Adapter Works

Part Number ADP/EVAL-161O/V/K - for the Infineon C161 Family

General Description

This adapter is designed to connect the Nohau EMUL166-PC and EMULST10-PC to targets containing a 80 pin Infineon C161x processor. An industry standard layout for the target PC board is employed. This connector will adapt the Nohau emulators to the Phytec KitCON-161 evaluation board sold by Infineon. For a custom target board, pads must be provided for the four surface mount sockets. For detailed mechanical specifications for these pads, please contact Nohau Technical Support at support@nohau.com. Note: Infineon was once called Siemens Microcontrollers.

Refer to the photo of the adapter. The top of the adapter shows the part number and the Nohau logo. This is the side that attaches to the emulator. The other side shows "Bottom Side" (hard to read) and this connects to the target.

Important note: There are two triangles on both sides of the adapter PC board and they are in different positions. The one shown here on top of the adapter refers to pin 1 of the emulator which in turn conforms to the C167 positioning. This triangle must line up with the chamfer corner on the emulator as described below. The triangle on the bottom of the adapter is rotated 90 degrees from the top triangle and conforms to the target CPU pin 1. This is the corner of the microcontroller that contains the index mark and thus marks pin 1. This index mark is a depressed circle on the C161 and a hollow triangle on the Phytec KitCON board as distributed by Nohau and Infineon. The target C161 will be disabled by the emulator and will be tri-stated. (Infineon Adapt Mode)

Target Board Sockets

Four dual in-line sockets must be soldered to the target board and these sockets are provided with the adapter. Note there is one guide extrusion on each socket and on the corresponding plugs on the adapter for orientation purposes. Match the sockets with the adapter bottom for orientation.

The sockets must be installed correctly on the target board or the adapter will not fit. Have the sockets soldered on with the appropriate soldering equipment or the board or sockets may be damaged.

Installation of the Adapter on to the Target Board

Align the *bottom* triangle on the adapter with the depressed circle on the processor or the hollow white triangle on the Phytec board and gently press the adapter on the target board. Use no more than normal finger pressure. Make sure the adapter is seated evenly.

Installation of the Adapter on the Emulator Pod

The underside of the emulator will have a large white printed outline of a square with a corner chamfered or truncated. This square surrounds the four sockets that connect to the bondout controller on the pod. *This truncated corner on the emulator must be aligned with the triangle on the TOP of the adapter. Not to the target system CPU pin 1.*
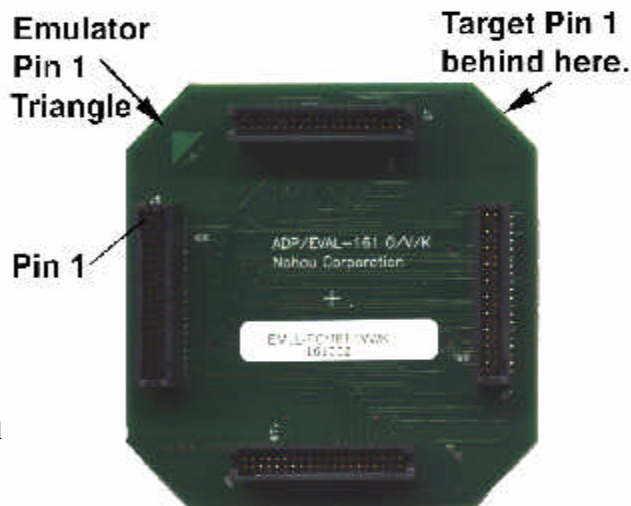
When the adapter is correctly connected to the pod: the triangle on the bottom of the adapter will point towards the READY jumper on the pod. Most emulator models have an extra 10 pin connector (i.e. J P46 or JP10) but it is not used with this adapter.

Emulation

Pin 1 of Port 0 (P0L.1) must be pulled low during reset to put the target controller into Adapt Mode. This disables the target controller and effectively removes it from the circuit except for a tiny amount of capacitance. The bondout controller on the emulator pod becomes the target processor. Nohau C166 and ST10 emulators contain a 10K ohm pulldown resistor to accomplish this. This will be sufficient in almost all cases but if the target has enough pullup resistance an external resistance may be necessary.

The Phytec KitCON 161 has two different operating modes. For details on running the emulator with these boards, ask for Nohau Application Note 102. This note is available on the Nohau website. www.nohau.com

For more information regarding the operation of your emulator connected to your target, consult the operating manual and the on-line help. If you experience problems, contact your local Nohau representative for assistance. Attempt first to run your emulator in stand-alone mode without being connected to the target. For information concerning connection with Nohau emulators and targets, contact Nohau tech support at support@nohau.com and ask for Case Studies or go to www.nohau.com.

Emulator Pin 1 Triangle — Target Pin 1 behind here. — Pin 1 — ADP/EVAL-161 O/V/K Nohau Corporation — EMUL-PC161/V/K 161xxx

Top View - Emulator side.

c161adapt.p65 v 1.3

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Cut Your Development Time !

**Quad Connector System QC80
Target Headers for Siemens C161 O/V/K**
The drawing below is the Target Layout.

Version 1.5
December 19, 2001
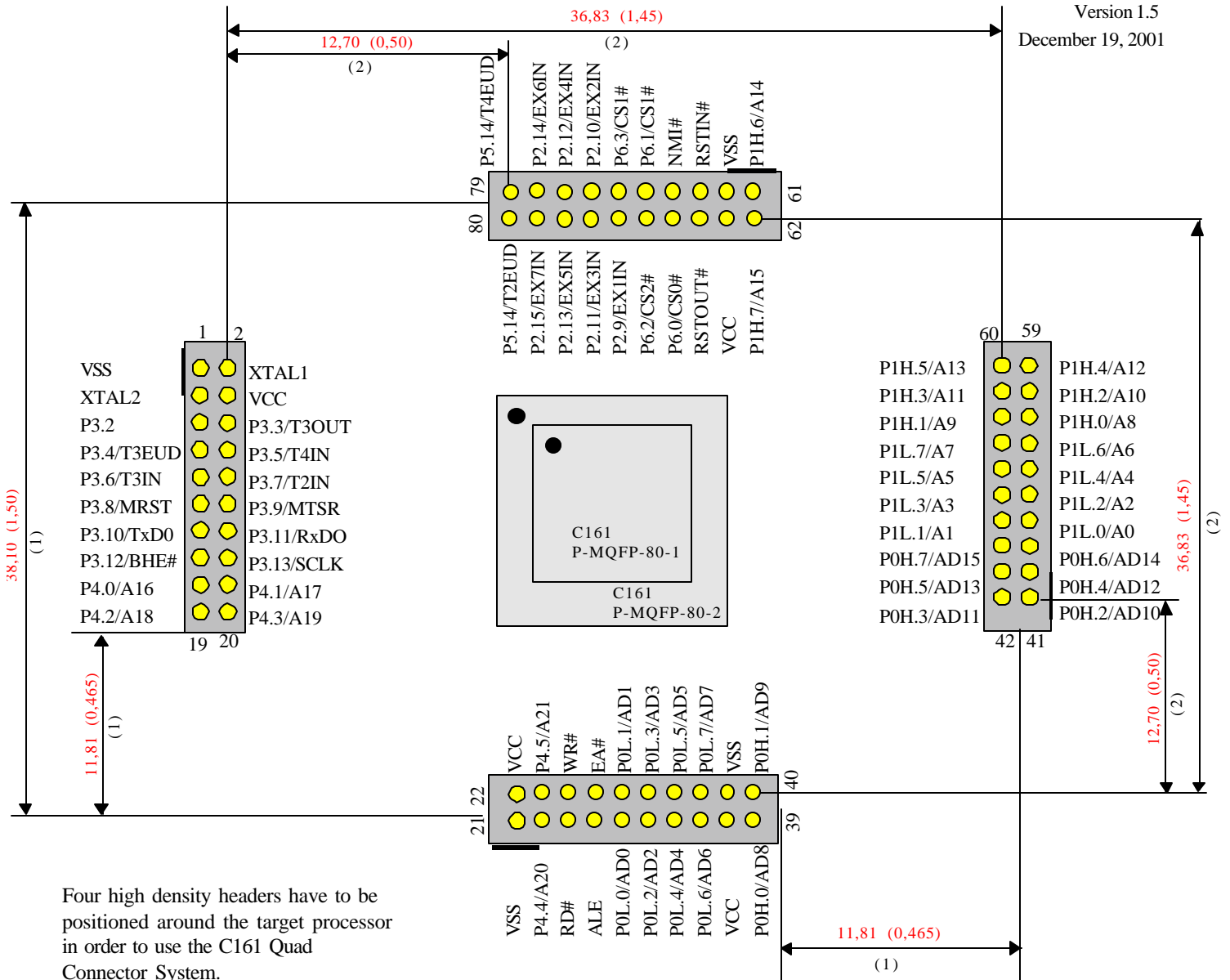
Four high density headers have to be positioned around the target processor in order to use the C161 Quad Connector System.

Top Connector: Use the Nohau EMUL166-PC/ADP-EVAL-161 O/V/K adapter.

Bottom Connector: Four headers with twenty positions have to be used: AMP 50/50 Grid SM Connectors solderes into the target system: AMP Part # 20 postions:104693-2 or SAMTEC .050x..050 MICRO STRIPS (TRM Series, Surface Mount) soldered into the target system. SAMTEC Part # 20 positions: TFM-110-22-S-D-LC or SAMTEC .050x.050 MICRO STRIPS (TFM Series, Through-Hole) soldered into the target system. SAMTEC Part # 20 positions: TFM-110-21-S-D.

The dimensions with (1) are for SMD and the dimensions with (2) are for Through-Hole.

-Pin Numbers on the Quad Connectors refer to the P-MQFP-80-1 (pitch= 0,65mm). All dimensions are in mm (inch).

▬ This symbol shows where the keys are on the connectors.