

(Only suitable for TPS Series power supply)

Communication protocol (RS232 serial port):

*Communication settings: baud rate: 9600 (fixed), data bits: 8 bits, stop bits: 1 bit

*Communication data packet format:

1 frame of data contains a total of 18 bytes		
Start bit	1Byte (fixed 0xAA)	
Order bit	1Byte	
Data bit	14Byte	
Check Digit	2Byte	
Detailed explanation of frame data byte		
Data byte	the data shows	Value
Data byte 1	Start bit	0xAA
Data byte 2	Order bit	0x01:control command 0x02:read back command
Data byte 3	Set voltage high byte	Set voltage value*100/256
Data byte 4	Set voltage low byte	Set voltage value*100%256
Data byte 5	Set current high byte	Set current value*1000/256
Data byte 6	Set current low byte	Set current value*1000%256
Data byte 7	Set OVP high byte	Set OVP value*100/256
Data byte 8	Set OVP low byte	Set OVP value*100%256
Data byte 9	Set OCP high byte	Set OCP value*1000/256
Data byte 10	Set OCP low byte	Set OCP value*1000%256
Data byte 11	Read back voltage high byte	Read back voltage value*100/256
Data byte 12	Read back voltage low byte	Read back voltage value*100%256
Data byte 13	Read back current high byte	Read back current value*1000/256
Data byte 14	Read back current low byte	Readback current value*1000%256
Data byte 15	Output control byte	BIT7: output control BIT6: Independent output BIT5: Series output BIT4: Parallel output BIT3: reserved BIT2: reserved BIT1: Disarm the alarm BIT0: LOCK control
Data byte 16	Working status byte	BIT7: CV status BIT6: CC status BIT5: OVP status BIT4: OCP status BIT3: OHP status BIT2: reserved BIT1: reserved BIT0: reserved

Data byte 17	Checksum high byte	Accumulated sum of the first 16Byte/256
Data byte 18	Checksum low byte	Accumulated sum of the first 16Byte %256

***Communication process**

The PC sends 1 frame of data to the power supply, a total of 18 bytes, the data is filled with the corresponding start bit, command bit, set voltage value, set Constant current value, OVP setting value, OCP setting value, output control byte and check byte.

After the power supply receives the data, it will verify the data. After the verification is qualified, the current power supply parameters will be set and the corresponding parameters will be backfilled. Return 18 bytes of data to the PC, and the PC can check the current status of the power supply through each byte of data in the data packet.