the exposure apparatus exposes a portion of the substrate that was measured by the image acquisition apparatus.

19. The method of claim 1, wherein measuring positions of the first set of alignment marks is performed with an image acquisition system having a imaging area of length "L" at the first conveyor location, and a depth of focus "h"; and

wherein the single roller has a minimum radius of curvature "r" according to the expression:

$$r = L^2/8h.$$

20. The method of claim 1, wherein patternwise exposing the photosensitive material is performed with an exposure apparatus having an exposure area of length "L" at the second conveyor location, and a depth of field "h"; and

wherein the single roller has a minimum radius of curvature "r" according to the expression:

$$r = L^2/8h.$$

21. The method of claim 1, wherein the flexible substrate and the inelastic conveyor move together from the first conveyor location to the second conveyor location, and wherein the first and the second conveyor locations are far enough from first and last points of contact between the flexible substrate and the inelastic conveyor such that the flexible substrate cannot slip with respect to the inelastic conveyor.

~~22. A method of making a flexible circuit film, comprising:~~

~~providing a flexible substrate having a plurality of alignment marks and a photosensitive material thereon;~~

~~passing the substrate around an inelastic conveyor such that the substrate and the inelastic conveyor move together at least from a first conveyor location to a second conveyor location;~~

~~measuring positions of a first set of the alignment marks on a first portion of the substrate when the first portion of the substrate is at the first conveyor location, wherein the first set of alignment marks comprises more than 4 alignment marks;~~

providing reference positions for the first set of alignment marks;

comparing the measured positions to the reference positions to determine a nonlinear distortion of the first portion of the substrate; and

patternwise exposing the photosensitive material on the first portion of the substrate when the first portion of the substrate has moved to the second conveyor location, the patternwise exposing being based on the nonlinear distortion.