



DETECTORS ROICs and FPAs

Leading the Way in nBn and
Digital Focal Plane Technology



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PERFORMING ACROSS THE IR SPECTRUM

Santa Barbara Focalplane (SBF) digital read-out integrated circuits (ROICs) are compatible with a variety of detector materials covering the entire infrared (IR) spectrum (visible through longwave).

SPECIFICATIONS

ROIC Family	ROIC #	Waveband	Array Size	Pixel Pitch (µm)	ADC bits	Outputs	Unit Cell Type	Charge Capacity, (e-)	Read Noise (e-)	Frame Rate (Hz)
K3/HDR	SBF296	MW	1,280 x 1,024	12	13/12	4 CML	DI with blanking	500k/4M	124 / 695	400
	SBF279	SW, MW, LW	1,280 x 960	16	18/12	4 CML	3D	9k/53k/187k/231k/540k/3M/10M/13M	20 to 427 (depending on well)	330
	SBF272	MW/LW	1,280 x 1,280	16	18	4 CML	Dual-band DI	400M/66M	600/192	275
	SBF265	MW/MW	1,280 x 1,024	12	13/12	4 CML	DI	2M/4M	375/695	400
	SBF262	SW, MW, LW	1,280 x 1,024	16	22	4 CML	3D/CTIA digital pixel	450k/50k	93/17	200 with HDR, 650 non-HDR
	SBF259	SW/MW	1,280 x 1,024	8	13/12	4 CML	SFD	800k/60k	500/65	370
	SBF246	MW	2,048 x 2,048	8	13/12	4 CML	DI with 2 x 2 binning	228k/912k	98/186	130 at 13b, 150 at 12b
	SBF242 SBF234	MW MW or LW	640 x 512 1,280 x 1,024	8 8	13/12 13/12	4 CML 4 CML	DI DI	500k 1.5M	140 260	1,000 370
C3	SBF252	MW	2,560 x 2,048	12.5	14/13	2/4/8 LVDS	DI	500k	150	57
	SBF241	MW or SW	2,560 x 2,048	12.5	14/13	2/4/8 LVDS	CTIA	165k	75	57
	SBF224	MW	1,280 x 1,024	12	14/13	1/2/4 LVDS	DI	1.2M	180	114
	SBF215	MW	7,680 x 1,376	10	14/13	2/4/8 LVDS	DI	2.3M	220	28
	SBF214	MW	2,560 x 2,048	12.5	14/13	2/4/8 LVDS	DI	2.4M	230	57
	SBF209	MW or LW	640 x 512	20	14/13	1/2/4 LVDS	DI	7M	600	430
	SBF208	MW	1,024 x 1,024	25	14/13	2 LVDS	DI	1M	710	71
	SBF207	MW	1,280 x 1,024	12	14/13	1/2/4 LVDS	DI	2M	210	114
	SBF204	MW or SW	1,280 x 1,024	12	14/13	1/2/4 LVDS	CTIA	50k	50	114
	SBF200	MW	320 x 256	30	14/13	1 LVDS	DI	20M/4M	1300/350	453
	SBF191	MW	640 x 512	20	14/13	1 LVDS	DI	7M	600	113

FEATURES

- Many modular precision focal plane array (FPA) packaging and integrated dewar cooler assembly (IDCA) options
- Multiple unit cell types: DI, SFD, CITA, as well as advanced 2-D and 3-D ROIC designs
- All C3 and above ROICs feature digital output with low noise, low power, and high-speed



Our detectors provide coverage across the IR spectrum.

Contact Information

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