

## UT-5512

### 8 channel Digital I/O controller communication protocol

Command code type and format explanation

Two types of command code:

The command which send by HOST pc

Response from UT-5512, please check response code form for more detail

HOST Command :

Byte	1	2	Actual bytes	1	1
Meaning	Starting of Command(SOC)	I/O CONTROLLER ID	Code and parameters	CRC bit	End of command(EOC)

Response code:

Byte	1	2	Actual bytes	1	1
Meaning	Starting of command	I/O CONTROLLER ID	Response code	CRC	End of command(EOC)

SOC: ASCII HEX 01, starting of the command

Device ID: ID of UT-5512, user configurable , Value Range: ASCII 01-ASCII FE

Code and parameters: CODE+ necessary parameters, more examples as below

CRD: CHKSUM, from <Device ID> to< Code and parameters>, subtotal modulo operation by 128。 In case the result isn't correct or empty (<=HEX 20), HEX 20 will be added as complementary number.

EOC: ASCII HEX 04, end of the command

Response code: return the response of HOST command

Host Command code grammar and example:

Code1	Code2		Function/Parameters
C	R	Function	Reset I/O controller to zero
		Parameter	Nil
		Response code	Nil
Example: 01CR, reset the I/O controller which Device ID is 01.			

S	B	Function	Set I/O controller baud rate Factory set as: 9600BPS
		Parameter	<0>---1200bps <1>---2400bps <2>---4800bps <3>---9600bps <4>---19200bps
		Response code	Nil
Example: 01SB1, set the Device ID<01> I/O controller baud rate to 2400bps			

Code1	Code2		Function/Parameters
D	O	Function	Set I/O controller channel output as ON
		Parameter	P0+channel code <00>---close all out put channel <01>---Channel 1 <02>---Channel 2 <04>---Channel 3 <08>---Channel 4 <10>---Channel 5 <20>---Channel 6 <40>---Channel 7 <80>---Channel 8 If there are multi-channel needed to open simultaneously, just add the value For example: 01+02+04=07, Then open channel 1, 2, 3 together
		Response code	Nil
Example: 01DOP000, Set all output channel to OFF for Device ID<01> I/O controller 01DOP001, Set output channel 1 to ON for Device ID<01> I/O controller 01DOP002, Set output channel 2 to ON for Device ID<01> I/O controller 01DOP007, Set output channel 1,2,3 to ON for Device ID<01> I/O controller			

Code1	Code2		Function/Parameters
T	O	Function	Set I/O controller's Device ID And communication setup
		Parameter	Device ID+ Baud rate+0202 Device ID: <01> to <FE> Baud rate: <0>---1200bps <1>---2400bps <2>---4800bps <3>---9600bps <4>---19200bps
		Response code	nil
Example: Please add prefix <FF> as the original Device ID FFTO0130202, set I/O controller's device ID as 01, Baud rate:9600BPS FFTO0810202, set I/O controller's device ID as 01, Baud rate:2400BPS			

Code1	Code2		Function/Parameters
E	R	Function	Response from I/O controller
		Parameter	nil
		Response code	00—successful receive the command 01-Receive the Wrong command 02-Wrong format command 03-no Valid data 04-Receiving error 05-BCC Checksum error 06-other error
Example: ER01--- Receive the Wrong command			