

# **Upstream Link for High- bandwidth Digital Content Protection System Revision 1.0 Erratum**

Revision 9 April 2001

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This document is an erratum for the previously-published specification:

*Upstream Link for High-bandwidth Digital Content Protection*, Revision 1.0, Intel Corporation, March 1, 2001

On page 11, the description of An in Table 5-1 has been changed as highlighted below:

Link encryption session random number. This multi-byte value is copied to the video receiver by the graphics driver.

Note: Reading the least significant byte of An **may force** a return to State A0 (Figure 2-4 of the HDCP specification<sup>3</sup>). The byte read is the least significant byte of the new An.

On page 21, Table A-4 has been changed as highlighted below:

|               | <b>C1 – D1</b>   | <b>C2 – D2</b>   | <b>C2 – D1</b>   | <b>C2 – D2</b>   |
|---------------|------------------|------------------|------------------|------------------|
| <b>status</b> | 6105             | 6115             | 6008             | 6007             |
| <b>Cn</b>     | 2c72677f652c2f27 | f0fa8bc54b981cca | bd4bac10c902d2bd | f24977262e7ed2fe |
| <b>Bksv</b>   | e72697f401       | 511ef21acd       | 511ef21acd       | e72697f401       |
| <b>An</b>     | 34271c130c       | 445e62a53a       | 83bec2bb01       | 0351f71754       |
| <b>Cs</b>     | 0000420001       | 0000430003       | 0000840005       | b500820003       |
| <b>Ku</b>     | a25321f0ee8d21   | 2232a75b461f46   | b92f225bfa01d7   | d04b7ae589bc76   |
| <b>K1</b>     | eb09adb5f6dc25   | c424fbf6db045c   | 623e7c0e7fb070   | 6619ae14c42333   |
| <b>K2</b>     | 71ebb3cc7693d4   | 423ba5fd5fecf0   | ecebd28a716c30   | 130412205bb0b6   |
| <b>K3</b>     | fd27048ba34cc4   | 790514885ea2dd   | f9af695ad7dae9   | 33f4b64a511034   |
| <b>K4</b>     | 3caf817d0fab9f   | 8986a731ba0bb4   | 5f48cce032937e   | 2c46bde08a995f   |
| <b>Kp</b>     | 98598cc0b4d15a   | 518b4723c1411f   | 5603ac3951ec81   | e2f24941ae9ad8   |

**Table A-4. ReadStatus With Connection State**

On page 29, Table A-14 has been changed as highlighted below:

| Clock       | LFSR0                 | LFSR1  | LFSR2   | LFSR3   | Taps: |    |    | Select: |    |    | Shuffle Networks: |    |    |    | O  |    |
|-------------|-----------------------|--------|---------|---------|-------|----|----|---------|----|----|-------------------|----|----|----|----|----|
|             |                       |        |         |         | 0     | 2  |    | 0       | 1  | 2  | 3                 | 0  | 1  | 2  |    | 3  |
| <b>Load</b> | 31ccc4                | 3cae8d | 165b048 | 3043f49 | 1     | 0  |    | 1       | 1  | 1  | 0                 | 01 | 01 | 01 | 01 |    |
| <b>1</b>    | 639988                | 795d1b | 2cb6091 | 6087e93 | 1     | 1  |    | 0       | 0  | 1  | 0                 | 10 | 10 | 10 | 11 |    |
| <b>2</b>    | 473310                | f2ba37 | 196c123 | 410fd27 | 0     | 1  |    | 0       | 1  | 0  | 0                 | 01 | 01 | 11 | 10 |    |
| <b>3</b>    | 0e6620                | e5746f | 32d8246 | 021fa4f | 0     | 0  |    | 1       | 0  | 1  | 0                 | 10 | 00 | 11 | 01 |    |
| <b>4</b>    | 1ccc40                | cae8df | 25b048d | 043f49e | 1     | 0  |    | 1       | 1  | 1  | 1                 | 01 | 00 | 01 | 11 |    |
| <b>5</b>    | 399881                | 95d1be | 0b6091a | 087e93d | 0     | 1  |    | 0       | 1  | 0  | 1                 | 10 | 10 | 00 | 11 |    |
| <b>6</b>    | 733103                | 2ba37c | 16c1234 | 10fd27a | 0     | 1  |    | 0       | 1  | 0  | 1                 | 00 | 11 | 00 | 01 |    |
| <b>7</b>    | 666206                | 5746f8 | 2d82469 | 21fa4f4 | 1     | 0  |    | 1       | 0  | 0  | 1                 | 00 | 01 | 01 | 00 |    |
| <b>8</b>    | 4cc40d                | ae8df0 | 1b048d2 | 43f49e9 | 0     | 1  |    | 1       | 1  | 0  | 1                 | 10 | 10 | 10 | 00 |    |
| <b>9</b>    | 19881b                | 5d1be1 | 36091a5 | 07e93d2 | 1     | 1  |    | 0       | 0  | 0  | 1                 | 01 | 01 | 00 | 10 |    |
| <b>10</b>   | 331037                | ba37c3 | 2c1234b | 0fd27a5 | 1     | 0  |    | 0       | 0  | 1  | 0                 | 11 | 10 | 00 | 01 |    |
| <b>11</b>   | 66206f                | 746f86 | 1824696 | 1fa4f4a | 0     | 1  |    | 0       | 0  | 0  | 1                 | 11 | 01 | 10 | 10 |    |
| <b>12</b>   | 4c40de                | e8df0d | 3048d2d | 3f49e94 | 0     | 1  |    | 1       | 1  | 0  | 0                 | 10 | 11 | 00 | 11 |    |
| ...         | ...                   | ...    | ...     | ...     | ..    | .. | .. | ..      | .. | .. | ..                | .. | .. | .. | .. | .. |
| <b>27</b>   | 6f0355                | 869e73 | 296877b | 74a0089 | 1     | 0  |    | 0       | 1  | 0  | 1                 | 10 | 11 | 10 | 11 |    |
| <b>28</b>   | 5e06ab                | 0d3ce6 | 12d0ef6 | 6940112 | 1     | 0  |    | 0       | 0  | 1  | 0                 | 01 | 11 | 01 | 11 |    |
| <b>29</b>   | 3c0d57                | 1a79cc | 25a1dec | 5280225 | 0     | 0  |    | 0       | 0  | 0  | 0                 | 11 | 10 | 10 | 11 |    |
| <b>30</b>   | 781aaf                | 34f398 | 0b43bd9 | 250044b | 1     | 1  |    | 0       | 1  | 0  | 0                 | 10 | 01 | 01 | 11 |    |
| <b>31</b>   | 70355e                | 69e731 | 16877b2 | 4a00897 | 1     | 0  |    | 0       | 1  | 0  | 0                 | 01 | 10 | 11 | 10 | 1  |
| <b>32</b>   | 606abc                | d3ce62 | 2d0ef65 | 140112f | 1     | 1  |    | 1       | 1  | 0  | 0                 | 11 | 01 | 10 | 01 | 1  |
| <b>33</b>   | 40d579                | a79cc5 | 1a1deca | 280225f | 1     | 0  |    | 1       | 1  | 1  | 0                 | 11 | 10 | 01 | 11 | 1  |
| <b>34</b>   | 01aaf2                | 4f398b | 343bd95 | 50044bf | 1     | 0  |    | 0       | 0  | 1  | 0                 | 11 | 11 | 00 | 11 | 1  |
| <b>35</b>   | 0355e5                | 9e7316 | 2877b2b | 200897e | 1     | 0  |    | 1       | 0  | 1  | 0                 | 11 | 11 | 10 | 10 | 1  |
| <b>36</b>   | 06abca                | 3ce62d | 10ef656 | 40112fc | 1     | 1  |    | 0       | 1  | 0  | 0                 | 11 | 11 | 11 | 00 | 1  |
| <b>37</b>   | 0d5795                | 79cc5b | 21decac | 00225f8 | 0     | 1  |    | 1       | 1  | 1  | 1                 | 11 | 11 | 11 | 01 | 0  |
| <b>38</b>   | 1aaf2a                | f398b6 | 03bd958 | 0044bf1 | 1     | 1  |    | 0       | 1  | 1  | 0                 | 01 | 11 | 11 | 10 | 0  |
| ...         | ...                   | ...    | ...     | ...     | ..    | .. | .. | ..      | .. | .. | ..                | .. | .. | .. | .. | .. |
| <b>77</b>   | 053515                | 3e8c7c | 275bb51 | 2fdc233 | 1     | 1  |    | 0       | 1  | 1  | 0                 | 01 | 00 | 11 | 00 | 1  |
| <b>78</b>   | 0a6a2b                | 7d18f9 | 0eb76a3 | 5fb8467 | 1     | 1  |    | 1       | 0  | 1  | 1                 | 11 | 00 | 01 | 01 | 0  |
| <b>79</b>   | 14d457                | fa31f2 | 1d6ed46 | 3f708ce | 0     | 1  |    | 1       | 0  | 0  | 1                 | 11 | 01 | 00 | 10 | 1  |
| <b>80</b>   | 29a8af                | f463e5 | 3adda8c | 7ee119c | 1     | 1  |    | 0       | 0  | 1  | 1                 | 01 | 11 | 00 | 01 | 0  |
| <b>81</b>   | 53515e                | e8c7cb | 35bb518 | 7dc2338 | 1     | 0  |    | 1       | 1  | 1  | 0                 | 11 | 10 | 10 | 00 | 0  |
| <b>82</b>   | 26a2bc                | d18f97 | 2b76a31 | 7b84671 | 0     | 1  |    | 0       | 1  | 1  | 0                 | 11 | 11 | 01 | 00 | 1  |
| <b>83</b>   | 4d4578                | a31f2f | 16ed462 | 7708ce3 | 0     | 1  |    | 1       | 0  | 0  | 0                 | 10 | 11 | 10 | 01 | 1  |
| <b>84</b>   | 1a8af0                | 463e5f | 2dda8c5 | 6e119c7 | 0     | 0  |    | 0       | 0  | 1  | 0                 | 01 | 10 | 01 | 11 | 1  |
| <b>85</b>   | 3515e0                | 8c7cbe | 1bb518a | 5c2338f | 0     | 0  |    | 0       | 0  | 1  | 1                 | 10 | 00 | 10 | 11 | 1  |
| <b>86</b>   | 6a2bc0                | 18f97c | 376a315 | 384671e | 1     | 0  |    | 0       | 1  | 0  | 0                 | 00 | 01 | 01 | 01 | 0  |
| <b>87</b>   | 545780                | 31f2f9 | 2ed462b | 708ce3d | 0     | 1  |    | 1       | 1  | 1  | 0                 | 01 | 00 | 11 | 10 | 0  |
| <b>88</b>   | 28af00                | 63e5f2 | 1da8c57 | 6119c7b | 1     | 1  |    | 0       | 1  | 0  | 0                 | 00 | 10 | 01 | 01 |    |
| <b>K4</b>   | <b>3caf817d0fab9f</b> |        |         |         |       |    |    |         |    |    |                   |    |    |    |    |    |

Table A-14. Detailed ReadStatus C1-D1 With Connection State K4

On page 30, Table A-15 has been changed as highlighted below:

| Clock | LFSR0          | LFSR1  | LFSR2   | LFSR3   | Taps: |    | Select: |    |    | Shuffle Networks: |    |    |    | O  |    |
|-------|----------------|--------|---------|---------|-------|----|---------|----|----|-------------------|----|----|----|----|----|
|       |                |        |         |         | 0     | 2  | 0       | 1  | 2  | 3                 | 0  | 1  | 2  |    | 3  |
| Load  | 086b9f         | 00343e | 0287817 | 0000f2b | 0     | 0  | 1       | 0  | 0  | 0                 | 01 | 01 | 01 | 01 |    |
| 1     | 10d73f         | 00687d | 050f02e | 0001e56 | 0     | 0  | 1       | 0  | 0  | 0                 | 00 | 11 | 10 | 10 |    |
| 2     | 21ae7f         | 00d0fa | 0a1e05c | 0003cad | 1     | 0  | 0       | 1  | 1  | 0                 | 00 | 10 | 01 | 01 |    |
| 3     | 435cff         | 01a1f5 | 143c0b9 | 000795a | 1     | 1  | 1       | 1  | 1  | 0                 | 01 | 01 | 00 | 11 |    |
| 4     | 06b9ff         | 0343ea | 2878172 | 000f2b5 | 1     | 1  | 0       | 0  | 1  | 0                 | 10 | 10 | 10 | 10 |    |
| 5     | 0d73fe         | 0687d5 | 10f02e4 | 001e56a | 1     | 0  | 1       | 1  | 1  | 0                 | 01 | 01 | 11 | 00 |    |
| 6     | 1ae7fd         | 0d0fab | 21e05c8 | 003cad5 | 1     | 1  | 1       | 0  | 0  | 1                 | 10 | 10 | 11 | 01 |    |
| 7     | 35cffa         | 1a1f57 | 03c0b91 | 00795aa | 1     | 0  | 1       | 0  | 0  | 1                 | 11 | 00 | 11 | 10 |    |
| 8     | 6b9ff4         | 343eae | 0781722 | 00f2b55 | 0     | 1  | 0       | 0  | 0  | 1                 | 11 | 01 | 10 | 11 |    |
| 9     | 573fe8         | 687d5d | 0f02e45 | 01e56ab | 1     | 1  | 0       | 0  | 0  | 1                 | 10 | 11 | 00 | 11 |    |
| 10    | 2e7fd0         | d0faba | 1e05c8a | 03cad57 | 1     | 1  | 1       | 1  | 0  | 0                 | 01 | 11 | 01 | 01 |    |
| 11    | 5cffa1         | a1f574 | 3c0b914 | 0795aaf | 0     | 1  | 1       | 1  | 0  | 0                 | 10 | 11 | 11 | 10 |    |
| 12    | 39ff42         | 43eae9 | 3817229 | 0f2b55e | 0     | 1  | 1       | 1  | 1  | 1                 | 01 | 01 | 11 | 01 |    |
| ...   | ...            | ...    | ...     | ...     | ..    | .. | ..      | .. | .. | ..                | .. | .. | .. | .. | .. |
| 27    | 2127bb         | 74b298 | 114a8d2 | 2af6be3 | 1     | 0  | 0       | 1  | 0  | 1                 | 00 | 10 | 01 | 11 |    |
| 28    | 424f76         | e96531 | 22951a4 | 55ed7c7 | 0     | 0  | 1       | 0  | 1  | 1                 | 01 | 01 | 10 | 01 |    |
| 29    | 049eec         | d2ca62 | 052a349 | 2bdaf8e | 1     | 1  | 0       | 1  | 0  | 0                 | 00 | 11 | 01 | 00 |    |
| 30    | 093dd9         | a594c5 | 0a54692 | 57b5f1c | 1     | 0  | 0       | 1  | 1  | 1                 | 01 | 01 | 11 | 00 |    |
| 31    | 127bb3         | 4b298a | 14a8d24 | 2f6be38 | 1     | 0  | 1       | 0  | 0  | 1                 | 11 | 00 | 11 | 10 | 0  |
| 32    | 24f767         | 965314 | 2951a49 | 5ed7c71 | 0     | 1  | 1       | 0  | 1  | 0                 | 11 | 01 | 10 | 11 | 0  |
| 33    | 49eecf         | 2ca628 | 12a3492 | 3daf8e2 | 1     | 1  | 1       | 1  | 0  | 1                 | 01 | 11 | 01 | 10 | 1  |
| 34    | 13dd9e         | 594c50 | 2546924 | 7b5f1c4 | 1     | 0  | 1       | 0  | 0  | 0                 | 10 | 11 | 11 | 01 | 0  |
| 35    | 27bb3d         | b298a0 | 0a8d248 | 76be388 | 0     | 0  | 0       | 1  | 0  | 1                 | 11 | 10 | 11 | 11 | 1  |
| 36    | 4f767a         | 653141 | 151a491 | 6d7c711 | 1     | 0  | 1       | 0  | 1  | 1                 | 10 | 11 | 10 | 11 | 1  |
| 37    | 1eecf5         | ca6282 | 2a34922 | 5af8e22 | 1     | 1  | 1       | 0  | 1  | 1                 | 11 | 10 | 11 | 01 | 0  |
| 38    | 3dd9ea         | 94c504 | 1469244 | 35f1c45 | 1     | 1  | 1       | 1  | 0  | 1                 | 11 | 01 | 11 | 10 | 1  |
| ...   | ...            | ...    | ...     | ...     | ..    | .. | ..      | .. | .. | ..                | .. | .. | .. | .. | .. |
| 77    | 34a73a         | 708565 | 323d018 | 2e5745f | 0     | 1  | 0       | 1  | 1  | 0                 | 00 | 10 | 01 | 11 | 0  |
| 78    | 694e75         | e10aca | 247a031 | 5cae8bf | 1     | 0  | 1       | 0  | 1  | 1                 | 00 | 01 | 00 | 11 | 1  |
| 79    | 529cea         | c21595 | 08f4063 | 395d17f | 1     | 0  | 0       | 0  | 1  | 0                 | 10 | 10 | 00 | 01 | 0  |
| 80    | 2539d4         | 842b2a | 11e80c6 | 72ba2fe | 1     | 0  | 0       | 0  | 0  | 1                 | 01 | 01 | 10 | 10 | 0  |
| 81    | 4a73a8         | 085655 | 23d018c | 65745fd | 1     | 1  | 1       | 0  | 1  | 1                 | 11 | 10 | 00 | 11 | 0  |
| 82    | 14e750         | 10acaa | 07a0318 | 4ae8bfa | 1     | 1  | 1       | 1  | 0  | 1                 | 11 | 01 | 10 | 01 | 0  |
| 83    | 29cea0         | 215954 | 0f40630 | 15d17f5 | 0     | 0  | 1       | 0  | 0  | 0                 | 11 | 10 | 01 | 10 | 1  |
| 84    | 539d40         | 42b2a9 | 1e80c61 | 2ba2fea | 0     | 1  | 0       | 1  | 0  | 1                 | 01 | 01 | 11 | 00 | 1  |
| 85    | 273a80         | 856553 | 3d018c2 | 5745fd5 | 0     | 1  | 0       | 0  | 0  | 0                 | 10 | 00 | 11 | 10 | 0  |
| 86    | 4e7501         | 0acaa7 | 3a03184 | 2e8bfaa | 1     | 0  | 1       | 1  | 0  | 0                 | 00 | 01 | 10 | 01 | 0  |
| 87    | 1cea03         | 15954e | 3406308 | 5d17f55 | 0     | 0  | 1       | 1  | 0  | 0                 | 10 | 00 | 01 | 11 | 1  |
| 88    | 39d407         | 2b2a9c | 280c611 | 3a2feab | 1     | 1  | 1       | 0  | 0  | 1                 | 01 | 00 | 10 | 10 |    |
| Kp    | 98598cc0b4d15a |        |         |         |       |    |         |    |    |                   |    |    |    |    |    |

Table A-15. Detailed ReadStatus C1-D1 With Connection State Kp