



WILD VISION

ADC1208 User Guide Issue 3.0 : Notes

Please note that this user guide includes information which differs from that contained in the previous issue. In particular, this ADC 1208 has been issued with different pin-out connections (see pages 39 & 39a) from earlier models. The parameter block offsets are also different (see page 12).

Copies of pages 39, 39a and page 12 are attached for your reference.

N.B. In order for us to offer you full customer support, please ensure your registration card (enclosed) is completed and returned.

15 Witney Way,
Boldon Business Park,
Boldon Colliery,
Tyne & Wear NE35 9PE
England.

Tel: 091 519 1455
Fax: 091 519 1929

The parameter block contains the following information:-

parameter	block offset
0	pointer to ADC data storage area
4	pointer to second ADC data storage area
8	current number of points
12	current channel number
16	current number of channels
20	current sampling rate in Hertz
24	current period of sampling in microseconds
32	odule MEMC address
60	odule base address
64	direction of data on PA bus (always 255 - as always outputs)
68	direction of data on PB bus
72	current byte read from PB bus
76	current trigger word
80	base frequency of VIA
88	Interrupt driven ADC flag
92	mode of acquisition in continuous ADC sampling
96	trigger mode in background signal acquisition
448-759	must be preserved and not accessed in user applications
	<u>Single channel CONT_ADC</u> <u>Multichannel CONT_ADC</u>
760	reserved address of data store
764	reserved current channel
768	no points left no points left
772	address data store address data store
776	ADC address ADC address
780	mask mask
784	reserved number of points expressed as words
1024-2047	RESERVED this area must be preserved.
2048-	default data storage area THIS AREA IS ONLY 8192 BYTES LONG

After an analogue voltage has been converted into binary format, the result of the conversion is stored in an intermediate buffer store on the ADC-1208 expansion card. This allows the ADC device to start another conversion whilst, in parallel with this next conversion, the host computer is able to read the contents of the buffer.

The contents of the buffer are overwritten by the results of subsequent analogue to digital conversions, so the host computer must read the contents of the buffer and store the data elsewhere. The software provided with the ADC-1208 allows the user to define the location of this data storage area. However, if no data storage area is provided by the user then the default data storage area in the ADC-1208 relocatable module area workspace is used.

The ADC software reads the contents of the expansion card data buffer and then writes this data to specific memory locations within the main memory of the machine. It starts writing to the first memory location and the results of all subsequent data acquisitions are stored in successive memory locations within the ADC data store. The result is that the ADC data storage area contains a record of voltage (expressed in the offset binary code format) over time. Each data word in the storage area is a sample of the voltage on the input at a particular time.

CONNECTING EXTERNAL SIGNAL LINES TO THE ADC1208

The rear panel of the ADC-1208 has two sockets. The first is for analogue input and the second is for digital input/output. The pin-outs on these connectors are :-

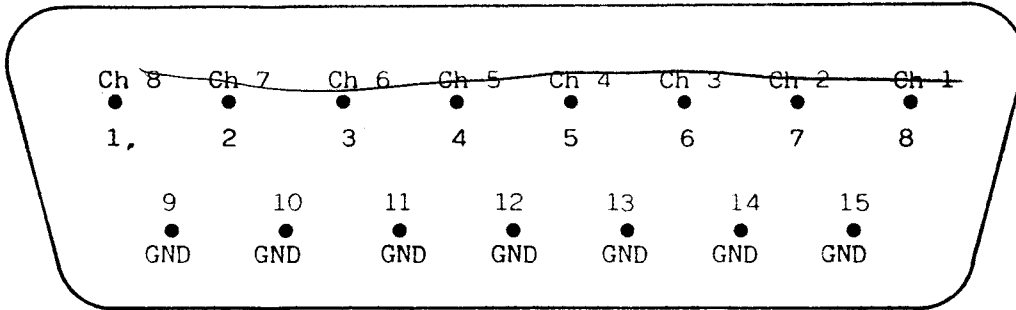
ANALOGUE IN	15 PIN D CONNECTOR
pin	connection
1	CHANNEL 8
2	CHANNEL 7
3	CHANNEL 6
4	CHANNEL 5
5	CHANNEL 4
6	CHANNEL 3
7	CHANNEL 2
8	CHANNEL 1
9	GROUND
10	GROUND
11	GROUND
12	GROUND
13	GROUND
14	GROUND
15	GROUND

DIGITAL INPUT/OUTPUT 20 WAY IDC CONNECTOR	
pin	connection
1	+5 volts
2	CB1
3	+5 volts
4	CB2
5	GROUND
6	PB0
7	GROUND
8	PB1
9	GROUND
10	PB2
11	GROUND
12	PB3
13	GROUND
14	PB4
15	GROUND
16	PB5
17	GROUND
18	PB6
19	GROUND
20	PB7

The digital input/output connector is pin compatible with the BBC micro series User port.

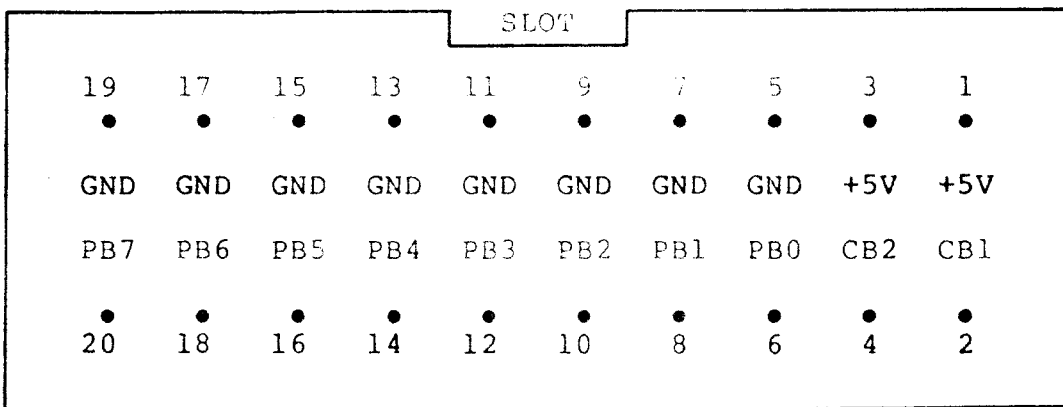
NEW LS ↘

1 2 3 4 5 6 7 8



(Viewed looking into the socket on the back panel.)

'ANALOGUE IN' 15 WAY D-TYPE CONNECTOR PIN -OUT



plug

(Viewed looking into the ~~socket~~ on the back panel.)

'DIGITAL INPUT/OUTPUT' USERS' PORT PIN-OUT