

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

**Submission Title:** LB comment resolution related to 5.5.3.3 and 5.5.3.4

**Date Submitted:** [9th July, 2010]

**Source:** Sang-Kyu Lim; Joachim W. Walewski *Company:* ETRI; Siemens AG

*Address:* 138 Gajeongno, Yuseong-Gu, Daejeon, Korea; Munich, Germany

*Voice:*+82-42-860-1573, *FAX:* +82-42-860-521], *E-Mail:* sklim@etri.re.kr

**Re:** Response to LB50

**Abstract:** This document describes LB comment resolution related to Subclauses 5.5.3.3 and 5.5.3.4.

**Purpose:** [To resolve LB comments related to 5.5.3.3 and 5.5.3.4]

**Notice:** This document has been prepared to assist the IEEE P802.15. It is offered as a basis for discussion and is not binding on the contributing individual(s) or organization(s). The material in this document is subject to change in form and content after further study. The contributor(s) reserve(s) the right to add, amend or withdraw material contained herein.

**Release:** The contributor acknowledges and accepts that this contribution becomes the property of IEEE and may be made publicly available by P802.15.

# LB comment resolution related to 5.5.3.3 and 5.5.3.4

Sang-Kyu Lim, ETRI

Joachim W. Walewski, Siemens AG

## The Current Status related to 5.5.3.3 and 5.5.3.4

- The technical editor has rewritten the clause 5.5.3 including its subclauses and the clause 5.5.4 to implement the editorial comments.
- TG7 conditionally agreed to reorganize 5.5.3 and 5.5.4 on Beijing F2F meeting. → See doc10/351/r0.
- Doc10/351/r0 recommend that subclauses 5.5.3.4 and 5.5.3.3 are deleted.
- However, only subclause 5.5.3.4 has been deleted in current D2 draft.

# D1 Draft (5.5.3 and 5.5.4)

## 5.5.3 Cross Layer Consideration

### 5.5.3.1 Flicker Compensation

#### 5.5.3.1.1 Intra-frame Flicker Compensation

#### 5.5.3.1.2 Inter-frame Flicker Compensation

### 5.5.3.2 Light Dimming

#### 5.5.3.2.1 VPM Dimming

#### 5.5.3.2.2 Idle Pattern and Adjustment Time Dimming

#### 5.5.3.2.3 Analog Dimming

### 5.5.3.3 Idle Pattern

### 5.5.3.4 Idle Pattern

## 5.5.4 Flicker Mitigation (Informative)

# Current D2 Draft (5.5.3 and 5.5.4)

## 5.5.3 Flicker compensation and dimming

### 5.5.3.1 Flicker Compensation

#### 5.5.3.1.1 Intra-frame Flicker Compensation

#### 5.5.3.1.2 Inter-frame Flicker Compensation

### 5.5.3.2 Light Dimming

#### 5.5.3.2.1 VPM Dimming

#### 5.5.3.2.2 Idle Pattern and Adjustment Time Dimming

#### 5.5.3.2.3 Amplitude Dimming

### 5.5.3.3 Idle Pattern

### ~~5.5.3.4 Idle Pattern~~

## 5.5.4 Flicker Mitigation (Informative)

# Suggested (according to 10/351/r0)

## 5.5.3 Flicker Mitigation and Dimming

### 5.5.3.1 Flicker Mitigation (remedy: see DCN 496/r1 and DCN 497/r1)

#### 5.5.3.1.1 Intra-frame Flicker Mitigation

#### 5.5.3.1.2 Inter-frame Flicker Mitigation

### 5.5.3.2 Light Dimming

#### 5.5.3.2.1 xxx Dimming (in document 10/0159/r)

#### 5.5.3.2.2 VPPM Dimming

#### 5.5.3.2.3 Idle Pattern and Adjustment Time Dimming

#### 5.5.3.2.4 xxx (or Visibility Pattern) Dimming

#### 5.5.3.2.5 Amplitude Dimming

### ~~5.5.3.3 Idle Pattern~~ (remedy: see DCN 485/r2)

### ~~5.5.3.4 Idle Pattern~~ (remedy: see DCN 485/r2)

## 5.5.4 Flicker Mitigation (Informative) (remedy: see DCN 496/r1)

# CID 28

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
28	Michael Bahr	5	5.5.3.4	2	46-4	This Clause is pretty much redundant to Clause 5.5.3.2.2 and also contains falsities (see my comment on clause 5.5.3.2.2)	Delete Clause 5.5.3.4

- Subclause 5.5.3.4 (Idle pattern) is not longer in DCN 10/485/r2 as agreed during Beijing F2F meeting (see doc10/351/r0).
- **Recommendation/Instruction to editor**
  - Accept. Automatically resolved as per DCN 10/485/r2.

# CID 100c

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
100c	Clint Chaplin	5	5.5.3.4	10	48	(SY) Clause is redundant	delete this redundant sub-clause

- Subclause 5.5.3.4 (Idle pattern) is not longer in DCN 10/485/r2 as agreed during Beijing F2F meeting (see doc10/351/r0).
- **Recommendation/Instruction to editor**
  - Accept. Automatically resolved as per DCN 10/485/r2.



# CID 100d

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
100d	James Gilb	5	5.5.3.4	10	46	This entire subclause is a repeat of previous information and so should be deleted, with the exception of the last sentence, "The details ... in 6.9.6." Remember a standard isn't done when there is nothing more to add, it is done when there is nothing more to remove.	Delete subclause 5.5.3.4 except for the last sentence, which probably belongs in 5.5.3.1.

- Subclause 5.5.3.4 (Idle pattern) is not longer in DCN 10/485/r2 as agreed during Beijing F2F meeting (see doc10/351/r0).
- **Recommendation/Instruction to editor**
  - Accept in spirit. Subclause 5.5.3.4 deleted in DCN 10/485/r2.

# CID 100f

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
100f	ETRI	5	5.5.3.4	10	46	The title of 5.5.3.3, idle pattern, is the same with the title of 5.5.3.4	Remove the subclause 5.5.3.4

- Subclause 5.5.3.4 (Idle pattern) is not longer in DCN 10/485/r2 as agreed during Beijing F2F meeting (see doc10/351/r0).
- **Recommendation/Instruction to editor**
  - Accept. Automatically resolved as per DCN 10/485/r2 .

# CID 108

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
108	Sridhar Rajagopal	5.5.3.4		10		idle pattern section	delete entire section

- Subclause 5.5.3.4 (Idle pattern) is not longer in DCN 10/485/r2 as agreed during Beijing F2F meeting (see doc10/351/r0).
- **Recommendation/Instruction to editor**
  - Accept. Automatically resolved as per DCN 10/485/r2 .

# CID 113

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
113	R. Roberts	5.5.3.4		10		Redundant material	Delete this section

- Subclause 5.5.3.4 (Idle pattern) is not longer in DCN 10/485/r2 as agreed during Beijing F2F meeting (see doc10/351/r0).
- **Recommendation/Instruction to editor**
  - Accept. Automatically resolved as per DCN 10/485/r2.

# CID 113b

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
113b	Soo-Young Chang	5	5.5.3.4	10	46	This section is almost a duplicate of the second paragraph of the previous section, 5.5.3.2.2.	Need to remove this section.

- Subclause 5.5.3.4 (Idle pattern) is not longer in DCN 10/485/r2 as agreed during Beijing F2F meeting (see doc10/351/r0).
- **Recommendation/Instruction to editor**
  - Accept. Automatically resolved as per DCN 10/485/r2.

# CID 98

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
98	Larry Taylor	5	5.5.3	10	40	Same a comment on line 17-18. Suitable idle patterns must be found that do not result in flicker	

- Subclause 5.5.3.3 (Idle pattern) is not longer in DCN 10/485/r2 as agreed during Beijing F2F meeting (see doc10/351/r0).
- **Recommendation/Instruction to editor**
  - ???, But Automatically resolved as per DCN 10/485/r2.

# CID 100a

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
100a	Clint Chaplin	5	5.5.3.3	10	36	(JS) there are two idle pattern subclause	combine or distinguish it.

- The current D2 draft (5.5.3.3 Idle pattern)
  - “The idle pattern can be used to compensate for inter-frame flicker and to allow a light source to support dimming. ~~However, the use of idle pattern for light dimming is in conflict with the inter frame flicker compensation because that can be resulted in the inter frame flicker. The on and off times of light source are essential to the dimming through the use of idle pattern, but they decrease the communication efficiency extremely. Therefore, the standard supports that the idle pattern is used only on the applications such as P2P communication which are independent of flicker and it allows to be used only for the inter frame flicker compensation on the applications which need the non flicker.”~~
  - We’d like to recommend that 5.5.3.3 Idle pattern will be also deleted because the first sentence are already shown in inter-frame flicker compensation subclause (5.5.3.1.2 in DCN 10/485/r1 ) and idle pattern and adjustment time dimming subclause (5.5.3.2.2 in DCN 10/485/r1).

# CID 100a (cont.)

- **Recommendation/Instruction to editor**
  - Accept in spirit.
  - Delete the subclause 5.5.3.3 in the current D2 draft as per DCN 10/485/r2.



# CID 100b

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
100b	Clint Chaplin	5	5.5.3.3	10	38	(SY) "As described in 5.5.3.1.2 and 5.5.3.2.2, the idle pattern can be used to compensate the inter-frame flicker and to allow a light source to have the dimming function. However, the use of idle pattern for light dimming is in conflict with the inter-frame flicker compensation because that can be resulted in the inter-frame flicker. "ON" and "OFF" times of light source are essential to the dimming through the use of idle pattern, but they decrease the communication efficiency extremely. Therefore, the standard supports that the idle pattern is used only on the applications such as P2P communication which are independent of flicker and it allows to be used only for the inter-frame flicker compensation on the applications which need the non-flicker."	"As described in 5.5.3.1.2 and 5.5.3.2.2, the idle pattern can be used to eliminate inter-frame flicker or to allow a light source to have the dimming function. However, the use of idle pattern for light dimming is in conflict with inter-frame flicker compensation because idle patterns used for light dimming will cause inter-frame flicker. "ON" and "OFF" times of the light source are essential to dimming through the use of idle pattern, but the "ON" and "OFF" times decrease the communication efficiency. Therefore, this standard supports using idle pattern for dimming function only on the applications such as P2P communication which are do not need to eliminate flicker, and supports using idle pattern for inter-frame flicker compensation only on the applications which need the non-flicker and will not use light dimming."

# CID 100b (cont.)

- **Recommendation/Instruction to editor**
  - Reject. These sentences will be removed according to doc 10/485/r2.

# CID 101

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
101	David Cypher	5	5.5.3.3	10	36	Both this subclause and the next have the same heading. If so, then there is not need for separate subclauses.	remove heading 5.5.3.4

- **Recommendation/Instruction to editor**

- Accept in spirit. This subclause will be removed according to doc 10/485/r2.

# CID 105

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
105	Michael Bahr	5	5.5.3.3	10	36-45	This Clause is pretty much redundant to Clause 5.5.3.2.2 and also contains falsities (see my comment on Clause 5.5.3.2.2)	Delete Clause 5.5.3.3

- **Recommendation/Instruction to editor**
  - Accept. See doc 485/r2 for the proposed text.

# CID 107

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
107	Sridhar Rajagopal	5.5.3.3		10		idle pattern section	delete entire section

- **Recommendation/Instruction to editor**
  - Accept. See doc 485/r2 for the proposed text.

# CID 112

CID	Name	Clause	Subclause	Page	Line	Comment	Suggested Remedy
112	R. Roberts	5.5.3.3		10		Remove text	<p>"In section 5.5.3.3 keep the first sentence and delete everything after the first sentence. That is, delete the following <del>...However, the use of idle pattern for light dimming is in conflict with the inter frame flicker compensation because that can be resulted in the inter frame flicker. "ON" and "OFF" times of light source are essential to the dimming through the use of idle pattern, but they decrease the communication efficiency extremely. Therefore, the standard supports that the idle pattern is used only on the applications such as P2P communication which are independent of flicker and it allows to be used only for the inter-frame flicker compensation on the applications which need the non-flicker.</del>"</p>

- **Recommendation/Instruction to editor**

- Accept in spirit. In contribution 485/r2 the entire subclause is removed.

# Summary

- 14 CIDs related to 5.5.3.3 and 5.5.3.4 have been resolved.
- 7 CIDs (28, 100c, 100d, 100f, 108, 113, and 113a) are associated with the clause 5.5.3.4.
- 7 CIDs (98, 100a, 100b, 101, 105, 107, and 112) are associated with the clause 5.5.3.3.