3GPP TSG-RAN WG2 #109-bis-e Tdoc R2-200nnnn

Electronic meeting, 20th – 30th April, 2020

**Title: [DRAFT]** Reply LS on Handling of Fallbacks for combined contiguous and non-contiguous CA or DC configurations in FR2

**Response to:** LS on Handling of Fallbacks for combined contiguous and non-contiguous CA or DC configurations in FR2 (R4-1910239)

**Release:** Rel-15

**Work Item:** NR\_newRAT-Core

**Source:** MediaTek Inc. [To be RAN WG2]

**To:** RAN WG4

**Cc:** -

**Contact Person:**

#### Name: Alex Hsu

E-mail Address: alex dot hsu at mediatek.com

**Send any reply LS to: 3GPP Liaisons Coordinator,** **mailto:3GPPLiaison@etsi.org**

**Attachments:** -

**1. Overall Description:**

RAN2 would like to thank RAN4 for their LS on handling of fallbacks for combined contiguous and non-contiguous CA or DC configurations in FR2.

In RAN2#109-bis-e, RAN2 has not reached consensus on a technical solution. On one hand some companies have made progress on a solution based on the RAN4 request, the solution is described in [R2-2002802](http://www.3gpp.org/ftp/tsg_ran/wg2_rl2/tsgr2_109bis-e/docs/R2-2002802.zip). On the other hand, some companies claim that the solution can result in undesired adverse effects as described in [R2-2003832](http://www.3gpp.org/ftp/tsg_ran/wg2_rl2/tsgr2_109bis-e/docs/R2-2003832.zip). However, RAN2 has agreed on the following way forward:

* Send LS to R4, explaining the situation in R2 (could explain also why we have not been able to converge), ask questions that would/could be relevant to technical solution.
* Work on CRs to have technically endorsed CRs to RP, by email to next meeting (assumption is that we can tech endorse CRs also if R4 doesn’t reply).

RAN2 will work on technically endorsed CRs and would like to explain the concept of the solution under discussion and ask questions. The solution in [R2-2002802](http://www.3gpp.org/ftp/tsg_ran/wg2_rl2/tsgr2_109bis-e/docs/R2-2002802.zip) introduces a new separate list for the band combinations with fallback exceptions, i.e. *exceptional* band combination, with following definition.

**FR2 fallback exception band combination:** A band combination has a FR2 intra-band CA or MR-DC combination with multiple subblocks, for which UE is only required to directly fall back to a single FR2 carrier as specified in [TS 38.101-2 [3] and TS38.101-3 [4]].

The high level concept of the capability report is described below.

|  |
| --- |
| * Step 1: NW side indicates with 1-bit in the *UECapabilityEnquiry* message asking UE to report the band combinations with fallback exceptions.
* Step 2: UE reports the band combinations with fallback exceptions in a separate band combination container *supportedBandCombinationList-FR2CAFallbackException*.
 |

RAN2 has these questions:

Q1: From RAN4 point of view, what is the criteria to consider a band combination “exceptional”? How will those “exceptional” band combination(s) be captured in the RAN4 specifications?

Q2: Does RAN4 foresee a normal (i.e. non “exceptional”) band combination to become an “exceptional” band combination band combination in the future, or vice versa?

**2. Actions:**

**To RAN4:** RAN2 respectfully asks RAN4 to provide comment on the described solution and answers to the above questions.

**3. Date of Next TSG-RAN WG2 Meetings:**

TSG-RAN WG2 Meeting #110-e 2020-06-01 to 2020-06-12

TSG-RAN WG2 Meeting #111 2020-08-24 to 2020-08-28 Toulouse, FR