Data Bus
Fibre Channel
Synchros/Resolvers
Solid State Power Controllers
Motor Drives/Controllers
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As the leading global supplier of data bus components, cards, and software solutions for the military, civil, and aerospace markets, DDC’s data bus networking solutions encompass the full range of data interface protocols to support the real-time processing demands of field-critical data networking between systems and subsystems on military vehicles. These products, along with our traditional MIL-STD-1553 solutions, represent a wide and flexible array of performance and cost solutions, enabling DDC to support multi-generational programs.

Whether employed in increased bandwidth, high-speed serial communications, or traditional avionics and ground support applications, DDC’s data solutions fulfill the expanse of military requirements including reliability, determinism, low CPU utilization, real-time performance, and ruggedness within harsh environments. Our use of in-house intellectual property ensures superior multi-generational support, independent of the life cycles of civil devices. Moreover, we maintain software compatibility between product generations to protect our customers’ investments in software development, system testing, and end-product qualification.

DDC provides an assortment of quality MIL-STD-1553 rugged embedded and lab grade cards and components to meet your data conversion and data interface needs. Our 1553 data bus board solutions are integral elements of military, aerospace, and industrial applications. Our extensive line of military and space grade components provide MIL-STD-1553 interface solutions for microprocessors, PCI buses, and simple systems. Our 1553 data bus solutions are designed into a global array of aircraft, helicopter, unmanned vehicles, and missile programs.

DDC also has a wide assortment of quality ARINC 429 embedded and lab grade cards and components, which will meet your data conversion and data interface needs. DDC’s ARINC 429 components ensure the accurate and reliable transfer of flight-critical data. Our 429 interfaces support data bus development, validation, and the transfer of flight-critical data aboard civil aerospace platforms.

DDC provides powerful, field-proven AFDX®/ARINC 664 solutions for test, simulation, and system integration. These cards support both Airbus and Boeing AFDX protocols.

DDC offers a convienent solution to convert MIL-STD-1553, ARINC 429, and Ethernet protocol in any direction, in real-time, without a host computer.

DDC offers a wide variety of solutions based on extensions of MIL-STD-1553 for emerging aerospace applications. Turbo 1553 increases the data rate of 1553 from 1 Mbps to 5 Mbps while maintaining the architectural features of MIL-STD-1553. Hyper 1553 provides high speed communication (50 to 100+ Mbps) over MIL-STD-1553 buses while operating concurrently with legacy 1 Mbps 1553 (similar to ADSL for telephone networks).

DDC supplies MIL-STD-1553 and ARINC 429 board level products in a variety of form factors including USB, PCI-Express, PCMCIA, ExpressCard, AMC, PMC, XMC, PCI-104, PC/104-Plus, PC/104, PCI, cPCI, VME, and ISAbus boards. Our laboratory simulation and in-flight products include multi-function and single-function for system integration and production test environments. Our extensive line of military and space grade components provide MIL-STD-1553 interface solutions for microprocessors and simple systems. Our software is supplied in the form of menus, libraries, and drivers. We also offer additional software to expand our data networking range of options.
## Cards

### Max # of Channels

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<th>CAN</th>
<th>RS-232 / 422</th>
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<th>Discrete</th>
<th>Discrete</th>
<th>LabVIEW®</th>
<th>BusTrACEr®</th>
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### Optional Software

- **AFDX®/ARINC 664 Ethernet CANbus**
- **RS-232/485**
- **Digital Discrete Discrete**
- **LabVIEW**
- **BusTrACEr**
- **Civil Avionics**

### Complete Information Page

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*Visit www.ddc-web.com for complete product information.*

www.ddc-web.com 3
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### History of Innovation

3+ Decades of Innovation Delivers the Smallest, Most Advanced MIL-STD-1553 Solution Ever!

Increased Functionality In a Smaller Package

![History of Innovation Diagram](image-url)
PCI-Express

Model: BU-67106K, BU-67206K

Features:
- Channels:
  - 4 Dual Redundant MIL-STD-1553
  - BC/Multi-RT/Monitor Per Channel*
  - Test and Simulation Toolkit*
  - 8 User-Programmable Digital & Avionics Discrete I/O
  - IRIG-B Time Code Input/Output
  - IRIG-106 Chapter 10 Monitor
  - 48-bit/100ns Time Stamp
  - Time Tag Clock Input/Output
  - Variable Voltage Amplitude
  *Multi-Function 206K Series

Applications:
- New Product Development
- Simulation
- Systems Integration
- Bus or Network Analysis
- Production Test
- System Troubleshooting
- Data Recording
- Automatic Test Applications

Complete Info: www.ddc-web.com/BU-67206K

Model: DD-40000K

Features:
- Channels:
  - 6, 10, 18, or 36 Prog. Tx/Rx ARINC 429
  - Up to 2 Prog. Tx/Rx ARINC 717
  - Up to 16 Avionics Discrete I/O
  - IRIG-B Input/Output
  - Variable Output Voltage on 8 Channels
  - Voltage Monitoring with Scope View on 8 Channels
  - 48-bit/100ns Time Tag
  - Prog. Speed Per Channel (500bps - 200Kbps)

Applications:
- Systems Integration Labs
- Simulators
- Production Test Stands
- Automated Test
- Civil Aerospace
- New Product Development
- System Troubleshooting
- Portable Testers
- Flight Line Diagnostics
- Flight Testing
- Software Development
- Data Loading
- Data Monitoring
- Bus Debugging & Diagnostics

Complete Info: www.ddc-web.com/DD-40000K

USB

Model: BU-67102U, BU-67202U, BU-67103U

Features:
- Channels:
  - 2 Dual Redundant MIL-STD-1553
  - 4 Receive & 2 Transmit ARINC 429/575
  - 8 User-Programmable Digital Discrete I/O
  - IRIG-B Time Code Input
  - IRIG-106 Chapter 10 Monitor
  - 48-bit / 100ns Time Stamp
  - 1 Pulse per Second Output

Applications:
- Box-Level Troubleshooting
- Simulation
- Portable Test Equipment
- Flight Line and Diagnostic Testing
- Software Development
- Systems Integration
- Automatic Test Applications (ATP)

Complete Info: www.ddc-web.com/BU-67102U

Model: BU-67211UX

Features:
- Channels:
  - 2 Dual Redundant MIL-STD-1553
  - 8 Rx/Tx ARINC 429
  - 2 Rx/Tx ARINC 717
  - 2 CANbus 2.0
  - 4 RS-232/422/485 Serial I/O
  - Standard Twincax MIL-STD-1553 Connectors
  - 2 Digital and 2 Avionics-Level Discrete I/O
  - Multi-Function: BC+Multi-RT+ Monitor Operation
  - Test and Simulation Toolkit

Applications:
- New Product Development
- Simulation
- Systems Integration Labs
- Bus or Network Analysis
- Production Test Stands
- System Troubleshooting

Complete Info: www.ddc-web.com/BU-67211UX

Complete Info: www.ddc-web.com/BU-67202U
# PCI

**Model: BU-67107i**

**Features:**
- Channels:
  - 4 Dual Redundant MIL-STD-1553
  - 16 Receive & 4 Transmit 429
  - 2 RS-232 & 2 RS-422/485
- 8C/Multi-RT/Monitor Per Channel
- Test and Simulation Toolkit
- ARINC 429 Only Model Available
- Up to 6 Digital Discrete I/O
- IRIG-B Time Code Input
- 48-bit/100ns Time Stamp

**Applications:**
- Civil Aerospace
- Systems Integration Labs
- Simulators
- Production Test Labs
- Bus-Level Testing and Debugging
- Software Development

**Complete Info:** [www.ddc-web.com/BU-67107iT](http://www.ddc-web.com/BU-67107iT)

---

**Model: BU-67110i, BU-67210i**

**Features:**
- Channels:
  - 8 Dual Redundant MIL-STD-1553
- 8C/Multi-RT/Monitor Per Channel*
- Test and Simulation Toolkit*
- Up to 8 Digital Discrete I/O
- Up to 8 Avionics Discrete I/O
- IRIG-B Time Code Input/Output
- 48-bit/100ns Time Stamp

*Multi-Function 210i Series

**Applications:**
- Civil Aerospace
- Systems Integration Labs
- Simulators
- Production Test Labs
- Box-Level Testing and Debugging
- Software Development

**Complete Info:** [www.ddc-web.com/BU-67210iT](http://www.ddc-web.com/BU-67210iT)

---

# ExpressCard

**Model: BU-67101Q**

**Features:**
- Channels:
  - 2 Dual Redundant MIL-STD-1553
- 2 User-Programmable Digital Discrete I/O
- 2 User-Programmable Avionics Discrete (+35V) I/O
- IRIG-B Time Code Input/Output
- IRIG-106 Chapter 10 Monitor
- 48-bit/100ns Time Stamp
- Time Tag Clock Input

**Applications:**
- Box-Level Troubleshooting
  - Simulation
  - Portable Test Equipment
  - Flight Line and Diagnostic Testing
  - Software Development
  - System Integration
  - Automatic Test Applications (ATP)

**Complete Info:** [www.ddc-web.com/BU-67101Q](http://www.ddc-web.com/BU-67101Q)
AceXtreme® Bridge Device

Model: BU-67110T, BU-67210T

Features:
- Channels:
  - 8 Dual Redundant MIL-STD-1553
  - BC/Multi-RT/Monitor Per Channel*  
  - Test and Simulation Toolkit*  
  - Up to 8 Digital Discrete I/O  
  - Up to 8 Avionics Discrete I/O  
  - IRIG-B Time Code Input/Output 
  - 48-bit/100ns Time Stamp

Applications:
- Civil Aerospace  
- Systems Integration Labs  
- Simulators  
- Production Test Labs  
- Box-Level Testing and Debugging  
- Software Development

*Multi-Function 210T Series

Complete Info: www.ddc-web.com/BU-67110iT

Model: DD-40100T

Features:
- Channels:
  - 6, 10, 18, or 36 Prog. Tx/Rx  
  - ARINC 429  
  - Up to 2 Prog. Tx/Rx ARINC 717  
  - Up to 16 Avionics Discrete I/O  
  - IRIG-B Input/Output  
  - Variable Output Voltage on 8 Channels  
  - Voltage Monitoring with Scope View on 8 Channels  
  - 48-bit/100ns Time Tag  
  - Prog. Speed Per Channel (500bps - 200Kbps)

Applications:
- Systems Integration Labs  
- Simulators  
- Production Test Stands  
- Automated Test  
- Civil Aerospace  
- New Product Development  
- System Troubleshooting  
- Portable Testers  
- Flight Line Diagnostics  
- Flight Testing  
- Software Development  
- Data Loading  
- Data Monitoring  
- Bus Debugging & Diagnostics

Complete Info: www.ddc-web.com/DD-40100T

Model: BU-67119W, BU-67116W, BU-67115W

Features:
- Channels:
  - 2 10/100/1000 Ethernet  
  - 4 Dual Redundant 1553/1760  
  - 6 Prog Rx/Tx ARINC 429  
  - Up to 12 Discrete I/Os  
  - 28Vdc Input Power, per MIL-STD-704 and MIL-STD-1275  
  - Low Power 1GHz Intel Atom Processor  
  - 8 GBytes SSD  
  - Bridge Between Ethernet, MIL-STD-153, and/or ARINC 429  
  - Remote Access to 429 or 1553 Data via Ethernet

Applications:
- Upgrade & Retrofit  
- Protocol Conversion  
- Mission Computers  
- Displays  
- Test & Systems Integration  
- Situational Awareness  
- Simulators  
- Data Loading  
- Data Monitoring

Complete Info: www.ddc-web.com/BU-6711XWX
## Data Bus - Cards

### PMC

**Model:** BU-67110F/M, BU-67210F/M

**Features:**
- Channels:
  - 8 Dual Redundant MIL-STD-1553
  - BC/Multi-RT/Monitor Per Channel*
  - Test and Simulation Toolkit*
  - Up to 8 Digital Discrete I/O
  - Up to 16 Avionics Discrete I/O
  - IRIG-B Time Code Input/Output
  - 48-bit/100ns Time Stamp

*Multi-Function 210F/M Series

**Applications:**
- Mission Computers
- Displays
- Digital Data Recorders
- Radar Systems/Situational Awareness
- Systems Integration Labs
- Simulators
- Production Test Labs
- Box-Level Testing and Debugging
- Software Development

**Complete Info:** www.ddc-web.com/BU-67210FM

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**Model:** DD-40100F

**Features:**
- Channels:
  - 6, 10, 18, or 36 Prog. Tx/Rx ARINC 429
  - Up to 2 Prog. Tx/Rx ARINC 717
  - Up to 16 Avionics Discrete I/O
  - IRIG-B Input/Output
  - Variable Output Voltage on 8 Channels
  - Voltage Monitoring with Scope View on 8 Channels
  - 48-bit/100 ns Time Tag
  - Prog. Speed Per Channel (500bps - 200Kbps)

**Applications:**
- Systems Integration Labs
- Simulators
- Production Test Stands
- Automated Test
- Civil Aerospace
- New Product Development
- System Troubleshooting
- Portable Testers
- Flight Line Diagnostics
- Flight Testing
- Software Development
- Data Loading
- Data Monitoring
- Bus Debugging & Diagnostics

**Complete Info:** www.ddc-web.com/DD-40100F

---

**Model:** BU-65596F/M, BU-65597F/M

**Features:**
- 4 Dual Redundant MIL-STD-1553 Channels
  - BC, RT, MT, or RT/MT Operation
  - Supports MIL-STD-1553A/B and MIL-STD-1760
  - Transformer and/or Direct Coupled
  - High MTBF - Rugged Environments
  - Up to 16 Avionics Discrete I/O
  - Front or Rear I/O
  - Shock & Vibration per VITA-47 Class V3
  - Conforms to ANSI VITA 20-20005 CCMPC Spec

**Applications:**
- Mission Computers
- Displays
- Digital Data Recorders
- Radar Systems/Situational Awareness
- Communication Radios
- Ground Maintenance
- Civil Aerospace

**Complete Info:** www.ddc-web.com/BU-65596FM

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**Did You Know?**

DDC has been recognized for our outstanding performance and customer service by the industry. The following is a listing of these awards.

- **Raytheon:**
  - 2007 Network Centric Systems 3 Star Supplier Excellence Award

- **Lockheed Martin:**
  - 2010 Platinum Level Preferred Supplier Award
  - 2006 STAR Supplier Award

- **General Atomics 2010 Supplier Excellence Award**

- **Honeywell Sensor and Guidance Supplier Excellence Award**

- **L-3 Communication Systems West Platinum Level Supplier Award: 2011**
Data Bus

**AFDX® / ARINC 664 PMC**

**Model:** DD-82101F

**Features:**
- On-board AFDX® Protocol Stack Implementation
- Airbus and Boeing AFDX Compliant Protocol Stack
- Two Full Duplex AFDX Networks that can be Operated in Either Independant or Dual-Redundant Mode
- 10/100Mbs Ethernet
- 8 Bi-directional Discrete I/O Lines
- Comprehensive Error Injection/ Detection, Filtering, and Triggering
- Front Panel I/O Connectors

**Applications:**
- System Integration Labs
- Simulators
- Production Test Stands
- System Troubleshooting
- Software Development
- ARINC 615A Data Loading
- Data Recording

**Complete Info:** www.ddc-web.com/DD-82101F

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**XMC**

**Model:** BU-67112Y/BU-67112Z

**Features:**
- Low 1553 Transceiver Power
- High MTBF for Rugged Environments
- Front or Rear I/O
- 8 Dual-Redundant MIL-STD-1553 Channels
  - BC/MT or Multi-RT/MT per Ch
  - Supports MIL-STD-1553A/B, MIL-STD-1760, and MacAir
- 16 Avionics Digital I/O
- IRIG-106 Chapter 10 Monitor
- 48-bit/100nS Time Stamp
- IRIG-B & Time Tag Clock Input

**Applications:**
- Mission Computers
- Displays and LRUs
- Digital Data Recorders
- Radar Systems/Situational Awareness
- Civil Aerospace
- Flyable Avionics/UAVs
- Data Loading
- Data Monitoring
- Ground Vehicles

**Complete Info:** www.ddc-web.com/BU-67112

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**PC/104-PLUS, PCI-104**

**Model:** BU-67104/5C, BU-67108/9C

**Features:**
- Channels:
  - 4 Dual Redundant MIL-STD-1553
  - 16 Receive & 8 Transmit ARINC 429*
- Up to 9 Digital Discrete I/O
- Up to 8 Avionics Discrete I/O
- IRIG-B Time Code Input/Output
- 48-bit/100ns Time Stamp
- +5V only operation
- 104/5C Series = MIL-STD-1553 only
- *108/9C Series = Multi-I/O

**Applications:**
- Digital Flight Data Recorders
- Telemetry/Instrumentation Recorders
- Mission Computers
- Small Avionics Displays
- Line Replaceable Units (LRUs)
- Radar Systems/Situational Awareness
- Munitions
- Ground Vehicles
- Avionics Labs

**Complete Info:** www.ddc-web.com/BU-67104C
  www.ddc-web.com/BU-67108C

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**MIL-STD-1553**

**MIL-STD-1760**

**ARINC 429**

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**Total-ACE**

**TREMEX**

**Did You Know?**

To help our customers save time and money when developing systems, DDC created a common API for our Test and Embedded cards.

This common API allows engineers to use the same program they have written for the hardware in their test application, with the hardware in their embedded application.

Additionally, DDC’s BusTrACER™ Graphical Monitor/Generator Software offers an Automated Source Code Generation feature, allowing you to output ANSI ‘C’ source code of your setup file in minutes. It will detect which board is connected and generate a C file for the appropriate SDK.
**Small Form Factor**

### Mini-PCIe

**Model:** BU-67114Hx  
**Features:**  
- Miniature Size PCI-Express Type F2 1553 Board  
- 30mm x 50.95mm x 4.7mm (1.18in. x 2.01in. x 0.185in.)  
- Very High Reliability (MTBF)  
- Ultra Low Power  
- Comprehensive Built-In Self Tests  
- 2 Dual Redundant MIL-STD-1553 Channels  

**Applications:**  
- Rugged Small Embedded Systems  
- Laptops or Tablets  
- Bus Troubleshooting  
- Diagnostic Systems  
- Hand Held Test Equipment  
- Small Displays

**Complete Info:** [www.ddc-web.com/BU-67114Hx](http://www.ddc-web.com/BU-67114Hx)

### USB

**Model:** BU-67113Ux  
**Features:**  
- Miniature Size USB to 1553 Board  
- 49.94mm x 63.50mm x 10.46mm (1.966in. x 2.50in. x 0.41in.)  
- Very High Reliability (MTBF)  
- Ultra Low Power  
- Comprehensive Built-In Self Tests  
- 2 Dual Redundant MIL-STD-1553 Channels

**Applications:**  
- Rugged Small Embedded Systems  
- Laptops or Tablets  
- Bus Troubleshooting  
- Diagnostic Systems  
- Hand Held Test Equipment  
- Small Displays

**Complete Info:** [www.ddc-web.com/BU-67113Ux](http://www.ddc-web.com/BU-67113Ux)

### PCI-Express AceXtreme®

**Model:** BU-67302B0C0L

**Features:**  
- Protocol, RAM, and Transceivers in a Single Package  
- 234 Ball JEDEC Standard Size Fine Pitch Ball Grid Array  
- 0.8 mm Ball Pitch  
- Ultra Low Transceiver Power  
- High Performance PCI-Express X1 Serial Host Interface  
- DMA Engine with 264 MB/sec Burst Transfer Rate  
- 1 Dual Redundant 1553 Channel  
- BC or Multi-RT with Bus Monitor  
- 2Mb (64K x 36) RAM  
- Temp Range: -40°C to +85°C

**Applications:**  
- Mission Computers  
- Digital Data Recorders  
- Radios/Modems  
- Displays and LRUs  
- Ground Vehicles  
- Radar Systems/Situational Awareness  
- Small Form Factor Boards  
- Civil Aerospace

**Complete Info:** [www.ddc-web.com/BU-67302B](http://www.ddc-web.com/BU-67302B)

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**Did You Know?**

DDC MIL-STD-1553 components have been in service since the early 1980’s. From 2000 to 2007, DDC had over 200 million hours of in-service history on the EMACE ASIC.

DDC’s data bus solutions have been designed into the following projects:

- Airbus A350-XWB
- The F-16 Falcon
- The B-1 Bomber
- The F-35 (JSF)
- The AH-64 Apache attack helicopter
- M1A2 Abrams
- The Space Shuttle
- The EuroFighter
- The International Space Station
- The New Horizons Space Craft
- Boeing 767 Tanker Aircraft
- F-15
- F-22
- Rafale
- Tornado
**Total-AceXtreme®**

Model: BU-67301B

**Features:**
- Fully Integrated 1553 Terminal & Transformer in a BGA Package
- 324 Ball BGA Package (0.63in. x 0.63in.)
- Protocol, 2Mb RAM, Transceivers & Transformers
- Ultra Low Transceiver Power
- Built-In Self Test & JTAG Support
- 1 Dual Redundant 1553 Channel
- BC or Multi-RT with Bus Monitor
- Temp Range: -40°C to +100°C
- Access Time as low as 12.5ns
- User Selectable & Flexible PCI or Generic Processor Interface

**Applications:**
- Mission Computers
- Data Recorders
- LRUs
- Displays
- Ground Vehicles
- Civil Aerospace

**Complete Info:**
www.ddc-web.com/BU-67301B

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**Total-ACE®**

Model: BU-668X3T/U/H/I8

**Features:**
- Fully Integrated 1553 Terminal & Transformer in a BGA Package
- Small 312 Ball BGA Package 27.9mm x 15.2mm (1.1in x 0.6in)
- 0.185in Max Height
- 1 Dual Redundant 1553 Channel
- BC, RT, MT or RT/MT Functionality
- Temp Range: -40°C to +100°C
- 4K x 16 RAM up to 64K x 16 RAM
- +3.3V Only Operation
- Generic Processor or PCI Interface

**Applications:**
- Mission Computers
- Data Recorders
- LRUs
- Displays
- Ground Vehicles
- Civil Aerospace

**Complete Info:**
www.ddc-web.com/BU-64843T

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**Micro-ACE® Series**

Model: BU-61XX0B3, BU-64X4X8X-E02, BU-65XX3BX-E02

**Features:**
- 128-Ball Plastic BGA Package (BU-61XX0B3)
- 324-Ball Thermally Enhanced (TE) Package (BU-64X4X/B-U65XX3)
- Supports 1553A/B Notice 2, McAlt STANAG 3838 Protocols
- Compatible with Mini-ACE and ACE Generations
- Temp Range: -40°C to -85°C (-40°C to +100°C Micro-ACE-TE)
- Generic Processor or PCI Interface

**Applications:**
- Mission Computers
- Data Recorders
- LRUs
- Displays
- Ground Vehicles
- Civil Aerospace

**Complete Info:**
www.ddc-web.com/BU-61XX0B3

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**Mini-ACE® Mark3 Series**

Model: BU-64XX3, BU-65XX3

**Features:**
- World’s only 3.3V Only or 5V Only Terminal (No other power supplies required)
- Smallest CGFP 22.35mm x 22.35mm x 3.3mm (0.88in. x 0.88in. x 0.130in.)
- Supports 1553A/B Notice 2, McAlt STANAG 3838 Protocols
- Highly Flexible Host Side Interface
- General Processor or PCI Interface
- Temp Range: -55°C to +125°C
- For Simple System RT (BU-64703) visit: www.ddc-web.com/BU-64703

**Applications:**
- Mission Computers
- Data Recorders
- LRUs
- Displays
- Ground Vehicles
- Civil Aerospace

**Complete Info:**
www.ddc-web.com/BU-64XX3
Enhanced Mini-ACE® Series

Model: BU-61XXX, BU-62XXX

Features:
- Fully Integrated 1553A/B Notice 2, McAir, STANAG 3838 Protocols
- 1 inch square Ceramic Flat Pack or Gull Wing
- Enhanced Mini-ACE Architecture
- 5V or 3.3V Logic
- Temp Range: -55°C to +150°C
- Generic Processor or PCI Interface
- For Simple System RT (BU-64170X)
  visit: www.ddc-web.com/BU-6170X

Applications:
- Mission Computers
- Data Recorders
- LRUs
- Displays
- Ground Vehicles
- Civil Aerospace

Model: BU-67402F0GHL

Features:
- 5 Volt Only
- Dual-Redundant, Side-by-Side, MIL-STD-1553 Transceiver/Transformer Combo
  - Ceramic Flatpack Package
  - 25.4mm x 25.4mm x 6.35mm
  (1in. x 1in. x 0.25in.)
- Temp Range: -55°C to +125°C
- Radiation Specifications:
  - Total Dose: 100krads
  - Latchup Immunity Minimum LET Threshold:
    85.4 MeV-cm²/mg
- MIL-PRF-38534

Applications:
- Launch Vehicles
- Military Satellites
- Research Satellites
- International Space Station
- Civil Telecommunication Satellites

Complete Info: www.ddc-web.com/BU-61XXX

SP'ACE RT II

Model: BU-63705

Features:
- +5V Only, +5/-15V, or +5/-12V Power
- Complete Integrated Remote Terminal Including: Dual Low-Power Transceivers/Complete RT Protocol
- Direct Interface to Systems With No Processor
- Radiation-Tolerant to 300K Rads
- Space-Qualified
- High Reliability Screening Available
- Temp Range: -55°C to +125°C

Applications:
- Launch Vehicles
- Satellites
- International Space Station

Complete Info: www.ddc-web.com/BU-63705

SP'ACE II BC/RT/MT

Model: BU-63825

Features:
- +5V Only, +5/-15V, or +5/-12V Power
- Radiation-Tolerant to 1 MRad Available
- Flexible Processor/Memory Interface
- 16K x 16 Internal RAM
- Automatic BC Retries
- Programmable BC Gap Times
- BC Frame Auto-Repeat
- Flexible RT Data Buffering
- Temp Range: -55°C to +125°C

Applications:
- Launch Vehicles
- Satellites
- International Space Station

Complete Info: www.ddc-web.com/BU-63825
**Single/Dual 5V Transceivers**

**Model:** BU-63155, BU-63152

**Features:**
- Single 5V Transceiver (BU-63155)
  - World's Smallest +5V 1553 Transceiver
  - Temp Range: -55°C to +125°C
  - 7mm x 7mm x 1mm (0.28in. x 0.28in. x 0.040in.)
  - Requires +5V Power Supply
  - 32-Pad LPCC Package
  - Low Power Consumption

- Dual 5V Transceiver (BU-63152)
  - Requires +5V Power Supply
  - Temp Range: -55°C to +85°C
  - Harris I/O Compatibility
  - Conforms Fully to MIL-STD-1553A/B, and 1760
  - Low Power Consumption

**Applications:**
- Military
- Industrial
- Civil Aerospace

**Complete Info:** [www.ddc-web.com/BU-63155](http://www.ddc-web.com/BU-63155)  

**Dual 3.3V Transceiver**

**Features:**
- Dual 3.3V Transceiver (BU-67401L)
  - World's Lowest Power MIL-STD-1553 Transceiver
  - Temp Range: -55°C to +125°C
  - 7mm x 7mm (0.28in. x 0.28in.)
  - Requires +3.3V Power Supply
  - Small 48-Pad LPCC Package
  - MIL-STD-1553A/B, MIL-STD-1760, and MacAir Compatible Transceiver

**Applications:**
- Mission Computers
- Digital Data Recorders
- LRUs
- Radios/Modems
- Displays
- Ground Vehicles
- Civil Aerospace
- Radar Systems/Situational Awareness

**Complete Info:** [www.ddc-web.com/BU-67401L](http://www.ddc-web.com/BU-67401L)

**ARINC 429 Controllers**

**Model:** DD-00429

**Features:**
- Small 3.3V or 5.0V MIL-STD-1553
- 128 x 32 Shared RAM Interface
- Temp Range: -55°C to +85°C
- Label and Destination Decoding and Sorting
- Two 32 x 32 Transmit FIFOs
- Four 32 x 32 Receive FIFOs
- Built-In Fault Detection
- Free “C” Library Software

**Applications:**
- Military
- Civil Aerospace
- Industrial

**Complete Info:** [www.ddc-web.com/DD-00429](http://www.ddc-web.com/DD-00429)

**Model:** DD-42900

**Features:**
- 128 x 32 Shared RAM Interface
- Label and Destination Decoding and Sorting
- Two 32 x 32 Transmit FIFO’s
- Four 32 x 32 Receive FIFO’s
- Built-In Fault Detection
- Temp Range: -40°C to +85°C
- Free “C” Library Software
- Interfaces Easily to 8- or 16-bit Microprocessors

**Applications:**
- Military
- Civil Aerospace
- Industrial

**Complete Info:** [www.ddc-web.com/DD-42900](http://www.ddc-web.com/DD-42900)
**System Level Software**

### dataSIMS
Avionics Data Bus Test and Analysis Software

**Model:** BU-694X4DS

**Features:**
- Accelerates development and deployment
- Eliminates cost of learning and maintaining separate software programs
- Easy-to-use and customize
- Supports all data protocols and I/O formats

**Applications:**
- New Product Development
- Systems Integration
- Bus or Network Analysis
- Production Testing
- Troubleshooting
- Data Recording
- Depot/Flight Line Testing
- Automatic Test

**Complete Info:** [www.ddc-web.com/dataims](http://www.ddc-web.com/dataims)

### LabVIEW® Support Package
LabVIEW® & LabVIEW® Real-Time/LabWindows®

**Model:** BU-69093

**Features:**
- Simple interface for quick startup and easy programming
- Access real-time 1553/429 data using LabVIEW
- Easily integrate data from different types of instruments and sensors
- Create custom user interface from scratch or by modifying samples provided

**Applications:**
- Box Level Testing
- Simulation
- Portable Test Equipment
- Flight Line Test and Diagnostic
- Software Development
- System Integration
- Debugging

**Complete Info:** [www.ddc-web.com/labview](http://www.ddc-web.com/labview)

### Protocol Analyzers

### BusTrACER®
Data Bus Analyzer and Monitor Software

**Model:** BU-69066

**Features:**
- Generate or monitor live MIL-STD-1553 data without writing any code
- Saves time and reduces development costs
- Program in minutes with one-click ANSI ‘C’ application source code generation
- Rapid creation and setup of custom applications

**Complete Info:** [www.ddc-web.com/bustracer](http://www.ddc-web.com/bustracer)

### Commercial Avionics Utilities

### Data Bus Analyzer and Data Loader Software

**Model:** DD-42999SX

**Features:**
- Graphical ARINC 429 data bus analysis and simulation
- Advanced filtering, message scheduling, and triggering
- Graphical ARINC 615 data loader
- Software interface to load data to and from airborne computers

**Applications:**
- Monitoring
- Analysis
- Simulation
- Airborne Computers
- Flight Data Acquisition Units

**Complete Info:** [www.ddc-web.com/arincsw](http://www.ddc-web.com/arincsw)
Fibre Channel

High Speed and High Reliability Data Networking

DDC developed its line of Fibre Channel network access controllers and switches to support the real-time processing demands of field-critical data networking between sensors, computer nodes, data storage, displays, and weapons for air, sea, and ground military vehicles. Fibre Channel's architecture is optimized to meet the performance, reliability, and demanding environmental requirements of embedded, real-time, military applications, and designed to endure the multi-decade life cycle demands of military/aerospace programs.

DDC’s Fibre Channel product line includes the FibreACCESS® Network Access Controller (NAC) card and the FibreMATRIX® Switch, both specifically designed to support high-speed and high-reliability data networking applications. These products were developed using in-house intellectual property independent of the life cycles of civil devices. Ruggedness options for DDC’s Fibre Channel cards include a choice of air and conduction cooling, enabling operation over extended temperature ranges without the need for upscreening. The Fibre Channel cards come with software drivers for multiple operating systems, including VxWorks®, Windows®, and Linux®.

DDC supplies Fibre Channel PMC cards supporting MIL-STD-1760E Class I, aka “High-Speed 1760”. The High-Speed 1760 cards also support the SAE 5725 Miniature Munitions Store Interface and SAE 5726 Interface for Micro Munitions (IMM) standards. These PMC cards are supplied for use in stores management systems, launchers, bomb racks, weapons, and test equipment. The cards enable the transmission and receipt of MIL-STD-1553 command and control messages, along with higher speed data transfers, including for program files, terrain maps, target templates, and digitized images and video.

Platforms and Programs

Fibre Channel is deployed on a number of military/aerospace platforms and programs including the F/A-18E/F, F-16, F-35, B-1B, B-2, E-2D, the AH-64D and MMH helicopters, and AESA Radar. Applications for Fibre Channel include mission computers, processor and DSP clusters; data storage; video processing, distribution, and displays; sensors such as radar, FLIR, and video; serial backplanes and IFF.

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<td>Fiber Optic</td>
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</tbody>
</table>

**Fibre ACCESS® Network Controller**

**Model:** FC-75300

**Features:**
- Dual-Channel Operation
- Conduction or Air Cooled PMC for Extended Temperature Operations
- 1 or 2Gb/s Operation
- Class 2 and 3 Service Including Broadcast and Multicast
- Memory-to-Memory Latency under 20μS
- ASM, TCP/IP, SCSI Initiator and Raw Mode Protocols

**Applications:**
- Mission Computers
- Radar
- IFF
- Displays and Digital Maps
- FLIR/Night Vision
- File Servers
- Signal Processing Computers
- Test

**Complete Info:** www.ddc-web.com/FC-75300

---

**Fibre MATRIX® Switch**

**Model:** FC-76000

**Features:**
- 16-Optical Port
- Conduction or Air Cooled VME64x Form Factor
- 1 or 2Gb/s Data Rate per Switch
- Ethernet and RS-232 Configuration Ports
- Class 2 and 3 Service Including 127 Priority Levels, Broadcast, Multicast, and Hunt Groups
- Supports Implicit or Explicit Fabric Login
- Maximum 2μS Port-to-Port Delay
- ELS Clock Sync Client and Server

**Complete Info:** www.ddc-web.com/FC-76000

---

**High Speed 1760**

**Model:** FC-75400

**Features:**
- High-Speed 1760 PMC Card
- Two Independent Channels
  - Each can be FC-AE-1553 NC or NT
- NC: NC-to-NT/NT-to-NC Transfers, Mode Codes, & Broadcast
- NT: Multiple Subaddress Buffering Options, NC-to-NT/NT-to-NC Transfers, Mode Codes, & Broadcast
- Supports Large Transfers for Files and Images
- 3.3V, 64-bit, 66MHz PCI Initiator/Target

**Applications:**
- Weapons Interfaces
- Stores Management Systems
- Launcher and Rack Interfaces
- Weapons Programmers
- Test Equipment
- Simulation

**Complete Info:** www.ddc-web.com/FC-75400

---

**Did You Know?**

DDC’s Fibre Channel Products support the following Upper Layer Protocols:

- TCP/IP
- UDP/IP
- ASM
- FC-AE-1553
- Raw Mode
- SCSI (Initiator)
Since introducing the first synchro converter module in 1968, DDC has taken a leadership role in the design and manufacture of modern data conversion products. Written by our expert staff, the Synchro/Resolver Conversion Handbook was the first integrated reference source on synchro/resolver data converters, and has served as a teaching aid for many engineers and operators over the years.

DDC offers a complete line of Synchro/Resolver instrument-grade cards and test equipment including angle position indication and simulation, plus a variety of hardware and software to meet today’s civil, military, and COTS/MOTS requirements. DDC is a leading supplier of Synchro/Resolver-to-Digital and Digital-to-Synchro/Resolver components—the smallest, most accurate synchro/resolver-to-digital and digital-to-synchro/resolver converters available today. Most of these single chip and hybrid converters are based on ASIC designs, yielding the most reliable and affordable converters ever offered, and are the building blocks for DDC’s card-level products.

Military, industrial, and civil applications include radar, gimbals, navigation systems, fire control, flight instrumentation/simulators, motor/motion feedback controls and drives, and robotics systems. MIL-PRF-38534 processing is available on many products.

--- Form Factors, Software, & Drivers

DDC supplies all PCI, PCIe, and USB cards with Graphical User Interfaces (GUIs). DDC provides support for high-level function calls to support embedded test program development. Also available are Window drivers and libraries, Linux, LabVIEW, and dataSIMS packages. Synchro/Resolver board level products are available in a variety of form factors, including multi-channel and instrument grade USB, PCI, PCI-Express, cPCI, PMC, PC/104, and VME boards.

--- History of Innovation

Increased Functionality In a Smaller Package

1 Channel Resolver to Digital Converter

1 Channel Resolver to Digital Converter

1 Channel Resolver to Digital Converter

Multi Modules Connected Together

3 in. sq Module with Multi Boards

Small 10mm x 10mm ASIC

Synchro / Resolver Converters Evolution
### Cards

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Basic Function</th>
<th>No. of Channels</th>
<th>Operating System</th>
<th>Software</th>
<th>Complete Information Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>SB-3661UX-3L0</td>
<td>Portable USB Synchro/Resolver Interface Input Device</td>
<td>2</td>
<td>1 min</td>
<td><a href="http://www.ddc-web.com/SB-3661UX-3L0">www.ddc-web.com/SB-3661UX-3L0</a></td>
<td>20</td>
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<tr>
<td>SB-3600XTX</td>
<td>Combo Card (API/SIM)</td>
<td>3-6</td>
<td>2 min</td>
<td><a href="http://www.ddc-web.com/SB-3600XTX">www.ddc-web.com/SB-3600XTX</a></td>
<td>20</td>
</tr>
<tr>
<td>SB-36410X</td>
<td>Resolver/Synchro-to-Digital Conversion (API)</td>
<td>8</td>
<td>1 min</td>
<td><a href="http://www.ddc-web.com/SB-36410X">www.ddc-web.com/SB-36410X</a></td>
<td>20</td>
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<tr>
<td>SB-36110VX</td>
<td>12-Channel Synchro/Resolver-to-Digital</td>
<td>12</td>
<td>1 min</td>
<td><a href="http://www.ddc-web.com/SB-36110VX">www.ddc-web.com/SB-36110VX</a></td>
<td>20</td>
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<tr>
<td>SB-3623X</td>
<td>Digital-to-Resolver/Synchro Conversion (SIM)</td>
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<td>30 sec</td>
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<tr>
<td>SB-3624X</td>
<td>Resolver/Synchro-to-Digital Conversion (API)</td>
<td>6</td>
<td>1 min</td>
<td><a href="http://www.ddc-web.com/SB-3624X">www.ddc-web.com/SB-3624X</a></td>
<td>21</td>
</tr>
<tr>
<td>SB-36320C*</td>
<td>Digital-to-Resolver/Synchro Conversion (SIM)</td>
<td>2</td>
<td>1 min</td>
<td><a href="http://www.ddc-web.com/SB-36320C">www.ddc-web.com/SB-36320C</a>*</td>
<td>22</td>
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<tr>
<td>SB-36330C*</td>
<td>Resolver/Synchro-to-Digital Conversion (API)</td>
<td>4</td>
<td>1 min</td>
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<tr>
<td>SB-36340C</td>
<td>Transformer</td>
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<td>1 min</td>
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<tr>
<td>SB-36350C*</td>
<td>Oscillator</td>
<td>8</td>
<td>1 min</td>
<td><a href="http://www.ddc-web.com/SB-36350C">www.ddc-web.com/SB-36350C</a>*</td>
<td>22</td>
</tr>
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</table>

### Development Kits

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Basic Function</th>
<th>No. of Channels</th>
<th>Operating System</th>
<th>Software</th>
<th>Complete Information Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>RD-19230EX-300</td>
<td>Resolver/Synchro-to-Digital Conversion</td>
<td>1</td>
<td>2 min</td>
<td><a href="http://www.ddc-web.com/RD-19230EX-300">www.ddc-web.com/RD-19230EX-300</a></td>
<td>21</td>
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<tr>
<td>RD-19240EX-300</td>
<td>Development Kits (API)</td>
<td>1</td>
<td>8 min</td>
<td><a href="http://www.ddc-web.com/RD-19240EX-300">www.ddc-web.com/RD-19240EX-300</a></td>
<td>21</td>
</tr>
</tbody>
</table>

* Sample Application for Windows XP Available.

### Components — Resolver, Synchro, LVDT, RVDT, Inductosyn, MR, and Hall Converters

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Package</th>
<th>Accuracy (Arc-Min)</th>
<th>Resolution</th>
<th>Special Features</th>
<th>Complete Information Page</th>
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</thead>
<tbody>
<tr>
<td>RD-19230</td>
<td>64</td>
<td>1</td>
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<td><a href="http://www.ddc-web.com/RD-19230">www.ddc-web.com/RD-19230</a></td>
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<td>RD-19240</td>
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<tr>
<td>RDC-19220/2/4</td>
<td>44, 40</td>
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<td>2</td>
<td><a href="http://www.ddc-web.com/RDC-19220/2/4">www.ddc-web.com/RDC-19220/2/4</a></td>
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<td>RDC-19220/2S</td>
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<td>SD-14531</td>
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<td>SD-14550</td>
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<td>SD-14595/6/7</td>
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</tbody>
</table>

### Notes:
1. Package Type designation refers to the number of pins and style package: P - plug-in, F - flat pack, DIP - double-dip, TIP - triple-dip, QFP - quad flat pack, QFP - thin quad flat pack, J - J lead, PGA - pin grid array, MQFP - metric quad flat pack, SM - surface mount.
2. Monolithic Resolver-to-Digital converters can be configured for synchro mode with external components.
3. Optional packaging available for many products. Contact factory.
5. API = Angle Position Indication (Input), SIM = Simulation (Output)
### Components — Digital-to-Synchro and Resolver Converters

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Package</th>
<th>Output Voltage</th>
<th>DC to</th>
<th>1 KHz</th>
<th>10 KHz</th>
<th>60/400 Hz</th>
<th>Low Profile</th>
<th>2 Channel</th>
<th>Complete Information</th>
<th>Page</th>
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</thead>
<tbody>
<tr>
<td>Digital-to-Resolver</td>
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<td>DR-11525</td>
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<td>Digital-to-Synchr/Resolver</td>
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</tbody>
</table>

### Components — Synchro and Resolver Special Function

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Package</th>
<th>Special Features</th>
<th>Complete Information</th>
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<tbody>
<tr>
<td>DDC-49530</td>
<td></td>
<td>High Precision Tolerance (0.02%)</td>
<td><a href="http://www.ddc-web.com/DDC-49530">www.ddc-web.com/DDC-49530</a></td>
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<td>DDC-49590</td>
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<tr>
<td>2 Speed Combiner</td>
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<td>Ceramic, 1:36 or Binary Ratios in Single Chip Monolithic</td>
<td><a href="http://www.ddc-web.com/SD-15900">www.ddc-web.com/SD-15900</a></td>
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<tr>
<td>Oscillator</td>
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<td>Programmable Frequency, 47Hz to 20kHz</td>
<td><a href="http://www.ddc-web.com/Osc-15801">www.ddc-web.com/Osc-15801</a></td>
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<tr>
<td>Oscillator</td>
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<td>Programmable Frequency with AGC Amplitude Control, 47Hz to 10kHz</td>
<td><a href="http://www.ddc-web.com/Osc-15802">www.ddc-web.com/Osc-15802</a></td>
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<tr>
<td>Synchro Booster Amplifier</td>
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<td>90V Synchro or 2V, 5V, 6.8V, 90V Resolver input to 90V Synchro 25VA, 60/400Hz output, full size</td>
<td><a href="http://www.ddc-web.com/SBA-3500x">www.ddc-web.com/SBA-3500x</a></td>
<td>25</td>
</tr>
</tbody>
</table>

## USD

### Synchro/Resolver-to-Digital

**Model:** SB-3661XUX-3L0  
**Features:**  
- 2 Input Channels  
- BIT Output for Each Channel  
- Self Test Mode  
- ±1 Arc Minute Accuracy  
- 2VA On-Board Programmable Reference Sine Oscillator  
- Driver and API Libraries for Windows® XP/Vista/7 and Linux®  
- LabVIEW® Support

**Applications:**  
- Motor Control Lab Testing  
- Machine Tool Control Lab Testing  
- Antenna Control Lab Testing  
- Robotics Lab Testing  
- Process Control Systems Lab Testing  
- Lab Testing  
- Production Testing

**Complete Info:** [www.ddc-web.com/SB-3661XUX](http://www.ddc-web.com/SB-3661XUX)

### cPCI

### Combination S/R-to-D & D-to-S/R

**Model:** SB-36XXXTX  
**Features:**  
- Three Independent Angle Position Indication Channels  
- Six Independent Simulation Channels  
- Unpopulated Simulation Channels may be used as Additional Isolated API Channels  
- Built-in Test Diagnostics  
- Supports +3.3V or +5V PCI Bus  
- Driver and API Libraries for Windows® XP and Linux  
- Temp Range: 0°C to +55°C

**Applications:**  
- Motor Control  
- Machine Tool Control  
- Naval Ship Navigation  
- Antenna Control  
- Process Control Systems

**Complete Info:** [www.ddc-web.com/SB-36XXXTX](http://www.ddc-web.com/SB-36XXXTX)

## PMC

### Synchro/Resolver-to-Digital

**Model:** SB-36410iX  
**Features:**  
- 8 Input Channels  
- Each Channel Accepts Independent References  
- Programmable Inputs, Resolution, and Bandwidth  
- ±1 Arc Minute Accuracy  
- Synthesized Reference  
- Encoder Emulation Capability  
- Temp Range: -40°C to +85°C

**Applications:**  
- Motor Control  
- Machine Tool Control  
- Antenna Control  
- Robotics  
- Process Control Systems  
- Naval Ship Navigation

**Complete Info:** [www.ddc-web.com/SB-36410iX](http://www.ddc-web.com/SB-36410iX)

### VME

### Synchro/Resolver-to-Digital

**Model:** SB-36110VX  
**Features:**  
- Up to 12 Independent Converter Channels  
- Each Channel Accepts Synchro or Resolver Inputs  
- Software Programmable Resolution and Bandwidth  
- ±1 Arc Minute Accuracy  
- Synthesized Reference  
- 16-, 24-, and 32-Bit Addressing Modes  
- Temp Range: -40°C to +85°C

**Applications:**  
- Gimbal Control  
- Antenna Position  
- Machine Tool Control  
- Process Control  
- Motor Control

**Complete Info:** [www.ddc-web.com/SB-36110VX](http://www.ddc-web.com/SB-36110VX)
**PCI-Express**

**Digital-to-Synchro/Resolver**

Model: SB-3623X

**Features:**
- 6 Synchro or Resolver Output Channels with independent reference input
- ±30 Arc Second Accuracy
- Programmable Dynamic Rotation
- Programmable Two-Speed
- On-Board Reference Sine Oscillator
- Temp Range: 0°C to +55°C
- Driver and API Libraries for Windows® XP/Vista/7 and Linux®
- LabVIEW® Support

**Applications:**
- High Performance Industrial and Military Position Feedback and Control Systems
- Motor Control
- Machine Tool Control
- Antenna Control
- Robotics and Process Control Systems

**Complete Info:** www.ddc-web.com/SB-3623X

**Development Kits**

Model: RD-19230EX-300, RD-19240EX-300

**Features:**
- Easy On-Card Programmable Features of the RD-19230 and RD-19240 Converter
- Pre-Installed RD-19230FX-303 or RD-19240LS-200 Converter on Card
- On-Card Visual LED Indicators for Output Angle and Fault Indicator

**Applications:**
- Prototyping New Designs

**Complete Info:** www.ddc-web.com/RD-19230EX
  www.ddc-web.com/RD-19240EX

**PCI**

**Synchro/Resolver-to-Digital**

Model: SB-3624X

**Features:**
- 6 Input Channels
- Software Programmable Resolution and Bandwidth
- ±1 Arc Minute Accuracy
- Onboard Programmable Reference Sine Oscillator
- Universal (+3.3 or +5V) PCI Signaling
- Internal Synthesized Reference
- Half-Size PCI Form Factor
- Transformer Isolation Available
- Temp Range: 0°C to +71°C

**Applications:**
- Motor Control
- Machine Tool Control
- Antenna Control
- Robotics
- Process Control Systems
- Lab Testing
- Production Testing

**Complete Info:** www.ddc-web.com/SB-3624X

**Did You Know?**

DDC’s Synchro/Resolver product line offers the following software packages:

- Synchro / Resolver Graphical Analyzer/Simulator
- dataSIMS Synchro / Resolver Angle Position Indication and Simulation Software
- Synchro / Resolver LabVIEW® Support Package
  - Drivers
  - User API Libraries for Windows® and Linux®

**Complete Info:**
- www.ddc-web.com
Digital-to-Synchro/Resolver

Model: SB-36320CX

Features:
- 2 Independent Output Converter Channels for Synchro, Resolver, or SIN/COS Outputs
- Low (2mA) or Medium (15mA) Power Outputs
- 16-Bit Resolution
- ±1 Arc Minute Accuracy
- Opto-Isolated Discrete I/O for External Control Functions
- Temp Range: -40°C to +85°C

Applications:
- ATE
- Displays
- Positioning Applications

Complete Info: www.ddc-web.com/SB-36320C

Synchro/Resolver-to-Digital

Model: SB-36330CX

Features:
- Up to 4 Independent Input Channels for Synchro/Resolver
- Velocity Output
- Software Programmable Resolution and Bandwidth
- Jumper Programmable Reference Voltage Inputs
- ±1 Arc Minute Accuracy
- Discrete I/O for External Control Functions
- Temp Range: -40°C to +85°C

Applications:
- Motor Control
- Machine Tool Control
- Antenna Control
- Robotics
- Process Control Systems
- Gimbal Control

Complete Info: www.ddc-web.com/SB-36330C

Output Isolation

Model: SB-36340CX

Features:
- Up to 2 Channels of Output Isolation
- Converts Low Voltage to 90 Vrms/400Hz Synchro Output
- Reference Input Isolation
- Conformal Coated
- Mates Directly with SB-36320CX PC/104 Synchro Output Card
- Temp Range: -40°C to +85°C

Applications:
- Naval Navigation Systems
  - Gyro
  - Antenna
  - Steering
- Naval Firing Control Systems
- Military Control Systems
- 90V Synchro Positioning/Simulations

Complete Info: www.ddc-web.com/SB-36340C

Reference Sine Oscillator

Model: SB-36350CX

Features:
- Software Programmable Voltage and Frequency
- Isolated Differential Output
- 5 VA Reference Sine Drive
- 400Hz to 8192Hz
- 2V to 123V
- Temp Range: -40°C to +85°C

Applications:
- ATE
- Displays
- Aircrafts
- Ground Vehicles
- Robotics

Complete Info: www.ddc-web.com/SB-36350C
Resolvers, Synchros, LVDT, RVDT, Inductosyn, MR & Hall Converters

**Model: RD-19230**
- **Features:**
  - ±1 Arc Minute Accuracy
  - Programmable Resolution (10, 12, 14, 16 Bits)
  - Up to 45 Degree Phase Shift Correction
  - +5V Only Option
  - Dual Bandwidth
  - Programmable Tracking Rate
  - A Quad B Encoder Emulation
  - 13.22 mm 64-pin Quad Flat Pack
  - RoHS Compliant Versions Available
  - Temp Range: -40°C to +85°C

- **Applications:**
  - Military Fire Control Systems
  - Naval Navigation and Weapons Systems
  - Industrial Control
  - Motor Control
  - Machine Tool Control
  - Robotics
  - Factory Automation
  - Hybrid Electric Vehicles
  - Aviation Flight Control Surfaces
  - Unmanned Vehicles

**Complete Info:** www.ddc-web.com/RD-19230

**Model: RD-19240**
- **Features:**
  - ±8 Arc Minute Accuracy
  - Programmable Resolution (10, 12, 14 Bits)
  - Up to 45 Degree Phase Shift Correction
  - +5V Only Option
  - Dual Bandwidth
  - Programmable Tracking Rate
  - A Quad B Encoder Emulation
  - 13.22 mm 52-pin Quad Flat Pack
  - RoHS Compliant Versions Available
  - Temp Range: -55°C to +125°C

- **Applications:**
  - Industrial Control
  - Motor Control
  - Machine Tool Control
  - Robotics
  - Factory Automation
  - Hybrid Electric Vehicles
  - Aviation Flight Control Surfaces

**Complete Info:** www.ddc-web.com/RD-19240

**Model: RDC-19220/2/4**
- **Features:**
  - ±2 Arc Minute Accuracy
  - +5V Only Option
  - Only 5 External Passive Components Needed
  - Programmable Resolution, Bandwidth, and Tracking
  - Differential Resolver and LVDT Input Modes
  - Small Size, Available in DDIP, J-Lead, or MQFP Packages
  - RoHS Compliant Available
  - Temp Range: -55°C to +125°C

- **Applications:**
  - Motor Control
  - Machine Tool Control
  - Robotics
  - Flight Surface Control
  - Radar Antenna Positioning
  - Process Control
  - Military Fire Control Systems
  - Navigation

**Complete Info:** www.ddc-web.com/RDC-19220

**Model: RDC-19220/2S**
- **Features:**
  - ±2 Arc Minute Accuracy
  - +5V Only Option
  - Programmable Resolution, Bandwidth, and Tracking
  - Up to 45° Phase Shift Correction
  - Small Size, Available in DDIP, J-Lead, or MQFP Packages
  - RoHS Compliant Available
  - Temp Range: -55°C to +125°C

- **Applications:**
  - Motor Control
  - Machine Tool Control
  - Robotics
  - Flight Surface Control
  - Radar Antenna Positioning
  - Process Control
  - Military Fire Control Systems
  - Navigation

**Complete Info:** www.ddc-web.com/RDC-19220S
## Synchro/Resolver-to-Digital Converters

### Model: SD-14550

**Features:**
- ±1 Arc Minute Accuracy
- Single +5V Power Supply
- 10, 12, 14, or 16 Bit Programmable Resolution
- Synthesized Reference Option
- Small 34-Pin Ceramic Package
- BIT Output
- Velocity Output Eliminates Tachometer
- High Reliability Single Chip Monolithic
- Temp Range: -55°C to +125°C

**Applications:**
- Radar Antenna Positioning
- Navigation Systems
- Fire Control Systems
- Motor Control

### Model: SD-14620

**Features:**
- 2 Channels in One Package
- Single +5V Power Supply
- 10, 12, 14, or 16 Bit Programmable Resolution
- Synthesized Reference Option
- Small 54-Pin Ceramic Package
- BIT Output
- Velocity Output Eliminates Tachometer
- High Reliability Single Chip Monolithic
- Temp Range: -55°C to +125°C

### Model: SDC-630/2/4A/ST

**Features:**
- Internal Transformer Isolation
- 10, 12, 14, or 16 Bit Resolution
- ±2.6 Arc Minute Accuracy
- Options for Velocity, BIT (Built-In Test)
- Temp Range: -55°C to +105°C

**Applications:**
- Radar Tracking Systems
- Navigation Systems
- Motor Control

### Model: SBA-3500x

**Features:**
- Powered from Reference
- 90V, 60 or 400Hz Synchro Outputs
- Amplifies 90V Synchro, 6.81V, 5V, and 2V Resolver Inputs
- 25 VA Output Drive
- Protected Against Short Circuits, Overloading, Load Transients, Temperature, and Reference Supply Shutdown
- "Power-Up" in Disable or Enable Mode
- Drop-in Replacement for SBA-25001/2/3/4 Series
- EMI Filtering

**Applications:**
- Training Simulators
- Remote Indicators
- Gunfire Control
- Navy Retransmission Systems
Digital-to-Synchro Converters

Model: DSC-10510
Features:
- ±2 Arc Minute Accuracy
- 7VA Drive Capability for CT, CDX, or TR Loads
- Double Buffered Transparent Input Latch
- 16 Bit Resolution
- Power Amplifier Uses Pulsating or DC Supplies
- Built-In Test (BIT) Output
- Temp Range: -55°C to +125°C

Applications:
- Flight Simulators
- Flight Instrumentation
- Fire Control Systems
- Flight Data Computers

Complete Info: www.ddc-web.com/DSC-10510

Model: DSC-544
Features:
- ±1 Arc Minute Accuracy
- Operational Up to 10 kHz
- 2Vrms, 6.81Vrms, 11.8VL-L, or Scalable Resolver Outputs
- 2mA RMS Output
- 16 Bit Resolution
- 8 Bit/2 Byte Double Buffered Transparent Latches
- DC-Coupled Reference Accepts Any Waveform
- High-Rel CMOS D/R Chip
- No +5V Supply Required
- Temp Range: -55°C to +125°C

Applications:
- Simulators
- Flight Trainers
- Flight Instrumentation
- Fire Control Systems

Complete Info: www.ddc-web.com/DSC-544

Digital-to-Resolver Converters

Model: DR-11525
Features:
- ±1 Arc Minute Accuracy
- Operational Up to 10 kHz
- 2Vrms, 6.81Vrms, 11.8VL-L, or Scalable Resolver Outputs
- 2mA RMS Output
- 16 Bit Resolution
- 8 Bit/2 Byte Double Buffered Transparent Latches
- DC-Coupled Reference Accepts Any Waveform
- High-Rel CMOS D/R Chip
- No +5V Supply Required
- Temp Range: -55°C to +125°C

Applications:
- Synchro/Resolver Simulators
- Flight Trainers
- Flight Instrumentation
- Fire Control Systems
- IR
- Radar
- Navigation Systems
- Motor Control Test Systems
- Robotic Control Test Systems

Complete Info: www.ddc-web.com/DR-11525

2 Speed Combiner

Model: SD-15900
Features:
- Increases Resolution and Accuracy using 2-Speed Mode
- Up to 22 Bits Resolution
- Single +5V Power Supply
- Small Size
- Available Speed Ratios: 1 x 4, 1 x 8, 1 x 16, 1 x 32, 1 x 36, 1 x 64
- Custom Speed Ratios Available
- Temp Range: -55°C to +125°C

Applications:
- Radar Antenna Positioning
- Navigation Control Systems
- Fire Control Systems
- Motor Control

Complete Info: www.ddc-web.com/SD-15900
### Oscillator Components

**Model: OSC-15801**

**Features:**
- Programmable Output Frequency from 400Hz to 20kHz
- Quadrature Reference Output (90°) Voltages for Inductosyn Applications
- Scalable Reference Output
- Small 18-Pin DDIP
- Temp Range: -55°C to +125°C

**Applications:**
- Radar Antenna Positioning
- Navigation Systems
- Fire Control Systems
- Motor Control
- Robotics
- Inductosyn Applications

**Complete Info:** [www.ddc-web.com/OSC-15801](http://www.ddc-web.com/OSC-15801)

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**Model: OSC-15802**

**Features:**
- Programmable Output Frequency from 400Hz to 10kHz
- ADI Alternate Source
- Quadrature Reference Output (+90°) Voltages for Inductosyn Applications
- Scalable Reference Output
- Small 18-Pin DDIP
- Temp Range: -55°C to +125°C

**Applications:**
- Radar Antenna Positioning
- Navigation Systems
- Fire Control Systems
- Motor Control
- Robotics
- Inductosyn Applications

**Complete Info:** [www.ddc-web.com/OSC-15802](http://www.ddc-web.com/OSC-15802)

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**Model: OSC-15803**

**Features:**
- Programmable Output Frequency from 400Hz to 20kHz
- Quadrature Reference Output Voltages for Inductosyn Applications
- Small 18-Pin DDIP
- Scalable Reference Output
- Radiation Tolerant
- Temp Range: -55°C to +125°C

**Applications:**
- Space
- Nuclear
- Military
- Inductosyn Applications

**Complete Info:** [www.ddc-web.com/OSC-15803](http://www.ddc-web.com/OSC-15803)

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### Did You Know?

DDC’s Synchro Conversion Handbook was conceived in 1973 during a series of technical seminars. It was the first integrated reference source on synchro/resolver data converters.

The handbook serves as a practical tutorial and reference source, describing the theory of operation of data converter products, performance parameters, and design factors for typical applications.

Data Device Corporation is the world's largest supplier of Solid-State Power Controllers (SSPCs), and was the first to offer civil and fully-qualified MIL-PRF-38534 and Class K Space-level screening for these products. Highly reliable, these products are used in the Bradley Fighting Vehicles, M1A2 Abrams, and other high performance/severe environment applications.

SSPCs replace traditional electromechanical relays and thermal circuit breakers in power distribution systems, offering more accurate trip protection with solid-state reliability, while reducing overall vehicle-level weight.

DDC's SSPCs support real-time digital status reporting and computer control, and are equipped with instant trip, and true I²T wire protection. We offer custom SSPC modules that are rated up to 300A, and multi-channel boards that are rated up to 25A per channel. SSPCs offer reduced size and weight compared to electromechanical approaches, while also providing enhanced performance and functionality.

### Solid-State Power Controllers

<table>
<thead>
<tr>
<th>Product Number</th>
<th>Package</th>
<th>Voltage (VDC)</th>
<th>Current (A)</th>
<th>Features</th>
<th>Notes</th>
<th>Complete Information</th>
<th>Page</th>
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<td><strong>SSPC Cards</strong></td>
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<td><strong>SSPC Modules</strong></td>
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<td>Enclosed Module</td>
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<td>■ ■ ■ ■</td>
<td>6</td>
<td>Contact DDC for more info</td>
<td>30</td>
</tr>
</tbody>
</table>

Notes:
1. Available with current monitor, various lead configurations.
2. Available with Battle Override.
3. Limited stock, contact factory for availability.
4. Designed to meet tactical nuclear environments.
5. Channel Count is an Option.

Solid State Power Controllers

SSPC Cards

16 Channel

Model: RP-2621X00XNX

Features:
- Nominal 28V Operation,
  MIL-STD-1275C, MIL-STD-104,
  Def Stan 61-5 Compliant
- MIL-STD-1275D Option
- Ruggedized Conduction Cooled
- Total Continuous Current of 238A
- 16 Independent Load Channels
- 8A, 10A, and 25A Channels with
  10:1 Current Programmability
- Instant Trip and PI Protection/
  Thermal Memory
- Controlled Rise/Fall Times
- Channel Paralleling for High Loads

Applications:
- Military Land Vehicles
- Civil Trucks
- Industrial Controls
- Military and Civil Ships
- Weapon Systems
- Unmanned Vehicles

Complete Info: www.ddc-web.com/RP-26200

4 Channel, High Power

Model: RP-2630X00XNX

Features:
- Nominal 28V Operation,
  MIL-STD-1275C, MIL-STD-704,
  Def Stan 61-5 Compliant
- MIL-STD-1275D Option
- Ruggedized Conduction Cooled
- Total Continuous Current of 300A
- Compact Form Factor
  160 mm x 117 mm (6.3 in x 4.6 in)
- 4 Independent Load Channels
- 75-Amp Channels with 3:1
  Programmability
- Controlled Rise/Fall Times
- Channel Paralleling for High Loads

Applications:
- Military Land Vehicles
- Civil Trucks
- Industrial Controls
- Primary Power Switching
  - Generators
  - Batteries
- Military and Civil Ships
- Weapon Systems
- Unmanned Vehicles

Complete Info: www.ddc-web.com/RP-26300

8 Channel

Model: RP-2640X000NX

Features:
- Nominal 28V Operation,
  MIL-STD-1275C, MIL-STD-104,
  Def Stan 61-5 Compliant
- MIL-STD-1275D Option
- Ruggedized Conduction Cooled
- Total Continuous Current of 200A
- 8 Independent Load Channels
- 25A Channels with 10:1 Current
  Programmability
- Instant Trip and PI Protection/
  Thermal Memory
- Controlled Rise/Fall Times
- Channel Paralleling for High Loads

Applications:
- Military Land Vehicles
- Civil Trucks
- Industrial Controls
- Military and Civil Ships
- Weapon Systems
- Unmanned Vehicles


Line Replaceable Module (LRM)

Model: RP-26231000N1

Features:
- Nominal 28V Operation,
  MIL-STD-1275C, MIL-STD-104,
  Def Stan 61-5 Compliant
- Field Replaceable Form Factor
- Ruggedized Conduction Cooled
- Total Continuous Current of 50A
- 16 Independent Load Channels,
  20 Channel Option
- 8A, 10A, and 25A Channels with
  10:1 Current Programmability
- Instant Trip and PI Protection/
  Thermal Memory
- Controlled Rise/Fall Times
- Channel Paralleling for High Loads

Applications:
- Military Land Vehicles
- Civil Trucks
- Industrial Controls
- Military and Civil Ships
- Weapon Systems
- Unmanned Vehicles

Complete Info: www.ddc-web.com/RP-262310

Complete Info: www.ddc-web.com/RP-2621X
<table>
<thead>
<tr>
<th>SSCP Power Distribution Units (PDU)</th>
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<tbody>
<tr>
<td><strong>16 Channel</strong></td>
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<td><img src="image1" alt="16 Channel Image" /></td>
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<tr>
<td><strong>4 Channel, High Power</strong></td>
</tr>
<tr>
<td><img src="image2" alt="4 Channel, High Power Image" /></td>
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<tr>
<td><strong>32 Channel, Light-Weight PDU</strong></td>
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<tr>
<td><img src="image3" alt="32 Channel, Light-Weight PDU Image" /></td>
</tr>
</tbody>
</table>

**Model: RP-20161XXXC1, RP-20161XXXD1**

**Features:**
- MIL-STD-1275D, MIL-STD-461, and MIL-STD-810 Compliant
- Ruggedized, IP-67 Rated Enclosure with Military Connectors
- Total Continuous Current of 238A
- 16 Independent Load Channels
- 8A, 10A, and 25A Channels with 10:1 Current Programmability
- Programmable Channel Trip
- Diagnostics: Load Voltage, Current, & Temperature Monitoring
- Controlled Rise/Fall Times
- Channel Paralleling for High Loads

**Applications:**
- Military Land Vehicles
- Civil Trucks
- Industrial Controls
- Military and Civil Ships
- Weapon Systems
- Unmanned Vehicles


---

**Model: RP-20S1X**

**Features:**
- MIL-STD-461 and MIL-STD-810 Compliant
- Ruggedized, IP-67 Rated Enclosure with Military Connectors
- Total Continuous Current of 300A
- 4 Independent Load Channels
- 75A Channels with 3:1 Programmability
- Diagnostics: Load Voltage, Current, & Temperature Monitoring
- Controlled Rise/Fall Times
- Channel Paralleling for High Loads

**Applications:**
- Military Land Vehicles
- Civil Trucks
- Industrial Controls
- Primary Power Switching
  - Generators
  - Batteries
- Military and Civil Ships
- Weapon Systems
- Unmanned Vehicles

Complete Info: [www.ddc-web.com/RP-20S1X](www.ddc-web.com/RP-20S1X)

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**Model: RP-20321X**

**Features:**
- Optimized Weight for Flight - 3lbs
- Nominal 28V Operation, MIL-STD-1275C, MIL-STD-704 Compliant
- Total Continuous Current of 120A
- 32 Independent Load Channels
- 5A, 10A, and 20A Channels with 10:1 Current Programmability
- 1A, Low Side Channels
- Instant Trip and I²t Protection/Thermal Memory
- Controlled Rise/Fall Times
- Channel Paralleling for High Loads

**Applications:**
- Military Land Vehicles
- Civil Trucks
- Industrial Controls
- Military and Civil Ships
- Weapon Systems
- Unmanned Vehicles


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**Did You Know?**

DDC’s Solid-State Power Controllers have been deployed to control the power of more than 500,000 loads on military vehicles since 1988.
Solid State Power Controllers

SSPC Modules

6 Channel Enclosed Module

Model: Enclosed Module
Features:
- Nominal 28V Operation, MIL-STD-1275D, MIL-STD-704F Compliant
- Compact, Rugged Module
- 6 Independent Load Channels
- Channel Configuration: 3 x 75A, 3 x 30A
- Instant Trip and Trip Protection/Thermal Memory/Controlled Rise/Fall Times
- Low Power Dissipation
- Channel Paralleling for High Loads

Applications:
- Military Land Vehicles
- Weapon Systems
- Military and Civil Ships
- Industrial Controls
- Unmanned Systems

1 Channel

Model: RP-23031M1
Features:
- Nominal 28V Operation, MIL-STD-1275C, MIL-STD-104, Def Stan 61-5 Compliant
- Ruggedized Conduction Cooled
- Total Module Current of 35 Amps
- 10:1 Current Programmability
- Instant Trip and Trip Protection/Thermal Memory
- Controlled Rise/Fall Times

Applications:
- Military Land Vehicles
- Weapon Systems
- Military and Civil Ships
- Industrial Controls
- Unmanned Systems

Contact DDC for more information

Complete Info: www.ddc-web.com/RP-23031M

History of Innovation

More than 500,000 DDC SSPC nodes installed on Military Vehicles since 1988
DDC is a premier manufacturer of hybrid motor drives and controllers for brush, 3-phase brushless, and induction motors-operating from 28 VDC to 270 VDC and requiring up to 64 kilowatts of power. A wide range of applications include aircraft actuators for primary and secondary flight controls, jet or rocket engine thrust vector control, missile flight controls, pumps, fans, solar arrays, and momentum wheel control for space and satellite systems. Motor drives for space applications are rated up to 100k Rads for radiation hardness. We also offer custom motor controllers and motion control systems to satisfy specific requirements not addressed by standard products.
Motor Drives/Controllers

Torque Loop Controllers

Model: PW-82550NX, PW-82551N0

Features:
- Self-contained 3-Phase Motor Controller
- Operates as Current or Voltage Controller
- 1, 3, or 10A Output Current
- 1.5% Linearity
- 3% Current Regulating Accuracy
- User-Programmable Compensation
- 10kHz - 100kHz PWM Frequency
- Holding Torque through Zero Current
- Cycle-by-Cycle Current Limit

Applications:
- Robotics
- Electromechanical Valve Assemblies
- Actuator Systems
- Antenna and Solar Radar Positioning
- Fan and Blower Motors for Environmental Conditioning
- Reaction Wheels
- Compressor Motors for Cryogenic Coolers

Complete Info: www.ddc-web.com/PW-82550NX

Model: PW-82530N x

Features:
- Self-contained 3-Phase Motor Controller
- Operates as Current or Voltage Controller
- 10A Output Current
- 7% Linearity
- 3% Current Regulating Accuracy
- User-Programmable Compensation
- 1kHz - 50kHz PWM Frequency
- Complementary Four-Quadrant Operation
- Holding Torque through Zero Current

Applications:
- Electric Actuators
- Antenna Position and Control
- Reaction/Momentum Wheel Systems using Brushless or Brush Motors
- Flight Surface Control
  - Horizontal Stabilizers
  - Flaps
- Valve Control
- Pump Control
  - Fuel Pumps
  - Hydraulic Pumps
- Robotic Countermeasure Systems
- Industrial Robotics

Complete Info: www.ddc-web.com/PW-82530N

Power Amplifier Drivers

Model: PWR-82340, PWR-82342

Features:
- Small Size 57.1mm x 53.3mm x 9.91mm (2.25in x 2.1in x 0.39in)
- ±200V and ±500V Capability
- 30A Current Capability
- High-Efficiency MOSFET or IGBT Drive Stage
- Direct Drive from PWM
- Drives Brush or Brushless DC Motors
- Four Quadrant Operation
- 0.85°C/W Tj Max
- Military Processing Available

Applications:
- Robotics
- Electromechanical Valve Assemblies
- Actuator Systems
- Antenna and Solar Radar Positioning
- Fan and Blower Motors for Environmental Conditioning
- Reaction Wheels
- Compressor Motors for Cryogenic Coolers

Complete Info: www.ddc-web.com/PWR-8234X

Space Grade Hybrids

Model: PW-82540R0

Features:
- Self-contained 3-Phase Motor Controller
- Operates as Current or Voltage Controller
- 1, 3, or 10A Output Current
- 1.5% Linearity
- 3% Current Regulating Accuracy
- User-Programmable Compensation
- 1kHz - 100kHz PWM Frequency
- Designed to Meet the Following Radiation Levels
  - 100kRad Total Dose
  - 36MeV SEU

Applications:
- Robotics
- Electromechanical Valve Assemblies
- Actuator Systems
- Antenna and Solar Radar Positioning
- Fan and Blower Motors for Environmental Conditioning
- Reaction Wheels
- Compressor Motors for Cryogenic Coolers

Complete Info: www.ddc-web.com/PW-82540R
Data Device Corporation

Leadership Built on 50 Years of Innovation

Data Device Corporation (DDC) is a world leader in the design and manufacture of high-reliability products for aerospace, defense, and industrial automation applications. For 50 years, DDC has continuously advanced the state of high-reliability technology with innovations that have minimized component size and weight while increasing performance, especially in severe or demanding environments.

DDC headquarters along with our design and manufacturing operations are located in Bohemia, NY.

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Product Families

Data Bus | Synchro/Resolver | Power Controllers | Motor Drives

DDC is a leader in the development, design, and manufacture of highly reliable and innovative military data bus solutions. DDC’s Data Networking Solutions include MIL-STD-1553, ARINC 429, Fibre Channel, and AFDX. Each interface is supported by a complete line of quality MIL-STD-1553 and ARINC 429 civil, military, and COTS grade cards and components, as well as software that maintain compatibility between product generations. The Data Bus product line has been field proven for the military, civil and aerospace markets.

DDC is also a global leader in Synchro/Resolver Solutions. We offer a broad line of Synchro/Resolver instrument-grade cards, including angle position indicators and simulators. Our Synchro/Resolver-to-Digital and Digital-to-Synchro/Resolver microelectronic components are the smallest, most accurate converters, and also serve as the building blocks for our card-level products. All of our Synchro/Resolver line is supported by software, designed to meet today’s COTS/MOTS needs. The Synchro/Resolver line has been field proven for military and industrial applications, including radar, IR, navigation systems, fire control, flight instrumentation/simulators, motor/motion feedback controls and drivers, and robotic systems.

As the world’s largest supplier of Solid-State Power Controllers (SSPCs) and Remote Power Controllers (RPCs), DDC was the first to offer civil and fully-qualified MIL-PRF-38534 and Class K Space-level screening for these products. DDC’s complete line of SSPC and RPC boards and components support real-time digital status reporting and computer control, and are equipped with instant trip, and true I²T wire protection. The SSPC and RPC product line has been field proven for military markets, and are used in the Bradley fighting vehicles, M1A2 tank, and various other high performance and/or extreme environment applications.

DDC is the premier manufacturer of hybrid motor drives and controllers for brush, 3-phase brushless, and induction motors operating from 28 Vdc to 270 Vdc requiring up to 64 kilowatts of power. Applications range from aircraft actuators for primary and secondary flight controls, jet or rocket engine thrust vector control, missile flight controls, to pumps, fans, solar arrays and momentum wheel control for space and satellite systems.

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Certifications


DDC has been granted certification by the Defense Supply Center Columbus (DSCC) for manufacturing Class D, G, H, and K hybrid products in accordance with MIL-PRF-38534, as well as ESA and NASA approved.

The first choice for more than 50 years—DDC
DDC 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 applications.

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