

# EP739 RS232 protocol function list

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V.C04

## Interface

|                          |
|--------------------------|
| 3 wires RS-232C Protocol |
| Baud Rate : 9600         |
| Data Bits: 8             |
| Parity: None             |
| Stop Bits: 1             |
| Flow Control : None      |

## Command Sequence

| Write                        | Basic Protocol             |
|------------------------------|----------------------------|
| Header :                     | '*'                        |
| Address Code :               | '0' fixed                  |
| Command Code :               | ASCII Text                 |
| Data :                       | Fixed 3 digits             |
| Terminator Code :            | Carriage Return            |
| <del>Delimiter : Space</del> | <del>Carriage Return</del> |

## Command Sequence

| Read                 | Basic Protocol             |
|----------------------|----------------------------|
| Header               | '*'                        |
| Address Code         | '0' fixed                  |
| Command Code         | ASCII Text                 |
| Data                 | '?' fixed                  |
| Terminator Code      | Carriage Return            |
| <del>Delimiter</del> | <del>Carriage Return</del> |

## Acknowledgement

|                                    | Basic Protocol              |
|------------------------------------|-----------------------------|
| Receive OK                         | "*000<CR>"                  |
| <del>Unknown Command</del>         | <del>"*255&lt;CR&gt;"</del> |
| Invalid Command                    | "*001<CR>"                  |
| <del>In current source</del>       |                             |
| <del>Data value out of range</del> | <del>"*002&lt;CR&gt;"</del> |
| Data response                      | As Write Command Format     |

## Function List

|                      | Basic(Original)       | Basic (Update)        |
|----------------------|-----------------------|-----------------------|
| Power On             | * 0 IR 001            | <b>OKOKOKOKOK</b>     |
| Power Off            | * 0 IR 002            | * 0 IR 002            |
| <del>Source PC</del> | <del>* 0 IR 003</del> | <del>* 0 IR 003</del> |
| Keystone             | * 0 IR 004            | * 0 IR 004            |
| <del>Zoom(*3)</del>  | <del>* 0 IR 005</del> | <del>* 0 IR 005</del> |
| Mute                 | * 0 IR 006            | * 0 IR 006            |

|                                       |            |            |
|---------------------------------------|------------|------------|
| Freeze                                | * 0 IR 007 | * 0 IR 007 |
| Menu                                  | * 0 IR 008 | * 0 IR 008 |
| Up                                    | * 0 IR 009 | * 0 IR 009 |
| Down                                  | * 0 IR 010 | * 0 IR 010 |
| Right                                 | * 0 IR 011 | * 0 IR 011 |
| Left                                  | * 0 IR 012 | * 0 IR 012 |
| Enter                                 | * 0 IR 013 | * 0 IR 013 |
| Re-Sync                               | * 0 IR 014 | * 0 IR 014 |
| Source Analog RGB for D-sub           | * 0 IR 015 | * 0 IR 015 |
| Source Digital RGB                    | * 0 IR 016 | * 0 IR 016 |
| Source HDTV(YPbPr) for D-sub          | * 0 IR 017 | * 0 IR 017 |
| Source S-Video                        | * 0 IR 018 | * 0 IR 018 |
| Source Composite Video                | * 0 IR 019 | * 0 IR 019 |
| Source Component Video                | * 0 IR 020 | * 0 IR 020 |
| Aspect ratio 16: 9                    | * 0 IR 021 | * 0 IR 021 |
| Aspect ratio 4: 3                     | * 0 IR 022 | * 0 IR 022 |
| Volume +                              | * 0 IR 023 | * 0 IR 023 |
| Volume -                              | * 0 IR 024 | * 0 IR 024 |
| Brightness                            | * 0 IR 025 | * 0 IR 025 |
| Contrast                              | * 0 IR 026 | * 0 IR 026 |
| Color Temperature                     | * 0 IR 027 | * 0 IR 027 |
| Source Analog RGB for DVI Port (*4)   | * 0 IR 028 | * 0 IR 028 |
| Source Analog YPbPr for DVI Port (*4) | * 0 IR 029 | * 0 IR 029 |

#### Read(Query) Command

|             | Basic      | Return Status   | Mean  |
|-------------|------------|---|---|
| Lamp Status | * 0 Lamp ? | Lamp 0<br>Lamp 1  | Lamp Off<br>Lamp On   |
|             | * 0 Lamp   | 0000  | Get the Lamp Hours  |
| Source      | * 0 Src ?  | Src 0<br>Src 1<br>Src 2<br>Src 3<br>Src 4<br>Src 5<br>Src 6 | No signal connect<br>Analog RGB display<br>Digital RGB display<br>HDTV display<br>S-Video display<br>Composite Video Display<br>Component Video display |

PS: 1. Original command is (`\*\_0\_IR\_002\r\n`,12)

2. Command for ‘**Power On**’ only is (`OKOKOKOKOK\r\n`,12),

\*3. Not support

\*4. Select to DVI

Silent mode RS232 implementation.

The objective of silent mode is intended for professional presentation so that the OSD will not pop up to interfere with presentation.

To further enhance the viewing experience of the audience – more precise commands are added to minimize the disruption during a source change.

Furthermore, to avoid confusion with old RS232 commands and possible software maintenance problem the silent OSD are implemented using new RS232 commands. The side benefit of this implementation is user choose silent OSD or non-silent OSD just by invoking different RS232 commands

IR 030           source lock on  
IR 031           source lock off  
IR 032n          source select   n=1 is DVI-D  
                  n=2 is DVI-RGB (\*1)  
                  n=3 is DVI-YPbPr (\*1)  
                  n=4 is D-sub RGB  
                  n=5 is D-sub YPbPr (include 480i, 480p, 720p, 1080i, 576i, 576p)  
                  n=6 is D-sub SCART  
                  n=7 is RCA YPbPr (include 480i, 480p, 720p 1080i, 576i,  
                  576p)(\*2)  
                  n=8 is composite  
                  n=9 is S-video  
IR 033n          aspect ratio   n=1 is 4:3  
                  n=2 is 16:9  
                  n=3 is window = 4:3 inside 16:9  
                  n=4 is letterbox  
IR 034nn brightness   nn= 00-99, 99 is the brightest  
IR 035nn contrast      nn=00-99, 99 is highest contrast  
IR 036nn volume       nn=00-99, 99 is loudest  
IR 037nn zoom          nn=0-31, 31 is maximum zoom  
IR 038n           color temperature n=1 is low  
                  n=2 is medium  
                  n=3 is high

New read commands (not related to silent mode)

~~ID ? returns ID x x= any unique ID such as serial no.~~

Hour? returns "HR nnnn\r" nnnn= lamp hours in 4 digits

\*1: select to DVI

\*2: Not support

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