

CONFIDENTIAL - INTELLIGENT SOFTWARE & ENTERPRISE COMPUTERS LTD.

Document PER-10
Title Enterprise Expansion Bus Test Timing Results
Issue 3
Date 11th August 1985

CONTENTS
=====

1. Timing Results

1. Timing Results

Two Enterprise 128 machines were tested to check that the expansion bus timings conform to the specifications in document PER-6 and drawing A3PER-1. Machine 1 was serial number 861 and had a 128K ROM BASIC cartridge. Machine 2 was serial number 1040 and had a 2 x 64K EPROM BASIC cartridge with 1K pull-down resistors on the data bus. Readings were made on a Panasonic logic analyser with a 10ns resolution - the worst of four readings was taken in each case, with maximum specified DC and capacitive loading applied to the signal under test. Certain timing parameters were not ascertainable in practice and have been omitted from the following chart. The signal references are those indicated in drawing A3PER-1 and listed in document PER-6.

Signal Ref.	Specified		Machine 1		Machine 2	
	Min.	Max.	Min.	Max.	Min.	Max.
1	250ns	1500ns	250ns	1500ns	250ns	1500ns
2	110ns	1380ns	120ns	1380ns	120ns	1380ns
3	110ns	1380ns	120ns	1380ns	120ns	1380ns
4		110ns		50ns		50ns
5	60ns		110ns		110ns	
6	180ns		250ns		250ns	
7	75ns		120ns		120ns	
8		80ns		40ns		40ns
9		150ns		80ns		70ns
13	80ns		230ns		210ns	
14	-15ns		80ns		90ns	
17		85ns		40ns		40ns
18		85ns		30ns		40ns
19		85ns		40ns		50ns
20	220ns		250ns		250ns	
21	105ns		130ns		120ns	
22		75ns		40ns		40ns
23		85ns		40ns		40ns
24		85ns		40ns		40ns
25		85ns		40ns		40ns
26		85ns		40ns		50ns
27		95ns		40ns		60ns
28		85ns		40ns		40ns
29		85ns		40ns		40ns

Signal Ref.	Specified		Machine 1		Machine 2	
	Min.	Max.	Min.	Max.	Min.	Max.
30		65ns		40ns		40ns
31		80ns		40ns		50ns
32		80ns		40ns		40ns
33	220ns		250ns		240ns	
34		100ns		40ns		40ns
35		100ns		40ns		40ns
36		130ns		60ns		60ns
37		120ns		50ns		50ns
38	70ns		180ns		180ns	
39	0ns		210ns		210ns	
43	560ns		620ns		620ns	