# ARINC-818 IP Core

IP Core for ARINC-818

## Applications

Avionics vision and display systems

Avionics camera and display test stands

## Benefits

Increased performance with hardware-based ARINC-818 offload

container processing ) U

Leverage proven technology for standard interface implementation

## Features

ARINC-818 compliant interface with hardware-based offload

Hardware DMA engines with ARINC-818 container mapping

ARINC-818 container processing offloaded in hardware

Supports 1/2/3/4G data rates

Configurable number of ports in a single FPGA

AXI-based host interface for embedded or PCIe-based processors
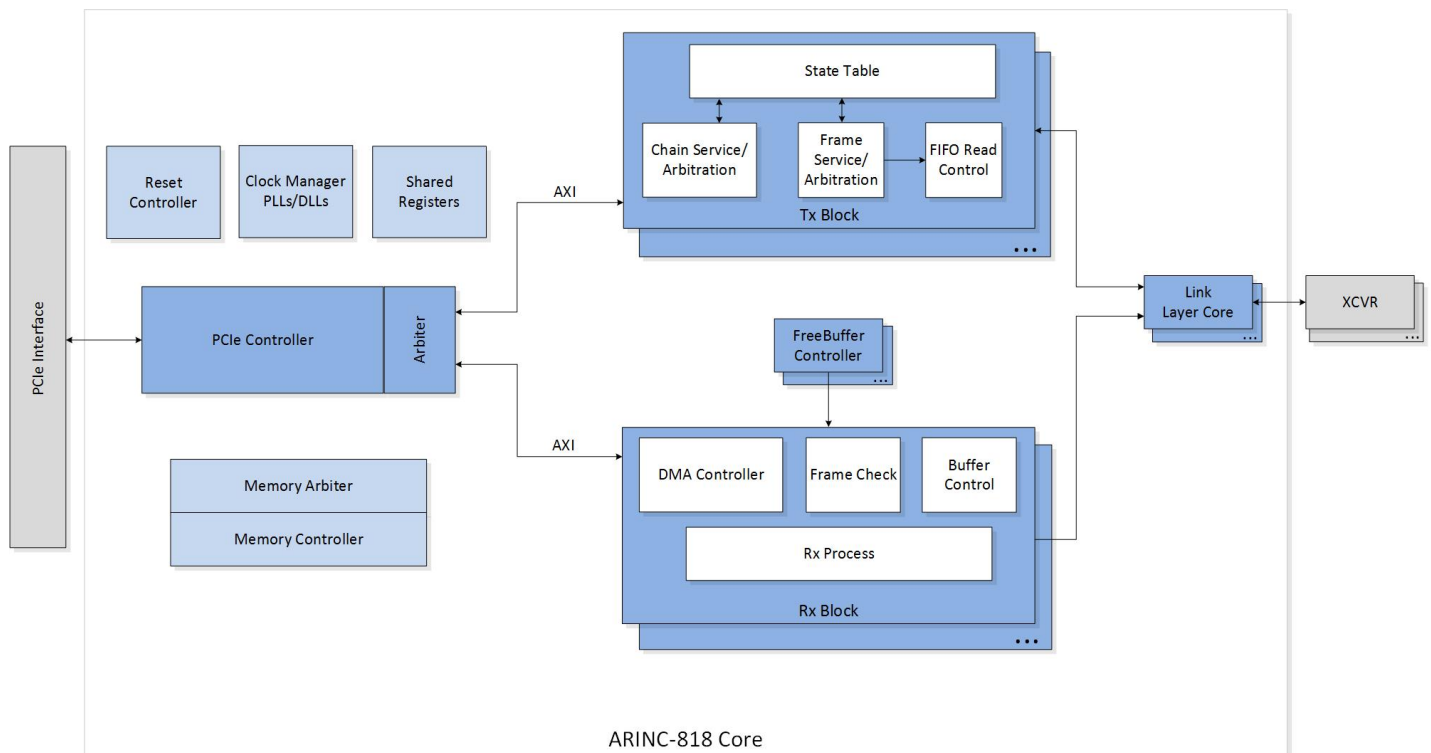
## Overview

The New Wave Design and Verification (New Wave DV) ARINC-818 core provides a complete hardware IP solution for the ARINC-818 protocol.

The core provides specification hardware-based container processing, and offload of frame handling including: ARINC-818 Container offload, hardware-based Object processing, ) U and CRC generation/checking.

The host interface to the core can be AXI or PCIe. The core is built for dropping into a FPGA and providing the complete design from processor interface to ARINC-818 network interface.

This core is targeted towards applications in aerospace and has been used on a wide range of parts at varying operating rates. The core comes with test-benches and example code, making design integration a straightforward task.

Evaluation versions of the ARINC-818 IP core are available and New Wave DV has a set of standard form-factor boards featuring FPGAs, optics, and off-the-shelf reference designs for quick evaluation of the IP core.

# ARINC-818 IP Core
## Hardware Offload Engine IP Core for ARINC-818

## Complete Product Support Program

Our customers can attest to our exceptional support. New Wave DV provides an industry-standard warranty on its products, but it is the human factor that makes our support so valuable to our customers. Our team takes the time and effort to ensure a positive customer experience.

## Our Commitment

New Wave DV is committed to providing the latest innovations in technology, architectures, and techniques to keep our customers one step ahead of the rest. Our products, complete with the Development Framework, are intended to offer our customers an entirely unique out-of-the-box experience.

## New Wave DV FC AV Cards

In addition to the ARINC-818 core, New Wave DV provides standard form-factor ARINC-818 interface cards that incorporate the ARINC-818 interface core along with high performance DMA engines and software drivers. Available in PMC/XMC/PCIe/VPX form-factors, New Wave DV ARINC-818 cards provide up to 16 ports in a single card. Reach us at info@newwavedv.com to ask about our ARINC-818 solutions.

## Technical Specifications

**Core is delivered in netlist format including constraint files.**

**SUPPORTED DEVICES**
Xilinx: Virtex, Kintex, Artix, Zynq FPGAs
Intel (Altera): Stratix, Arria, Cyclone FPGAs
Microsemi: SmartFusion2, Igloo2 FPGAs

**SUPPORTED RATES**
1/2/3/4G

**OPERATING FREQUENCIES**

1G: 26MHz
2G: 53MHz
3G: 79MHz
4G: 106MHz

## Ordering Information

700-AR100-00-00: ARINC-818 IP Core, includes Link Layer core, 1/2/3/4Gb rate support

Other product configurations are available. Please contact us.