# 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 a 2200 sample × 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 a 2200 sample × 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.



Approved
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# 3 SMPTE 2048 Document Road Map