

The OMI CDS3 TO DPX-1 Serial Board Illustrated

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Important note

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OMI and CDS3 are trademarks of Optical Media International
The information in this document is not based on any official specification of OMI or Oberheim and has not been confirmed or approved by these companies.
The information in this document only concerns factual observations of an operational OMI CDS3-to-DPX1 serial board in an Oberheim DPX-1 sample player.
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Change history

Date	Version	Description
18 Dec 2019	1.0	Initial version

Two different types of serial RS422 interface boards exist for transferring Emulator-II sound banks to the Oberheim DPX-1 sample player:

- A serial board designed and manufactured by Oberheim Electronics. This board was part of an optional extension which also included 8 individual output channels, and which fitted in the back of the DPX-1 case.
- A serial board designed and manufactured by Optical Media International. This board only consists of the RS422 interface, and did not fit in the back of the DPX-1 case.

The DB9 connector pin-out is different between the two boards. As a consequence, the serial cable for connecting the DPX-1 to the OMI CDS3 drive or to the EmuSer (e.g. for using EMXP to transfer banks from a computer to the DPX-1) is different for the two interface boards.

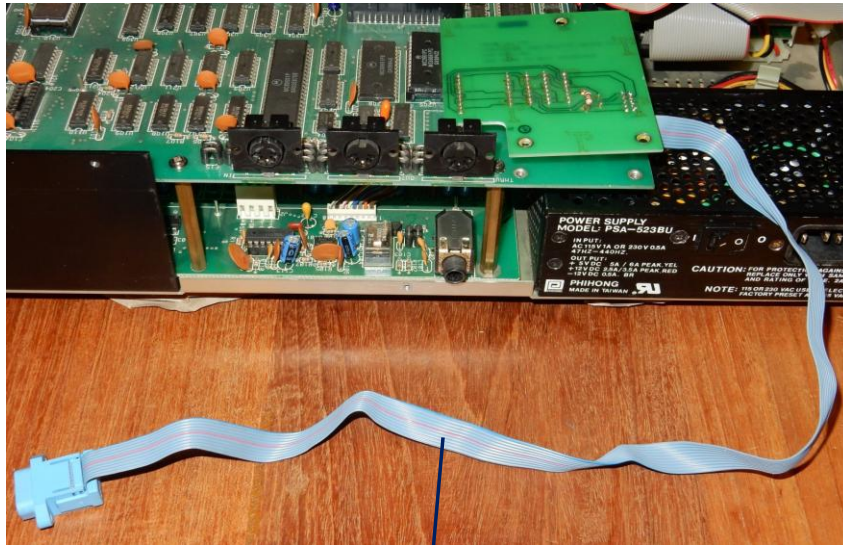
This document only illustrates the **serial board from Optical Media International**, and the cable that should be used for connecting the EmuSer to that serial board.

Please note that simply installing the serial board in the Oberheim DPX-1 is not sufficient.

- A **serial I/O microprocessor from Motorola** must be installed on the DPX-1 Digital Board as well.
- **Operating System 2.2** should be installed in the DPX-1.

1. The serial board installed in the DPX-1 player

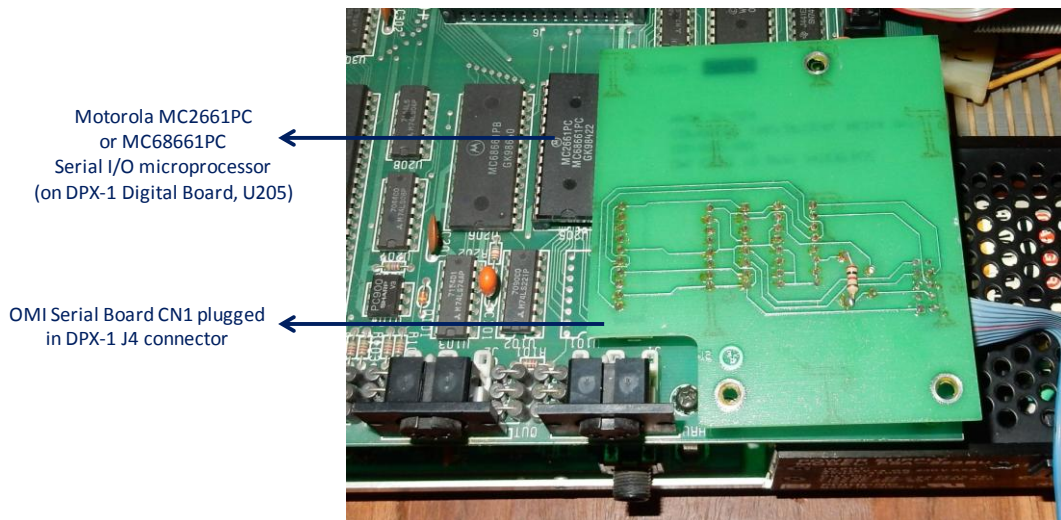




Ribbon cable with (9 or) 10 wires and male DB9 connector, length approx. 500 mm

The board can simply be plugged in the J4 connector of the DPX-1 digital board.
 A protective isolating (plastic) shield should be attached to the board in order to prevent shortcuts with the metal housing of the DPX-1 player (not shown in picture)

2. Serial board details



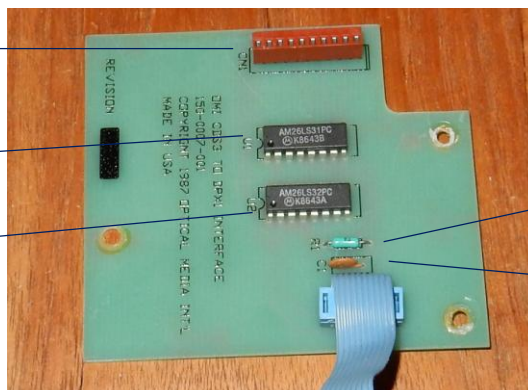
Motorola MC2661PC
 or MC68661PC
 Serial I/O microprocessor
 (on DPX-1 Digital Board, U205)

OMI Serial Board CN1 plugged
 in DPX-1 J4 connector

10 pin female
 connector
 (step 2.54mm)

AM26LS31PC
 RS422 Driver IC

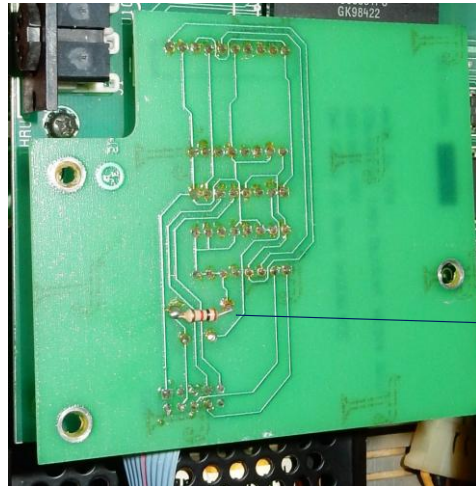
AM26LS32PC
 RS422 Receiver IC



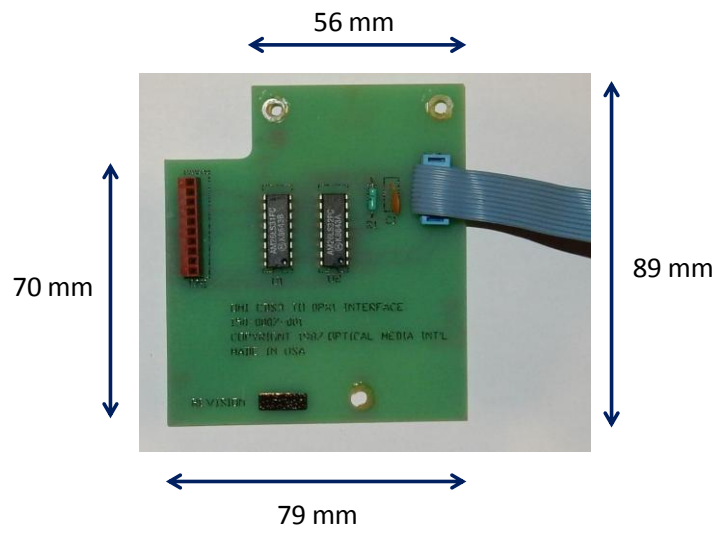
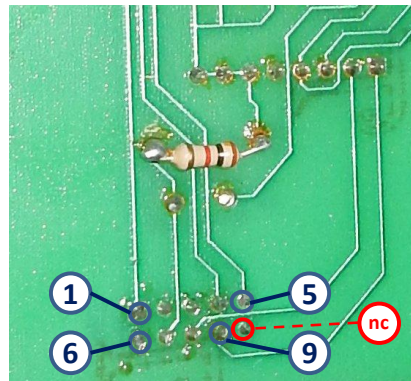
R1 = 910 Ohm consists of 2 resistors in parallel (1KOhm//10KOhm)
 One is installed on the top side of the board, the other one on the bottom side.

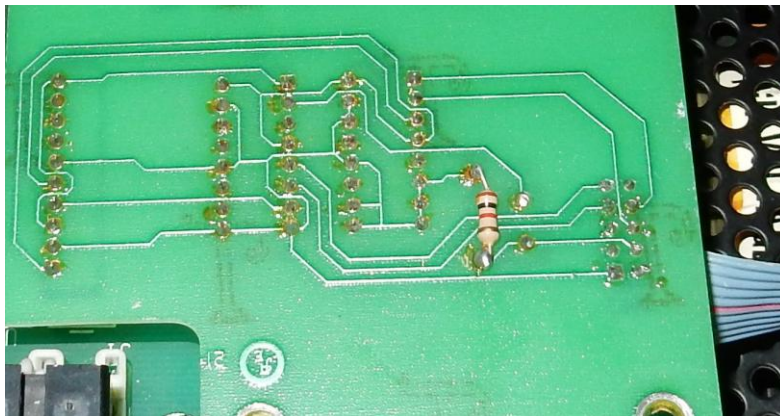
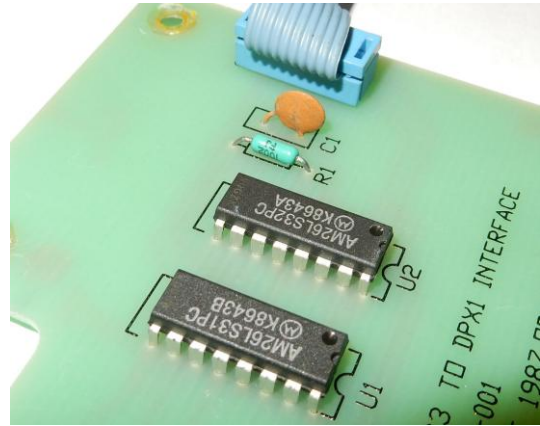
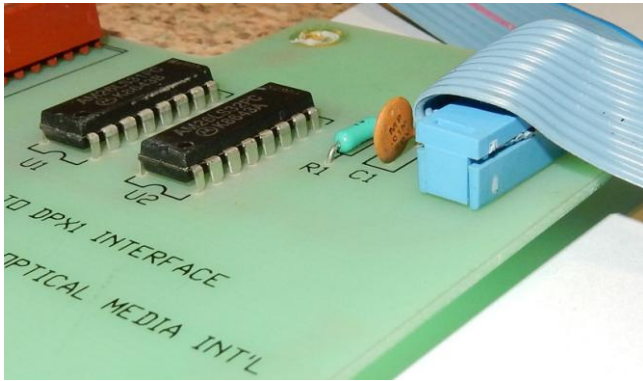
Resistor 10 KOhm
 Metal film (1002 FJ)

Capacitor 0.01 microFarad
 Ceramic 50V



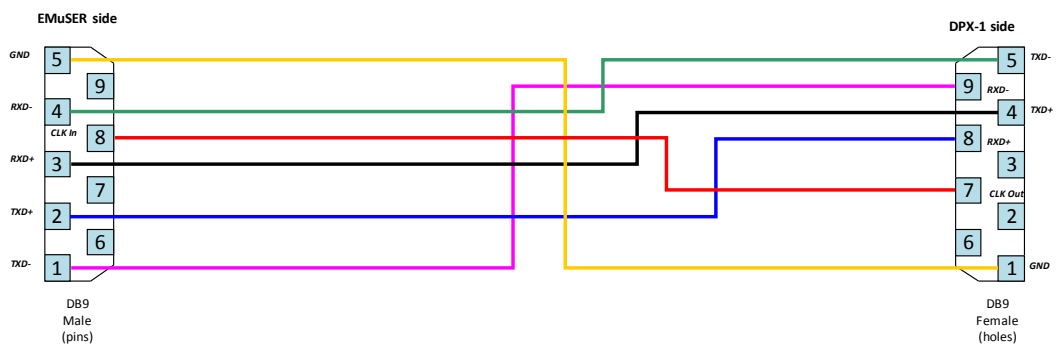
Resistor 1 KOhm
+/- 5%





3. Cable specification for connecting EmuSer to OMI DPX Serial board

EMuSer v1.02 Connection Cable Wiring Schema for DPX-1
(if an OMI CDS3 to DPX1 interface board has been installed in DPX-1)



D-SUB DB9 Pin Numbering Conventions

