**3GPP TSG-RAN WG4 Meeting #94-e R4-2002675\_rev1**

**Electronic Meeting, Feb.24th – Mar.6th 2020**

**Agenda item:** 6, 6.1.1

**Source:** Moderator **(**Ericsson)

**Title:** Email discussion summary for RAN4#94e\_#1\_NR\_NewRAT\_DC

**Document for:** Information

# Introduction

This Email discussion concerns Rel-15 maintenance in two areas under AI 6 and AI 6.1.1:

* AI 6: release independent specification of NR UE power classes
* AI 6.1.1: UE power-class restrictions for NE-DC

One set of CRs is submitted against the respective area, no other documents. The aim is to decide on these Rel-15 changes.

# Topic #1: NR UE power class (release independence)

Release-independent specification of a NR UE power class can depend on the duplex mode and the release in which a new power class is introduced.

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| [R4-2000557](ftp://ftp.3gpp.org/tsg_ran/WG4_Radio/TSGR4_94_e/Docs/R4-2000557.zip) | Nokia, Nokia Shanghai Bell | TS 38.307 CR 0017 (Cat F)  Summary of change: PC2 mapping is removed from FDD and PC1 is added. (One other editorial correction.) |
| [R4-2000524](ftp://ftp.3gpp.org/tsg_ran/WG4_Radio/TSGR4_94_e/Docs/R4-2000524.zip) | Nokia, Nokia Shanghai Bell | TS 38.307 CR 0017 (Cat A) |

## Open issues summary

The issue: should release-independent specification of the NR UE power classes 1, 2 and 3 depend on the duplex mode?

### Sub-topic 1-1 Release independent specification of NR UE power classes

The issue: should release-independent specification of the NR UE power classes 1, 2 and 3 depend on the duplex mode?

**Issue 1-1: Release independent specification of power classes**

* Proposals
  + Option 1: The proposed changes in TS 38.307 CR 0017 (R4-2000557)
  + Option 2: No change
* Recommended WF
  + Option 1: not all power classes specified in Rel-15 are applicable for all duplex modes (FDD, TDD and SUL)

## Companies views’ collection for 1st round

### Open issues

|  |  |
| --- | --- |
| **Company** | **Comments** |
| OPPO | Sub topic 1-1: OK with option 1.  Sub topic 1-2:  ….  Others: |

### CRs/TPs comments collection

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| TS 38.307 CR 0017 | Intel: PC1 does not exist for Rel-15 NR. Suggest removing it. Support option 1 in recommended WF |
|  |
|  |
| TS 38.307 CR 0016 | Intel: This is Cat A CR. Same comments as in Cat F CR. |
|  |
|  |

## Summary for 1st round

### Open issues

*Moderator tries to summarize discussion status for 1st round, list all the identified open issues and tentative agreements or candidate options and suggestion for 2nd round i.e. WF assignment.*

|  |  |
| --- | --- |
|  | **Status summary** |
| **Sub-topic#1-1** | *Tentative agreements: Option 1 (also including PC1 since this is specified for n14 in Rel-16, release independence applies but pending further discussions in the second round).*  *Candidate options:*  *Recommendations for 2nd round: CRs to be agreed* |

*Recommendations on WF/LS assignment*

|  |  |  |
| --- | --- | --- |
|  | **WF/LS t-doc Title** | **Assigned Company,**  **WF or LS lead** |
| #1 |  |  |

### CRs/TPs

*Moderator tries to summarize discussion status for 1st round and provides recommendation on CRs/TPs Status update*

|  |  |
| --- | --- |
| **CR/TP number** | **CRs/TPs Status update recommendation** |
| TS 38.307 CR 0017 | Will be agreed at this meeting. |
| TS 38.307 CR 0018 | Cat A (tentatively pending discussions in the 2nd round) |

## Discussion on 2nd round (if applicable)

|  |  |
| --- | --- |
| **Company** | **Comments** |
| Ericsson | Issue 1-1: the TS 38.307 CR 0017 is technically correct and should be agreed, but there is an editorial correction that could be made (an error in a table heading). It is proposed to revise the CR to this end. |

## Summary on 2nd round (if applicable)

*Moderator tries to summarize discussion status for 2nd round and provided recommendation on CRs/TPs/WFs/LSs Status update suggestion*

|  |  |
| --- | --- |
| **CR/TP/LS/WF number** | **T-doc Status update recommendation** |
| TS 38.307 CR 0017 | *CR “to be revised” (new tdoc number not needed for Cat A)* |

# Topic #2: UE power-class restrictions for NE-DC

Restrictions on the configured UE output power may apply for higher power-class operations (e.g. UE Power Class 2) when the UE is configured with NE-DC.

## Companies’ contributions summary

|  |  |  |
| --- | --- | --- |
| **T-doc number** | **Company** | **Proposals / Observations** |
| [R4-2001227](ftp://ftp.3gpp.org/tsg_ran/WG4_Radio/TSGR4_94_e/Docs/R4-2001227.zip) | OPPO | TS 38.101-3 CR 0198  Summary of change: remove the restriction on the LTE U/D and special-subframe configurations for NE-DC PC2, not applicable for inter-band NE-DC. PC2 is not specified for any Rel-15 NE-DC band combination. |
| [R4-2001228](ftp://ftp.3gpp.org/tsg_ran/WG4_Radio/TSGR4_94_e/Docs/R4-2001228.zip) | OPPO | TS 38.101-3 CR 0199 (Cat A) |

## Open issues summary

### Sub-topic 1-1: power-class restrictions for NE-DC

The issue: remove the restriction onthe LTE U/D and special-subframe configurations for inter-band NE-DC PC2?

**Issue 1-1: power-class restriction for NE-DC**

* Proposals
  + Option 1: the proposed changes in TS 38.101-3 CR 0198 (R4-2001227)
  + Option 2: No change
* Recommended WF
  + Option 1: the restriction of the LTE U/D and special-subframe configuration for NE-DC PC2 not relevant/applicable for inter-band NE-DC.

## Companies views’ collection for 1st round

### Open issues

|  |  |
| --- | --- |
| **Company** | **Comments** |
| XXX | Sub topic 1-1:  Sub topic 1-2:  ….  Others: |

### CRs/TPs comments collection

*Major close to finalize WIs and Rel-15 maintenance, comments collections can be arranged for TPs and CRs. For Rel-16 on-going WIs, suggest to focus on open issues discussion on 1st round.*

|  |  |
| --- | --- |
| **CR/TP number** | **Comments collection** |
| TS 38.101-3 CR 0198 | Company A |
| Company B |
|  |
| TS 38.101-3 CR 0199 | Company A |
| Company B |
|  |

## Summary for 1st round

### Open issues

*Moderator tries to summarize discussion status for 1st round, list all the identified open issues and tentative agreements or candidate options and suggestion for 2nd round i.e. WF assignment.*

|  |  |
| --- | --- |
|  | **Status summary** |
| **Sub-topic#1-1** | *Tentative agreements: Option 1, no comments received*  *Candidate options:*  *Recommendations for 2nd round: 2nd round not needed, CRs agreeable* |

*Suggestion on WF/LS assignment*

|  |  |  |
| --- | --- | --- |
|  | **WF/LS t-doc Title** | **Assigned Company,**  **WF or LS lead** |
| #1 |  |  |

### CRs/TPs

*Moderator tries to summarize discussion status for 1st round and provided recommendation on CRs/TPs Status update suggestion*

|  |  |
| --- | --- |
| **CR/TP number** | **CRs/TPs Status update recommendation** |
| TS 38.101-3 CR 0198 | Cat F CR agreeable |
| TS 38.101-3 CR 0199 | Cat A |

## Discussion on 2nd round (if applicable)

## Summary on 2nd round (if applicable)

*Moderator tries to summarize discussion status for 2nd round and provided recommendation on CRs/TPs/WFs/LSs Status update suggestion*

|  |  |
| --- | --- |
| **CR/TP/LS/WF number** | **T-doc Status update recommendation** |
| XXX | *Based on 2nd round of comments collection, moderator can recommend the next steps such as “agreeable”, “to be revised”* |