



Coffee Lake帧缓冲区补丁及UHD630 Coffee Lake ig-platform-id数据整理

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Mojave帧缓冲补丁

随着 Mojave 发布的临近，原有的基于 Clover 的帧缓冲区二进制补丁已经不适用了。好消息是 vit9696 和 headkaze 重新创建了基于 Lilu 和 WhateverGreen 的新的帧缓冲区补丁。当然它也适用于macOS的所有以前和未来的版本。

Coffee Lake用户

请注意：新的 WhateverGreen 不会用于仿冒 Kaby Lake 的平台id工作。你需要使用新的MacOS Mojave 10.14 DB4/DP3(18A336e)或者macOS High Sierra 10.13.6(17G2112)，后者仅适用于 MacBookPro15,1 或 MacBookPro15,2 的一个特殊版本。您可以创建一个MacOS High Sierra 10.13.6(17G2112)，通过 [installinstallmacos.py](#)，或者直接通过本站[下载](#)

Lilu + WhateverGreen

WhateverGreen 是要取代所有基于 Lilu 的其它视频补丁插件（它目前已经合并 WhateverGreen, IntelGraphicsFixup, NvidiaGraphicsFixup, Shiki 和 CoreDisplayFixup）。其它人很可能会遵循(如 AppleALC, HibernationFixup 和 IntelGraphicsDVMTFixup)。这是旨在为视频的所有功能于一身的解决方案。

Beta警告

请注意，目前处于试用状态，您需要自己承担该的风险。我只是记录在这里，这对于那些需要得到帧缓冲区

补丁的人来说。

初步

删除 `IntelGraphicsFixup`, `NvidiaGraphicsFixup`, `Shiki` 和 `CoreDisplayFixup`

下载 `WhateverGreen` 和 `Lilu`

下载链接: [Lilu v1.2.5](#) [WhateverGreen v1.2.0](#)

获取iGPU显卡设备的路径

下载并使用 `gfxutil` 工具，如下所示：

```
1 $ gfxutil -f IGPU
2 DevicePath = PciRoot(0x0)/Pci(0x2,0x0)
```

我们有两种不同类型的补丁：

硬编码（推荐）

```
1 framebuffer-patch-enable (required to enable below)
2 framebuffer-framebufferid (optional; defaults to current platform-id)
3 (all below are optional)
4 framebuffer-mobile
5 framebuffer-pipecount
6 framebuffer-portcount
7 framebuffer-memorycount
8 framebuffer-stolenmem
9 framebuffer-fbmem
10 framebuffer-unifiedmem
11
12 framebuffer-conX-enable (required to enable below)
13 framebuffer-conX-index
14 framebuffer-conX-busid
15 framebuffer-conX-pipe
16 framebuffer-conX-type
17 framebuffer-conX-flags
```

查找/替换

```
1 framebuffer-patchX-enable (required to enable below)
2 framebuffer-patchX-framebufferid (optional; defaults to current platform-id)
3 framebuffer-patchX-find
4 framebuffer-patchX-replace
5 framebuffer-patchX-count (optional; defaults to 1)
```

你应该把这些补丁放到 CLOVER 配置文件config.plist中的Devices/Properties

下面是一些补丁的例子

32MB BIOS, 19MB stolen (framebuffer) 9MB fbmem (cursor) 2048MB unifiedmem (vram)

备注：该值以字节为单位，所以你应该MB转换为字节（你可以使用这个[在线转换器](#)）

```
1 <key>Devices</key>
2 <dict>
3   <key>Properties</key>
4   <dict>
5     <key>PciRoot(0x0)/Pci(0x2,0x0)</key>
6     <dict>
7       <key>AAPL,ig-platform-id</key>
8       <data>CQCLPg==</data>
9       <key>framebuffer-patch-enable</key>
10      <integer>1</integer>
11      <key>framebuffer-stolenmem</key>
12      <integer>19922944</integer>
13      <key>framebuffer-fbmem</key>
14      <integer>9437184</integer>
15      <key>framebuffer-unifiedmem</key>
16      <integer>2147483648</integer>
17    </dict>
18  </dict>
19 </dict>
```

Pipe / Port Count 3 to 2 – Connector 1 (BusId 0x4) DP to HDMI – Connector 2 (BusId 0x6) Disable

备注：WhateverGreen 会自动设置所有连接器从DP-> HDMI（你可以使用-igfxnohdmi引导标志禁用这个）

```
1 <key>Devices</key>
2 <dict>
3   <key>Properties</key>
4   <dict>
```

```

5      <key>PciRoot(0x0)/Pci(0x2,0x0)</key>
6      <dict>
7          <key>AAPL,ig-platform-id</key>
8          <data>CQC1Pg==</data>
9          <key>framebuffer-patch-enable</key>
10         <integer>1</integer>
11         <key>framebuffer-pipecount</key>
12         <integer>2</integer>
13         <key>framebuffer-portcount</key>
14         <integer>2</integer>
15         <key>framebuffer-con1-enable</key>
16         <integer>1</integer>
17         <key>framebuffer-con1-type</key>
18         <integer>0x00000800</integer>
19         <key>framebuffer-con2-enable</key>
20         <integer>1</integer>
21         <key>framebuffer-con2-type</key>
22         <integer>-1</integer>
23     </dict>
24 </dict>
25 </dict>

```

这里是查找/替换方法的一个例子：

```

1  <key>Devices</key>
2  <dict>
3      <key>Properties</key>
4      <dict>
5          <key>PciRoot(0x0)/Pci(0x2,0x0)</key>
6          <dict>
7              <key>AAPL,ig-platform-id</key>
8              <data>CQC1Pg==</data>
9              <key>framebuffer-patch0-enable</key>
10             <integer>1</integer>
11             <key>framebuffer-patch0-find</key>
12             <data>AAAIAAIAACYAAAA</data>
13             <key>framebuffer-patch0-replace</key>
14             <data>AAAIAAIAACHAQAA</data>
15         </dict>
16     </dict>
17 </dict>

```

调试

如果您需要的帧缓冲区的转储十六进制使用的引导标志-igfxdump。输出将在/

AppleIntelFramebuffer_GEN_KERNX_Y启动驱动器（如AppleIntelFramebuffer_10_17.7）上。[010编辑器](#)支持IntelFramebuffer.bt解析帧缓存的二进制文件的模板。从WhateverGreen请给调试输出，并使用-wegdbg引导标志。您将需要编译WhateverGreen作为调试的这两个标志的工作。

要查看调试输出使用：

```
1 log show --predicate 'process == "kernel" AND (eventMessage CONTAINS "WhateverG'
```

感谢

非常感谢vit9696他的所有帮助实现这一点，也书写了惊人的Lilu和WhateverGreen插件。同时也感谢所有其他的[贡献者](#)。

macOS High Sierra 10.13.6(17G2112)/Mojave ig-platform-id数据整理

Sandy Bridge

```
1 ID: 00010000
2 TOTAL STOLEN: 0 bytes, TOTAL CURSOR: 1 MB, MAX STOLEN: 0 bytes, MAX OVERALL: 1
3 GPU Name: Intel HD Graphics 3000
4 Model Name(s): MacBookPro8,1 MacBookPro8,2 MacBookPro8,3
5 Freq: 1808 Hz, FreqMax: 1808 Hz
6 Mobile: 1, PipeCount: 2, PortCount: 4, FBMemoryCount: 0
7 [5] busId: 0x03, pipe: 0, type: 0x00000002, flags: 0x00000030 - LVDS
8 [2] busId: 0x05, pipe: 0, type: 0x00000400, flags: 0x00000007 - DP
9 [3] busId: 0x04, pipe: 0, type: 0x00000400, flags: 0x00000009 - DP
10 [4] busId: 0x06, pipe: 0, type: 0x00000400, flags: 0x00000009 - DP
11 05030000 02000000 30000000
12 02050000 00040000 07000000
13 03040000 00040000 09000000
14 04060000 00040000 09000000
15
16 ID: 00020000
17 TOTAL STOLEN: 0 bytes, TOTAL CURSOR: 1 MB, MAX STOLEN: 0 bytes, MAX OVERALL: 1
18 GPU Name: Intel HD Graphics 3000
19 Model Name(s): MacBookPro8,3
20 Freq: 1808 Hz, FreqMax: 1808 Hz
21 Mobile: 1, PipeCount: 2, PortCount: 1, FBMemoryCount: 0
22 [5] busId: 0x03, pipe: 0, type: 0x00000002, flags: 0x00000030 - LVDS
23 05030000 02000000 30000000
```

```
24
25 ID: 00030010
26 TOTAL STOLEN: 0 bytes, TOTAL CURSOR: 1 MB, MAX STOLEN: 0 bytes, MAX OVERALL: 1
27 GPU Name: Intel HD Graphics 3000
28 Model Name(s): Macmini5,1 Macmini5,3
29 Freq: 0 Hz, FreqMax: -1 Hz
30 Mobile: 0, PipeCount: 2, PortCount: 3, FBMemoryCount: 0
31 [2] busId: 0x05, pipe: 0, type: 0x00000400, flags: 0x00000007 - DP
32 [3] busId: 0x04, pipe: 0, type: 0x00000400, flags: 0x00000009 - DP
33 [4] busId: 0x06, pipe: 0, type: 0x00000800, flags: 0x00000006 - HDMI
34 02050000 00040000 07000000
35 03040000 00040000 09000000
36 04060000 00080000 06000000
37
38 ID: 00030030
39 TOTAL STOLEN: 0 bytes, TOTAL CURSOR: 0 bytes, MAX STOLEN: 0 bytes, MAX OVERALL
40 GPU Name: Intel HD Graphics 3000
41 Model Name(s): Macmini5,2
42 Freq: 0 Hz, FreqMax: 0 Hz
43 Mobile: 0, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
44
45 ID: 00040000
46 TOTAL STOLEN: 0 bytes, TOTAL CURSOR: 1 MB, MAX STOLEN: 0 bytes, MAX OVERALL: 1
47 GPU Name: Intel HD Graphics 3000
48 Model Name(s): MacBookAir4,1 MacBookAir4,2
49 Freq: 1808 Hz, FreqMax: 1808 Hz
50 Mobile: 1, PipeCount: 2, PortCount: 3, FBMemoryCount: 0
51 [1] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000030 - LVDS
52 [2] busId: 0x05, pipe: 0, type: 0x00000400, flags: 0x00000007 - DP
53 [3] busId: 0x04, pipe: 0, type: 0x00000400, flags: 0x00000009 - DP
54 01000000 02000000 30000000
55 02050000 00040000 07000000
56 03040000 00040000 09000000
57
58 ID: 00030020
59 TOTAL STOLEN: 0 bytes, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 0 bytes
60 GPU Name: Intel HD Graphics 3000
61 Model Name(s): Macmini5,1 Macmini5,3
62 Freq: 1808 Hz, FreqMax: 1808 Hz
63 Mobile: 1, PipeCount: 3, PortCount: 4, FBMemoryCount: 0
64 [1] busId: 0x00, pipe: 0, type: 0x00000400, flags: 0x00000030 - DP
65 [2] busId: 0x05, pipe: 0, type: 0x00000400, flags: 0x00000007 - DP
66 [3] busId: 0x04, pipe: 0, type: 0x00000400, flags: 0x00000009 - DP
67 [4] busId: 0x06, pipe: 0, type: 0x00000800, flags: 0x00000006 - HDMI
68 01000000 00040000 30000000
69 02050000 00040000 07000000
70 03040000 00040000 09000000
71 04060000 00080000 06000000
```

```
72
73 ID: 00050000
74 TOTAL STOLEN: 0 bytes, TOTAL CURSOR: 1 MB, MAX STOLEN: 0 bytes, MAX OVERALL: 1
75 GPU Name: Intel HD Graphics 3000
76 Model Name(s): iMac12,1 iMac12,2
77 Freq: 0 Hz, FreqMax: -1 Hz
78 Mobile: 0, PipeCount: 2, PortCount: 1, FBMemoryCount: 0
79 [2] busId: 0x05, pipe: 0, type: 0x00000400, flags: 0x00000007 - DP
80 02050000 00040000 07000000
```

Ivy Bridge

```
1 0x01660000 (desktop, 4 connectors)
2 0x01620006 (desktop, 0 connectors, no fbmem)
3 0x01620007 (desktop, 0 connectors, no fbmem)
4 0x01620005 (desktop, 3 connectors)
5 0x01660001 (mobile, 4 connectors)
6 0x01660002 (mobile, 1 connectors)
7 0x01660008 (mobile, 3 connectors)
8 0x01660009 (mobile, 3 connectors)
9 0x01660003 (mobile, 4 connectors)
10 0x01660004 (mobile, 1 connectors)
11 0x0166000A (desktop, 3 connectors)
12 0x0166000B (desktop, 3 connectors)
13
14 ID: 01660000, STOLEN: 96 MB, FBMEM: 24 MB, VRAM: 1024 MB
15 TOTAL STOLEN: 24 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 72 MB, M
16 GPU Name: Intel HD Graphics 4000
17 Model Name(s):
18 Freq: 1808 Hz, FreqMax: 1808 Hz
19 Mobile: 0, PipeCount: 3, PortCount: 4, FBMemoryCount: 3
20 [1] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000030 - LVDS
21 [2] busId: 0x05, pipe: 0, type: 0x00000400, flags: 0x00000007 - DP
22 [3] busId: 0x04, pipe: 0, type: 0x00000400, flags: 0x00000007 - DP
23 [4] busId: 0x06, pipe: 0, type: 0x00000400, flags: 0x00000007 - DP
24 01000000 02000000 30000000
25 02050000 00040000 07000000
26 03040000 00040000 07000000
27 04060000 00040000 07000000
28
29 ID: 01620006, STOLEN: 0 bytes, FBMEM: 0 bytes, VRAM: 256 MB
30 TOTAL STOLEN: 0 bytes, TOTAL CURSOR: 0 bytes, MAX STOLEN: 0 bytes, MAX OVERAL
31 GPU Name: Intel HD Graphics 4000
32 Model Name(s): Unknown
33 Freq: 1808 Hz, FreqMax: 1808 Hz
34 Mobile: 0, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
```



```
35
36 ID: 01620007, STOLEN: 0 bytes, FBMEM: 0 bytes, VRAM: 256 MB
37 TOTAL STOLEN: 0 bytes, TOTAL CURSOR: 0 bytes, MAX STOLEN: 0 bytes, MAX OVERALL: 0 bytes
38 GPU Name: Intel HD Graphics 4000
39 Model Name(s): Unknown
40 Freq: 1808 Hz, FreqMax: 1808 Hz
41 Mobile: 0, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
42
43 ID: 01620005, STOLEN: 32 MB, FBMEM: 16 MB, VRAM: 1536 MB
44 TOTAL STOLEN: 16 MB, TOTAL CURSOR: 1 MB, MAX STOLEN: 32 MB, MAX OVERALL: 33 MB
45 GPU Name: Intel HD Graphics 4000
46 Model Name(s): Unknown
47 Freq: 1808 Hz, FreqMax: 1808 Hz
48 Mobile: 0, PipeCount: 2, PortCount: 3, FBMemoryCount: 2
49 [2] busId: 0x05, pipe: 0, type: 0x00000400, flags: 0x00000011 - DP
50 [3] busId: 0x04, pipe: 0, type: 0x00000400, flags: 0x00000107 - DP
51 [4] busId: 0x06, pipe: 0, type: 0x00000400, flags: 0x00000107 - DP
52 02050000 00040000 11000000
53 03040000 00040000 07010000
54 04060000 00040000 07010000
55
56 ID: 01660001, STOLEN: 96 MB, FBMEM: 24 MB, VRAM: 1536 MB
57 TOTAL STOLEN: 24 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 72 MB, MAX OVERALL: 73 MB
58 GPU Name: Intel HD Graphics 4000
59 Model Name(s): MacBookPro10,2
60 Freq: 1808 Hz, FreqMax: 1808 Hz
61 Mobile: 1, PipeCount: 3, PortCount: 4, FBMemoryCount: 3
62 [1] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000030 - LVDS
63 [2] busId: 0x05, pipe: 0, type: 0x00000800, flags: 0x00000006 - HDMI
64 [3] busId: 0x04, pipe: 0, type: 0x00000400, flags: 0x00000107 - DP
65 [4] busId: 0x06, pipe: 0, type: 0x00000400, flags: 0x00000107 - DP
66 01000000 02000000 30000000
67 02050000 00080000 06000000
68 03040000 00040000 07010000
69 04060000 00040000 07010000
70
71 ID: 01660002, STOLEN: 64 MB, FBMEM: 24 MB, VRAM: 1536 MB
72 TOTAL STOLEN: 24 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 24 MB, MAX OVERALL: 25 MB
73 GPU Name: Intel HD Graphics 4000
74 Model Name(s): MacBookPro10,1
75 Freq: 1808 Hz, FreqMax: 1808 Hz
76 Mobile: 1, PipeCount: 3, PortCount: 1, FBMemoryCount: 1
77 [1] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000030 - LVDS
78 01000000 02000000 30000000
79
80 ID: 01660008, STOLEN: 64 MB, FBMEM: 16 MB, VRAM: 1536 MB
81 TOTAL STOLEN: 16 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 48 MB, MAX OVERALL: 49 MB
82 GPU Name: Intel HD Graphics 4000
```



```
83 Model Name(s): MacBookAir5,1
84 Freq: 1808 Hz, FreqMax: 1808 Hz
85 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
86 [1] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000030 - LVDS
87 [2] busId: 0x05, pipe: 0, type: 0x00000400, flags: 0x00000107 - DP
88 [3] busId: 0x04, pipe: 0, type: 0x00000400, flags: 0x00000107 - DP
89 01000000 02000000 30000000
90 02050000 00040000 07010000
91 03040000 00040000 07010000
92
93 ID: 01660009, STOLEN: 64 MB, FBMEM: 16 MB, VRAM: 1536 MB
94 TOTAL STOLEN: 16 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 48 MB, M
95 GPU Name: Intel HD Graphics 4000
96 Model Name(s): MacBookAir5,2
97 Freq: 1808 Hz, FreqMax: 1808 Hz
98 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
99 [1] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000030 - LVDS
100 [2] busId: 0x05, pipe: 0, type: 0x00000400, flags: 0x00000107 - DP
101 [3] busId: 0x04, pipe: 0, type: 0x00000400, flags: 0x00000107 - DP
102 01000000 02000000 30000000
103 02050000 00040000 07010000
104 03040000 00040000 07010000
105
106 ID: 01660003, STOLEN: 64 MB, FBMEM: 16 MB, VRAM: 1536 MB
107 TOTAL STOLEN: 16 MB, TOTAL CURSOR: 1 MB, MAX STOLEN: 32 MB, MAX OVERALL: 33 M
108 GPU Name: Intel HD Graphics 4000
109 Model Name(s): MacBookPro9,2
110 Freq: 1808 Hz, FreqMax: 1808 Hz
111 Mobile: 1, PipeCount: 2, PortCount: 4, FBMemoryCount: 2
112 [5] busId: 0x03, pipe: 0, type: 0x00000002, flags: 0x00000030 - LVDS
113 [2] busId: 0x05, pipe: 0, type: 0x00000400, flags: 0x00000407 - DP
114 [3] busId: 0x04, pipe: 0, type: 0x00000400, flags: 0x00000081 - DP
115 [4] busId: 0x06, pipe: 0, type: 0x00000400, flags: 0x00000081 - DP
116 05030000 02000000 30000000
117 02050000 00040000 07040000
118 03040000 00040000 81000000
119 04060000 00040000 81000000
120
121 ID: 01660004, STOLEN: 32 MB, FBMEM: 16 MB, VRAM: 1536 MB
122 TOTAL STOLEN: 16 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 16 MB, M
123 GPU Name: Intel HD Graphics 4000
124 Model Name(s): MacBookPro9,1
125 Freq: 1808 Hz, FreqMax: 1808 Hz
126 Mobile: 1, PipeCount: 3, PortCount: 1, FBMemoryCount: 1
127 [5] busId: 0x03, pipe: 0, type: 0x00000002, flags: 0x00000230 - LVDS
128 05030000 02000000 30020000
129
130 ID: 0166000A, STOLEN: 32 MB, FBMEM: 16 MB, VRAM: 1536 MB
```

```
131 TOTAL STOLEN: 16 MB, TOTAL CURSOR: 1 MB, MAX STOLEN: 32 MB, MAX OVERALL: 33 MB
132 GPU Name: Intel HD Graphics 4000
133 Model Name(s): Macmini6,1
134 Freq: 1808 Hz, FreqMax: 1808 Hz
135 Mobile: 0, PipeCount: 2, PortCount: 3, FBMemoryCount: 2
136 [2] busId: 0x05, pipe: 0, type: 0x00000400, flags: 0x00000107 - DP
137 [3] busId: 0x04, pipe: 0, type: 0x00000400, flags: 0x00000107 - DP
138 [4] busId: 0x06, pipe: 0, type: 0x00000800, flags: 0x00000006 - HDMI
139 02050000 00040000 07010000
140 03040000 00040000 07010000
141 04060000 00080000 06000000
142
143 ID: 0166000B, STOLEN: 32 MB, FBMEM: 16 MB, VRAM: 1536 MB
144 TOTAL STOLEN: 16 MB, TOTAL CURSOR: 1 MB, MAX STOLEN: 32 MB, MAX OVERALL: 33 MB
145 GPU Name: Intel HD Graphics 4000
146 Model Name(s): Macmini6,2
147 Freq: 1808 Hz, FreqMax: 1808 Hz
148 Mobile: 0, PipeCount: 2, PortCount: 3, FBMemoryCount: 2
149 [2] busId: 0x05, pipe: 0, type: 0x00000400, flags: 0x00000107 - DP
150 [3] busId: 0x04, pipe: 0, type: 0x00000400, flags: 0x00000107 - DP
151 [4] busId: 0x06, pipe: 0, type: 0x00000800, flags: 0x00000006 - HDMI
152 02050000 00040000 07010000
153 03040000 00040000 07010000
154 04060000 00080000 06000000
```

Haswell

```
1 0x0C060000 (desktop, 3 connectors)
2 0x0C160000 (desktop, 3 connectors)
3 0x0C260000 (desktop, 3 connectors)
4 0x04060000 (desktop, 3 connectors)
5 0x04160000 (desktop, 3 connectors)
6 0x04260000 (desktop, 3 connectors)
7 0x0D260000 (desktop, 3 connectors)
8 0x0A160000 (desktop, 3 connectors)
9 0x0A260000 (desktop, 3 connectors)
10 0x0A260005 (mobile, 3 connectors)
11 0x0A260006 (mobile, 3 connectors)
12 0x0A2E0008 (mobile, 3 connectors)
13 0x0A16000C (mobile, 3 connectors)
14 0x0D260007 (mobile, 4 connectors)
15 0x0D220003 (desktop, 3 connectors)
16 0x0A2E000A (desktop, 3 connectors)
17 0x0A26000A (desktop, 3 connectors)
18 0x0A2E000D (desktop, 2 connectors)
19 0x0A26000D (desktop, 2 connectors)
```

```
20 0x04120004 (desktop, 0 connectors, no fbmem)
21 0x0412000B (desktop, 0 connectors, no fbmem)
22 0x0D260009 (mobile, 1 connectors)
23 0x0D26000E (mobile, 4 connectors)
24 0x0D26000F (mobile, 1 connectors)
25
26 ID: 0C060000, STOLEN: 64 MB, FBMEM: 16 MB, VRAM: 1024 MB, Flags: 0x00000004
27 TOTAL STOLEN: 209 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 209 MB,
28 GPU Name: Intel Haswell GT1
29 Model Name(s):
30 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
31 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
32 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
33 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
34 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
35 00000800 02000000 30000000
36 01050900 04000000 04000000
37 02040900 00080000 82000000
38
39 ID: 0C160000, STOLEN: 64 MB, FBMEM: 16 MB, VRAM: 1024 MB, Flags: 0x00000004
40 TOTAL STOLEN: 209 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 209 MB,
41 GPU Name: Intel Haswell GT2
42 Model Name(s):
43 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
44 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
45 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
46 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
47 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
48 00000800 02000000 30000000
49 01050900 04000000 04000000
50 02040900 00080000 82000000
51
52 ID: 0C260000, STOLEN: 64 MB, FBMEM: 16 MB, VRAM: 1024 MB, Flags: 0x00000004
53 TOTAL STOLEN: 209 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 209 MB,
54 GPU Name: Intel Haswell GT3
55 Model Name(s):
56 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
57 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
58 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
59 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
60 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
61 00000800 02000000 30000000
62 01050900 04000000 04000000
63 02040900 00080000 82000000
64
65 ID: 04060000, STOLEN: 64 MB, FBMEM: 16 MB, VRAM: 1024 MB, Flags: 0x00000004
66 TOTAL STOLEN: 209 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 209 MB,
67 GPU Name: Intel Haswell GT1
```

```
68 Model Name(s):
69 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
70 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
71 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
72 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
73 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
74 00000800 02000000 30000000
75 01050900 04000000 04000000
76 02040900 00080000 82000000
77
78 ID: 04160000, STOLEN: 64 MB, FBMEM: 16 MB, VRAM: 1024 MB, Flags: 0x00000004
79 TOTAL STOLEN: 209 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 209 MB,
80 GPU Name: Intel HD Graphics 4600
81 Model Name(s):
82 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
83 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
84 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
85 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
86 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
87 00000800 02000000 30000000
88 01050900 04000000 04000000
89 02040900 00080000 82000000
90
91 ID: 04260000, STOLEN: 64 MB, FBMEM: 16 MB, VRAM: 1024 MB, Flags: 0x00000004
92 TOTAL STOLEN: 209 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 209 MB,
93 GPU Name: Intel HD Graphics 5000
94 Model Name(s):
95 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
96 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
97 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
98 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
99 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
100 00000800 02000000 30000000
101 01050900 04000000 04000000
102 02040900 00080000 82000000
103
104 ID: 0D260000, STOLEN: 64 MB, FBMEM: 16 MB, VRAM: 1024 MB, Flags: 0x00000004
105 TOTAL STOLEN: 209 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 209 MB,
106 GPU Name: Intel Iris Pro Graphics 5200
107 Model Name(s):
108 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
109 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
110 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
111 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
112 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
113 00000800 02000000 30000000
114 01050900 04000000 04000000
115 02040900 00080000 82000000
```

```
116
117 ID: 0A160000, STOLEN: 64 MB, FBMEM: 16 MB, VRAM: 1024 MB, Flags: 0x00000004
118 TOTAL STOLEN: 209 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 209 MB,
119 GPU Name: Intel HD Graphics 4400
120 Model Name(s):
121 Camelia: Disabled, Freq: 2777 Hz, FreqMax: 2777 Hz
122 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
123 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
124 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
125 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
126 00000800 02000000 30000000
127 01050900 04000000 04000000
128 02040900 00080000 82000000
129
130 ID: 0A260000, STOLEN: 64 MB, FBMEM: 16 MB, VRAM: 1024 MB, Flags: 0x00000004
131 TOTAL STOLEN: 209 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 209 MB,
132 GPU Name: Intel HD Graphics 5000
133 Model Name(s):
134 Camelia: Disabled, Freq: 2777 Hz, FreqMax: 2777 Hz
135 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
136 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
137 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
138 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
139 00000800 02000000 30000000
140 01050900 04000000 04000000
141 02040900 00080000 82000000
142
143 ID: 0A260005, STOLEN: 32 MB, FBMEM: 19 MB, VRAM: 1536 MB, Flags: 0x0000000F
144 TOTAL STOLEN: 52 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 116 MB,
145 GPU Name: Intel HD Graphics 5000
146 Model Name(s):
147 Camelia: Disabled, Freq: 2777 Hz, FreqMax: 2777 Hz
148 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
149 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
150 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000087 - DP
151 [2] busId: 0x04, pipe: 9, type: 0x00000400, flags: 0x00000087 - DP
152 00000800 02000000 30000000
153 01050900 00040000 87000000
154 02040900 00040000 87000000
155
156 ID: 0A260006, STOLEN: 32 MB, FBMEM: 19 MB, VRAM: 1536 MB, Flags: 0x0000000F
157 TOTAL STOLEN: 52 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 116 MB,
158 GPU Name: Intel HD Graphics 5000
159 Model Name(s): MacBookAir6,1 MacBookAir6,2 Macmini7,1
160 Camelia: Disabled, Freq: 2777 Hz, FreqMax: 2777 Hz
161 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
162 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
163 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000087 - DP
```



```
164 [2] busId: 0x04, pipe: 9, type: 0x00000400, flags: 0x00000087 - DP
165 00000800 02000000 30000000
166 01050900 00040000 87000000
167 02040900 00040000 87000000
168
169 ID: 0A2E0008, STOLEN: 64 MB, FBMEM: 34 MB, VRAM: 1536 MB, Flags: 0x0000021E
170 TOTAL STOLEN: 99 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 227 MB,
171 GPU Name: Intel Iris Graphics 5100
172 Model Name(s): MacBookPro11,1
173 Camelia: V1, Freq: 1388 Hz, FreqMax: 1388 Hz
174 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
175 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
176 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000107 - DP
177 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000107 - DP
178 00000800 02000000 30000000
179 01050900 00040000 07010000
180 02040A00 00040000 07010000
181
182 ID: 0A16000C, STOLEN: 64 MB, FBMEM: 34 MB, VRAM: 1536 MB, Flags: 0x0000001E
183 TOTAL STOLEN: 99 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 227 MB,
184 GPU Name: Intel HD Graphics 4400
185 Model Name(s): Unknown
186 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
187 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
188 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
189 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000107 - DP
190 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000107 - DP
191 00000800 02000000 30000000
192 01050900 00040000 07010000
193 02040A00 00040000 07010000
194
195 ID: 0D260007, STOLEN: 64 MB, FBMEM: 34 MB, VRAM: 1536 MB, Flags: 0x0000031E
196 TOTAL STOLEN: 99 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 227 MB,
197 GPU Name: Intel Iris Pro Graphics 5200
198 Model Name(s): MacBookPro11,2 MacBookPro11,3
199 Camelia: Disabled, Freq: 1953 Hz, FreqMax: 1953 Hz
200 Mobile: 1, PipeCount: 3, PortCount: 4, FBMemoryCount: 3
201 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
202 [1] busId: 0x05, pipe: 11, type: 0x00000400, flags: 0x00000107 - DP
203 [2] busId: 0x04, pipe: 11, type: 0x00000400, flags: 0x00000107 - DP
204 [3] busId: 0x06, pipe: 3, type: 0x00000800, flags: 0x00000006 - HDMI
205 00000800 02000000 30000000
206 01050B00 00040000 07010000
207 02040B00 00040000 07010000
208 03060300 00080000 06000000
209
210 ID: 0D220003, STOLEN: 32 MB, FBMEM: 19 MB, VRAM: 1536 MB, Flags: 0x00000402
211 TOTAL STOLEN: 33 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 116 MB,
```

```
212 GPU Name: Intel Iris Pro Graphics 5200
213 Model Name(s): iMac14,1 iMac14,4
214 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
215 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
216 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000087 - DP
217 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000087 - DP
218 [3] busId: 0x06, pipe: 8, type: 0x00000400, flags: 0x00000011 - DP
219 01050900 00040000 87000000
220 02040A00 00040000 87000000
221 03060800 00040000 11000000
222
223 ID: 0A2E000A, STOLEN: 32 MB, FBMEM: 19 MB, VRAM: 1536 MB, Flags: 0x000000D6
224 TOTAL STOLEN: 52 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 116 MB,
225 GPU Name: Intel Iris Graphics 5100
226 Model Name(s): Unknown
227 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
228 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
229 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000011 - LVDS
230 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000087 - DP
231 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000087 - DP
232 00000800 02000000 11000000
233 01050900 00040000 87000000
234 02040A00 00040000 87000000
235
236 ID: 0A26000A, STOLEN: 32 MB, FBMEM: 19 MB, VRAM: 1536 MB, Flags: 0x000000D6
237 TOTAL STOLEN: 52 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 116 MB,
238 GPU Name: Intel HD Graphics 5000
239 Model Name(s): Unknown
240 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
241 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
242 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000011 - LVDS
243 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000087 - DP
244 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000087 - DP
245 00000800 02000000 11000000
246 01050900 00040000 87000000
247 02040A00 00040000 87000000
248
249 ID: 0A2E000D, STOLEN: 96 MB, FBMEM: 34 MB, VRAM: 1536 MB, Flags: 0x0000040E
250 TOTAL STOLEN: 131 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 227 MB,
251 GPU Name: Intel Iris Graphics 5100
252 Model Name(s): Unknown
253 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
254 Mobile: 0, PipeCount: 3, PortCount: 2, FBMemoryCount: 2
255 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000107 - DP
256 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000107 - DP
257 01050900 00040000 07010000
258 02040A00 00040000 07010000
259
```



```
260 ID: 0A26000D, STOLEN: 96 MB, FBMEM: 34 MB, VRAM: 1536 MB, Flags: 0x0000040E
261 TOTAL STOLEN: 131 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 227 MB,
262 GPU Name: Intel HD Graphics 5000
263 Model Name(s): Unknown
264 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
265 Mobile: 0, PipeCount: 3, PortCount: 2, FBMemoryCount: 2
266 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000107 - DP
267 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000107 - DP
268 01050900 00040000 07010000
269 02040A00 00040000 07010000
270
271 ID: 04120004, STOLEN: 32 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00000000
272 TOTAL STOLEN: 1 MB, TOTAL CURSOR: 0 bytes, MAX STOLEN: 1 MB, MAX OVERALL: 1 MB
273 GPU Name: Intel HD Graphics 4600
274 Model Name(s):
275 Camelia: Disabled, Freq: 0 Hz, FreqMax: 0 Hz
276 Mobile: 0, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
277
278 ID: 0412000B, STOLEN: 32 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00000000
279 TOTAL STOLEN: 1 MB, TOTAL CURSOR: 0 bytes, MAX STOLEN: 1 MB, MAX OVERALL: 1 MB
280 GPU Name: Intel HD Graphics 4600
281 Model Name(s): iMac15,1
282 Camelia: Disabled, Freq: 0 Hz, FreqMax: 0 Hz
283 Mobile: 0, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
284
285 ID: 0D260009, STOLEN: 64 MB, FBMEM: 34 MB, VRAM: 1536 MB, Flags: 0x0000001E
286 TOTAL STOLEN: 99 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 99 MB, MAX OVERALL: 1 MB
287 GPU Name: Intel Iris Pro Graphics 5200
288 Model Name(s): Unknown
289 Camelia: Disabled, Freq: 1953 Hz, FreqMax: 1953 Hz
290 Mobile: 1, PipeCount: 3, PortCount: 1, FBMemoryCount: 1
291 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
292 00000800 02000000 30000000
293
294 ID: 0D26000E, STOLEN: 96 MB, FBMEM: 34 MB, VRAM: 1536 MB, Flags: 0x00000031E
295 TOTAL STOLEN: 131 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 323 MB, MAX OVERALL: 323 MB
296 GPU Name: Intel Iris Pro Graphics 5200
297 Model Name(s): Unknown
298 Camelia: V2, Freq: 1953 Hz, FreqMax: 1953 Hz
299 Mobile: 1, PipeCount: 3, PortCount: 4, FBMemoryCount: 3
300 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
301 [1] busId: 0x05, pipe: 11, type: 0x00000400, flags: 0x00000107 - DP
302 [2] busId: 0x04, pipe: 11, type: 0x00000400, flags: 0x00000107 - DP
303 [3] busId: 0x06, pipe: 3, type: 0x00000800, flags: 0x00000006 - HDMI
304 00000800 02000000 30000000
305 01050B00 00040000 07010000
306 02040B00 00040000 07010000
307 03060300 00080000 06000000
```

```
308
309 ID: 0D26000F, STOLEN: 96 MB, FBMEM: 34 MB, VRAM: 1536 MB, Flags: 0x0000001E
310 TOTAL STOLEN: 131 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 131 MB,
311 GPU Name: Intel Iris Pro Graphics 5200
312 Model Name(s): Unknown
313 Camelia: V2, Freq: 1953 Hz, FreqMax: 1953 Hz
314 Mobile: 1, PipeCount: 3, PortCount: 1, FBMemoryCount: 1
315 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000030 - LVDS
316 00000800 02000000 30000000
```

Broadwell

```
1 0x16060000 (desktop, 3 connectors)
2 0x160E0000 (desktop, 3 connectors)
3 0x16160000 (desktop, 3 connectors)
4 0x161E0000 (desktop, 3 connectors)
5 0x16260000 (desktop, 3 connectors)
6 0x162B0000 (desktop, 3 connectors)
7 0x16220000 (desktop, 3 connectors)
8 0x160E0001 (mobile, 3 connectors)
9 0x161E0001 (mobile, 3 connectors)
10 0x16060002 (mobile, 3 connectors)
11 0x16160002 (mobile, 3 connectors)
12 0x16260002 (mobile, 3 connectors)
13 0x16220002 (mobile, 3 connectors)
14 0x162B0002 (mobile, 3 connectors)
15 0x16120003 (mobile, 4 connectors)
16 0x162B0004 (desktop, 3 connectors)
17 0x16260004 (desktop, 3 connectors)
18 0x16220007 (desktop, 3 connectors)
19 0x16260005 (mobile, 3 connectors)
20 0x16260006 (mobile, 3 connectors)
21 0x162B0008 (desktop, 2 connectors)
22 0x16260008 (desktop, 2 connectors)
23
24 ID: 16060000, STOLEN: 16 MB, FBMEM: 15 MB, VRAM: 1024 MB, Flags: 0x00000B06
25 TOTAL STOLEN: 32 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 64 MB, M
26 GPU Name: Intel Broadwell GT1
27 Model Name(s):
28 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
29 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
30 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
31 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
32 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
33 00000800 02000000 30020000
34 01050900 04000000 04000000
```

```
35 02040900 00080000 82000000
36
37 ID: 160E0000, STOLEN: 16 MB, FBMEM: 15 MB, VRAM: 1024 MB, Flags: 0x00000706
38 TOTAL STOLEN: 32 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 64 MB, M
39 GPU Name: Intel Broadwell GT1
40 Model Name(s): Unknown
41 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
42 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
43 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
44 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
45 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
46 00000800 02000000 30020000
47 01050900 04000000 04000000
48 02040900 00080000 82000000
49
50 ID: 16160000, STOLEN: 16 MB, FBMEM: 15 MB, VRAM: 1024 MB, Flags: 0x00000B06
51 TOTAL STOLEN: 32 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 64 MB, M
52 GPU Name: Intel HD Graphics 5500
53 Model Name(s):
54 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
55 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
56 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
57 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
58 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
59 00000800 02000000 30020000
60 01050900 04000000 04000000
61 02040900 00080000 82000000
62
63 ID: 161E0000, STOLEN: 16 MB, FBMEM: 15 MB, VRAM: 1024 MB, Flags: 0x00000716
64 TOTAL STOLEN: 32 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 64 MB, M
65 GPU Name: Intel HD Graphics 5300
66 Model Name(s):
67 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
68 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
69 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
70 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
71 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
72 00000800 02000000 30020000
73 01050900 04000000 04000000
74 02040900 00080000 82000000
75
76 ID: 16260000, STOLEN: 16 MB, FBMEM: 15 MB, VRAM: 1024 MB, Flags: 0x00000B06
77 TOTAL STOLEN: 32 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 64 MB, M
78 GPU Name: Intel HD Graphics 6000
79 Model Name(s):
80 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
81 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
82 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
```

```
83 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
84 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
85 00000800 02000000 30020000
86 01050900 04000000 04000000
87 02040900 00080000 82000000
88
89 ID: 162B0000, STOLEN: 16 MB, FBMEM: 15 MB, VRAM: 1024 MB, Flags: 0x00000B06
90 TOTAL STOLEN: 32 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 64 MB, M
91 GPU Name: Intel Iris Graphics 6100
92 Model Name(s):
93 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
94 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
95 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
96 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
97 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
98 00000800 02000000 30020000
99 01050900 04000000 04000000
100 02040900 00080000 82000000
101
102 ID: 16220000, STOLEN: 16 MB, FBMEM: 15 MB, VRAM: 1024 MB, Flags: 0x0000110E
103 TOTAL STOLEN: 32 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 64 MB, M
104 GPU Name: Intel Iris Pro Graphics 6200
105 Model Name(s):
106 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
107 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
108 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
109 [1] busId: 0x05, pipe: 9, type: 0x00000004, flags: 0x00000004 - DigitalDVI
110 [2] busId: 0x04, pipe: 9, type: 0x00000800, flags: 0x00000082 - HDMI
111 00000800 02000000 30020000
112 01050900 04000000 04000000
113 02040900 00080000 82000000
114
115 ID: 160E0001, STOLEN: 38 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00000702
116 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 136 MB, I
117 GPU Name: Intel Broadwell GT1
118 Model Name(s):
119 Camelia: V2, Freq: 1388 Hz, FreqMax: 1388 Hz
120 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
121 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
122 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00001001 - DP
123 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00003001 - DP
124 00000800 02000000 30020000
125 01050900 00040000 01100000
126 02040A00 00040000 01300000
127
128 ID: 161E0001, STOLEN: 38 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00000702
129 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 136 MB, I
130 GPU Name: Intel HD Graphics 5300
```

```
131 Model Name(s): MacBook8,1
132 Camelia: V2, Freq: 1388 Hz, FreqMax: 1388 Hz
133 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
134 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
135 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00001001 - DP
136 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00003001 - DP
137 00000800 02000000 30020000
138 01050900 00040000 01100000
139 02040A00 00040000 01300000
140
141 ID: 16060002, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00004B02
142 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
143 GPU Name: Intel Broadwell GT1
144 Model Name(s):
145 Camelia: V2, Freq: 1388 Hz, FreqMax: 1388 Hz
146 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
147 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
148 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000507 - DP
149 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000507 - DP
150 00000800 02000000 30020000
151 01050900 00040000 07050000
152 02040A00 00040000 07050000
153
154 ID: 16160002, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00004B02
155 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
156 GPU Name: Intel HD Graphics 5500
157 Model Name(s):
158 Camelia: V2, Freq: 1388 Hz, FreqMax: 1388 Hz
159 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
160 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
161 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000507 - DP
162 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000507 - DP
163 00000800 02000000 30020000
164 01050900 00040000 07050000
165 02040A00 00040000 07050000
166
167 ID: 16260002, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00004B0A
168 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
169 GPU Name: Intel HD Graphics 6000
170 Model Name(s):
171 Camelia: V2, Freq: 1388 Hz, FreqMax: 1388 Hz
172 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
173 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
174 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000507 - DP
175 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000507 - DP
176 00000800 02000000 30020000
177 01050900 00040000 07050000
178 02040A00 00040000 07050000
```



```
179
180 ID: 16220002, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00004B0A
181 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
182 GPU Name: Intel Iris Pro Graphics 6200
183 Model Name(s):
184 Camelia: V2, Freq: 1388 Hz, FreqMax: 1388 Hz
185 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
186 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
187 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000507 - DP
188 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000507 - DP
189 00000800 02000000 30020000
190 01050900 00040000 07050000
191 02040A00 00040000 07050000
192
193 ID: 162B0002, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00004B0A
194 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
195 GPU Name: Intel Iris Graphics 6100
196 Model Name(s): MacBookPro12,1
197 Camelia: V2, Freq: 1388 Hz, FreqMax: 1388 Hz
198 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
199 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
200 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000507 - DP
201 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000507 - DP
202 00000800 02000000 30020000
203 01050900 00040000 07050000
204 02040A00 00040000 07050000
205
206 ID: 16120003, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00001306
207 TOTAL STOLEN: 56 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
208 GPU Name: Intel HD Graphics 5600
209 Model Name(s):
210 Camelia: V1, Freq: 1953 Hz, FreqMax: 1953 Hz
211 Mobile: 1, PipeCount: 3, PortCount: 4, FBMemoryCount: 3
212 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
213 [1] busId: 0x05, pipe: 11, type: 0x00000400, flags: 0x00000507 - DP
214 [2] busId: 0x04, pipe: 11, type: 0x00000400, flags: 0x00000507 - DP
215 [3] busId: 0x06, pipe: 3, type: 0x00000800, flags: 0x00000006 - HDMI
216 00000800 02000000 30020000
217 01050B00 00040000 07050000
218 02040B00 00040000 07050000
219 03060300 00080000 06000000
220
221 ID: 162B0004, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00040B46
222 TOTAL STOLEN: 56 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
223 GPU Name: Intel Iris Graphics 6100
224 Model Name(s):
225 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
226 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
```

```
227 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000211 - LVDS
228 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000507 - DP
229 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000507 - DP
230 00000800 02000000 11020000
231 01050900 00040000 07050000
232 02040A00 00040000 07050000
233
234 ID: 16260004, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00040B46
235 TOTAL STOLEN: 56 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
236 GPU Name: Intel HD Graphics 6000
237 Model Name(s):
238 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
239 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
240 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000211 - LVDS
241 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000507 - DP
242 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000507 - DP
243 00000800 02000000 11020000
244 01050900 00040000 07050000
245 02040A00 00040000 07050000
246
247 ID: 16220007, STOLEN: 38 MB, FBMEM: 38 MB, VRAM: 1536 MB, Flags: 0x000BB306
248 TOTAL STOLEN: 77 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 153 MB,
249 GPU Name: Intel Iris Pro Graphics 6200
250 Model Name(s): iMac16,2
251 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
252 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
253 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000507 - DP
254 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000507 - DP
255 [3] busId: 0x06, pipe: 8, type: 0x00000400, flags: 0x00000011 - DP
256 01050900 00040000 07050000
257 02040A00 00040000 07050000
258 03060800 00040000 11000000
259
260 ID: 16260005, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00000B0B
261 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
262 GPU Name: Intel HD Graphics 6000
263 Model Name(s):
264 Camelia: Disabled, Freq: 2777 Hz, FreqMax: 2777 Hz
265 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
266 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
267 [1] busId: 0x05, pipe: 11, type: 0x00000400, flags: 0x00000507 - DP
268 [2] busId: 0x04, pipe: 11, type: 0x00000400, flags: 0x00000507 - DP
269 00000800 02000000 30020000
270 01050B00 00040000 07050000
271 02040B00 00040000 07050000
272
273 ID: 16260006, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00000B0B
274 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
```



```
275 GPU Name: Intel HD Graphics 6000
276 Model Name(s): iMac16,1 MacBookAir7,1 MacBookAir7,2
277 Camelia: Disabled, Freq: 2777 Hz, FreqMax: 2777 Hz
278 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
279 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000230 - LVDS
280 [1] busId: 0x05, pipe: 11, type: 0x00000400, flags: 0x00000507 - DP
281 [2] busId: 0x04, pipe: 11, type: 0x00000400, flags: 0x00000507 - DP
282 00000800 02000000 30020000
283 01050B00 00040000 07050000
284 02040B00 00040000 07050000
285
286 ID: 162B0008, STOLEN: 34 MB, FBMEM: 34 MB, VRAM: 1536 MB, Flags: 0x00002B0E
287 TOTAL STOLEN: 69 MB, TOTAL CURSOR: 1 MB, MAX STOLEN: 103 MB, MAX OVERALL: 104
288 GPU Name: Intel Iris Graphics 6100
289 Model Name(s):
290 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
291 Mobile: 0, PipeCount: 2, PortCount: 2, FBMemoryCount: 2
292 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000507 - DP
293 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000507 - DP
294 01050900 00040000 07050000
295 02040A00 00040000 07050000
296
297 ID: 16260008, STOLEN: 34 MB, FBMEM: 34 MB, VRAM: 1536 MB, Flags: 0x00002B0E
298 TOTAL STOLEN: 69 MB, TOTAL CURSOR: 1 MB, MAX STOLEN: 103 MB, MAX OVERALL: 104
299 GPU Name: Intel HD Graphics 6000
300 Model Name(s): Unknown
301 Camelia: Disabled, Freq: 5273 Hz, FreqMax: 5273 Hz
302 Mobile: 0, PipeCount: 2, PortCount: 2, FBMemoryCount: 2
303 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000507 - DP
304 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000507 - DP
305 01050900 00040000 07050000
306 02040A00 00040000 07050000
```

Skylake

```
1 0x191E0000 (mobile, 3 connectors)
2 0x19160000 (mobile, 3 connectors)
3 0x19260000 (mobile, 3 connectors)
4 0x19270000 (mobile, 3 connectors)
5 0x191B0000 (mobile, 3 connectors)
6 0x193B0000 (mobile, 3 connectors)
7 0x19120000 (mobile, 3 connectors)
8 0x19020001 (desktop, 0 connectors, no fbmem)
9 0x19170001 (desktop, 0 connectors, no fbmem)
10 0x19120001 (desktop, 0 connectors, no fbmem)
11 0x19320001 (desktop, 0 connectors, no fbmem)
```

```
12 0x19160002 (mobile, 3 connectors, no fbmem)
13 0x19260002 (mobile, 3 connectors, no fbmem)
14 0x191E0003 (mobile, 3 connectors, no fbmem)
15 0x19260004 (mobile, 3 connectors, no fbmem)
16 0x19270004 (mobile, 3 connectors, no fbmem)
17 0x193B0005 (mobile, 4 connectors, no fbmem)
18 0x191B0006 (mobile, 1 connectors, no fbmem)
19 0x19260007 (mobile, 3 connectors, no fbmem)
20
21 ID: 191E0000, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x0000050F
22 TOTAL STOLEN: 56 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
23 GPU Name: Intel HD Graphics 515
24 Model Name(s):
25 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
26 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
27 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
28 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
29 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
30 00000800 02000000 98000000
31 01050900 00040000 87010000
32 02040A00 00040000 87010000
33
34 ID: 19160000, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x0000090F
35 TOTAL STOLEN: 56 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
36 GPU Name: Intel HD Graphics 520
37 Model Name(s):
38 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
39 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
40 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
41 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
42 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
43 00000800 02000000 98000000
44 01050900 00040000 87010000
45 02040A00 00040000 87010000
46
47 ID: 19260000, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x0000090F
48 TOTAL STOLEN: 56 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
49 GPU Name: Intel Iris Graphics 540
50 Model Name(s):
51 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
52 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
53 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
54 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
55 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
56 00000800 02000000 98000000
57 01050900 00040000 87010000
58 02040A00 00040000 87010000
59
```

```
60 ID: 19270000, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x0000090F
61 TOTAL STOLEN: 56 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
62 GPU Name: Intel Iris Graphics 550
63 Model Name(s):
64 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
65 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
66 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
67 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
68 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
69 00000800 02000000 98000000
70 01050900 00040000 87010000
71 02040A00 00040000 87010000
72
73 ID: 191B0000, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x0000110F
74 TOTAL STOLEN: 56 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
75 GPU Name: Intel HD Graphics 530
76 Model Name(s): MacBookPro13,3
77 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
78 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
79 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
80 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
81 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
82 00000800 02000000 98000000
83 01050900 00040000 87010000
84 02040A00 00040000 87010000
85
86 ID: 193B0000, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00001187
87 TOTAL STOLEN: 56 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
88 GPU Name: Intel Iris Pro Graphics 580
89 Model Name(s):
90 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
91 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
92 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
93 [2] busId: 0x04, pipe: 10, type: 0x00000800, flags: 0x00000187 - HDMI
94 [3] busId: 0x06, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
95 00000800 02000000 98000000
96 02040A00 00080000 87010000
97 03060A00 00040000 87010000
98
99 ID: 19120000, STOLEN: 34 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x0000110F
100 TOTAL STOLEN: 56 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 124 MB,
101 GPU Name: Intel HD Graphics 530
102 Model Name(s): iMac17,1
103 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
104 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
105 [-1] busId: 0x00, pipe: 0, type: 0x00000001, flags: 0x00000020 - Dummy
106 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
107 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
```

```
108 FF000000 01000000 20000000
109 01050900 00040000 87010000
110 02040A00 00040000 87010000
111
112 ID: 19020001, STOLEN: 0 bytes, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x000408
113 TOTAL STOLEN: 1 MB, TOTAL CURSOR: 0 bytes, MAX STOLEN: 1 MB, MAX OVERALL: 1 M
114 GPU Name: Intel HD Graphics 510
115 Model Name(s):
116 Camelia: Disabled, Freq: 0 Hz, FreqMax: 0 Hz
117 Mobile: 0, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
118
119 ID: 19170001, STOLEN: 0 bytes, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x000408
120 TOTAL STOLEN: 1 MB, TOTAL CURSOR: 0 bytes, MAX STOLEN: 1 MB, MAX OVERALL: 1 M
121 GPU Name: Intel Skylake GT2f
122 Model Name(s):
123 Camelia: Disabled, Freq: 0 Hz, FreqMax: 0 Hz
124 Mobile: 0, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
125
126 ID: 19120001, STOLEN: 0 bytes, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x000408
127 TOTAL STOLEN: 1 MB, TOTAL CURSOR: 0 bytes, MAX STOLEN: 1 MB, MAX OVERALL: 1 M
128 GPU Name: Intel HD Graphics 530
129 Model Name(s):
130 Camelia: Disabled, Freq: 0 Hz, FreqMax: 0 Hz
131 Mobile: 0, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
132
133 ID: 19320001, STOLEN: 0 bytes, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x000408
134 TOTAL STOLEN: 1 MB, TOTAL CURSOR: 0 bytes, MAX STOLEN: 1 MB, MAX OVERALL: 1 M
135 GPU Name: Intel Iris Pro Graphics 580
136 Model Name(s):
137 Camelia: Disabled, Freq: 0 Hz, FreqMax: 0 Hz
138 Mobile: 0, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
139
140 ID: 19160002, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00830B02
141 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
142 GPU Name: Intel HD Graphics 520
143 Model Name(s):
144 Camelia: V3, Freq: 1388 Hz, FreqMax: 1388 Hz
145 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
146 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000498 - LVDS
147 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000003C7 - DP
148 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000003C7 - DP
149 00000800 02000000 98040000
150 01050900 00040000 C7030000
151 02040A00 00040000 C7030000
152
153 ID: 19260002, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00E30B0A
154 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
155 GPU Name: Intel Iris Graphics 540
```

```
156 Model Name(s): MacBookPro13,1
157 Camelia: V3, Freq: 1388 Hz, FreqMax: 1388 Hz
158 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
159 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000498 - LVDS
160 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000003C7 - DP
161 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000003C7 - DP
162 00000800 02000000 98040000
163 01050900 00040000 C7030000
164 02040A00 00040000 C7030000
165
166 ID: 191E0003, STOLEN: 40 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x002B0702
167 TOTAL STOLEN: 41 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 121 MB,
168 GPU Name: Intel HD Graphics 515
169 Model Name(s): MacBook9,1
170 Camelia: V2, Freq: 1388 Hz, FreqMax: 1388 Hz
171 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
172 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
173 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000181 - DP
174 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000181 - DP
175 00000800 02000000 98000000
176 01050900 00040000 81010000
177 02040A00 00040000 81010000
178
179 ID: 19260004, STOLEN: 34 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00030B0A
180 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 103 MB,
181 GPU Name: Intel Iris Graphics 540
182 Model Name(s):
183 Camelia: V3, Freq: 1388 Hz, FreqMax: 1388 Hz
184 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
185 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000498 - LVDS
186 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000001C7 - DP
187 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000001C7 - DP
188 00000800 02000000 98040000
189 01050900 00040000 C7010000
190 02040A00 00040000 C7010000
191
192 ID: 19270004, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00E30B0A
193 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
194 GPU Name: Intel Iris Graphics 550
195 Model Name(s): MacBookPro13,2
196 Camelia: V3, Freq: 1388 Hz, FreqMax: 1388 Hz
197 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
198 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000498 - LVDS
199 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000003C7 - DP
200 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000003C7 - DP
201 00000800 02000000 98040000
202 01050900 00040000 C7030000
203 02040A00 00040000 C7030000
```



```

204
205 ID: 193B0005, STOLEN: 34 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0023130A
206 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 137 MB,
207 GPU Name: Intel Iris Pro Graphics 580
208 Model Name(s): MacBookPro13,1
209 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
210 Mobile: 1, PipeCount: 3, PortCount: 4, FBMemoryCount: 4
211 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
212 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000001C7 - DP
213 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000001C7 - DP
214 [3] busId: 0x06, pipe: 10, type: 0x00000400, flags: 0x000001C7 - DP
215 00000800 02000000 98000000
216 01050900 00040000 C7010000
217 02040A00 00040000 C7010000
218 03060A00 00040000 C7010000
219
220 ID: 191B0006, STOLEN: 38 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00131302
221 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 512 KB, MAX STOLEN: 39 MB, MAX OVERALL: 39
222 GPU Name: Intel HD Graphics 530
223 Model Name(s):
224 Camelia: V3, Freq: 1388 Hz, FreqMax: 1388 Hz
225 Mobile: 1, PipeCount: 1, PortCount: 1, FBMemoryCount: 1
226 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000498 - LVDS
227 00000800 02000000 98040000
228
229 ID: 19260007, STOLEN: 34 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00031302
230 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 103 MB,
231 GPU Name: Intel Iris Graphics 540
232 Model Name(s):
233 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
234 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
235 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
236 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000001C7 - DP
237 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000001C7 - DP
238 00000800 02000000 98000000
239 01050900 00040000 C7010000
240 02040A00 00040000 C7010000

```

Kaby Lake

```

1 0x591E0000 (mobile, 3 connectors, no fbmem)
2 0x59160000 (mobile, 3 connectors, no fbmem)
3 0x59230000 (desktop, 3 connectors, no fbmem)
4 0x59260000 (desktop, 3 connectors, no fbmem)
5 0x59270000 (desktop, 3 connectors, no fbmem)
6 0x59270009 (mobile, 3 connectors, no fbmem)

```

```
7 0x59120000 (desktop, 3 connectors, no fbmem)
8 0x591B0000 (mobile, 3 connectors)
9 0x591E0001 (mobile, 3 connectors, no fbmem)
10 0x59180002 (mobile, 0 connectors, no fbmem)
11 0x59120003 (mobile, 0 connectors, no fbmem)
12 0x59260007 (desktop, 3 connectors)
13 0x59270004 (mobile, 3 connectors, no fbmem)
14 0x59260002 (mobile, 3 connectors, no fbmem)
15 0x591B0006 (mobile, 1 connectors, no fbmem)
16
17 ID: 591E0000, STOLEN: 34 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0000078B
18 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 103 MB,
19 GPU Name: Intel HD Graphics 615
20 Model Name(s): MacBook10,1
21 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
22 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
23 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
24 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
25 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
26 00000800 02000000 98000000
27 01050900 00040000 87010000
28 02040A00 00040000 87010000
29
30 ID: 59160000, STOLEN: 34 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00000B0B
31 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 103 MB,
32 GPU Name: Intel HD Graphics 620
33 Model Name(s): MacBookPro14,2
34 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
35 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
36 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
37 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
38 [2] busId: 0x04, pipe: 10, type: 0x00000800, flags: 0x00000187 - HDMI
39 00000800 02000000 98000000
40 01050900 00040000 87010000
41 02040A00 00080000 87010000
42
43 ID: 59230000, STOLEN: 38 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00030B8B
44 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 115 MB,
45 GPU Name: Intel HD Graphics 635
46 Model Name(s):
47 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
48 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
49 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
50 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
51 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
52 00000800 02000000 98000000
53 01050900 00040000 87010000
54 02040A00 00040000 87010000
```



```
55
56 ID: 59260000, STOLEN: 38 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00030B8B
57 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 115 MB,
58 GPU Name: Intel Iris Plus Graphics 640
59 Model Name(s): MacBookPro14,1 iMac18,1
60 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
61 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
62 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
63 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
64 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
65 00000800 02000000 98000000
66 01050900 00040000 87010000
67 02040A00 00040000 87010000
68
69 ID: 59270000, STOLEN: 38 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00030B8B
70 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 115 MB,
71 GPU Name: Intel Iris Plus Graphics 650
72 Model Name(s): MacBookPro14,2
73 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
74 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
75 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
76 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
77 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
78 00000800 02000000 98000000
79 01050900 00040000 87010000
80 02040A00 00040000 87010000
81
82 ID: 59270009, STOLEN: 38 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00830B0A
83 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 115 MB,
84 GPU Name: Intel Iris Plus Graphics 650
85 Model Name(s):
86 Camelia: V3, Freq: 1388 Hz, FreqMax: 1388 Hz
87 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
88 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
89 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000001C7 - DP
90 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000001C7 - DP
91 00000800 02000000 98000000
92 01050900 00040000 C7010000
93 02040A00 00040000 C7010000
94
95 ID: 59120000, STOLEN: 38 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0000110B
96 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 115 MB,
97 GPU Name: Intel HD Graphics 630
98 Model Name(s): iMac18,2 iMac18,3
99 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
100 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
101 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
102 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
```

```
103 [3] busId: 0x06, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
104 01050900 00040000 87010000
105 02040A00 00040000 87010000
106 03060A00 00040000 87010000
107
108 ID: 591B0000, STOLEN: 38 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x0000130B
109 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 136 MB,
110 GPU Name: Intel HD Graphics 630
111 Model Name(s): MacBookPro14,3
112 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
113 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
114 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
115 [2] busId: 0x04, pipe: 10, type: 0x00000800, flags: 0x00000187 - HDMI
116 [3] busId: 0x06, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
117 00000800 02000000 98000000
118 02040A00 00080000 87010000
119 03060A00 00040000 87010000
120
121 ID: 591E0001, STOLEN: 38 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x002B0702
122 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 115 MB,
123 GPU Name: Intel HD Graphics 615
124 Model Name(s): MacBook10,1
125 Camelia: V2, Freq: 1388 Hz, FreqMax: 1388 Hz
126 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
127 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
128 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000181 - DP
129 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000181 - DP
130 00000800 02000000 98000000
131 01050900 00040000 81010000
132 02040A00 00040000 81010000
133
134 ID: 59180002, STOLEN: 0 bytes, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x000010
135 TOTAL STOLEN: 1 MB, TOTAL CURSOR: 0 bytes, MAX STOLEN: 1 MB, MAX OVERALL: 1 M
136 GPU Name: Unknown
137 Model Name(s):
138 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
139 Mobile: 1, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
140
141 ID: 59120003, STOLEN: 0 bytes, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x000010
142 TOTAL STOLEN: 1 MB, TOTAL CURSOR: 0 bytes, MAX STOLEN: 1 MB, MAX OVERALL: 1 M
143 GPU Name: Intel HD Graphics 630
144 Model Name(s): iMac18,2 iMac18,3
145 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
146 Mobile: 1, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
147
148 ID: 59260007, STOLEN: 57 MB, FBMEM: 21 MB, VRAM: 1536 MB, Flags: 0x00830B0E
149 TOTAL STOLEN: 79 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 193 MB,
150 GPU Name: Intel Iris Plus Graphics 640
```

```
151 Model Name(s):
152 Camelia: Disabled, Freq: 1388 Hz, FreqMax: 1388 Hz
153 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
154 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
155 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000003C7 - DP
156 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000003C7 - DP
157 00000800 02000000 98000000
158 01050900 00040000 C7030000
159 02040A00 00040000 C7030000
160
161 ID: 59270004, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00E30B0A
162 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
163 GPU Name: Intel Iris Plus Graphics 650
164 Model Name(s): MacBookPro14,2
165 Camelia: V3, Freq: 1388 Hz, FreqMax: 1388 Hz
166 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
167 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000498 - LVDS
168 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000003C7 - DP
169 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000003C7 - DP
170 00000800 02000000 98040000
171 01050900 00040000 C7030000
172 02040A00 00040000 C7030000
173
174 ID: 59260002, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00E30B0A
175 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
176 GPU Name: Intel Iris Plus Graphics 640
177 Model Name(s): MacBookPro14,1 iMac18,1
178 Camelia: V3, Freq: 1388 Hz, FreqMax: 1388 Hz
179 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
180 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000498 - LVDS
181 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000003C7 - DP
182 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000003C7 - DP
183 00000800 02000000 98040000
184 01050900 00040000 C7030000
185 02040A00 00040000 C7030000
186
187 ID: 591B0006, STOLEN: 38 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00031302
188 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 512 KB, MAX STOLEN: 39 MB, MAX OVERALL: 39
189 GPU Name: Intel HD Graphics 630
190 Model Name(s):
191 Camelia: V3, Freq: 1388 Hz, FreqMax: 1388 Hz
192 Mobile: 1, PipeCount: 1, PortCount: 1, FBMemoryCount: 1
193 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000498 - LVDS
194 00000800 02000000 98040000
```

```
1 0x3EA50009 (mobile, 3 connectors, no fbmem)
2 0x3E920009 (mobile, 3 connectors, no fbmem)
3 0x3E9B0009 (mobile, 3 connectors, no fbmem)
4 0x3EA50000 (mobile, 3 connectors, no fbmem)
5 0x3E920000 (mobile, 3 connectors, no fbmem)
6 0x3E000000 (mobile, 3 connectors, no fbmem)
7 0x3E9B0000 (mobile, 3 connectors, no fbmem)
8 0x3EA50004 (mobile, 3 connectors, no fbmem)
9 0x3E9B0006 (mobile, 1 connectors, no fbmem)
10 0x3E9B0007 (desktop, 3 connectors, no fbmem)
11
12 ID: 3EA50009, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00830B0A
13 TOTAL STOLEN: 172 MB, TOTAL CURSOR: 1 MB (1572864 bytes), OVERALL: 173 MB (18
14 Model name: Intel HD Graphics CFL CRB
15 Camelia: CameliaV3 (3), Freq: 0 Hz, FreqMax: 0 Hz
16 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
17 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - ConnectorLVDS
18 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000001C7 - ConnectorDP
19 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000001C7 - ConnectorDP
20 00000800 02000000 98000000
21 01050900 00040000 C7010000
22 02040A00 00040000 C7010000
23
24 ID: 3E920009, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0083130A
25 TOTAL STOLEN: 172 MB, TOTAL CURSOR: 1 MB (1572864 bytes), OVERALL: 173 MB (18
26 Model name: Intel HD Graphics CFL CRB
27 Camelia: CameliaV3 (3), Freq: 0 Hz, FreqMax: 0 Hz
28 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
29 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - ConnectorLVDS
30 [255] busId: 0x00, pipe: 0, type: 0x00000001, flags: 0x00000020 - ConnectorDui
31 [255] busId: 0x00, pipe: 0, type: 0x00000001, flags: 0x00000020 - ConnectorDui
32 00000800 02000000 98000000
33 FF000000 01000000 20000000
34 FF000000 01000000 20000000
35
36 ID: 3E9B0009, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0083130A
37 TOTAL STOLEN: 172 MB, TOTAL CURSOR: 1 MB (1572864 bytes), OVERALL: 173 MB (18
38 Model name: Intel HD Graphics CFL CRB
39 Camelia: CameliaV3 (3), Freq: 0 Hz, FreqMax: 0 Hz
40 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
41 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - ConnectorLVDS
42 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - ConnectorDP
43 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - ConnectorDP
44 00000800 02000000 98000000
45 01050900 00040000 87010000
46 02040A00 00040000 87010000
47
48 ID: 3EA50000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00030B0B
```

```
49 TOTAL STOLEN: 172 MB, TOTAL CURSOR: 1 MB (1572864 bytes), OVERALL: 173 MB (18
50 Model name: Intel HD Graphics CFL CRB
51 Camelia: CameliaDisabled (0), Freq: 0 Hz, FreqMax: 0 Hz
52 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
53 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - ConnectorLVDS
54 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - ConnectorDP
55 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - ConnectorDP
56 00000800 02000000 98000000
57 01050900 00040000 87010000
58 02040A00 00040000 87010000
59
60 ID: 3E920000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0000130B
61 TOTAL STOLEN: 172 MB, TOTAL CURSOR: 1 MB (1572864 bytes), OVERALL: 173 MB (18
62 Model name: Intel HD Graphics CFL CRB
63 Camelia: CameliaDisabled (0), Freq: 0 Hz, FreqMax: 0 Hz
64 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
65 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - ConnectorLVDS
66 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - ConnectorDP
67 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - ConnectorDP
68 00000800 02000000 98000000
69 01050900 00040000 87010000
70 02040A00 00040000 87010000
71
72 ID: 3E000000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0000130B
73 TOTAL STOLEN: 172 MB, TOTAL CURSOR: 1 MB (1572864 bytes), OVERALL: 173 MB (18
74 Model name: Intel HD Graphics CFL CRB
75 Camelia: CameliaDisabled (0), Freq: 0 Hz, FreqMax: 0 Hz
76 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
77 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - ConnectorLVDS
78 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - ConnectorDP
79 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - ConnectorDP
80 00000800 02000000 98000000
81 01050900 00040000 87010000
82 02040A00 00040000 87010000
83
84 ID: 3E9B0000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0000130B
85 TOTAL STOLEN: 172 MB, TOTAL CURSOR: 1 MB (1572864 bytes), OVERALL: 173 MB (18
86 Model name: Intel HD Graphics CFL CRB
87 Camelia: CameliaDisabled (0), Freq: 0 Hz, FreqMax: 0 Hz
88 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
89 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - ConnectorLVDS
90 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - ConnectorDP
91 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - ConnectorDP
92 00000800 02000000 98000000
93 01050900 00040000 87010000
94 02040A00 00040000 87010000
95
96 ID: 3EA50004, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00E30B0A
```



```

97 TOTAL STOLEN: 172 MB, TOTAL CURSOR: 1 MB (1572864 bytes), OVERALL: 173 MB (18
98 Model name: Intel Iris Plus Graphics 655
99 Camelia: CameliaV3 (3), Freq: 0 Hz, FreqMax: 0 Hz
100 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
101 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000498 - ConnectorLVDS
102 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000003C7 - ConnectorDP
103 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000003C7 - ConnectorDP
104 00000800 02000000 98040000
105 01050900 00040000 C7030000
106 02040A00 00040000 C7030000
107
108 ID: 3E9B0006, STOLEN: 38 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00131302
109 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 512 KB, OVERALL: 39 MB (41422848 bytes)
110 Model name: Intel UHD Graphics 630
111 Camelia: CameliaV3 (3), Freq: 0 Hz, FreqMax: 0 Hz
112 Mobile: 1, PipeCount: 1, PortCount: 1, FBMemoryCount: 1
113 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000498 - ConnectorLVDS
114 00000800 02000000 98040000
115
116 ID: 3E9B0007, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00801302
117 TOTAL STOLEN: 172 MB, TOTAL CURSOR: 1 MB (1572864 bytes), OVERALL: 173 MB (18
118 Model name: Intel HD Graphics CFL
119 Camelia: CameliaDisabled (0), Freq: 0 Hz, FreqMax: 0 Hz
120 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
121 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000003C7 - ConnectorDP
122 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000003C7 - ConnectorDP
123 [3] busId: 0x06, pipe: 8, type: 0x00000400, flags: 0x000003C7 - ConnectorDP
124 01050900 00040000 C7030000
125 02040A00 00040000 C7030000
126 03060800 00040000 C7030000
127
128 Note, that without AAPL,ig-platform-id the following ID is assumed: 3EA50000

```

Cannon Lake

```

1 0x5A510009 (mobile, 3 connectors, no fbmem)
2 0x5A400009 (mobile, 3 connectors, no fbmem)
3 0x5A410009 (mobile, 3 connectors, no fbmem)
4 0x5A590009 (mobile, 3 connectors, no fbmem)
5 0x5A490009 (mobile, 3 connectors, no fbmem)
6 0x5A500009 (mobile, 3 connectors, no fbmem)
7 0x5A510000 (mobile, 3 connectors, no fbmem)
8 0x5A400000 (mobile, 3 connectors, no fbmem)
9 0x5A410000 (mobile, 3 connectors, no fbmem)
10 0x5A590000 (mobile, 3 connectors, no fbmem)
11 0x5A490000 (mobile, 3 connectors, no fbmem)

```

```
12 0x5A500000 (mobile, 3 connectors, no fbmem)
13 0x5A520000 (mobile, 3 connectors, no fbmem)
14 0x0A010000 (mobile, 1 connectors, no fbmem)
15
16 ID: 5A510009, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00A0070A
17 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
18 GPU Name: Intel Cannonlake GT2
19 Model Name(s): Unknown
20 Camelia: V3
21 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
22 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
23 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x000009C7 - DP
24 [2] busId: 0x02, pipe: 10, type: 0x00000400, flags: 0x000009C7 - DP
25 00000800 02000000 98000000
26 01010900 00040000 C7090000
27 02020A00 00040000 C7090000
28
29 ID: 5A400009, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00A0070A
30 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
31 GPU Name: Unknown
32 Model Name(s): Unknown
33 Camelia: V3
34 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
35 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
36 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x000009C7 - DP
37 [2] busId: 0x02, pipe: 10, type: 0x00000400, flags: 0x000009C7 - DP
38 00000800 02000000 98000000
39 01010900 00040000 C7090000
40 02020A00 00040000 C7090000
41
42 ID: 5A410009, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00A0070A
43 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
44 GPU Name: Intel Cannonlake GT1
45 Model Name(s): Unknown
46 Camelia: V3
47 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
48 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
49 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x000009C7 - DP
50 [2] busId: 0x02, pipe: 10, type: 0x00000400, flags: 0x000009C7 - DP
51 00000800 02000000 98000000
52 01010900 00040000 C7090000
53 02020A00 00040000 C7090000
54
55 ID: 5A590009, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00A0070A
56 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
57 GPU Name: Intel Cannonlake GT1.5
58 Model Name(s): Unknown
59 Camelia: V3
```



```
60 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
61 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
62 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x000009C7 - DP
63 [2] busId: 0x02, pipe: 10, type: 0x00000400, flags: 0x000009C7 - DP
64 00000800 02000000 98000000
65 01010900 00040000 C7090000
66 02020A00 00040000 C7090000
67
68 ID: 5A490009, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00A0070A
69 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
70 GPU Name: Intel Cannonlake GT0.5
71 Model Name(s): Unknown
72 Camelia: V3
73 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
74 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
75 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x000009C7 - DP
76 [2] busId: 0x02, pipe: 10, type: 0x00000400, flags: 0x000009C7 - DP
77 00000800 02000000 98000000
78 01010900 00040000 C7090000
79 02020A00 00040000 C7090000
80
81 ID: 5A500009, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00A0070A
82 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
83 GPU Name: Intel Cannonlake GT2
84 Model Name(s): Unknown
85 Camelia: V3
86 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
87 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
88 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x000009C7 - DP
89 [2] busId: 0x02, pipe: 10, type: 0x00000400, flags: 0x000009C7 - DP
90 00000800 02000000 98000000
91 01010900 00040000 C7090000
92 02020A00 00040000 C7090000
93
94 ID: 5A510000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00A0070B
95 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
96 GPU Name: Intel Cannonlake GT2
97 Model Name(s): Unknown
98 Camelia: Disabled
99 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
100 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
101 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x00000987 - DP
102 [2] busId: 0x02, pipe: 10, type: 0x00000400, flags: 0x00000987 - DP
103 00000800 02000000 98000000
104 01010900 00040000 87090000
105 02020A00 00040000 87090000
106
107 ID: 5A400000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00A0070B
```

```
108 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB, I
109 GPU Name: Unknown
110 Model Name(s): Unknown
111 Camelia: Disabled
112 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
113 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
114 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x00000987 - DP
115 [2] busId: 0x02, pipe: 10, type: 0x00000400, flags: 0x00000987 - DP
116 00000800 02000000 98000000
117 01010900 00040000 87090000
118 02020A00 00040000 87090000
119
120 ID: 5A410000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00A0070B
121 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB, I
122 GPU Name: Intel Cannonlake GT1
123 Model Name(s): Unknown
124 Camelia: Disabled
125 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
126 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
127 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x00000987 - DP
128 [2] busId: 0x02, pipe: 10, type: 0x00000400, flags: 0x00000987 - DP
129 00000800 02000000 98000000
130 01010900 00040000 87090000
131 02020A00 00040000 87090000
132
133 ID: 5A590000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00A0070B
134 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB, I
135 GPU Name: Intel Cannonlake GT1.5
136 Model Name(s): Unknown
137 Camelia: Disabled
138 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
139 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
140 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x00000987 - DP
141 [2] busId: 0x02, pipe: 10, type: 0x00000800, flags: 0x00000986 - HDMI
142 00000800 02000000 98000000
143 01010900 00040000 87090000
144 02020A00 00080000 86090000
145
146 ID: 5A490000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00A0070B
147 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB, I
148 GPU Name: Intel Cannonlake GT0.5
149 Model Name(s): Unknown
150 Camelia: Disabled
151 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
152 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
153 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x00000987 - DP
154 [2] busId: 0x02, pipe: 10, type: 0x00000400, flags: 0x00000987 - DP
155 00000800 02000000 98000000
```

```

156 01010900 00040000 87090000
157 02020A00 00040000 87090000
158
159 ID: 5A500000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00A0070B
160 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
161 GPU Name: Intel Cannonlake GT2
162 Model Name(s): Unknown
163 Camelia: Disabled
164 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
165 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
166 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x00000987 - DP
167 [2] busId: 0x02, pipe: 10, type: 0x00000400, flags: 0x00000987 - DP
168 00000800 02000000 98000000
169 01010900 00040000 87090000
170 02020A00 00040000 87090000
171
172 ID: 5A520000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00000803
173 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
174 GPU Name: Intel Cannonlake GT2
175 Model Name(s): Unknown
176 Camelia: Disabled
177 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
178 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
179 [1] busId: 0x01, pipe: 9, type: 0x00000400, flags: 0x00000987 - DP
180 [3] busId: 0x04, pipe: 10, type: 0x00000800, flags: 0x00000187 - HDMI
181 00000800 02000000 98000000
182 01010900 00040000 87090000
183 03040A00 00080000 87010000
184
185 ID: 0A010000, STOLEN: 34 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00000702
186 TOTAL STOLEN: 35 MB, TOTAL CURSOR: 512 KB, MAX STOLEN: 35 MB, MAX OVERALL: 35
187 GPU Name: Unknown
188 Model Name(s): Unknown
189 Camelia: Disabled
190 Mobile: 1, PipeCount: 1, PortCount: 1, FBMemoryCount: 1
191 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
192 00000800 02000000 98000000

```

Ice Lake (LP)

```

1 0xFF050000 (mobile, 3 connectors, no fbmem)
2 0x8A700000 (mobile, 3 connectors, no fbmem)
3 0x8A510000 (mobile, 3 connectors, no fbmem)
4 0x8A5C0000 (mobile, 3 connectors, no fbmem)
5 0x8A5D0000 (mobile, 3 connectors, no fbmem)
6 0x8A520000 (mobile, 3 connectors, no fbmem)

```

```
7 0x8A5A0000 (mobile, 3 connectors, no fbmem)
8 0x8A5B0000 (mobile, 3 connectors, no fbmem)
9
10 ID: FF050000, STOLEN: 64 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00000602
11 TOTAL STOLEN: 65 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 193 MB,
12 GPU Name: Unknown
13 Model Name(s): Unknown
14 Camelia: Disabled
15 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
16 [0] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000018 - LVDS
17 [1] busId: 0x02, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
18 [2] busId: 0x09, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
19 00000000 00000000 00000000 00000000 02000000 18000000
20 01000000 02000000 01000000 00000000 00040000 01020000
21 02000000 09000000 01000000 01000000 00040000 01020000
22
23 ID: 8A700000, STOLEN: 64 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0001000B
24 TOTAL STOLEN: 65 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 193 MB,
25 GPU Name: Unknown
26 Model Name(s): Unknown
27 Camelia: Disabled
28 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
29 [0] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000018 - LVDS
30 [1] busId: 0x02, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
31 [2] busId: 0x09, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
32 00000000 00000000 00000000 00000000 02000000 18000000
33 01000000 02000000 01000000 00000000 00040000 01020000
34 02000000 09000000 01000000 01000000 00040000 01020000
35
36 ID: 8A510000, STOLEN: 64 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0001000B
37 TOTAL STOLEN: 65 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 193 MB,
38 GPU Name: Intel Ice Lake GT2
39 Model Name(s): Unknown
40 Camelia: Disabled
41 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
42 [0] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000018 - LVDS
43 [1] busId: 0x02, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
44 [2] busId: 0x09, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
45 00000000 00000000 00000000 00000000 02000000 18000000
46 01000000 02000000 01000000 00000000 00040000 01020000
47 02000000 09000000 01000000 01000000 00040000 01020000
48
49 ID: 8A5C0000, STOLEN: 64 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0001000B
50 TOTAL STOLEN: 65 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 193 MB,
51 GPU Name: Intel Ice Lake GT1.5
52 Model Name(s): Unknown
53 Camelia: Disabled
54 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
```

```
55 [0] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000018 - LVDS
56 [1] busId: 0x02, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
57 [2] busId: 0x09, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
58 00000000 00000000 00000000 00000000 02000000 18000000
59 01000000 02000000 01000000 00000000 00040000 01020000
60 02000000 09000000 01000000 01000000 00040000 01020000
61
62 ID: 8A5D0000, STOLEN: 64 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0001000B
63 TOTAL STOLEN: 65 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 193 MB,
64 GPU Name: Intel Ice Lake GT1
65 Model Name(s): Unknown
66 Camelia: Disabled
67 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
68 [0] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000018 - LVDS
69 [1] busId: 0x02, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
70 [2] busId: 0x09, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
71 00000000 00000000 00000000 00000000 02000000 18000000
72 01000000 02000000 01000000 00000000 00040000 01020000
73 02000000 09000000 01000000 01000000 00040000 01020000
74
75 ID: 8A520000, STOLEN: 64 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0001000B
76 TOTAL STOLEN: 65 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 193 MB,
77 GPU Name: Intel Ice Lake GT2
78 Model Name(s): Unknown
79 Camelia: Disabled
80 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
81 [0] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000018 - LVDS
82 [1] busId: 0x02, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
83 [2] busId: 0x09, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
84 00000000 00000000 00000000 00000000 02000000 18000000
85 01000000 02000000 01000000 00000000 00040000 01020000
86 02000000 09000000 01000000 01000000 00040000 01020000
87
88 ID: 8A5A0000, STOLEN: 64 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0001000B
89 TOTAL STOLEN: 65 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 193 MB,
90 GPU Name: Intel Ice Lake GT1.5
91 Model Name(s): Unknown
92 Camelia: Disabled
93 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
94 [0] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000018 - LVDS
95 [1] busId: 0x02, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
96 [2] busId: 0x09, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
97 00000000 00000000 00000000 00000000 02000000 18000000
98 01000000 02000000 01000000 00000000 00040000 01020000
99 02000000 09000000 01000000 01000000 00040000 01020000
100
101 ID: 8A5B0000, STOLEN: 64 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0001000B
102 TOTAL STOLEN: 65 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 193 MB,
```



```
103 GPU Name: Intel Ice Lake GT1
104 Model Name(s): Unknown
105 Camelia: Disabled
106 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
107 [0] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000018 - LVDS
108 [1] busId: 0x02, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
109 [2] busId: 0x09, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
110 00000000 00000000 00000000 00000000 02000000 18000000
111 01000000 02000000 01000000 00000000 00040000 01020000
112 02000000 09000000 01000000 01000000 00040000 01020000
```

Ice Lake(HP)

```
1 0xFF050000 (mobile, 3 connectors, no fbmem)
2 0x8A510000 (mobile, 3 connectors, no fbmem)
3 0x8A520000 (mobile, 3 connectors, no fbmem)
4
5 ID: FF050000, STOLEN: 64 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00000602
6 TOTAL STOLEN: 65 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 193 MB, M
7 GPU Name: Unknown
8 Model Name(s): Unknown
9 Camelia: Disabled
10 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
11 [0] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000018 - LVDS
12 [1] busId: 0x02, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
13 [2] busId: 0x09, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
14 00000000 00000000 00000000 00000000 02000000 18000000
15 01000000 02000000 01000000 00000000 00040000 01020000
16 02000000 09000000 01000000 01000000 00040000 01020000
17
18 ID: 8A510000, STOLEN: 64 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0001000B
19 TOTAL STOLEN: 65 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 193 MB, M
20 GPU Name: Intel Ice Lake GT2
21 Model Name(s): Unknown
22 Camelia: Disabled
23 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
24 [0] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000018 - LVDS
25 [1] busId: 0x02, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
26 [2] busId: 0x09, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
27 00000000 00000000 00000000 00000000 02000000 18000000
28 01000000 02000000 01000000 00000000 00040000 01020000
29 02000000 09000000 01000000 01000000 00040000 01020000
30
31 ID: 8A520000, STOLEN: 64 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0001000B
32 TOTAL STOLEN: 65 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 193 MB, M
33 GPU Name: Intel Ice Lake GT2
```

```
34 Model Name(s): Unknown
35 Camelia: Disabled
36 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
37 [0] busId: 0x00, pipe: 0, type: 0x00000002, flags: 0x00000018 - LVDS
38 [1] busId: 0x02, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
39 [2] busId: 0x09, pipe: 1, type: 0x00000400, flags: 0x00000201 - DP
40 00000000 00000000 00000000 00000000 02000000 18000000
41 01000000 02000000 01000000 00000000 00040000 01020000
42 02000000 09000000 01000000 01000000 00040000 01020000
```

macOS 10.14 Beta 4 (18A336e)

Coffee Lake

```
1 0x3EA50009 (mobile, 3 connectors, no fbmem)
2 0x3E920009 (mobile, 3 connectors, no fbmem)
3 0x3E9B0009 (mobile, 3 connectors, no fbmem)
4 0x3EA50000 (mobile, 3 connectors, no fbmem)
5 0x3E920000 (mobile, 3 connectors, no fbmem)
6 0x3E000000 (mobile, 3 connectors, no fbmem)
7 0x3E9B0000 (mobile, 3 connectors, no fbmem)
8 0x3EA50004 (mobile, 3 connectors, no fbmem)
9 0x3E9B0006 (mobile, 1 connectors, no fbmem)
10 0x3E9B0007 (desktop, 3 connectors, no fbmem)
11 0x3E920003 (desktop, 0 connectors, no fbmem)
12 0x3E910003 (desktop, 0 connectors, no fbmem)
13
14 ID: 3EA50009, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00830B0A
15 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
16 GPU Name: Intel Iris Plus Graphics 655
17 Model Name(s):
18 Camelia: V3
19 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
20 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
21 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000001C7 - DP
22 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000001C7 - DP
23 00000800 02000000 98000000
24 01050900 00040000 C7010000
25 02040A00 00040000 C7010000
26
27 ID: 3E920009, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0083130A
28 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
29 GPU Name: Intel UHD Graphics 630
30 Model Name(s):
31 Camelia: V3
```

```
32 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
33 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
34 [-1] busId: 0x00, pipe: 0, type: 0x00000001, flags: 0x00000020 - Dummy
35 [-1] busId: 0x00, pipe: 0, type: 0x00000001, flags: 0x00000020 - Dummy
36 00000800 02000000 98000000
37 FF000000 01000000 20000000
38 FF000000 01000000 20000000
39
40 ID: 3E9B0009, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0083130A
41 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
42 GPU Name: Intel UHD Graphics 630
43 Model Name(s):
44 Camelia: V3
45 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
46 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
47 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
48 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
49 00000800 02000000 98000000
50 01050900 00040000 87010000
51 02040A00 00040000 87010000
52
53 ID: 3EA50000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00030B0B
54 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
55 GPU Name: Intel Iris Plus Graphics 655
56 Model Name(s):
57 Camelia: Disabled
58 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
59 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
60 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
61 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
62 00000800 02000000 98000000
63 01050900 00040000 87010000
64 02040A00 00040000 87010000
65
66 ID: 3E920000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0000130B
67 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB,
68 GPU Name: Intel UHD Graphics 630
69 Model Name(s):
70 Camelia: Disabled
71 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
72 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
73 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
74 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
75 00000800 02000000 98000000
76 01050900 00040000 87010000
77 02040A00 00040000 87010000
78
79 ID: 3E000000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0000130B
```

```
80 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB, I
81 GPU Name: Unknown
82 Model Name(s):
83 Camelia: Disabled
84 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
85 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
86 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
87 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
88 00000800 02000000 98000000
89 01050900 00040000 87010000
90 02040A00 00040000 87010000
91
92 ID: 3E9B0000, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x0000130B
93 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB, I
94 GPU Name: Intel UHD Graphics 630
95 Model Name(s): MacBookPro15,1
96 Camelia: Disabled
97 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
98 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000098 - LVDS
99 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x00000187 - DP
100 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x00000187 - DP
101 00000800 02000000 98000000
102 01050900 00040000 87010000
103 02040A00 00040000 87010000
104
105 ID: 3EA50004, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00E30B0A
106 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB, I
107 GPU Name: Intel Iris Plus Graphics 655
108 Model Name(s): MacBookPro15,2
109 Camelia: V3
110 Mobile: 1, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
111 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000498 - LVDS
112 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000003C7 - DP
113 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000003C7 - DP
114 00000800 02000000 98040000
115 01050900 00040000 C7030000
116 02040A00 00040000 C7030000
117
118 ID: 3E9B0006, STOLEN: 38 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00131302
119 TOTAL STOLEN: 39 MB, TOTAL CURSOR: 512 KB, MAX STOLEN: 39 MB, MAX OVERALL: 39
120 GPU Name: Intel UHD Graphics 630
121 Model Name(s):
122 Camelia: V3
123 Mobile: 1, PipeCount: 1, PortCount: 1, FBMemoryCount: 1
124 [0] busId: 0x00, pipe: 8, type: 0x00000002, flags: 0x00000498 - LVDS
125 00000800 02000000 98040000
126
127 ID: 3E9B0007, STOLEN: 57 MB, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x00801302
```

```
128 TOTAL STOLEN: 58 MB, TOTAL CURSOR: 1 MB (1572864 bytes), MAX STOLEN: 172 MB, I
129 GPU Name: Intel UHD Graphics 630
130 Model Name(s):
131 Camelia: Disabled
132 Mobile: 0, PipeCount: 3, PortCount: 3, FBMemoryCount: 3
133 [1] busId: 0x05, pipe: 9, type: 0x00000400, flags: 0x000003C7 - DP
134 [2] busId: 0x04, pipe: 10, type: 0x00000400, flags: 0x000003C7 - DP
135 [3] busId: 0x06, pipe: 8, type: 0x00000400, flags: 0x000003C7 - DP
136 01050900 00040000 C7030000
137 02040A00 00040000 C7030000
138 03060800 00040000 C7030000
139
140 ID: 3E920003, STOLEN: 0 bytes, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x000010
141 TOTAL STOLEN: 1 MB, TOTAL CURSOR: 0 bytes, MAX STOLEN: 1 MB, MAX OVERALL: 1 M
142 GPU Name: Intel UHD Graphics 630
143 Model Name(s):
144 Camelia: Disabled
145 Mobile: 0, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
146
147 ID: 3E910003, STOLEN: 0 bytes, FBMEM: 0 bytes, VRAM: 1536 MB, Flags: 0x000010
148 TOTAL STOLEN: 1 MB, TOTAL CURSOR: 0 bytes, MAX STOLEN: 1 MB, MAX OVERALL: 1 M
149 GPU Name: Intel UHD Graphics 630
150 Model Name(s):
151 Camelia: Disabled
152 Mobile: 0, PipeCount: 0, PortCount: 0, FBMemoryCount: 0
```

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