

### III. ORIGIN OF PINNED BURIED PHOTODIODE

TABLE I. HISTORICAL PHOTOSENSOR DEVELOPMENT EFFORTS

Three types of Photo Sensing Devices		1	2	3
		N+P Single Junction Photodiode with Floating N+ Surface	Charge Couple Device CCD/MOS Dynamic Photo Capacitor	P+NP Double Junction Dynamic Photo Transistor Pinned Buried Photodiode
1	Image Lag Problem	<b>Serious Image Lag Problem</b>	No Image Lag Problem	No Image Lag Problem
2	Surface Dark Current Noise	No Surface Dark Current Noise	<b>Serious Surface Dark Current Noise</b>	No Surface Dark Current Noise
3	Short-Wave Light Sensitivity	<b>Poor Short-Wave Light Sensitivity</b>	<b>Very Poor Short-Wave Light Sensitivity</b>	Excellent Short-Wave Light Sensitivity