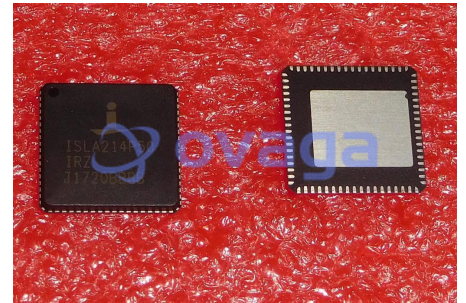


Analog to Digital Converters - ADC SINGLE 14BIT 500MSPS UNBUFRE INPUT 72-PIN

Manufacturers	Renesas Technology Corp
Package/Case	QFN-72
Product Type	Data Conversion ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for ISLA214P50IRZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

General Description

The ISLA214P50 is a 14-bit, 500MSPS analog-to-digital converter designed with the Renesas proprietary FemtoCharge™ technology on a standard CMOS process. The ISLA214P50 is part of a pin-compatible portfolio of 12 to 16-bit A/Ds with maximum sample rates ranging from 130MSPS to 500MSPS. The device utilizes two time-interleaved 250MSPS unit ADCs to achieve the ultimate sample rate of 500MSPS. A single 500MHz conversion clock is presented to the converter, and all interleave clocking is managed internally. The proprietary Interleave Engine (I2E) performs automatic correction of offset, gain, and sample time mismatches between the unit ADCs to optimize performance. A Serial Peripheral Interface (SPI) port allows for extensive configurability of the A/D. The SPI also controls the interleave correction circuitry, allowing the system to issue offline and continuous calibration commands as well as configure many dynamic parameters. Digital output data is presented in selectable LVDS or CMOS formats. The ISLA214P50 is available in a 72 Ld QFN package with an exposed paddle. Operating from a 1.8V supply, performance is specified across the full industrial temperature range (-40°C to +85°C).

Features

Automatic fine interleave correction calibration

Single supply 1.8V operation

Clock duty cycle stabilizer

75fs clock jitter

700MHz bandwidth

Programmable built-in test patterns

Multi-ADC support

SPI programmable fine gain and offset control

Support for multiple ADC synchronization

Optimized output timing

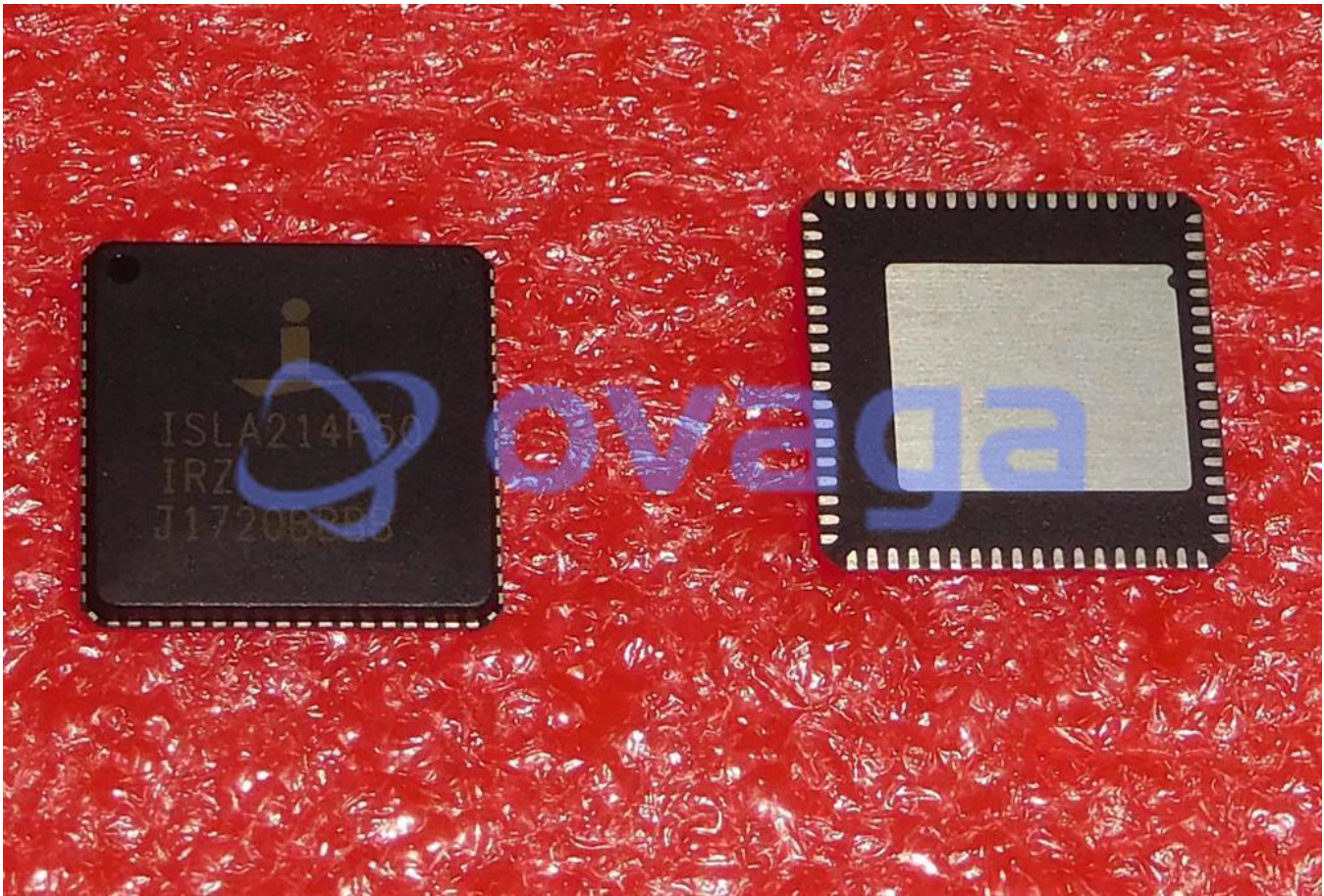
Nap and sleep modes

200µs sleep wake-up time

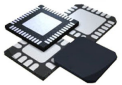
Data output clock

DDR LVDS-compatible or LVCMOS outputs

Selectable clock divider

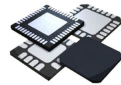


Related Products



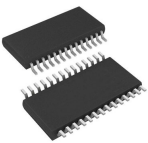
[ISLA216P20IRZ](#)

Renesas Technology Corp
QFN-EP-72



[ISLA112P50IRZ](#)

Renesas Technology Corp
QFN-72



[ISL5857IAZ](#)

Renesas Technology Corp
TSSOP-28



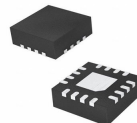
[ISLA224S25IR1Z](#)

Renesas Technology Corp
48pin-QFN



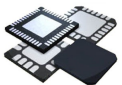
[ISLA224S20IR1Z](#)

Renesas Technology Corp
48pin-QFN



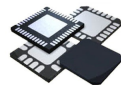
[ISLA224P25IRZ](#)

Renesas Technology Corp
72-VFQFN Exposed



[ISLA224P20IRZ](#)

Renesas Technology Corp
72pin-QFN



[ISLA224P12IRZ](#)

Renesas Technology Corp
72pin-QFN