**IEEE P802.15**

**Wireless Personal Area Networks**

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| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) | |
| Title | Proposal for a new set of keywords of the 15.7r1 draft | |
| Date Submitted | July 27, 2016 | |
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| Re: |  | |
| Abstract | Proposal for the new "keywords" section of the15.7r1 draft D1. | |
| Purpose | To propose a new set of keywords for the "keywords" section of the 15.7r1 standard | |
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**Introduction**

One of the authors was asked to prepare a new set of keywords for the "keywords" section of the 15.7r1 draft by adding more words to the current set of keywords.

He collected all keywords from the group by requesting then to suggest new keywords through the 15.7r1 email reflector.

In this document, a new set of keywords is proposed for the "keywords" section of the next version of the draft, D1.

**Set of Keywords from the Current Draft D0**

**From the current "keywords" section of the draft D0 (PDF page 2 of D0),**

**Keywords:** IEEE 802.15.7, laser diode, LD, LED, light-emitting diode, short-range optical wireless communications, visible light, visible-light communication, VLC

**Responses from the15.7r1 Group**

**From Nikola Serafimovski (pureLiFi)**

LiFi, baseband bandwidth

**From Volka Jungnickel ((Fraunhofer HHI)**

OWC, LiFi, discrete multitoned, DMT, orthogonal frequency-division multiplex, OFDM,

adaptive multiple subcarrier transmission, multiple-input multiple-output, MIMO,

coordinated wireless network, optical camera communications, OCC.

**From Jaesang (SNUST)**

LED-ID, OCC, LiFi, OWC

**Proposed Set of Keywords**

After we reviewed all the above responses, we would like to propose a set of keywords for the new 15.7r1 draft as follows:

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**Keywords:** IEEE 802.15.7r1, laser diode, LD, LED, light-emitting diode, short-range optical wireless communications, OWC, visible light, visible-light communication, VLC, optical camera communications, OCC, LED-ID, LiFi, baseband bandwidth, discrete multitoned, DMT, orthogonal frequency-division multiplex, OFDM, adaptive multiple subcarrier transmission, multiple-input multiple-output, MIMO, coordinated wireless network

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This set contains all the keywords from the 15.7 standard and that were received from the group.

From Volker,

A PHY and a MAC layer for short-range optical wireless communications in optically transparent media are defined using the light wavelength from 10,000 nm to 190 nm

where transmitting and receiving devices incorporate light emitting sources and photodiodes as well as digital cameras with a lens and an image sensor.

The standard is capable of delivering data rates sufficient to support audio and video multimedia services

and robustness as well as low latency for communications between machines

and also considers mobility of the optical link, compatibility with various light infrastructures, impairments due to noise and interference from sources like ambient light and a MAC layer that accommodates the unique needs of

digital communications using the light.

The standard adheres to applicable eye safety regulations.

From 518r0,

A PHY and a MAC layer for short-range optical wireless communications in optically transparent media are defined using the light wavelength from 10,000 nm to 190 nm.

The standard is capable of delivering data rates sufficient to support audio and video multimedia services

and also considers mobility of the optical link, compatibility with various light infrastructures, impairments due to noise and interference from sources like ambient light and a MAC layer that accommodates the unique needs of

visible links as well as the other targeted light wavelengths. It also accommodates optical communications for cameras where transmitting devices incorporate light emitting sources and receivers are digital cameras with a lens and image sensor.

The standard adheres to applicable eye safety regulations.