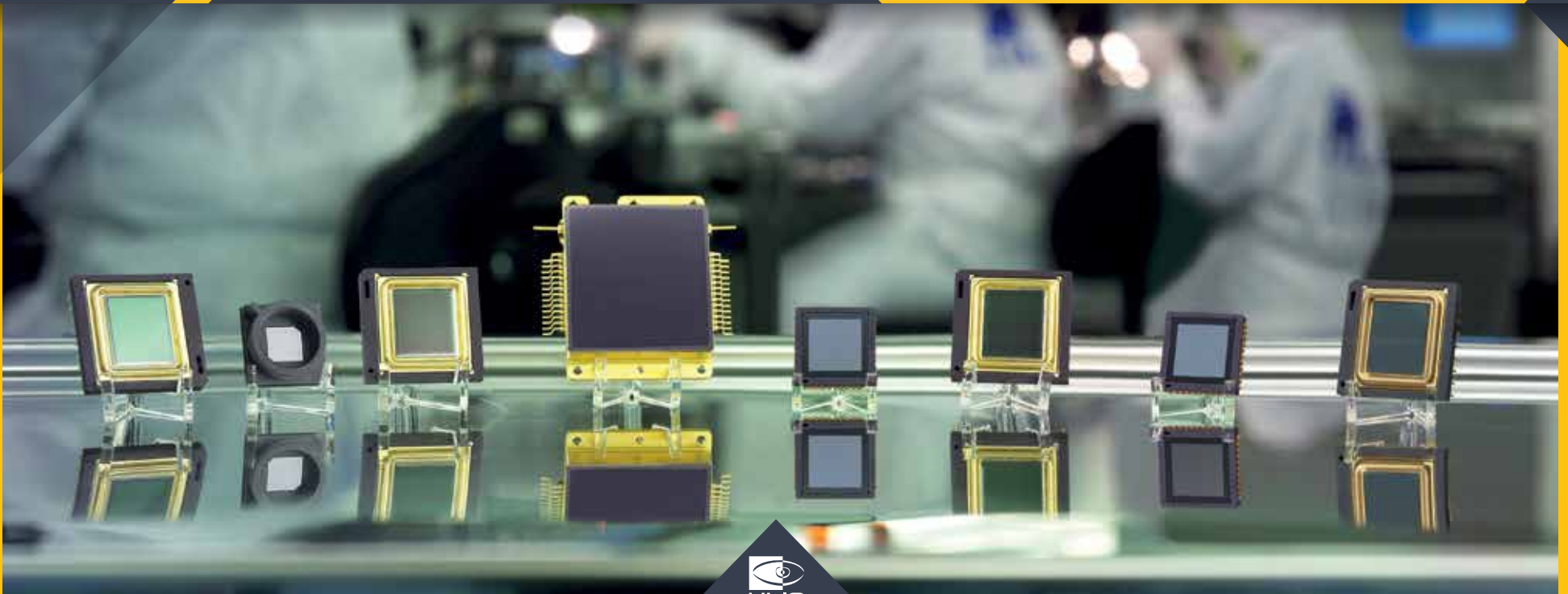


# THERMAL IMAGE SENSORS

# PRODUCT RANGE

2018





## THERMAL IMAGE SENSORS PRODUCT RANGE

### FOR ALL PRODUCTS

- Detection technology: Microbolometer
- Spectral response: 8-14  $\mu\text{m}$
- Operability 24/7, all weather conditions
- Operating temperature range: -40° to +85°C
- TECless/Shutterless compatible
- Standards: MIL-STD-810 and 883
- MTTF > 15 years
- I<sup>2</sup>C serial link for register programming

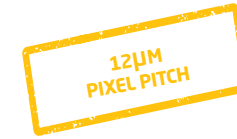
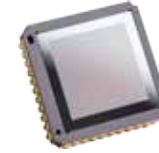
Specifications are subject to change without prior notice

80 X 80 FORMAT

QVGA FORMAT



**M80-044** <sup>TM</sup>  
80 x 80



**Atto320-058** <sup>TM</sup>  
320 x 240 - 12  $\mu\text{m}$

#### Applications



#### Image quality

- 60 < NETD < 100 mK (F/1, 300 K, 50 Hz)
- Frame rate: up to 50 Hz
- Scene dynamic > 200°C
- Array operability > 99.5 %

- NETD < 60 mK (f/1, 300K, 30Hz)
- Frame rate: 30 Hz digital / 60 Hz analog
- Array operability > 99.5%
- Thermal time constant < 10 ms

#### Implementation

- Surface Mount Device BGA\*, compliant with JEDEC's reflow and handling standards
- Integrated lens holder: M10 mount
- Compatible with optical Field of view up to 120°
- HSync/VSync clocking
- Full digital

- Surface Mount Device J-LEAD 44, compliant with JEDEC's reflow and handling standards
- Full digital
- Free run or external trigger mode
- Compatible with Pico384-053 (17 $\mu\text{m}$ )

\*Ball Grid Array

#### Autonomy

- Power consumption  $\leq$  55 mW

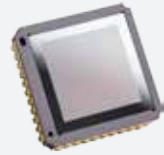
- Power consumption  $\leq$  220 mW

#### Compacity

- Dimensions (mm): 14 x 14 x 9
- Weight < 2 g

- Dimensions (mm): 16.5 x 16.5 x 4.2
- Weight < 3gr

QVGA / QQVGA FORMAT



HIGH VOLUME  
SMT DESIGN

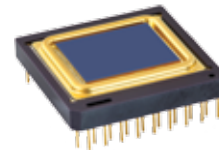
**Pico384-053**™

384 x 288 - 17 μm

**Pico160-054**™

160 x 120 - 17 μm

VGA FORMAT

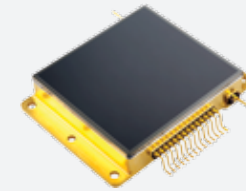


TWS QUALIFIED

**Pico640-046**™

640 x 480 - 17 μm

XGA FORMAT



LONG RANGE  
DETECTION

**Pico1024-048**™

1024 x 768 - 17 μm



- 40 < NETD < 60 mK (F/1, 300 K, 50 Hz)
- Frame rate up to 60 Hz
- Array operability ≥ 99.8 %
- Thermal time constant < 10 ms

- Surface Mount Device J-LEAD 44, compliant with JEDEC's reflow and handling standards
- HSync/VSync clocking
- External frame synchronization capability
- Full digital

- Power consumption < 220 mW
- Dimensions (mm): 16.5 x 16.5 x 4.2
- Weight < 3 g



**2 product grades:**

- Pico640:**
  - NETD < 50 mK (F/1, 300 K, 30 Hz)
  - Array operability > 99.5%
- Pico640+:**
  - NETD < 40 mK (F/1, 300 K, 30 Hz)
  - Array operability ≥ 99.8 %

- Frame rate:
  - 1 output up to 60 Hz / 2 outputs up to 120 Hz
- Thermal time constant < 12 ms

- HSync/VSync clocking
- External frame synchronization capability
- 10-years vacuum lifetime guarantee
- Thermal weapon sight (TWS) qualified (Pico640+)
- Compatible with Pico384P/E

- Power consumption < 130 mW
- Dimensions (mm): 24.13 x 24.13 x 4.4
- Weight < 6.5 g



- 30 < NETD < 50 mK (F/1, 300 K, 30 Hz)
- Frame rate:
  - 2 outputs up to 60 Hz / 4 outputs up to 120 Hz
- Array operability > 99.5%
- Thermal time constant < 12 ms

- Thermal weapon sight (TWS) qualified
- Proprietary communication interfaces
- External frame synchronization capability

- Power consumption < 220 mW
- Dimensions (mm): 41.2 x 30 x 6.6
- Weight < 30 g

# EXPERIENCE THERMAL SENSORS



97% EXPORT



20% REVENUE  
INVESTED IN R&D



OVER 800K  
SENSORS SHIPPED  
SINCE 2002



2ND LARGEST  
SENSOR  
MANUFACTURER



52 PATENTS FAMILIES  
160 PATENTS  
FILED



RESEARCH  
PARTNER  
CEA LETI  
ONERA

THALES

SOFRADIR

Groupe SOFRADIR

ULIS  
Infrared for you

SAFRAN

SOFRADIR-EC



NEAR GRENOBLE  
FRANCE



FOUNDED  
IN 2002



200  
950 SOFRADIR  
GROUP STAFF

“ We specialize in the design and manufacture of thermal sensors. Our mission is to make thermal imaging technology accessible and affordable enough for everyday use. ”



AUTOMOTIVE



THERMOGRAPHY



LEISURE



DEFENSE



FIREFIGHTING



SURVEILLANCE



UAV



SMART LIGHTING



SMART BUILDINGS

## DEPENDABLE PARTNER

- Supplies components only
- Makes targeted product improvements that specifically address your requirements

## THERMAL IMAGING EXPERTISE

- High thermal sensitivity
- Compact and light weight
- Lowest power consumption
- Ease of use

## TAILORED CUSTOMER SUPPORT

- A dedicated account rep for personalized support
- Full on-site and off-site support and training part of our product/ service package
- 110 sq. m training center with dedicated testing equipment

Exclusive Distributor  
North America

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