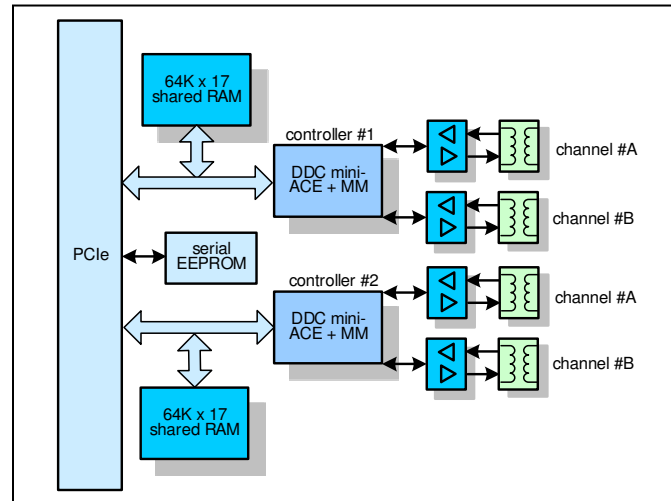


## Single or Dual DDC uACE 1553 Controller

### Features

- 1 or 2 controllers of dual redundant (A/B channel) 1553 communications
- Programmable bus controller, remote terminal, or monitor terminal modes
- MIL-STD-1553 A and B compliant, Notice 2 RT
- STANAG 3838 bus compliant for NATO standard support
- Long or short stub support
- Low power consumption
- PCIMG compliant
- Single +5 VDC supply



### Block Diagram Overview

The PCle-1553-uACE uses Data Device Corporation's uACE, DDC enhanced communication device as its 1553 bus controller, or remote terminal, or monitor terminal. A single controller has two redundant channels. This controller has 64Kx17 word of internal memory and internal transceivers for both channel A and B. The PCle board has on-board transformers. This board has a PCI compliant interface.

### Available Software Drivers:

- C library dll's
- Linux drivers
- Window XP drivers
- VxWorks drivers

### Applications:

This is a perfect solution for a wide array of 1553 communication applications such as:

- Test equipment supporting evaluation, simulation, monitoring, and analysis,
- Operational equipment such as avionics, space satellite systems, aircraft onboard systems, commercial systems, etc.
- Applications that require dual functionality of the terminal for monitoring and remote operation at the same time

### 1553 Compliance/Characteristics:

- Data Rate – 1 MHz
- Word Length – 20 bits
- Data Bits/Word – 16 bits
- Message Length – maximum of 32 data words
- Transmission Technique – half-duplex
- Operation – asynchronous
- Transmission encoding – Manchester II, bi-phase
- Protocol – command/response
- Bus Control – single or multiple
- Fault tolerance – typically dual redundant, second bus in "hot backup" status
- Message formats – controller to terminal, terminal to controller, terminal to terminal, broadcast, system control
- Number of remote terminals – maximum 31
- Terminal Types – remote terminal, bus controller, bus monitor
- Transmission Media – twisted shielded pair
- Coupling – transformer and direct

**PCIe Bus:**

- PCIe Bus Interface

**Operating Environment:**

- Operating temperature  
 Commercial: 0 to +55 °C  
 Optional: -25 °C to +80 °C  
 Non-operating: -40 °C to +85 °C  
 Airflow requirement – 5 CFM  
 Humidity – 5 to 90% (non-cond)  
 Altitude – 0 to 10,000 feet

**Mechanical: Environmental:**

- Size –PCIe module
- Power – 1.5 watt
- Front panel I/O
- Vibration – 0.5G, 20-2000 Hz rand
- Shock – 20G, 11 msec, ½ sine
- Weight – 2 OZ
- MTBF – >250,000 hours

PCIe-1553-uACE-1	MIL-1553, BC/RT/M, DDC uACE; Single, dual redundant
PCIe-1553-uACE-2	MIL-1553, BC/RT/M, DDC uACE; Dual dual redundant

EngKit-1553	2 T's, 2 Terminators, 2-1 meter cables
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**Optional Accessories**

CBL-1553-1	Standard-standard 2 meter 1553 cable
CBL-1553-2	Standard-mini 2 meter 1553 cable
CBL-1553-3	Mini-mini 2 meter 1553 cable

