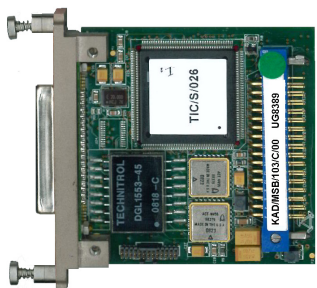




KAD/MSB/103

Dual redundant MIL-STD-1553 bus monitor with Mode Code 17 support



FEATURES

- 3K deep selective FIFO for traffic and tags (SNARFER)
- FIFO formatted with IRIG-106 Ch. 8 acquisition formatting standard
- Coherently parses traffic and adds tags from up to 1023 messages
- ID based on all 16 bits of command, bus (A or B)
- ID based on the last Mode Code 17 sub-address map number received for the involved remote terminals
- Handles all mode codes (including user-defined)
- Supports one message counter for each bus
- Detects 64 different errors
- Protocol tracker does not rely on instrumentation bit
- Direct coupled or transformer coupled operation
- Optional recording of messages with timed out status reply

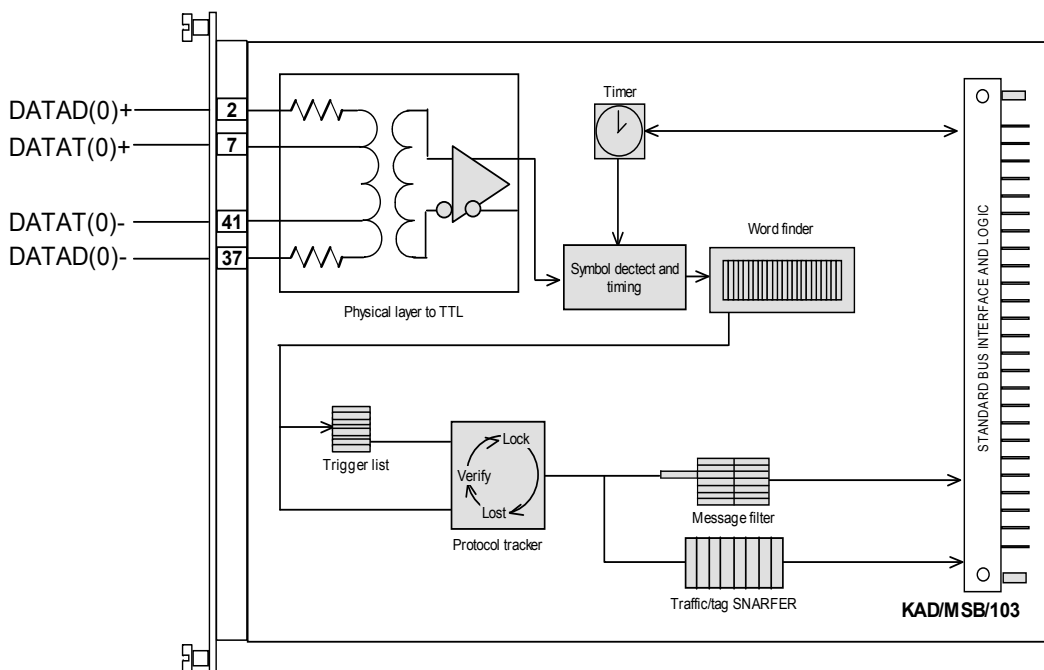
APPLICATIONS

- MIL-STD-1553 traffic monitor

DESCRIPTION

The KAD/MSB/103 is a MIL-STD-1553 dual redundant bus monitor which combines the capabilities of a SNARFER, coherent message PARSER, message counter, and error detection functions on a single module. Traffic refers to words on the bus (command, status and data) and tags refer to associated information (microsecond time of sync. bit transition, message count, response time and errors). When used in PARSER mode, the KAD/MSB/103 triple buffers up to 1023 complete messages and their associated tags in buffers up to 43 words wide. The INFO tag associated with each message has a STALE bit (message read before), a SKIPPED bit (buffer overwritten) and an EMPTY bit (message was never received), as well as an indication on which bus the message was received. The MESSAGE count increments on receipt of a valid message. The ERROR word has bits indicating the type of error caught in the form of a 6-bit code and the bus on which it occurred.

The KAD/MSB/103 records Mode Code 17, sub-address map numbers for each remote terminal separately. With that it can monitor the full expanded sub-address space for up to 31 remote terminals. The SNARFER stores selected traffic and tags in a FIFO 3K words deep. Each word has 16 bits for traffic/tag information and 8 bits for FIFO content identification. Data selection and content identification is based on the bus (primary/secondary), traffic type (command, status, data), tag type (high/low/micro/response time, message count) and how full the FIFO is.



Primary bus monitor on the KAD/MSB/103

Selection guide and ordering information

Selection Paths

Airborne Data Acquisition → KAM-500 → Modules → Bus → MIL-STD-1553

Ordering Information

Part Number	Mating Connector	Description
KAD/MSB/103/C	ASD/MSB/001/TC	52-way double-density mating connector with flying leads (transformer coupled)
KAD/MSB/103/C	ASD/MSB/001/DC	52-way double-density mating connector with flying leads (direct coupled)

When ordering, specify which of the above connectors is preferred (see the *Cables* data sheet); its part number will be added to the Confirmation of Order.

For details of the version of this module with Mode Code 17 support, contact ACRA CONTROL.

Revision History

Revision	Differences	Status
KAD/MSB/103/C	Message capturing changed to allow storing of traffic when either a RxRT or TxRT fails to respond	Recommended for new programs
MSB/103/B	Dual redundant MIL-STD-1553 bus monitor with Mode Code 17 support and 3K deep selective FIFO for traffic and tags (SNARFER)	Not recommended for new programs
MSB/103	First release	Not recommended for new programs

Related Products

Module	Details
MSB/003/B	Dual redundant MIL-1553 bus monitor with Mode Code 17 support and individual SSA
KSM-500	This module is supported by the KSM-500 suite of software tools

Related Documentation

Document	Details
DOC/DBK/001	KAM-500 Databook
DOC/MAN/018	KSM-500 Databook
DOC/GBK/002	Environmental Qualification Handbook
TEC/NOT/004	MIL-STD-1553