

## About Senseker

Senseker is a U.S. owned transducer SoC semiconductor company. Specializing in state-of-the-art mixed-signal design, Senseker's products and IP enable our customers to produce industry leading infrared image sensing and transduction solutions .

Senseker's world-class engineering team has delivered over 30 custom SoC designs for NASA, US Army, US Navy, Missile Defense Agency and almost every leading Focal Plane Array developer in the United States. We have established ourselves as a key partner to the industry leaders through our ability to create designs that exceed expectations on schedule and on budget. In addition to full-custom IC design services, Senseker offers foundry management and wafer testing services.

## System-on-Chip Design Excellence

Senseker has over a decade of experience in designing advanced mixed-signal SoCs that are used in the most challenging environments.

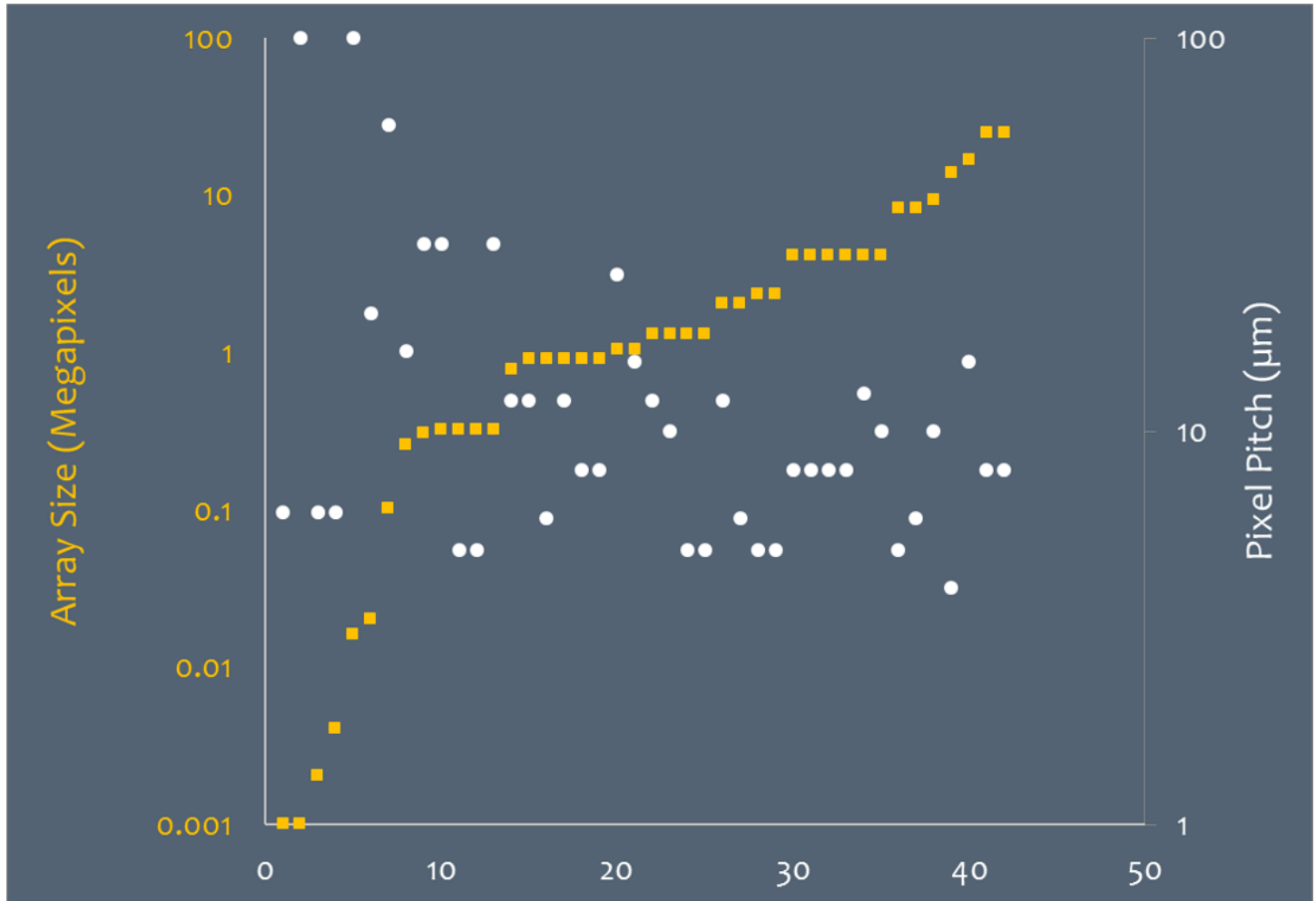
Senseker digital readout ICs have some of the largest formats and smallest pixel pitches in the industry. All Senseker designs are provided with a written guarantee of correct design. Senseker technology is recognized as industry leading to meet key design specifications:

- ◆ High dynamic range digital pixel solutions (>200 Me-)
- ◆ Wide range of pixel pitches (4  $\mu\text{m}$  to 100  $\mu\text{m}$ )
- ◆ Very large format (stitched) arrays (>6k x 4k)
- ◆ Extremely high frame rate data transmission (>2.5 Gbps per output)
- ◆ Programmable pixel well capacity
- ◆ On-chip digital video processing and compression
- ◆ Multi-modal operation to optimize SNR and power consumption under different operating conditions
- ◆ Dual-band, dual-polarity operation
- ◆ Multi-gain modes
- ◆ Support for all industry standard detector types
- ◆ Multiple pixel biasing methods including direct-injection, buffered direct-injection and CTIA
- ◆ High-dynamic range dual integration mode
- ◆ High-speed windowing capability
- ◆ Simple user-friendly SenSPI® control interface
- ◆ Time-of-Flight (ToF) for laser range finding

Custom SoC Design Services	Turn-Key Product Solutions	Commercial Off-the-Shelf Products
<ul style="list-style-type: none"> <li>Specification</li> <li>Architecture</li> <li>Circuit Design</li> <li>Circuit Layout</li> <li>Verification</li> </ul>	<ul style="list-style-type: none"> <li>Tape-out to Foundry</li> <li>Prototyping</li> <li>Wafer Probe</li> <li>Yield Optimization</li> <li>Qualification</li> </ul>	<ul style="list-style-type: none"> <li>Production Datasheets</li> <li>Electronics</li> <li>Software</li> <li>Technical Support</li> </ul>

## Senseker Design Heritage

Senseker has established an impressive track record in delivering advanced readout IC designs. These include the industry's smallest dual-band (6  $\mu\text{m}$  pitch) readout IC, digital readout ICs (DROICs) with unique innovative functionality such as high dynamic range dual-integration mode, as well as many digital pixel readout (DPROIC) designs. The points shown on the scatterplot below indicate the range of Senseker readout IC designs. These designs span a wide range of pixel pitch sizes (shown as white dots) and array sizes (shown as orange dots).



## Wafer Test and Wafer Foundry Management

The Senseker facility in Santa Barbara includes an on-site class 10,000 cleanroom with wafer probe test station along with system test facilities that allow full FPA testing under cryogenic conditions. Senseker is experienced in managing manufacturing logistics and can offer full service turn-key solutions that include wafer test, qualification, yield optimization and wafer delivery. Senseker partners with several US-based wafer foundries.

## Contact Information

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