



## SH18K3-B, SH12K5-B, SH9K7-B

(Hybrid TDI Linear Image Sensor Module)

The SH18K3, SH12K5, and SH9K7 are 18K, 12K, and 9K resolution hybrid linear image sensor modules with high sensitivity and low dark current. 256 lines (128 lines for SH9K7BA) of CCD pixels are used for TDI (time delayed integration) operation, by which the sensitivity can be increased to 256 (or 128) times. The on-chip 12-bit column ADC and multi-port digital output data make high-speed output data rate up to 2560 MSPS and 100k scan lines/sec with full resolution.

### FEATURES

- Optical Size: 62.72mm
- Max. 100k Scan Lines/s with 10-bit Resolution at 80MHz Main Clock
- Support for Bi-direction Scanning
- 9~12bit on-chip ADC
- 32-channel X 12b parallel digital data output
- 7-bit Programmable Gain Control in Logarithmic Scale (-6dB ~ +26dB)
- Single Power Supply Voltage: 3.3V
- Variable I/O Levels: 1.8V ~ 3.3V
- Connector : 4 x 120p JAE Con.

Model Name	Description	Unit Pixel (um <sup>2</sup> )	Effective Resolution (pixels)	Optical Black (pixels)	TDI rows (lines)
SH18K3-B	High-speed, 18K-resolution, 3.5um-pitch, 80MHz Main Clock, 256-stage TDI linear image sensor module	3.5 x 3.5	17888	32	256
SH12K5-B	High-speed, 12K-resolution, 5.0um-pitch, 80MHz Main Clock, 256-stage TDI linear image sensor module	5.0 x 5.0	12512	32	256
SH9K7-B	High-speed, 9K-resolution, 7.5um-pitch, 80MHz Main Clock, 128-stage TDI linear image sensor module	7.0 x 7.0	8928	32	128