

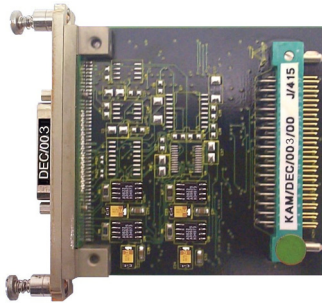


ACRA KAM-500

CONTROL

DEC/003

2 channel IRIG-106 PCM decoder/merger



FEATURES

- Decommutates two IRIG-106 PCM streams
- Accepts BIØ-L or NRZ-L codes
- Up to 20Mbps for NRZ-L and 8Mbps for BIØ-L
- Up to 4k words per minor frame
- Programmable word length (4-64) per word
- Programmable parity (odd/even/none) per word
- Programmable word orientation per word
- Operates in synchronous mode with other KAM-500s
- Operates in asynchronous mode with third-party PCM encoders

APPLICATIONS

- Distributed data acquisition systems
- PCM decoders/mergers

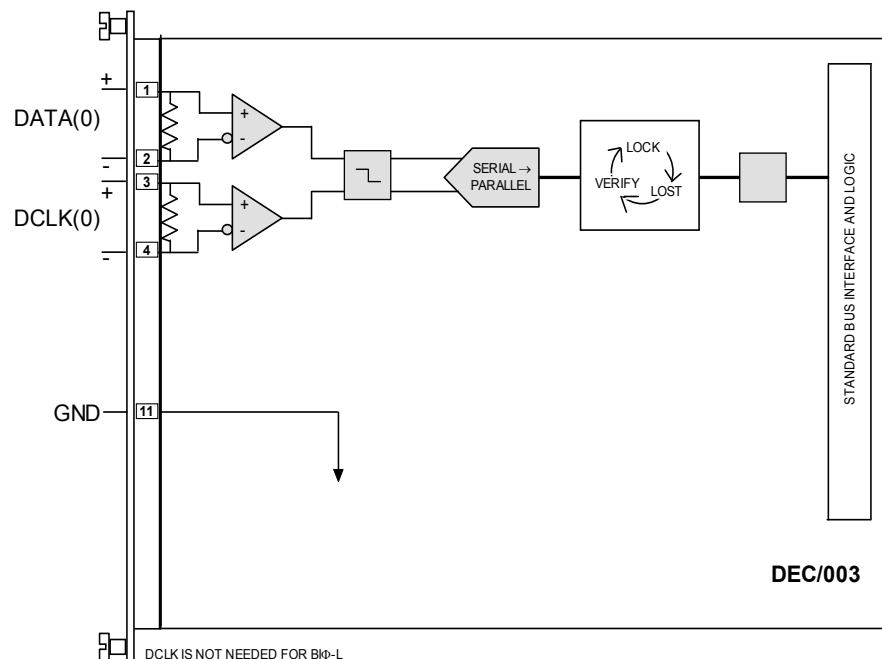
DESCRIPTION

The DEC/003 is a dual PCM decommutator that can accept two independent PCM streams. Data from each stream is individually parsed into minor frame buffer from which it can be read coherently over the backplane.

The DEC/003 is ideally suited to merge two PCM streams in a distributed acquisition systems with a star configuration.

In a typical distributed acquisition system where each KAM-500 is operated synchronously, the DEC/003 runs in synchronous mode. Data is decommutated by the decoder before it is read over the backplane. In this mode there is no need for stale or skipped indication.

When decommutating data from an encoder running asynchronously, data is parsed into coherent buffer. All parameters read are guaranteed to be from the same minor frame. If data is read slower than it is received, minor frames are skipped occasionally. If data is read faster than it is received, minor frames are repeated (stale) occasionally. In asynchronous mode it is recommended that the stale and skipped indication be read.



First of two independent PCM decommutators

Selection guide and ordering information

Selection Paths

Airborne Data Acquisition → KAM-500 → Modules → Bus → IRIG-106

Ordering Information

| Part Number | Mating Connector | Description |
|-------------|------------------|---|
| KAD/DEC/003 | CON/KAD/002/CP | DEC/003 module with 52-way double density module top connector |
| KAM/DEC/003 | ACC/CON/008/04 | DEC/003 module with 51-way micro-miniature module top connector |

Revision History

| Revision | Differences | Status |
|----------|---|------------------------------|
| DEC/003 | Max. data rate increased from 2Mbps to 20Mbps for NRZ-L | Recommended for new programs |
| DEC/002 | First release | Obsolete |

In this data sheet DEC/003 refers to both the KAD and KAM version of the module.

Related Products

| Module | Details |
|---------|---|
| BCU/101 | KAM-500 backplane controller with IRIG-106 PCM encoder |
| ENC/005 | IRIG-106 PCM encoder |
| KSM-500 | This module is supported by the KSM-500 suite of software tools |
| KSMv2 | This module is supported by the KSMv2 suite of software tools |

Related Documentation

| Document | Details |
|-------------|--------------------------------------|
| DOC/MAN/018 | KSM-500 Databook |
| DOC/GBK/002 | Environmental Qualification Handbook |
| DOC/DBK/001 | KAM-500 Databook |