

ABSTRACT

An auto focus image system that includes a pixel array coupled to a focus signal generator. The pixel array captures an image that has at least one edge with a width. The focus
5 signal generator may generate a focus signal that is a function of the edge width and/or statistics of edge widths. A processor receives the focus signal and/or the statistics of edge widths and adjusts a focus position of a focus lens. The edge width
10 can be determined by various techniques including the use of gradients. A histogram of edge widths may be used to determine whether a particular image is focused or unfocused. A histogram with a large population of thin edge widths is indicative of a focused image. The generator may eliminate an edge having an asymmetry of a gradient profile of an image signal. The
15 generator may also eliminate an edge that fails a template for an associated peaking of the gradient.