

**CCD Processes****IMAGERS Standard Features**

- ❖ P & E 760 aligner for very large die
- ❖ Stitching available on UTIX or Canon 5X
- ❖ EPI
- ❖ N-Channel
- ❖ 3 poly
- ❖ Oxide/Nitride gate dielectric
- ❖ Two or Three metal (last metal as shield)
- ❖ Surface or buried channel
- ❖ Vertical anti-blooming

**Standard Layout Rules –  
Based on PE Aligner**

	Value	Units
Active (width/space)	3/4	μm
Poly 1 (width/space)	3/2.5	μm
Poly 2 (width/space)	3/3	μm
Poly 3 (width/space)	3/3	μm
Contact (width/space)	2	μm
Metal 1 (width/space)	4/5	μm
Metal 2 (width/space)	5/6	μm

**Process Parameters**

	Value	Units
Gate dielectric	500 oxide/500 nitride	Å
Inter-poly dielectric	1700-3000	Å
Channel potentials	5 to 10 customized	V
CCD Transfer efficiency	5 9's	
Dark Current	< 1 nA/square centimeter	