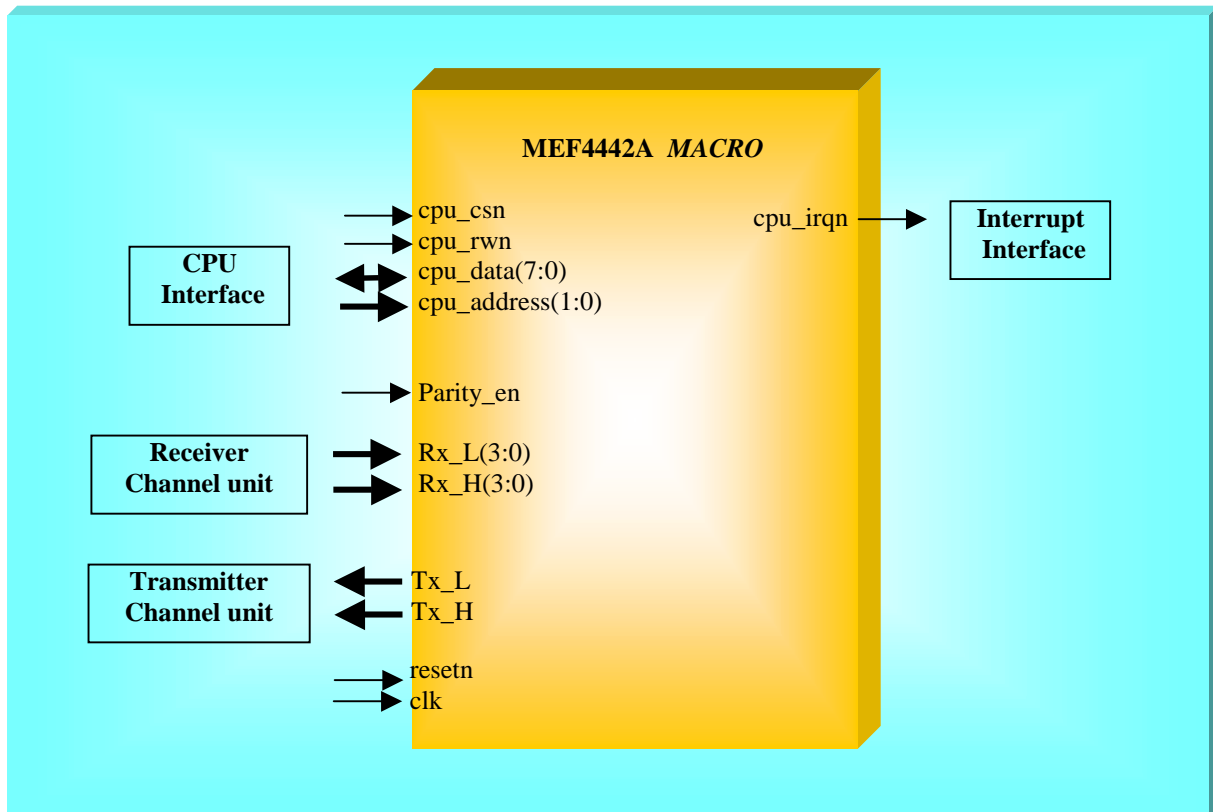


**ARINC 429 Synchronous Multichannel Receiver / Transmitter *MACRO***

**Product Brief**

January 2003 – Ver. 1.3



**Features**

- 4 Independent Receivers (Rx)
- 1 Independent Transmitter (Tx)
- Simple CPU interface type
- 8-Bit Data-bus
- ARINC 429 Interface : '1' and '0' Lines, RZ code
- Software Label Control
- Parity Control : Odd or No Parity
- Interrupt Capability
- Test mode Capability
- FPGA speed grade Operating Frequency dependant
- Available in VHDL source code format for ease of customization
- Can be customised by Logic Design Solutions

## Design Package

<b>Device Family</b>	<b>54SXA</b>		1300 Modules
	<b>PROASIC+</b>		1900 core cells
	<b>AXCELLERATOR</b>		600 FF and 1100 Combinatorial
<b>I/O</b>	<b>26 **</b>		
<b>Package file options</b>	<b>1</b>	<b>Bitstream + Data Sheet</b>	
	<b>2</b>	<b>VHDL Source code</b> <b>VHDL Test Bench</b> for behavioural and gate level simulation. <b>Data Sheet</b> <b>User's guide</b> : Simulation, Synthesis and Place and Route procedures. <b>Constraint File</b>	
<b>Design Tool Used</b>	VHDL synthesis Leonardo Spectrum or Synplify. VHDL ModelSim simulation tool from ModelTech. Actel Designer place and route software.		
<b>Support</b>	Support provided by Logic Design Solutions 6 months e-mail and telephone support from Logic Design Solutions included in the Macro price. Support does not cover User Macro modifications. Maintenance Contracts available.		

\* Synthesis option dependant (area/speed)

\*\* Assuming all Macro signals are routed off chip.

## General Description

The MEF4442A is an ARINC 429 controller. It is based on the EF4442 in mode A only. This macro is not strictly compatible with the EF4442.

This macro can be customized according to specific needs (application-specific requirement). Any other pre-designed functions can be integrated into the FPGA. FPGA density and I/O requirements can be defined according to customer specification.

## Recommended Design Experience

Designers should be familiar with ARINC 429, VHDL, synthesis tools, Actel data flow and VHDL simulation software. Experience with microprocessor is recommended. The macro can easily be integrated into hierarchical VHDL designs.

## Available Support Products

Support products available from Logic Design Solutions.

## Ordering Information

To purchase or make further inquiries about this, or any other Logic Design Solutions products and services, contact Logic Design Solutions in France.

Logic Design Solutions also offers macro integration and design services on FPGA.

Logic Design Solutions macros are purchased under a License Agreement, copies of which are available on request.

Logic Design Solutions reserves the right to make changes to these specifications at any time, without notice.

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## Related Information

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