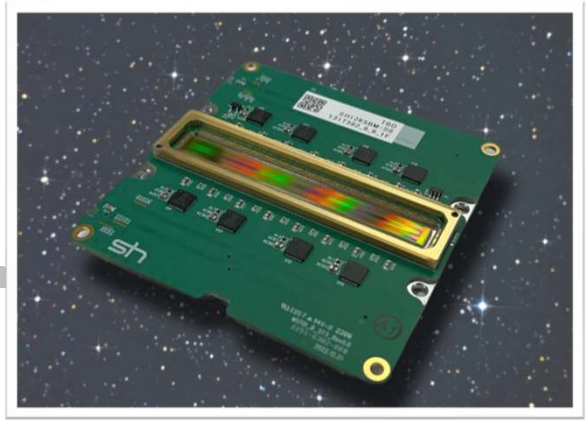
SH12K5BM-A

high-speed 4-band multi-spectral BSI TDI linear image sensor

Space TDI Sensor

SH12K5BM-A is a 12K-resolution 4-band multi-spectral BSI(Back-side-illumination) hybrid TDI (time delayed integration) linear image sensor module with high sensitivity and low dark current.

SH12K5BM-A is designed to achieve higher reliability and higher radiation immunity to be applied for industrial machine vision and space artificial satellite applications.



Introduction

- Package type: Chip on Board
- Max. line rate : 200MSPS/port
  12bit parallel digital data output with Gray code format
- Scan : Bi-direction
- Sample schedule : EM @2023

Specification

	SH12K5BM-A		Next Gen Sensor	
	PAN	MS	PAN	MS
Resolution	12480	12480	16384	16384
Channels	1	3(RGB)	2	4(RGBIr)
Pixel Size	5um	5um	5um	5um
TDI stages	32, 64	32, 64	1~64	1~64
Full Well Capacity	30ke	30ke	30ke	30ke
CTE/gate	99.99% <		99.99% <	
QE@550nm	70% @BSI		70% @BSI	
On-Chip ADC	10b~12b		10b~12b	
Readout	30 x 180MHz Parallel		24 x 400Mbps LVDS	
Line Rate	Max 200kHz/band @ 10b		Max 300kHz/band @ 10b	
DR	63dB <		63dB <	
Power dissipation	Max 10W		Max 10W	
Package	CoB		CoB (Ceramic PGA)	
Radiation Hardness	TID 30 krad <		TID 30 krad < DDD 2E11/cm2 <	
TRL	Organic On-chip CF, EM@2023		Organic On-chip CF EM@2025 Dichroic On-chip CF EM	
Band	R, G, B + Pan (Under Development)		R, G, B, IR + Pan (Half Shift) (Planned)	

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