**IEEE P802.15**

**Wireless Personal Area Networks**

|  |  |
| --- | --- |
| Project | IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs) |
| Title | Proposal for a new 15.7r1 abstract  |
| Date Submitted | July 26, 2016 |
| Source | Soo-Young Chang (SYCA) Jaesang Cha (SNUST), Minwoo Lee (SNUST), SangWoon Lee (NSU) | Voice: [ ]Fax: [ ]E-mail: [sychang@ecs.csus.edu] |
| Re: |  |
| Abstract | Proposal for the new 15.7r1 abstract of the draft D1. |
| Purpose | To propose a text for the new abstract of the 15.7r1 standard |
| Notice | This document has been prepared to assist the IEEE P802.15. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein. |
| Release | The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.15. |

**Introduction**

One of the authors was asked to prepare a text for the abstract which is satisfying the current PAR.

In this document, a new text is proposed for the abstract of the next version of the draft D1.

**Some Related Texts**

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

**Abstract:** A PHY and a MAC layer for short-range optical wireless communications using visible light in optically transparent media are defined. The visible light spectrum extends from 380 nm to 780 nm in wavelength. The standard is capable of delivering data rates sufficient to support audio and video multimedia services and also considers mobility of the visible link, compatibility with visible-light infrastructures, impairments due to noise and interference from sources like ambient light and a MAC layer that accommodates visible links. The standard adheres to applicable eye safety regulations.

**From the current PAR (doc. 15-16-504-00),**

**5.2 Scope:** This standard defines a Physical (PHY) and Media Access Control (MAC) layer for short-range optical wireless communications in optically transparent media using light wavelengths 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.

**From the proposed resolution suggested by Soo-Young Chang for this abstract (proposed resolutions of Comments 5 and 6 of 15-16-477-00),**

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 in wavelength. 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 variable light infrastructures, impairments due to noise and interference from sources like ambient light and a MAC layer that accommodates 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.

**Proposed Text for the Abstract**

After we reviewed all the above text contents, we would like to propose a text for the new abstract as follows:

------------------------------------------------------

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.

------------------------------------------------------

This text contains all the technical terms and features from the scope of the current PAR.