

# FreeSandal

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## 【鼎革 · 革鼎】 : RASPBIAN STRETCH 《四 · 五下》

2017-10-26 | 懸鉤子 | 發表迴響

於是藉著

edidparser edid.dat

Enabling fuzzy format match...

Parsing edid.dat...

HDMI:EDID version 1.4, 0 extensions, screen size 22×14 cm

HDMI:EDID features – videodef 0x90 !standby !suspend !active off; colour encoding:RGB444;  
sRGB is not default colourspace; preferred format is native; support discrete frame rate

HDMI:EDID found monitor ascii descriptor tag 0xfe

HDMI:EDID ignored unknown descriptor tag 0x0

HDMI:EDID does not yet know monitor vertical range, setting to default 24 to 120Hz

HDMI:EDID failed to find a matching detail format for 1280x800p hfp:64 hs:48 hbp:124 vfp:5  
vs:7 vbp:12 pixel clock:75 MHz

HDMI:EDID calculated refresh rate is 60 Hz

HDMI:EDID guessing the format to be 1280x800p @60 Hz

HDMI:EDID found preferred DMT detail timing format: 1280x800p @ 60 Hz (27)

HDMI:EDID failed to find a matching detail format for 1280x800p hfp:1023 hs:1023

hbp:-1918 vfp:63 vs:63 vbp:-104 pixel clock:46 MHz

HDMI:EDID calculated refresh rate is 40 Hz

HDMI:EDID guessing the format to be 1280x800p @30 Hz

HDMI:EDID found unknown detail timing format: 1280x800p hfp:1023 hs:1023 hbp:-1918

vfp:63 vs:63 vbp:-104 pixel clock:46 MHz

HDMI:EDID established timing I/II bytes are 00 00 00

HDMI:EDID standard timings block x 8: 0x0101 0101 0101 0101 0101 0101 0101 0101  
HDMI:EDID adding mandatory support for DMT (4) 640x480p @ 60Hz  
HDMI:EDID filtering formats with pixel clock > 162 MHz or h. blanking > 1023  
HDMI:EDID best score mode initialised to DMT (4) 640x480p @ 60 Hz with pixel clock 25 MHz (score 0)  
HDMI:EDID best score mode is now DMT (4) 640x480p @ 60 Hz with pixel clock 25 MHz (score 36864)  
HDMI:EDID best score mode is now DMT (27) 1280x800p @ 60 Hz with pixel clock 71 MHz (score 5184320)  
HDMI:EDID preferred mode remained as DMT (27) 1280x800p @ 60 Hz with pixel clock 71 MHz  
HDMI:EDID has only DVI support and no audio support  
edid\_parser exited with code 0

以及

edid-decode edid.dat

Extracted contents:

header: 00 ff ff ff ff ff ff 00

serial number: 30 e4 45 03 00 00 00 00 15

version: 01 04

basic params: 90 16 0e 78 02

chroma info: e8 87 96 5a 55 95 28 22 51 55

established: 00 00 00

standard: 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01 01

descriptor 1: 4c 1d 00 ec 50 20 18 30 40 30 57 00 d9 88 00 00 00 1b

descriptor 2: 16 12 00 80 50 20 16 30 ff ff ff ff ff ff ff 00 1b

descriptor 3: 00 00 00 fe 00 43 33 47 52 4e 80 31 30 31 57 58 31 0a

descriptor 4: 00 00 00 00 00 00 41 32 a8 00 00 00 00 01 01 0a 20 20

extensions: 00

checksum: 9a

Manufacturer: LGD Model 345 Serial Number 0

Made week 0 of 2011  
EDID version: 1.4  
Digital display  
6 bits per primary color channel  
Digital interface is not defined  
Maximum image size: 22 cm x 14 cm  
Gamma: 2.20  
Supported color formats: RGB 4:4:4  
First detailed timing is preferred timing  
Established timings supported:  
Standard timings supported:  
Detailed mode: Clock 75.000 MHz, 217 mm x 136 mm  
1280 1344 1392 1516 hborder 0  
800 805 812 824 vborder 0  
+hsync -vsync  
Detailed mode: Clock 46.300 MHz, 4095 mm x 4095 mm  
1280 2303 3326 1408 hborder 255  
800 863 926 822 vborder 0  
+hsync -vsync  
ASCII string: C3GRN  
Manufacturer-specified data, tag 0  
Checksum: 0x9a (valid)  
EDID block does NOT conform to EDID 1.3!  
Missing name descriptor  
Missing monitor ranges  
Detailed block string not properly terminated

拼湊出產生了這個測試模式：

hdmi\_timings=1280 1 64 48 124 800 0 5 7 12 0 0 1 60 0 75000000 5

且依據

- Specifying `hdmi_group=1` in `config.txt` prevents later use of `hdmi_timings` #792
- Please can the ability to modify HDMI timings on the fly (i.e. without having to carry out a reboot) be added to the firmware drivers #637

文本的精神，復作動態之驗證：

```
1 pi@raspberrypi:~ $ vcgencmd hdmi_timings 1280 1 64 48 124 800 0 5 7 12 0 0 1 60 0 750000
2 hdmi_timings=1280 1 64 48 124 800 0 5 7 12 0 0 1 60 0 75000000 5
3 pi@raspberrypi:~ $ tvservice -e "DMT 87"
4 Powering on HDMI with explicit settings (DMT mode 87)
5 pi@raspberrypi:~ $ fbset -depth 8 && fbset -depth 16
```

```
1 pi@raspberrypi:~ $ vcgencmd measure_clock pixel
2 frequency(29)=75000000
3 pi@raspberrypi:~ $
```

因黑屏事件，偶而發現在 X Window 系統中，需要

`Ctrl` + `Alt` + `F1` ；

`Ctrl` + `Alt` + `F7` 。

重啟該顯示器也。

方法既已知，其餘者或不必要多講的吧◎

