# iWave
## Embedding Intelligence

**Pixel Input Interface**

**Pixel Output Interface**

**iW - Chroma Resampler**

**Control Interface**

**Control Interface**

Chroma Re-sampler core can be used as chroma sub sampling or chroma up sampling.

## Core Benefits

- Can be used in On Screen Display and Picture in Picture applications.

- Simple design makes it easier to integrate in many FPGA families.

## Applications
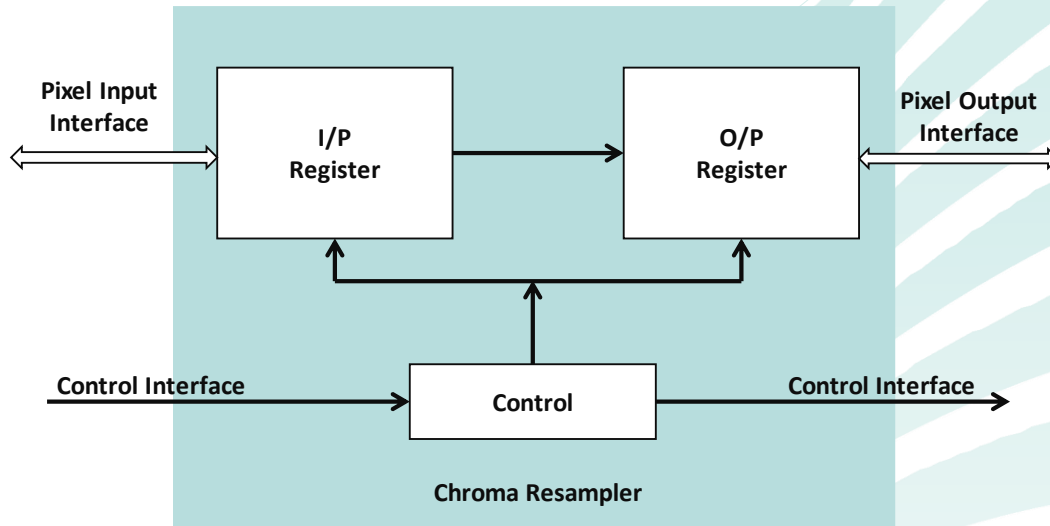
- Used in all kinds of video processing systems

## Highlights

- Core uses average algorithm for Chroma sub sampling and replicate algorithm for Chroma up sampling

## Features

- Core uses average algorithm for Chroma sub sampling and replicate algorithm for Chroma up sampling

- **Chroma Sub Sampling**

  o Input format: 4:4:4

  o Output format: 4:2:0

  o Algorithm: Averaging

  o Image size resolution can be from QCIF to Full HD

  o 8-bit per pixel per color

  o 3 color plane parallel processing

- **Chroma Up Sampling**

  o Input format: 4:2:2

  o Output format: 4:4:4

  o Algorithm: Replicate

  o Image size resolution can be from QCIF to Full HD

  o 8-bit per pixel per color

  o 3 color plane in parallel processing

## iW - Chroma Resampler IP block diagram



Chroma Resampler

## Deliverables

* RTL source code or Netlist
* IP example design
* IP datasheet
* Integration Manual

## Licensing Options

* Non-Transferable: Single Project/Product Netlist License – Single Site or Multi Site
* Non-Transferable: Multi Project /Product Netlist License – Single Site or Multi Site
* Non-Transferable: Single Project/Product RTL Source Code License – Single Site or Multi Site
* Non-Transferable: Multi Project/Product RTL Source Code License – Single Site or Multi Site

## Technical Support

iWave provides comprehensive support during your system integration & validation.

* The Client may open a new support incident by emailing to a technical support engineer
* iWave's response time shall be within 24 hours of the initial call, with the details of the action plan to resolve
* Support assistance shall be delivered by telephone, email and/or remote assistance via a web meeting
* iWave shall provide remote debugging support irrespective of the time zone/ region

iWave Systems, a leading FPGA design house enhances your design productivity by providing an extensive suite of proven, optimized and easy-to-use FPGA IP Cores along with reference designs to complement and quicken your applications development. Our extensive suite of IP Cores covers all key markets and applications. Along with the rich set of FPGA IP cores, iWave offers custom FPGA designs tailored to meet the client specifications which includes RTL Design, Integration of iWave's or 3rd Party IP Cores on our FPGA SOMs with Carrier Card/ Custom Hardware/ Off-the-Shelf Evaluation Kits to provide end-to-end solutions targeting Low-Power, High-Performance and Optimized Designs

iW - Chroma Resampler FPGA IP
The IP can be ordered online from the iWave Website http://www.iwavesystems.com/product/chroma-resampler/
Or from our Local Partners in your region http://www.iwavesystems.com/about-us/business-partner.html