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- (54) **Title:** INTEGRATED CIRCUIT WITH SEQUENTIALLY-COUPLED CHARGE STORAGE AND ASSOCIATED TECHNIQUES

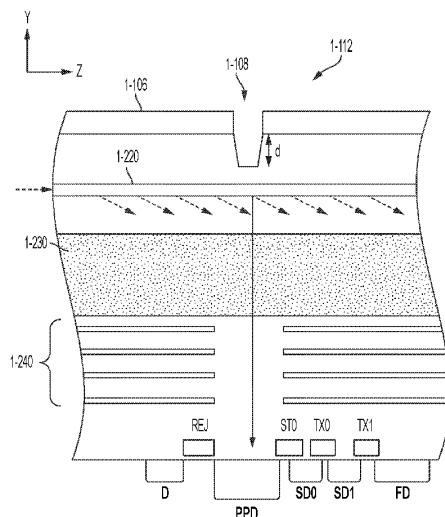


FIG. 1-2

(57) **Abstract:** Described herein are techniques that improve the collection and readout of charge carriers in an integrated circuit. Some aspects of the present disclosure relate to integrated circuits having pixels with a plurality of charge storage regions. Some aspects of the present disclosure relate to integrated circuits configured to substantially simultaneously collect and read out charge carriers, at least in part. Some aspects of the present disclosure relate to integrated circuits having a plurality of pixels configured to transfer charge carriers between charge storage regions within each pixel substantially at the same time. Some aspects of the present disclosure relate to integrated circuits having three or more sequentially coupled charge storage regions. Some aspects of the present disclosure relate to integrated circuits capable of increased charge transfer rates. Some aspects of the present disclosure relate to techniques for manufacturing and operating integrated circuits according to the other techniques described herein.

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