**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***](about:blank)*on using this form: comprehensive instructions can be found at* [*http://www.3gpp.org/Change-Requests*](about:blank)*.* | | | | | | | | |
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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 can be found in 3GPP [TR 21.900](about:blank). | | | | | | | | *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. | | | | | | | | |
|  | |  | | | | | | | | |
| ***Summary of change:*** | | Add CONFIG\_EXCLUDE\_SIMD\_MISMATCH=1 to libaom build system configuration to address possible issue. | | | | | | | | |
|  | |  | | | | | | | | |
| ***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