

3GPP TSG RAN Meeting #103

Maastricht, Netherlands, March 18-21, 2024



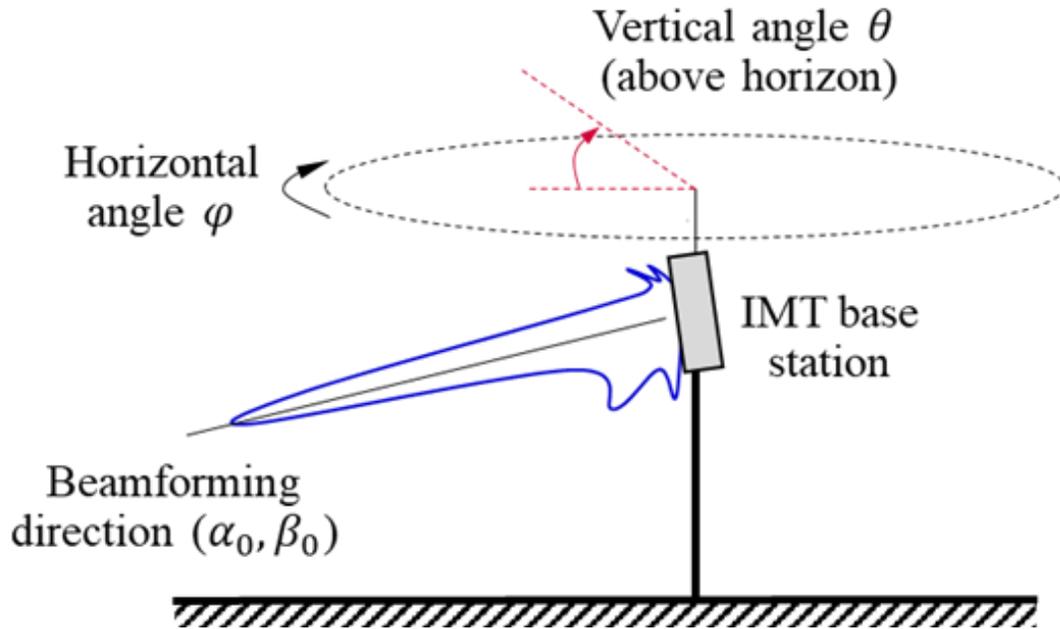
Tdoc Number: RP-240395
Agenda Item: 9.1.4.2
Source: CATT
Title: Views on R19 BS RF topics
Document for: Discussion

CICT Mobile

CONTENTS

- New BS RF requirement according to WRC-23 resolution for the expected EIRP of an IMT BS operating within the frequency band 6425-7125 MHz
- OTA test enhancement
- BS RF specification simplification

New BS RF requirement according to WRC-23 resolution for the expected EIRP of an IMT BS operating within the frequency band 6425-7125 MHz



| Vertical angle range $\theta_L \leq \theta < \theta_H$ (vertical angle θ above horizon) | Expected e.i.r.p. (dBm/MHz) (See NOTES 1, 2 and 3) |
|--|--|
| $0^\circ \leq \theta < 5^\circ$ | 27 |
| $5^\circ \leq \theta < 10^\circ$ | 23 |
| $10^\circ \leq \theta < 15^\circ$ | 19 |
| $15^\circ \leq \theta < 20^\circ$ | 18 |
| $20^\circ \leq \theta < 30^\circ$ | 16 |
| $30^\circ \leq \theta < 60^\circ$ | 15 |
| $60^\circ \leq \theta \leq 90^\circ$ | 15 |

NOTE 1: The expected e.i.r.p. is defined as the average value of the e.i.r.p., with the averaging being performed:

- over horizontal angles from -180° to $+180^\circ$, with the IMT base station beamforming in a specific direction within its horizontal and vertical steering range,
- over different beamforming directions within the IMT base station horizontal and vertical steering range, and
- over the specified vertical angle range $\theta_L \leq \theta < \theta_H$.

NOTE 2: An IMT base station shall comply with the specified limits on expected e.i.r.p. spectral density for all mechanical tilts with which it can be deployed, taking into account *considering m*).

NOTE 3: See the Annex to this Resolution for additional details on how the expected e.i.r.p. can be calculated for this frequency band.

- Objectives
 - Define BS RF requirement according to the WRC-23 resolution for the expected EIRP of an IMT BS operating within the frequency band 6425-7125 MHz.
 - Define BS RF conformance test requirement for the new defined requirement.
- Impacted TS/TR
 - TS 38.104, TS 38.141-2, TR 37.941

- Objectives
 - Study and specify the solution to optimize the BS OTA test requirement to reduce the test time and cost.
 - The following test requirements can be considered.
 - Tx IM, out of band blocking
 - Others are not excluded.
- Impacted TS
 - TS 38.141-2

BS RF specification simplification

- Suggest not including this work in the WI.
 - The solution for great number of co-existence CRs can be referring BS core spec in other specifications.
 - ✓ This solution needs very small work load.
 - This issue can be discussed in TEI as a formal topic in RAN4.

- RP-240019, Proposed Summary for RAN Rel-19 Package: RAN4 Part, RAN#103, RAN Chair, RAN4 Chair
- RP-233918, Moderator's summary for RAN4 Candidate RF/OTA Topics for Rel-19, RAN#102

万物互联的无限沟通引擎



中信科移动通信技术股份有限公司
CICT Mobile Communication Technology Co., Ltd.

Thank you!



<https://www.cictmobile.com>