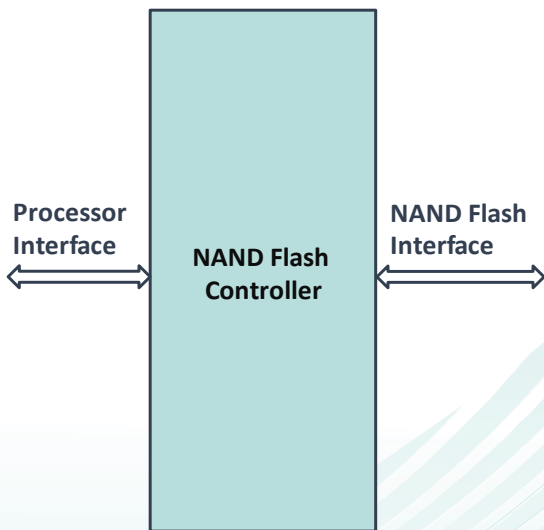


## iW NAND Flash Controller IP



iW – NAND Host Controller provides an easy interface to access NAND Flash Memory devices. This IP forms a bridge between the NAND flash and User (Processor), enabling to store, read and erase the data in NAND flash. The Controller has two different variants depending on the availability of the processor towards user side. One being the AXI compliant interface for accessing through processor and other is custom interface which can be used without the processor.

### Applications

- Used as Host controller for Nand Flash Memory Device
- End applications includes Automotive, Broadcast, Computer & Storage, Consumer, Industrial, Military, Test & Measurement

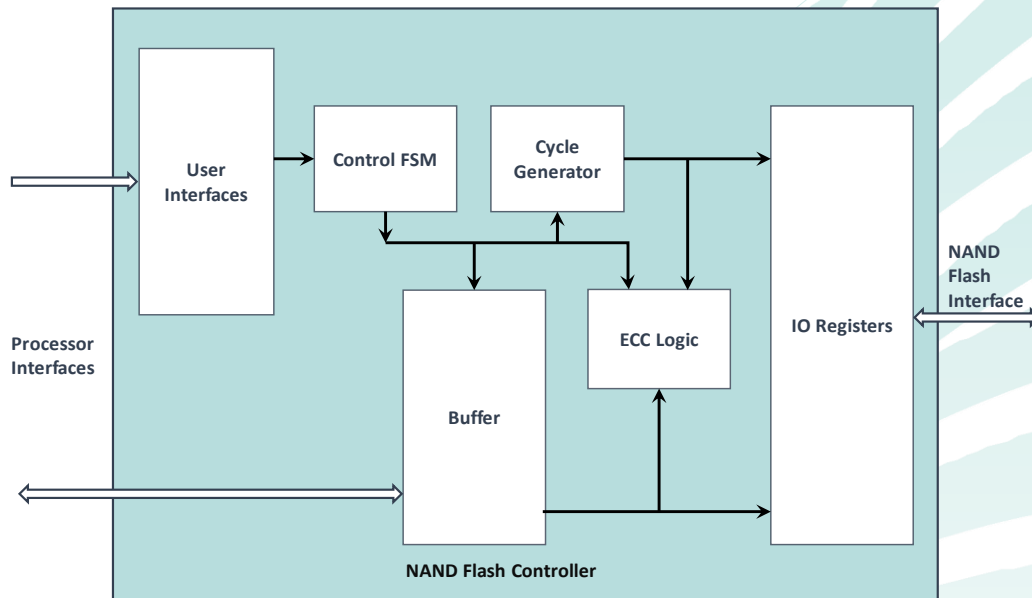
### Highlights

- Core is compliant with ONFI specification
- Supports both processor and non-processor environments with two different variants
- Controller supports rich set of NAND commands
- This IP will issue the necessary command address and controls all the necessary actions required to program, erase and read data using NAND flash.

### Features

- 8-bit Asynchronous Interface to NAND device
- SLC NAND Flash Memory
- Page Size: Up-to 8 K Byte (Compile time configurable)
- Commands supported towards NAND Flash Memory: Read, Reset, Page Program, Block Erase and Read Status
- Separate Chip Select, Write Enable, Read Enable and Ready / Busy for each die and the IO signals are shared between the die
- ECC Logic: Hamming code used to correct 1-bit error and detect 2-bit errors
- 8K-Byte Buffer for write data
- 8K-Byte Buffer for read data

## iW NAND Flash Host Controller block diagram



### 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 NAND Flash Controller FPGA IP

The IP can be ordered online from the iWave Website <http://www.iwavesystems.com/product/nand-flash-controller/>

Or from our Local Partners in your region <http://www.iwavesystems.com/about-us/business-partner.html>

#### INDIA

iWave Systems Tech. Pvt. Ltd.,  
7/B, 29<sup>th</sup> Main, BTM Layout  
2<sup>nd</sup> Stage, Bangalore-560076  
Email: [mktg@iwavesystems.com](mailto:mktg@iwavesystems.com)

#### JAPAN

iWave Japan, Inc.  
8F-B, Kannai Sumiyoshi Building,  
3-29, Sumiyoshi-cho, Naka-ku,  
Yokohama, Kanagawa, Japan.  
[mktg@iwavesystems.com](mailto:mktg@iwavesystems.com)

#### EUROPE

International Sales & Marketing Europe  
Venkelbaan 55 2908KE Capelle  
aan den IJssel  
The Netherlands  
[info@iwavesystems.eu](mailto:info@iwavesystems.eu)

#### USA

iWave USA  
1692 Westmont Ave.,  
Campbell, CA95008  
USA  
[info@iwavesystems.us](mailto:info@iwavesystems.us)