

Splicing board motherboard data protocol format

The data format is RS232 serial port multi-machine commu

|       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|
| DATA1 | DATA2 | DATA3 | DATA4 | DATA5 | DATA6 |
|-------|-------|-------|-------|-------|-------|

DATA1: Communication data header. This system is fixed to 0xD8.

DATA2: Address is the driver board's first address identification code (0x11 – 0xFF)

DATA3: Address is the driver board end address identification code (0x11 – 0xFF)

DATA4: Command 1 DATA5: Command 2 See the table below for details:

DATA6: Data verification code 0xEE

Example: D8 11 32 10 00 EE turns off the 2x3 six-panel screen //11 32 Address description: 11 (column 1) (row 1), 32 (column 3) (row 2)

| Order1 (DATA4)           |           |                                          | Order2 (DATA5) |           |    |                                                |   |          |
|--------------------------|-----------|------------------------------------------|----------------|-----------|----|------------------------------------------------|---|----------|
| category                 | Numerical | explain                                  | Numerical      | explain   |    |                                                |   |          |
| Switch Control           | 10        | Power on/off                             | 0              | Power off |    |                                                |   |          |
| Channel control splicing | 20        | Channel Selection                        | 1              | Power on  |    |                                                |   |          |
|                          |           |                                          | 0              | AV        |    |                                                |   |          |
|                          |           |                                          | 2              | VGA       |    |                                                |   |          |
|                          |           |                                          | 3              | DVI       |    |                                                |   |          |
|                          |           |                                          | 5              | HDMI      |    |                                                |   |          |
|                          |           |                                          | 8              | SDI       |    |                                                |   |          |
|                          |           |                                          |                |           |    |                                                |   |          |
|                          |           |                                          |                |           |    |                                                |   |          |
| AV video control         | 30        | Contrast                                 | 0              | reduce    |    |                                                |   |          |
|                          |           |                                          | 1              | Increase  |    |                                                |   |          |
|                          | 31        | brightness                               | 0              | reduce    |    |                                                |   |          |
|                          |           |                                          | 1              | Increase  |    |                                                |   |          |
|                          | 32        | Saturation                               | 0              | reduce    |    |                                                |   |          |
|                          |           |                                          | 1              | Increase  |    |                                                |   |          |
|                          | 34        | Clarity                                  |                |           |    |                                                |   |          |
|                          |           |                                          | 0              | reduce    |    |                                                |   |          |
|                          | 35        | Red (color temperature) (dark balance)   | 1              | Increase  | 65 | Red (color temperature) (brightness balance)   | 0 | reduce   |
|                          |           |                                          |                |           |    |                                                | 1 | Increase |
|                          | 36        | Green (color temperature) (dark balance) | 0              | reduce    | 66 | Green (color temperature) (brightness balance) | 0 | reduce   |
|                          |           |                                          | 1              | Increase  |    |                                                | 1 | Increase |

|                      |    |                                          |          |            |    |                                                |   |          |
|----------------------|----|------------------------------------------|----------|------------|----|------------------------------------------------|---|----------|
|                      | 37 | Blue (color temperature) (dark balance)  | 0        | reduce     | 67 | Blue (color temperature) (brightness balance)  | 0 | reduce   |
|                      |    |                                          | 1        | Increase   |    |                                                | 1 | Increase |
|                      | 38 | Horizontal position                      | 0        | reduce     | A4 | 3D noise reduction                             | 0 | reduce   |
|                      |    |                                          | 1        | Increase   |    |                                                | 1 | Increase |
|                      | 39 | Vertical position                        | 0        | reduce     |    |                                                |   |          |
|                      |    |                                          | 1        | Increase   |    |                                                |   |          |
|                      |    |                                          |          |            |    |                                                |   |          |
| VGA/DVI/HDMI-control | 40 | RGB contrast                             | 0        | reduce     |    |                                                |   |          |
|                      |    |                                          | 1        | Increase   |    |                                                |   |          |
|                      | 41 | RGB brightness                           | 0        | reduce     |    |                                                |   |          |
|                      |    |                                          | 1        | Increase   |    |                                                |   |          |
|                      | 35 | Red (color temperature) (dark balance)   | 0        | reduce     | 65 | Red (color temperature) (brightness balance)   | 0 | reduce   |
|                      |    |                                          | 1        | Increase   |    |                                                | 1 | Increase |
|                      |    |                                          |          |            |    |                                                |   |          |
|                      | 36 | Green (color temperature) (dark balance) | 0        | reduce     | 66 | Green (color temperature) (brightness balance) | 0 | reduce   |
|                      |    |                                          | 1        | Increase   |    |                                                | 1 | Increase |
|                      | 37 | Blue (color temperature) (dark balance)  | 0        | reduce     | 67 | Blue (color temperature) (brightness balance)  | 0 | reduce   |
|                      |    |                                          | 1        | Increase   |    |                                                | 1 | Increase |
|                      |    |                                          |          |            |    |                                                |   |          |
|                      |    |                                          |          |            |    |                                                |   |          |
|                      | 48 | Red (dark color balance) - VGA only      | 0        | reduce     |    |                                                |   |          |
|                      |    |                                          | 1        | Increase   |    |                                                |   |          |
|                      | 49 | Green (dark color balance) - VGA only    | 0        | reduce     |    |                                                |   |          |
|                      |    |                                          | 1        | Increase   |    |                                                |   |          |
|                      | 4A | Blue (dark color balance) - VGA only     | 0        | reduce     |    |                                                |   |          |
|                      |    |                                          | 1        | Increase   |    |                                                |   |          |
|                      | 4B | Red (color balance) - VGA only           | 0        | reduce     |    |                                                |   |          |
|                      |    |                                          | 1        | Increase   |    |                                                |   |          |
|                      | 4C | Green (color balance) - VGA only         | 0        | reduce     |    |                                                |   |          |
|                      |    |                                          | 1        | Increase   |    |                                                |   |          |
|                      | 4D | Blue (color balance) - VGA only          | 0        | reduce     |    |                                                |   |          |
|                      |    |                                          | 1        | Increase   |    |                                                |   |          |
|                      | 4E | Automatic Adjustment                     | 1        | Adjustment |    |                                                |   |          |
|                      | 4F | Horizontal position                      | 0        | reduce     |    |                                                |   |          |
|                      |    |                                          | 1        | Increase   |    |                                                |   |          |
|                      | 50 | vertical position                        | 0        | reduce     |    |                                                |   |          |
| 1                    |    |                                          | Increase |            |    |                                                |   |          |

|                     |           |                                                            |         |                                                               |
|---------------------|-----------|------------------------------------------------------------|---------|---------------------------------------------------------------|
|                     | <b>51</b> | Automatic color adjustment - <b>only available for VGA</b> | 1       | Adjustment                                                    |
|                     | <b>52</b> | Clock Adjustment - <b>only available for VGA</b>           | 0       | reduce                                                        |
|                     |           |                                                            | 1       | Increase                                                      |
|                     | <b>53</b> | Phase adjustment - <b>only available for VGA</b>           | 0       | reduce                                                        |
|                     |           |                                                            | 1       | Increase                                                      |
|                     |           |                                                            |         |                                                               |
|                     | <b>5A</b> | Horizontal frame                                           | (0~100) | Adjustment                                                    |
|                     | <b>5B</b> | vertical frame                                             | (0~100) | Adjustment                                                    |
|                     | <b>5C</b> | Still picture                                              | 1       | Change                                                        |
| system              | <b>60</b> | Reset this machine                                         | 1       | Initialize the system                                         |
|                     |           |                                                            |         |                                                               |
|                     | <b>70</b> | Local storage                                              | 1       | Save the above adjusted values                                |
| Function Adjustment | <b>76</b> | Fan and temperature control                                | 0       | Fan is controlled by temperature (fan turns on at 45 degrees) |
|                     |           |                                                            | 1       | Fan always on                                                 |
|                     |           |                                                            | 2       | Fan always off                                                |
|                     |           |                                                            | 3       | Manual settings                                               |
|                     | <b>77</b> | Fan operating value                                        | xx      |                                                               |
|                     | <b>78</b> | Fan off value                                              | xx      |                                                               |
|                     | <b>80</b> | TI parameter adjustment                                    | 0       | Adjustment                                                    |
|                     |           |                                                            | 1       | Adjustment                                                    |
|                     | <b>81</b> | TI mode                                                    | 0       | Normal mode                                                   |
|                     |           |                                                            | 1       | Memory Mode                                                   |
|                     | <b>82</b> | Software version information                               | 1       | Call                                                          |
|                     |           |                                                            |         |                                                               |
|                     |           |                                                            |         |                                                               |
|                     | <b>85</b> | No signal                                                  | 0       | Blue Screen                                                   |
|                     |           |                                                            | 1       | Black screen                                                  |
|                     | <b>90</b> | Backlight brightness adjustment                            | 0       | reduce                                                        |
|                     |           |                                                            | 1       | Increase                                                      |

|                                   |                                                                          |                                                                                 |                                      |                                      |    |                  |               |          |            |        |
|-----------------------------------|--------------------------------------------------------------------------|---------------------------------------------------------------------------------|--------------------------------------|--------------------------------------|----|------------------|---------------|----------|------------|--------|
| System<br>parameter<br>adjustment |                                                                          |                                                                                 |                                      |                                      |    |                  |               |          |            |        |
|                                   |                                                                          |                                                                                 |                                      |                                      |    |                  |               |          |            |        |
|                                   |                                                                          |                                                                                 |                                      |                                      |    |                  |               |          |            |        |
|                                   | B8                                                                       | Horizontal edge                                                                 | 0                                    | reduce                               |    |                  |               |          |            |        |
|                                   |                                                                          |                                                                                 | 1                                    | Increase                             |    |                  |               |          |            |        |
|                                   | B9                                                                       | vertical edges                                                                  | 0                                    | reduce                               |    |                  |               |          |            |        |
|                                   |                                                                          |                                                                                 | 1                                    | Increase                             |    |                  |               |          |            |        |
|                                   | C7                                                                       | LOGO master switch                                                              | 0                                    | close                                |    |                  |               |          |            |        |
|                                   |                                                                          |                                                                                 | 1                                    | open                                 |    |                  |               |          |            |        |
|                                   | D7                                                                       | No signal LOGO                                                                  | 0                                    | close                                |    |                  |               |          |            |        |
|                                   |                                                                          |                                                                                 | 1                                    | open                                 |    |                  |               |          |            |        |
|                                   | C8                                                                       | VGA automatic<br>adjustment at power<br>on                                      | 0                                    | close                                |    |                  |               |          |            |        |
|                                   |                                                                          |                                                                                 | 1                                    | open                                 |    |                  |               |          |            |        |
|                                   | C2                                                                       | Horizontal starting<br>position (left mouse<br>button - open window<br>roaming) | 0~20                                 | Starting position<br>(single screen) |    |                  |               |          |            |        |
| C3                                | Vertical starting<br>position (left mouse<br>button - window<br>roaming) | 0~20                                                                            | Starting position<br>(single screen) |                                      |    |                  |               |          |            |        |
| C4                                | Horizontal size<br>(right click - open<br>window and navigate)           | 5~25                                                                            | Window size<br>(single screen)       |                                      |    |                  |               |          |            |        |
| C6                                | Vertical size (right<br>click - open window)                             | 5~25                                                                            | Window size<br>(single screen)       |                                      |    |                  |               |          |            |        |
|                                   |                                                                          |                                                                                 |                                      |                                      |    |                  |               |          |            |        |
| Plan<br>Management                | A0                                                                       | Plan mode save                                                                  | 1~16                                 | Save the above<br>adjusted values    | 63 | Aging mode       | 0             | close    |            |        |
|                                   | A1                                                                       | Plan mode call                                                                  | 1~16                                 | Call                                 | A7 | VGA filtering    | 1             | open     |            |        |
| Unit Display                      | Example:<br>Select<br>AV 2x2                                             | 4 instructions must<br>be issued                                                |                                      | D8, 11, 11, 20, 00, EE               | 64 | Factory Menu     | 0             | reduce   | 0x06       | MENU   |
|                                   |                                                                          |                                                                                 |                                      | D8, 21, 21, 20, 00, EE               |    |                  | 1             | open     | 0x07       | SOURCE |
|                                   |                                                                          |                                                                                 |                                      | D8, 12, 12, 20, 00, EE               |    |                  | 2             | superior | 0x08       | SELECT |
|                                   |                                                                          |                                                                                 |                                      | D8, 22, 22, 20, 00, EE               |    |                  | 3             | Down     | 0x09       | PLAY   |
|                                   |                                                                          |                                                                                 |                                      |                                      |    |                  | 4             | Left     | 0x0A       | PAUSE  |
|                                   |                                                                          |                                                                                 |                                      |                                      |    | 5                | right         | 0x0B     | STOP       |        |
|                                   |                                                                          |                                                                                 |                                      |                                      |    | 10               | Factory Reset | 0x0C     | USB UPDATE |        |
|                                   |                                                                          |                                                                                 |                                      |                                      | 69 | Wide screen mode | 0             | close    |            |        |

|  |    |                                                                |   |       |      |                         |       |               |
|--|----|----------------------------------------------------------------|---|-------|------|-------------------------|-------|---------------|
|  |    |                                                                |   |       | 00   | wide screen mode        | 1     | open          |
|  |    |                                                                |   |       | 69   | Expiration reminder     | 0     | close         |
|  |    |                                                                |   |       |      |                         | 1     | open          |
|  |    |                                                                |   |       | 6A   | Smart power-on interval | 00~FF | Low           |
|  |    |                                                                |   |       | 6B   | Smart power-on interval | 00~FF | High position |
|  |    |                                                                |   |       | 6C   | Single screen display   | 0     | Single screen |
|  | D4 | After turning on the AC power, the fan turns on for 20 seconds | 0 | close | 6D   | HDMI Mode               | 0     | PC            |
|  |    |                                                                | 1 | open  |      |                         | 1     | DVD           |
|  |    |                                                                |   |       | 6E   | HDMI/VGA resolution     | 0     | reduce        |
|  |    |                                                                |   |       |      |                         | 1     | Increase      |
|  |    |                                                                |   |       | 0x97 | Red (Dark Balance)      | 00~FF | set up        |
|  |    |                                                                |   |       | 0x98 | Green (dark balance)    | 00~FF | set up        |
|  |    |                                                                |   |       | 0x99 | Blue (dark balance)     | 00~FF | set up        |
|  |    |                                                                |   |       | 0x9A | Red (bright balance)    | 00~FF | set up        |
|  |    |                                                                |   |       | 0x9B | Green (bright balance)  | 00~FF | set up        |
|  |    |                                                                |   |       | 0x9C | Blue (bright balance)   | 00~FF | set up        |
|  |    |                                                                |   |       | 0x9D | ID address lock         | 0     | close         |
|  |    |                                                                |   |       |      |                         | 1     | open          |

D8, 00, FF, A8, \*\*, EE //\*\* 0~255 //Set screen ID

D8, \*\*, FF, A9, 00, EE //\*\* 0~255 //Query screen ID

D8, \*\*, FF, A6, 11, EE //\*\* 0~255 //Screen ID (added to the original command)

When 901C is selected: In advanced debugging, 1. Others -> Redisplay rate; 2. Settings -> VGA filter; 3. LOGO switch -> No signal switch; 4. Debug -> ADJ 3.3V/5V. The above options are