**3GPP TSG-RAN5 Meeting #91-e*Draft\_*R5-213XXX**

**Electronic Meeting, 17th May – 28th May 2021**

**Title:** LSon FR2 Extreme temperature conditions clarifications

**Source:** TSG RAN WG5

**To:** TSG RAN WG4

**Cc:**

**Contact Person:**

#### Name: Flores Fernández

#### E-mail Address: flores\_fernandez@keysight.com

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

**1. Overall Description:**

According to TS 38.101-2, core requirements for FR2 Standalone include in Annex E.2.1 a statement indicating that the UE shall fulfill all the requirements in the temperature range for extreme conditions unless explicitly stated otherwise.

RAN5 has been working on such feasibility analysis on extreme temperature conditions for FR2 requirements and has concluded that such testing is feasible even when it implies spherical measurements.

Analyzing which are the exceptions to extreme temperature conditions in core requirements, the following ones are observed:

* 6.2.1 UE maximum output power (Spherical coverage only for all power classes)
* 6.3.4 Power control
* 6.3A.4 Power control for CA
* 6.4.2.1 Error vector magnitude
* 6.4.2.4 EVM equalizer spectrum flatness
* 6.4.2.5 EVM spectral flatness for Pi/2 BPSK modulation
* 6.6.4 Beam correspondence for power class 3
* 7.3.4 EIS spherical coverage

RAN5 still has some concerns on whether core requirements not explicitly limited to Nominal Temperature conditions (i.e. different from the list above) are applicable to Extreme Temperature Conditions.

**2. Actions:**

**To:** TSG RAN WG4

**ACTION:** RAN5 kindly asks RAN4 group to clarify whether core requirements not explicitly limited to Nominal Temperature conditions are applicable to Extreme Temperature Conditions.

**3. Date of Next TSG-RAN WG5 Meetings:**

TSG-RAN5 Meeting#92 16th – 27th Aug 2021 Electronic Meeting

TSG-RAN5 Meeting#93 8th – 19th Nov 2021 Electronic Meeting