Errata for
CL450 MPEG Video
Decoder User's Manual

92-0450-302

July 28, 1995

This document describes changes between the behavior of microcode version 2.20 (described in the *CL450 MPEG Video Decoder User's Manual,* PN 92-0450-301) and replaces all previous erratas. These differences, as well as potential workarounds (if appropriate), are given in the following bug listing.

1. Horizontal Picture Size Limitation (bug 2001)

In addition to the requirements given in Section 16.5 of the *CL450 MPEG Video Decoder User's Manual,* the `horizontal_size` for bitstreams to be decoded by the CL450 must be 672 pixels (42 macroblocks) or less. Typically, constrained-parameters bitstreams are either 352-by-240 or 352-by-288 pixels. Note also that to meet the maximum area requirement for constrained parameters bitstreams, the `vertical_size` for a picture with a width of 672 pixels would be 144 pixels (9 macroblocks) or less.

2. Decoding Failure Caused by Interrupt Mix (bug 2002)

A decoding failure may occur if the RDY, PIC-V, and SCN interrupts are enabled with the UND interrupt *disabled*. In this case, the microcode may hang immediately after initialization, failing to perform decoding. This problem can be avoided simply by enabling the UND interrupt or using some interrupt combination other than RDY, PIC-V and SCN. Typically, this problem is not intermittent; it will either always occur or never occur in a system.

3. Video Glitch Caused by FlushBitstream() (bug 2003)

When the FlushBitstream() macro command is executed during vertical active display time, a small glitch may occur in the video display. This glitch is characterized by the entirety of a small number of consecutive scan lines being corrupted for a single field time. This glitch will not persist past the display field in which it was introduced and will not occur for all FlushBitstream() macro commands executed. It can be entirely suppressed by ensuring that the command is issued during the vertical bottom border.

4. DisplayStill() Command does not Display Correctly (bug 2201)

The DisplayStill() command does not display an image as described in the manual. To display an image correctly, the following sequence needs to be implemented:

1. Issue Play() command.
2. Send the image data.[1]
3. Wait for the buffer to empty.
4. Issue the DisplayStill() command.
5. Send the image data.[1]
6. Wait for the buffer to empty.
7. Send the image data.[1]

To display a second image, start from list item number 1 above.

5. No HOST_newcmd with Flushbitstream() (bug 2202)

If the FlushBitstream() command is issued immediately after a Pause() command, and the Pause() command has not finished executing, then the HOST_newcmd[0] will never clear. A maximum of two frame times is required between the commands.

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1. The still picture construction is described in the manual under the DisplayStill() command.