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(54) **MULTIGATE IN-PIXEL SOURCE FOLLOWER**

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(57) **ABSTRACT**

An image sensor including one or more pixels is provided. At least one of the pixels can include a semiconductor substrate, a floating diffusion formed in the semiconductor substrate, a transfer gate configured to selectively cause transfer of photo-charges stored in the pixel to the floating diffusion, and a multigate source follower. The multigate source follower can include a channel, a source and a drain coupled by the channel, a modulation gate formed over the channel and coupled to the floating diffusion, and a first guard gate formed over the channel.

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