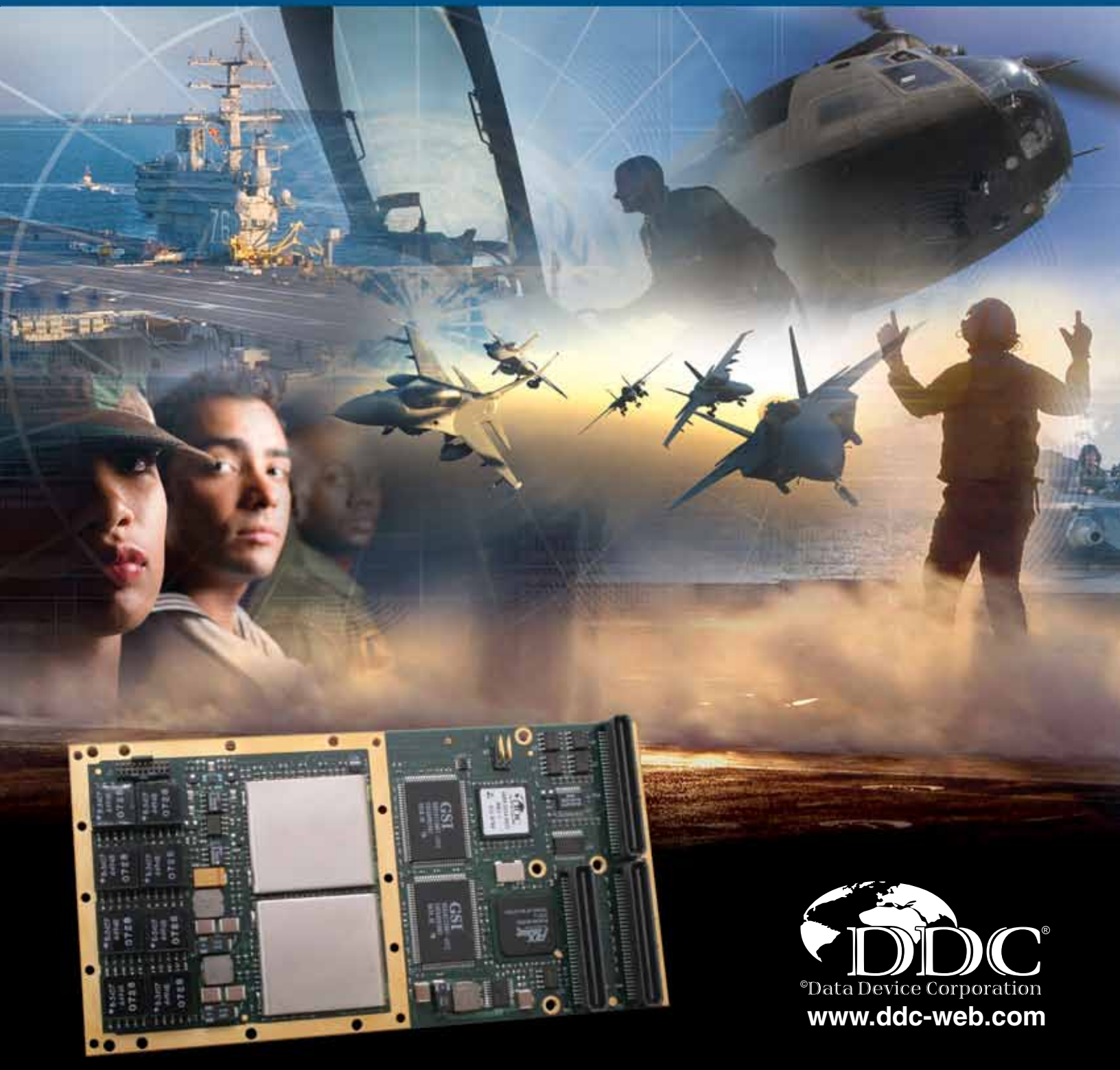
PMC Board Capabilities

MIL-STD-1553 / ARINC 429 / Synchro Conversion



DDC®

www.ddc-web.com

CAPABILITIES

PMC

CARDS

The PMC form factor has allowed both embedded and laboratory system designers to keep development costs low through the use of Commercial-off-the-Shelf (COTS) products. DDC's family of embedded COTS solutions are used in many different types of flight critical systems that require the use of a PMC card that is designed for harsh, rugged environments.

DDC offers a variety of MIL-STD-1553, ARINC 429, and ARINC 407 (Synchro) PMC configurations, including rugged, embedded PMC cards designed for harsh military environments, along with boards tested to VITA-47 conduction-cooled and air-cooled specifications. Data bus PMC cards are designed to operate from -40°C to +85°C, measured at the conduction-cooled rail, with no restrictions on the duty cycle of active channels. To simplify software development, testing, and implementation, DDC supplies unified test and embedded Software Development Kits (SDKs) for MIL-STD-1553 and ARINC 429 PMC cards.

COOLING METHODS

DDC offers PMC cards in two thermal configurations:

- **PMC cards for use in conduction-cooled systems.** The boards feature primary, secondary, and tertiary thermal rails, and operate from -40°C to +85°C measured at the thermal rail. The tertiary thermal rail, with anti-fretting mounting holes as per the new VITA 20-2005 specifications, offers more mounting locations for enhanced reliability.
- **PMC cards for use in air-cooled applications.** The boards are available with either front or rear I/O, and feature a bezel to contain the forced air within the system that the PMC is plugged into.

TECHNOLOGIES

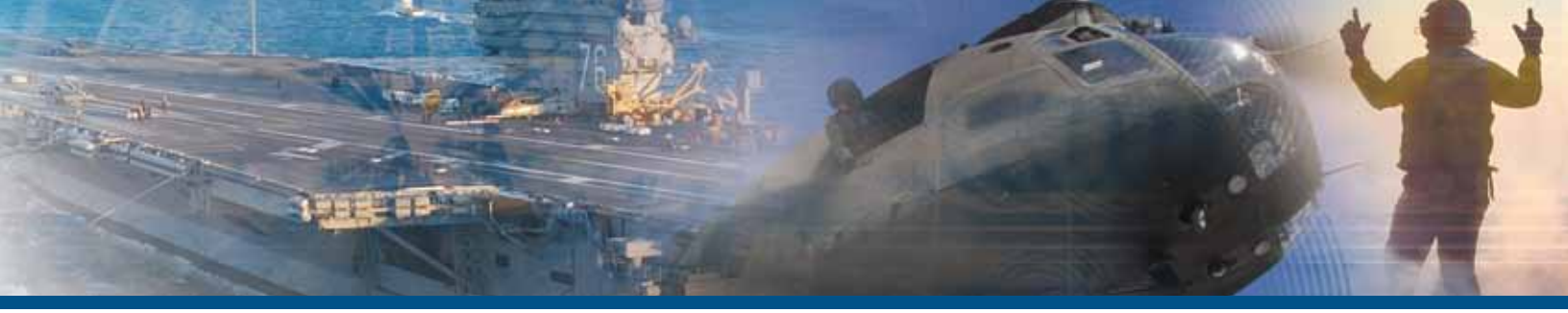
- MIL-STD-1553
- EBR-1553/MMSI
- ARINC 429
- Avionics Discrete I/O
- Digital Discrete I/O
- Multi-I/O Boards
- RS-232/422/485 Serial I/O
- Synchro/Resolver
- IRIG-B Input/Output

APPLICATIONS

- Mission Computers
- Maintenance Computers
- Flight Data Recorders
- Displays
- Radars
- Situational Awareness
- Flight Testing
- Ground Maintenance
- Systems Integration Labs
- Simulators
- Production Test Labs

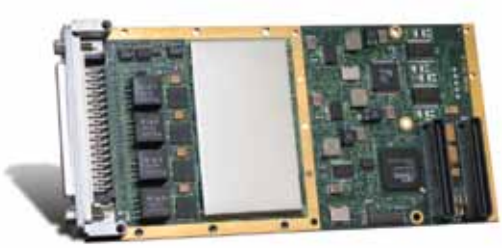
SOFTWARE

- Linux®
- VxWorks®
- LynxOS®
- Windows®
- Integrity®
- Solaris®



MIL-STD-1553 / ARINC 429 / SYNCHRO FEATURED PRODUCTS

MIL-STD-1553 / ARINC 429 PMC CARDS



Multi-I/O Avionics PMC Card

MIL-STD-1553 BC/RT/MT PMC Card

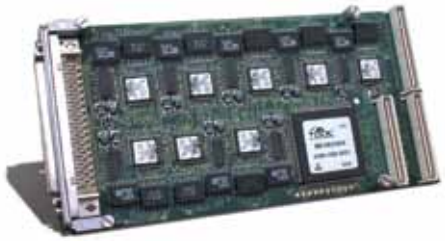
Key Features

- Up to 8 Dual Redundant MIL-STD-1553 Channels
- Up to 16 Receive and 6 Transmit 429 Channels
- Up to 8 Digital and 8 Avionics Discrete I/O
- Up to 2 RS-232 and 2 RS-422/485 Channels
- IRIG-B Time Code Input/Output
- 48-bit/100ns Time Stamp
- Included Software:
  - High-Level C SDK and Drivers
  - Common Test/Embedded API
- Graphical Avionics Bus Analysis and Simulation Software
- ACEXTREME™ - Next Generation 1553 Core

Benefits

- Rugged Design for Harsh Environments
- Proven & Reliable Technology
- Unique I/O Mix and High Channel Count Reduces:
  - Space, Power, Weight, Cost
- C Application Code Generation GUI Shortens Development Cycle and Reduces Risk
- IRIG-106 Chapter 10 On Board Formatting
- User Selectable BC Disable/Tx Inhibit per 1553 Channel
- On-Board DMA Engine for Low CPU/PCI Utilization

SYNCHRO PMC CARD



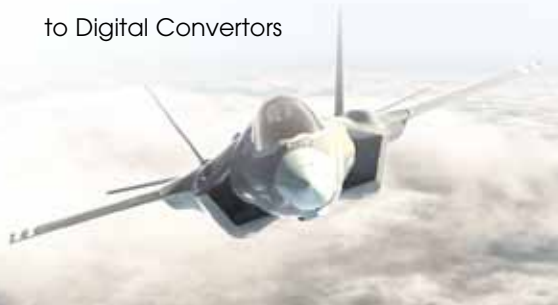
EIGHT CHANNEL RESOLVER / SYNCHRO-TO-DIGITAL PMC CARD

Key Features

- Programmable Inputs, Resolution, and Bandwidth
- Accuracy Up To 1.3 Arc Minutes
- Synthesized Reference
- Each Channel Accepts Independent References
- Available -40°C To +85°C Temperature Range
- Encoder Emulation Capability

Benefits

- Up to 8 Channels On A Single Card
- Rugged Design for Harsh Environments
- Uses DDC RD-19230 Proven Resolver to Digital Convertors



The first choice for more than 45 years —DDC

Data Device Corporation is the world leader in the design and manufacture of high reliability data interface products, motion control, and solid-state power controllers for aerospace, defense, and industrial automation.

CUSTOMER TESTIMONIALS

"DDC's expertise in MIL-STD-1553 and ARINC 429 data bus technology combined with high quality products, proven reliability, continued product evolution, and excellent support is why we have selected DDC's cards for use on various applications."

Concurrent Technologies, FL.

"DDC's 1553/429 Multi-I/O PMC card was tested and proven to meet our military qualification requirements, and the compatibility with the Enhanced Mini-ACE library facilitated the rewrite of our software designed for another DDC card."

Support Systems, GA.

"DDC's 8-channel 1553 PMC card has allowed us to save space, costs and weight in our ENERTEC airborne mission recorders that require MIL-STD-1553 and IRIG-106 Chapter 10 interfaces due to the high channel density of the card."

ZODIAC DATA SYSTEMS, France

DATA DEVICE CORPORATION
REGISTERED TO ISO 9001:2008
REGISTERED TO AS9100:2004-01
FILE NO. A5976

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