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| **Radiocommunication Study Groups** |  |
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| **23 May 2023** |
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| Annex 16 to Working Party 5A Chairman’s Report | |
| Working document towards a preliminary draft revisION OF Report ITU-R M.2116-2 | |
| Characteristics of broadband wireless access systems operating in the land mobile service for use in sharing studies | |

(Questions ITU-R 1/5 and ITU-R 7/5)

(2007-2010-2013)

[Editor’s note: This document is based on input contribution [5A/300](https://www.itu.int/md/R19-WP5A-C-0300/en) and was not reviewed at the May 2021 meeting of WP 5A and therefore, none of the edits are agreed. It was pointed out during the initial discussion that the further progress of this revision will depend on progress made on the ongoing revisions of other WP 5A deliverables.]

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# 1 Introduction

This Report provides characteristics for a number of terrestrial broadband wireless access (BWA)[[1]](#footnote-1) systems, including mobile and nomadic applications, operating, in the mobile service for use in sharing studies between these terrestrial BWA systems and other fixed or mobile systems.

# 2 Characteristics

Annex 1 contains technical and operational characteristics of mobile BWA[[2]](#footnote-2) systems to be used for sharing studies for both mobile stations and base stations. It should be recognized that the footnotes in the Table provide important information on the derivation of particular values and any limits to their applicability for sharing studies. Therefore, these footnotes should be taken into account wherever referenced.

# 3 IMT-2000 radio interfaces

Terrestrial IMT-2000 systems[[3]](#footnote-3) meet the definition of BWA found in Recommendation ITU‑R F.1399. In addition to the characteristics found in Annex 1, sharing and deployment characteristics of IMT‑2000 systems can be found in Report ITU-R M.2039 – *Characteristics of terrestrial IMT-2000 systems for frequency sharing/interference analyses*, and are not duplicated herein. These systems should also be considered in sharing analysis involving BWA systems[[4]](#footnote-4).

# 4 IMT-Advanced radio interfaces

Terrestrial IMT-Advanced systems[[5]](#footnote-5) meet the definition of BWA found in Recommendation ITU‑R F.1399. In addition to the characteristics found in Annex 1, sharing and deployment characteristics of IMT‑Advanced systems can be found in Report ITU-R M.2292 – *Characteristics of terrestrial IMT-Advanced systems for frequency sharing/interference analyses*, and are not duplicated herein. These systems should also be considered in sharing analysis involving BWA systems.

# 5 RLAN characteristics

In addition to the characteristics found in Annex 1, characteristics of RLAN systems can be found in Recommendation ITU-R M.1450 – *Characteristics of broadband radio local area networks*, and are not duplicated herein.

[Editor’s note: During the discussions on the revision of Recommendation ITU-R M.1450 it was suggested that some of the sharing parameter and deployment information that was proposed to be added could be better placed into the revision of Report ITU-R M.2116 as this report addresses characteristics for BWA systems for use in sharing studies. This would also follow the approach that WP 5A has taken for other BWA systems where the radio interface standards are contained in Recommendation ITU-R M.1801 whilst the characteristics for sharing studies are in Report ITU-R M.2116. The same structure applies to IMT-2000 and IMT-Advanced, where the radio interface standards are in Recommendations ITU-R M.1457 and ITU-R M.2012 whilst the characteristics for sharing studies are in Reports ITU-R M.2039 and ITU-R M.2292. Input contributions to the next WP 5A meeting are encouraged to see which RLAN deployment information for sharing studies could be included here and how to best structure that information. Document 5A/676 will also be addressed during this discussion.]

# 6 IMT-2020 radio interfaces

Terrestrial IMT-2020 systems[[6]](#footnote-6) meet the definition of BWA found in Recommendation ITU‑R F.1399. Sharing and deployment characteristics of IMT‑2020 systems can be found in [TBD, see Editor’s Note below], and are not duplicated herein. These systems should also be considered in sharing analysis involving BWA systems.

[Editor’s note: WP 5D has provided “Characteristics of terrestrial component of IMT for sharing and compatibility studies in preparation for WRC-23” to WP 5A in Document 5A/378(Rev.1) which cover various frequency bands between 470 MHz and 10.5 GHz. WP 5D has also provided “Technical and operational parameters and deployment characteristics for IMT-2020 for use in sharing studies under WRC-19 agenda items” to WP 5A during the previous study cycle in Document 5A/331 (March 2017) which cover various frequency bands between 24.25 and 86 GHz. Since these characteristics were provided in embedded files but not by referencing published ITU-R Reports, WP 5A will need to consider at the next meeting how to best incorporate this information here into the Working Document. Referencing the corresponding ITU-R Reports as was done for the IMT-2000 and IMT-Advanced characteristics could be done if WP5D prepares an ITU-R Report for the IMT-2020 characteristics.]

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1. “Wireless access” and “BWA” are defined in Recommendation ITU-R F.1399. [↑](#footnote-ref-1)
2. BWA radio interface standards can be found in Recommendation ITU-R M.1801 – *Radio interface standards for broadband wireless access systems, including mobile and nomadic operations, in the mobile service operating below 6 GHz*. [↑](#footnote-ref-2)
3. IMT-2000 radio interface standards are described in Recommendation ITU-R M.1457 – *Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications‑2000 (IMT‑2000)*. [↑](#footnote-ref-3)
4. Recommendation ITU-R M.1823 provides values for some systems applicable to BWA. [↑](#footnote-ref-4)
5. IMT-Advanced radio interface standards are described in Recommendation ITU-R M.2012 – *Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications-Advanced (IMT-Advanced)*. [↑](#footnote-ref-5)
6. IMT-2020 radio interface standards are described in Recommendation ITU-R M.2150 – Detailed specifications of the terrestrial radio interfaces of International Mobile Telecommunications-2020 (IMT-2020). [↑](#footnote-ref-6)