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| **Radiocommunication Study Groups** |  |
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| Received: xx April 2021  Subject: Response to 5A/TEMP/64 (Rev.1) on Question [ITU-R 256-1/5](https://www.itu.int/pub/R-QUE-SG05.256-1-2019) | **Document 5A/IEEE-03-E** |
| **22 March 2021** |
| **English only** |
| Institute of Electrical and Electronics Engineers, Inc. | |
| CONTRIBUTION to working party 5A  On THE Use of the 252-296 GHz frequency range by land-mobile service applications | |

# 1 Source information

IEEE 802 LAN/MAN Standards Committee (LMSC) respectfully submits these responses to ITU-R Working Party 5A (WP 5A). IEEE 802 is a committee of the IEEE Standards Association and Technical Activities, two of the Major Organizational Units of the Institute of Electrical and Electronics Engineers (IEEE). IEEE has about 420,000 members in about 190 countries and supports the needs and interests of engineers and scientists broadly. In submitting this document, IEEE 802 acknowledges and respects that other components of IEEE Organizational Units may have perspectives that differ from, or compete with, those of IEEE 802. Therefore, this submission should not be construed as representing the views of IEEE as a whole[[1]](#footnote-1).

###### 2 Discussion

IEEE 802 thanks ITU-R WP 5A for the liaison statement asking on the technical and operational characteristics of LMS applications operating in the frequency range 252-296 GHz. IEEE also thanks them providing information on initial coexistence studies between LMS and FS applications.

IEEE 802 published IEEE Std. 802.15.3dTM-2017 which provides physical layer (PHY) at the frequency range between 252 GHz and 325 GHz for switched point-to-point links which enable data rates of up to 100 Gb/s using eight different bandwidths between 2.16 GHz and 69.12 GHz.

IEEE 802.15 Task Group 3d had provided WP 5A information on technical and operational characteristics of LMS applications in response to the liaison statement from WP 5A in 2017. IEEE 802 appreciated that information from IEEE 802 was addressed to develop not only Reports ITU-R M.2417 but also F.2416 under WRC-19 agenda item 1.15.

IEEE 802 notes that information based on IEEE Std. 802.15.3dTM-2017 is still valid in the frequency range 252-325 GHz. IEEE 802 would like to suggest WP 5A that those characteristics are applicable to coexistence studies in the frequency range 252-296 GHz, but Figure 7 in Report ITU-R M.2417 should be modified as shown in Annex 1 of this liaison statement because the channel bandwidths of 51.84 GHz and 69.12 GHz cannot be arranged for devices having implemented IEEE Std. 802.15.3dTM-2017 due to the limited bandwidth of 44 GHz in the frequency range 252-296 GHz.

IEEE 802 would like to be kept informed on the development of coexistence studies between LMS and FS applications in the frequency range 252-296 GHz.

**3 Summary**

We applaud the efforts of the participants in WP 5A for undertaking this work and giving IEEE 802 the opportunity to respond to the terahertz related matters.

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Annex 1

Channel Arrangement in the Frequency Range 252-296 GHz



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1. This document solely represents the views of the IEEE 802 LAN/MAN Standards Committee and does not necessarily represent a position of either the IEEE, the IEEE Standards Association or IEEE Technical Activities. [↑](#footnote-ref-1)