ST 435-2. This standard also defines locations within the bit stream for Audio Data, payload ID and other ancillary data in conformance with SMPTE ST 291. The “Basic Stream” as defined in SMPTE ST 292-1 is utilized as the input source streams for the 10G-SDI.

## 4 Document Road Map