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| **Radiocommunication Study Groups** |  |
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| Received: xx April 2021Subject: 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/xxx-E** |
| **x April 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

This contribution was developed by IEEE Project 802®, the Local and Metropolitan Area Network Standards Committee (“IEEE 802”), an international standards development committee organized under the IEEE and the IEEE Standards Association (“IEEE-SA”).

The content herein was approved for submission by the IEEE 802.15™ Working Group for WPAN, the IEEE 802.18 Radio Regulatory Technical Advisory Group, and the IEEE 802 Executive Committee, in accordance with the IEEE 802 policies and procedures, and represents the view of IEEE 802.

###### 2 Discussion

IEEE 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 802.15.3d 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 IEEE 802.15.3d devices due to the limited bandwidth of 44 GHz in the frequency range 252-296 GHz.

IEEE 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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