

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

Submission Title: [Suggestion for line scan LED signboard issue of Annex G]

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Re: [Response to LB #57 comment]

Abstract: [This document describes the LB #57 comment resolutions related to Annex G]

Purpose: []

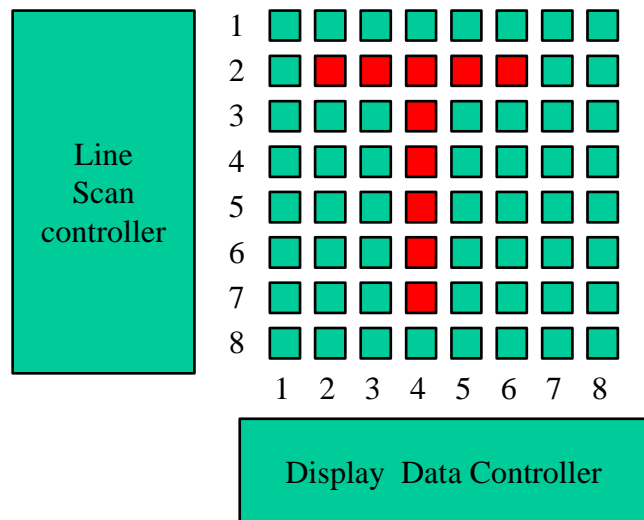
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Suggestion for line scan LED signboard issue of Annex G

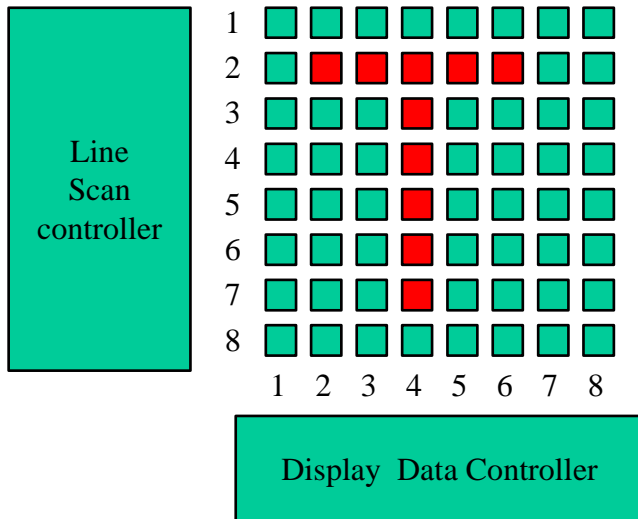
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Line scan LED signboard mechanism



1. Let's suppose the character "T" is written on a line scan LED signboard. Let's think just one display frame time because the situations are the same in the next display frame.
2. In a display frame time, the first, the line 1 is selected by the line scan controller. This means that line 1 is on the active time. It also means that the every pixels on line 1 are ready to be "ON". But, the display data transmitted from the display data controller is nothing on line 1. So, the every pixels on line 1 display eventually "OFF".
3. And then, the line 2 is selected by the line scan controller. This means that line 2 is on the active time. This means that the every pixels on line 2 are ready to be "ON". Just the pixels shown as "red" become "red" by the display data transmitted from the display data controller.
4. In other words, the every LED pixels on a line scan LED signboard become "ON" when the line is on the active time and the display data (column) transmitted the display data controller is "ON".
5. In a line scan LED signboard, the red pixels on line 2 and a red pixel on line 3 are not "ON", simultaneously. Human eye perceive that the every red pixels showing "T" are "ON" simultaneously, but their "ON" times are different in time domain.

Suggestion



6. Of course, it is possible to control the every LED pixels on LED signboard simultaneously.
7. Line scan operation mechanism give the LED signboard low power consumption and energy saving. So. It is used globally.

Which one is the problem, the understandings of line scan LED sign board operation mechanism, or what Annex G describes as if every LED signboard is operated by this line scan mechanism ?

One suggestion – We change the every word “LED signboard” described in 10/776/r1 (Annex G) to “line scan LED signboard”.