

EVN-KLU Cash Drawer Port Description

Create Date: 2020/4/30 Author: Alex Wu



Part A. Port Address

Cash Drawer	
Read(Input)	Write(Output)
GPP_B17	GPP_B15
	GPP_B16

Part B. Port Address Information

Table1.

Pin	Memory Address	Default value	Bit Status
GPP_B15	0xFDAF0538	Output	High bit: 04000201
			Low bit: 04000200
GPP_B16	0xFDAF0540	Output	High bit: 04000201
			Low bit: 04000200
GPP_B17	0xFDAF0548	Input	High bit: 84000102
			Low bit: 84000100



Part C. Port Address Detail Setting

Below Figures are bits status setting, and we can compare with Bits Status from Table 1.

- 1. Figure 1. show GPP_B15, GPP_B16, GPP_B17 Input/Output bits status
- a. bit 9 set 0 = Enable input buffer
- b. bit 9 set 1 = Disable input buffer
- c. bit 8 set 0 = Enable output buffer
- d. bit 8 set 1 = Disable output buffer

Figure 1.

		,
9	1h RW	GPIO RX Disable (GPIORXDIS): 0 = Enable the input buffer (active low enable) of the pad. 1 = Disable the input buffer of the pad. Notes: When the input buffer is disabled, the internal pad state is always driven to '0'.
8	1h RW	GPIO TX Disable (GPIOTXDIS): 0 = Enable the output buffer (active low enable) of the pad. 1 = Disable the output buffer of the pad; i.e. Hi-Z

- 2. Figure 2. show GPP_B15, GPP_B16, GPP_B17 High/Low bits status
- a. bit 1 show 0 =current input status is Low
- b. bit 1 show 1 =current input status is High
- c. bit 0 set 0 = Set ouput status as Low
- d. bit 0 set 1 = Set ouput status as High

Figure 2.

-	0		
	1	0h RO	GPIO RX State (GPIORXSTATE): This is the current internal RX pad state after Glitch Filter logic stage and is not affected by PMode and RXINV settings.
	0	0h RW	GPIO TX State (GPIOTXSTATE): 0 = Drive a level '0' to the TX output pad. 1 = Drive a level '1' to the TX output pad

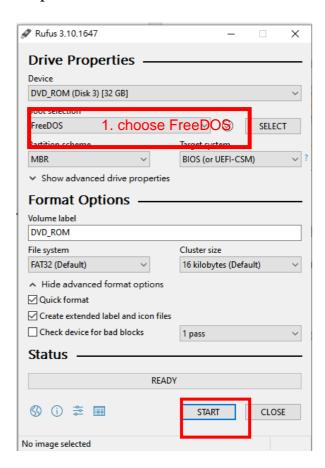


Part D. Testing Port Address

Step1. Download Rufus-3.10: https://rufus.ie/

Step2. Run Rufus-3.10.exe

Step3. Choose "FreeDOS" and click start



Step4. Copy RU.efi and EFI folder to your USB drive

Step5. Boot from USB drive with UEFI mode and enter following command

fs0: RU.efi

Note. Sometime USB drive will not be fs0: ,if have this situation please try to enter fs1: or fs2: or keep searching next number



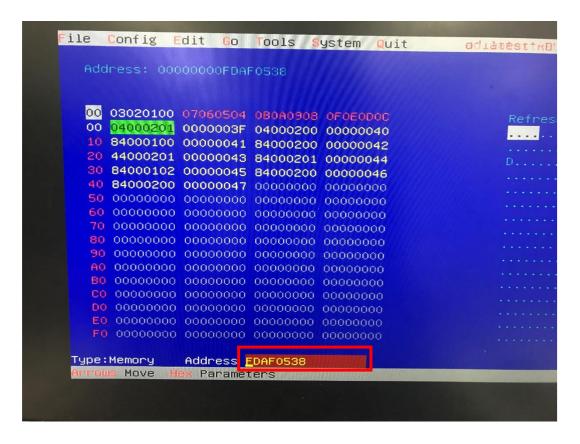
```
PciRoot(0x0)/Pci(0x14,0x0)/USB(0x10,0x0)/HD(1,MBR,0x48267E4A,0x800,0x3
          :Removable HardDisk - Alias hd9q0b fs0
PciRoot(0x0)/Pci(0x14,0x0)/USB(0x10,0x0)/HD(1,MBR,0x48267E4A,0x800,0x3
 b1k0
9CB800)
          :Removable BlockDevice - Alias (null)
PciRoot(0x0)/Pci(0x14,0x0)/USB(0x10,0x0)
  blk1
Press ESC in 1 seconds to skip startup.nsh, any other key to continue.
Shell> fs0:
 fs0:\> dir
Directory of: fso:\
                                       16,384
   04/29/20 11:04a <DIR>
   04/29/20
              11:04a
                                           96
                                                AUTOEXEC. BAT
   04/29/20
             11:04a
                                          202
                                                autorun.inf
   04/29/20
              11:04a
                                       34,494
                                                autorun.ico
   12/07/17 02:35p <DIR> 04/06/16 06:48p
                                       16,384
                                      342,752
                                                RU.efi
            4 File(s)
                            377,544 bytes
            2 Dir(s)
  fs0:\> RU.efi_
```

Step6. Enter "Alt+C" and choose "Memory (Flat)"

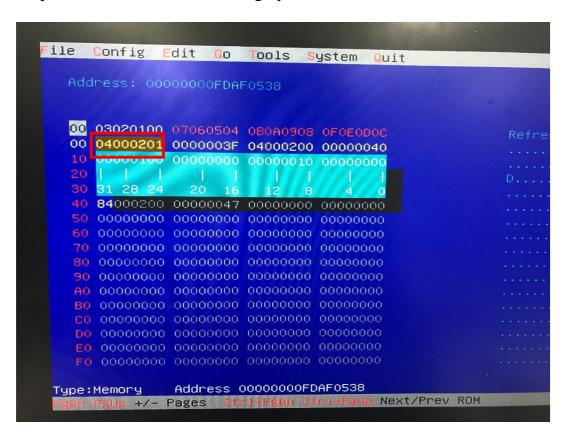
```
File Config Edit Go Tools System Quit
                                                   ddlatesttRBUffommruezsebbo
       PCI
      ISA
       ISA IO
                       Alt 3
   808
      IO Space
                       Alt 4
   00
      IDE Identify
                                                                   : ON
                       Alt 5
                               08 09 OA OB OC OD OE OF
   00
       ACPT
                               07 00 00 06 00 00 00 00
                       Alt 6
      Memory (Flat)
                       Alt 7
                               00 00 00 00 00 00 00
                                                          Data Width : 8 bits
       CPU MSR
                       Alt 8
                               00 00 00 00 86 80 70 72
       SMBIOS data
                        Alt 9
                               00 00 00 00 00 00 00
       SMBus
                       Alt o
                               01 00 D1 FE 00 00 00 00
       UEFI variable
                       Alt =
                               47 00 FO 8F 01 00 00 8D
                               01 80 D1 FE 00 00 00 00
                                                          Int Pin
       AHCI MMIO
                      Alt F5
                               00 OC 00 FE 7F 00 00 00
       USB MMIO
                               1A 00 00 00 00 00 00 00
                      Alt F6
                                                         Mem: 00000000 00000000
Mem: 00000000 00000000
                               01 00 FO 6D 02 00 00 00
       Reconfig
                       Alt M
                               01 00 00 6E 02 00 00 00
                                                         Mem: 00000000 00000000
Mem: 00000000 00000000
       Close SIO Conf. Ctrl-Y 01 00 00 8D 01 00 00 90
       Open SIO Conf.
                        Ctrl-0 00 00 00 00 00 00 00 00
       E0 09 00 10 01 71 20 01 62 C8 00 04 96 00 C0 02 00
    F0 00 00 00 00 C8 OF OA 00 00 00 00 00 00 00 00
 Type:PCI Bus 00 Device 00 Function 00
TAB Shift+TAB Next/Prev group of registers
                                Function 00
                                                                       08:52:10
```



Step7. Enter your GPIO Memory Address (in this example will be GPP_B15 and address will be 0xFDAF0538)



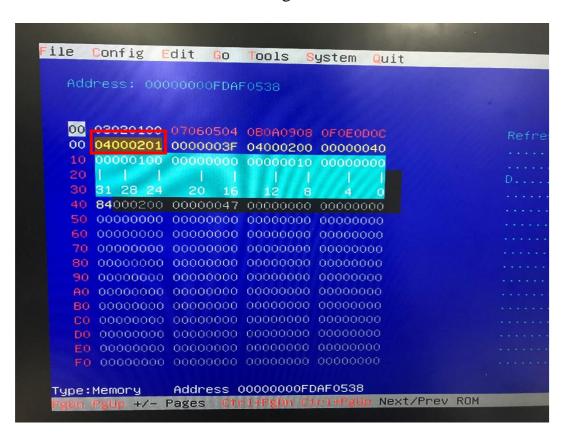
Step8. Click "F7" twice to change your address to 32-bits





Step9. Enter your GPIO bits status

- a. In this example bits status default will be Low bit: 84000200
- b. We can click 84000201 change to High bit
- c. Click "Tab" to confirm our setting





Part E. Intel EDS Document Reference

7th Generation Intel® Processor Family I/O for U/Y Platforms and 8th Generation Intel® Processor Family I/O for U Quad Core Platforms

7th and 8th Generation Intel®Processor Family I/O for U/Y Platforms and 10th Generation Intel® Processor Family I/O for Y PlatformsDatasheet - Volume 2 of 2