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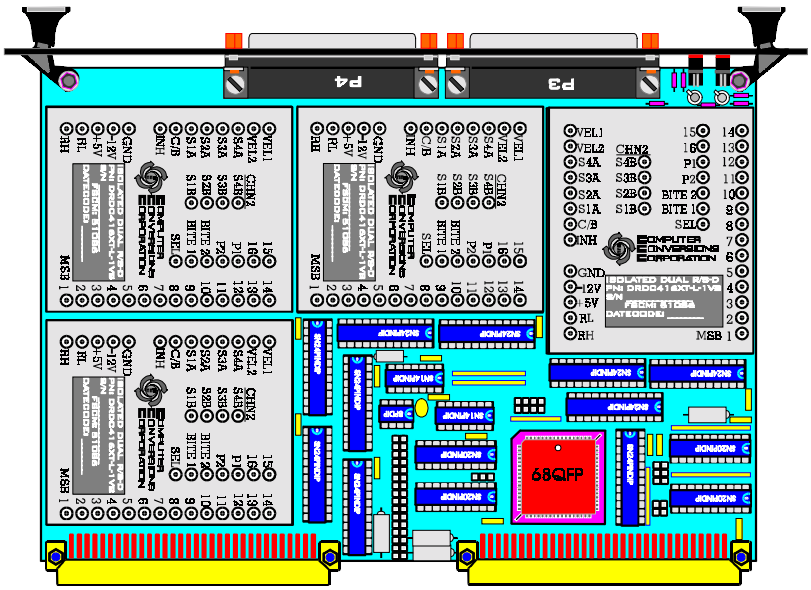
Find the *Computer Conversions VBD-A5A5A5A5-X12M-8* at our website: *Click HERE*

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VBD SERIES
ULTRA-HIGH DENSITY VME S/R CONVERTER CARDS

FEATURES

- High Density many Configurations
- Up to 8 Channels of Tracking S-D/R-D Conversion Card
- Up to 6 Channels of Complete D-S/D-R Conversion/Card
- Transformer Isolated Signal & Reference Lines (Option)
- Multispeed S-D and D-S Cards
- Up to 8 Different Reference Source Inputs per Card
- Single Slot 6U Height Models
- Self-Test Command Angle (Option)
- Reference Supply Output Options



Description

Computer Conversions ***VBD Series*** are ultra ***high density Synchro & Resolver Converter*** Cards designed specifically for VME Bus applications where density, isolation, and cost is of paramount importance.

Up to a full ***8 channels of Synchro/Resolver to Digital or 6 channels of Digital to Synchro/*** Resolver conversion are provided on a single slot width, 6U size, VME Bus Card.

Even with this high a density; the VBD cards are offered with a selection of solid-state or on-board ***Transformer Isolated I/O***.

Isolation

Transformer isolated units are completely isolated from each other and the backplane for each converters set of signal lines, and the reference inputs are transformer isolated separately for each pair of converters, or optionally individual; allowing the user to run 8 different reference input sources, levels, or frequencies, into the same VME Converter Card.

This completely isolates the card and effectively the whole computer from all field wiring, eliminating concerns over troublesome ground loops, differing potentials, ground interjected spikes, ghostly or field noise that so frequently takes down entire systems.

Each pair of two Converters shares a ***Status Register*** having ***individual converter fault bits for each channel***, ±12 or ±15V power ***loss detection***, and converter ***configuration details***.

All the S-D/R-D Converters are complete ratiometric, continuously updating tracking converters employing the use of internal type-two of solid state servo-loops for high-speed closed loop performance. They are ***insensitive to amplitude, and frequency variations***, providing a lag free virtually ***dynamic response*** all the way up to their maximum specified tracking rate..

Built-In-Test/Self-Test

All units include a continuous built-in-test, converter and I/O fault detect, and -WS option units include a command to 30 degree test angle for self-test.

D-S/D-R Output Channels:

All the D-***S/D-R*** Converters provide a fast 5 microsecond throughput, featuring ***continuous outputs*** and hybrid power short circuit protected amplifiers that will drive loads from 1.2 to 4.5VA.

D-S/D-R Converters with a 400 Hz. frequency drive 26 or 90 V.L-L signal outputs direct.

Two different external output transformers are available for 50 or 60 Hz. applications, and external power boosters can be provided.

Inherent Multiturn/Multispeed Support

VBD Series Hardware supports both eight channels of discreet S-D/R-D conversion and/or ***four channels of multispeed/multiturn*** S-D/R-D conversion.

The standard Firmware supports simultaneous two channel store-to-read configuration required to properly interrogate multispeed/multiturn synchro's or resolvers.

Multispeed Specific Models

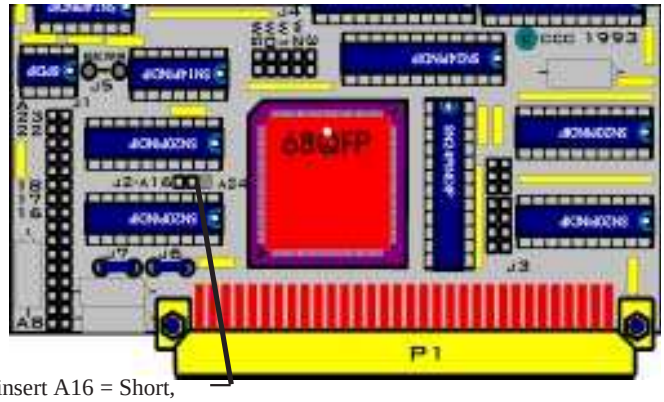
VBDM style Cards are offered with up to four channels of ***specifically precombined*** Multispeed Synchro/Resolver to Digital, or up to 2 full channels of Digital to Multispeed Synchro/Resolver Converters on a double slot width 6U size card. The VBDM Converter Cards feature ***precombined data***; using ***a single*** linear non-ambiguous ***16 bit data word*** for each multispeed channel. High Resolution single-slot width precombined units available too. Ratios of 1 & 36, 2 & 36, 1 & 32, 1 & 10, 1 & 8, etc. are standard available selections.

The primary advantages in using ***natural multispeed converter*** are: the single word 16 bit data handling, ***no software overhead for combining***, and a ***very powerful R-D/S-D built-in-test bit*** that automatically ***tests*** both that the Converter is a) tracking the input, and b) whether the ***fine/coarse alignment error*** is or goes out of synch as a result of misalignment or broken wires

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VBD SERIES ADDRESS MAP

HEX Select	A4	A3	A2	A1	Input Channels (S-D, R-D etc.) Function	Chan#	Output Channels (D-S, D-R etc.) Function	Chan#
00h	0	0	0	0	Read/Write Chan.	0	Write Chan.	0
02h	0	0	0	1		1		1
04h	0	0	1	0		2		2
06h	0	0	1	1		3		3
08h	0	1	0	0		4	Readback Channel	0
0Ah	0	1	0	1		5		1
0Ch	0	1	1	0		6		2
0Eh	0	1	1	1		7		3
*10h	1	0	0	0	Read Status Chan.	0 & 4	*-WS Units, Any Word here to Write 30 Degree Self-Test Angle for whole card	
12h	1	0	0	1		1 & 5		
14h	1	0	1	0		2 & 6		
16h	1	0	1	1		3 & 7		



J2: insert A16 = Short,
insert A24 = Std.

Base Address Select, J1 Jumpers = A0 - A23 Address Bits, in = 0, out = 1

A		5		A		5		0	0
		1	0	0		0		1			0					0000	0
23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	A7-A0 Base	

PIN TERMINATIONS: VBR,VBW,VBD Series Units Front Panel Connectors P3 & P4

Disregard unused channels if not in your part number. © *CCC 1997, 1999*

P2 Pins	P3 Pins	VBD SERIES High Density		VBW/VBR Units * = QM Option		P4 Pins	VBD SERIES High Density		VBR/VBW Units * = QM Option		P2 Pins
C6	9	RH	**Reference**	-8 units RH/RL 0	RH	9	RH	**Reference**	-8 units RH/RL 2	RH	C18
A6	28	RL			RL	28	RL			RL	A18
A5	10	S1	**Signals Channel** 0	**If used as** Multispeed:, chan.'s 0, 4 are Fine, Pair with chan.'s 2,5 = coarse & Read or Write In Succession	S1	10	S1	**Signals Channel** 2	**If used as** Multispeed:, chan.'s 2, 6 are Fine, Pair with chan.'s 3,7 = coarse & Read or Write In Succession	S1	A17
A2	13	S2			S2	13	S2			S2	A14
C5	29	S3			S3	29	S3			S3	C17
C2	32	S4			S4	32	S4			S4	C14
C4	30	S1	**Signals Channel** 4		*B-	30	S1	**Signals Channel** 6		*B-	C16
C3	31	S2			*B+	31	S2			*B+	C15
A4	11	S3			*A-	11	S3			*A-	A16
A3	12	S4			*A+	12	S4			*A+	A15
A1	15	OPT.	Vel.0 or RL4	-8 units RH/RL 4	*M+	15	OPT.	Vel.2 or RL6	-8 units RH/RL 6	*M+	A13
C1	34		Vel.4 or RH4		*M-	34		Vel.6 or RH6		*M-	C13
C12	1	RH	**Reference**	-8 units RH/RL 1	RH	1	RH	**Reference**	-8 units RH/RL 3	RH	C24
A12	20	RL			RL	20	RL			RL	A24
A11	2	S1	**Signals Channel** 1	**If used as** Multispeed:, chan.'s 0, 4 are Fine, Pair with chan.'s 2,5 = coarse & Read or Write In Succession	S1	2	S1	**Signals Channel** 3	**If used as** Multispeed:, chan.'s 2, 6 are Fine, Pair with chan.'s 3,7 = coarse & Read or Write In Succession	S1	A23
A8	5	S2			S2	5	S2			S2	A20
C11	21	S3			S3	21	S3			S3	C23
C8	24	S4			S4	24	S4			S4	C20
C10	22	S1	**Signals Channel** 5		*B-	22	S1	**Signals Channel** 7		*B-	C22
C9	23	S2			*B+	23	S2			*B+	C21
A10	3	S3			*A-	3	S3			*A-	A22
A9	4	S4			*A+	4	S4			*A+	A21
A7	7	OPT.	Vel.1 or RL5	-8 units RH/RL 5	*M+	7	OPT.	Vel.3 or RL7	-8 units RH/RL 7	*M+	A19
C7	26		Vel.5 or RH5		*M-	26		Vel.7 or RH7		*M-	C19
P2	18	+12V	If ext. supplies	-12 units are +/- 12VDC Bus or Ext., Otherwise +/-15 VDC Ext.		18	+12V	If ext. supplies	-12 units are +/- 12VDC Bus or Ext., Otherwise +/-15 VDC Ext.		P2
	36,37	GND	Power Ground			36,37	GND	Power Ground			
	19	-12V	If ext. supplies			19	-12V	If ext. supplies			
	6,25,14, & 33 DC COMMON		DC Common			6,25,14, & 33 DC COMMON		DC Common			

P3 & P4 Connector AMP #745784-4, Mates: TRW/CINCH # DC-37P Included

P3 & P4 Connector AMP #745784-4, Mates: TRW/CINCH # DC-37P Included

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