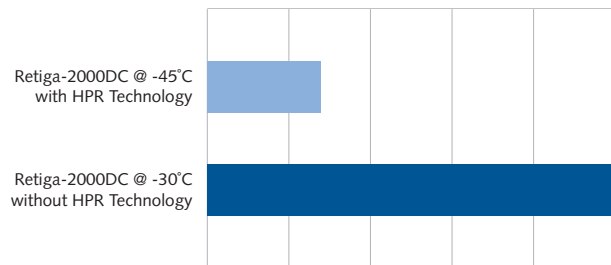


Hot Pixel Reduction™ (HPR) Technology

QImaging® introduces Hot Pixel Reduction™ (HPR) technology with the launch of its new Retiga-2000DC and Retiga-4000DC cameras. These cameras showcase an innovative combination of Advanced Clocking Enhancements™ (ACE) and hermetically sealed, deep-cooled vacuum technology. ACE provides precise pixel clock timing, ensuring that voltage clock edges are ideally placed, delivering the lowest noise generated whilst moving electrons through the pixels. The deep cooling provided by the hermetically sealed vacuum package diminishes dark current and assures hot pixel contribution to the image is minimized.

In an ideal scenario, if a no-light image is acquired one would expect to see no hot pixels — a uniform background should be seen. One quick and easy way to measure the hot pixel performance of your scientific imaging device is to perform a relatively long exposure (e.g. 5 seconds or longer) and count single pixels which clearly stand out above the rest of the image background.

This method was used to measure the generation of hot pixels at a specific threshold above the average of the entire image. This was performed at -30°C and -45°C , the new regulated cooling temperatures of QImaging's Retiga-2000DC and 4000DC cameras, respectively. The quantity of hot pixels in each image was counted and the resulting reduction in hot pixels using HPR technology is demonstrated in the graph at right.



The power of QImaging's HPR technology enables a significant reduction of hot pixels and noise resulting in higher quality imaging. The deep cooling and lowered dark current also enable higher sensitivity over longer exposure times allowing this product to be more versatile. Working concurrently, these innovative features deliver enhanced versatility and performance for applications ranging from immunofluorescence to chemiluminescent gel imaging.



www.qimaging.com

info@qimaging.com

USA +1.520.889.9933

Asia Pacific +65.6841.2094

France +33.1.60.86.03.65

Germany +49.89.660.779.3

Japan +81.3.5639.2731

UK +44.1628.890858