**3GPP TSG-RAN WG4 Meeting # 107 R4-23XXXX**

**Incheon, KR, May 22nd – May 26th , 2023**

**Agenda item:** 8.18.3

**Source:** Xiaomi, [XXX]

**Title:** WF on UE EMC

**Document for:** Approval

# Introduction

The test simplification of UE EMC has been discussed in this meeting, this paper capture the WF and agreements based on the discussion.

# Agreements and WF

## 2.1 Test simplification

**Proposal 1: For other emission test besides radiated emission, such as Conducted emission DC power input/output port, Conducted emissions, AC mains power input/output port, Harmonic current emissions (AC mains input port), Voltage fluctuations and flicker (AC mains input port), it is proposed to have one CA combination and one DC combination that the UE supports as example combinations**

**Proposal 2: For Fast transients common mode, RF common mode (0.15 MHz to 80 MHz), Transients and surges, vehicular environment, Voltage dips and interruptions, Surges, common and differential mode, these 5 tests all focus on the power supply and hence it is proposed to have one CA combination and one DC combination that the UE supports as example combinations.**

**WF:**

For other emission test and other immunity test besides radiated emission and radiated immunity (i.e. RF electromagnetic field, Electrostatic discharge)

* Option 1: one example combination of CA and DC is selected for each frequency range (i.e. FR1 only, FR1+FR2, FR2 only) if supported.
* Option 2: only one example combination of CA and DC is selected for all the supported band combination.

## 2.2 How to select the example band combination

**Proposal 1: To select one band from below 1GHz as low band and one band from {n41, n77, n78, n79} which is the typical 5G NR band for one CA and one DC combination.**

**Proposal 2: If the proposed combinations are not supported by UE, it is proposed that UE declare a test band combination for such case.**

**Agreements:**

Select the band combination that have the largest frequency span among each supported BC, the frequency span is considered from lowest frequency to highest frequency for each supported BC.

# References

[1] R4-2310444, Email discussion summary for [106bis-e][305] NR\_LTE\_EMC\_enh, Moderator (Ericsson)