

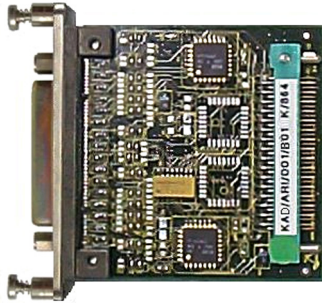


# ACRA KAM-500

## CONTROL

# ARI/001

8 channel ARINC-429 bus monitor with parity option



## FEATURES

- Monitors up to eight ARINC-429 buses
- Coherently parses traffic and tags for up to 4095 words
- 16K deep selective FIFO for traffic and tags (SNARFER)
- Word counter for each bus
- Detects seven types of errors

## APPLICATIONS

- ARINC-429 monitoring
- Translation from one bus to another

## DESCRIPTION

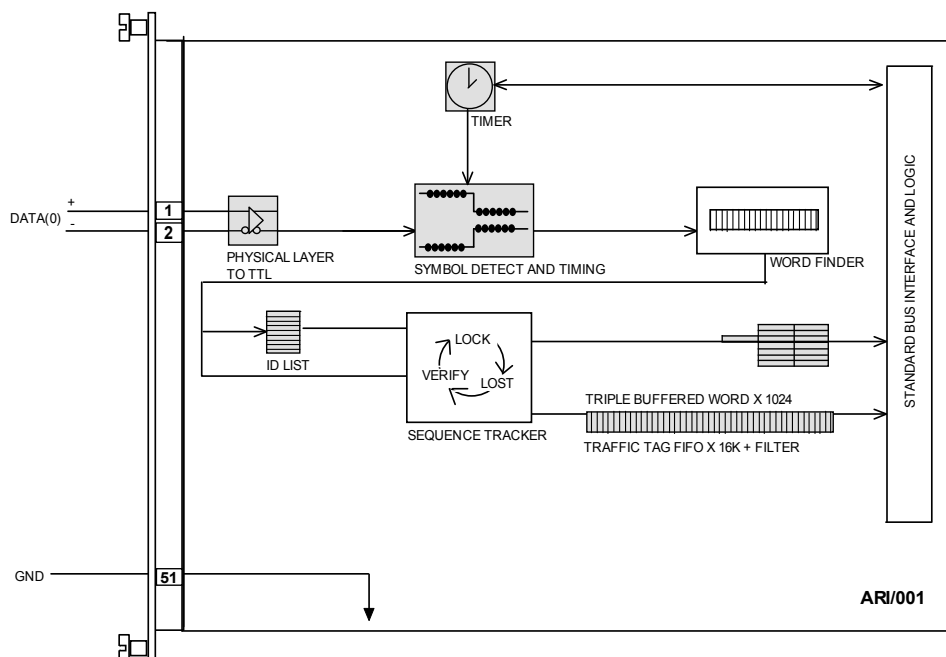
The ARI/001 is an ARINC-429 bus monitor combining the capabilities of an all-pass/selected-pass monitor, a coherent message parser and an error-detection function on a single module.

In the discussion below "traffic" refers to words on the bus and "tag" refers to associated information (time tags, word count and errors).

The parser triple buffers up to 4095 words and their associated tags (word being read, word being received and an interim buffer). Each message has a STALE bit (word read before) and a SKIPPED bit (buffer overwritten).

The SNARFER stores selected traffic and tags in a first-in-first-out (FIFO) 16K words deep. Each word has 16 bits for traffic tag information and 7 bits for FIFO content identification. Data selection and content identification is based on the Bus (0 to 7), Word ID (0 to 4095), tag type (time high/low/micro and message count) and how full the FIFO is.

The WORD count increments on receipt of a valid word. the REPORT word has bits indicating the type of error caught and the bus it occurred on.



First of eight busses on the ARI/001

## Selection guide and ordering information

### Selection Paths

Airborne Data Acquisition → KAM-500 → Modules → Bus → ARINC

### Ordering Information

Part Number	Mating Connector	Description
<b>KAD/ARI/001/B</b>	CON/KAD/002/CP	ARI/001 module with 52-way double density module top connector
<b>KAM/ARI/001/B</b>	ACC/CON/008/04	ARI/001 module with 51-way micro-miniature module top connector

By default, the standard mating connector above is included with each module in the shipment. Its part number will be added to the Confirmation of Order unless an alternative option is specified (see the *Cables* data sheet).

### Revision History

Revision	Differences	Status
<b>ARI/001/B</b>	Option to monitor parity at the start or end of received data	Recommended for new programs
<b>ARI/001</b>	First release	Not recommended for new programs

In this data sheet ARI/001/B refers to both the KAD and KAM version of the module.

### Related Products

Module	Details
<b>ARI/002</b>	Single channel ARINC-429 transmitter module
<b>KSMv2</b>	This module is supported in KSMv2 software
<b>KSM-500</b>	This module is supported by the KSM-500 suite of software tools

### Related Documentation

Document	Details
<b>TEC/NOT/006</b>	ARINC-429
<b>TEC/NOT/007</b>	ARINC-429 and the ARI/001
<b>DOC/MAN/018</b>	KSM-500 Databook
<b>DOC/HBK/002</b>	Environmental Qualification Handbook
<b>DOC/DBK/001</b>	KAM-500 Databook