

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

**Submission Title:** [Comment resolutions on the parameters for color function support (T-CID 124 and 221)]

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**Re:** [Response to LB57]

**Abstract:** [This document describes LB57 comment resolution related to the parameters for color function support (T-CID 124 and 221).]

**Purpose:** [To resolve LB57 comment resolution related to the parameters for color function support (T-CID 124 and 221)]

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# Comment resolutions on the parameters for color function support (T-CID 124 and 221)

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# CID 124 (= CID 125 in 694/r2)

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy	Accepted Remedy
124	Rick Roberts	6	Table 35	72	47	Why do we need both "ColorRecived" and "ColorNotReceived" parameters. Doesn't the failure of one imply the other.	Discuss in committee and consider the removal of the "ColorNotReceived" parameter.	Accepte - delete "ColorNotReceived" and indicate that a False ColorReceived implies ColorNotReceived. Do this throughout the text.

## Table 35 - MCPS-DATA.request parameters

Name	Type	Valid range	Description
ColorReceived	Boolean	TRUE/FALSE	ColorReceived shall be set as TRUE, if CVD frame is sent when data frame is successfully received.
ColorNotReceived	Boolean	TRUE/FALSE	ColorNotReceived shall be set as TRUE, if CVD frame is sent when data frame is not received.

# CID 124 (= CID 125 in 694/r2) (cont.)

- ‘ColorReceived’ parameter does not imply that data frame is successfully received.
- Similarly, ‘ColorNotReceived’ parameter does not imply that data is not received or the received data has some errors.
- ‘ColorReceived’ is the parameter which decide **to support or not to support the color function for the ACK state indication through CVD frame**, where ACK state means data frame is successfully received.
- ‘ColorNotReceived’ is the parameter which decide **to support or not to support the color function for the non-ACK state indication through CVD frame**, where the non-ACK state which means data frame is not received or the received data has some errors.
- In conclusion ‘ColorNotReceived’ does not mean when ‘ColorReceived’ is FALSE.
- **Therefore we need both ‘ColorReceived’ and ‘ColorNotReceived’ parameters in table 35.**

# CID 124 (= CID 125 in 694/r2) (cont.)

Table 35 - MCPS-DATA.request parameters

Name	Type	Valid range	Description
ColorReceived	Boolean	TRUE/FALSE	<p>ColorReceived shall be set as TRUE, if CVD frame is sent when data frame is successfully received. when the ACK frame is sent and the color function for the ACK state indication is used by the CVD frame.</p> <p>ColorReceived shall be set as FALSE when the ACK frame is sent but the color function for the ACK state indication is not used by the CVD frame.</p>
ColorNotReceived	Boolean	TRUE/FALSE	<p>ColorNotReceived shall be set as TRUE, if CVD frame is sent when data frame is not received. when the ACK frame is not sent but the color function for the non-ACK state indication is used by the CVD frame.</p> <p>ColorNotReceived shall be set as FALSE when the ACK frame is not sent and the color function for the non-ACK state indication is not used by the CVD frame.</p>

# CID 124 (= CID 125 in 694/r2) (cont.)

- **Recommendation/Instruction to editor**

- Accepted in principle.
- 'ColorNotReceived' is OK.
- Need 'ColorNotReceived' as well as 'ColorReceived'.
- But change the descriptions for 'ColorReceived' and 'ColorNotReceived' parameters in table 35 to the sentences on slide #5 in 10/715/r1.

# CID 221 (= CID 219 in 694/r2)

CID	Name	Clause	Subclause	Page	Line	Comment	SuggestedRemedy
221	Rick Roberts	6	Table 91	173	47	<i>macColorNotReceived</i>	How can you tell you have not received something? Committee needs to discuss this. My inclination is to delete this MAC PIB attribute unless it is explained why this should be kept.

## Table 91 - MAC PIB attributes

Attribute	Identifier	Type	Range	Description	Default
<i>macColorNotReceived</i>	0x66	Unsigned	0-6	Use <i>macColorNotReceived</i> for CVD Frame which denotes 'not received'. The unsigned integer variable represents the desired visible light wavelength as shown in the band plan code of Table 1.	0

# CID 221 (= CID 219 in 694/r2) (cont.)

- '*macColorReceived*' parameter is not a parameter telling us that data frame is successfully received.
- Similarly, '*macColorNotReceived*' parameter is not a parameter telling us that data is not received or the received data has some errors.
- '*macColorReceived*' is the parameter to assign a color to the CVD frame when the CVD frame for the ACK state indication is sent.
- '*macColorNotReceived*' is the parameter to assign a color to the CVD frame when the CVD frame for the non-ACK state indication is sent.
- **Therefore we need '*macColorNotReceived*' parameter as well as "*macColorReceived*" in table 91.**



# CID 221 (= CID 219 in 694/r2) (cont.)

## Table 91 - MAC PIB attributes

Attribute	Identifier	Type	Range	Description	Default
<i>macColorReceived</i>	0x65	Unsigned	0-255	<p>Use <i>macColorReceived</i> for the color assignment of the CVD Frame when the ACK frame is sent and the color function for the ACK state indication is used by the CVD frame.</p> <p>The unsigned integer is the index for the look-up table for the color function table, <i>phyColorFunction</i>, as shown in table 24, PHY PIB attributes.</p>	0
<i>macColorNotReceived</i>	0x66	Unsigned	0-255	<p>Use <i>macColorNotReceived</i> for the color assignment of the CVD Frame when the ACK frame is not sent but the color function for the non-ACK state indication is used by the CVD frame.</p> <p>The unsigned integer is the index for the look-up table for the color function table, <i>phyColorFunction</i>, as shown in table 24, PHY PIB attributes.</p>	0

## CID 221 (= CID 219 in 694/r2) (cont.)

### □ Add the following row to the bottom of table 24

- Attribute: phyColorFunction
- Identifier: 0x04
- Type: 256 by 3 matrix.
- Range: index ranges from 0 to 255
- Description: a table with three columns per row. The first row is the index, the second and the third columns define the color.

# CID 221 (= CID 219 in 694/r2) (cont.)

- **Recommendation/Instruction to editor**

- Accepted in principle.
- '*macColorNotReceived*' is OK.
- Need '*macColorNotReceived*' as well as '*macColorReceived*'.
- But change the descriptions for '*macColorReceived*' and '*macColorNotReceived*' parameters in table 91 to the sentences on the slide #9 in 10/715/r1.
- And add the remedy shown on the slide #10 in 10/715/r1 to the accepted remedy.