IIB-1553-ISA

The IIB-1553-ISA is an intelligent interface card providing full MIL-STD-1553 test, simulation and bus analysis capability for PC compatible computers, with 1553A, 1553B, McAir and STANAG 3838 variants in one card. The IIB-1553-ISA 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 powerful 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 dual redundant 1553 interface.
2 Mbytes of dual ported RAM are provided. PC memory space utilised by the board is selectable.
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)
➔ Programmable interrupts
➔ 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 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

PC compliance: ISA, AT,EISA Bus
Memory Space: 8 Kbytes – 2 Mbytes, configurable
Interrupts (4) user configurable to IRQ3 – 15

Power   +5v +/- 5%   900 mAmps
+12V +/- 5%   50 mAmps
-12V +/- 5%   160 mAmps

Physical Characteristics

Dimensions   190mm x 102mm
Weight   425 grams

Environmental

Operating Temp. $0 – 50^oC$
Storage Temp. $-20 – 70^oC$
Humidity   5% – 95% Noncondensing
MTBF (MIL 217F)   124,896hrs at 25^oC (Gb).

Software Support

C drivers in source code
Windows menu software (Win3.x, WinNT, Win95)
RT Production Test Plan (full protocol)

Order Codes

1U10971G01   MIL-STD-1553-ISA

Contact Information