PSDs
Position Sensitive Detectors

One Dmensional Si-PSDs

Standard PSD

Position non-linearity ± 0.1%
Detector resistance 50 kohm

Part-No.	Active area (mm)	Leakage current (nA)	Noise current (pA/Hz)	Capacitance (pF)	Rise time (10–90%) (µs)	Standard package
1L2.5 CP2	2.5 x 0.6	2	0.4	1.6	0.03	14-pin DIL
1L2.5 CP1	2.5 x 0.6	2	0.4	1.6	0.03	4-pin DIL
1L5 CP2	5.0 x 1.0	4	0.4	5	0.05	14-pin DIL
1L5 CP1	5.0 x 1.0	4	0.4	5	0.05	4-pin DIL
1L10 CP2	10 x 2	8	0.4	15	0.2	14-pin DIL
1L10 SU70	10 x 2	8	0.4	15	0.2	SMD
1L20 CP3	20 x 3	60	0.5	45	0.5	22-pin DIL
1L30 SU2	30 x 4	150	0.7	90	1	Substrate
1L45 SU69	45 x 3	110	0.4	105	2.7	Substrate
1L60 SU34	60 x3	150	0.4	135	4.5	Substrate

PSD With Stray-Light Elimination

Position non-linearity ± 0.1%
Detector resistance 200 kohm

Part-No.	Active area (mm)	Leakage current (nA)	Noise current (pA/Hz)	Capacitance (pF)	Rise time (10–90%) (µs)	Standard package
1L5NT CP1	5 x 0.25	4	0.3	5	0.25	4-pin DIL
1L5NT CP2	5 x 0.25	4	0.3	5	0.25	14-pin DIL
1L10NT CP2	10 x 0.5	8	0.3	15	0.7	14-pin DIL

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PSD With Enhanced UV Response

Part-No.	Active area (mm)	Leakage current (nA)	Noise current (pA/Hz)	Capacitance (pF)	Rise time (10–90%) (µs)	Standard package
1L2,5UV CP2	2.5 x 0.6	2	0.4	1.6	0.03	14-pin DIL
1L5UV CP2	5 x 1	4	0.4	5	0.05	14-pin DIL
1L10UV CP2	10 x 2	8	0.4	15	0.2	14-pin DIL
1L20UV CP3	20 x 3	50	0.5	45	0.5	14-pin DIL
1L30UV SU2	30 x 4	150	0.5	90	1	Substrate

Common Data For All SITEK PSDs:

Thermal drift, typical	20 ppm/°C for 1L-series and 40 ppm/°C for 2L-series
Bias voltage	5 – 20 V
Maximum operating temp.	70 °C
Maximum storage temp.	100 °C

The device specification data are measured under the following conditions:

Bias = 15 V, Temperature 23 °C
Position non-linearity and thermal drift are measured within 80% of the detector length.
Thermal drift is measured from 23 °C to 70 °C. All values are typical unless otherwise stated.
For detailed data, please refer to individual data sheets.

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Two Dmensional Si-PSDs

Standard PSD

Position non-linearity ± 0.3%
Detector resistance 10 kohm

Part-No.	Active area (mm)	Leakage current (nA)	Noise current (pA/Hz)	Capacitance (pF)	Rise time (10–90%) (µs)	Standard package
2L2 MP1	2 x 2	50	1.3	7	0.03	TO-8
2L2 CP4	2 x 2	50	1.3	7	0.03	4-pin ceramic
2L4 MP1	4 x 4	50	1.3	20	0.08	TO-8
2L4 CP5	4 x 4	50	1.3	20	0.08	4-pin ceramic
2L4 SU71	4 x 4	50	1.3	20	0.08	SMD
2L10 SU7	10 x 10	100	1.3	90	0.4	Substrate
2L10 CP6	10 x 10	100	1.3	90	0.4	4-pin ceramic
2L10 SU72	10 x 10	100	1.3	90	0.4	SMD
2L20 SU9	20 x 20	200	1.5	360	1.6	Substrate
2L20 CP7	20 x 20	200	1.5	360	1.6	4-pin ceramic
2L30 SU106	30 x 30	200	1.3	730	3.3	8-pin DIP
2L45 SU24	45 x 45	400	1.5	1600	7.0	Substrate

PSD With Enhanced UV Response

Part-No.	Active area (mm)	Leakage current (nA)	Noise current (pA/Hz)	Capacitance (pF)	Rise time (10–90%) (µs)	Standard package
2L2UV MP1	2 x 2	50	1.3	7	0.03	TO-8
2L4UV MP1	4 x 4	50	1.3	20	0.08	TO-8
2L10UV SU7	10 x 10	100	1.3	90	0.4	Substrate
2L20UV SU9	20 x 20	200	1.5	360	1.6	Substrate

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SITEK SPC-PSD (Signal Processing Circuit)

In order to facilitate the operation of our PSDs, we have developed a dedicated signal processing circuit. All components necessary to obtain the sum and difference signals from a two- or one-dimensional PSD have been concentrated on a 20.5 x 20.5 mm² thick film substrate.

The SPC comes complete with below PSD chips or any of our one dimensional PSDs.

Our Standard SPC-PSD

Part-No.	Active area (mm)
1L2,5_SU74_SPC01	2.5 x 0.6
1L5_SU74_SPC01	5 x 1
1L10_SU74_SPC01	10 x 2
2L2_SU75_SPC01	2 x 2
2L4 SU66 SPC01	4 x 4
2L10 SU65 SPC01	10 x 10

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