1. command port and format of data package

1.1   TCP/IP communication

MCTRL 4K and software communicate by standard TCP protocol

(1)   TCP command port：5200

(2) reconnect the device and read ID from device

command of read device ID from MCTRL 660Pro：

    55 AA 00 00 FE 00 00 00 00 00 00 00 02 00 00 00 02 00 57 56

when back the data package as following，it means connect successfully：

    AA 55 00 00 00 FE 00 00 00 00 00 00 02 00 00 00 02 00 07 11 6F 56

Switch input source

1. Switch input source as SDI signal
    Command package of request
    55 aa 00 9d fe ff 00 00 00 00 01 00 23 00 00 02 01 00 01 17 58
    Command package of return
    aa 55 00 9d ff fe 00 00 00 00 01 00 23 00 00 02 00 00 15 58
2. Switch input source as HDMI signal
    Command package of request
    55 aa 00 8a fe ff 00 00 00 00 01 00 23 00 00 02 01 00 05 08 58
    Command package of return
    aa 55 00 8a ff fe 00 00 00 00 01 00 23 00 00 02 00 00 02 58
3. Switch input source as DVI signal
    Command package of request
    55 aa 00 3e fe ff 00 00 00 00 01 00 23 00 00 02 01 00 58 0F 58
    Command package of return
    aa 55 00 3e ff fe 00 00 00 00 01 00 23 00 00 02 00 00 b6 57

Black out

Command package of request
55 AA 00 80 FE 00 01 FF FF FF 01 00 00 01 00 02 01 00 FF D5 5A
Command package of return
AA 55 00 80 00 FE 01 00 FF FF 01 00 00 01 00 02 00 00 D6 58

Normal output

Command package of request

55 AA 00 80 FE 00 01 FF FF FF 01 00 00 01 00 02 01 00 00 D6 59

Command package of return

AA 55 00 80 00 FE 01 00 FF FF 01 00 00 01 00 02 00 00 D6 58

Brightness Control

Command package of request

55 aa 00 00 fe ff 01 ff ff ff 01 00 01 00 00 02 01 00 XX SUM_L SUM_H

XX（HEX）： target brightness and value range 0-255（DEC）

SUM ＝ 0x00 + 0x00 + 0xFE + 0xFF+ 0x01 + 0xFF + 0xFF + 0xFF + 0x01 + 0x00 + 0x01 + 0x00 + 0x00 + 0x02 + 0x01 + 0x00 + XX + 0x5555,

SUM = SUM_H << 8 + SUM_L（SUM_L is low 8 bit of SUM， SUM_H is high 8 bit of SUM）

Command package of return

aa 55 00 00 ff fe 01 ff ff ff 01 00 01 00 00 02 00 00 54 5a