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

Submission Title: [LB comment resolution related to 6.9.6]
Date Submitted: [13th July, 2010]
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Re: [Response to LB comment of TG7]

Abstract: [This document describes LB comment resolution related to 6.9.6.]

Purpose: [To resolve LB comments related to 6.9.6]

LB comment resolution related to 6.9.6

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Unresolved CIDs related to 6.9.6

- 24 CIDs : 538, 542, 539, 541, 544, 545, 546
  547, 548, 549, 550, 550a, 551, 553
  554, 555, 556, 557, 552, 558, 559
  560, 561, 562

CIDs 538 and 542

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
538	Joachim W. Walewski	6	6.9.6.1	61	all	8B10B code is explicitely stated here, while Clause 5.5.3.1.2 explicitely advocats 5B6B	I suggest to choose only one line code, either 8B10B or 5B6B

6.9.6.1 Explicit Visible/Dimming pattern

The possible Visible Pattern codes that can be used in the Visible Pattern field are shown in Figure 47 The code used in the Visible Pattern field is the code specified in the Visible Frame Pattern field of the Control Header field repeated throughout the Visible Pattern field.

We define a set of 11 base visibility patterns based on the 8B10B code to ensure there is no conflict between the visibility pattern and the data transmission at the receiver. We use these base patterns in order to generate high resolution patterns.

CIDs 538 and 542

- **Recommendation/Instruction to editor**
  - 5B6B is not found in 5.5.3.1.2.
  - Which one does the commentator mention, 6.9.6.1 or 5.5.3.1.2 ?
  - 5.5.3.1.2 has been rewritten and it never describes any line code.
  - Reject : This comment has been already resolved.

CID 539

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
539	David Cypher	6	6.9.6.1	61	31	2009 IEEE Standards Style Manual 13.5	Rewrite to remove use of "we" Also line 32

- **Recommendation/Instruction to editor**
  - Accept
  - Editorial Comment

CID 541

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
541	Sridhar Rajagopal	6.9.6.1		61		Figure 47	mention it is an example for 8B10B code

- ## **Recommendation/Instruction to editor**
  - Accept
  - Editorial Comment

CID 544

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
544	David Cypher	6	6.9.6.1	62	46	2009 IEEE Standards Style Manual 13.5	Rewrite to remove use of "we" Also line 51

- **Recommendation/Instruction to editor**
  - Accept
  - Editorial Comment

CID 545

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
545	Soo-Young Chang	6	6.9.6.2	63	25	Need to check how much performance degradation as the duty cycle of VPM increases or decreases. With 50 % duty cycle, the best performance will be guaranteed. It needs to check whether linear and continuous dimming control is possible with VPM.	Need to evaluate performance degradation and compare this with those of other modulation schemes.

- **Recommendation/Instruction to editor**
  - See DCN 10/159/r2

CID 546

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
546	Soo-Young Chang	6	6.9.6.3	63	32	CSK dimming entails color shift because of analog dimming. Need to have a compensation scheme for these color changes due to dimming.	Need to have compensation schemes for color changes.

• **Recommendation/Instruction to editor**
- The resolution will be given by Samsung.

CID 547

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
547	Clint Chaplin	6	6.9.6.2	63	28	(SY) "the VPM PHY shall use the same algorithm as that mentioned for the in-band visibility pattern mentioned below" I cannot find the section that is being referenced here; I cannot find a "in-band visibility pattern" below.	Make the reference clearer and more explicit; preferably to a sub-clause number

- **Recommendation/Instruction to editor**
  - Accept
  - Editorial comment

CID 548

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
548	Michael Bahr	6	6.9.6.3	63	34-37	This Clause advocats amplitude dimming (see Claus 5.5.3.2.3) for CSK but does not make this clear	Replace the paragraph with "In CSK, amplitude dimming as per Clause 5.5.3.2.3 is used.CSK keeps the center color of the color constellation with required intensity instead of the idle pattern shown in section 5.9.6.1."

- **Recommendation/Instruction to editor**
  - The resolution will be given by Samsung.

CID 549

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
549	Sridhar Rajagopal	6.9.6.3		63	equations wrongly repeated in this section	equations wrongly repeated in this section	delete repetition

- **Recommendation/Instruction to editor**
  - Accept

CID 550

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
550	R. Roberts	6.9.6.2		63	equations wrongly repeated in this section	Consider just using VPM for dimming	I find the technique for VPM dimming in section 6.9.6.2 strange. Why limit VPM to 10% duty cycle resolution? What is the justification for this? The visibility frame carriers the information in 0.1% increments (section 7.5). For example, if you need 25% duty cycle, then just generate it as needed. What is the problem? Change the text to directly generate the required duty cycle.

• Recommendation/Instruction to editor

- Reject
- This CID is similar to CID 94. CID has been already resolved.

CID 550a

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
550a	R. Roberts	6.9.6.3		63	equations wrongly repeated in this section	In correct reference	reference to 5.5.4 … I think this should be 5.5.3.3.

- **Recommendation/Instruction to editor**
  - Accept in principle.
  - The wrong reference will be deleted.

CID 551

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
551	Shusaku Shimada	6.9	6.9.6.4	64	33	TBD in figure 49.	Define.

- ## **Recommendation/Instruction to editor**
  - Accept in principle.
  - Figure 49 will be deleted.

CID 553

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
553	Soo-Young Chang	6	6.9.6.4	64	32	In PHY, in Figure 49, light dimming input can be applied to any of the blocks depending on how dimming is controlled and which dimming control scheme is used.	Need to have more block diagrams for various dimming control cases.

• **Recommendation/Instruction to editor**

- Accept in principle
- Figure 49 will be deleted because it is old one.

CID 554

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
554	David Cypher	6	6.9.6.4	64	37	Figure 49 is not referenced	Remove figure

- ## Recommendation/Instruction to editor
  - Accept in principle.
  - Figure 49 will be deleted.

CID 555

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
555	David Cypher	6	6.9.6.4	64	41	replace shown below with shown in Figure 50. However Figure 50 is a repeat of Figure 6	NO need to repeat figure here

- ## Recommendation/Instruction to editor
  - Accept in principle.
  - It depends on the discussion results of preamble, dimming and flicker on various operation modes.

CID 556

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
556	Clint Chaplin	6	6.9.6.4	64	32	(SY) There is a TBD in Figure 49. What is to be TBD? Is whatever is to be TBD present in this document?	Resolve the TBD

- ## **Recommendation/Instruction to editor**
  - Accept in principle.
  - Figure 49 will be deleted.

CID 557

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
557	Michael Bahr	6	6.9.6.4	64	43-51	This clause seems to be an outdated copy of Figure 6	Delete this Figure

- **Recommendation/Instruction to editor**
  - Accept in principle.
  - It depends on the discussion results of preamble, dimming and flicker on various operation modes.

CID 552

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
552	Joachim W. Walewski	6	6.9.6.4	64	all	This clause contains information similar to that of Clause 5.5.3.1.2	Merge into Clause 5.5.3.1.2 and remover superfluous text and figures

- ## **Recommendation/Instruction to editor**
  - Reject
  - 5.5.3 describes the introductory text, but 6.9.6 addresses the PHY specifications on dimming and flicker.

CID 558

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
558	Joachim W. Walewski	6	6.9.6.4	64	all	This clause contains information similar to that of Clause 5.5.3.1.2	Merge into Clause 5.5.3.1.2 and remover superfluous text and figures

- ## **Recommendation/Instruction to editor**
  - Reject
  - 5.5.3 describes the introductory text, but 6.9.6 addresses the PHY specifications on dimming and flicker.

CID 559

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
559	R. Roberts	6.9.6.3		64	1 to 23	Delete extraneous information	The equations and information at the top of page 64 is extraneous … delete this

- ## **Recommendation/Instruction to editor**
  - It depends on the discussion results of the reorganization of 6.9.6

CID 560

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
560	R. Roberts	6.9.6.4		64		change the title of this section	Change the title of this section to "PHY Independent Dimming Between Data Frames"

• **Recommendation/Instruction to editor**

- Accept in principle.
- Resolved as per DCN 10/497/r2
- The title will be changed into "Flicker mitigation"

CID 561

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
561	R. Roberts	6.9.6.4	Figure 49	64		Delete this figure	Figure 49 is obsolete and is probably not need in the first place. Delete this figure.

- ## Recommendation/Instruction to editor
  - Accept in principle.
  - Resolved as per DCN 10/497/r2

CID 562

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
562	R. Roberts	6.9.6.4		64	41	**Delete text below figure 49 and substitute new text**	**"Remove the current text below figure 49 and substitute the following text …An idle pattern is sent between data frames that has the desired average intensity while being compliant to the flicker requirements of section 5.7. The specifies of this idle pattern is beyond th escope of this standard."**

- ## **Recommendation/Instruction to editor**
  - Accept in principle.
  - Resolved as per DCN 10/497/r2

Summary

- 24 CIDs related to 6.9.6 have been resolved.

- 24 CIDs : 538, 542, 539, 541, 544, 545, 546
  547, 548, 549, 550, 550a, 551, 553
  554, 555, 556, 557, 552, 558, 559
  560, 561, 562