IEEE P802.15  
Wireless Specialty Networks

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| 143th IEEE 802.15 WSN MEETING  **802.15 IG NEXT GEN SUN PHY Minutes May 2023 Hybrid Mtg** | | | | |
| Date: 2023-05-16 | | | | |
| Author: | | | | |
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Abstract

# This document contains the IG notes from the May 15-18, 2023 Interim meeting

**Monday, 15th May 2023, 13:30 (Orlando) IG Next Gen SUN PHY PM#1**

1. The IEEE 802.15 IG meeting was called to order by the Chair.

1. The Chair reviewed the IEEE-SA patent policy, copyright policy, logistics, and reminders, including meeting guidelines and attendance recording procedures.
   * Patent claims called for
   * Thomas Almholt, Chair, brought forward that TI has a patent pending claim on this technology
2. The Chair brought the agenda document showing IG schedule for May Meeting

* Agenda in doc. 15-23-0261-00

1. Motion to approve the agenda for May 2023 hybrid meeting*.*
   * Moved by:
   * Seconded by:
   * Approved by unanimous consent
2. Review document presented at March-23 Meeting
   * Review of document was done
   * Some technical discussion/question on synchronization
     + Request for follow-up on Tuesday PM1
3. Discuss suggestion expand scope of IG
   * Expand SUN-OFDM to include Long Range OFDM (OFDM-LR)
   * Expand to 6GHz operation
   * Expand to include SUN-OFDM (eg. add MCS7)
   * Expand to included SUN-OQPSK (eg. add 200ksps)
   * Expand to include high data rate FSK for Japan (400, 600kbps, upto 1MHz CHBW)
4. Future mtgs and polls
   * Roll call was performed to gauge interest
   * 10 members in the room
     + Ben Rolfe, Tim Godfrey, Joerg Robert, Sang-Kyn Lun, Jim Hartman, Tiro Kivinon, Leit Wilhelmson, Takemovi Suari, Yukimasa Nagai, Thomas Almholt
   * 25 members on Webex present
     + Need list..
5. New Business and AOB
6. The Group recessed for Tuesday PM1

**Tuesday, 16th May 2023, 13:30 (Orlando) IG Next Gen SUN PHY PM#1**

1. The IEEE 802.15 IG meeting was called to order by the Chair.

1. The Chair reviewed the IEEE-SA patent policy, copyright policy, logistics, and reminders, including meeting guidelines and attendance recording procedures.
2. Agenda for Tuesday PM1 meeting was presented by Chair
   * Approved by unanimous consent
3. Update workgroup on synchronization technique for OFDM Long Range
   * Some technical discussion/question on synchronization
4. IG worked on text for call for participation:
   * Additional improvement to the SUN-OFDM specification with special focus on long range communication in highly congested environment.
     + Data rates of 1 - 50kbps
     + RX Sensitivity of approximately -120dBm @ 1% PER 64 bytes (payload)
     + Consider collision mitigation techniques
     + Compliant to FCC 15.247 “digital modulation techniques”
     + Focus on symmetrical communication
   * Additional higher data rate options for SUN-OFDM and improved robustness
     + Introduction of 64 QAM to the SUN-OFDM specification
     + Improve performance low data option of existing SUN-OFDM (maybe improving synch)
     + Additional extension to the SUN-FSK specification
   * Additional frequency range for SUN PHY
     + Add support for 6GHz operation in SUN PHY’s
5. Future mtgs and polls
   * Roll call was performed to gauge interest
   * 10 members in the room
     + Ben Rolfe, Tim Godfrey, Joerg Robert, Sang-Kyn Lun, Jim Hartman, Tiro Kivinon, Leit Wilhelmson, Takemovi Suari, Yukimasa Nagai, Thomas Almholt
   * 25 members on Webex present
     + Need list..
6. Request from IG to stay as IG for next meeting
7. Group Adjourned

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