# Model PCIDCC5/10/20-P

## PCI Based 5,10, and 20 Channel Counter/Timer Cards

### FEATURES

- *5 Independent 16-Bit Counters*
- *Cascadable Counters*
- *Measures Frequency to 7Mhz*
- *Up/Down and Binary/BCD Counting*
- *Programmed Frequency Output*
- *Alarm Comparators on Two Counters*
- *Supported by Major Application Software Packages*
- *10 or 20 Independent 16-Bit Counters*
- *Binary/BCD - Up/Down*
- *Programmable Count Source/Gate Selection*
- *Programmable Input/Output Polarities*
- *Interrupt Handling*
- *1 MHz TTL Oscillator*
- *Counters Internally Cascadable*

CE

## DESCRIPTION

The PCIDCC5/10/20-P family consists of three models, the PCIDCC5-P, PCIDCC10-P, and the PCIDCC20-P. The PCIDCC20-P contains four AM9513 System Timing Controller LSI circuits. Each AM9513 consists of five independent 16-bit up/down counters. The PCIDCC10-P contains two AM9513 circuits and the PCIDCC5-P contains one. The PCIDCC5-P does however, contain an 8-bit input port and an 8-bit output port in addition to the AM9513. The PCIDCC10-P and PCIDCC20-P are physically the same board except for the difference in the number of counters. On the PCIDCC10-P and PCIDCC20-P, the signals for each counter are available on independent 26-pin headers. On the PCIDCC5-P, the signals are available on a DB37 male connector. The counters can be programmed to count up or down in either binary or BCD. A selection of various internal and external frequency sources and outputs may be chosen as inputs for individual counters with software selectable active-high or active-low polarities. Each counter may be gated by either software or hardware. Each counter has a single dedicated output pin. Considerable versatility for configuring both the input and the gating of individual counters is provided. This not only permits dynamic re-assignment of inputs under software control, but also allows multiple counters to use a single input, allows a single gate input to control more than one counter, and allows for cascading. The PCIDCC5/10/20-P series of adapters is fully PCI 2.1 compliant and thus "Plug-and-Play". The Interupt Request (IRQ) and Base Address of the adapter is defined by the PCI BIOS. This scheme typically prevents I/O and IRQ conflicts.

## COUNTER TIMER

**Counter Type**
AM9513

**Number of Counters**
One offering 5, 10, and 20 independent channels

**Counter Clock**
1.00 Mhz (±0.01%, 0 to 70° C)

## DIGITAL I/O (DCC5-P ONLY)

**Number of Lines**
8 input and 8 output, latched

**Logic**
LSTTL

**Input Low**
-0.5 to 0.8VDC

**Input High**
2.0 to 5.0VDC

**Output Ports**
Can drive up to 15 standard TTL loads or 60 low-power Schottky loads

## GENERAL

**Power Required**
+5VDC @ 400mA typical

**Software Provided**
Sample programs in BASIC & C
Setup Aid Utility

## PHYSICAL

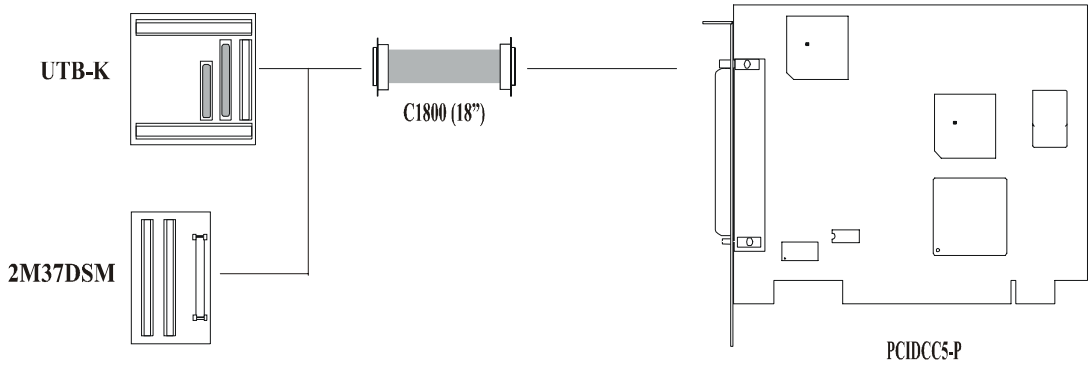
**Temperature Range**
Operating: 0 to +50° C
Storage: -25 to +85° C

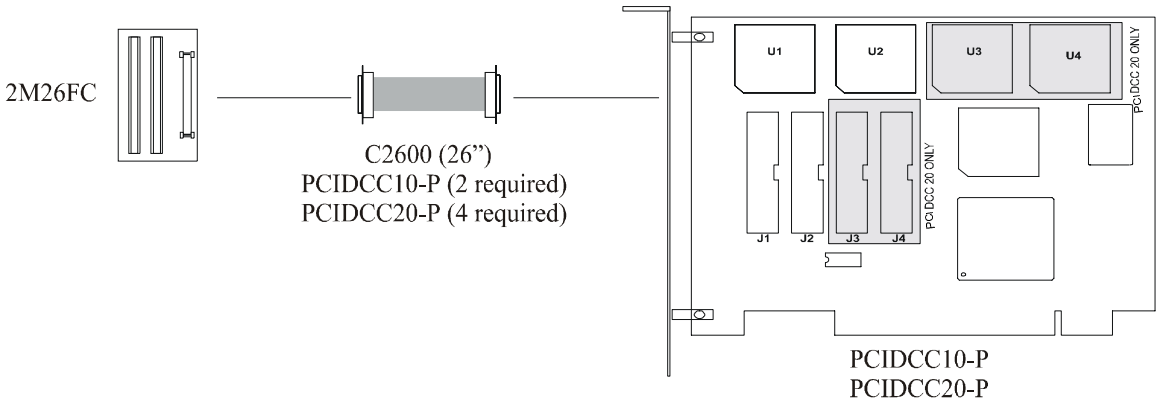
**Humidity**
0 to 90%, RHNC

**Size**
1/2 Slot

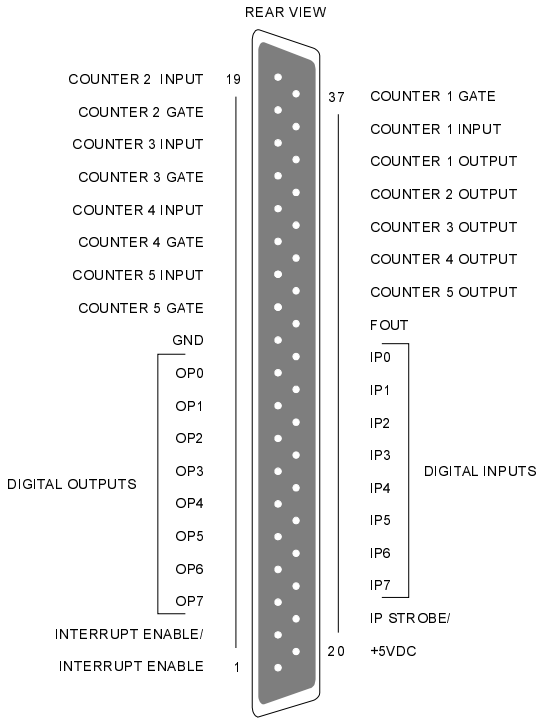
**Connector Type**
37-pin D-shell, male (PCIDCC5-P)
26-pin IDC header (PCIDCC10/20-P)

**Agency Approvals**
CE Conformity with:
EU EMC Directive 89/336/EEC
EU Low Voltage Directive 72/23/EEC



## CONNECTOR PINOUTS




**Connectors J1 - J4**

| | | | | |
|---|---|---|---|---|
| Out 3 | 1 | 2 | Out 2 |
| Gate 2 | 3 | 4 | Out 1 |
| Out 4 | 5 | 6 | Gate 1 |
| Out 5 | 7 | 8 | Gate 3 |
| Gate 4 | 9 | 10 | Gate 5 |
| Source 1 | 11 | 12 | Source 2 |
| Source 3 | 13 | 14 | Source 4 |
| Source 5 | 15 | 16 | Fout |
| N/C | 17 | 18 | N/C |
| N/C | 19 | 20 | N/C |
| N/C | 21 | 22 | N/C |
| N/C | 23 | 24 | 5VDC |
| Gnd | 25 | 26 | N/C |

## ORDERING GUIDE

### MODELS

**Model PCIDCC5-P**
5 Counter/Timer Card, manual, software

**Model PCIDCC10-P**
10 Counter/Timer card, manual, software

**Model PCIDCC20-P**
20 Counter/Timer card, manual, software

### ACCESSORIES

**Model UTB-K**
Termination card/Metal Enclosure

**Model UTB**
Termination board

**Model 2M37DSM**
Screw termination panel

**Model C1800**
18" (487 mm) cable

### ACCESSORIES (CONTINUED)

**Model 2TK2D-6**
6" section of SNAPTRACK

**Model TKAD**
Din rail mounting clips for SNAPTRACK (2 required)

**Model 2M26FC**
Termination card for PCIDCC10-P or PCIDCC20-P, one required for each counter chip (maximum of 4)

**Model C2600**
36" (914 mm) cable for interface between PCIDCC10-P or PCIDCC20-P & 2M26FC, one required for each counter chip/termination card (maximum of 4)

ICS ADVENT
6260 Sequence Drive
San Diego, CA 92121
800 523-2320
fax 858 677-0895
www.icsadvent.com

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