|  |  |
| --- | --- |
| **Radiocommunication Study Groups** |  |
|  |  |
|  |  |
| Source: The Fifth Generation Mobile Communications Promotion Forum | **Document 5D/754-E** |
| **20 September 2021** |
| **English only****TECHNOLOGY ASPECTS** |
| Director, Radiocommunication Bureau[[1]](#footnote-1)\* |
| FINAL Revised evaluation results ( connection density ) from The Fifth Generation Mobile Communications Promotion Forum on the IMT-2020 proposal in Document IMT-2020/17(rev.1) by ETSI (TC DECT) and DECT Forum IN THE EXTENDED IMT-2020 EVALUATION PROCESS |
|  |

This document describes the final updated evaluation result of Connection Density by 5GMF Evaluation Group regarding the IMT-2020 candidate technology submission in Document [IMT-2020/17(Rev.1)](https://www.itu.int/md/R15-IMT.2020-C-0017/en) by ETSI (TC DECT) and DECT Forum. The candidate technology was evaluated as the reset to Step 4 in the extended IMT-2020 evaluation process. The WG Technology Aspects (Option 2) meeting in August 2021 invited ETSI-DECT/DECT-Forum and 5GMF to continue the dialog on the outstanding issues, according to the agreed actions for closure of the process at Working Party (WP) 5D meeting #39. The agreed actions are described in [Annex 7 to Document 5D/746](https://www.itu.int/dms_ties/itu-r/md/19/wp5d/c/R19-WP5D-C-0746%21N07%21MSW-E.docx).

# Revised evaluation results of Connection Density

Table 1

New results of Connection Density with the route selection
algorithm described in [Annex 7 to Document 5D/746](https://www.itu.int/dms_ties/itu-r/md/19/wp5d/c/R19-WP5D-C-0746%21N07%21MSW-E.docx)

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Antenna configuration** | **Outage rate** | **Meet the requirement or not** |
| Old results in 5D/739 | 1x1 MIMO | 5.37% | No |
|  | 2x2 MIMO | 1.36% | No |
| New results | 1x1 MIMO | 4.84% | No |
|  | 2x2 MIMO | 0.94% | Yes |

# 2 5GMF Observation

In the re-evaluation, it is observed that the outage rate is below 1% with the Antenna configuration of 2x2 MIMO. In addition, the outage rate of 1x1 MIMO in the re-evaluation is also slightly decreased compared with the old result in 5D/739, due to the adoption of the route selection algorithm in [Annex 7 to Document 5D/746](https://www.itu.int/dms_ties/itu-r/md/19/wp5d/c/R19-WP5D-C-0746%21N07%21MSW-E.docx).

# 3 Conclusion

With the new results obtained as above, 5GMF has concluded that DECT component RIT could meet the Connection-Density minimum requirement of IMT-2020 technology.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. \* Submitted on behalf of The Fifth Generation Mobile Communications Promotion Forum (5GMF). [↑](#footnote-ref-1)