

**FULL  
 DATA SHEET  
 AVAILABLE**

**MIL-STD-1553 DATA BUS  
 +5V DUAL TRANSCEIVER**

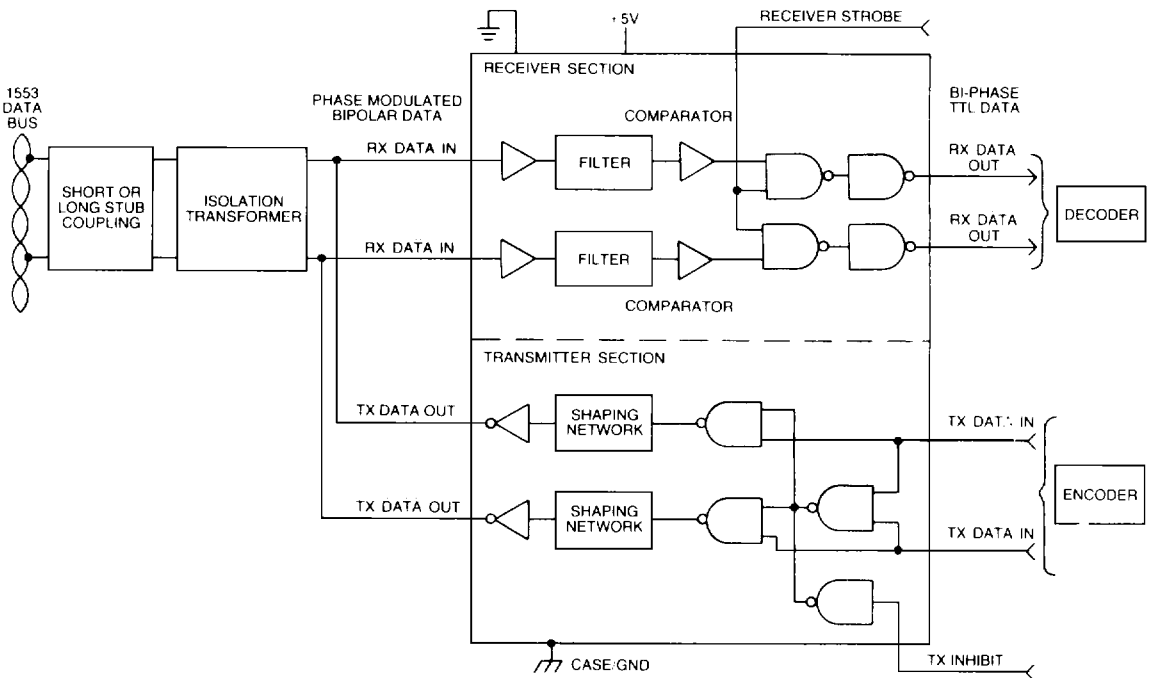
**DESCRIPTION**

The BUS-63147 transceiver is a complete transmitter and receiver pair conforming fully to MIL-STD-1553A and 1553B. Features include: +5V power supply voltage, Harris interface type, completely independent dual redundant operation, and small size (36 pin DDIP). The receiver section of the BUS-63147 series accepts phase-modulated bipolar data from a MIL-STD-1553 Data Bus and produces TTL signal data at its outputs: RX DATA OUT and RX DATA OUT. These outputs represent positive and negative variations of the input data signals beyond an internally fixed threshold level. An external STROBE input enables or disables the receiver's outputs.

The transmitter section accepts bi-phase TTL signal data at its TX DATA and TX DATA inputs and produces phase-modulated bipolar data at the TX DATA and TX DATA outputs. The transmitter's output voltage level is typically 30Vpp. An external input, INHIBIT, takes priority over the transmitter inputs and disables the transmitter when activated with a logic "1". The small size, +5V power supply voltage, and compliance with MIL-STD-1553 simplify engineering design, making it an excellent choice for interfacing with any MIL-STD-1553 system.

**FEATURES**

- ONLY REQUIRES +5V POWER SUPPLY
- SMALL SIZE – 36 PIN DDIP
- LOW POWER
- MIL-STD-883B SCREENING AVAILABLE
- DUAL REDUNDANT PACKAGING
- HARRIS I/O COMPATIBILITY
- CONFORMS FULLY TO MIL-STD-1553A AND 1553B

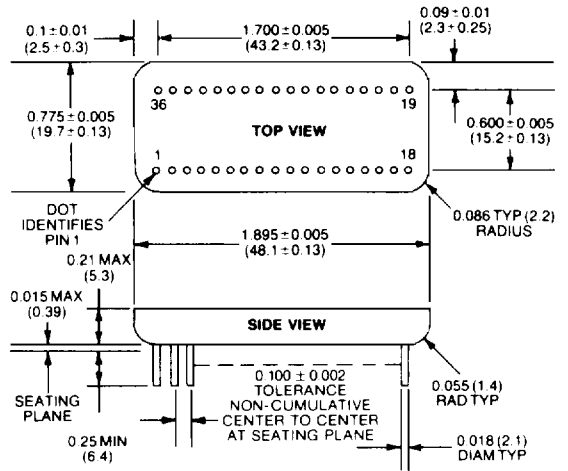


**FIGURE 1. BUS-63147 BLOCK DIAGRAM**

**TABLE 3. BUS-63147 PIN FUNCTIONS**

| PIN | FUNCTION       | PIN | FUNCTION      |
|-----|----------------|-----|---------------|
| 1   | TX DATA OUT *  | 19  | NC            |
| 2   | TX DATA OUT *  | 20  | RX DATA IN ** |
| 3   | GND *          | 21  | RX DATA IN ** |
| 4   | NC *           | 22  | GND **        |
| 5   | RX DATA OUT *  | 23  | NC **         |
| 6   | STROBE *       | 24  | +5V **        |
| 7   | GND *          | 25  | INHIBIT **    |
| 8   | RX DATA OUT *  | 26  | TX DATA IN ** |
| 9   | GND (CASE) *   | 27  | TX DATA IN ** |
| 10  | TX DATA OUT ** | 28  | NC            |
| 11  | TX DATA OUT ** | 29  | RX DATA IN *  |
| 12  | GND **         | 30  | RX DATA IN *  |
| 13  | NC             | 31  | GND *         |
| 14  | RX DATA OUT ** | 32  | NC            |
| 15  | STROBE **      | 33  | +5V *         |
| 16  | GND **         | 34  | INHIBIT *     |
| 17  | RX DATA OUT ** | 35  | TX DATA IN *  |
| 18  | NC             | 36  | TX DATA IN *  |

\*Channel One  
 \*\*Channel Two



Dimensions in inches (millimeters).

**FIGURE 5. BUS-63147 MECHANICAL OUTLINE**

**ORDERING INFORMATION**

BUS-63147 - 883B

Reliability Grade:  
 883B = Fully compliant with MIL-STD-883  
 B = Screened to MIL-STD-883 but without QCI testing  
 Blank = 0<sup>h</sup> to 70<sup>h</sup> C operation

Decoder Compatibility:  
 7 = Standard Decoder  
 8 = DDC Bus-65612 PGA

Matching transformer BUS-41429.  
 SMD Listing DESC# 5962-89522-01XC

**J**