

# SH9K7TS

QM Detector (Ceramic 161 PGA)

Space TDI  
Sensor

SH9K7TS is a 9K resolution hybrid linear image sensor with high sensitivity and low dark current. 128 lines of CCD pixels are used for TDI (time delayed integration) operation, by which the sensitivity can be increased to 128 times. The on-chip 12bit column ADC and 30k scan lines/sec with full resolution. The image sensor has digital LVDS data output channel.



## Specification

## Introduction

- **Package type :**  
Ceramic PGA
- **Imaging Size :** 67.12mm
- **Max. line rate :**  
30kHz@12b
- **Band :** Mono
- **Scan :** Bi-direction

| SH9K7TS                   |   |
|---------------------------|---|
|                           | PAN   |
| <b>Resolution</b>         | 8960  |
| <b>Channels</b>           | 1   |
| <b>Pixel Size</b>         | 7um   |
| <b>TDI stages</b>         | 1, 8, 32, 64, 96, 128                         |
| <b>Full Well Capacity</b> | 150ke   |
| <b>CTE/gate</b>           | 99.99% <                                      |
| <b>QE@550nm</b>           | Typical 54%                                   |
| <b>On-Chip ADC</b>        | 12b   |
| <b>Readout</b>            | 24 x 80Mbps LVDS                              |
| <b>Line Rate</b>          | Max 30kHz @ 12b                               |
| <b>DR</b>                 | 70dB <  |
| <b>Power dissipation</b>  | Max 2W  |
| <b>Package</b>            | CoB (Ceramic PGA)                             |
| <b>Radiation Hardness</b> | TID 30krad <<br>DDD 2E11/cm2 <<br>SEL 80MeV < |
| <b>Status</b>             | QM@2021                                       |