**3GPP TSG-RAN WG4 Meeting #116 R4-2511747**

**Bengaluru, India, August 25th – 29th, 2025**

**Source:** vivo

**Title:** draft TP to TS 38.191 on OTA performance metric

**Agenda Item:** 7.22.5

**Document for:** Approval

1. Introduction

In this contribution, we update the TS based on the agreements in the meeting.

1. Text proposal

**<<Start of Change>>**

8.2 Performance metrics

8.2.1 Performance metric of Tx requirements

Transmitter power measurements shall be performed using the Effective Isotropic Radiated Power (EIRP) as the measurement metric. The EIRP is defined as

(8.1)

Where is the product of the power delivered to the antenna and the antenna’s power gain.

The EIRP is combined from θ and ϕ polarizations:

Where and are the EIRP in the corresponding θ and ϕ polarizations, and are the incident CW in the corresponding θ and ϕ polarizations,

For backscatter power measurement, the EIRP only contains the power of 1st sidebands within D2R channel bandwidth and excludes power of CW.

8.2.1 Performance metric of Rx requirements

Receiver sensitivity measurements shall be performed using miss detection rate of R2D as the measurement metric. The DUT’s receiver sensitivity corresponds to the minimum R2D signal power required to provide a success rate no less than 90% under the fixed reference channel (FRC) specified in Annex C.

The effective isotropic sensitivity (EIS) is defined as the minimum power level at which the success rate no less than 90% under the specified FRC, at each given test point.

The EIS is combined from θ and ϕ polarizations:

Where EISθ and EISϕ are the EIS in the corresponding θ and ϕ polarizations.

The EIS partial sphere coverage metric is defined as the maximum R2D EIS radiated in the Theta and Phi range from partial surface within ±45° angular width degrees.



Figure 8.2.1-1: Visualization of Partial sphere within ±45° angular range

**<<End of Change>>**

1. Reference