



# ADDI7015

## GENERAL DESCRIPTION

The **ADDI7015** is a highly integrated, quad-channel, CCD signal processor for high speed digital imaging applications. Each channel is specified at pixel rates of up to 65 MHz and consists of a complete analog front end (AFE) with analog-to-digital conversion. The *Precision Timing*® core allows adjustment of the correlated double sampler (CDS) and sample-and-hold amplifier (SHA) clocks with 240 ps resolution at 65 MHz operation. There are eight independent horizontal clock outputs to support a variety of CCD timing requirements. The **ADDI7015** also features a programmable ISATG for vertical timing generation.

Packaged in a space-saving, 8 mm × 8 mm, CSP\_BGA, the **ADDI7015** is specified over an operating temperature range of -25°C to +85°C.

**Industrial cameras**  
**Surveillance cameras**  
**Medical imaging**  
**Professional photography**

**ADDI7015**

INP\_A, INM\_A, INP\_B, INM\_B, INP\_C, INM\_C, INP\_D, INM\_D

AFE\_A (CDS/SHA 0dB TO 18dB, VGA 0dB TO 36dB, ADC, CLAMP, VREF)

AFE\_B, AFE\_C, AFE\_D

REDUCED RANGE LVDS INTERFACE

DOUT0P\_A, DOUT0N\_A, DOUT1P\_A, DOUT1N\_A, DOUT0P\_B, DOUT0N\_B, DOUT1P\_B, DOUT1N\_B, TCLKP\_AC, TCLKN\_AC, TCLKP\_BD, TCLKN\_BD, DOUT0P\_C, DOUT0N\_C, DOUT1P\_C, DOUT1N\_C, DOUT0P\_D, DOUT0N\_D, DOUT1P\_D, DOUT1N\_D

INTERNAL CLOCKS (HD, VD, SYNC)

Precision Timing CORE

SYNC GENERATOR

ISATG

INTERNAL REGISTERS (SL1, SL2, SDATA, SCK)

CLI

H1 TO H8 (8), XV1 TO XV16 (16), GP01 TO GP04 (4)

**NOTES**  
1. THE CIRCUITRY FOR AFE\_A TO AFE\_D IS IDENTICAL.

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