

**phyCORE-XC161 (PCM-020)
phyCORE-XC167 (PCM-021)
OCDS 1 Connector Pin Description**

This application note contains important information regarding the use of the OCDS 1 interface provided on the Infineon XC161/XC167 controller mounted on a phyCORE-XC161 and phyCORE-XC167 Single Board Computer module in conjunction with the Keil ULink interface.

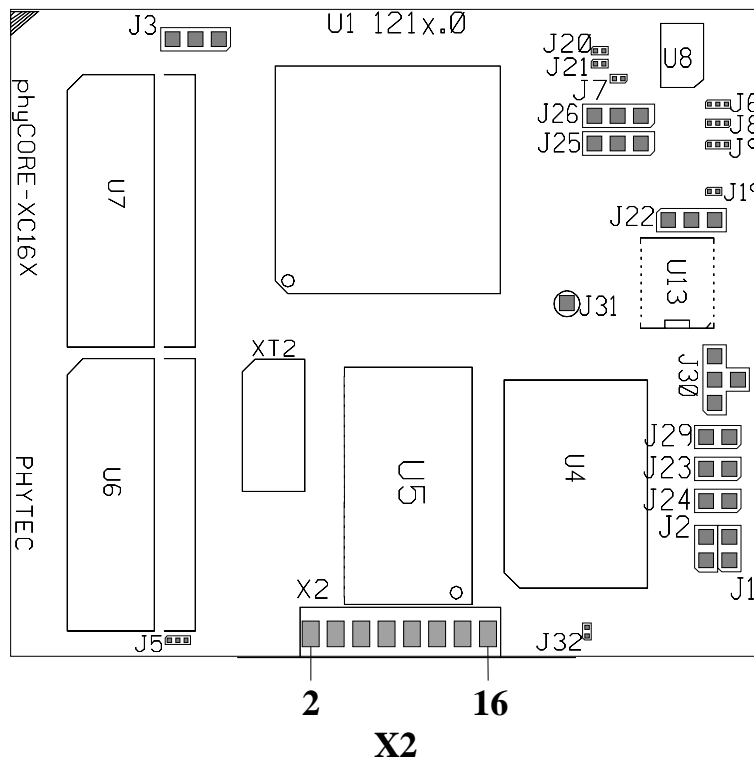


Figure 1: View of the phyCORE-XC16x, Controller Side

All pins on the X2 OCDS 1 connector are in 2.0 mm pitch. The suitable pin header connector to populate solder space X2 can be ordered from PHYTEC (part number VL094).

Connecting the phyCORE-XC161 to a Debugger Interface, such as the Keil ULink Device

If a 16-pin header connector (PHYTEC part number VL094) populates X2 on the phyCORE-XC161, debug connectivity requires two additional components:

- flat-band adapter cable, PHYTEC part number WF040
- male-to-male pin adapter, PHYTEC part number VA004, enabling mating of the ULink OCDS debug interface cable to the WF040 adapter cable

Please refer to the image below regarding proper interfacing of these components.

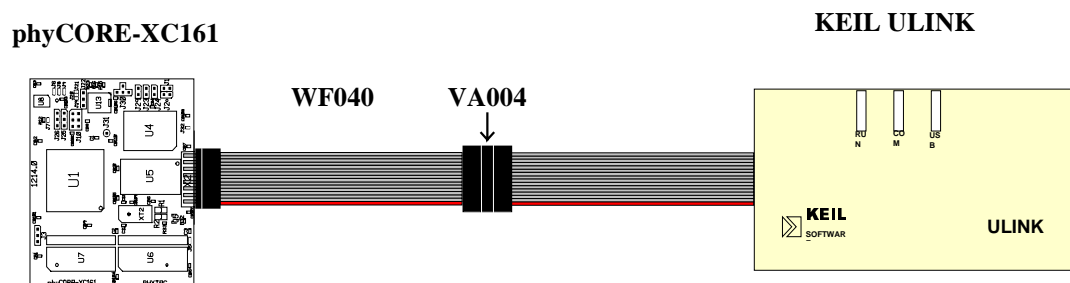


Figure 2: Connecting the phyCORE-XC161 to a Keil ULink Debug Interface

Connecting the phyCORE-XC167 to a Debugger Interface, such as the Keil ULink Device

If a 16-pin header connector (PHYTEC part number VL094) populates X2 on the phyCORE-XC167, debug connectivity requires a flat-band adapter cable, PHYTEC part number WF040, to be connected inside the Keil ULink device. Follow the steps below:

- Open the KEIL ULink.
- Remove the flat-band cable that is connected to the header row labeled as "Infineon 16Pin".
- Plug the WF040 adapter cable into this connector. Make sure pin 1 of the cable (red wire) matches pin 1 of the connector.
- Close the KEIL ULink device.
- Connect the Ulink to X2 on the phyCORE-XC167.

Please refer to the image below regarding proper interfacing of these components.

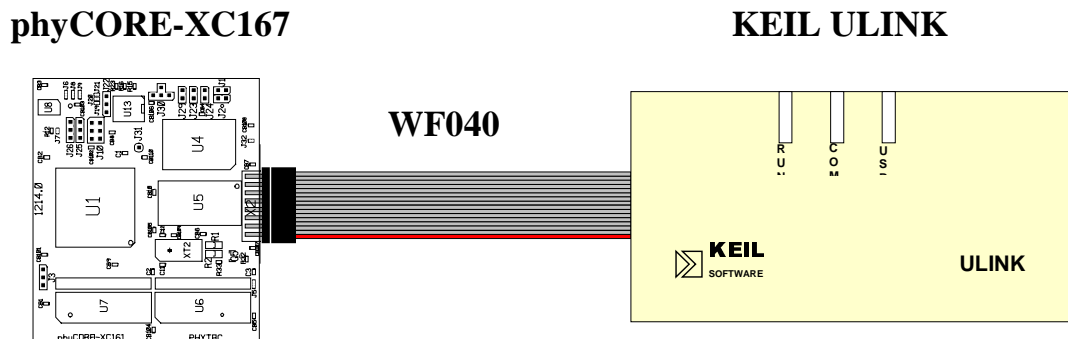


Figure 3: Connecting the phyCORE-XC167 to a Keil ULink Debug Interface

Please contact PHYTEC should you require any of these components or have any additional questions.