There has also been an approach such as attempting to separate information quickly with use of an existing typical receiver although some deterioration is seen in video.

[Citation List]

[Patent Literature]

[0006]

[PTL 1] Japanese Unexamined Patent Application Publication No. 2007-43706

[PTL 2] Japanese Unexamined Patent Application Publication No. 2009-212768

[Summary of Invention]

[Technical Problem]

[0007] However, the conventional video display methods have a problem that signals for visible light communication cannot be appropriately transmitted.

[Solution to Problem]

[0008]

~~A video display method in the present disclosure is a video display method of displaying, on a per frame basis, an image included in a video signal, and may include: generating a first visible light communication image by encoding a visible light communication signal, the first visible light communication image being an image having a stripe pattern for visible light communication; displaying, in a predetermined frame, the image included in the video signal; and displaying, in the predetermined frame, the first visible light communication image sequentially after an identification image that is an image having luminance uniformly lower than average luminance of the image that is displayed.~~

A first aspect of the present invention provides a video display method of displaying an image included in a video signal, the video display method comprising; generating a first visible light communication image by encoding a visible light communication signal, the first visible light communication image being an image having a stripe pattern for visible light communication; displaying the image included in the video signal; displaying the first visible light communication image; and displaying a second visible light

communication image after displaying the first visible light communication image, the second visible light communication image being an image having a stripe pattern for visible light communication, wherein in the displaying of a second visible light communication image, the second visible light communication image, which is an image having a stripe pattern different in pitch from the stripe pattern of the first visible light communication image, is displayed to indicate information different in amount from information indicated in the first visible light communication image. [0008a]

A second aspect of the present invention provides a video display apparatus for displaying an image included in a video signal, the video display apparatus comprising: a visible light communication image generation unit configured to generate a first visible light communication image by encoding a visible light communication signal, the first visible light communication image being an image having a stripe pattern for visible light communication; a first display unit configured to display the image included in the video signal; a second display unit configured to display the first visible light communication image; and a third display unit configured to display a second visible light communication image after the first visible light communication image is displayed, the second visible light communication image being an image having a stripe pattern for visible light communication, wherein the third display unit is configured to display the second visible light communication image, which is an image having a stripe pattern different in pitch from the stripe pattern of the first visible light communication image, to indicate information different in amount from information indicated in the first visible light communication image.

[Advantageous Effects of Invention]

[0009]

According to the present disclosure, signals for visible light communication can be appropriately transmitted.

[Brief Description of Drawings]

[0010]

[CLAIMS]

[Claim 1]

A video display method of displaying an image included in a video signal, the video display method comprising:

generating a first visible light communication image by encoding a visible light communication signal, the first visible light communication image being an image having a stripe pattern for visible light communication;

displaying the image included in the video signal;

displaying the first visible light communication image; and

displaying a second visible light communication image after displaying the first visible light communication image, the second visible light communication image being an image having a stripe pattern for visible light communication,

wherein in the displaying of a second visible light communication image, the second visible light communication image, which is an image having a stripe pattern different in pitch from the stripe pattern of the first visible light communication image, is displayed to indicate information different in amount from information indicated in the first visible light communication image.

[Claim 2]

The video display method according to Claim 1,

wherein the displaying of the first visible light communication image or the displaying of a second visible light communication image further includes displaying, as an identification image, an image having luminance uniformly lower than average luminance of the image that is displayed in the displaying of the image.

[Claim 3]

The video display method according to Claim 1 or 2, further comprising:

capturing the first visible light communication image;

and

providing, according to a result of the capturing, an instruction to change the pitch of the stripe pattern,

wherein in the displaying of a second visible light communication image, the second visible light communication image is displayed when the instruction is provided.

[Claim 4]

The video display method according to any one of Claims 1, 2, and 3, further comprising:

identifying a focal distance for displaying the first visible light communication image on a screen by projection using a projector lens; and

determining, according to the focal distance, a total number of first visible light communication images to be displayed as the first visible light communication image,

wherein in the displaying of the first visible light communication image, the first visible light communication images the total number of which is determined are arranged and displayed on the screen.

[Claim 5]

The video display method according to any one of Claims 1, 2, 3, and 4, further comprising

notifying a terminal device which outputs the video signal of identification information indicating that a display apparatus which displays the image included in the video signal is capable of displaying the first visible light communication image.

[Claim 6]

The video display method according to any one of Claims 1, 2, and 3 to 5,

wherein in the displaying of a second visible light communication image, the second visible light communication image which has the stripe pattern different in orientation from the stripe pattern of the first visible light communication image is displayed.

[Claim 7]

The video display method according to any one of Claims 1, 2, 3 to 5, and 6,

wherein in the displaying of a second visible light communication image, a reversed image is displayed as the second visible light communication image, the reversed image being obtained by switching between two different luminance values or colors included in the stripe pattern of the first visible light communication image.

[Claim 8]

The video display method according to Claim 7,

wherein the stripe pattern of each of the first visible light communication image and the second visible light communication image is made up of two colors which have a complementary relationship.

[Claim 9]

The video display method according to Claim 7 or 8,

wherein in the displaying of a second visible light communication image, the second visible light communication image is displayed no more than 20 milliseconds after the first visible light communication image is displayed.

[Claim 10]

A video display apparatus for displaying an image included in a video signal, the video display apparatus comprising:

a visible light communication image generation unit configured to generate a first visible light communication image by encoding a visible light communication signal, the first visible light communication image being an image having a stripe pattern for visible light communication;

a first display unit configured to display the image included in the video signal;

a second display unit configured to display the first visible light communication image; and

a third display unit configured to display a second visible

light communication image after the first visible light communication image is displayed, the second visible light communication image being an image having a stripe pattern for visible light communication,

wherein the third display unit is configured to display the second visible light communication image, which is an image having a stripe pattern different in pitch from the stripe pattern of the first visible light communication image, to indicate information different in amount from information indicated in the first visible light communication image.