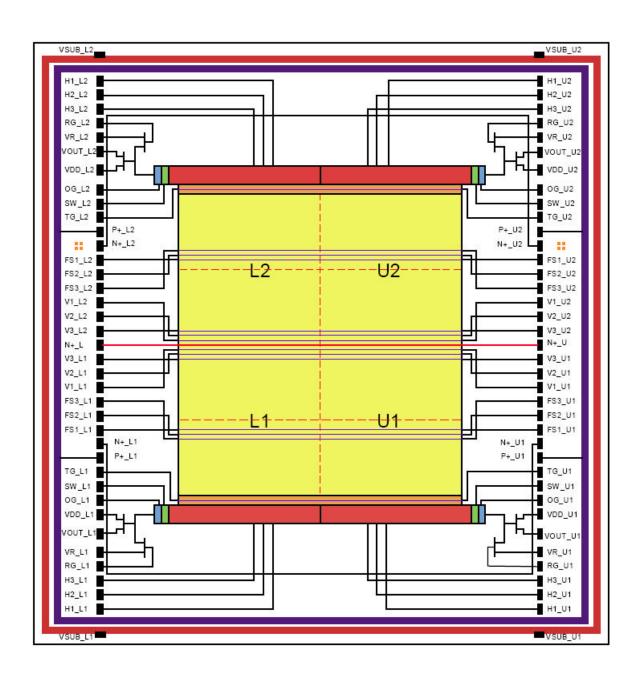


Figure 1. Segment of CCD showing the parallel register pixels (yellow), transfer gate (orange), the serial register pixels (red), summing well clock (green), sense capacitor with reset transistor and its gate clock, and the source follower output transistor.



 ${\bf Table~1.~~SNAP~imager~CCD~operating~voltages~and~AC~parameters.}$

Signal	# of copies	Туре	Expo VL	osure VH	Rea VL	dout VH	Era VL	ase VH	Pu VL	rge VH	Adj. I VL	Range VH	t width (µsec)	Cap (pF)	1	max noise (uV)	worst freq (kHz)	max 20MHz noise (mV)
V1	2	ck	-3	5	-3	- 5	9	9	-9	-9	-5	15	50	30000	10	70	400	12
V2	2	ck	-3	5	-3	5	9	9	-9	-9	-5	15	50	30000		70	400	12
V3	2	ck	-3	5	-3	5	9	9	-9	-9	-5	15	50	30000		70	400	12
FS1	2	ck	-3	5	-3	5	9	9	-9	-9	-5	15	50	30000		70	400	9.5
FS2	2	ck	-3	5	-3	5	9	9	-9	-9	-5	15	50	30000		70	400	9.5
FS3	2	ck	-3	5	-3	5	9	9	-9	-9	-5	15	50	30000		70	400	9.5
TG	2	ck	-3	5	-3	5	-4	6	-4	6	-5	10	50	30		80	700	11
H1	4	ck	-4	6	-4	6	-4	6	-4	6	-5	10	0.5	50		200	100	13
H2	4	ck	-4	6	-4	6	-4	6	-4	6	-5	10	0.5	50		200	100	13
H3	4	ck	-4	6	-4	6	-4	6	-4	6	-5	10	0.5	50		200	100	13
SW	4	ck	-5	5	-5	5	-5	5	-5	5	-8	8	0.5	small		250	100	6.2
RG	4	ck	-6	0	-6	0	-6	0	-6	-6	-8	0	0.15	small		45	100	1.5
OG	4	dc	2.2		2.2		2.2		2.2		0 :	5				37	150	1.5
VR	4	dc	-12.5		-12.5		-12.5		-12.5		-15	0				420	150	1.5
VDD	4	dc	-22		-22		-22		-22		-25	0			<1 mA	12	150	2.4
VOUT	4	ac							V V									
VSUB	1	dc	+80		+80		0		0		0 100				<1 µA	50	150	2.6
N+	3	float	MICH.		50%										87			
P+	1	dc	0		0		0		0		0							