



TIR Mitigation in Direct-View LCD Displays

Temporary Image Retention (TIR) can occur in LCD flat panel displays and can be considered undesirable in certain applications where 24x7 display of static images is required.

The best way to avoid TIR is to limit the amount of static content on the display. When this is not an option, there are a number of alternate strategies to mitigate TIR:

- Turn off the display when it is not in use. After 24 hours of continuous use, turn off the display for 2 hours; after 12 hours of continuous use, turn off the display for 1 hour. If using a computer source, you can use the Power Management Properties to power off the display when it is not required.
- Alternatively, display a black screen to dissipate TIR – you can use the remote control to select a black test pattern from the Test Patterns Menu (Main Menu>Diagnostics>Test Patterns).
- Use a screensaver to display moving or random images. Or, alternate display images – display primary information for 1 hour followed by a moving image for 1 minute.
- Alternate color information with 2 different colors every 30 minutes, or when using high-contrast images, reposition the images frequently (every 30 minutes).
- A display ‘orbiter” can be utilized, which unobtrusively shifts the image by one pixel periodically to reduce the static nature of an image (Clarity LCD displays have a menu selectable option).
- Susceptibility to TIR is somewhat temperature dependent. Ensure that the display is not exposed to excessive heat.

Clarity Visual Systems offers a one year warranty on defects and workmanship for all of our direct view LCD products. In addition, we offer a Quality Assurance Program, prorated for 3 years from date of shipment, to cover issues with Temporary Image Retention and Uneven Display.

(See our Limited Warranty Statement for details.)

Now, In addition to the one-year warranty, Clarity also offers the Quality Assurance Program. This is a one-of-a-kind program in our industry, providing out-of-warranty coverage for image quality failures such as TIR (temporary image retention) and UD (uneven display).

Here's how the Quality Assurance Program works:

- For three years from the date of shipment, the Direct View LCD products are covered against TIR and Uneven Display.
- If the TIR or UD happens during the first 12 months, Clarity's one-year warranty covers the fix, at no additional cost to the customer.
- If the TIR or UD occurs between month 13 and month 36, then Clarity will discount the repair of the display on a pro-rated schedule.
- You pay the shipping to Clarity; Clarity pays the shipping back to you

So, if your display develops TIR on month 10, Clarity repairs your display under the one-year warranty. If, however, your display develops TIR on month 14, most of the repair cost will be borne by Clarity; if your display develops UD on month 32, the cost of repair will be closer to the full repair price.

For more details contact your IDT Sales representative.