# Annex B: Evaluations results (Apple)

## B.1 Link level evaluation results

### B.1.1 Evaluation results for PDSCH/PUSCH

Table B.1.1-1: LLS template: SINR in dB achieving PDSCH BLER of 10% /1%

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Tdoc /Source | MCS | Channel | 120KHz/400MHz | 240KHz/400MHz | 480KHz/400MHz | 960KHz/400MHz | 960KHz/400MHz (ICI) |
| R1-2008457 / Apple | 7 | TDL-A, 5ns | 0/2 | 0/2.25 | 0.25/2.75 | 0.25/2.75 |  |
| TDL-A, 10ns | 0.25/2.25 | 0/2 | 0.25/2 | 0.75/2.75 |  |
| TDL-A, 20ns | 0.5/2.25 | 0.5/2.25 | 0.75/2.5 | 1.25/5 |  |
| 16 | TDL-A, 5ns | 9.25/12 | 8.75/11.25 | 8.25/10.5 | 8.25/10.75 |  |
| TDL-A, 10ns | 9.5/12 | 8.75/11.5 | 9.25/12 | 8.75/11 |  |
| TDL-A, 20ns | 9.5/11.5 | 9.25/11.25 | 9/10.75 | 11/17 |  |
| 22 | TDL-A, 5ns | Inf/Inf | 28/Inf | 15.5/22 | 14.25/16.75 | 14.5/16.75 |
| TDL-A, 10ns | Inf/Inf | Inf/Inf | 16.5/22 | 17/22 | 14.5/17 |
| TDL-A, 20ns | Inf/Inf | 23.5/Inf | 20/[29] | Inf/ Inf | 17/ [24] |
| Additional report/notes:1. CP type : Normal
2. antenna configuration for CDL model : N/A
3. waveform in case of PDSCH : CP-OFDM
4. PTRS configuration :
	1. CPE Estimation: (K = 2, L = 1)
	2. ICI Estimation: (K = 2 every 4 RBs, L = 1)
5. DMRS configuration : 2 DMRS symbols at (2,11)
6. the higher layer parameter
7. Antenna Configuration : 2 x 2
8. Numbers in brackets are extrapolated estimates
 |

**Table 9: SINR in dB achieving PUSCH BLER of 10% /1%**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Tdoc /Source | MCS | Channel | 120KHz/400MHz | 240KHz/400MHz | 480KHz/400MHz | 960KHz/400MHz | 960KHz/400MHz (ICI) |
| R1-2008457 / Apple | 7 | TDL-A, 5ns | 1.25 / 3.75 | 0.75 / 2.75 | 0.75 / 2.5 | 0.75 / 2.5 |  |
| TDL-A, 10ns | 1.4 / 3.25 | 1 / 3 | 1 / 2.75 | 1.8 / 3 |  |
| TDL-A, 20ns | 1.5 / 4 | 1.25 / 4 | 2 / 4 | 2.5 / 6 |  |
| 16 | TDL-A, 5ns | 9.5 / 12.5 | 8.75 / 11.5 | 8.75 / 11.5 | 8.75 / 11 |  |
| TDL-A, 10ns | 9.75 / 12.25 | 9 / 11.25 | 9.25 / 10.75 | 9.5 / 12.25 |  |
| TDL-A, 20ns | 10 / 12.5 | 9.5 /11.5 | 10 /12.5 | [27] /Inf |  |
| 22 | TDL-A, 5ns | [22.5] / Inf | 14.75 /1 8.25 | 14.5/17.25 | 14/17 |  |
| TDL-A, 10ns | Inf / Inf | 15 / 18.5 | 16 / 18 | 20.5 / 22.5 |  |
| TDL-A, 20ns | 23 / Inf | 15.5 / 19 | 21 / Inf | Inf / Inf |  |
| Additional report/notes:1. CP type : Normal
2. antenna configuration for CDL model : N/A
3. waveform in case of PDSCH : DFT-S-OFDM
4. PTRS configuration : DFT-S-OFDM: (Ng = 8, Ns = 4, L = 1)
5. DMRS configuration : 2 DMRS symbols at (2,11)
6. the higher layer parameter
7. Antenna Configuration : 2 x 2
8. Numbers in brackets are extrapolated estimates
 |

### B.1.2 Evaluation results for PSS/SSS

Table B.1.2: LLS template: SINR in dB achieving cell ID detection probability of 90% by one-shot detection from PSS/SSS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Tdoc /Source | Channel | 120KHz | 240KHz | 480KHz | 960KHz |
| R1-2008457 / Apple | TDL-A, 5ns | -4 | -5.5 | -5.5 | -1 |
| TDL-A, 10ns | -5.5 | -5 | -4 | -1 |
| TDL-A, 20ns | -5.5 | -6.5 | -4 | 0 |
| Additional report/notes: 1. frequency offset : none
2. antenna configuration for CDL model : N/A
 |

### B.1.3 Evaluation results for PBCH

Table B.1.2: LLS template: SINR in dB achieving PBCH BLER of 10%

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Tdoc /Source | Channel | 120KHz | 240KHz | 480KHz | 960KHz |
| R1-2008457 / Apple | TDL-A, 5ns | -6 | -6.5 | -6.5 | -5.9 |
| TDL-A, 10ns | -5 | -6 | -6 | -5.8 |
| TDL-A, 20ns | -7.5 | -8 | -7.5 | -8 |
| Additional report/notes:  |