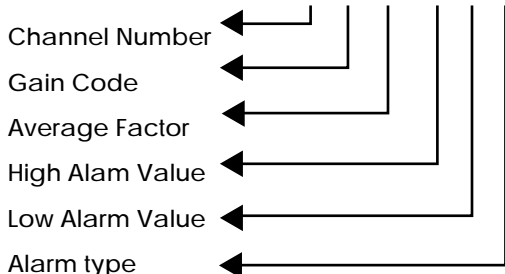




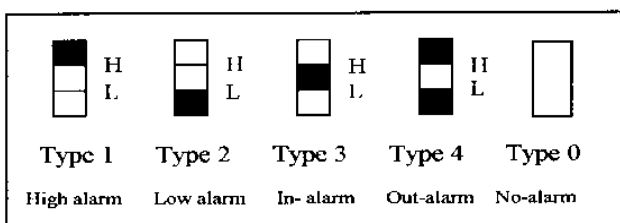
Powerful Function Call & Easy Programming

The format of Function Call

P180X_AddToScan (N, G, AF, H, L, A)



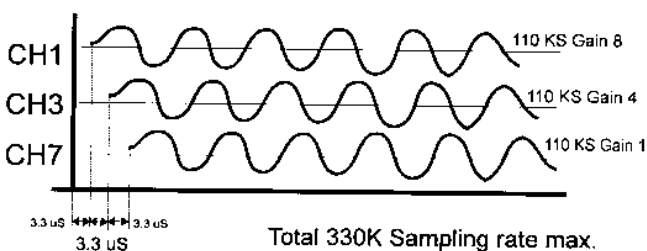
Alarm Type



Scan Sequence

Programming example 1

```
//Reset MagicScan controller
P180X_ClearScan();
//scan CH:1, Gain code:3, Average factor:1
//set High Alarm: 0.5V, set low alarm: -0.5V, Alarm Type:4
P180X_AddToScan(1,3,1,0.5,-0.5,4);
//scan ordinal number 0, the second data be stored in
//wBuf1
P180X_SaveScan(0,wBuf1);
//scan CH:3, Gain code:2, Average factor:1,
//set High Alarm: 0.0V,set Low Alarm: -1.5V, Alarm Type:2
P180X_AddToScan(3,2,1,0.0,-1.5,2);
//scan ordinal number 1, the scanned data be stored in
//wBuf3
P180X_SaveScan(1,wBuf3);
//scan CH:7, Gain code:0, Averaging factor:1,
//set High Alarm: 4.0V, set Low Alarm: 0.0V, Alarm Type:1
P180X_AddToScan(7,0,1,4.0,0.0,1);
//scan ordinal number 2, the scanned data be stored in
//wBuf7
P180X_SaveScan(2,wBuf7);
//set sampling rate of Magicscan as 8M/24=330K, each
//channel scan 100 points
//the priority of MagicScan thread is THREAD-PRIORITY-
//NORMAL
P180X_startScan(24,100,0);
```

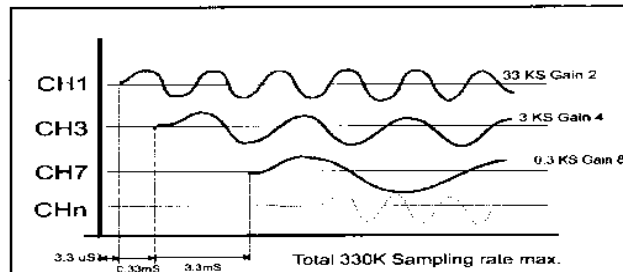


Note:

- High speed ,low channel count scan
- Max. Speed = 330K /3 = 110 K
- Sampling rate of channel 1, 3, 7 is 110K
- Channel 7 > 4V (high alarm)
- Channel 3 <-1.5V (low alarm)
- Channel 1 > 0.5V (out of range alarm)
- Channel 1 <-0.5V (out of range alarm)

Program example 2

```
// Reset MagicScan controller
P180X_ClearScan();
//scan CH:1, Gain code:1, Average factor:1, NO
//Alarm
P180X_AddToScan(1,1,1,0,0,0);
//scan ordinal number 0, the scanned data be
//stored in wBuf1
P180X_SaveScan(0,wBuf1);
//scan CH:3, Gain code:2, Average factor:10, No
//Alarm
P180X_AddToScan(3,2,10,0,0,0);
//SCAN ORDINAL NUMBER 1, THE SCANNED DATA BO
//STORED IN wBuf3
P180X_SaveScan(1,wBuf3);
//scan CH:7, gain code:3, Average factor:100,No
//Alarm
P180X_AddToScan(7,3,100,0,0,0);
//scan ordinal number 2, the scanned data be
//stored in wBuf7
P180X_SaveScan(2,wBuf7);
//set sampling rate of MagicScan as 8M/24=330K,
//each channel scan 100 points.
//the priority of MagicScan thread is THREAD-
//PRIORITY-NORMAL
P180X_StartScan(24,100,0);
```



NOTE:

- High channel count scan at vastly different rates

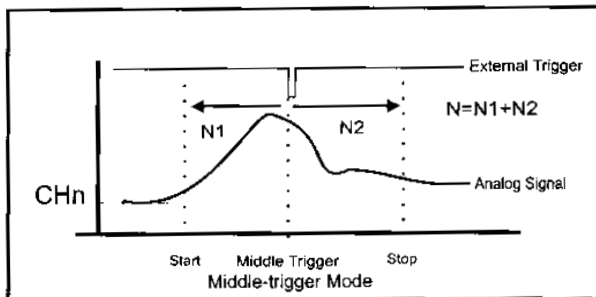
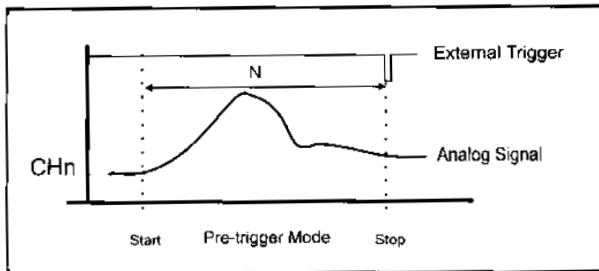
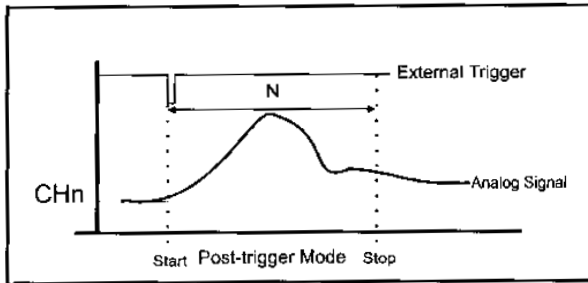


Powerful Function Call & Easy Programming

Diverse Trigger Mode

PCI-1800 series provide diverse internal and external trigger modes. The internal trigger includes software trigger and pacer timer trigger. The external trigger includes the following trigger modes:

- Post-trigger mode : Acquisition begins after an external trigger and continues until the specified number of samples are collected
- Pre-trigger mode : Acquisition occurs before an external trigger occurs
- Middle trigger mode : Acquisition occurs before and after an external trigger occurs. The samples number can be pre-defined.



Software

- PCI-180X Development Toolkit for DOS
- PCI-180X Development Toolkit for Win95
- PCI-180X Development Toolkit for WinNT
- PCI-1202 Development Toolkit for DOS
- PCI-1202 Development Toolkit for Win95
- PCI-1202 Development Toolkit for WinNT

Order Description

- PCI-1800H : 330KS/s High Gain 12-bit Analog and Digital I/O Board (1K word FIFO)
- PCI-1800H/NDA : PCI-1800H Without D/A
- PCI-1800L : 330KS/s Low Gain 12-bit Analog and Digital I/O Board (1K word FIFO)
- PCI-1800L/NDA : PCI-1800L Without D/A
- PCI-1802H : High Channel ,330KS/s High Gain 12-bit Analog and Digital I/O Board (2K word FIFO)
- PCI-1802L : High Channel , 330KS/s Low Gain 12-bit Analog and Digital I/O Board (2K word FIFO)
- PCI-1802L /8K : High Channel , 330KS/s Low Gain 12-bit Analog and Digital I/O Board (8K word FIFO)
- PCI-1202L: High Channel , 110KS/s Low Gain 12-bit Analog and Digital I/O Board (1K word FIFO)
- PCI-1202H: High Channel , 110KS/s High Gain 12-bit Analog and Digital I/O Board (1K word FIFO)

Options

- DB-1825 : Screw terminal board with bread area for filter circuitry added for the PCI-1802H, -1802L, -1202H, -1202L
- DB-8225 : Screw terminal board , filter circuitry can be added for PCI-1800H,1800L
- DB-16P : 16 Channel isolated digital input Board
- DB-16R : 16 Channel SPDT relay board
- ADP-20/PCI: 20-pin Extender
- PCI-1800 LabVIEW Development Toolkit for Win95
- PCI-1800 LabVIEW Development Toolkit for WinNT
- PCI-1202 LabVIEW Development Toolkit for Win95
- PCI-1202 LabVIEW Development Toolkit for WinNT

Pin Assignment of PCI-1800H,PCI-1800L is the same as A-822PGH.

Pin Assignments of PCI-1802H,PCI-1802L

AI 0	1	●	20	AI16
AI 1	2	●	21	AI17
AI 2	3	●	22	AI18
AI 3	4	●	23	AI19
AI 4	5	●	24	AI20
AI 5	6	●	25	AI21
AI 6	7	●	26	AI22
AI 7	8	●	27	AI23
AI 8	9	●	28	AI24
AI 9	10	●	29	AI25
AI10	11	●	30	AI26
AI11	12	●	31	AI27
AI12	13	●	32	AI28
AI13	14	●	33	AI29
AI14	15	●	34	AI30
AI15	16	●	35	AI31
A.GND	17	●	36	DA2 out
DA1 out	18	●	37	D.GND
Ext Trg	19	●		