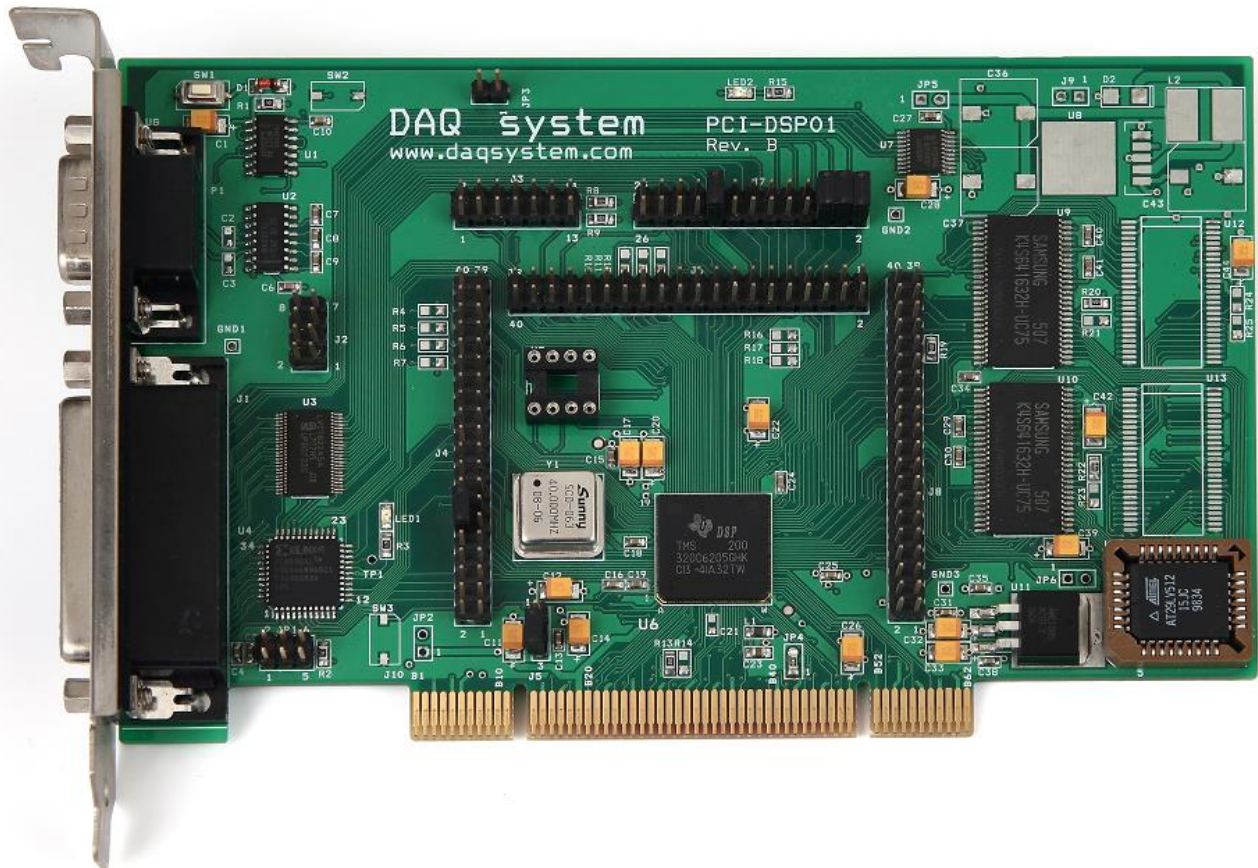


PCI-DSP01

API Manual

Version 1.0



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Board Level API Functions

Overview

int	OpenDAQDevice (void)
BOOL	ResetBoard (int nBoard)
BOOL	CloseDAQDevice (void)

OpenDAQDevice

This function opens the device. The device must be opened by calling the function once at the beginning.

BOOL OpenDAQDevice (void)

Parameters:

Return Value:

If device open is successful, the number of devices currently installed in the system (PC) is returned. In case of failure, "-1" is returned.

ResetBoard

This function resets the system. It is used when the system operates abnormally.

BOOL ResetBoard (int nModel, int nBoard)

Parameters:

nBoard : Shows the board number currently installed in the system.

The board number is set using the DIP switch of the board.

Return Value:

If the function call fails, "FALSE" is returned.

If the function call succeeds, "TRUE" is returned.

CloseDAQDevice

This function is called when the program is terminated to release the resources used by the program. It is called and used at the end of the program.

BOOL CloseDAQDevice (void)

Parameters:

Return Value:

If the function call fails, "FALSE" is returned.

If the function call succeeds, "TRUE" is returned.

IO(Input Output) API Functions

Overview

BOOL **IO_Read (int nReg)**

BOOL **IO_Write (int nReg, WORD Val)**

IO_Read

This function reads the 32-bit value of the register in the I/O area of the DSP.

BOOL **IO_Read (int nReg)**

Parameters:

nReg : It was prepared for future expansion.

It is not currently used, but must be set to '0'.

Return Value:

If the function call fails, "FALSE" is returned.

If the function call succeeds, "TRUE" is returned.

IO_Write

This function writes the 32-bit value of the register in the DSP's I/O area.

BOOL **DOUT_Read (int nReg, WORD val)**

Parameters:

nReg : It was prepared for future expansion.

It is not currently used, but must be set to '0'.

val : The value to write to the output port.

Return Value:

If the function call fails, "FALSE" is returned.

If the function call succeeds, "TRUE" is returned.

Memory API Functions

Overview

BOOL	MEM_Read (DWORD nCnt, DWORD offset, DWORD *buf)
BOOL	MEM_Write (DWORD nCnt, DWORD offset, DWORD *buf)
BOOL	MEM_Read_Range1 (DWORD nCnt, DWORD offset, DWORD *buf)
BOOL	MEM_Write_Range1 (DWORD nCnt, DWORD offset, DWORD *buf)

MEM_Read

BOOL MEM_Read (DWORD nCnt, DWORD offset, DWORD *buf)

This function reads data as much as nCnt from the specified offset of the DSP's memory area and stores it in buf. Returns TRUE if the call succeeds, FALSE if it fails.

MEM_Write

BOOL MEM_Write (DWORD nCnt, DWORD offset, DWORD *buf)

This function reads data from buf as much as nCnt from the specified offset of the DSP's memory area and writes it to the board memory. Returns TRUE if the call succeeds, FALSE if it fails.

MEM_Read_Range1

BOOL MEM_Read_Range1 (DWORD nCnt, DWORD offset, DWORD *buf)

This function reads data as much as nCnt from the specified offset of the DSP memory area Range1 (Peripheral Registers) and stores it in buf. Returns TRUE if the call succeeds, FALSE if it fails.

MEM_Write_Range1

BOOL MEM_Write_Range1 (DWORD nCnt, DWORD offset, DWORD *buf)

This function reads data from buf as much as nCnt from the specified offset of the DSP's memory area Range1 (Peripheral Registers) and writes it to the board memory. Returns TRUE if the call succeeds, FALSE if it fails.

(Example of function usage) Mem_Read(2, 4, buf); In the case of , if the currently set Page value (eg 3) is multiplied by 0x00400000, and offset(4) is added to 0x00C00000, 2 WORD (8Byte) values are read from address 0x00C00004 and read into buf.

Memo

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