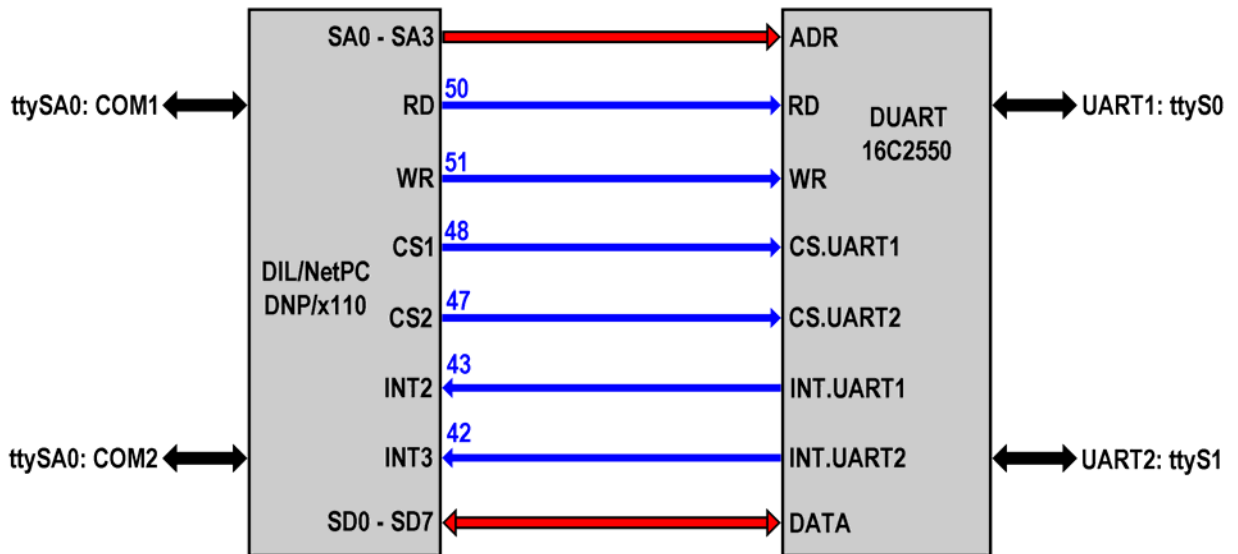


## How to add two additional UART Ports to a DNP/1110

The DIL/NetPC DNP/1110 comes with two UART-based serial ports (COM1: ttySA0 and COM2: ttySA1). This ports are implemented with the Intel StrongARM SA-1110 internal UARTs. With one external integrated circuit it is possible to add two additional UARTs.

- **1. Step:** Implement the following schematic on a DNP/1110 carrier board and expand the DNP/1110 with an 16C2550 Dual UART.



- **2. Step:** Download a Linux version with 16C2550 Dual UART support to the DNP/1110 flash memory (for example: the SSV release number 7 – 23.March.2004 – kernel version 2.4.18). The following table shows the port assignment.

Device Name	UART Port	Remarks
ttySA0	Intel StrongARM SA-1110 internal	-
ttySA1	Intel StrongARM SA-1110 internal	-
ttyS0	Driven by Dual UART 16C2550	Bus Signals CS1 and INT2
ttyS1	Driven by Dual UART 16C2550	Bus Signals CS2 and INT3

**Please note:** For more details about the 16C2550 Dual UART see the *16C2550 3.3 V Dual UART Data Sheet*. One copy is available at the DNP/1110 Starter Kt CD-ROM (Rev. 1.05 or newer).

The SSV Embedded Systems DIL/NetPC support team can supply you on request with a more detailed schematic for a 16C2550 Dual UART test board.

That's all.