IEEE P802.15  
Wireless Specialty Networks

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| 802.15  Proposed Liaison from IEEE 802.15 Working Group to ITU-T Q18/15 | | | | |
| Date: 2019-12-10 | | | | |
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**Abstract**

# This document contains the proposed liaison letter from IEEE 802.15 to ITU-T Q18/15 to inform the latter on the potential usage of G.9991 PHY for Multi-Gigabit/s Optical Wireless Communications, and to request from ITU-T copyrights for using text from recommendation G.9991 and all ITU-T documents referenced therein, including G. 9960, G.9961, G.9963 and G.9964.

Revision history:

R0: Initial revision

R1: Version agreed in WG closing plenary in Hanoi

R2: Version updated to be sent out to ITU-T

IEEE 802.15 WSN Working Group  
DRAFT Liaison Communication

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| Source: | IEEE 802.15 Working Group[[1]](#footnote-1) | |
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| From: | Bob Heile | Chair, IEEE 802.15 WSN Working Group [bheile@ieee.org](mailto:bheile@ieee.org) |
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| Subject: | Information on the potential usage of G.9991 PHY in the P802.15.13 standard and request from ITU-T copyrights for the potential usage of the corresponding ITU-T recommendations. | |
| Approval: | Approved by the IEEE 802.15 Working Group at IEEE 802.15 interim meeting, Hanoi, September 19, 2019 | |

Dear Les,

The IEEE P802.15.13 task group is working on a standard to specify a new PHY and MAC layer to enable Multi-Gigabit/s Optical Wireless Communications [1].

The task group discussed several potential options for suitable PHY. Among those, the G.9991 PHY was presented as one possible mode of operation for 802.15.13.

With this liaison letter, we would like to inform you on the status of discussion and would welcome any potential feedback on this intend from your side.

In addition, P802.15.13 needs to make use of text and figures from the recommendation G.9991 and all ITU-T documents referenced therein, including G. 9960, G.9961, G.9963 and G.9964, for the purpose of creating the draft. We would like to hereby request copyright permission. A list of the potentially relevant clauses and figures is appended to this letter.

We would appreciate if you could respond for our request to grant us copyright by January 12, 2020.

Considering your potential interest in this area, we will keep you updated on the progress of our work.

Our next face-to-face meetings will be held from January 12th – 17th, 2020 (Irvine, California, USA) and March 15th - 20th (Atlanta, Georgia, USA).

Sincerely,

Bob Heile

Chair, IEEE 802.15 WSN Working Group

[1] IEEE P802.15.13 PAR document: <https://mentor.ieee.org/802.15/dcn/17/15-17-0076-03-0000-multi-gigabit-owc-par.pdf>

Appendix 1: ITU-T Clauses and Figures potentially be used by IEEE 802.15 TG13 (next page)

Appendix 1: **ITU-T Clauses and Figures potentially be used by IEEE 802.15 TG13**

In case of questions, please, contact [volker.jungnickel@hhi.fraunhofer.de](mailto:volker.jungnickel@hhi.fraunhofer.de)

**ITU-T Rec. G.9991-2019**

**8. Physical layer specification I (PHY layer based on ITU-T G.9960)**

8.2. Medium dependent specification

### 8.2.1 Physical layer specification

**Figures 8-1, 8-2**

**ITU-T Rec. G. 9960-2018**

### 5.2.4 Bit ordering convention

### 7. Physical layer specification

7.1. Medium independent specification

7.1.2 Physical coding sublayer (PCS)

7.1.3 Physical medium attachment (PMA) sublayer

7.1.4 Physical medium dependent (PMD) sublayer

7.2. Medium dependent specification

7.2.3 Physical layer specification over coax

**Annex C.2.3 Medium dependent specification over coax**

**Annex G: Test vectors**

### Figures 5-13, 7-2, 7-3, 7-4, 7-5, 7-6, 7-7, 7-8, 7-9, 7-10, 7-11, 7-12, 7-13, 7-14, 7-16, 7-17, 7-18, 7-19, 7-20, 7-21, 7-22, 7-23.

**ITU-T Rec. G.9961-2018**

## 8.9 Retransmission and acknowledgement protocol

## 8.18 Inter-bandplan interoperability

## 8.20 Metrics acquisition

## 8.21 Operation in power saving modes

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**ITU-T Rec. G. 9963-2018**

### 7. Physical layer specification

7.1. Medium independent specification

7.1.2 Physical coding sublayer (PCS)

7.1.3 Physical medium attachment (PMA) sublayer

7.1.4 Physical medium dependent (PMD) sublayer

7.2. Medium dependent specification

**Figures 7-2, 7-3, 7-4, 7-5, 7-6, 7-7, 7-8, 7-9, 7-10, 7-11**

1. This document represents the views of the IEEE 802.15 Working Group,and does not necessarily represent a position of the IEEE, the IEEE Standards Association, or IEEE 802. [↑](#footnote-ref-1)