## 6.7 Normative conformance test suites for Rec. ITU-T H.265 | ISO/IEC 23008-2

### 6.7.1 Bitstreams for Main, Main Still Picture, and Main 10 profiles

*Legend:*

X – Bitstream is for static and dynamic test

| Table 1 – Bitstreams for Main, Main Still Picture, and Main 10 profiles | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Categories | Subcategory | Bitstream | File name | Main | Main 10 | Main Still Picture | Main tier | Level | Frame rate (Frames/s) |
| Block structure | Block structure and partitioning | STRUCT\_A | STRUCT\_A\_Samsung\_7 | X | X |  | X | 5.1 and higher | 50 |
|  |  | STRUCT\_B | STRUCT\_B\_Samsung\_7 | X | X |  | X | 5.1 and higher | 50 |
| Intra coding | Intra prediction | IPRED\_A | IPRED\_A\_docomo\_2 | X | X |  | X | 5.1 and higher | 30 |
|  |  | IPRED\_B | IPRED\_B\_Nokia\_3 |  |  | X | X | 4.0 and higher | N/A |
|  |  | IPRED\_C | IPRED\_C\_Mitsubishi\_3 | X | X |  | X | 3.0 and higher | 30 |
|  | Constrained intra prediction | CIP\_A | CIP\_A\_Panasonic\_3 | X | X |  |  | 4.0 and higher | 30 |
|  |  | CIP\_B | CIP\_B\_NEC\_3 | X | X |  |  | 2.0 and higher | 30 |
|  |  | CIP\_C | CIP\_C\_Panasonic\_2 | X | X |  |  | 4.0 and higher | 30 |
| Inter coding | Merge | MERGE\_A | MERGE\_A\_TI\_3 | X | X |  |  | 2.0 and higher | 30 |
|  |  | MERGE\_B | MERGE\_B\_TI\_3 | X | X |  |  | 2.0 and higher | 30 |
|  |  | MERGE\_C | MERGE\_C\_TI\_3 | X | X |  |  | 2.0 and higher | 30 |
|  |  | MERGE\_D | MERGE\_D\_TI\_3 | X | X |  |  | 2.0 and higher | 30 |
|  |  | MERGE\_E | MERGE\_E\_TI\_3 | X | X |  |  | 2.0 and higher | 30 |
|  |  | MERGE\_F | MERGE\_F\_MTK\_4 | X | X |  |  | 4.0 and higher | 30 |
|  |  | MERGE\_G | MERGE\_G\_HHI\_4 | X | X |  |  | 3.1 and higher | 60 |
|  | Parallel merge | PMERGE\_A | PMERGE\_A\_TI\_3 | X | X |  |  | 2.0 and higher | 30 |
|  |  | PMERGE\_B | PMERGE\_B\_TI\_3 | X | X |  |  | 2.0 and higher | 30 |
|  |  | PMERGE\_C | PMERGE\_C\_TI\_3 | X | X |  |  | 2.0 and higher | 30 |
|  |  | PMERGE\_D | PMERGE\_D\_TI\_3 | X | X |  |  | 2.0 and higher | 30 |
|  |  | PMERGE\_E | PMERGE\_E\_TI\_3 | X | X |  |  | 2.0 and higher | 30 |
|  | Motion vector prediction | AMVP\_A | AMVP\_A\_MTK\_4 | X | X |  |  | 4.0 and higher | 50 |
|  |  | AMVP\_B | AMVP\_B\_MTK\_4 | X | X |  |  | 4.0 and higher | 50 |
|  |  | AMVP\_C | AMVP\_C\_Samsung\_7 | X | X |  |  | 5.1 and higher | 30 |
|  | Temporal motion vector prediction | TMVP\_A | TMVP\_A\_MS\_3 | X | X |  |  | 2.0 and higher | 30 |
|  | mvd\_l1\_zero\_flag | MVDL1ZERO\_A | MVDL1ZERO\_A  \_docomo\_4 | X | X |  |  | 4.0 and higher | 50 |
|  | Motion vector prediction clipping | MVCLIP\_A | MVCLIP\_A\_qualcomm\_3 | X | X |  |  | 2.0 and higher | 30 |
|  | Motion vector pointing to picture edge | MVEDGE\_A | MVEDGE\_A\_qualcomm\_3 | X | X |  |  | 2.0 and higher | 30 |
|  | Weighted prediction | WP\_A | WP\_A\_Toshiba\_3 | X | X |  |  | 2.0 and higher | 60 |
|  |  | WP\_B | WP\_B\_Toshiba\_3 | X | X |  |  | 2.0 and higher | 60 |
| Transform and quantization | Residual quadtree | RQT\_A | RQT\_A\_HHI\_4 | X | X |  |  | 3.1 and higher | 60 |
|  |  | RQT\_B | RQT\_B\_HHI\_4 | X | X |  |  | 3.1 and higher | 60 |
|  |  | RQT\_C | RQT\_C\_HHI\_4 | X | X |  |  | 3.1 and higher | 60 |
|  |  | RQT\_D | RQT\_D\_HHI\_4 | X | X |  |  | 3.1 and higher | 60 |
|  |  | RQT\_E | RQT\_E\_HHI\_4 | X | X |  |  | 3.1 and higher | 60 |
|  |  | RQT\_F | RQT\_F\_HHI\_4 | X | X |  | X | 3.1 and higher | 60 |
|  |  | RQT\_G | RQT\_G\_HHI\_4 | X | X |  | X | 3.1 and higher | 60 |
|  |  | TUSIZE\_A | TUSIZE\_A\_Samsung\_1 | X | X |  | X | 5.0 and higher | 30 |
|  | Quantization | DELTAQP\_A | DELTAQP\_A\_BRCM\_4 | X | X |  | X | 5.0 and higher | 24 |
|  |  | DELTAQP\_B | DELTAQP\_B\_SONY\_3 | X | X |  |  | 4.0 and higher | 30 |
|  |  | DELTAQP\_C | DELTAQP\_C\_SONY\_3 | X | X |  |  | 4.0 and higher | 30 |
|  |  | INITQP\_A | INITQP\_A\_Sony\_1 | X | X |  |  | 4.0 and higher | 30 |
|  | Scaling list | SLIST\_A | SLIST\_A\_Sony\_5 | X | X |  | X | 4.0 and higher | 60 |
|  |  | SLIST\_B | SLIST\_B\_Sony\_9 | X | X |  | X | 4.0 and higher | 60 |
|  |  | SLIST\_C | SLIST\_C\_Sony\_4 | X | X |  | X | 4.0 and higher | 60 |
|  |  | SLIST\_D | SLIST\_D\_Sony\_9 | X | X |  | X | 4.0 and higher | 60 |
| In-loop filter | Deblocking filter | DBLK\_A | DBLK\_A\_SONY\_3 | X | X |  |  | 4.0 and higher | 30 |
|  |  | DBLK\_B | DBLK\_B\_SONY\_3 | X | X |  |  | 4.0 and higher | 30 |
|  |  | DBLK\_C | DBLK\_C\_SONY\_3 | X | X |  |  | 4.0 and higher | 30 |
|  |  | DBLK\_D | DBLK\_D\_VIXS\_2 | X | X |  | X | 4.1 and higher | 60 |
|  |  | DBLK\_E | DBLK\_E\_VIXS\_2 | X | X |  | X | 4.1 and higher | 60 |
|  |  | DBLK\_F | DBLK\_F\_VIXS\_2 | X | X |  | X | 4.1 and higher | 60 |
|  |  | DBLK\_G | DBLK\_G\_VIXS\_2 | X | X |  | X | 4.1 and higher | 60 |
|  | Sample adaptive offset (SAO) | SAO\_A | SAO\_A\_MediaTek\_4 | X | X |  | X | 4.0 and higher | 60 |
|  |  | SAO\_B | SAO\_B\_MediaTek\_5 | X | X |  | X | 4.0 and higher | 60 |
|  |  | SAO\_C | SAO\_C\_Samsung\_5 | X | X |  | X | 4.1 and higher | 60 |
|  |  | SAO\_D | SAO\_D\_Samsung\_5 | X | X |  | X | 4.1 and higher | 60 |
|  |  | SAO\_E | SAO\_E\_Canon\_4 | X | X |  | X | 4.0 and higher | 50 |
|  |  | SAO\_F | SAO\_F\_Canon\_3 | X | X |  | X | 4.0 and higher | 50 |
|  |  | SAO\_G | SAO\_G\_Canon\_3 | X | X |  | X | 6.2 | 50 |
|  |  | SAO\_H | SAO\_H\_Parabola\_1 | X | X |  | X | 6.0 and higher | 30 |
|  |  | SAODBLK\_A | SAODBLK\_A\_MainConcept\_4 | X | X |  | X | 4.1 and higher | 29.97 |
|  |  | SAODBLK\_B | SAODBLK\_B\_MainConcept\_4 | X | X |  | X | 4.1 and higher | 29.97 |
| Entropy coding | Maximum bins | MAXBINS\_A | MAXBINS\_A\_TI\_5 | X | X |  | X | 2.0 and higher | 30 |
|  |  | MAXBINS\_B | MAXBINS\_B\_TI\_5 | X | X |  | X | 2.0 and higher | 30 |
|  |  | MAXBINS\_C | MAXBINS\_C\_TI\_5 | X | X |  | X | 2.0 and higher | 30 |
|  | CABAC initialization | CAINIT\_A | CAINIT\_A\_SHARP\_4 | X | Ｘ |  | X | 3.0 and higher | 50 |
|  |  | CAINIT\_B | CAINIT\_B\_SHARP\_4 | X | Ｘ |  | X | 3.0 and higher | 50 |
|  |  | CAINIT\_C | CAINIT\_C\_SHARP\_3 | X | Ｘ |  | X | 3.0 and higher | 50 |
|  |  | CAINIT\_D | CAINIT\_D\_SHARP\_3 | X | Ｘ |  | X | 3.0 and higher | 50 |
|  |  | CAINIT\_E | CAINIT\_E\_SHARP\_3 | X | Ｘ |  | X | 3.0 and higher | 50 |
|  |  | CAINIT\_F | CAINIT\_F\_SHARP\_3 | X | Ｘ |  | X | 3.0 and higher | 50 |
|  |  | CAINIT\_G | CAINIT\_G\_SHARP\_3 | X | Ｘ |  | X | 3.1 and higher | 50 |
|  |  | CAINIT\_H | CAINIT\_H\_SHARP\_3 | X | Ｘ |  | X | 3.1 and higher | 50 |
|  | Sign data hiding | SDH\_A | SDH\_A\_Orange\_4 | X | X |  |  | 4.1 and higher | 50 |
| Temporal scalability | Temporal scalability | TSCL\_A | TSCL\_A\_VIDYO\_5 | X | X |  | X | 2.1 and higher | 50 |
|  |  | TSCL\_B | TSCL\_B\_VIDYO\_4 | X | X |  | X | 2.1 and higher | 50 |
| Parallel processing tools | Tiles | TILES\_A | TILES\_A\_Cisco\_2 | X | X |  | X | 4.1 and higher | 60 |
|  |  | TILES\_B | TILES\_B\_Cisco\_1 | X | X |  | X | 4.1 and higher | 60 |
|  | Entropy coding synchronization | WPP\_A | WPP\_A\_ericsson\_ MAIN\_2 | X | X |  | X | 2.0 and higher | 50 |
|  |  | WPP\_B | WPP\_B\_ericsson\_ MAIN\_2 | X | X |  | X | 2.0 and higher | 50 |
|  |  | WPP\_C | WPP\_C\_ericsson\_ MAIN\_2 | X | X |  | X | 2.0 and higher | 50 |
|  |  | WPP\_D | WPP\_D\_ericsson\_ MAIN\_2 | X | X |  | X | 2.0 and higher | 50 |
|  |  | WPP\_E | WPP\_E\_ericsson\_ MAIN\_2 | X | X |  | X | 2.0 and higher | 50 |
|  |  | WPP\_F | WPP\_F\_ericsson\_ MAIN\_2 | X | X |  | X | 2.0 and higher | 50 |
|  | Entry point | ENTP\_A | ENTP\_A\_QUALCOMM\_1 | X | X |  | X | 4.1 and higher | 60 |
|  |  | ENTP\_B | ENTP\_B\_Qualcomm\_1 | X | X |  | X | 4.1 and higher | 60 |
|  |  | ENTP\_C | ENTP\_C\_Qualcomm\_1 | X | X |  | X | 4.1 and higher | 60 |
| Other coding tools | Pulse-code modulation (PCM) | IPCM\_A | IPCM\_A\_NEC\_3 | X | X |  | X | 2.0 and higher | 30 |
|  |  | IPCM\_B | IPCM\_B\_NEC\_3 | X | X |  | X | 2.0 and higher | 30 |
|  |  | IPCM\_C | IPCM\_C\_NEC\_3 | X | X |  | X | 2.0 and higher | 30 |
|  |  | IPCM\_D | IPCM\_D\_NEC\_3 | X | X |  | X | 2.0 and higher | 30 |
|  |  | IPCM\_E | IPCM\_E\_NEC\_2 | X | X |  | X | 2.0 and higher | 30 |
|  | Transform skip | TS\_A | TSKIP\_A\_MS\_3 | X | X |  | X | 3.1 and higher | 30 |
|  | Asymmetric motion partition (AMP) | AMP\_A | AMP\_A\_Samsung\_7 | X | X |  | X | 5.1 and higher | 30 |
|  |  | AMP\_B | AMP\_B\_Samsung\_7 | X | X |  | X | 5.1 and higher | 30 |
|  |  | AMP\_D | AMP\_D\_Hisilicon\_3 | X | X |  | X | 6.2 and higher | 24 |
|  |  | AMP\_E | AMP\_E\_Hisilicon\_3 | X | X |  | X | 6.2 and higher | 50 |
|  |  | AMP\_F | AMP\_F\_Hisilicon\_3 | X | X |  | X | 6.2 and higher | 60 |
|  | Transform/quantization/filtering bypass | LS\_A | LS\_A\_Orange\_2 | X | X |  | X | 5.0 and higher | 30 |
|  |  | LS\_B | LS\_B\_Orange\_4 | X | X |  | X | 5.0 and higher | 30 |
| High level syntax | NAL unit types | NUT\_A | NUT\_A\_ericsson\_5 | X | X |  | X | 3.0 and higher | 30 |
|  |  | FILLER\_A | FILLER\_A\_Sony\_1 | X | X |  |  | 4.0 and higher | 30 |
|  | Video Parameter Set (VPS) | VPSID\_A | VPSID\_A\_VIDYO\_2 | X | X |  | X | 3.1 and higher | 50 |
|  |  | PS\_B | PS\_B\_VIDYO\_3 | X | X |  | X | 2.1 and higher | 50 |
|  |  | VPSSPSPPS\_A | VPSSPSPPS\_A\_MainConcept\_1 | X | X |  | X | 4.1 and higher | 29.97 |
|  | Picture parameter set (PPS) | PPS\_A | PPS\_A\_qualcomm\_7 | X | X |  | X | 6.2 and higher | 30 |
|  | Sub layer | SLPPLP\_A | SLPPLP\_A\_VIDYO\_2 | X | X |  | X | 3.1 and higher | 50 |
|  | Picture output control | OPFLAG\_A | OPFLAG\_A\_Qualcomm\_1 | X | X |  | X | 2.1 and higher | 50 |
|  |  | OPFLAG\_B | OPFLAG\_B\_Qualcomm\_1 | X | X |  | X | 3.1 and higher | 60 |
|  |  | OPFLAG\_C | OPFLAG\_C\_Qualcomm\_1 | X | X |  | X | 3.1 and higher | 60 |
|  |  | NoOutPrior\_A | NoOutPrior\_A\_Qualcomm\_1 | X | X |  | X | 3.1 and higher | 60 |
|  |  | NoOutPrior\_B | NoOutPrior\_B\_Qualcomm\_1 | X | X |  | X | 3.1 and higher | 60 |
|  | Picture size | PICSIZE\_A | PICSIZE\_A\_Bossen\_1 | X | X |  | X | 5.1 and higher | 50 |
|  |  | PICSIZE\_B | PICSIZE\_B\_Bossen\_1 | X | X |  | X | 5.1 and higher | 50 |
|  |  | PICSIZE\_C | PICSIZE\_C\_Bossen\_1 | X | X |  | X | 4.1 and higher | 50 |
|  |  | PICSIZE\_D | PICSIZE\_D\_Bossen\_1 | X | X |  | X | 4.1 and higher | 50 |
|  | Picture order count | POC\_A | POC\_A\_Bossen\_3 | X | X |  | X | 4.0 and higher | 50 |
|  | Random access | RAP\_A | RAP\_A\_docomo\_6 | X | X |  | X | 2.0 and higher | 30 |
|  |  | RAP\_B | RAP\_B\_Bossen\_2 | X | X |  | X | 6.2 | 50 |
|  | Reference Picture Set (RPS) | RPS\_A | RPS\_A\_docomo\_5 | X | X |  | X | 2.0 and higher | 30 |
|  |  | RPS\_B | RPS\_B\_qualcomm\_5 | X | X |  | X | 3.0 and higher | 30 |
|  |  | RPS\_C | RPS\_C\_ericsson\_5 | X | X |  | X | 3.0 and higher | 30 |
|  |  | RPS\_D | RPS\_D\_ericsson\_6 | X | X |  | X | 3.0 and higher | 30 |
|  |  | RPS\_E | RPS\_E\_qualcomm\_5 | X | X |  | X | 3.0 and higher | 30 |
|  |  | RPS\_F | RPS\_F\_docomo\_2 | X | X |  | X | 6.2 | 30 |
|  | Long term reference | LTRPSPS | LTRPSPS\_A\_Qualcomm\_1 | X | X |  | X | 2.1 and higher | 50 |
|  | Reference picture list modification | RPLM\_A | RPLM\_A\_qualcomm\_4 | X | X |  | X | 2.0 and higher | 30 |
|  |  | RPLM\_B | RPLM\_B\_qualcomm\_4 | X | X |  | X | 2.0 and higher | 30 |
|  | Slice type | SLICES\_A | SLICES\_A\_Rovi\_3 | X | X |  | X | 6.2 | 30 |
|  | Dependent slice | DSLICE\_A | DSLICE\_A\_HHI\_5 | X | X |  | X | 3.1 and higher | 24 |
|  |  | DSLICE\_B | DSLICE\_B\_HHI\_5 | X | X |  | X | 3.1 and higher | 24 |
|  |  | DSLICE\_C | DSLICE\_C\_HHI\_5 | X | X |  | X | 3.1 and higher | 24 |
|  | Decoded picture buffer (DPB) | BUMPING\_A | BUMPING\_A\_ericsson\_1 | X | X |  | X | 3.0 and higher | 30 |
|  | Conformance window | CONFWIN\_A | CONFWIN\_A\_Sony\_1 | X | X |  |  | 4.0 and higher | 30 |
|  | Hypothetical reference decoder (HRD) | HRD\_A | HRD\_A\_Fujitsu\_3 | X | X |  | X | 6.2 | 50 |
|  | Extensions | EXT\_A | EXT\_A\_ericsson\_4 | X | X |  | X | 3.0 and higher | 30 |
| 10 bit | Weighted prediction | WP\_A\_MAIN10 | WP\_A\_MAIN10\_ Toshiba\_3 |  | X |  | X | 2.0 and higher | 60 |
|  |  | WP\_B\_MAIN10 | WP\_B\_MAIN10\_ Toshiba\_3 |  | X |  | X | 2.0 and higher | 60 |
|  | Transform Skip | TSUNEQBD\_A\_MAIN10 | TSUNEQBD\_A\_MAIN10\_ Technicolor\_2 |  | X |  | X | 5.1 and higher | 30 |
|  | Deblocking filter | DBLK\_A\_MAIN10 | DBLK\_A\_MAIN10\_ VIXS\_4 |  | X |  | X | 4.0 and higher | 30 |
|  | Quantization | INITQP\_B\_Main10 | INITQP\_B\_Main10\_Sony\_1 |  | X |  |  | 4.0 and higher | 30 |
|  | Entropy coding synchronization | WPP\_A\_MAIN10 | WPP\_A\_ericsson\_MAIN10\_\_2 |  | X |  | X | 2.0 and higher | 50 |
|  |  | WPP\_B\_MAIN10 | WPP\_B\_ericsson\_MAIN10\_\_2 |  | X |  | X | 2.0 and higher | 50 |
|  |  | WPP\_C\_MAIN10 | WPP\_C\_ericsson\_MAIN10\_ \_2 |  | X |  | X | 2.0 and higher | 50 |
|  |  | WPP\_D\_MAIN10 | WPP\_D\_ericsson\_MAIN10\_\_2 |  | X |  | X | 2.0 and higher | 50 |
|  |  | WPP\_E\_MAIN10 | WPP\_E\_ericsson\_MAIN10\_\_2 |  | X |  | X | 2.0 and higher | 50 |
|  |  | WPP\_F\_MAIN10 | WPP\_F\_ericsson\_MAIN10\_\_2 |  | X |  | X | 2.0 and higher | 50 |

### 6.7.2 Bitstreams for Multiview Main profile

Legend:

X – Bitstream that a decoder conforming to the Main tier needs to decode for static and dynamic test

| Table 2 – Bitstreams for Multiview Main profile | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | Base layer profile | | | |  |  |
| Categories | Subcategory | Bitstream | File name | Main | Main 10 | Main Still Picture | Main tier | Level | Frame rate (Frames/sec) |
| Prediction Structure | Inter-view prediction | MVHEVCS-A | MVHEVCS\_A\_Qualcomm\_3 | X |  |  | X | 4 and higher | 30 |
| (2-view) | All intra | MVHEVCS-B | MVHEVCS\_B\_Sharp\_3 | X |  |  | X | 4 and higher | 30 |
|  | Simulcast | MVHEVCS-C | MVHEVCS\_C\_Sony\_3 | X |  |  | X | 4 and higher | 30 |
|  | Simulcast with asymmetric resolutions | MVHEVCS-D | MVHEVCS\_D\_NTT\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Inter-view prediction and hierarchical B | MVHEVCS-E | MVHEVCS\_E\_Qualcomm\_3 | X |  |  | X | 4 and higher | 30 |
|  | Inter-view prediction for IRAP AUs only | MVHEVCS-F | MVHEVCS\_F\_Qualcomm\_3 | X |  |  | X | 4 and higher | 30 |
| Prediction Structure (3-view) | Inter-view prediction PIP view structure | MVHEVCS-G | MVHEVCS\_G\_NTT\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Inter-view prediction with IBP view structure | MVHEVCS-H | MVHEVCS\_H\_LGE\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Inter-view prediction with IBP view structure and auxiliary depth | MVHEVCS-I | MVHEVCS\_I\_Nokia\_3 | X |  |  | X | 5.1 and higher | 30 |

### 6.7.3 Bitstreams for 3D Main profile

Legend:

X – Bitstream that a decoder conforming to the Main tier needs to decode for static and dynamic test

| Table 3 – Bitstreams for 3D Main profile | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | Base layer profile | | | |  |  |
| Categories | Subcategory | Bitstream | File name | Main | Main10 | Main Still Picture | Main tier | Level | Frame rate (Frames/sec) |
| Texture tool | ARP | 3DHC\_T\_A | 3DHC\_T\_A\_Qualcomm\_3 | X |  |  | X | 4 and higher | 30 |
|  | Sub-PU inter-view motion prediction | 3DHC\_T\_B | 3DHC\_T\_B\_MediaTek\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Illumination compensation | 3DHC\_T\_C | 3DHC\_T\_C\_Sharp\_3 | X |  |  | X | 4 and higher | 30 |
|  | Combined texture | 3DHC\_T\_D | 3DHC\_T\_D\_Sharp\_3 | X |  |  | X | 4 and higher | 30 |
|  | Combined texture only bitstream | 3DHC\_T\_E | 3DHC\_T\_E\_HHI\_3 | X |  |  | X | 5.1 and higher | 30 |
| Depth tool | Depth intra wedge | 3DHC\_D1\_A | 3DHC\_D1\_A\_HHI\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Depth intra wedge | 3DHC\_D1\_B | 3DHC\_D1\_B\_HHI\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Intra SDC | 3DHC\_D1\_C | 3DHC\_D1\_C\_RWTH\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Intra SDC | 3DHC\_D1\_D | 3DHC\_D1\_D\_RWTH\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Depth intra skip | 3DHC\_D1\_E | 3DHC\_D1\_E\_MediaTek\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Depth intra skip | 3DHC\_D1\_F | 3DHC\_D1\_F\_MediaTek\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Combined depth | 3DHC\_D1\_G | 3DHC\_D1\_G\_Hisilicon\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Combined depth | 3DHC\_D1\_H | 3DHC\_D1\_H\_Hisilicon\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Inter-view motion | 3DHC\_D2\_A | 3DHC\_D2\_A\_Samsung\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Inter SDC | 3DHC\_D2\_B | 3DHC\_D2\_B\_LGE\_3 | X |  |  | X | 5.1 and higher | 30 |
| Depth dependent texture tool | DoNBDV | 3DHC\_DT\_A | 3DHC\_DT\_A\_MediaTek\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | VSP | 3DHC\_DT\_B | 3DHC\_DT\_B\_NTT\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | DBBP | 3DHC\_DT\_C | 3DHC\_DT\_C\_Hisilicon\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Combined | 3DHC\_DT\_D | 3DHC\_DT\_D\_NTT\_3 | X |  |  | X | 5.1 and higher | 30 |
| Texture dependent  depth tool | Sub-PU MPI | 3DHC\_TD\_A | 3DHC\_TD\_A\_Qualcomm\_3 | X |  |  | X | 4 and higher | 30 |
|  | MPI | 3DHC\_TD\_B | 3DHC\_TD\_B\_MediaTek\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | QTL | 3DHC\_TD\_C | 3DHC\_TD\_C\_MediaTek\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Depth intra contour prediction | 3DHC\_TD\_D | 3DHC\_TD\_D\_HHI\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | Depth intra contour prediction | 3DHC\_TD\_E | 3DHC\_TD\_E\_HHI\_3 | X |  |  | X | 5.1 and higher | 30 |
| Others | 3-view random access | 3DHC\_C\_A | 3DHC\_C\_A\_HHI\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | 3-view all Intra | 3DHC\_C\_B | 3DHC\_C\_B\_HHI\_3 | X |  |  | X | 5.1 and higher | 30 |
|  | 2-view random access | 3DHC\_C\_C | 3DHC\_C\_C\_Sharp\_3 | X |  |  | X | 4 and higher | 30 |

### 6.7.4 Bitstreams for format range extensions and high throughput profiles

Legend:

X – Bitstream that a decoder conforming to the Main tier needs to decode for static and dynamic test

| Table 4 – Bitstreams for format range extensions and high throughput profiles | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Categories | Subcategory | Bitstream | File name | Profile | Main tier | Level | Frame rate (Frames/sec) |
| Intra coding | Intra chroma prediction angle | ADJUST\_IPRED\_ANGLE\_A | ADJUST\_IPRED\_ANGLE\_A\_RExt\_Mitsubishi\_2 | Main 4:2:2 10 | X | 6.2 | 24 |
| Inter coding | Cross component prediction | CCP\_8bit\_RExt | CCP\_8bit\_RExt\_QCOM\_1 | Main 4:4:4 | X | 4.1 and higher | 30 |
|  |  | CCP\_10bit\_RExt | CCP\_10bit\_RExt\_QCOM\_1 | Main 4:4:4 10 | X | 4.1 and higher | 24 |
|  |  | CCP\_12bit\_RExt | CCP\_12bit\_RExt\_QCOM\_1 | Main 4:4:4 12 | X | 4.1 and higher | 30 |
| Bit depth | Different bit depth for luma and chroma | Bitdepth\_A\_RExt | Bitdepth\_A\_RExt\_Sony\_1 | Main 4:4:4 12 | X | 4.1 and higher | 60 |
|  |  | Bitdepth\_B\_RExt | Bitdepth\_B\_RExt\_Sony\_1 | Main 4:4:4 12 | X | 4.1 and higher | 60 |
| Quantization | Scaling list | QMATRIX\_A\_RExt | QMATRIX\_A\_RExt\_Sony\_1 | Main 4:4:4 | X | 4.0 and higher | 20 |
| Loop filter | SAO | SAO\_A\_RExt | SAO\_A\_RExt\_MediaTek\_1 | Main 4:4:4 12 | X | 6.2 | 30 |
| Entropy coding | Persistent Rice parameter tool | PERSIST\_RPARAM\_A\_RExt | PERSIST\_RPARAM\_A\_RExt\_Sony\_3 | Main 4:4:4 12 Intra | X | 3.0 and higher |  |
| Precision | Extended precision | HIGH\_TP\_8BIT\_RExt | EXTPREC\_HIGHTHROUGHPUT\_444\_16\_INTRA\_8BIT\_RExt\_Sony\_1 | High Throughput 4:4:4 16 Intra | X | 3.0 and higher |  |
|  |  | HIGH\_TP\_10BIT\_RExt | EXTPREC\_HIGHTHROUGHPUT\_444\_16\_INTRA\_10BIT\_RExt\_Sony\_1 | High Throughput 4:4:4 16 Intra | X | 3.0 and higher |  |
|  |  | HIGH\_TP\_12BIT\_RExt | EXTPREC\_HIGHTHROUGHPUT\_444\_16\_INTRA\_12BIT\_RExt\_Sony\_1 | High Throughput 4:4:4 16 Intra | X | 3.0 and higher |  |
|  |  | HIGH\_TP\_16BIT\_RExt | EXTPREC\_HIGHTHROUGHPUT\_444\_16\_INTRA\_16BIT\_RExt\_Sony\_1 | High Throughput 4:4:4 16 Intra | X | 3.0 and higher |  |
|  |  | HIGH\_TP\_8BIT\_RExt | EXTPREC\_MAIN\_444\_16\_INTRA\_8BIT\_RExt\_Sony\_1 | Main 4:4:4 16 Intra | X | 3.0 and higher |  |
|  |  | HIGH\_TP\_10BIT\_RExt | EXTPREC\_MAIN\_444\_16\_INTRA\_10BIT\_RExt\_Sony\_1 | Main 4:4:4 16 Intra | X | 3.0 and higher |  |
|  |  | HIGH\_TP\_12BIT\_RExt | EXTPREC\_MAIN\_444\_16\_INTRA\_12BIT\_RExt\_Sony\_1 | Main 4:4:4 16 Intra | X | 3.0 and higher |  |
|  |  | HIGH\_TP\_16BIT\_RExt | EXTPREC\_MAIN\_444\_16\_INTRA\_16BIT\_RExt\_Sony\_1 | Main 4:4:4 16 Intra | X | 3.0 and higher |  |
| Others | PCM | IPCM\_A\_RExt | IPCM\_A\_RExt\_NEC\_2 | Main 4:2:2 10 | X | 6.0 and higher | 30 |
|  |  | IPCM\_B\_RExt | IPCM\_B\_RExt\_NEC\_1 | Main 4:2:2 10 | X | 6.0 and higher | 30 |
|  | Transform skip context | TSCTX\_8bit\_I\_RExt | TSCTX\_8bit\_I\_RExt\_SHARP\_1 | Main 4:4:4 | X | 6.2 | 30 |
|  |  | TSCTX\_8bit\_RExt | TSCTX\_8bit\_RExt\_SHARP\_1 | Main 4:4:4 | X | 6.2 | 30 |
|  |  | TSCTX\_10bit\_I\_RExt | TSCTX\_10bit\_I\_RExt\_SHARP\_1 | Main 4:4:4 10 | X | 6.2 | 30 |
|  |  | TSCTX\_10bit\_RExt | TSCTX\_10bit\_RExt\_SHARP\_1 | Main 4:4:4 10 | X | 6.2 | 30 |
|  |  | TSCTX\_12bit\_I\_RExt | TSCTX\_12bit\_I\_RExt\_SHARP\_1 | Main 4:4:4 12 | X | 6.2 | 30 |
|  |  | TSCTX\_12bit\_RExt | TSCTX\_12bit\_RExt\_SHARP\_1 | Main 4:4:4 12 | X | 6.2 | 30 |
|  | RDPCM | ExplicitRdpcm\_A\_RExt | ExplicitRdpcm\_A\_BBC\_1 | Main 4:4:4 12 | X | 6.2 | 60 |
|  |  | ExplicitRdpcm\_B\_RExt | ExplicitRdpcm\_B\_BBC\_2 | Main 4:4:4 12 | X | 6.2 | 30 |
|  | Various combination | Main\_422\_10\_A\_RExt | Main\_422\_10\_A\_RExt\_Sony\_2 | Main 4:2:2 10 | X | 4.0 and higher | 24 |
|  |  | Main\_422\_10\_B\_RExt | Main\_422\_10\_B\_RExt\_Sony\_2 | Main 4:2:2 10 | X | 5.0 and higher | 30 |
|  |  | GENERAL\_8b\_400\_RExt | GENERAL\_8b\_400\_RExt\_Sony\_1 | Monochrome | X | 3.0 and higher |  |
|  |  | GENERAL\_8b\_420\_RExt | GENERAL\_8b\_420\_RExt\_Sony\_1 | Main Intra | X | 3.0 and higher |  |
|  |  | GENERAL\_8b\_444\_RExt | GENERAL\_8b\_444\_RExt\_Sony\_2 | Main 4:4:4 Intra | X | 3.0 and higher |  |
|  |  | GENERAL\_10b\_420\_RExt | GENERAL\_10b\_420\_RExt\_Sony\_1 | Main 10 Intra | X | 3.0 and higher |  |
|  |  | GENERAL\_10b\_422\_RExt | GENERAL\_10b\_422\_RExt\_Sony\_1 | Main 4:2:2 10 Intra | X | 3.0 and higher |  |
|  |  | GENERAL\_10b\_444\_RExt | GENERAL\_10b\_444\_RExt\_Sony\_2 | Main 4:4:4 10 Intra | X | 3.0 and higher |  |
|  |  | GENERAL\_12b\_400\_RExt | GENERAL\_12b\_400\_RExt\_Sony\_1 | Monochrome 12 | X | 3.0 and higher |  |
|  |  | GENERAL\_12b\_420\_RExt | GENERAL\_12b\_420\_RExt\_Sony\_1 | Main 12 Intra | X | 3.0 and higher |  |
|  |  | GENERAL\_12b\_422\_RExt | GENERAL\_12b\_422\_RExt\_Sony\_1 | Main 4:2:2 12 Intra | X | 3.0 and higher |  |
|  |  | GENERAL\_12b\_444\_RExt | GENERAL\_12b\_444\_RExt\_Sony\_2 | Main 4:4:4 12 Intra | X | 3.0 and higher |  |
|  |  | GENERAL\_16b\_400\_RExt | GENERAL\_16b\_400\_RExt\_Sony\_1 | Monochrome 16 | X | 3.0 and higher |  |
|  |  | GENERAL\_16b\_444\_RExt | GENERAL\_16b\_444\_RExt\_Sony\_2 | Main 4:4:4 16 Intra | X | 3.0 and higher |  |
|  |  | GENERAL\_16b\_444\_ighThroughput\_RExt | GENERAL\_16b\_444\_highThroughput\_RExt\_Sony\_2 | High Throughput 4:4:4 16 Intra | X | 3.0 and higher |  |
|  |  | WAVETILES\_RExt | WAVETILES\_RExt\_Sony\_2 | HighThroughput 4:4:4 16b Intra | X | 3.0 and higher |  |

### 6.7.5 Bitstreams for Scalable Main and Scalable Main 10 profiles

Legend:

X – Bitstream that a decoder conforming to the Main tier needs to decode for static and dynamic test

| Table 5 – Bitstreams for Scalable Main and Scalable Main 10 profiles | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | Base layer profile | | | |  |  |
| Categories | Subcategory | Bitstream | File name | Main | Main 10 | Main Still Picture | Main tier | Level | Frame rate (Frames/sec) |
| Layer dependencies | Layer ID | LAYERID\_A | LAYERID\_A\_NOKIA\_2 | X |  |  | X | 3.1 and higher | 24 |
|  | Motion vector dependency | MVD\_A\_IDCC | MVD\_A\_IDCC\_1 | X |  |  | X | 3.1 and higher | 24 |
|  |  | MVD\_A\_NOKIA | MVD\_A\_NOKIA\_1 | X |  |  | X | 3.1 and higher | 24 |
|  | Maximum temporal ID | MAXTID\_A | MAXTID\_A\_ETRI\_2 | X |  |  | X | 3.1 and higher | 24 |
|  |  | MAXTID\_B | MAXTID\_B\_ETRI\_2 | X |  |  | X | 3.1 and higher | 24 |
|  |  | MAXTID\_C | MAXTID\_C\_ETRI\_2 | X |  |  | X | 3.1 and higher | 24 |
|  | Inactive reference layers | INACTIVE\_A | INACTIVE\_A\_QCOM\_1 | X |  |  | X | 2.1 and higher | 50 |
|  | Reference layers | REFLAYER\_A | REFLAYER\_A\_VIDYO\_2 | X |  |  | X | 3 and higher | 24 |
|  |  | REFLAYER\_B | REFLAYER\_B\_VIDYO\_2 | X |  |  | X | 3 and higher | 24 |
|  |  | REFLAYER\_C | REFLAYER\_C\_VIDYO\_2 | X |  |  | X | 3 and higher | 24 |
|  |  | REFLAYER\_D | REFLAYER\_D\_VIDYO\_2 | X |  |  | X | 3 and higher | 24 |
| VPS syntax | Split flag | SPLITFLAG\_A | SPLITFLAG\_A\_HHI\_1 | X |  |  | X | 3.1 and higher | 24 |
|  | VUI | VUI\_A | VUI\_A\_QUALCOMM\_1 | X |  |  | X | 3.1 and higher | 50 |
|  |  | VUI\_B | VUI\_B\_QUALCOMM\_1 | X |  |  | X | 3.1 and higher | 50 |
|  |  | VUI\_C | VUI\_C\_QUALCOMM\_1 | X |  |  | X | 3.1 and higher | 50 |
|  | Non-VUI | NONVUI\_A | NONVUI\_A\_QUALCOMM\_1 | X |  |  | X | 3.1 and higher | 50 |
|  |  | NONVUI\_B | NONVUI\_B\_QUALCOMM\_1 | X |  |  | X | 3.1 and higher | 50 |
|  |  | NONVUI\_C | NONVUI\_C\_QUALCOMM\_1 | X |  |  | X | 3.1 and higher | 50 |
|  | DPB | DPB\_A | DPB\_A\_VIDYO\_2 | X |  |  | X | 3 and higher | 30 |
|  |  | DPB\_B | DPB\_B\_VIDYO\_2 | X |  |  | X | 3 and higher | 30 |
| Picture resolution | Scalability ratios | SRATIOS\_A | SRATIOS\_A\_SAMSUNG\_3 | X |  |  | X | 3.1 and higher | 60 |
|  |  | SRATIOS\_B | SRATIOS\_B\_SAMSUNG\_2 | X |  |  | X | 3.1 and higher | 50 |
|  | SNR scalability | SNR\_A | SNR\_A\_IDCC\_1 | X |  |  | X | 4 and higher | 24 |
|  |  | SNR\_B | SNR\_B\_IDCC\_1 | X |  |  | X | 4 and higher | 24 |
|  |  | SNR\_C | SNR\_C\_IDCC\_1 | X |  |  | X | 4 and higher | 24 |
|  | VPS representation format | REPFMT\_A | REPFMT\_A\_VIDYO\_2 | X |  |  | X | 3 and higher | 30 |
|  |  | REPFMT\_B | REPFMT\_B\_VIDYO\_2 | X |  |  | X | 3 and higher | 30 |
|  |  | REPFMT\_C | REPFMT\_C\_VIDYO\_2 | X |  |  | X | 3 and higher | 30 |
|  | Resolution change | RESCHANGE\_A | RESCHANGE\_A\_VIDYO\_1 | X |  |  | X | 3.1 and higher | 30 |
|  | Adaptive resolution | ADAPTRES\_A | ADAPTRES\_A\_ERICCSON\_1 | X |  |  | X | 3.1 and higher | 24 |
|  | SPS representation format | SPSREPFMT\_A | SPSREPFMT\_A\_Sony\_2 | X |  |  | X | 5.1 and higher | 24 |
|  | Conformance cropping window | CONFCROP\_A | CONFCROP\_A\_VIDYO\_2 | X |  |  | X | 3.1 and higher | 30 |
|  |  | CONFCROP\_B | CONFCROP\_B\_VIDYO\_2 | X |  |  | X | 3 and higher | 30 |
|  |  | CONFCROP\_C | CONFCROP\_C\_VIDYO\_3 | X |  |  | X | 3 and higher | 30 |
| Offsets and phase adjustments | Scaled reference layer offsets | SCREFFOFF\_A | SCREFFOFF\_A\_QCOM\_1 | X |  |  | X | 3 and higher | 50 |
|  | Reference region offsets | REFREGOFF\_A | REFREGOFF\_A\_SHARP\_1 | X |  |  | X | 4.1 and higher | 30 |
|  | Resample phase | RESPHASE\_A | RESPHASE\_A\_SAMSUNG\_2 | X |  |  | X | 3.1 and higher | 60 |
| Output layers and pictures | Output layer sets | OLS\_A | OLS\_A\_NOKIA\_1 | X |  |  | X | 3.1 and higher | 24 |
|  |  | OLS\_B | OLS\_B\_NOKIA\_1 | X |  |  | X | 3.1 and higher | 24 |
|  |  | OLS\_C | OLS\_C\_NOKIA\_1 | X |  |  | X | 3.1 and higher | 24 |
|  | Discardable pictures | DISFLAG\_A | DISFLAG\_A\_QUALCOMM\_1 | X |  |  | X | 3.1 and higher | 50 |
| Scaling list | PPS scaling list | PPSLIST\_A | PPSLIST\_A\_Sony\_2 | X |  |  | X | 4.1 and higher | N/A |
|  | SPS scaling list | SPSLIST\_A | SPSLIST\_A\_Sony\_2 | X |  |  | X | 4.1 and higher | 24 |
| Colour gamut scalability | CGS | CGS\_A | CGS\_A\_TECHNICOLOR\_1 | X |  |  | X | 4.1 and higher | 50 |
|  |  | CGS\_B | CGS\_B\_TECHNICOLOR\_1 | X |  |  | X | 4.1 and higher | 50 |
|  |  | CGS\_C | CGS\_C\_TECHNICOLOR\_1 |  | X |  | X | 4.1 and higher | 50 |
|  |  | CGS\_D | CGS\_D\_TECHNICOLOR\_1 |  | X |  | X | 4.1 and higher | 50 |
|  |  | CGS\_E | CGS\_E\_TECHNICOLOR\_1 | X |  |  | X | 4.1 and higher | 60 |
|  |  | CGS\_F | CGS\_F\_TECHNICOLOR\_1 | X |  |  | X | 4.1 and higher | 60 |
|  |  | CGS\_G | CGS\_G\_TECHNICOLOR\_1 | X |  |  | X | 4.1 and higher | 50 |
|  |  | CGS\_H | CGS\_H\_TECHNICOLOR\_1 |  | X |  | X | 4.1 and higher | 50 |
|  |  | CGS\_I | CGS\_I\_TECHNICOLOR\_1 | X |  |  | X | 4.1 and higher | 60 |
| Additional extensibility | Parameter set extension | PSEXT\_A | PSEXT\_A\_VIDYO\_2 | X |  |  | X | 3.1 and higher | 30 |
|  | Layer ID 63 | LAYERID63\_A | LAYERID63A\_HHI\_1 | X |  |  | X | N/A | N/A |
| Picture Order Count | Unaligned POC | POC\_A | POC\_A\_Ericsson\_1 | X |  |  | X | 3.1 and higher | 24 |
|  |  | POC\_B | POC\_B\_Ericsson\_1 | X |  |  | X | 3.1 and higher | 24 |
| Base layer type | Hybrid scalability | HYBRID\_A | HYBRID\_A\_QUALCOMM\_1 | N/A |  |  | N/A | N/A | 30 |
|  | Base layer unavailable (INBLD) | INBLD\_A | INBLD\_A\_NOKIA\_2 | N/A |  |  | X | 3.1 and higher | 24 |
|  | Simulcast | SIM\_A | SIM\_A\_IDCC\_1 | X |  |  | X | 3.1 and higher | 24 |
|  |  | SIM\_B | SIM\_B\_IDCC\_1 | X |  |  | X | 3.1 and higher | 24 |
| Level signalling | Sub-layer level signalling | SLLEV\_A | SLLEV\_A\_VIDYO\_1 | X |  |  | X | 3.1 and higher | 60 |
| Auxiliary pictures | Alpha | ALPHA\_A\_BBC | ALPHA\_A\_BBC\_1 | X |  |  | X | 4.1 and higher | 30 |
|  | Depth | DEPTH\_A | DEPTH\_A\_NOKIA\_1 | X |  |  | X | 3.1 and higher | 30 |

### 6.7.6 Bitstreams for Scalable Monochrome, Scalable Monochrome 12, Scalable Monochrome 16, and Scalable Main 4:4:4 profiles

Legend:

X – Bitstream that a decoder conforming to the Main tier needs to decode for static and dynamic test

| Table 6 – Bitstreams for Scalable Monochrome, Scalable Monochrome 12, Scalable Monochrome 16  and Scalable Main 4:4:4 profiles | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  | Base layer profie | |  |  |
| Categories | Subcategory | Bitstream | File name | Profile | Main tier | Level | Frame rate (Frames/sec) |
| Scalable Range Extensions | Monochrome SNR layers | SREXT\_A | SREXT\_A\_FUJITSU\_1 | Monochrome | X | 4 and higher | 30 |
|  |  | SREXT\_B | SREXT\_B\_FUJITSU\_1 | Monochrome 12 | X | 4 and higher | 30 |
|  |  | SREXT\_C | SREXT\_C\_FUJITSU\_1 | Monochrome 16 | X | 4 and higher | 30 |
|  |  | SREXT\_D | SREXT\_D\_FUJITSU\_1 | Monochrome 12 | X | 4 and higher | 30 |
|  | SNR layers | SREXT\_E | SREXT\_E\_FUJITSU\_1 | Main 4:4:4 | X | 4 and higher | 30 |
|  | Spatial scalable layers | SREXT\_F | SREXT\_F\_FUJITSU\_1 | Main 4:4:4 | X | 4 and higher | 30 |