**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | Draft liaison statement to ITU-R WP5C (Copy to WP1A and WP5A, WP7A, WP7C) | |
| Date Submitted | September 2016 | |
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| Re: |  | |
| Abstract | This contribution proposes a draft liaison statement to ITU-R WP5C. The documents reflects the changes made bei TG3d during the September 2016 meeting of TG3d | |
| Purpose | To respond to the ITU-R WP5C LS regarding the applications and operational characteristics in the range of 275 to 450 GHz targeted in TG 3d. | |
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| **Radiocommunication Study Groups** |  |
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| Received: |  |
| **xx September 2016** |
| **English only** |
| Institute of Electrical and Electronics Engineers, Inc. | |
| draft liaison statement to working party 5C  ON NEW REPORT itu-r f.[300GHz\_FS\_CHAR] | |
| Copy for information to Working Parties 1A, 5A, 7A, 7C | |
| Technical and operational characteristics and applications of the point-to-point fixed service applications operating in the frequency band 275-450 GHz | |
| WRC-19 agenda item 1.15 | |

**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**

WP 5C invited IEEE to provide information on technical and operational characteristics of their systems operating in the range 275 to 450 GHz.

On 16 March 2016 IEEE 802.15 TG3d has issued a call for proposals targeting at an amendment to IEEE 802.15.3 for switched point-to-point links operating in the frequency bands 252 to 325 GHz. The applications include intra-device communications, close proximity links, wireless links for data centers and front- and backhaul links for cellular networks. Links to the call for proposals and to the supporting documents are included in attachments 1-5 of annex 1.

In its July meeting initial proposals have been presented while the final proposal has been presented in the September meeting. The link to the proposals is attached in annex 2.

IEEE 802 TG 3d has discussed the technical and operational chracteristics of the proposals for the future amendmend of IEEE 802.15.3 in September 2016. Based on these discussions IEEE 802 TG 3d proposes the additions and changes to the NEW REPORT ITU-R F.[300GHz\_FS\_CHAR] attached in annex 3.

Since all the detailed technical and operational characteristics will be fixed only after completion of the amendment, IEEE 802 TG 3d will inform WP 5C if changes occure. Please note that the scope of IEEE802 TG 3d is limited to the frequency range between 252 and 325 GHz. Please further note that, nonetheless, IEEE 802 is also interested in other higher frequency ranges above 325 GHz especially but not limited to similar applications.

**3 Summary**

We applaud the efforts of the participants in WP 5C for undertaking this work and giving IEEE 802 the opportunity to respond to the terahertz related matters in AI 1.15.

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**Annex 1: Call for Proposals and supporting documents**

**Attachment 1:** Call for Proposals

<https://mentor.ieee.org/802.15/dcn/15/15-15-0936-04-003d-tg3d-100g-call-for-proposals.docx>

**Attachment 2:** Application Requirements Document

<https://mentor.ieee.org/802.15/dcn/14/15-14-0304-16-003d-applications-requirement-document-ard.docx>

**Attachment 3:** Technical Requirements Document

<https://mentor.ieee.org/802.15/dcn/14/15-14-0309-20-003d-technical-requirements-document.docx>

**Attachment 4:**  Channel Modeling Document

<https://mentor.ieee.org/802.15/dcn/14/15-14-0310-18-003d-channel-modeling-document.docx>

**Attachment 5:** Evaluation Criteria Document

<https://mentor.ieee.org/802.15/dcn/15/15-15-0412-13-003d-evaluation-criteria-document.docx>

**Annex 2: Proposals presented in IEEE 802.15 TG3d targeting at an amendment to IEEE 802.15.3**

**Attachment 1:** Initial Proposal from TU Braunschweig in July 2016

<https://mentor.ieee.org/802.15/dcn/16/15-16-0481-01-003d-preliminary-proposal-for-thz-phy-in-ieee-802-15-3.pdf>

**Attachment 2:** Initial Proposal from NICT in July 2016

<https://mentor.ieee.org/802.15/dcn/16/15-16-0482-01-003d-preliminary-proposal-for-tg3d-cfp.pdf>

**Attachment 3**: Final Proposal

<https://mentor.ieee.org/802.15/dcn/16/15-16-0595-00-003d-proposal-for-ieee802-15-3d-thz-phy.docx>

**Attachment 4**: Final Proposal - Explanation

[https://mentor.ieee.org/802.15/dcn/16/15-16-0610-00-003d-proposal-for-ieee802-15-3d-thz-phy-explanations.pptx](https://mentor.ieee.org/802.15/dcn/16/15-16-0610-00-003d-proposal-for-ieee802-15-3d-thz-phy-explanations.pptx%20)

**Attachment 5**: Final Proposal – Explanation channelization

<https://mentor.ieee.org/802.15/dcn/16/15-16-0592-00-003d-proposal-for-ieee802-15-3d-channel-assignment-plans.pdf>

**Annex 3: Proposed additions and changes to the NEW REPORT ITU-R F.[300GHz\_FS\_CHAR]**