

MIL-STD-1553 ADVANCED INTEGRATED MUX (AIM) HYBRID

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USER'S GUIDE**

DESCRIPTION

DDC's BUS-61553 Advanced Integrated Mux (AIM) Hybrid is a complete MIL-STD-1553 Bus Controller (BC), Remote Terminal Unit (RTU), and Bus Monitor (MT) device. Packaged in a single 78-pin DIP package, the BUS-61553 contains dual low-power transceivers, complete BC/RT/MT protocol logic, a MIL-STD-1553-to-host interface unit and 8K x 16 RAM.

Using an industry standard dual transceiver and standard status and control signals, the BUS-61553 simplifies system integration at both the MIL-STD-1553 and host processor interface levels.

All 1553 operations are controlled through the CPU access to the

shared 8K x 16 RAM. To ensure maximum design flexibility, memory control lines are provided for attaching external RAM to the BUS-61553 address and data buses and for disabling internal memory; the total combined memory space can be expanded to 64K x 16. All 1553 transfers are entirely memory-mapped; thus the CPU interface requires minimal hardware and/or software support.

The BUS-61553 operates over the full military -55°C to +125°C temperature range. Available screened to MIL-PRF-38534, the BUS-61553 is ideal for demanding military and industrial microprocessor-to-1553 interface applications.

FEATURES

- **Fully Intergrated Terminal Including:**
 - Dual Transceiver
 - BC/RT/MT Protocol
 - Memory Management Unit
 - Processor Interface Logic
 - 8K x 16 RAM
- **CMOS and Bipolar Technologies**
- **Internal Interrupt Status and Time Tag Registers**
- **High Reliability**
- **883B Processing Available**

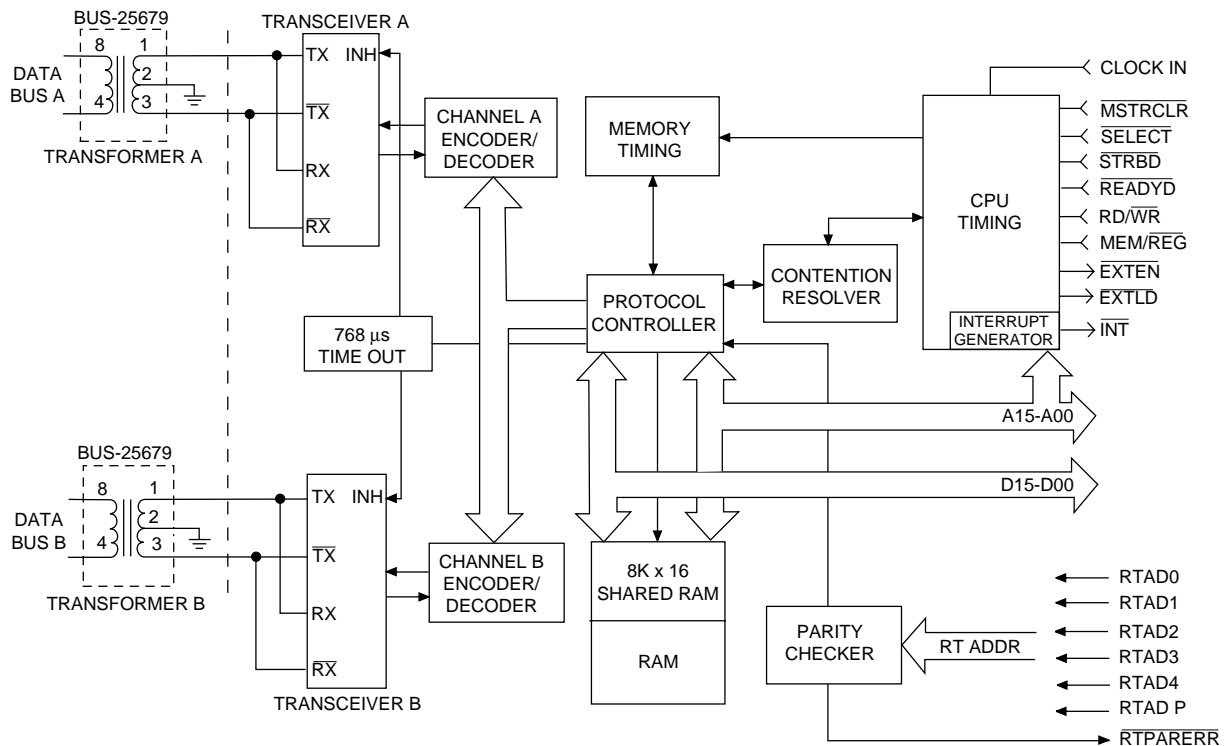


FIGURE 1. BU-61553 BLOCK DIAGRAM

ORDERING INFORMATION

BUS-615XX-XX0X

Supplemental Process Requirements:

- S = Pre-Cap Source Inspection
- L = Pull Test
- Q = Pull Test and Pre-Cap Inspection
- K = One Lot Date Code
- W = One Lot Date Code and PreCap Source
- Y = One Lot Date Code and 100% Pull Test
- Z = One Lot Date Code, PreCap Source and 100% Pull Test
- Blank = None of the Above

Process Requirements:

- 0 = Standard DDC Processing, no Burn-In (See Page 13.)
- 1 = MIL-PRF-38534 Compliant
- 2 = B*
- 3 = MIL-PRF-38534 Compliant with PIND Testing
- 4 = MIL-PRF-38534 Compliant with Solder Dip
- 5 = MIL-PRF-38534 Compliant with PIND Testing and Solder Dip
- 6 = B* with PIND Testing
- 7 = B* with Solder Dip
- 8 = B* with PIND Testing and Solder Dip
- 9 = Standard DDC Processing with Solder Dip, no Burn-In (See Page 13.)

Temperature Grade/Data Requirements:

- 1 = -55°C to +125°C
- 2 = -40°C to +85°C
- 3 = 0°C to +70°C
- 4 = -55°C to +125°C with Variables Test Data
- 5 = -40°C to +85°C with Variables Test Data
- 8 = 0°C to +70°C with Variables Test Data

Power Supply

- 3 = -15 V Transceivers
- 4 = -12 V Transceivers
- 5 = +5 V Transceivers—Call Factory
- 6 = Transceivers—Use with BUS-63102II—Call Factory

Packaging

- 5 = DDIP
- 6 = Flat Pack

NOTES

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