

# Application Specifics

## AEROFLEX COLORADO SPRINGS MIXED-SIGNAL ASIC SOLUTIONS

### X-RAY IMAGING

#### PROBLEMS =

- **Space** Many photodiode sensors in a small area.
- **Form factor** Not enough room for the many standard components required or current-to-digital conversion.
- **Cost** Too high per channel with standard components.
- **Noise** Routing of low-noise photodiode traces over long distances.
- **System performance.**



#### SOLUTION = AEROFLEX PHOTODIODE INTERFACE ASICs

- **Highly-integrated** with high dynamic range, low noise, current-to-digital conversion on one chip.
- **Small form factor** For example: 32 channels are only 9x9mm.
- **Low cost** per channel.
- **Low noise** Each channel has its own ADC with no analog signal routing.
- **Better system performance** High resolution (up to 20 bits) with 16-17 bit accuracy.

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