

APPLICATION NOTE 3614

Staggering the Burst Dimmer on CCFL Displays

Abstract: To reduce the instantaneous current demand on the DC inverter power supply, the DS3984/DS3988 cold-cathode fluorescent lamp controllers stagger the start of the burst dimming cycle for each of the channels of a backlit LCD display.

Figure 1 shows the delay of channels 1 through 4 staggered by the DS3984/DS3988 cold-cathode fluorescent lamp controllers. The other channels are staggered in a similar fashion by using the DS3988 for up to 8 channels, or by cascading multiple DS3984/DS3988 controllers for applications requiring additional channels.

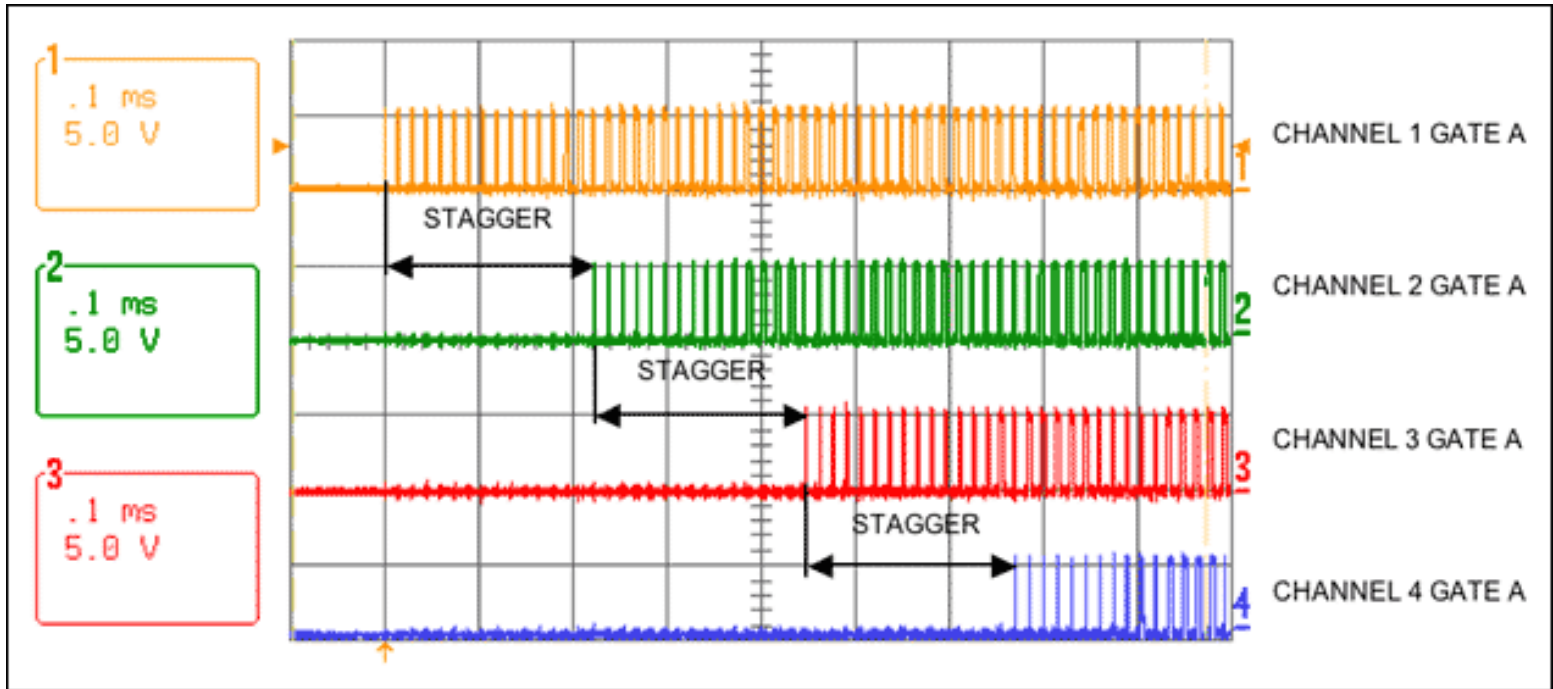


Figure 1. DS3984/DS3988 staggered burst dimming delay on channels 1 to 4.

Figure 2 shows the effect the staggered delay has on the current demand of the DC-inverter power supply. In this example, the burst dimming is set to approximately 50%. The power supply slowly ramps up to just over 3A, and then slowly returns to 0A.

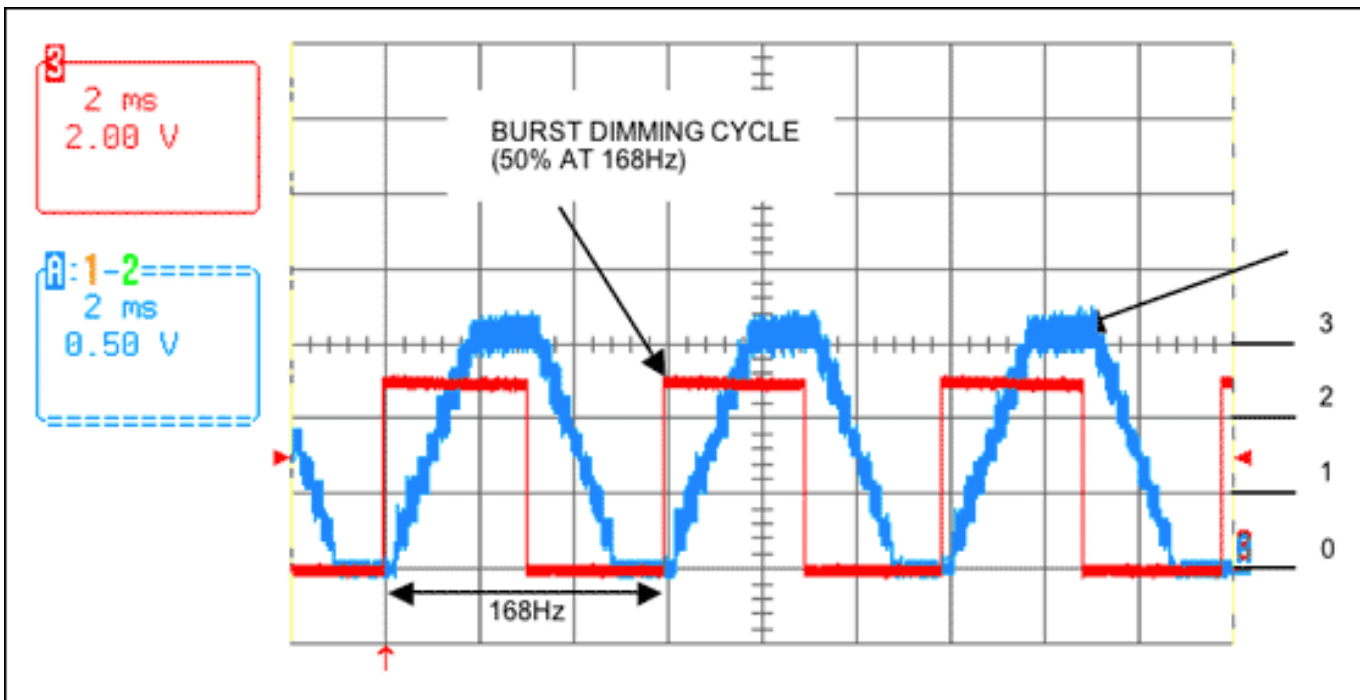


Figure 2. DC inverter supply current ramp at 50% burst dimming.

Application Note 3614: www.maxim-ic.com/an3614

More Information

For technical support: www.maxim-ic.com/support

For samples: www.maxim-ic.com/samples

Other questions and comments: www.maxim-ic.com/contact

Automatic Updates

Would you like to be automatically notified when new application notes are published in your areas of interest? [Sign up for EE-Mail™](#).

Related Parts

DS3984: [QuickView](#) -- [Full \(PDF\) Data Sheet](#) -- [Free Samples](#)

DS3988: [QuickView](#) -- [Full \(PDF\) Data Sheet](#) -- [Free Samples](#)

AN3614, AN 3614, APP3614, Appnote3614, Appnote 3614

Copyright © by Maxim Integrated Products

Additional legal notices: www.maxim-ic.com/legal