

Project: IEEE P802.15 Working Group for Wireless Personal Area Networks (WPANs)

Submission Title: [Comments and Contributions to Documents related to Call for Proposals]

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Source: [Tuncer Baykas⁽¹⁾, Ke Guan ⁽²⁾, Iwao Hosako⁽³⁾, Akifumi Kasamatsu⁽³⁾, Hiroyo Ogawa⁽³⁾]

Company: [Istanbul Medipol University⁽¹⁾, Beijing Jiaotong University⁽²⁾, NICT⁽³⁾]

Address⁽¹⁾: [Istanbul, Turkey]

E-Mail⁽¹⁾: [tbaykas@ieee.org]

Abstract: This document presents an overview of the documents related to call for proposals.

Purpose: To propose some comments and changes to documents related to call for proposals.

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Abstract

- Task group is planning to finalize all documents, which provide guidelines for possible proposals.
- In this document we provide some comments and contributions to documents,
 - TG3d Channel Modeling Document
 - Technical Requirements Document
 - Evaluation Criteria Document

Contribution to Technical Requirements Document

It is stated in Topology and Link Switching section : “In all use cases the topology will be point-to-point (P2P) and limited to two active devices. Each of the devices will contain both a transmitter and receiver and is therefore denoted as a transceiver (TRX).”

For close proximity communications, due to unsymmetrical nature of the communication the standard should allow one device containing only a THz transmitter and the other device containing only a THz receiver. This will enable early implementation of THz devices.

Comment to Channel Model Document

Most standardization bodies provide a list of channel impulse responses to compare different proposals.

Currently channel model document only provides stochastic models for some cases. Instead 100 channel impulse response could be created and the proposers can provide their average BER performance from those channel. This will give the group a better chance to compare different proposals.

Comment to Channel Model Document

Some sections for **P2P applications** are empty, such as:

" Path Loss Model: Molecular attenuation can be ignored because transmission distance along application usage is a short range of up to 50 millimeters.

Power Delay Profile

Fading Model

Polarization "

These sections should be filled. We request **an extension of the CMD finalization** deadline, since we are preparing a contribution on these parts for Mach 2016 meeting.

Comment and Contribution to Evaluation Criteria Document

It is written...

"Therefore all proposals shall provide the field strength on a vertical ($\Phi=0^\circ$, $\Theta=0-359^\circ$) and a horizontal ($\Theta=90^\circ$, $\Phi= 0-359^\circ$) circle around the antenna of the transmitter with a resolution of one degree."

According to scope of the TG3d, "This project will define the PHY and MAC specifications for high data rate wireless connectivity", specifying antenna beam width should be left to manufacturers. Proposers may provide example antenna beam patterns they used in simulations.

The sentence could be changed:

"Therefore all proposals **may** provide the field strength on a vertical ($\Phi=0^\circ$, $\Theta=0-359^\circ$) and a horizontal ($\Theta=90^\circ$, $\Phi= 0-359^\circ$) circle around the antenna of the transmitter with a resolution of one degree."