**DKP6008 Communication protocol V1.3**

# Review:

This module uses a custom communication protocol. The default communication baud rate of this unit is 4800 bps. The instructions of this module are divided into two categories, read instruction and write instruction. The function of the read instruction is to read the working parameters of the module. The function of writing the instruction is to set the working parameters of the module. The following describes the read and write instructions.

## Instruction description:

## Note:

## The address bits of the module communication 26 can be set, from lowercase English letters a to z, which in turn correspond to 1-26；

(2) Each command ends with a newline character (hexadecimal number "0x0d and 0x0a", "\r\n" in C language). When using serial port assistant test, select auto-wrap without adding 0x0d, 0x0a, each time. Sending data successfully will have a corresponding string return。

(3) The TTL signal output when the module communicates is 3.3V, pay attention to level shifting when communicating directly with the microcontroller.

**The following instruction takes 1 as the address code as an example. When the address code is set to 1, the first letter of the string is sent as a lowercase English letter a;**

1. **Write command：**

(1) wu command (set power supply output voltage value range 0000-6000) The format is: awuxxxx+0x0d+0x0a

The four characters "xxxx" indicate the voltage setting value, such as

Awu1234 indicates that the output voltage value is set to 12.34V.

Awu0123 indicates that the output voltage value is set to 01.23V

(2) wi command (set power output stream value range 0000-0800) The format is: awixxxx+0x0d+0x0a

The four characters "xxxx" indicate the current set value, such as

Awi0100 means to set the output voltage value 01.00A

Awi0799 indicates setting output voltage value 07.99A

(3) wo command (turn on or off the power output) The format is: awox+0x0d+0x0a

Where "x" indicates the module output status, such as

Awo1 means to turn on the output

Awo0 means to turn off the output

(4) wl command (on or off the lock function) The format is: awlx+0x0d+0x0a

Where "x" indicates the module lock status, such as

Awl1 means to enable the lock function

Awl0 means to turn off the lock function

wm command (call parameters, 0-9 address bits)

(6) The format is: awmx+0x0d+0x0a

Where "x" indicates the address of the callout parameter, such as

Awm0 means to call out 0 address bit parameters

Awm9 means to call up 9 address bit parameters

(1) ws command (save parameters, 0-9 address bits) The format is: awsx+0x0d+0x0a

Where "x" indicates the address of the read parameter, such as

Aws0 means to save the parameter to 0 address bit

Aws9 means to save the parameter to 9 address bits

(2) wy command (on or off the power-on automatic output function) The format is: awyx+0x0d+0x0a

Where "x" indicates the automatic output state, such as

Awy1 means to enable automatic output

Awy0 means to turn off the automatic output function

## Read command：

## (1) ru command (read output actual voltage value) Send command: aru+0x0d+0x0a

## For example, return: #ru00000000488 indicates that the output voltage is 4.88V at this time.

## For example, return: #ru00000001052 indicates that the output voltage is 10.52V at this time.

## (2) ri command (read output actual current value) Send command: ari+0x0d+0x0a

## For example, return: #ri00000000087 indicates that the output current value at this time is 0.87A. Return: #ri00000000186 indicates that the output current value at this time is 1.86A.

## (3) rt command (read actual working time) Send command: art+0x0d+0x0a

## For example, return: #rt00000000019 means that the module working time is 19 minutes, such as return: #rt00000000119 means that the module working time is 199 minutes.

## (4) rc command (read actual output capacity) Send command: arc+0x0d+0x0a

## For example, return: #rc00000000020 indicates that the module's working output capacity is 0.20AH. Return: #rc00000000119 indicates that the module's working output capacity is 1.99AH.

## (5) rv command (read set voltage value) Send command: arv+0x0d+0x0a

## For example, return: #rv00000001000 indicates that the module sets the output voltage value to 10.00V. Return: #rv00000000119 indicates that the module sets the output voltage value to 01.99V.

## (6) ra command (read set current value) send command: ara+0x0d+0x0a

## For example, return: #ra00000000120 indicates that the module sets the output current value to 1.20A. Return: #ra00000000700 indicates that the module sets the output current value to 7.00A.

## (7)ro command (read output status) Send command: aro+0x0d+0x0a

## For example, return: #ro00000000001 indicates that the module work output status is ON at this time. If return: #ro00000000000 indicates that the module work output status is OFF at this time.

## If you set the address code to 2, the first letter of the sent string is b, and so on.