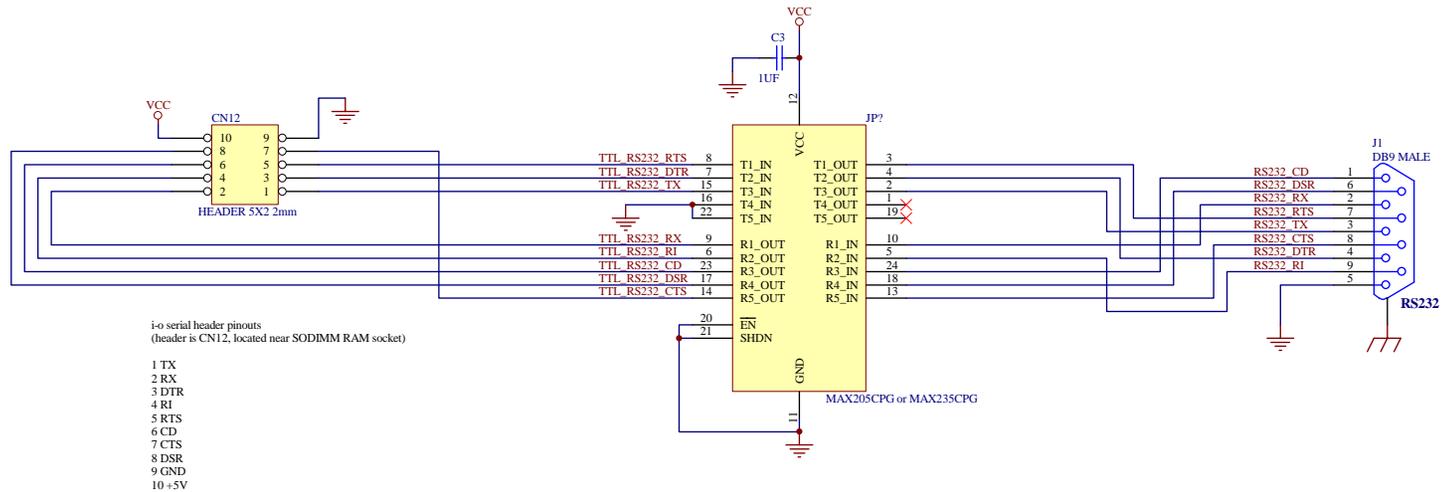There are many possible ways to construct and install this circuit. Here are some ideas:

- remove the modem and prototype a small PCB that sits in its place. It should be possible to use the modem header and a circuit similar to this one to provide _two_ serial ports. Since the modem is removed, cut all traces leading to the RJ-11 jacks. Wire TX/RX/GND to the jacks for simple no flow control serial ports with no case modifications. Alternately, make cutouts somewhere in the case (RAM expansion door possibly) and run small wires to the DB-9 jacks. It would also be possible to remove the RJ-11 jacks entirely and with minimal modifications position a DB-9 jack where the RJ-11 jacks once were.

- construct the circuit on a small PCB and mount it to the back of the RAM expansion door. It should be possible to make a cutout for a DB-9 connector in the expansion door. A small 2mm 10-pin cable could be used to connect to CN12.

- mount the PCB anywhere inside of the case and run small wires out the two points where the stand clips in to the rear plastic/RF shield. Mount DB-9 plugs in the light gray plastic strip of the stand mount with the stick-on logo (possibly remove the logo?).

VCC
C3
1UF

VCC

CN12
10   9
8   7
6   5
4   3
2   1
HEADER 5X2 2mm

i-o serial header pinouts
(header is CN12, located near SODIMM RAM socket)

1 TX
2 RX
3 DTR
4 RI
5 RTS
6 CD
7 CTS
8 DSR
9 GND
10 +5V

JP?

VCC

Signal	Pin		Pin	Signal
TTL_RS232_RTS	8	T1_IN T1_OUT	3	RS232_CD
TTL_RS232_DTR	7	T2_IN T2_OUT	4	RS232_DSR
TTL_RS232_TX	15	T3_IN T3_OUT	2	RS232_RX
	16	T4_IN T4_OUT	1	RS232_RTS
	22	T5_IN T5_OUT	19	RS232_TX
TTL_RS232_RX	9	R1_OUT R1_IN	10	RS232_CTS
TTL_RS232_RI	6	R2_OUT R2_IN	5	RS232_DTR
TTL_RS232_CD	23	R3_OUT R3_IN	24	RS232_RI
TTL_RS232_DSR	17	R4_OUT R4_IN	18	
TTL_RS232_CTS	14	R5_OUT R5_IN	13	

20 EN
21 SHDN

GND

MAX205CPG or MAX235CPG

J1
DB9 MALE
1
6
2
7
3
8
4
9
5
RS232

Title
Enhanced NPLI i-o serial port add-on

opendesigns
schematic by prefect

opendesigns

Size: B   Number: 1   Revision: A
File: C:\Temp\io\io_serial_exp.sch   Date: 10-Apr-2000   Time: 14:13:35   Sheet 1 of 1