**3GPP TSG SA WG4#118e *S4-22xxxx***

**E-meeting, 6th - 14th April 2022**

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| *CR-Form-v12.0* |
| **PSEUDO CHANGE REQUEST** |
|  |
|  | **26.955**  | **CR** | pseudo | **rev** | **-** | **Current version:** | **1.5.2** |  |
|  |
| *For* ***HELP****on using this form: comprehensive instructions can be found at* *http://www.3gpp.org/Change-Requests**.* |
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| ***Proposed change affects:*** | UICC apps |  | ME |  | Radio Access Network |  | Core Network |  |

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|  |
| ***Title:***  | [FS\_5G\_Video] SIMD Update to AV1 build system configuration |
|  |  |
| ***Source to WG:*** | Google |
| ***Source to TSG:*** |  |
|  |  |
| ***Work item code:*** | FS\_5GVideo |  | ***Date:*** | 11/04/2022 |
|  |  |  |  |  |
| ***Category:*** |  |   | ***Release:*** | 17 |
|  | *Use one of the following categories:****F*** *(correction)****A*** *(mirror corresponding to a change in an earlier release)****B*** *(addition of feature),* ***C*** *(functional modification of feature)****D*** *(editorial modification)*Detailed explanations of the above categories canbe found in 3GPP TR 21.900. | *Use one of the following releases:Rel-8 (Release 8)Rel-9 (Release 9)Rel-10 (Release 10)Rel-11 (Release 11)Rel-12 (Release 12)**Rel-13 (Release 13)Rel-14 (Release 14)Rel-15 (Release 15)Rel-16 (Release 16)* |
|  |  |
| ***Reason for change:*** | Possible SIMD implementations contributing to bitstream differences. |
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| ***Summary of change:*** | Add CONFIG\_EXCLUDE\_SIMD\_MISMATCH=1 to libaom build system configuration to address possible issue. |
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| ***Consequences if not approved:*** |  |
|  |  |
| ***Clauses affected:*** | 8.4 |
|  |  |
|  | **Y** | **N** |  |  |
| ***Other specs*** |  |  |  Other core specifications  | TS/TR ... CR ...  |
| ***affected:*** |  |  |  Test specifications | TS/TR ... CR ...  |
| ***(show related CRs)*** |  |  |  O&M Specifications | TS/TR ... CR ...  |
|  |  |
| ***Other comments:*** |  |
|  |  |
| ***This CR's revision history:*** |  |

Change 1

### 8.4.2 Test Configurations and Results for AV1

#### 8.4.2.1 Introduction

The reference software for AV1 is built from the AV1 codec library (libaom). It is used to build two applications – aomenc and aomdec. General instructions for building libaom can be found here: <https://aomedia.googlesource.com/aom#building-the-library-and-applications>

The AV1 codec library has multiple configuration options. These come in two varieties - build system configuration options and codec configuration options. Both option types are set at built time. The configurations to be used for 3GPP testing are:

-DCMAKE\_BUILD\_TYPE=Release

-DCONFIG\_DOCS=0

-DCONFIG\_SHARED=0

-DENABLE\_TESTS=0

-DCONFIG\_UNIT\_TESTS=0

-DCONFIG\_AV1\_HIGHBITDEPTH=1

-DCONFIG\_EXCLUDE\_SIMD\_MISMATCH=1

 End Change 1