

## AR0822

# CMOS Image Sensor, 4K/ 8 MP

## Product Overview

For complete documentation, see the data sheet.

The AR0822 is an 8-megapixel (MP) stacked 1/1.8inch (8.81mm diagonal) BSI (back-side illuminated) CMOS digital image sensor based upon a 2.0  $\mu\text{m}$  pixel. It features an activepixel array of 3840 (H) x 2160 (V) and is capable of 4K video at 60 frames-per-second (fps), capturing images in either linear or eHDR modes (120 dB) with a rollingshutter readout.

## Features

- 4K (8 MP) at 60 fps for Excellent Video Performance
- Fast, Full-Resolution Video Capture of 3840 X 2160 at 30 fps in 3- Exposure embedded High Dynamic Range (eHDR) up to 120 dB
- Advanced On-Sensor eHDR Reconstruct with Flexible Exposure Ratio Control
- Two Exposure Line Li-HDR Output
- Wake-on-Motion Feature
- Extended Dynamic Range (eDR)
- Intelligent Lineralization to Minimize Motion Artifacts and LED Flickers





## Applications

- 4K/ 8 MP Imaging

## End Products

- Security and Surveillance Cameras
- Robotics
- Vehicle Dashboard Cameras

## Part Electrical Specifications

| Product               | Status | Compliance  | Type | Megapixels | Frame Rate (fps) | Optical Format | Shutter Type                                | Pixel Size (µm) | Output Interface | Color | Package Type                     | Case Outline | MSL Type | MSL Temp (°C) | Container Type | Container Qty. |
|-----------------------|--------|---|------|------------|------------------|----------------|---|-----------------|------------------|-------|----------------------------------|--------------|----------|---------------|----------------|----------------|
| AR0822NPSC10 SMTA0-DP | Active |    | CMOS | 8          | 90               | 1/8 inch       | Electronic Rolling and Global Reset Release | 2.0 x 2.0       | MIPI             | RGB   | PBG A75 14.0 0x9.50x1.55, 1.00 P | 117C U.P DF  | 4        | 260           | JTR AY         | 1470           |
| AR0822NPSC10 SMTA0-DR | Active |    | CMOS | 8          | 90               | 1/8 inch       | Electronic Rolling and Global Reset Release | 2.0 x 2.0       | MIPI             | RGB   | PBG A75 14.0 0x9.50x1.55, 1.00 P | 117C U.P DF  | 4        | 260           | JTR AY         | 1470           |
| AR0822NPSM1 OSMTA0-DP | Active |    | CMOS | 8          | 90               | 1/8 inch       | Electronic Rolling and Global Reset Release | 2.0 x 2.0       | MIPI             | RGB   | PBG A75 14.0 0x9.50x1.55, 1.00 P | 117C U.P DF  | 4        | 260           | JTR AY         | 1470           |
| AR0822NPSM1 OSMTA0-DR | Active |  | CMOS | 8          | 90               | 1/8 inch       | Electronic Rolling and Global Reset Release | 2.0 x 2.0       | MIPI             | RGB   | PBG A75 14.0 0x9.50x1.55, 1.00 P | 117C U.P DF  | 4        | 260           | JTR AY         | 1470           |