

Programmer's Guide

DDS-3X25 USB

Content

- 1. BRIEF 1
- 2. INTERFACE DESCRIPTION..... 2
 - 2.1. DDSSEARCH..... 2
 - 2.2. DDSSETFREQUENCY 2
 - 2.3. DDSGETMEASURE 2
 - 2.4. DDSSETSINGLEWAVE..... 3
 - 2.5. DDSRESETCOUNTER 3
 - 2.6. DDSSETTRIGGER 3
 - 2.7. DDSGETDIGITALIN 4
 - 2.8. DDSSETDIOMODE..... 4
 - 2.9. DDSSETDIGITALOUT 4
 - 2.10. DDSDOWNLOAD..... 5
 - 2.11. DDSCHECK..... 5
 - 2.12. DDSSETPOWERONOUTPUT 5

1. Brief

DDS-3X25 USB offers the agile interface of second time development for users, and offers examples for many languages and the editor .Users can use the functions interface in DDS-3X25Dll.DLL to implement all functions of DDS-3X25 USB, and to be inserted into other auto-measuring systems.

Let's explain every function interface using VC6.0. Interface of any language implement complete same functions. It's used to reference. The declaration of interface can reference second time development that our company offers for you. Users pay attention to the questions of the variable type and address's transfer.

2. Interface Description

2.1. DDSearch

Description: Search the current computer-connected devices, and initialization..
Function: Int DDSearch()
Parameters: NULL
Return: The number of devices connected to computer.

2.2. DDSetFrequency

Description: Set the frequency of waveform
Function: BOOL DDSetFrequency(
 int index,
 double frequency,
 int* wavePointNum,
 int* TNum
);
Parameters: int index: device serial number
double frequency: frequency
int* wavePointNum: the number of points of the current waveform to download
int* TNum: The periods of the waveform to download
Return: If return true ,it express successful operation, else express failing operation.

2.3. DDSGetMeasure

Description: Get the value of frequency or counter
Function: BOOL DDSGetMeasure(
 int index,
 BOOL bFreq,
 double* measure
);
Parameters: int index: device serial number
BOOL bFreq: 0: frequency, 1:counter
Double* measure: the value of frequency or counter
Return: If return true ,it express successful operation, else express

failing operation.

2.4. DDSetsingleWave

Description: Set the type of waveform output.
Function: `BOOL DDSetsingleWave(
 int index,
 BOOL bSingle
);`
Parameters: int index: device serial number
 BOOL bSingle: 1: Single waveform, 0: Continuous waveform
Return: If return true ,it express successful operation, else express failing operation.

2.5. DDSResetCounter

Description: Reset the counter
Function: `BOOL DDSResetCounter(
 int index
);`
Parameters: int index: device serial number
Return: If return true ,it express successful operation, else express failing operation.

2.6. DDSSetTrigger

Description: Set the type of trigger
Function: `BOOL DDSSetTrigger(
 int index,
 BOOL bInter,
 BOOL bEdge
);`
Parameters: int index; device serial number
 BOOL bInter: 1: External trigger, 0: Inner trigger
 BOOL bEdge: 0:Rise edge, 1:Fall edge, (Only effective when external trigger)
Return: If return true ,it express successful operation, else express failing operation.

2.7. DDSGetDigitalIn

Description: Read Digital In ports
Function: `BOOL DDSGetDigitalIn(
 int index,
 unsigned short* In
);`
Parameters: int index; device serial number
unsigned short* in: The value of digital in, only low six bits effected.
Return: If return true ,it express successful operation, else express failing operation.

2.8. DDSSetDIOMode

Description: Switch the mode of DDS
Function: `BOOL DDSSetDIOMode(
 int index,
 BOOL mode
);`
Parameters: int index; device serial number
BOOL mode: 1: Programmable output 0: Generator output
Return: If return true ,it express successful operation, else express failing operation.

2.9. DDSSetDigitalOut

Description: Set the programmable output ports, only affected in programmable output.
Function: `BOOL DDSSetDigitalOut(
 int index,
 unsigned short Out
);`
Parameters: int index; device serial number
unsigned short Out: the value of digital output, only low 12 bits effected.
Return: If return true ,it express successful operation, else express failing operation..

2.10. DDSDownload

Description: Download waveform to DDS

Function: `BOOL DDSDownload(
 int index,
 unsigned short* buf,
 int number
);`

Parameters: `int index;` device serial number
`unsigned short* buf:` the pointer to the buffer of waveform
`int number:` the size of waveform buffer.

Return: If return true ,it express successful operation, else express failing operation.

2.11. DDSCheck

Description: Check the status of the device

Function: `BOOL DDSCheck(
 int index
);`

Parameters: `int index;` device serial number

Return: If return true ,it express successful operation, else express failing operation.

2.12. DDSSetPowerOnOutput

Description: Set whether output the waveform when power on.

Function: `BOOL DDSSetPowerOnOutput(
 int index,
 BOOL bOpen
);`

Parameters: `int index;` device serial number
`BOOL bOpen:` 1: open output waveform when power on, 0:Close output when power on.

Return: If return true ,it express successful operation, else express failing operation.