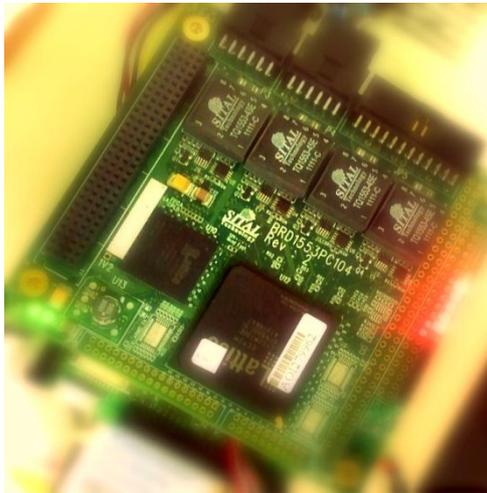


AVIONICS INTERFACE BOARDS



MultiStandard Avionics Interface Boards

PMC, PC104+ Cards, including Mil-Std-1553, RS-485, H009, WB-194, ARINC 429, Avionics and Discrete I/Os

Compact, Robust, Reliable, Low-Energy Consumption

Specifications

Compatibility

- MIL-STD-1553B Notice 2
- H009, WB194, ARINC 429
- RS-485, IRIG-B
- DDC® Enhanced MiniACE® software drivers
- PCI Bus Interface
- PMC or PC104+ Form Factor

Environmental

- Industrial grade: -40°C to +85°C
- 5% to 90% relative humidity (non-condensing)

Power

- 3.3 VDC, 4W (PC104) or 16W (PMC) while all channels transmitting simultaneously

Available Configurations

- 2 or 8 X dual-redundant Mil-Std-1553B (or other) channels with 64K or 32K word RAM per channel
- Can be configured for Mil-Std-1760, H009, WB194 applications
- Tester configuration for all protocols – 1553, H009, WB-194

Software Provided

- PCI Driver for Windows and Linux
- API high-level libraries with source code included for Windows and Linux
- GUI (Graphical User Interface) – Luthier™ for 1553 bus simulation and analysis

More products from Sital

- MIL-STD-1553 IP Cores for FPGAs
- MIL-STD-1553 Components
- Mil-Std-1553 Testers
- Avionics cPCI board

Key Features and Benefits

- Boards can be ordered in various configurations and bus interfaces
- 2 or 8 x dual-redundant Mil-Std-1553B channels (depending on card)
- Channels can be independently or simultaneously configured for Mil-Std-1553, H009, and WB-194 applications (depending on card model)
- All channels are compatible with Mil-Std 1553B Notice 2, Mil-Std-1760, each channel can be configured as BC or RT+MT
- 32K or 64K word RAM per channel
- Software-compatible with DDC® Enhanced MiniACE® architecture
- Tester configuration also available for all protocols supporting concurrent BC, Multi-RT and Monitor, error injection and enhanced monitoring
- 4 x RS-485/RS-422
- ARINC-429 I/Os (depending on card model)
- External Time Tag Clock input and output (through IRIG B)
- 8X avionics discrete I/Os
- 8X digital discrete I/Os
- 32-bit PCI 33/66MHz compatible
- Very fast PCI access, works from PCI clock and supports PCI burst
- Provided with drivers, software API for Windows and Linux
- Low power consumption and low heat dissipation

All our Avionics Interface boards are based on Sital's proven 1553, H009 and WB-194 IP cores, loaded into an FPGA (Field Programmable Gate Array) component, and discrete components transceivers, which can be programmed by Sital, allowing the flexibility to support various configurations and protocols using the exact same hardware.

The boards can be used for on-board avionics systems or for lab testing equipment.

Customers can select the appropriate configuration for their specific requirement.

Other configurations and protocols are available upon request.

The boards can also serve as a fully-functional tester for the various protocols supporting concurrent BC, Multi-RT and enhanced monitoring. In such cases, Sital provides MuxSim™, MuxMonitor™ and MCXSim™ software tools for simulation, testing and analysis of avionics bus traffic.

In addition to avionics protocols, some boards also includes 8 avionics discrete I/Os, supporting up to 35V inputs connected via opto-couplers, as well as 8 discrete digital I/Os for other applications.

IRIG-B input and output are supported for external time-tag. These ports can also be used as RS-485 I/O or can otherwise be configured to support up to four ARINC-429 channels, 2 for TX and 2 for RX.

More information is available at www.sitaltech.com
Email: info@sitaltech.com

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**SITAL**
Technology

BRD1553PC104

Deliverables:

• PN: BRD1553PC104-STD

- 2X 1553, 1760 channels
- 8X digital discrete I/Os
- 8X avionics discrete I/Os (*)
- 16 X ARINC429 RX (*)
- 8 X ARINC429 TX (*)
- 4X RS-485 (*)

• PN: BRD1553PC104-TST

Tester Configuration

- 2X 1553, 1760 channels
- 1X H009 channels(*)
- 1X WB-194 channels(*)

• PN: BRD1553PMC-STD

- 8X 1553, 1760 channels
- 8X avionics discrete I/Os
- 2 X ARINC429 RX (*)
- 2 X ARINC429 TX (*)
- 4X RS-485 (*)

• PN: BRD1553PMC-TST

Tester Configuration

- 8X 1553, 1760 channels
- 4X H009 channels(*)
- 4X WB-194 channels(*)

(*) Ordered separately

- Other configurations and protocols are available. Please contact Sital

Software

- Software drivers and API for Windows and Linux. Consult Sital for other OS
- Luthier Com Builder software for scenario definition and test
- MuxSIM, MuxMonitor, MCXSim for Tester Configuration

Warranty and Support

- 3 year limited hardware warranty
- 1 year technical support including free software upgrades

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BRD1553PC104 is a multi-standard board that contains two channels of Mil-Std-1553. It is compatible with Mil-Std-1553B and Mil-Std-1760 and its channels can be configured independently to work with H009 and WB194 in conjunction with 1553 (other protocols also available).

The board includes channels that can be configured as RS-485/RS-422, IRIG-B and ARINC-429. It also includes eight avionics I/O ports and eight digital I/Os.

BRD1553PC104 is software-compatible with DDC® Enhanced MiniACE® components and architecture and with 64K words of internal RAM per channel, enabling fast and easy integration with existing or new systems.

The board is provided with software drivers for Windows and Linux along with high-level API to ease application development.

Sital's Luthier™ program for 1553 bus simulation and analysis is also provided. It includes an advanced GUI (Graphical User Interface) for controlling the board, generating bus traffic and monitoring and emulating a real bus environment.



BRD1553PMC

PMC HyperBoard™ is a PMC-compatible, multi-standard board that contains up to eight channels of Mil-Std-1553. It is compatible with Mil-Std-1553B and Mil-Std-1760 and its channels can be configured independently to work with H009 and WB194 in conjunction with 1553 (other protocols also available).

The board includes four channels that can be configured as RS-485/RS-422, IRIG-B or ARINC-429. It also includes eight avionics I/O ports and eight digital I/Os.

PMC HyperBoard is software-compatible with DDC® Enhanced MiniACE® components and architecture and with 32K or 64K words of internal RAM per channel, enabling fast and easy integration with existing or new systems.

The board is provided with software drivers for Windows and Linux along with high-level API to ease application development.

Sital's Luthier™ program for 1553 bus simulation and analysis is also provided. It includes an advanced GUI (Graphical User Interface) for controlling the board, generating bus traffic and monitoring and emulating a real bus environment.



About Sital

Sital Technology provides world-class products and expertise for communication bus applications in the avionics, aerospace and automotive industries. Sital embeds its vast experience and proficiency in its products which include Mil-Std-1553 and other avionics IP cores, components, boards and testers, as well as CAN bus devices and applications. With its highly-experienced staff of experts, the company's Projects Division undertakes design, integration and turn-key engagements on behalf of the world's leading commercial and military avionics companies, space agencies, and automobile designers and manufacturers. Sital's bus technologies and expertise improve robustness and efficiency as they lower cost, space and resource utilization.

Sital's formidable customer list includes leading military and commercial organizations throughout the world among them: NASA, Boeing, Lockheed-Martin, Honeywell, Raytheon, General Motors, British Aerospace, Orbital Science, Thales, ECIL(India), Aselsan, Elbit, Rafael and IAI.

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- Sital may change the specifications and functionality of the board without notice.