FY2300 Series
DDS Function Signal Generator

Arbitrary Waveform Data Transfer Protocol

Rev1.1

User defined waveform "arbitrary waveform" waveform

data transmission using RS232 protocol.

壹、 RS232 Communication Parameters

Baud Rate： 9600bps
Check Bit： nothing
Data Bit： 8bit
Stop Bit： 1bit
Wait Bit： nothing

贰、 Waveform Data Write

Waveform data is written before the control command to write, to get the signal generator can be written after the signal waveform data.

Command：

	Character										Sixteenband data		
Num b-er	First byte	Sec-ond bytes	Thir-d byte-s	Fourth bytes	Fifth bytes	Sixth bytes	Sev e-nth bytes	Eight -h bytes	**Ninth bytes**		**First..... 2048th data**		
Send	D	D	S	_	W	A	VE		**1,2,3 …**		**16 band waveform data**		
Recei v-e										**W**		**H**	**N**

The first eight bytes is flag bit,so ASCII is DDS_WAVE， ninth byte represents the storage area to write waveform data

Which represents the meaning of:
If user send DDS_WAVE**1** mean the waveform data is written to the first arbitrary wave storage area.
If user send DDS_WAVE**2** mean the waveform data is written to the second arbitrary wave storage area.
If user send DDS_WAVE**3** mean the waveform data is written to the third arbitrary wave storage area.
If user send DDS_WAVE**4** mean the waveform data is written to the fourth arbitrary wave storage area.
If user send DDS_WAVE**5** mean the waveform data is written to the fifth arbitrary wave storage area.

If user send DDS_WAVE**6** mean the waveform data is written to the sixth arbitrary wave storage area.
If user send DDS_WAVE**7** mean the waveform data is written to the seventh arbitrary wave storage area.
f user send DDS_WAVE**8** mean the waveform data is written to the eighth arbitrary wave storage area.
If user send DDS_WAVE**9** mean the waveform data is written to the ninth arbitrary wave storage area.
If user send DDS_WAVE: mean the waveform data is written to the tenth arbitrary wave storage area.
If user send DDS_WAVE; mean the waveform data is written to the eleventh arbitrary wave storage area.
If user send DDS_WAVE < mean the waveform data is written to the twelfth arbitrary wave storage area.
If user send DDS_WAVE= mean the waveform data is written to the thirteenth arbitrary wave storage area.
If user send DDS_WAVE> mean the waveform data is written to the fourteenth arbitrary wave storage area.
If user send DDS_WAVE? mean the waveform data is written to the fifteenth arbitrary wave storage area.
If user send DDS_WAVE@ mean the waveform data is written to the sixteenth arbitrary wave storage area.

If the signal generator receives the command above, it will return the character "W" ". If the receiver does not normally send characters "C" .

Only when the user receives the character "W" returned by the signal generator , waveform data transmission can be carried out , waveform data must be 16 band data ,Each data consists of two bytes, high in the previous low, the minimum is 0, the maximum is sixteen decimal 0fff (4095).

There is no interval between the data and the data of the waveform data, and the data can be transmitted continuously.

Signal generator after receiving the 2048 data will return the character "H", indicating that the signal generator data is received. （Note: if the signal generator receives the data is not enough 2048, the signal generator will remain in the waiting state.）After the signal generator need to store data, in order to facilitate the next call , storage time is about 2 seconds ,

After the memory is completed, the signal generator will return to the character "N" 。
At this point the user can carry out the next wave of arbitrary data.