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

Submission Title: assigned comments for draft D2
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Re:

Abstract: proposes comment resolutions for a set of CIDs

Purpose:

Comments for T-CIDs

40, 51, 63, 70, 72, 131

T-CID 40

Suggested Remedy:

- Accept in principle - committee as asked Sridhar to bring forth a contribution that goes through clauses 4 and 5 individually addressing each instance of the acronym MPDU, making a disposit recommendation.

Instruction to editor

- Accept changes to MPDU to PSDU per next 2 slides

T-CID 40 : MPDU entries in clause 4

4.4.2, pg 10, line 24 – ok

4.5.4.2, pg 18, line 47 – ok

4.5.4.2, pg 18, line 49 – needs work

- Recommended Text: “The MPDU at the output of the MAC layer passes through the PHY layer and becomes PSDU at the output of the PHY layer after being processed via the various PHY blocks such as channel coding and line coding”

4.5.4.3, pg 19, line 6 – ok

4.5.4.4, pg 19, line 30 – ok

T-CID 40: MPDU entries in clause 5

- 5.2.1, pg 26, line 49 – “ supports transfer of data between the MAC sublayer and the PHY”
- 5.2.1.1, pg 27, line 10 – “requests transfer of data from the MAC sublayer to form a PSDU at the local PHY entity”
- 5.2.1.1.1, pg 27, line 40 – change MPDU to PPDU
- 5.2.1.2 pg 27, line 49 – change MPDU to PPDU , delete rest of sentence after transmission
- 5.2.1.3. pg 28, line 38 – change MPDU to data
- 5.2.1.3.2, pg 29, line 23 – change MPDU to data
- Figure 21, pg 36, line 10 – change MPDU to PSDU. Change PDUs in pg 36 to PSDUs

T-CID 51 – Suggested remedy- Add text

Add “The SIFS, LIFS and RIFS period is based on the currently negotiated optical clock rate by the MAC before starting data communication. Once the optical clock rate is selected, the SIFS, LIFS and RIFS period is fixed to the values shown in Table 5.”.

Change “symbols” in Table 5 to “Optical Clock Rate”

T-CID 51 – Current recommendation

Work in progress (sridhar) … the agreement is to negotiate the IFS duration based upon the device data rates in the "network". The beacon is sent at the lowest data rate so IFS for joining the network at established at the lowest data. If a device joing an existing network at a data lower than that used by the current IFS of the network, then the IFS durations need to be renegotiated to accommodate the slowest data rate.

The revision to doc 10/688 is to tersely describe how this is done in terms of pointing to the relevant clauses in the document.

T-CID 51 – Suggested remedy- Add text

Add “ For peer-to-peer and star topologies, the SIFS, LIFS and RIFS period is based on the currently negotiated optical clock rate by the MAC before starting data communication. Once the optical clock rate is selected, the SIFS, LIFS and RIFS period is fixed to the values shown in Table 5. The clock rate negotiation for a peer-to-peer and star topology is provided in 6.9. For a star topology, the beacon and CAP periods are defined at the lowest optical clock rate to ensure fair access to the medium. For a broadcast topology, the IFS is defined based on the optical clock rate chosen for broadcasting data to other devices.”

Change “symbols” in Table 5 to “Optical Clock Rate”

T-CID 63 – Assignment

Accepted in principle. Three action items here (assigned to Sridhar) …

1. Split option field into 4 fields for OOK and 1 CES field for PHY III

2. Answer the question "does dimmed OOK apply to PHY III

3. Clarify text to indicate that the CES option field is turned on by reading the MCS ID.

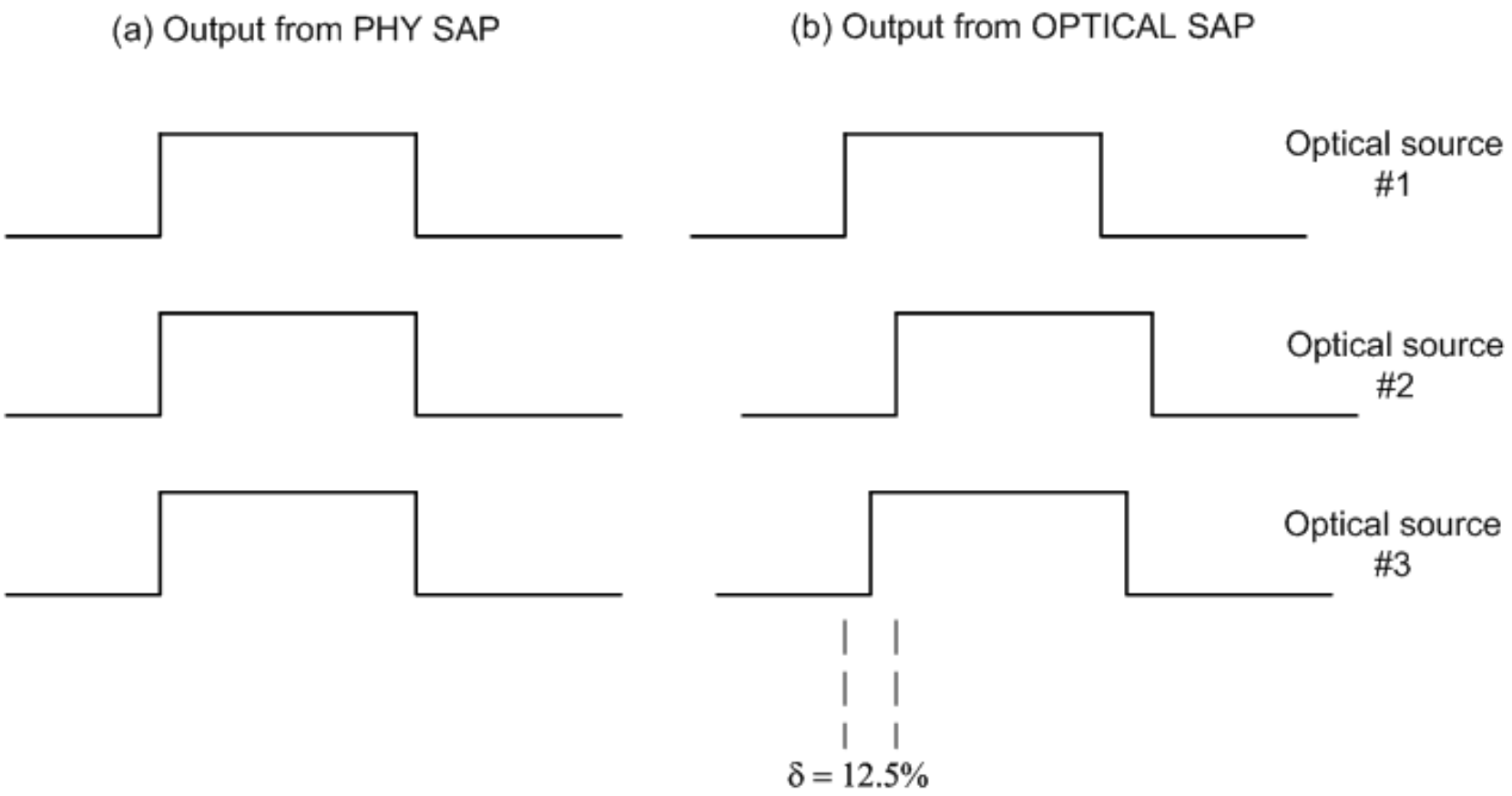
T-CID 63 - Resolution

Split Figure 23 into Figure 23 (a) and Figure 23 (b)

Add following text on Pg 37, line 16

- The options field in Figure 23 (a) shall be transmitted only if the dimmed OOK bit is set in the PHR.
- The options field in Figure 23 (b) shall be transmitted only if PHY III is selected based on the MCS ID chosen in the PHR.
- The dimmed OOK mode shall not be used with PHY III. i.e. both the option fields shall never be used simultaneously.

T-CID 70, 72


(a) Output from PHY SAP
(b) Output from OPTICAL SAP
Optical source #1
Optical source #2
Optical source #3
δ = 12.5%

T-CID 70, 72

In the receiver side, ADC for PHY III should have at least 4 over times sampling rate to symbol rate.

For avoiding the degradation, the delay difference should be smaller than a half of the sampling period.

As a result, the allowable delay difference is 1/8 of the symbol duration. So, delta should be less than 12.5% of symbol clock.

Recommendation for T-CID 70, 72

Add subclause 5.1.x for “Maximum error tolerance for multiple optical sources”

Suggested text:

- If multiple optical sources are used, it is recommended the optical sources have similar frequency responses in order to assist communication. The digital input to all the optical sources from the PHY shall be synchronized. The maximum spread between the clock edges at the output of the optical sources shall not vary by more than 12.5%.

T-CID 131 – missing prefix for aTurnaroundTime

- Pg 109, line 10: TX-RX
- Page 109, line 12 : TX-RX
- Page 197, line 50 : 2 repetitions on this line: RX-TX
- Page 197, line 52: delete aTurnaroundTime and only keep reference to 5.5.1
- Page 198, line 52: RX-TX
- Page 198, line 53: RX-TX
- Page 199, line 1 : RX-TX
- Page 199, line 2 : RX-TX
- Page 199, line 3: delete aTurnaroundTime and only keep reference to Table 23