

BUS-65101II AND BUS-65102II

MIL-STD-1553 DUMB RTU HYBRID

FEATURES

DESCRIPTION

The BUS-65101II MIL-STD-1553 Dumb Remote Terminal Unit (RTU) consists of a transceiver, and encoder/decoder, control logic, dual rank I/O registers and internal clock oscillator packaged in a 1.6" x 1.9" hermetic hybrid. It provides all the functions required to interface between a MIL-STD-1553 serial MUX data bus and a subsystem parallel 3-state data highway. Utilizing several DDC custom monolithic ICs, the BUS-65101II provides sufficient handshaking, control and data lines to permit versatile operation as a remote terminal, a bus controller or a bus monitor, in either single or dual redundant data bus configurations.

As a transmitter, the BUS-65101II accepts 8 bit or 16 bit parallel data from the subsystem, and outputs serial Manchester II coded Command, Status or Data words, under subsys-

tem control. As a receiver, it accepts serial MIL-STD-1553 transmissions and transfers all Command, Status and Data words to the 8 bit or 16 bit data highway, under subsystem control. The BUS-65101II also provides flags to the subsystem when Broadcast, Mode Code, and Own Address (with parity) commands are decoded.

The BUS-65101II contains a terminal fail-safe timeout circuit which flags message lengths exceeding 768 microseconds, and terminates serial data transmission. Wraparound self-test is initiated by a control line which causes the encoder serial output to be connected to the decoder input. The BUS-65101II provides a serial output of decoded words, thus allowing Command Word look-ahead, for the fastest terminal response.

- **INCLUDES:**
 - TRANSCIVER
 - ENCODER/DECODER
 - DUAL RANK I/O REGISTERS
 - FAIL-SAFE TIMER
 - CLOCK OSCILLATOR
- **SMALL 1.6" x 1.9" HYBRID**
- **PROVIDES FLAGS FOR:**
 - OWN ADDRESS (WITH PARITY)
 - MODE CODE
 - BROADCAST
 - TIME OUT
 - VALID WORD
 - SYNC TYPE
- **16 BIT OR 8 BIT 3-STATE PARALLEL I/O AND SERIAL OUT**
- **WRAPAROUND BUILT-IN TEST**
- **SIMPLE CONTROLS FOR SINGLE OR DUAL REDUNDANT DATA BUS CONFIGURATIONS**

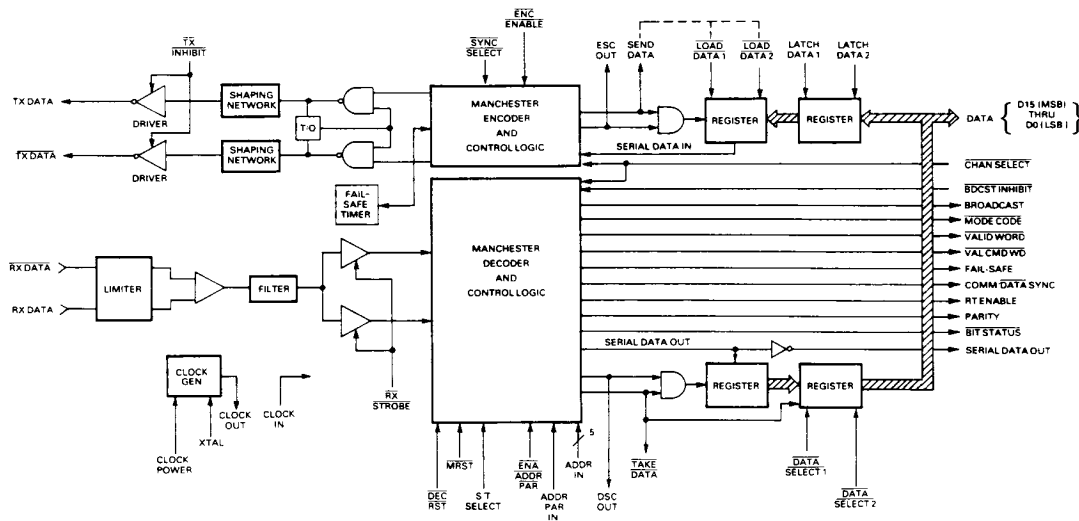


FIGURE 1. BUS-65101II BLOCK DIAGRAM

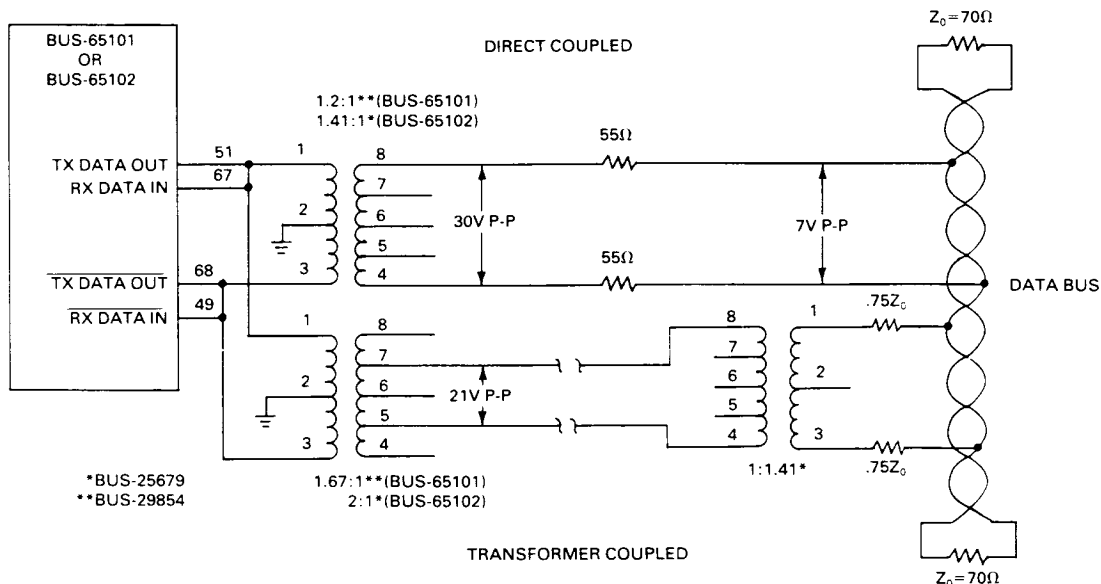
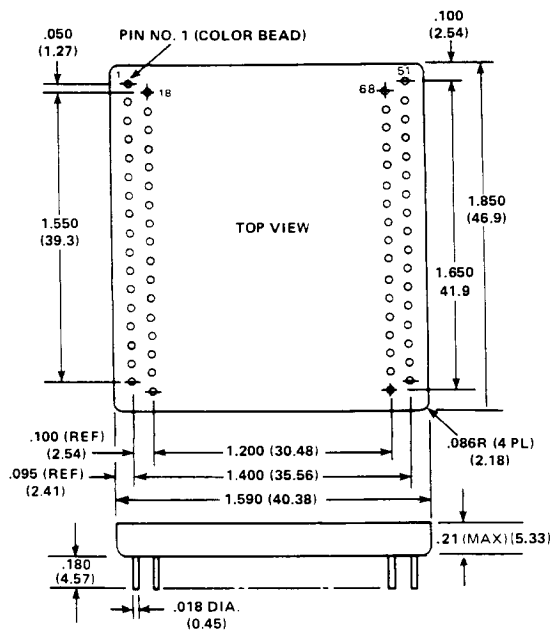


FIGURE 6. TYPICAL TRANSFORMER CONNECTIONS

MECHANICAL OUTLINE



Note: Dimensions in inches (millimeters)

ORDERING INFORMATION

BUS-65101II-883B

Reliability Grade:

883B = Fully compliant with MIL-STD-883.

B = Screened to MIL-STD-883 but without QCI testing.

Blank = 0° to 70° C

Power Supply Option:

1 = -12 VDC

2 = -15 VDC

Note:

Use BUS-29854 transformer with BUS-65101II (direct-coupled).

Use BUS-25679 transformer with BUS-65102II (direct-coupled).

Order BUS-65201 For MCAIR Applications