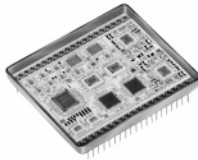
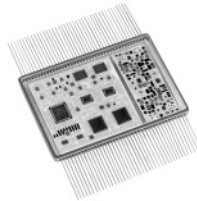


MIL-STD-1553 DUAL REDUNDANT REMOTE TERMINAL HYBRID



BUS-65112 DDIP



BUS-65117 Flat Pack

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 two transceivers, two encoder/decoders, two 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.

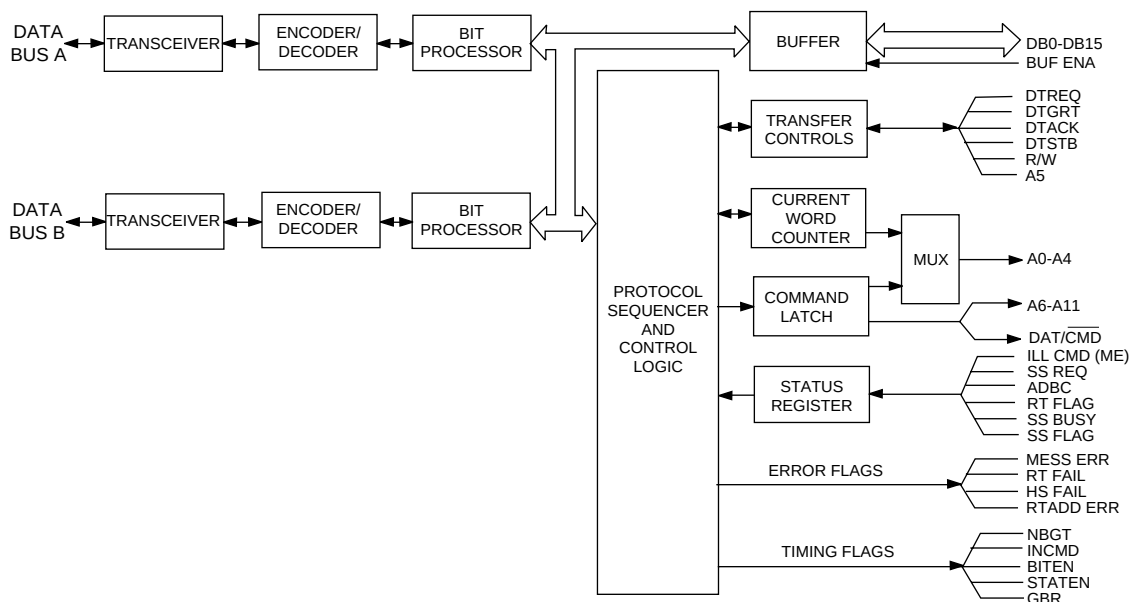
Parallel data transfers are accomplished with a DMA-type handshaking, compatible with most CPU types. Data transfers to/from memory are simplified by the latched command word and word count outputs.

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 wraparound self-test, and provides four error flags to the host CPU. Inputs are provided for host CPU control of six 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.

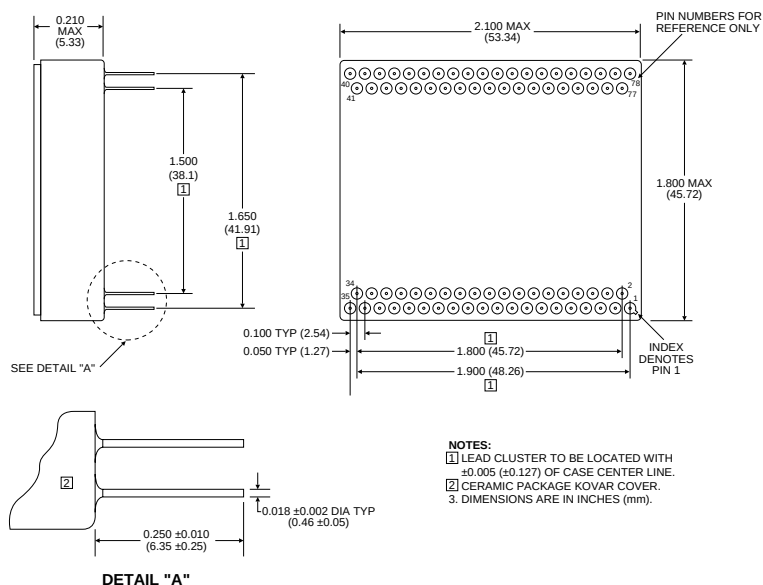
FEATURES

- **Small Size and Low Power**
- **Complete RTU Protocol**
- **Supports 13 Mode Codes:**
Any Combination Can be Illegalized
- **Transfers Data with DMA-Type Handshaking**
- **Latched Outputs for Command Word and Word Count**
- **14-Bit Built-in-Test Word Register**
- **Four Error Flag Outputs**
- **Continuous Online Self-Test**
- **Plug-in and Flat Pack Packaging**



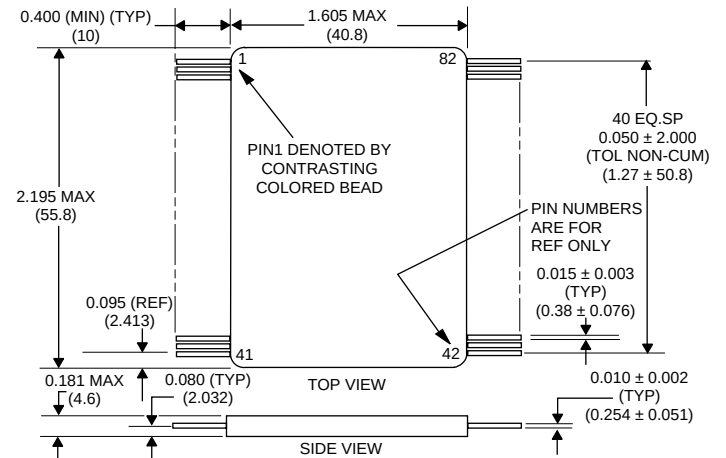
BU-65112/655117 BLOCK DIAGRAM

BUS-65112 DDIP PIN FUNCTIONS			
PIN	FUNCTION	PIN	FUNCTION
1	A10	40	$\overline{\text{NBGT}}$
2	A8	41	A9
3	A6	42	A7
4	DB1	43	DB0
5	DB3	44	DB2
6	DB5	45	DB4
7	DB7	46	DB6
8	DB9	47	DB8
9	DB11	48	DB10
10	DB13	49	DB12
11	DB15	50	DB14
12	BRO ENA	51	+5V
13	ADDRE	52	GND
14	ADDRC	53	ADDRD
15	ADDRA	54	ADDRB
16	$\overline{\text{RTADERR}}$	55	ADDRP
17	$\overline{\text{TXDATA B}}$	56	TXDATA B
18	+15VB	57	-15VB
19	GND B	58	+5VB
20	RXDATA B	59	$\overline{\text{RXDATA B}}$
21	A3	60	A2
22	A1	61	A0
23	$\overline{\text{DTGR}}$	62	$\overline{\text{DTACK}}$
24	INCMD	63	A4
25	$\overline{\text{HSFAIL}}$	64	$\overline{\text{R/W}}$
26	$\overline{\text{DTSTR}}$	65	$\overline{\text{GBR}}$
27	(DAT/CMD) A5	66	12 MHz IN
28	$\overline{\text{RTFAIL}}$	67	$\overline{\text{BUF ENA}}$
29	$\overline{\text{DTREQ}}$	68	$\overline{\text{RESET}}$
30	$\overline{\text{ADB}}\overline{\text{C}}$	69	$\overline{\text{RTFLAG}}$
31	TEST 2	70	TEST 1
32	A11 (T/ $\overline{\text{R}}$)	71	$\overline{\text{BUSY}}$
33	$\overline{\text{ILLCMD}}$	72	$\overline{\text{SSFLAG}}$
34	$\overline{\text{SRQ}}$	73	$\overline{\text{ME}}$
35	$\overline{\text{BITEN}}$	74	RXDATA A
36	RXDATA A	75	GNDA
37	+ 5VA	76	+15VA
38	-15VA	77	$\overline{\text{TXDATA A}}$
39	TXDATA A	78	$\overline{\text{STATEN}}$



BUS-65112 MECHANICAL OUTLINE (DDIP)

BUS-65117 FLAT PACK PIN FUNCTIONS			
PIN	FUNCTION	PIN	FUNCTION
1	NC	42	NC
2	A10	43	NBGT
3	A9F	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	GND A
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	TEST 1
20	DB13	61	TEST2
21	DB14	62	RT FLAG
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	RzW
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).

BUS-65117 MECHANICAL OUTLINE (FLAT PACK)

ORDERING INFORMATION

BUS-6511X-X X 0 X

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 xiii.)
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 xiii.)

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 and Packaging

2 = ±15 VDC DDIP
7 = ±15 VDC Flat Pack

The information in this data sheet is believed to be accurate; however, no responsibility is assumed by Data Device Corporation for its use, and no license or rights are granted by implication or otherwise in connection therewith. Specifications are subject to change without notice.



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