



KA909A PixMate™, Analog System-On-Chip

for Advanced CCTV and IP Cameras

Highlights

High level of integration

- Power-on reset
- Iris electronics
- Coaxitron receiver
- Day & Night driver
- Dual comparator
- Crystal oscillator

Small Footprint

- 4x4 mm 24L QFN
- On-chip filters and bias networks

Performance

- Reliable UTC – Coaxitron receiver
- Optimized drivers

Cost Effective

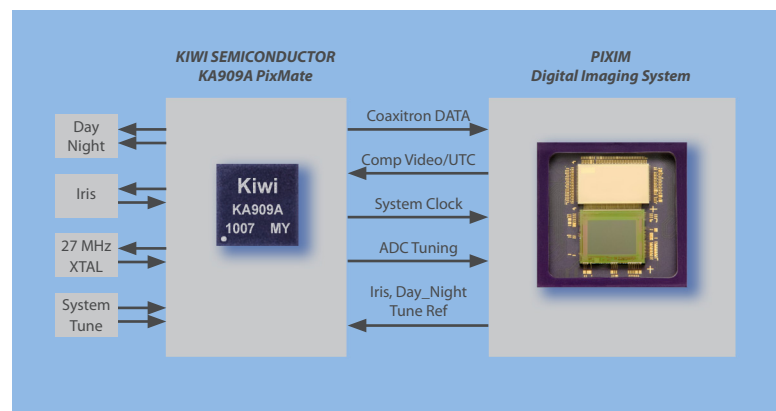
- Replaces large number of active and passive devices
- Simpler PCB layout

The KA909A PixMate is Kiwi Semiconductor's new companion integrated device targeted at the security market. Designed on a robust and cost-effective Analog CMOS process, the PixMate is optimized for use with Pixim's chipset solutions for security cameras. Kiwi Semiconductor has integrated the camera's analog functionality into a single chip, working in close collaboration with Pixim's system engineers to ensure the best in functionality and performance. The product is fully qualified and in production.

PCB area savings of 50% over competing implementations.

- Power-on reset combines analog and digital circuitry to deliver delays of over 100ms without requiring large external timing capacitors. This feature enables stable power-up while delivering fast reaction time for brown-out detection.
- The on-chip Coaxitron receiver includes a DC restoration stage to ensure stable operation even under harsh conditions.
- The KA909A's built-in analog crystal oscillator circuit enables the use of low cost 3225 surface mount crystals.*
- Active filters and bias networks are included in the KA909A to ensure stable and repeatable performance, temperature stability and power efficiency.
- High output current drivers for Iris Control and Day_Night actuators are optimized for stability and silicon area.

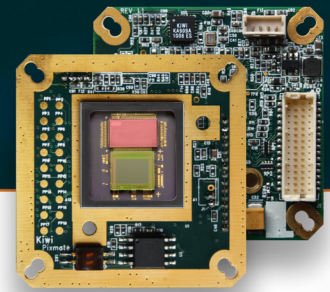
* Refer to Kiwi Semi recommended crystals in the KA909A datasheet.





Kiwi
Semiconductor

Simplifying Analog™



Specifications

KA909A PixMate



- ▶ 24L QFN Package size 4x4 mm
- ▶ Dual comparator with rail to rail inputs
- ▶ Single 3.3V supply voltage
- ▶ Under 40mW power consumption
- ▶ Silicon process: 0.6 μ m CMOS
- ▶ POR and brownout reset 100 ms
- ▶ Iris drive current 50mA
- ▶ Day_Night output current 60mA
- ▶ Crystal oscillator 27 MHz @ 15 pF load
- ▶ Coaxitron / UTC with DC restoration

The KA909A PixMate is available in a 24L QFN (4x4 mm) device that includes emulated potentiometer functionality.

PCB design is simplified by the PixMate's pinout which minimizes PCB routing. Pad spacing of 0.5mm ensures reliable and cost-effective PCB assembly.

Pixim is the Worldwide Exclusive Distributor for Pixmate by Kiwi Semi.

Pixim, Inc.
1395 Charleston Rd.
Mountain View, CA 94043

Tel: 650-934-0550
Fax: 650-934-0560

www.pixim.com

Kiwi Semiconductor Ltd.
The Analog Companion Chip Company™

7 Karaka Street
Takapuna, North Shore City
Auckland, New Zealand 0622

P: +64 (0)9 488-9340
F: +64 (0)9 488-9349

www.kiwisemi.com
info@kiwisemi.com

32mm, 38mm, & 42mm Pixim-Approved Camera Reference Designs Available Upon Request



March 2011