

- Single/Multiple MIL-STD-1553 Terminals
- Use In Rugged Industrial Applications
- Concurrent Bus Controller, Remote Terminal and Bus Monitor
- Error Injection
- Extensive Monitoring Capability
- Programmable 32-bit Time Stamp
- Graphical Software Package Available
- Easy Plug-and-Play cPCI Interface
- Compatible With MIL-STD-1553A/B
- API and Driver Software: Windows 9x/2000, Windows NT/XP/Vista and Labview



**This Product Is No Longer Available From Pickering Interfaces. Please Refer To The Third Party PXI Product Guide For An Equivalent Module.**

The 41-553 is a dual-redundant MIL-STD-1553 interface module for PXI / compactPCI systems. This MIL-STD-1553 PXI / cPCI product provides a range of capabilities from basic single-terminal emulation to multi-terminal simulation and error injection. The powerful features make Pickering Interfaces 41-553 an ideal solution for hardware and system development, testing and simulation.

The 41-553 provides Bus Controller, Remote Terminal, and Monitor operation, and it supports all 1553 message types. The 41-553 can simultaneously operate as the BC, Monitor, and any number of RTs, and inject protocol errors selectively. The powerful DSP core of the 41-553 offloads 1553 protocol processing from the host PC. The large on-board memory and flexible message buffering schemes ensure data integrity. Polling and interrupt generation are simplified through a generous set of user options.

The easiest way to use the module is with the powerful databus analyzer software, called CoPilot® 1553. CoPilot® 1553 supports and greatly simplifies tasks associated with defining and scheduling bus controller commands, defining BC and RT data values, and capturing and analyzing data. Alternatively, software developers can use the bundled Application Program Interface ( API ) that enables quick and easy development of custom applications. The 41-553 can be configured for simple terminal emulation using default memory mapping and buffering options with only a few API calls. Driver software is included for Windows 95/98/2000, Windows NT/XP/Vista, and LabView.

CoPilot® is a registered trademark of Ballard Technologies Inc.

## Modes

Bus Controller:	On-board message frame timing. Transmission retries. Exception processing.
Remote Terminal:	Illegalize subaddress mode-codes. Interrupt on message or terminal access.
Monitor:	Snapshot or sequential. Filtering on terminal and or subaddress.

Handles all 1553A/B message types.  
Notice-2 selectable features.

## Multi-terminal Simulation

### Error Generation

Types:	Sync, Parity, Manchester, Bit Count, Word Count.
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Inject into specific bits, words, or messages.

## DSP Core

Memory:	1MB standard High performance Interface.
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## Interrupts

Software configurable interrupt log list.  
Generated on user specified conditions:

Schedule
Errors
Specific messages

## Time-tag

Automatic in all modes.  
32-bit, selectable range/resolution.

## Compact PCI Interface

32-bits at 33MHz.  
3U x 4HP module (100mm x 160mm).  
Plug-n-Play.

## Connectors

Twinax BJ77 mates with PL75.

## Other Signals

External Trigger,  
Sync Output,  
Digital I/O.

## Driver Software

Windows 95/98/2000, Windows NT/XP/Vista and  
LabView.

## Physical Parameters

Single slot 3U CompactPCI/PXI Instrument Module.

## Safety & CE Compliance

All modules are fully CE compliant and meet applicable EU directives: Low-voltage safety EN61010-1:2001, EMC Immunity EN61000-6-1:2001, Emissions EN55011:1998.

## Operating/Storage Conditions

### Operating Conditions

Operating Temperature:	0°C to +55°C
Humidity:	Up to 90% non-condensing
Altitude:	5000m

### Storage and Transport Conditions

Storage Temperature:	-20°C to +75°C
Humidity:	Up to 90% non-condensing
Altitude:	15000m

## Product Order Codes

<b>1553 Bus Analyser, Single Function</b>	<b>41-553-001</b>
<b>1553 Bus Analyser, Multi Function</b>	<b>41-553-002</b>

## Mating Connectors & Cabling

Please contact Pickering sales office for connector/cabling options for this module.

Refer to our web site or **Connection Solutions Catalog** for connector/cabling options for all other Pickering PXI modules.



## Latest Details

Please refer to our Web Site for Latest Product Details.  
[www.pickeringtest.com](http://www.pickeringtest.com)