IEEE P802.11
Wireless LANs

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| LC terminology definitions |
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Abstract

This document proposes draft text for definitions and acronyms related to light communications for inclusion in 802.11bb. This document is based on terms related to light communications that appear in in P802.11bb D0.3.

**Discussion:**

The following terms related to light communications were identified in P802.11 D0.3:

Entities: LC AP, LC STA

Related to the light interface: DC, LED, OFE, PD, TIA

The terms related to the light interface are not new concepts so they simply need to be added to the list of acronyms.

LC AP and LC STA entities are new for light communications. It is proposed to define LC AP and LC STA relative to the following definitions from 802.11 subclause 3.1 (Definitions):

**access point (AP):** An entity that contains one station (STA) and provides access to the distribution system services, via the wireless medium (WM) for associated STAs. An AP comprises a STA and a

distribution system access function (DSAF).

**non-access-point (non-AP) station (STA):** A STA that is not contained within an access point (AP).

**station (STA):** A logical entity that is a singly addressable instance of a medium access control (MAC) and physical layer (PHY) interface to the wireless medium (WM).

NOTE—For IEEE 802.11 purposes, a station is any MAC/PHY entity providing the IEEE 802.11 MAC services. This differs from the IEEE 802 definition of ‘station,’ which includes bridges (or ‘end stations’) that are endpoints of link layer data traffic.

**wireless medium (WM):** The medium used to implement the transfer of protocol data units (PDUs)

between peer physical layer (PHY) entities of a wireless local area network (LAN).

LC MAC and PHY extensively reference and reuse existing 802.11 text so it makes sense to define LC AP and LC STA as special cases of AP and STA, respectively, and to define the light medium as a special case of the wireless medium.

Since LC AP, LC STA, and non-AP LC STA are specific to 802.11, it is proposed to put these definitions in 3.2 (Definitions specific to IEEE Std 802.11).

**Proposed draft text:**

**3. Definitions, acronyms, and abbreviations**

**3.1 Definitions**

***Insert the following definitions maintaining alphabetical order:***

**light communications (LC):** Pertaining to WLAN communications in the light medium.

**light medium:** The wireless medium (WM) at optical wavelengths (380 nm to 5,000 nm) used for light communications (LC), namely the transfer of protocol data units (PDUs) between peer physical layer (PHY) entities of a wireless local area network (LAN).

**3.2 Definitions specific to IEEE Std 802.11**

***Insert the following definitions maintaining alphabetical order:***

**light communications (LC) access point (AP):** An AP that comprises an LC STA and a distribution system access function (DSAF).

**light communications (LC) station (STA):** A STA that interfaces to the light medium.

**non-access-point (non-AP) light communications (LC) station (STA):** An LC STA that is not contained within an LC AP.

**3.4 Abbreviations and acronyms**

***Insert the following acronym definitions (maintaining alphabetical order):***

DC direct current

LC light communications

LED light emitting diode

OFE optical front end

PD photo diode

TIA transimpedance amplifier

**References:**

P802.11REVmd D8.0

P802.11bb D0.3