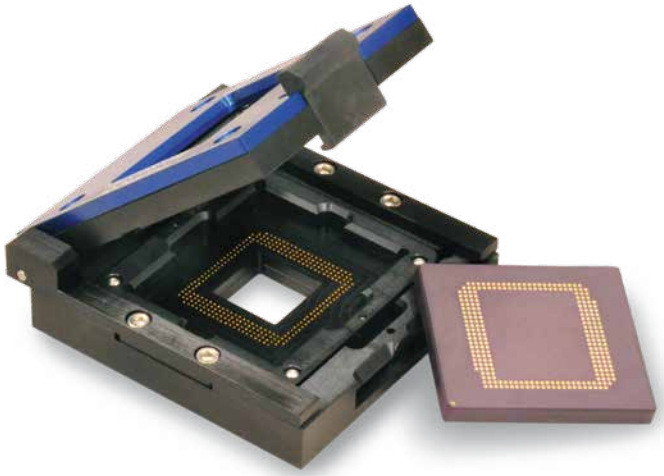
Robson Technologies, Inc.

Image Sensor & Camera Module Sockets

CMOS & Image Sensor Socket Overview

RTI image sensor sockets are designed and manufactured to offer the greatest optical access in a wide variety of test applications including dark-box sensor calibration, device qualification, final test, and more. These semi-custom sockets are designed to accommodate anything from small scale image sensors mounted onto flex/rigid-flex PCBs to large, high powered ceramic-based CCD and CMOS camera modules used in high-resolution systems, and other forms of imaging and optical sensors.

Our sockets offer custom configurations built for virtually any test condition and final application; from cellphone cameras to self-driving cars, medical tools to security systems and satellite imaging.



Replaceable inserts in the socket body help align CMOS image sensors with wide package tolerances to the pogo pins

Test Socket Options and Features

- Configurations for UUT's with pads/pins located on the same side as the image sensor
- Full exposure of image sensor area to light/dark source
- Wide openings in low profile lids allow for shallow angles of exposure for incoming light sources and inspection tools
- High temperature pogo pins and plastics available to contact ceramic CMOS sensors that run hot
- Very fine pitch pogo pins contact Samtec and other mating connectors installed on rigid-flex UUTs
- Integration of fiber optics in the lid or socket base
- Relief cutouts, alignment features, heatsinks, and other common socket customization options available

Lids including an interposer PCB and pogo pins can contact test points located on the same side of a CMOS image sensor that needs topside access and exposure during test. Signals are routed through the lid and back down through the test socket body to the DUT board.

Relief custouts in the socket base provide room for components installed on the UUT and very fine pitch pogo pins can contact high speed connectors installed on Rigid and Rigid-Flex PCB modules

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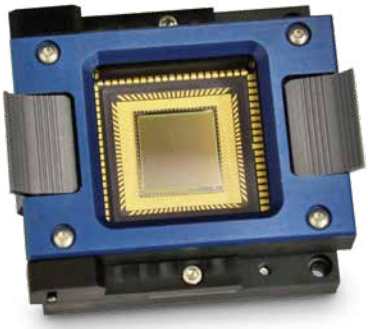
Fully cusom test sockets include a combination of interposers, connector savers, relief cutouts, and multi-stage alignment/closing processes when needed

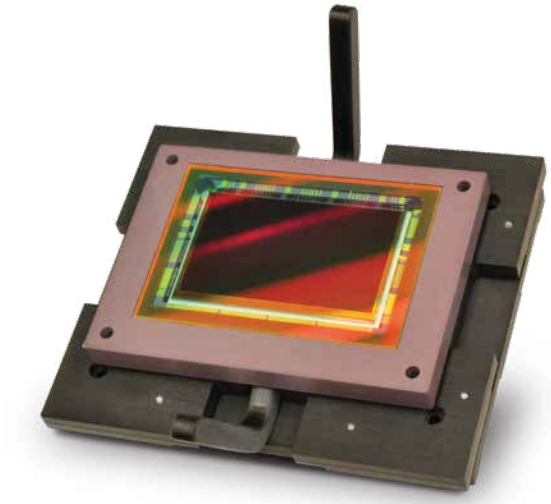


Wide openings in the low profile lids offer full exposure to sensors on the topside of the device. The added-thickness of the lid can be as little as 1.2mm

A pivoting pressure plate on a single axis gimbal provides evenly distributed vertical compression force against the DUT as the clamshell lid is closed, preventing damage to all contacts

Heatsinks, heat spreaders, and air cooling in the socket base help maintain cool operating temperatures when testing CMOS sensors

Custom sized imaging sensors for medical and aerospace applications require an equally custom test socket with a stiffener plate to prevent flexing of the socket or DUT board



Low Insertion Force test sockets with extraction tools may be available depending on PGA device characteristics and technical test requirements.