

Tentative Minutes of the Plenary Meeting of IR PHY Ad hoc Group

March 6 & 8, 1995

West Palm Beach, FL

The meeting was called to order by Barry Dobyys at 7:09 PM. Tom Baumgartner took the minutes.

Attending were Hiro Wakai, Barry Dobyys, Adriano Moriera and Tom Baumgartner.

Barry called for nominations for Chairman of the IR PHY Ad hoc Group to replace Roger Samdahl. Tom nominated Barry Dobyys. Seconded by Hiro. There being no further nominations Barry is Chairman by acclimation.

MOTION: by Tom that the committee approve all motions approved by the March 6, 1995, Interim IR PHY Ad hoc group meeting. Second Hiro. Vote: 4-0-0.

Discussed Tom comment on 12.3.4.2 sentence 3.

MOTION: by Tom to change third sentence to replace "a" with "the minimum". Second by Adriano. Vote: 4-0-0. Motion passed.

Discussed Rui Valadas comment on 12.3.4.3 regarding the energy detect threshold. Barry said that the standard permits building a more sensitive unit that operates to decode signals that are below the energy detect level. The current design is more worried that the energy detect would falsely defer transmission in the presence of noise that can be overcome. Tom observed that energy detect is not handled the way that many modem designers would assume and the differences should be explicitly stated.

MOTION: by Tom that Rui's comment be rejected because there are considerations that make the present design an acceptable choice. Second by Hiro. Vote: 4-0-0. Motion passed.

MOTION: by Tom to add text to 12.3.4.2 to explain the difference between Carrier Detect and Energy Detect. Second by Adriano. Vote: 4-0-0. Motion passed.

Discussed Bob O'Hara comment on 12.4.

MOTION: by Tom to accept comment by adding a reference back to the section where the MIB is in ASN.1 format. Second by Adriano. Vote: 4-0-0. Motion passed.

Discussed Tom comment on 12.4 channel transit delay. We need to pick maximum that will ever get out of any future version of this PHY. This should be a maximum number. Therefore ask group 9 to delete channel transit delay variance as being redundant.

MOTION: by Adriano to change Channel_Transit_Delay to 100 nsec. Second by Hiro. Vote: 4-0-0. Motion passed.

Discussed Tom comment on 12.4 regarding MPDU_Current_Maximum.

MOTION: by Tom is to state that the MIB value will always be equal to MPDU_Maximum.
Second by Hiro. Vote: 2-0-2. Motion passed.

Discussed KC Chen comment on 12.3. Barry explained that this would create another abstract interface.

MOTION: by Tom that comment is rejected because it doesn't contribute to clarity or implementability of the standard. Second by Adriano. Vote: 4-0-0. Motion passed.

Discussed motion by KC Chen on 12.3.2.1 on Gray coding. To do actual Gray code would require expanding the symbol table. KC proposal looks more like shuffling the table assignments than Gray code. There is no operational advantage to shuffling the symbol table.

MOTION: by Tom to reject comment as not offering an operational advantage. Second by Adriano. Vote: 4-0-0. Motion passed.

Discussed comment by KC Chen on 12.3.3.1 regarding allowing weaker transmitters. This is an interoperability problem.

MOTION: by Adriano to reject the comment to remove the lower limit on the power level.
Second by Tom. Vote: 4-0-0. Motion passed.

Discussed comment by KC Chen on 12.3.3.3 regarding removing transmit pattern mask.

MOTION: by Tom to reject the comment to remove the transmit pattern mask. Additional conformant masks may be added at any time when proposed. Second by Adriano. Vote: 4-0-0. Motion passed.

Motion to adjourn until Wed morning. Second by Adriano.

Meeting adjourned at 8:24 PM.

Meeting was called to order by Barry Dobyns at 9:00 AM, Wednesday. Tom Baumgartner took minutes.

In attendance were: Barry Dobyns, Adriano Moriera, Tom Baumgartner, KC Chen.

Barry presented copies of paper 95/45, IR PHY Response to Technical Comments on Section 12 and paper 95/46, Proposed changes to D1 Section 12 based on Ballot Changes. Some of the changes are based on items that still need to be ratified in this meeting today.

We started by reviewing the comments from KC Chen since he is now here. KC wants Gray coding so that if we ever add forward error correcting code, the inter-symbol interference errors will create single bit errors not 2 bit errors.

MOTION: by KC to adopt the Gray code symbol table he presented. (This reverses decision made earlier.) Second by Adriano. Vote: 4-0-0. Motion passed.

Barry asked if there are any errors or omissions in the November Lake Tahoe IR PHY meeting minutes. Hearing none the minutes are approved.

Barry asked if there are any errors or omissions in 95/42, Tentative Minutes of Interim IR PHY Ad hoc Group for Monday, March 6, 1995. There are two corrections to the minutes. On the first page Barry's comment on thermal operating range was deferred to Rui Valadas's comment not Adriano's comment. The last motion vote on field of view on page 3 was 3-0-1 not 4-0-1. Minutes were approved as corrected. Tom noted that the Tentative minutes are already distributed.

Barry noted that Bob O'Hara explained his concern in comment on 12.3.3.2. Bob agreed that changing "pulse" to "edge" satisfied his concern.

Barry reviewed conversation with Wim regarding re-consideration of his comment on 12.2.4.3 on length. He said that the length should be readable so that there be reliable end of frame detection. Barry says that for all modulations that don't understand another modulation there can be no reliable end of frame detection.

MOTION: by Tom to reject Wim's comment on 12.2.4.3 on length field again after reconsideration. Second Adriano. Vote: 3-0-0. Motion passed.

Tom presented 95/44. The meeting asked for a mechanical drawing to help understand the pattern. Also there is a need to define a maximum energy at pitch angles greater than 20 degrees. Also the peak optical power should be checked by geometry. Asked that a graph of the mask be included. Also the emitter pattern of the practical LED's should be checked to see that they can meet the spec. Tom agreed to improve the document and resubmit at interim for final vote.

The meeting reviewed proposed versions of documents 95/45 and 95/46 for accuracy. The group commended Barry for working until 3 AM to complete the documents. There were minor changes made.

MOTION: by Tom. Resolved that the text in document 802.11-95/46 as corrected at this meeting be incorporated into the next draft of the standard as section 12. Second by Adriano. Vote: 3-0-0. Motion passed.

MOTION: by Tom. Resolved that document 95/45 is a correct and true record of the IR PHY response to ballot comments on draft D1 section 12 and should be presented to the commentators. Second by Adriano. Vote: 3-0-0.

MOTION: by Tom to adjourn. Vote: 3-0-0.

Meeting adjourned at 11:20 AM.

