

# ATTO640D-04™ ATTO640D-04W™

640 × 480 – 12µm

INFRARED DETECTOR

Based on continuous customers feedback, LYNRED has improved its 12µm technology for the ATTO products family.

Ideal for SWaP applications, it is the smallest VGA thermal sensor on the market.

## SEAMLESS INTEGRATION FOR LIMITLESS APPLICATIONS



**BEST IN CLASS SWAP  
CHARACTERISTICS**



**FLUID AND CRISP IMAGES**



**BETTER IQ AND EASIER  
INTEGRATION**

LEISURE

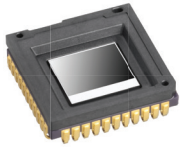
SURVEILLANCE

THERMOGRAPHY

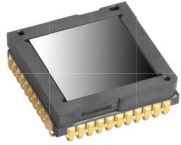
DEFENSE



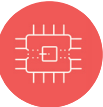
ORDERING REFERENCES: ATTO640D-04™ / ATTO640D-04W™



ATTO640D-04™



ATTO640D-04W™



SWaP



IMAGE QUALITY



LOW POWER CONSUMPTION



SEAMLESS INTEGRATION



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# SEAMLESS INTEGRATION FOR LIMITLESS APPLICATIONS

ATTO640D-04™

ATTO640D-04W™

## BEST IN CLASS SWAP CHARACTERISTICS

Reduced optic size and cost	■ 12µm pixel pitch
Smallest VGA sensor on the market	■ < 17.3 x 17.3 x 4.9 mm3 (including J-Lead pins) ■ With LYNRED wafer-level packaging technology
Low-power for optimal battery life	■ < 320 mW @ 60 Hz (digital output mode) ■ < 150 mW @ 60 Hz (analog output mode)

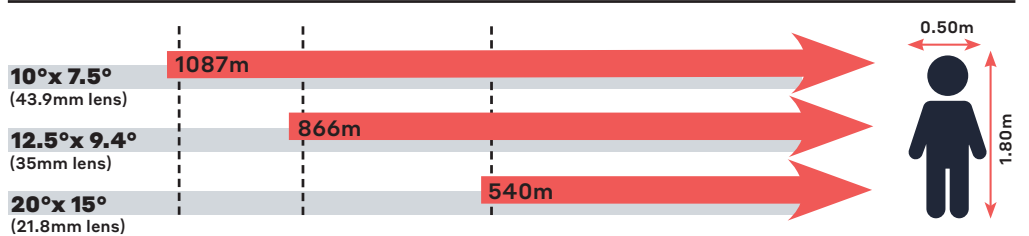
## FLUID AND CRISP IMAGES

Resolution	■ 640 x 480
Sharp contrast	■ NETD < 35 mK (30Hz, F/1, 300K) ■ NETD < 45 mK (30Hz, F/1, 300K) ■ [-40°C; +85°C] operating temperature range
Fluid and smooth image	■ Frame rate up to 60Hz
High uniformity	■ Operability > 99.8%

## SEAMLESS INTEGRATION

High volume compliant	■ Surface-mount Device (J-Lead44) compatible with standard off-the-shelf socket ■ Wafer-level packaging & high-volume assembly processes ■ Compatible with JEDEC's reflow and handling standards ■ Protective Germanium window for ATTO640D-04W™
QVGA-compatible product platform	■ Footprint compatible with QVGA products: PICO384™ series (17µm) and ATTO320™ (12µm)
Flexible configuration	■ Full access to sensor features (I²C) ■ Free-run or external trigger mode
Output format	■ 14-bit parallel Digital ■ Analog

## ATTO640D-04™: Human recognition distance with f/1 optics (perfect OTF & 88% typical transmission)



Range for Johnson's criteria @ 50% probability, 2K DeltaT vs background, perfect atmosphere, real LYNRED pixel MTF, sensor NETD = 35mK