iWave
Embedding Intelligence

iWave's ARINC 667 P7 IP is an Ethernet Technology that provides a deterministic network to build an ARINC 667 P7 end system with guaranteed service to each subscriber with free access to the network. This protocol offers dedicated bandwidth for each node with a guaranteed quality of service. iWave offers high integrity and redundancy management, as well as UDP/IP, profiled communication layer implemented in hardware.
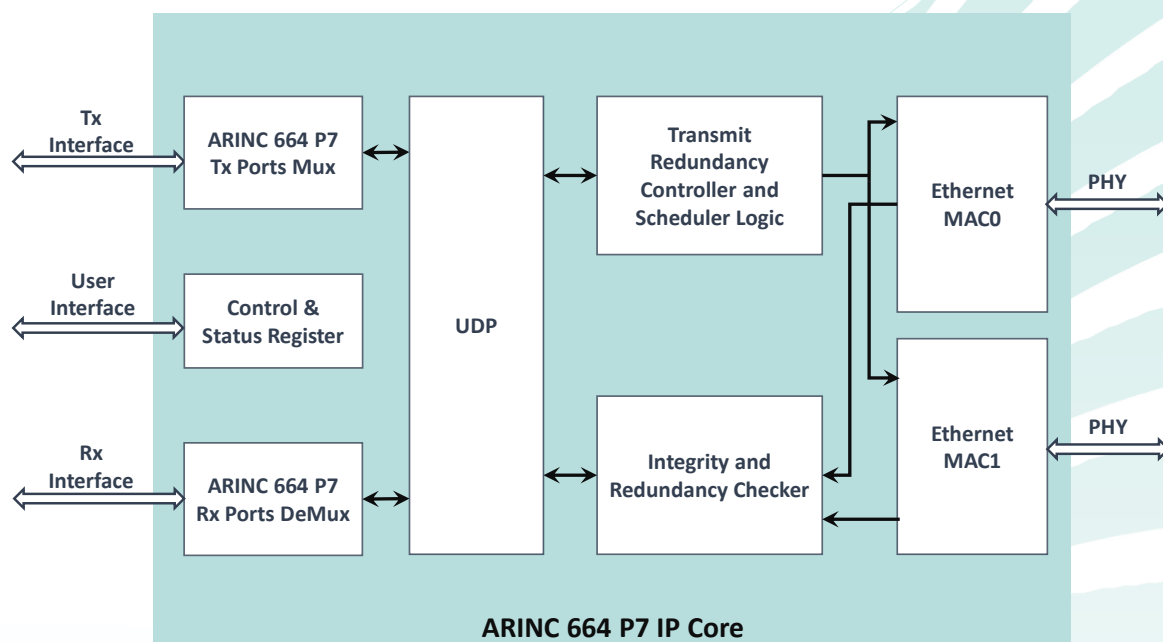
Highlights

- Implements the ARINC 667 P7 End System
- Supports Virtual link management
- Supports up to 8 transmit and receiving ports
- Implement Redundancy functionality at the Transmit side
- Integrity checker and Redundancy management at the Receive side

Features

- Transmission Operation
  - Supports up to 8 virtual transmission links (VL)
  - Supports 1 port per VL
  - Supports up to 8 transmit ports in total
  - Supports BAG values of 1ms, 2ms, 4ms, 8ms, 16ms, 32ms, 64ms and 128ms
- Receiver Operation
  - Supports up to 8 virtual reception links (VL)
  - Supports 1 port per VL
  - Supports up to 8 receive ports in total
- Supports queuing ports
- Supports Transmit Redundancy functionality
- Supports Receive Redundancy Check functionality for each VL
- Supports AXI-4 stream interface for user data transmission and reception
- Supports AXI-4 Lite interface for updating the Control and Status Register

iW – ARINC 664 P7 IP block diagram

Tx Interface → ARINC 664 P7 Tx Ports Mux

User Interface → Control & Status Register

Rx Interface → ARINC 664 P7 Rx Ports DeMux

UDP

Transmit Redundancy Controller and Scheduler Logic

Integrity and Redundancy Checker

Ethernet MAC0 → **PHY**

Ethernet MAC1 → **PHY**

ARINC 664 P7 IP Core

Deliverables

- Netlist
- IP example design
- IP datasheet
- Integration Manual

Licensing Options

- Non-Transferable: Single Project/Product Netlist License – Single Site or Multi Site
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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

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iW - ARINC 664 P7 FPGA IP
The IP can be ordered online from the iWave Website http://www.iwavesystems.com/product/arinc-664-afdx-ip/
Or from our Local Partners in your region http://www.iwavesystems.com/about-us/business-partner.html