IIB-1553-PC104+

The IIB-1553-PC104+ is an intelligent interface card giving full MIL-STD-1553 test, simulation and bus analysis capability on the PC104+ bus, providing 1553A, 1553B, McAir and STANAG 3838 variants in a single card. The IIB-1553-PC104+ supports concurrent Bus Controller (BC) and up to 31 Remote Terminals (RT) with Bus Monitor (BM). An additional stand-alone Chronological Bus Monitor (CBM) facility is also provided, with comprehensive multi-level triggering capability. Full error injection capability is provided in BC and RT modes, with full error detection in BC, RT, BM and CBM modes. The unit provides a variable amplitude dual redundant 1553 interface. 2 Mbytes of dual ported RAM are provided. The board is supplied with C drivers in source code and Windows menu driven software as standard.

SPECIFICATIONS

General Specifications

- → MIL-STD-1553A/B, STANAG 3838 compatible
- → McAir compatible
- → 2 Mbytes Dual Port RAM (all modes)
- → BIT and diagnostics
- → All set-ups programmable in real time
- → Programmable for Direct or TX coupling
- → Programmable TX amplitude
- → Full error injection (BC & RT)
- → Full error detection (all modes)

Bus Controller

Programmable Tx amplitude
Programmable inter-message delay
Programmable RT response time
Programmable Frame frequency
Programmable message sequencing
Messages and data changeable in real time
Acyclic message insertion
BC-RT, RT-BC, RT-RT, mode code, broadcast
Multiple data buffering, all transmitted and received messages
Full error injection / detection

Remote Terminal

Multiple RT simulation (up to 31 RT's)
All sub-addresses selectable
Selectable Broadcast mode
Programmable Mode Code sub-address
Programmable Status word
Programmable RT response time
Message time tagging (32 bit @ 500 nSec)
All active RT tables changeable in real time
Data and Status words changeable in real time

Bus Monitor

All data buffers monitored
All data time tagged (32 bit @ 10 uSec resolution)
All data available for analysis

Chronological Bus Monitor

Programmable conditional triggers and masks
Message time tagging (32 bit @500 nSec resolution)
Store all, store only, store after modes
Full error detection capability

Host Interface

PC104+:   Slave, 32 Bit data
Memory Space: 2 Mbytes
Interrupts: IRQA#

Power

Total   > 15 Watts

+5v +/- 5%   600 mAmps
+12V +/- 5%   160 mAmps

Physical Characteristics

Dimensions   96mm x 90mm
Weight   155 grams

Environmental

Operating Temp. $0 – 50^{o}C$
Storage Temp. $-20 – 70^{o}C$
Humidity   5% – 95% Noncondensing
MTBF (MIL 217F)   112,745 hrs at $25^{o}C$ (GB)

Software Support

C drivers in source code
Windows menu software (WinNT, Win95)
RT Production Test Plan (full protocol)

Order Codes

1U11012G01   MIL-STD-1553 for PC104+ Bus

Contact Information

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