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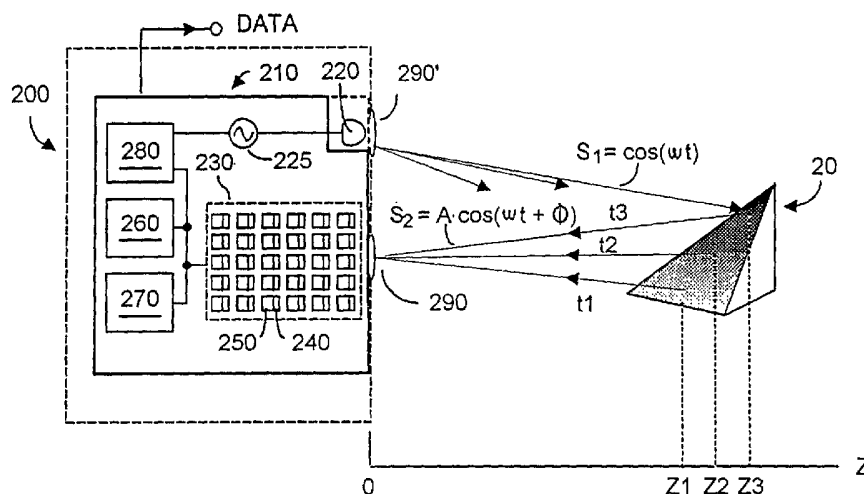
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[Continued on next page]

(54) Title: THREE-DIMENSIONAL AND COLOR SENSING



(57) Abstract: Structures and methods for three-dimensional image (20) sensing using high frequency modulation includes CMOS-implementable sensor structures (200) using differential charge transfer, including such sensors (230) enabling rapid horizontal and slower vertical dimension local charge collection. Wavelength response of such sensors can be altered dynamically by varying gate potentials. Methods for producing such sensor structures on conventional CMOS fabrication facilities include use of "rich" instructions to command the fabrication process to optimize image sensor rather than digital or analog ICs. One detector structure has closely spaced-apart, elongated finger-like structures that rapidly collect charge in the spaced-apart direction and then move collected charge less rapidly in the elongated direction. Detector response is substantially independent of the collection rate in the elongated direction.

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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,396,570 B2 (TAKAYANAGI et al) 28 May 2002 (28.05.2002), all.	1-14, 18-33
A	US 6,342,421 B1 (MITANI et al) 29 January 2002 (29.01.2002), all.	15-17
A	US 5,650,864 A (TSENG et al) 22 July 1997 (22.07.1997), all.	34, 35
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