

# **Agamem Microelectronics Inc.**

# **AA88048**

# **PRELIMINARY**

# CCD SIGNAL PROCESS & DIGITAL INTERFACE IC

# **■** DESCRIPTION

The AA88048 is a CMOS single-chip signal processing IC for CCD area sensors which includes correlated double sampling circuit (CDS), clamp circuit, programmable gain amplifier (PGA), reference voltage generator, black level detection circuit, 18 MHz 10-bit analog-to-digital converter (ADC), timing generator for internally required pulses, and serial interface for internal function control and PGA gain control.

# **■ FEATURES**

•Low power consumption: 80 mW (TYP.)

Wide gain range:

1.94 to 36 dB (Gain step: 0.047 dB/step)

High speed sample-and-hold circuits: pulse width 11 ns (MIN.)

Independent CDS and PGA gain control

CDS: -1.94/0/6/12 dB PGA: 0 to 24 dB

Black level canceller

Settling target: 16 to 127 LSB

Capable of independent input of ADC conversion clock and data output clock

Power down mode: less than 1 mW

Built-in serial interface

10-bit ADC operating up to 18 MHz

DNL: ±0.6 LSB (TYP.)

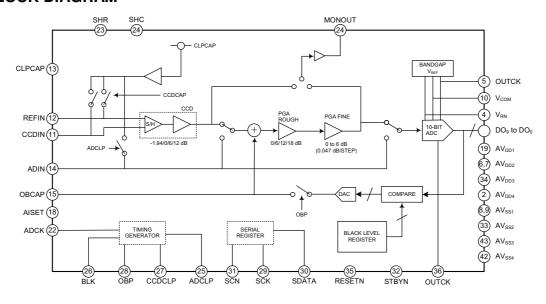
Maximum input level of CCD signals: 1.1 Vp-p

Accepts a direct signal input to ADC or PGA (input level: 1.0 Vp-p (TYP.))

Single 2.7 to 3.6 V power supply

Package: 48-pin QFP\* (P-QFP048-0707) 0.5 mm pin-pitch

#### ■ BLOCK DIAGRAM



1