

## RS232 Command List

|                                                                                                                                                            |                                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|
| <b>1. Connection</b>                                                                                                                                       |                                               |
| 1.1 Port Setting                                                                                                                                           |                                               |
| Method                                                                                                                                                     | Asynchronous communication                    |
| Bits per seconds                                                                                                                                           | 19200                                         |
| Data bits                                                                                                                                                  | 8                                             |
| Parity                                                                                                                                                     | none                                          |
| Stop bits                                                                                                                                                  | 1                                             |
| Flow control                                                                                                                                               | none                                          |
| 1.2 Wiring<br>Connect the computer and projector with RS232 cross cable                                                                                    |                                               |
| <b>2. Communication</b>                                                                                                                                    |                                               |
| 2.1 The Projector command is defined one command/one line that starts "C" and ends carriage return CR .                                                    |                                               |
| 2.2 There are two types of command, functional execution commands and status read commands                                                                 |                                               |
| 2.3 Response for status read command after accepting has different characters.<br>Example:                                                                 |                                               |
| A. Functional execution command:<br><b>Power ON</b> command is sent to the projector with "C00" CR, the projector returns a *ACK CR or NAK CR code         |                                               |
| PC --> Projector "C" "0" "0" CR                                                                                                                            |                                               |
| Projector --> PC                                                                                                                                           | processing command<br>ACK (or NAK) CR         |
| B. Status read command:<br><b>Power Status</b> command is sent to the projector with "CR0" CR, the projector returns a power status plus CR or NAK CR code |                                               |
| PC --> Projector "C" "R" "0" CR                                                                                                                            |                                               |
| Projector --> PC                                                                                                                                           | processing command<br>"0" "0" "0" (or NAK) CR |

| 3. Command List  |                                  |
|------------------|----------------------------------|
| Command (HEX+CR) | Function                         |
| C00(43 30 30 0D) | POWER ON                         |
| C01(43 30 31 0D) | POWER OFF(Power OFF immediately) |
| C02(43 30 32 0D) | POWER OFF                        |
| C05(43 30 35 0D) | VGA IN                           |
| C07(43 30 37 0D) | VIDEO IN                         |
| C36(43 33 36 0D) | HDMI 1                           |
| C37(43 33 37 0D) | HDMI 2                           |
| C38(43 33 38 0D) | HDBaseT                          |
| C15(43 31 35 0D) | NETWORK                          |
| C16(43 31 36 0D) | Memory Viewer                    |
| C17(43 31 37 0D) | USB Display                      |
| C8E(43 38 45 0D) | Keystone ↑                       |
| C8F(43 38 46 0D) | Keystone ↓                       |
| C1C(43 31 43 0D) | Menu on                          |
| C1D(43 31 44 0D) | Menu off                         |
| C90(43 39 30 0D) | Keystone>                        |
| C91(43 39 31 0D) | Keystone<                        |
| C98(43 39 38 0D) | Keystone Corner                  |
| C99(43 39 39 0D) | Keystone Barrel                  |
| C43(43 34 33 0D) | Freeze on                        |
| C44(43 34 34 0D) | Freeze off                       |
| C0D(43 30 44 0D) | Blank on                         |
| C0E(43 30 45 0D) | Blank off                        |
| C8A(43 38 41 0D) | Timer                            |
| C8B(43 38 42 0D) | Timer (Exit)                     |
| C0B(43 30 42 0D) | Mute on                          |
| C0C(43 30 43 0D) | Mute off                         |
| C30(43 33 30 0D) | Digital zoom +                   |
| C31(43 33 31 0D) | Digital zoom -                   |
| C09(43 30 39 0D) | Volume +                         |
| C0A(43 30 41 0D) | Volume -                         |
| C19(43 31 39 0D) | Dynamic                          |
| C11(43 31 31 0D) | Standard                         |
| C39(43 33 39 0D) | Colorboard                       |
| C0F(43 30 46 0D) | Screen Normal size(Normal)       |
| C10(43 31 30 0D) | Screen Wide size(Wide)           |
| C13(43 31 33 0D) | Cinema                           |
| C14(43 31 34 0D) | Image-User                       |
| C18(43 31 38 00) | Blackboard                       |
| C1E(43 31 45 0D) | DISPLAY CLEAR                    |
| C20(43 32 30 0D) | BRIGHTNESS +                     |
| C21(43 32 31 0D) | BRIGHTNESS -                     |
| C27(43 32 37 0D) | IMAGE (Toggle)                   |

|                  |                                                                  |
|------------------|------------------------------------------------------------------|
| C28(43 32 38 0D) | Direct power On Enable                                           |
| C29(43 32 39 0D) | Direct power On Disable                                          |
| C2A(43 32 41 0D) | Power Management Ready                                           |
| C2B(43 32 42 0D) | Power Management OFF                                             |
| C2E(43 32 45 0D) | Power Management Shut down                                       |
| C3A(43 33 41 0D) | POINTER RIGHT                                                    |
| C3B(43 33 42 0D) | POINTER LEFT                                                     |
| C3C(43 33 43 0D) | POINTER UP                                                       |
| C3D(43 33 44 0D) | POINTER DOWN                                                     |
| C3F(43 33 46 0D) | ENTER                                                            |
| C89(43 38 39 0D) | Auto PC ADJ.                                                     |
| CR3(43 52 33 0D) | Light Source Timer Read                                          |
| CR0(43 52 30 0D) | Get the projector's operation status:                            |
|                  | "00":Power on                                                    |
|                  | "80":standby                                                     |
|                  | "40":Countdown in process                                        |
|                  | "20":Cooling Down in process                                     |
|                  | "10":Power Failure                                               |
|                  | "28-0":TempA Cooling Down in process due to Temperature Anomaly  |
|                  | "28-1":TempB Cooling Down in process due to Temperature Anomaly  |
|                  | "88-0":Standby after TempA Cooling Down process due to light off |
|                  | "88-1":Standby after TempB Cooling Down process due to light off |
|                  | "24":Power Management cooling                                    |
|                  | "04":suspend status ( Power management Ready)                    |
|                  | "21":Cooling Down in process after light off                     |
|                  | "81":Standby after Cooling Down process due to light off         |
|                  |                                                                  |
| CR1(43 52 31 0D) | Get the information of input source                              |
|                  | VGA                                                              |
|                  | HDMI 1                                                           |
|                  | HDMI 2                                                           |
|                  | HDBaseT                                                          |
|                  |                                                                  |
|                  | NETWORK                                                          |
|                  | Memory Viewer                                                    |
|                  | USB Display                                                      |
|                  |                                                                  |
| CR4(43 52 34 00) | Get screen setting status:                                       |
|                  | "11":Normal screen setting                                       |
|                  | "10":Rear & Ceiling ON                                           |
|                  | "01": Rear ON                                                    |
|                  | "00":Ceiling ON                                                  |
|                  | "20": Auto Ceiling & Rear ON                                     |
|                  | "21": Auto Ceiling & Rear OFF                                    |
|                  |                                                                  |

|                  |                                                |
|------------------|------------------------------------------------|
| CR6(43 52 36 0D) | Get the temperature data inside the projector: |
|                  | "%1_%2_%3":                                    |
|                  | %1=Temperature of Sensor 1                     |
|                  | %2=Temperature of Sensor 2                     |
|                  | %3=Temperature of Sensor 3                     |
|                  | Temperature data is shown as "00.0"            |
|                  |                                                |
| CR7(43 52 37 0D) | Get the lamp mode status:                      |
|                  | "00" Light is out                              |
|                  | "01" Light is on                               |
|                  |                                                |
| CR ALLPFAIL      | Detect detail of the power failure             |
|                  | 000 MAIN, ALL OK                               |
|                  | 000 FAN1, ALL OK                               |
|                  | 000 FAN2, ALL OK                               |
|                  | 000 FAN3, ALL OK                               |
|                  | 000 FAN4, ALL OK                               |
|                  | 000 FAN5, ALL OK                               |