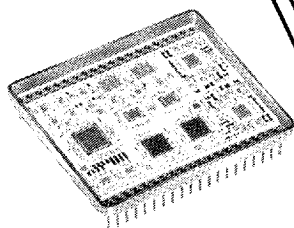


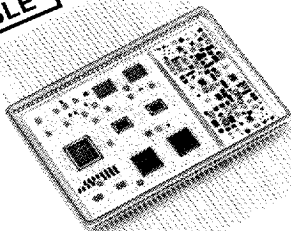
BUS-65112 AND BUS-65117

MIL-STD-1553 DUAL REDUNDANT REMOTE TERMINAL HYBRID



BUS-65112 DDIP

**FULL
DATA SHEET
AVAILABLE**



BUS-65117 FLATPACK

FEATURES

- **SMALL SIZE & LOW POWER**
- **COMPLETE RTU PROTOCOL**
- **SUPPORTS 13 MODE CODES:
ANY COMBINATIONS CAN BE
ILLEGALIZED**
- **TRANSFERS DATA WITH
DMA TYPE HANDSHAKING**
- **LATCHED OUTPUTS FOR
COMMAND WORD AND
WORD COUNT**
- **14 BIT BUILT-IN-TEST
WORD REGISTER**
- **4 ERROR FLAG OUTPUTS**
- **CONTINUOUS ONLINE
SELF-TEST**
- **PLUG-IN & FLATPACK
PACKAGING**

DESCRIPTION

The BUS-65112 is a complete dual redundant MIL-STD-1553 Remote Terminal Unit (RTU) packaged in a small 1.9" x 2.1" hybrid. Based upon DDC custom ICs, it includes 2 transceivers, 2 encoder/decoders, 2 bit processors, RTU protocol, data buffers, and timing control logic. It supports all 13 mode codes for dual redundant operation, any combination of which can be illegalized.

Parallel data transfers are accomplished with a DMA type handshaking, compatible with most CPU types. Data transfers to/from memory are simplified by the latched command word and word count out-

puts. Error detection and recovery are enhanced by BUS-65112 special features. A 14 bit built-in-test word register stores RTU information, and sends it to the Bus Controller in response to the Mode Command Transmit Bit Word. The BUS-65112 performs continuous on-line wrap-around self-test, and provides 4 error flags to the host CPU. Inputs are provided for host CPU control of 6 bits of the RTU Status Word.

Its small hermetic package, -55°C to +125°C operating temperature range, and complete RTU operation make the BUS-65112 ideal for most MIL-STD-1553 applications.

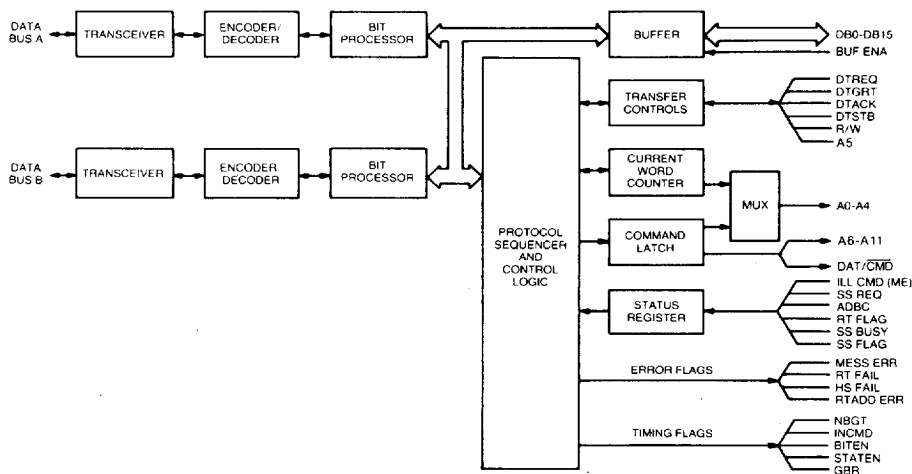


FIGURE 1. BUS-65112 BLOCK DIAGRAM

FACTORY TEST

The BUS-65112 is capable of performing two internal tests.

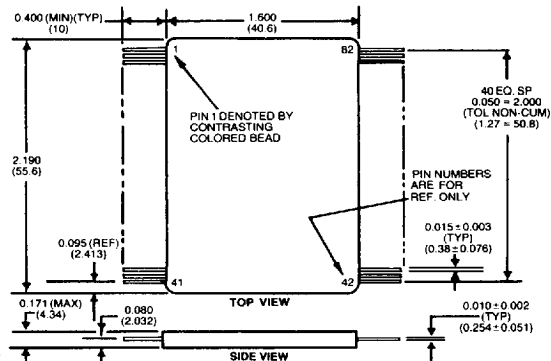
TEST 1, PIN 70. A logic low on this pin will cause the last word of the next message to be repeated continuously until the built in Watch Dog Timeout circuit disables the transmitter. The transmitter will be re-enabled upon receipt of the next valid command to the BUS-65112 on that channel.

TEST 2, PIN 31. This pin indicates the result of the loop test comparison test. It is performed for every word transmitted to the 1553 bus.

(1 = Pass, 0 = Fail) The result is reset upon transmission of the next word over the bus.

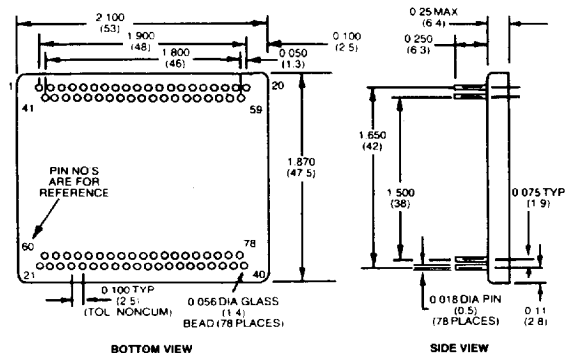
BUS-65117 FLATPACK PIN FUNCTIONS

PIN	FUNCTION	PIN	FUNCTION
1	NC	42	NC
2	A10	43	NBGT
3	A9	44	STATEN
4	A8	45	TXDATA OUT A
5	A7	46	TXDATA OUT A
6	A6	47	-15VA
7	DB0	48	+15VA
8	DB1	49	+5VA
9	DB2	50	GNDA
10	DB3	51	RXDATA IN A
11	DB4	52	RXDATA IN A
12	DB5	53	BITEN
13	DB6	54	ME
14	DB7	55	SRQ
15	DB8	56	SSFLAG
16	DB9	57	ILLCMD
17	DB10	58	BUSY
18	DB11	59	A11
19	DB12	60	TEST1
20	DB13	61	TEST2
21	DB14	62	RTFLAG
22	DB15	63	ABDC
23	+5V	64	RESET
24	BRO ENA	65	DTREQ
25	GROUND	66	BUF ENA
26	ADDRE	67	RTFAIL
27	ADDRD	68	12 MHz IN
28	ADDRC	69	A5
29	ADDRB	70	GBR
30	ADDRA	71	DTSTR
31	ADDRP	72	R/W
32	RTADERR	73	HSFAIL
33	TXDATA OUT B	74	A4
34	TXDATA OUT B	75	INCMD
35	-15VB	76	DTACK
36	+15VB	77	DTGRT
37	+5VB	78	A0
38	GND B	79	A1
39	RXDATA IN B	80	A2
40	RXDATA IN B	81	A3
41	NC	82	NC



Note: Dimensions are in inches (millimeters).

FIGURE 7. BUS-65117 MECHANICAL OUTLINE (FLATPACK)



Note: Dimensions are in inches (millimeters).

FIGURE 8. BUS-65112 MECHANICAL OUTLINE (DDIP)

ORDERING INFORMATION

BUS-65112 - 110

- Test Criteria**
 - 0 = None
- Screening**
 - 0 = Standard DDC Procedures
 - 1 = Full 883B Screening
 - 2 = 883B Screening without QCI testing
- Temperature Range**
 - 1 = -55 to +125°C
 - 3 = 0 to +70°C
- Power Supply and Packaging**
 - 2 = ±15 VDC, DDIP
 - 3 = ±12 VDC, DDIP
 - 7 = ±15 VDC, Flat Pack