**Dock 810 test command list Version 0.14 2019/11/20**

1. **SBC-Dock interface**

|  |  |  |  |
| --- | --- | --- | --- |
| # | **Pin name** | **Description** | **Remarks** |
| 1 | USB 5V | USB VBUS 5V | SBC USB 2.0 Host VBUS |
| 3 | USB DP | USB Data+ | SBC USB 2.0 Host Data+ |
| 9 | Status\_INT1 | Status change notification | 1 = Normal (MCU 3.3V output) 0 = Docking status I2C data ready. |
| 11 | Status\_INT2 | Status change notification | 1 = Normal (MCU 3.3V output) 0 = Docking I2C slave mode ready. |
| 13 | Status\_INT3 | N/A |  |
| 15 | I2C\_Data | I2C Data line | Docking I2C data line. (3.3V) |
| 17 | I2C\_CLK | I2C Clock line | Docking I2C data line. (MCU 3.3V input) |
| 21 | Eth\_GND | Ethernet Ground | Ethernet signals |
| 23 | Eth\_TX+ | Ethernet TX signal positive |
| 25 | Eth\_GND | Ethernet Ground |
| 27 | Eth\_TX- | Ethernet TX signal negative |
| 29 | AVDD20\_T | Ethernet center voltage |
| 31 | AVDD20\_T | Ethernet center voltage |
| 33 | Eth\_GND | Ethernet Ground |
| 35 | Eth\_RX+ | Ethernet RX signal positive |
| 37 | Eth\_GND | Ethernet Ground |
| 39 | Eth\_RX- | Ethernet RX signal negative |
| 41 | Eth\_LED\_ACT | Ethernet Activity status LED | Ethernet LED indication |
| 43 | Eth\_LED\_LINK | Ethernet Link status LED |
| **45** | **Force\_USB** | **Force SBC USB connect** | **For admin level use, to force USB upstream port switch to connect SBC. 1 = Normal (MCU 3.3V input) 0 = Force USB connect to SBC.** |
| **47** | **Power\_status** | **Dock power status** | **For dock to report power status to SBC. 1 = Docking power on (3.3V output) 0 = Docking power off.** |
| **49** | **Power&Reset** | **H/W Power & Reset** | **From SBC to Dock, for use of, 1) Power resetting dock 2) Admin level force power on/off dock (e.g. when dock overheat, SBC to force shut down the dock) 1 = Normal (MCU 3.3V input),  0 = Force dock power shutdown Reset docking : 3.3V 3.3V  3Sec**  **0V** |
| 51 | 20V | Power input to SBC | From SBC to Dock, |
| 53 | GND | Power Ground |

**PS. 1. The red font is the 3 pin that the guest is currently asking.**

**2. There is currently a blue and red font status return data to the AP**

**3. Pin 49 has a test, but Pin47 can only respond to the status of AP Power on**

**4. There is currently no test for the Pin 45 to force the SBC USB connection function.**

1. **HID AP command list:**
   1. Auto read docking status : 0x03 0x1E

ACK data **:**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Byte | | | | | | | | | | | | | |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
| 0x03 | 0x1E | 0x00 | 0x00 | 0x00 | Hub 1 status | Hub 2 status | DL chip & Video status | Ethernet & Audio status | I/O  port  status | SBC  Pin 51  ADC\_H | SBC  Pin 51 ADC\_L | SBC  Pin 1  ADC\_H | SBC  Pin 1  ADC\_L |

* 1. Request MCU detection docking status

Command : 0x03 0x34 0x02 0x34 0x10

ACK data : 0x03 0x34 0x02 0x34 0x10

* 1. Get docking status

Command : 0x03 0x34 0x04 0x35 0x11

ACK data :

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Byte | | | | | | | | |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 0x03 | 0x1E | 0x00 | 0x00 | 0x00 | Hub 1 status | Hub 2 status | DL chip & Video status | Ethernet & Audio status |

* 1. Imitate the power button to turn off the power

Command : 0x03 0x34 0x02 0x34 0x01

ACK data : 0x03 0x34 0x02 0x34 0x01

PS. Can read power status

* 1. Imitate the power button to turn off the power

Command : 0x03 0x34 0x02 0x34 0x02

ACK data : 0x03 0x34 0x02 0x34 0x02

PS. Can read power status

* 1. Force Dock810 to completely power off and enter unusable state

Command : 0x03 0x13 0x80 0x80 0x00

ACK data : 0x03 0x13 0x80 0x80 0x00

PS. Unable to read power status

* 1. Unforce the Dock810 to completely power off the unusable state

Command : 0x03 0x13 0x80 0x80 0x80

ACK data : 0x03 0x13 0x80 0x80 0x80

PS. Can read power status

* 1. Read power status

Command : 0x03 0x13 0x80 0x00

ACK data : 0x03 0x13 0x80 0x00 status

PS. Bit 6 represents the power state of the docking station

* 1. Force SBC USB connect

Command : 0x03 0x13 0x80 0x20 0x00

ACK data : 0x03 0x13 0x80 0x20 0x00

* 1. Unforce the SBC USB connection

Command : 0x03 0x13 0x80 0x20 0x20

ACK data : 0x03 0x13 0x80 0x20 0x20

Hub 1 status

|  |  |  |
| --- | --- | --- |
| Bit 1/ Bit 0 | 00 = No USB host connected  01 = Error message  10 = USB host connected on S4, S5mode  11 = USB host other working modes | |
| Bit 2 | 0 = Dock to SBC | 1 = Dock to PC |
| Bit 3 ~ 7 | Reserved | Reserved |

Hub 2 status

|  |  |  |
| --- | --- | --- |
| Bit 0 | 0 = USB host connected on S4, S5mode | 1 = USB host other working modes |
| Bit 1 ~ 7 | Reserved | Reserved |

DL chip & Video status

|  |  |  |
| --- | --- | --- |
| Bit 0 | 0 = DL chip off line | 1 = DL chip on line |
| Bit 1 | 0 = DP #1 disconnected | 0 = DP #1 connected |
| Bit 2 | 0 = HDMI #1 disconnected | 0 = HDMI #1 connected |
| Bit 3 | 0 = DP #2 disconnected | 0 = DP #2 connected |
| Bit 4 | 0 = HDMI #2 disconnected | 0 = HDMI #2 connected |
| Bit 5 ~ 7 | Reserved | Reserved |

Ethernet & Audio status

|  |  |  |
| --- | --- | --- |
| Bit 2 ~ 0 | 000 = Ethernet off line  001 = Ethernet on line  011 = Ethernet 10M/100M on line  111 = Ethernet 1000M on line | |
| Bit 3 ~ 5 | Reserved | Reserved |
| Bit 6 | 0 = Audio in disconnected | 1 = Audio in connected |
| Bit 7 | 0 = Audio out disconnected | 1 = Audio out connected |

I/O port status

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Bit 0 | Bit 1 | Bit 2 | Bit 3 | Bit 4 | Bit 5 | Bit 6 | Bit 7 |
| SBC pin 21 | SBC pin 25 | SBC pin 9 | SBC pin 11 | SBC pin 13 | SBC pin 45 | SBC pin 47 | SBC pin 49 |