**3GPP TSG-RAN WG4 Meeting#112 R4-2412707**

**Maastricht , NL, 19th – 23th Aug, 2024**

**Agenda item: 8.11.2**

**Source: ZTE Corporation,Sanechips**

**Title: TP to TR 38.908 Background of U6GHz EEIRP mask requirement**

**Document for:** **Approval**

1. Introduction

In the RAN#103 meeting, new WID for Rel-19 BS RF evolution has been approved and it’s expected to start the normative work from this April meeting. In this TP, the background for U6GHz EEIRP mask requirements are provided.

*<Start of the change>*

#  Background

The frequency band of 6 425-7 125 MHz and parts thereof was identified for IMT use by WRC 23 in different ITU region as in the RR Footnotes 5. 6A12, 5. 6B12 and 5.6C12 ~~permit the use of this band in Region 1 and other countries~~ with associated technical condition of limits on the expected equivalent isotropically radiated power (e.i.r.p.) spectral density of IMT base-stations for protecting Earth-to-space fixed satellite services (FSS) as in Resolution COM4/7 (WRC-23). The expected e.i.r.p. is a new regulatory requirement and is specified as a mask for over the horizon emissions. The Annex to the Resolution COM4/7 (WRC-23) outlines a calculation of the expected equivalent isotropically radiated power (e.i.r.p.) of an International Mobile Telecommunications (IMT) base station for assessing the compliance of the IMT base station equipment with the limit on expected e.i.r.p. ~~accuracy requirements of the mask are given interms of a confidence interval on the expected value~~. When developing the expected e.i.r.p, it is expected that 3GPP to develop the harmonized specification for compliance testing.

The aim of this report is the following:

* To specify the core requirement in BS (and other nodes like IAB, Repeater and NCR) RF core specification (TS 38.104)
* To specify the test procedures in the conformance test specification (TS 38.141-2) to measure the expected EIRP mask performance.

Having the requirement included in a 3GPP standard would guarantee a harmonized terminology and conformance test method. Eventually, the concept for conformance testing can be adopted to similar situations with co-channel spectrum sharing between IMT and FSS UL.

*<End of the change>*