Tech Info Library

Macintosh II: Baud Rate Settings

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Security:       Everyone
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TOPIC ---

My Macintosh II systems interface to Opto-22 digital and analog I/O
modules via the modem port. The Opto-22 is capable of serial
communications at speeds up to 38.4 kilobaud. At this time, I'm using 19.2
kilobaud, but I would very much like to communicate over the modem port at
38.4 kilobaud. According to "Inside Macintosh Vol II," this baud rate is
unsupported. Can you explain?

I heard that a baud rate code of 1, 2, or 3 might allow talking at 38.4
kilobaud. Is this true?

DISCUSSION --

"Inside Macintosh, Volume II" (Addison Wesley, ISBN #0-201-17737-4) does
NOT state that 38.4K is not supported in hardware. It DOES show that a
predefined constant has not been created for the speed.

In other words, the constant "baud38400 = 1" is not part of the serial
driver's implementation. This is not indicative of the serial driver's
capabilities. By setting a serConfig to the correct value and using the
SerReset function, the serial driver is able to use the 38.4K speed.
Developer Support indicates that the correct value for 38.4K speed is 1.

The values of the various speeds are derived from the way bits are set in
the serConfig variable of the SerReset function (discussed on page II-250
of Inside Macintosh). A table representing these variables looks like
this:

Bits:							Actual	Baud	Constant
64	32	16	8	4	2	1	Value	Rate	Name

--	--	--	--	--	--	--		------		------	---------
0	0	0	0	0	0	0	=	0	=	57600	baud57600
0	0	0	0	0	0	1	=	1	=	38400	
0	0	0	0	1	0	0	=	4	=	19200	baud19200
0	0	0	1	0	1	0	=	10	=	9600	baud9600
0	0	0	1	1	1	0	=	14	=	7200	baud7200
0	0	1	0	1	1	0	=	22	=	4800	baud4800
0	0	1	1	1	1	0	=	30	=	3600	baud3600
0	1	0	1	1	1	0	=	46	=	2400	baud2400
0	1	1	1	1	1	0	=	62	=	1800	baud1800
1	0	1	1	1	1	0	=	94	=	1200	baud1200

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