CRITERIA FOR STANDARDS DEVELOPMENT (CSD)

Based on IEEE 802 LMSC Operations Manuals approved 15 November 2013

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**Amendment to IEEE 802.15.3:**

**Standard for High Data Rate Wireless Multi-Media Networks**

Amendment for use of the 64-71 GHz

# IEEE 802 criteria for standards development (CSD)

The CSD documents an agreement between the WG and the Sponsor that provides a description of the project and the Sponsor's requirements more detailed than required in the PAR. The CSD consists of the project process requirements, 1.1, and the 5C requirements, 1.2.

## Project process requirements

### Managed objects

Describe the plan for developing a definition of managed objects. The plan shall specify one of the following:

1. The definitions will be part of this project. While no new managed objects are anticipated, any managed objects that are required will be defined as part of the project.
2. The definitions will be part of a different project and provide the plan for that project or anticipated future project.
3. The definitions will not be developed and explain why such definitions are not needed.

###  Coexistence

A WG proposing a wireless project shall demonstrate coexistence through the preparation of a Coexistence Assurance (CA) document unless it is not applicable.

1. Will the WG create a CA document as part of the WG balloting process as described in Clause 13? (yes/no) Yes
2. If not, explain why the CA document is not applicable.

## 5C requirements

### Broad market potential

Each proposed IEEE 802 LMSC standard shall have broad market potential. At a minimum, address the following areas:

1. Broad sets of applicability.

The Federal Communications Commission (FCC) in the United States has allocated additional spectrum in the license exempt millimeter wave band around 60 GHz, under the existing rules (CFR 14 part 15.255). An additional 7 GHz, from 64 GHz to 71 GHz is now available; Application use cases, such as those listed in b), will be able to use the expanded channel plan to achieve higher performance and reduced interference.

1. Multiple vendors and numerous users.

Multiple vendors are already producing devices and systems based on IEEE 802.15.3 millimeter wave PHYs. These devices and systems are being used in products such as Audio/Visual consumer electronics, mobile devices, laptops, tablets and related peripherals.

### Compatibility

Each proposed IEEE 802 LMSC standard should be in conformance with IEEE Std 802, IEEE 802.1AC, and IEEE 802.1Q. If any variances in conformance emerge, they shall be thoroughly disclosed and reviewed with IEEE 802.1 WG prior to submitting a PAR to the Sponsor.

1. Will the proposed standard comply with IEEE Std 802, IEEE Std 802.1AC and IEEE Std 802.1Q? YES.

b) If the answer to a) is no, supply the response from the IEEE 802.1 WG.

* + 1. Distinct Identity

Each proposed IEEE 802 LMSC standard shall provide evidence of a distinct identity. Identify standards and standards projects with similar scopes and for each one describe why the proposed project is substantially different.

This amendment updates the channel plan for the PHY specification for millimeter wave in IEEE Std 802.15.3-2016 to comply with the updated FCC band extents. The millimeter wave PHY defined in IEEE Std 802.11-2016 is substantially similar. However IEEE Std 802.15.3-2016 serves multimedia network applications rather than local area network applications.

### Technical Feasibility

Each proposed IEEE 802 LMSC standard shall provide evidence that the project is technically feasible within the time frame of the project. At a minimum, address the following items to demonstrate technical feasibility:

1. Demonstrated system feasibility.

There are existing implementations of the millimetre wave PHY which can operate or be adapted to operate in the channels to be added. The High-Rate Close Proximity Point-to-Point Communications PHY in the base standard (added by amendment 802.15.3e) presently include channel definitions up to 71 GHz, with implementations proving the feasibility using this spectrum.

1. Proven similar technology via testing, modeling, simulation, etc.

See a)

### Economic Feasibility

Each proposed IEEE 802 LMSC standard shall provide evidence of economic feasibility. Demonstrate, as far as can reasonably be estimated, the economic feasibility of the proposed project for its intended applications. Among the areas that may be addressed in the cost for performance analysis are the following:

1. Balanced costs (infrastructure versus attached stations).
2. Known cost factors.
3. Consideration of installation costs.
4. Consideration of operational costs (e.g., energy consumption).
5. Other areas, as appropriate.

This project will add no new capabilities or complexity that would increase cost.