

# IIB-1553-VME-2C

The IIB-1553-VME-2C is an intelligent interface card for two channel, dual redundant MIL-STD-1553 applications. It gives full MIL-STD-1553 test, simulation and bus analysis capability on the VME bus, providing 1553A, 1553B, McAir and STANAG 3838 variants in a single card. Each channel 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 two variable amplitude dual redundant 1553 interfaces. 8 Mbytes of dual ported RAM are provided on each channel. 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
- 8 Mbytes Dual Port RAM per channel (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)
- Programmable Bus coupling matrix
- External trigger-in and trigger-out
- IRIG-B timing (64 bit) option

### **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**

VME: Slave, A32, A24 Addressing  
D32, D16, D8, Block Transfers  
Memory Space: 16 Mbytes  
Interrupts: D08 (ROAK, RORA)  
IRQ 1-7

### **Power**

+5v +/- 5% 1.45 Amps  
+12V +/- 5% 250 mAmps  
-12V +/- 5% 50 mAmps

### **Physical Characteristics**

Dimensions 175mm x 160mm (6U)  
Weight 440 grams

### **Environmental**

Operating Temp. 0 – 50°C  
Storage Temp. -20 – 70°C  
Humidity 5% – 95% Noncondensing  
MTBF (MIL 217F) 107,438 hrs at 25°C (Gb)

### **Software Support**

C drivers in source code  
Windows menu software (WinNT, Win95)

### **Order Codes**

1U10990G01 MIL-STD-1553 for VME Bus  
Specify IRIG-B timing option if required

## **Contact Information**

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