

# Ubiquiti UniFi Camera System

Created by Nicholas Miles, last modified just a moment ago

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## Cloud Key Gen 2

### Teardown

#### Disassembly

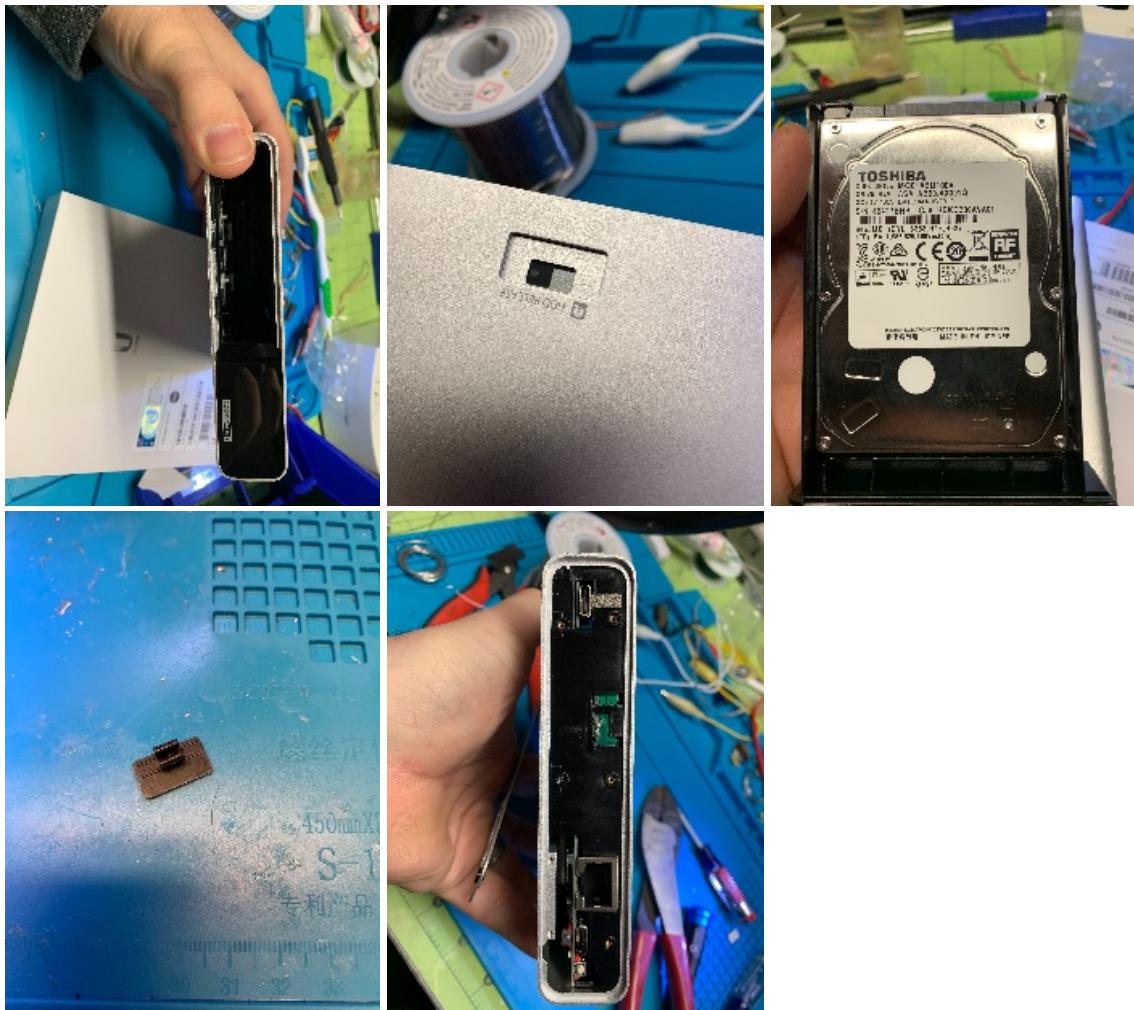
The back cover is held on with double-sided tape and can be removed with a spudger:



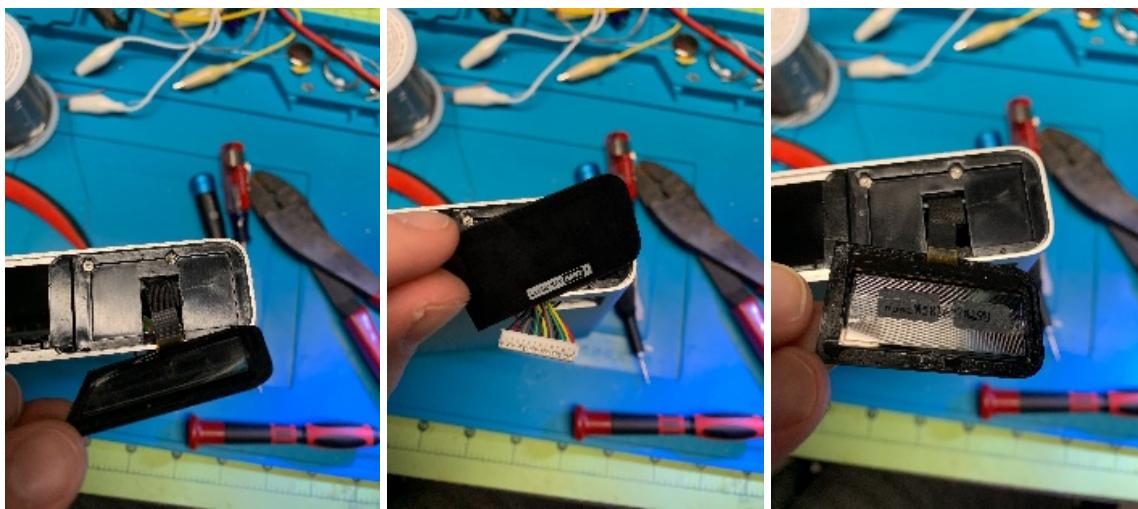
The cloud key cover can be carefully pried off, and removed:



The hard drive can be removed using the HDD release switch, and the switch can be removed by pushing it out from the inside:

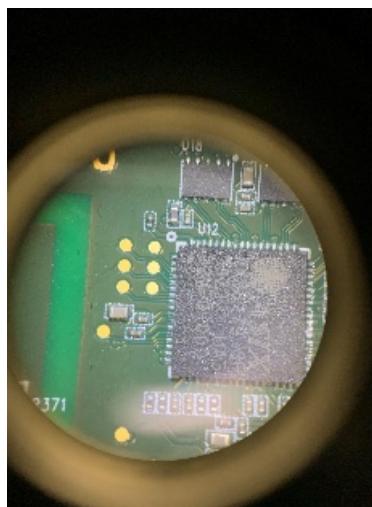
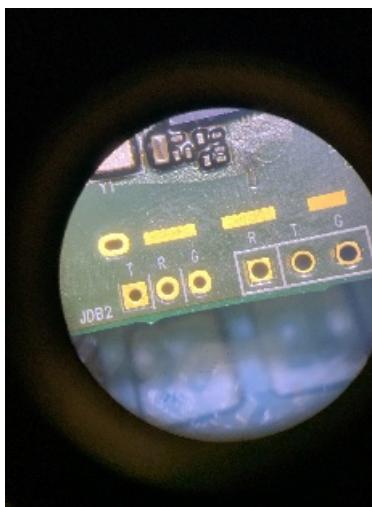


The front display is double-sided taped on and can be carefully pried off (easiest from the left side). This will reveal 2 screws that need to be removed.



The whole board slides towards the front, there is a piece of metal with a thermal pad floating inside that makes somewhat difficult to slide out.





## Components List

Looks to be heavily based on Samsung Galaxy a9 phone design

Part #	Description	Datasheet
QUALCOMM APQ8053	8x ARM Cortex A53, 1.8GHz 64bit CPU	<a href="https://www.qualcomm.com/products/apq8053">https://www.qualcomm.com/products/apq8053</a>
KMGX6001BM-b514	64Gb emmc flash	<a href="https://www.samsung.com/semiconductor/mcp/KMGX6001BM-B514/">https://www.samsung.com/semiconductor/mcp/KMGX6001BM-B514/</a>
TUSB8044	USB 3.1 4-port HUB	<a href="http://www.ti.com/lit/ds/symlink/tusb8044.pdf">http://www.ti.com/lit/ds/symlink/tusb8044.pdf</a>
ASM1153E	USB to SATA bridge	<a href="https://www.asmedia.com.tw/eng/e_show_products.php?cate_index=171&amp;item=133">https://www.asmedia.com.tw/eng/e_show_products.php?cate_index=171&amp;item=133</a>
5071MT	PoE controller with aux power interface	<a href="http://www.ti.com/lit/ds/symlink/lm5071.pdf">http://www.ti.com/lit/ds/symlink/lm5071.pdf</a>
G24103SKG	100/1000 T transformer modules	<a href="http://www.mag-tek.com.tw/downloadbox/1000single-m/G241XXMK0.pdf">http://www.mag-tek.com.tw/downloadbox/1000single-m/G241XXMK0.pdf</a>
PMI8952	Qualcomm power management module	
PM8953	Power control IC	

Part #	Description	Datasheet
WCN36808	Wifi IC?	
AX18779	USB3.0 to 10/100/1000M Gigabit Ethernet Controller	<a href="https://www.asix.com.tw/products.php?op=plitemdetail&amp;PlItemID=131;71;112">https://www.asix.com.tw/products.php?op=plitemdetail&amp;PlItemID=131;71;112</a>
BQ24171	Lithium ion charging IC	<a href="https://www.ti.com/product/BQ24171">https://www.ti.com/product/BQ24171</a>

## UART Shell

There are UART pins on the board which you can solder a header to and use a bus pirate to gain a root shell.



```

2. Live Monitor
3.Bridge with flow control
UART>(1)
UART bridge
Reset to exit
Are you sure? y
[REDACTED]

help
?

Debian GNU/Linux 9 UniFi-CloudKey-Gen2-Plus ttyHSLO
UniFi-CloudKey-Gen2-Plus login: root (automatic login)
Last login: Thu Feb 14 18:12:08 CST 2019 on ttyHSLO
Linux UniFi-CloudKey-Gen2-Plus 3.18.44-ubnt-qcom #1 SMP Thu Mar 7 15:18:15 MST 2
019 aarch64
Firmware version: v0.9.8
[REDACTED]
(c) 2019 Ubiquiti Networks, Inc.

Welcome to the CloudKey Plus!
root@UniFi-CloudKey-Gen2-Plus:~# ls
root@UniFi-CloudKey-Gen2-Plus:~# cd /
root@UniFi-CloudKey-Gen2-Plus:~/ls
bin dev home lib64 mnt persist root sbin srv-internal tmp var
boot etc lib media opt proc run srv sys user
root@UniFi-CloudKey-Gen2-Plus:~/ls
[REDACTED]
[REDACTED]
```

## NMAP Scan

PORT	STATE	SERVICE	VERSION
22/tcp	open	ssh	OpenSSH 7.4p1 Debian 10+deb9u7 (protocol 2.0)
80/tcp	open	http	nginx
443/tcp	open	ssl/http	nginx
5355/tcp	open	llmnr?	
6789/tcp	open	ibm-db2-admin?	

```

7080/tcp open  http          Node.js Express framework
7442/tcp open  ssl/http     Node.js Express framework
7443/tcp open  ssl/http     Node.js Express framework
7444/tcp open  ssl/http     Node.js Express framework
7446/tcp open  ssl/unknown
7447/tcp open  unknown
7550/tcp open  cloudsignaling?
7877/tcp open  tcpwrapped
8080/tcp open  http-proxy
8443/tcp open  ssl/https-alt
8843/tcp open  ssl/unknown
8880/tcp open  cddbp-alt?

5 services unrecognized despite returning data. If you know the service/version, please submit
=====NEXT SERVICE FINGERPRINT (SUBMIT INDIVIDUALLY)=====
SF-Port7446-TCP:V=7.80%T=SSL%I=7%D=3/19%Time=5E738260%P=i686-pc-windows-wi
SF:ndows%r(GetRequest,A9,"HTTP/1.\.0\x20404\x20Not\x20found\r\nServer:\x20E
SF:voStream\x20Media\x20Server\x20\(\www\.evostream\.com\)\r\nContent-Type:
SF:\x20application/octet-stream\r\nAccess-Control-Allow-Origin:\x20\*\r\nContent
SF:ontent-Length:\x200\r\n\r\n")%r(FourOhFourRequest,A9,"HTTP/1.\.0\x20404\x20N
SF:x20Not\x20found\r\nServer:\x20EvoStream\x20Media\x20Server\x20\(\www\.evos
SF:ostream\.com\)\r\nContent-Type:\x20application/octet-stream\r\nAccess-C
SF:ontrol-Allow-Origin:\x20\*\r\nContent-Length:\x200\r\n\r\n");
=====NEXT SERVICE FINGERPRINT (SUBMIT INDIVIDUALLY)=====
SF-Port8080-TCP:V=7.80%I=7%D=3/19%Time=5E738254%P=i686-pc-windows-windows%
SF:r(GetRequest,11E,"HTTP/1.\.1\x20302\x20\r\nSet-Cookie:\x20unifises=06vpp
SF:6g5JCnZzktkW0lwZVDMctjFICVy;\x20Path=/;\x20Secure;\x20HttpOnly\r\nSet-C
SF:ookie:\x20csrf_token=sRLfW0SLUWa6MnLV12hRcR6XIKH60nm9;\x20Path=/;\x20Se
SF:cure\r\nLocation:\x20http://localhost:8080/setup/\r\nContent-Length:\x2
SF:00\r\nDate:\x20Thu,\x2019\x20Mar\x202020\x2014:31:46\x20GMT\r\nConnecti
SF:on:\x20close\r\n\r\n")%r(HTTPOptions,11E,"HTTP/1.\.1\x20302\x20\r\nSet-C
SF:ooke:\x20unifises=5G7aLPodMPedG0RUqabFwZ3p8Msf0dLg;\x20Path=/;\x20Secu
SF:re;\x20HttpOnly\r\nSet-Cookie:\x20csrf_token=cRRj2zx5bBJp2UM0zq5MrRsj5z
SF:MhH8pU;\x20Path=/;\x20Secure\r\nLocation:\x20http://localhost:8080/sets
SF:p/\r\nContent-Length:\x200\r\nDate:\x20Thu,\x2019\x20Mar\x202020\x2014:
SF:31:46\x20GMT\r\nConnection:\x20close\r\n\r\n")%r(HTTPOptions,49,"HTTP/1
SF:.\.1\x20400\x20\r\nDate:\x20Thu,\x2019\x20Mar\x202020\x2014:31:46\x20GMT
SF:\r\nConnection:\x20close\r\n\r\n")%r(FourOhFourRequest,3B7,"HTTP/1.\.1\x
SF:20404\x20\r\nContent-Type:\x20text/html; charset=utf-8\r\nContent-Language:
SF:ge:\x20en\r\nContent-Length:\x20796\r\nDate:\x20Thu,\x2019\x20Mar\x2020
SF:20\x2014:31:46\x20GMT\r\nConnection:\x20close\r\n\r\n<!doctype\x20html>
SF:<html\x20lang=\"en\"\><head><title>HTTP\x20Status\x20404\x20\xe2\x80\x93
SF:\x20Not\x20Found</title><style\x20type=\"text/css\"\>h1\x20{font-family:
SF:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;font-size:
SF:22px;}\x20h2\x20{font-family:Tahoma,Arial,sans-serif;color:white;backgr
SF:ound-color:#525D76;font-size:16px;}\x20h3\x20{font-family:Tahoma,Arial,
SF:sans-serif;color:white;background-color:#525D76;font-size:14px;}\x20bod
SF:y\x20{font-family:Tahoma,Arial,sans-serif;color:black;background-color:
SF:white;}\x20b\x20{font-family:Tahoma,Arial,sans-serif;color:white;backgr
SF:ound-color:#525D76;}\x20p\x20{font-family:Tahoma,Arial,sans-serif;backg

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SF:round:white;color:black;font-size:12px;}\x20a\x20{color:black;}\x20a\.n
SF:ame\x20{color:black;}\x20\.line\x20{height:1px;background-color:#525D76
SF:;border:none;}</style></head><body><")%r(Socks5,49,"HTTP/1\.1\x20400\x2
SF:@\r\nDate:\x20Thu,\x2019\x20Mar\x202020\x2014:31:46\x20GMT\r\nConnectio
SF:n:\x20close\r\n\r\n");
=====NEXT SERVICE FINGERPRINT (SUBMIT INDIVIDUALLY)=====
SF-Port8443-TCP:V=7.80%T=SSL%I=7%D=3/19%Time=5E73825B%P=i686-pc-windows-wi
SF:ndows%r(GetRequest,11F,"HTTP/1\.1\x20302\x20\r\nSet-Cookie:\x20unifises
SF:=DR6msEbsN7iAf9J1hBNWvNcOsee8V7IR;\x20Path=/;\x20Secure;\x20HttpOnly\r\
SF:nSet-Cookie:\x20csrf_token=ogP87P7MOPBejS6ioedmZnxkgYN2Ntcv;\x20Path=/;
SF:\x20Secure\r\nLocation:\x20https://localhost:8443/setup/\r\nContent-Len
SF:gth:\x200\r\nDate:\x20Thu,\x2019\x20Mar\x202020\x2014:31:53\x20GMT\r\nC
SF:onnection:\x20close\r\n\r\n")%r(HTTPOptions,11F,"HTTP/1\.1\x20302\x20\r
SF:\nSet-Cookie:\x20unifises=pY1nqZCnT19ndw8HYgeFkyTb3EUZmkLT;\x20Path=/\x
SF:x20Secure;\x20HttpOnly\r\nSet-Cookie:\x20csrf_token=jIxslGpnDKw6V7mimFV
SF:6h0RtopS8x8IN;\x20Path=/;\x20Secure\r\nLocation:\x20https://localhost:8
SF:443/setup/\r\nContent-Length:\x200\r\nDate:\x20Thu,\x2019\x20Mar\x20202
SF:@\x2014:31:53\x20GMT\r\nConnection:\x20close\r\n\r\n")%r(FourOhFourRequ
SF:est,3B7,"HTTP/1\.1\x20404\x20\r\nContent-Type:\x20text/html; charset=utf
SF:-8\r\nContent-Language:\x20en\r\nContent-Length:\x20796\r\nDate:\x20Thu
SF:, \x2019\x20Mar\x202020\x2014:31:53\x20GMT\r\nConnection:\x20close\r\n\r
SF:\n<!doctype\x20html><html\x20lang="en"><head><title>HTTP\x20Status\x2
SF:0404\x20\xe2\x80\x93\x20Not\x20Found</title><style\x20type="text/css"\x
SF:>h1\x20{font-family:Tahoma,Arial,sans-serif;color:white;background-colo
SF:r:#525D76;font-size:22px;}\x20h2\x20{font-family:Tahoma,Arial,sans-seri
SF:f;color:white;background-color:#525D76;font-size:16px;}\x20h3\x20{font-
SF:family:Tahoma,Arial,sans-serif;color:white;background-color:#525D76;fon
SF:t-size:14px;}\x20body\x20{font-family:Tahoma,Arial,sans-serif;color:bla
SF:ck;background-color:white;}\x20b\x20{font-family:Tahoma,Arial,sans-seri
SF:f;color:white;background-color:#525D76;}\x20p\x20{font-family:Tahoma,Ar
SF:ial,sans-serif;background:white;color:black;font-size:12px;}\x20a\x20{c
SF:olor:black;}\x20a\.name\x20{color:black;}\x20\.line\x20{height:1px;back
SF:ground-color:#525D76;border:none;}</style></head><body><")%r(RTSPReques
SF:t,49,"HTTP/1\.1\x20400\x20\r\nDate:\x20Thu,\x2019\x20Mar\x202020\x2014:
SF:31:58\x20GMT\r\nConnection:\x20close\r\n\r\n")%r(RPCCheck,49,"HTTP/1\.1
SF:\x20400\x20\r\nDate:\x20Thu,\x2019\x20Mar\x202020\x2014:31:58\x20GMT\r\
SF:nConnection:\x20close\r\n\r\n");
=====NEXT SERVICE FINGERPRINT (SUBMIT INDIVIDUALLY)=====
SF-Port8843-TCP:V=7.80%T=SSL%I=7%D=3/19%Time=5E738265%P=i686-pc-windows-wi
SF:ndows%r(GetRequest,3BB,"HTTP/1\.1\x20400\x20\r\nContent-Type:\x20text/h
SF:tml; charset=utf-8\r\nContent-Language:\x20en\r\nContent-Length:\x20800\
SF:r\r\nDate:\x20Thu,\x2019\x20Mar\x202020\x2014:32:03\x20GMT\r\nConnection:
SF:\x20close\r\n\r\n<!doctype\x20html><html\x20lang="en"><head><title>HT
SF:TP\x20Status\x20400\x20\xe2\x80\x93\x20Bad\x20Request</title><style\x20
SF:type="text/css"\x20>h1\x20{font-family:Tahoma,Arial,sans-serif;color:white
SF:e;background-color:#525D76;font-size:22px;}\x20h2\x20{font-family:Tahom
SF:a,Arial,sans-serif;color:white;background-color:#525D76;font-size:16px;
SF:}\x20h3\x20{font-family:Tahoma,Arial,sans-serif;color:white;background-
SF:color:#525D76;font-size:14px;}\x20body\x20{font-family:Tahoma,Arial,san

```

SF:s-serif;color:black;background-color:white;}\x20b\x20{font-family:Tahom  
SF:a,Arial,sans-serif;color:white;background-color:#525D76;}\x20p\x20{font  
SF:-family:Tahoma,Arial,sans-serif;background:white;color:black;font-size:  
SF:12px;}\x20a\x20{color:black;}\x20a\.name\x20{color:black;}\x20\.line\x2  
SF:0{height:1px;background-color:#525D76;border:none;}</style></head><body  
SF:")%r(HTTPOptions,3BB,"HTTP/**1**.1\x20400\x20\r\nContent-Type:\x20text/html  
SF:1;charset=utf-8\r\nContent-Language:\x20en\r\nContent-Length:\x20800\r\n  
SF:nDate:\x20Thu,\x2019\x20Mar\x202020\x2014:**32:03**\x20GMT\r\nConnection:\x  
SF:20close\r\n\r\n<!doctype\x20html><html\x20lang=\"en\"><head><title>HTTP  
SF:\x20Status\x20400\x20\xe2\x80\x93\x20Bad\x20Request</title><style\x20ty  
SF:pe=\"text/css\">h1\x20{font-family:Tahoma,Arial,sans-serif;color:white;  
SF:background-color:#525D76;font-size:22px;}\x20h2\x20{font-family:Tahoma,  
SF:Arial,sans-serif;color:white;background-color:#525D76;font-size:16px;}\x  
SF:x20h3\x20{font-family:Tahoma,Arial,sans-serif;color:white;background-co  
SF:lor:#525D76;font-size:14px;}\x20body\x20{font-family:Tahoma,Arial,sans-  
SF:serif;color:black;background-color:white;}\x20b\x20{font-family:Tahoma,  
SF:Arial,sans-serif;color:white;background-color:#525D76;}\x20p\x20{font-f  
SF:amily:Tahoma,Arial,sans-serif;background:white;color:black;font-size:**12**  
SF:px;}\x20a\x20{color:black;}\x20a\.name\x20{color:black;}\x20\.line\x20{  
SF:height:1px;background-color:#525D76;border:none;}</style></head><body");  
=====NEXT SERVICE FINGERPRINT (SUBMIT INDIVIDUALLY)=====

SF-Port8880-TCP:V=**7.80%**I=**7%**D=**3/19%**Time=5E738255%P=i686-pc-windows-windows%  
SF:r(GetRequest,3BB,"HTTP/**1**.1\x20400\x20\r\nContent-Type:\x20text/html;ch  
SF:arset=utf-8\r\nContent-Language:\x20en\r\nContent-Length:\x20800\r\nDat  
SF:e:\x20Thu,\x2019\x20Mar\x202020\x2014:**31:47**\x20GMT\r\nConnection:\x20c1  
SF:ose\r\n\r\n<!doctype\x20html><html\x20lang=\"en\"><head><title>HTTP\x20  
SF:Status\x20400\x20\xe2\x80\x93\x20Bad\x20Request</title><style\x20type=\"  
SF:\"text/css\">h1\x20{font-family:Tahoma,Arial,sans-serif;color:white;back  
SF:ground-color:#525D76;font-size:22px;}\x20h2\x20{font-family:Tahoma,Aria  
SF:1,sans-serif;color:white;background-color:#525D76;font-size:16px;}\x20h  
SF:3\x20{font-family:Tahoma,Arial,sans-serif;color:white;background-color:  
SF:#525D76;font-size:14px;}\x20body\x20{font-family:Tahoma,Arial,sans-seri  
SF:f;color:black;background-color:white;}\x20b\x20{font-family:Tahoma,Aria  
SF:1,sans-serif;color:white;background-color:#525D76;}\x20p\x20{font-famil  
SF:y:Tahoma,Arial,sans-serif;background:white;color:black;font-size:12px;}  
SF:\x20a\x20{color:black;}\x20a\.name\x20{color:black;}\x20\.line\x20{heig  
SF:ht:1px;background-color:#525D76;border:none;}</style></head><body")%r(F  
SF:ourOhFourRequest,3B7,"HTTP/**1**.1\x20404\x20\r\nContent-Type:\x20text/html  
SF:1;charset=utf-8\r\nContent-Language:\x20en\r\nContent-Length:\x20796\r\n  
SF:nDate:\x20Thu,\x2019\x20Mar\x202020\x2014:**31:47**\x20GMT\r\nConnection:\x  
SF:20close\r\n\r\n<!doctype\x20html><html\x20lang=\"en\"><head><title>HTTP  
SF:\x20Status\x20404\x20\xe2\x80\x93\x20Not\x20Found</title><style\x20type  
SF:=\"text/css\">h1\x20{font-family:Tahoma,Arial,sans-serif;color:white;ba  
SF:ckground-color:#525D76;font-size:22px;}\x20h2\x20{font-family:Tahoma,Ar  
SF:ial,sans-serif;color:white;background-color:#525D76;font-size:16px;}\x2  
SF:0h3\x20{font-family:Tahoma,Arial,sans-serif;color:white;background-co  
SF:r:#525D76;font-size:14px;}\x20body\x20{font-family:Tahoma,Arial,sans-se  
SF:rif;color:black;background-color:white;}\x20b\x20{font-family:Tahoma,Ar  
SF:ial,sans-serif;color:white;background-color:#525D76;}\x20p\x20{font-fam

```
SF:iIy:Tahoma,Arial,sans-serif;background:white;color:black;font-size:12px
SF:;}\x20a\x20{color:black;}\x20a.\name\x20{color:black;}\x20\.line\x20{he
SF:ight:1px;background-color:#525D76;border:none;}</style></head><body><">;
MAC Address: 74:83:C2:D6:2F:05 (Ubiquiti Networks)
Service Info: OS: Linux; CPE: cpe:/o:linux:linux_kernel
```

Service detection performed. Please report any incorrect results at <https://nmap.org/submit/> .  
 Nmap done: 1 IP address (1 host up) scanned in 168.84 seconds

## Netstat Output

Active Internet connections (only servers)						
Proto	Recv-Q	Send-Q	Local Address	Foreign Address	State	PID/Program na
tcp	0	0	0.0.0.0:7550	0.0.0.0:*	LISTEN	2362/evostream
tcp	0	0	localhost:amanda	0.0.0.0:*	LISTEN	895/node
tcp	0	0	localhost:kamanda	0.0.0.0:*	LISTEN	895/node
tcp	0	0	localhost:9090	0.0.0.0:*	LISTEN	900/ubnt-syste
tcp	0	0	0.0.0.0:hostmon	0.0.0.0:*	LISTEN	1009/systemd-r
tcp	0	0	localhost:27117	0.0.0.0:*	LISTEN	2852/bin/mongo
tcp	0	0	localhost:7440	0.0.0.0:*	LISTEN	2362/evostream
tcp	0	0	localhost:7634	0.0.0.0:*	LISTEN	903/hddtemp
tcp	0	0	localhost:7445	0.0.0.0:*	LISTEN	2362/evostream
tcp	0	0	127.0.0.53:domain	0.0.0.0:*	LISTEN	1009/systemd-r
tcp	0	0	0.0.0.0:7446	0.0.0.0:*	LISTEN	2362/evostream
tcp	0	0	0.0.0.0:ssh	0.0.0.0:*	LISTEN	1077/sshd
tcp	0	0	0.0.0.0:7447	0.0.0.0:*	LISTEN	2362/evostream
tcp	0	0	localhost:7448	0.0.0.0:*	LISTEN	2362/evostream
tcp	0	0	localhost:1112	0.0.0.0:*	LISTEN	2362/evostream
tcp	0	0	localhost:postgresql	0.0.0.0:*	LISTEN	1044/postgres
tcp	0	0	localhost:7449	0.0.0.0:*	LISTEN	1321/node
tcp6	0	0	[::]:8443	[::]:*	LISTEN	1647/java
tcp6	0	0	[::]:https	[::]:*	LISTEN	1117/nginx: ma
tcp6	30	0	[::]:6789	[::]:*	LISTEN	1647/java
tcp6	0	0	[::]:7877	[::]:*	LISTEN	1321/node
tcp6	0	0	[::]:7080	[::]:*	LISTEN	1321/node
tcp6	0	0	[::]:8843	[::]:*	LISTEN	1647/java
tcp6	0	0	[::]:hostmon	[::]:*	LISTEN	1009/systemd-r
tcp6	0	0	[::]:8880	[::]:*	LISTEN	1647/java
tcp6	0	0	[::]:http-alt	[::]:*	LISTEN	1647/java
tcp6	0	0	[::]:http	[::]:*	LISTEN	1117/nginx: ma
tcp6	0	0	[::]:7442	[::]:*	LISTEN	1321/node
tcp6	0	0	[::]:7443	[::]:*	LISTEN	1321/node
tcp6	0	0	[::]:7444	[::]:*	LISTEN	1321/node
tcp6	0	0	[::]:ssh	[::]:*	LISTEN	1077/sshd

tcp6	0	0 localhost:postgresql	[:]:*	LISTEN	<a href="#">1044/postgres</a>
udp	0	0 0.0.0.0:37835	0.0.0.0:*		<a href="#">949/avahi-daem</a>
udp	0	0 0.0.0.0:mdns	0.0.0.0:*		<a href="#">949/avahi-daem</a>
udp	0	0 0.0.0.0:hostmon	0.0.0.0:*		<a href="#">1009/systemd-r</a>
udp	0	0 10.10.50.32:46338	0.0.0.0:*		<a href="#">1321/node</a>
udp	0	0 0.0.0.0:10001	0.0.0.0:*		<a href="#">1321/node</a>
udp	0	0 127.0.0.53:domain	0.0.0.0:*		<a href="#">1009/systemd-r</a>
udp	0	0 10.10.50.32:bootpc	0.0.0.0:*		<a href="#">524/systemd-ne</a>
udp	0	0 10.10.50.32:ntp	0.0.0.0:*		<a href="#">1091/ntp</a>
udp	0	0 localhost:ntp	0.0.0.0:*		<a href="#">1091/ntp</a>
udp	0	0 0.0.0.0:ntp	0.0.0.0:*		<a href="#">1091/ntp</a>
udp6	0	0 10.10.50.32:41503	[:]:*		<a href="#">1647/java</a>
udp6	0	0 [:]:mdns	[:]:*		<a href="#">1647/java</a>
udp6	0	0 [:]:mdns	[:]:*		<a href="#">949/avahi-daem</a>
udp6	0	0 [:]:hostmon	[:]:*		<a href="#">1009/systemd-r</a>
udp6	0	0 [:]:3478	[:]:*		<a href="#">1647/java</a>
udp6	0	0 [:]:10001	[:]:*		<a href="#">1647/java</a>
udp6	0	0 [:]:1900	[:]:*		<a href="#">1647/java</a>
udp6	0	0 UniFi-CloudKey-Gen2:ntp	[:]:*		<a href="#">1091/ntp</a>
udp6	0	0 localhost:ntp	[:]:*		<a href="#">1091/ntp</a>
udp6	0	0 [:]:ntp	[:]:*		<a href="#">1091/ntp</a>
udp6	0	0 [:]:49390	[:]:*		<a href="#">949/avahi-daem</a>
raw6	0	0 [:]:ipv6-icmp	[:]:*		<a href="#">524/systemd-ne</a>

7

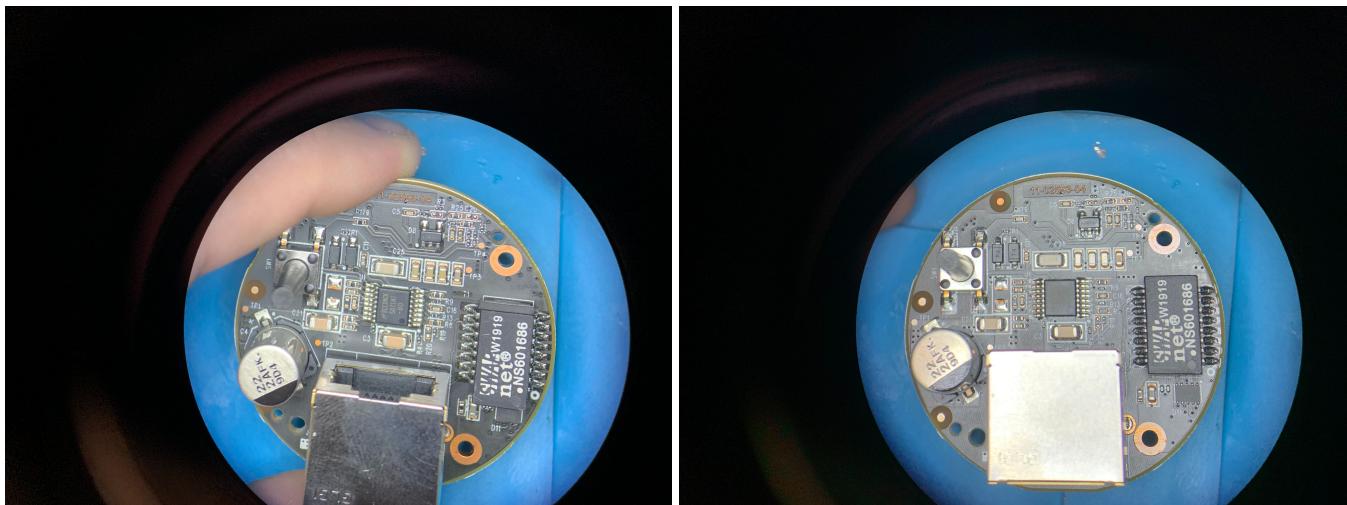
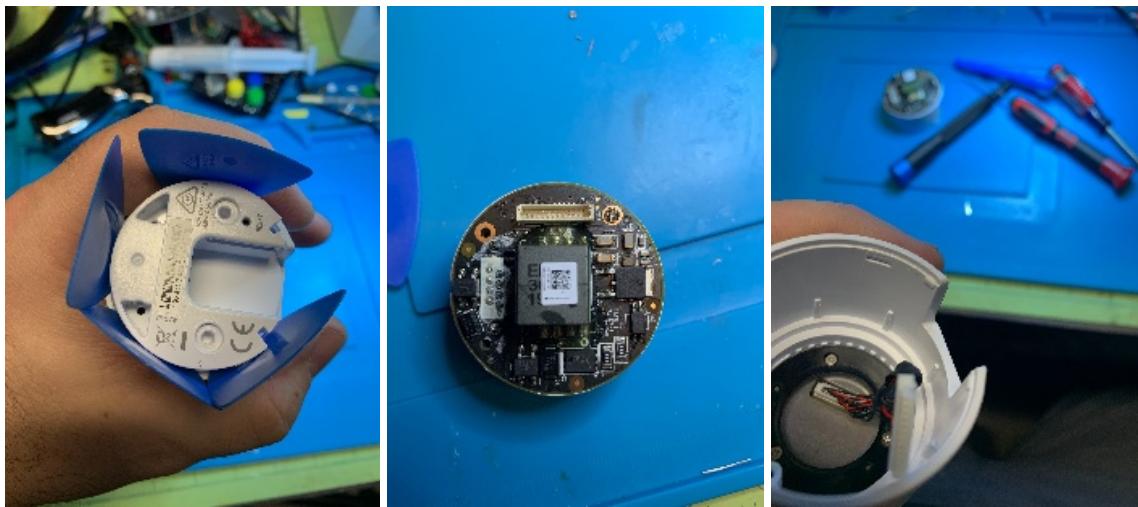
## Unifi Video Camera G3-Flex Camera

### Teardown

Disassembly starts from the bottom, first remove the two screws:



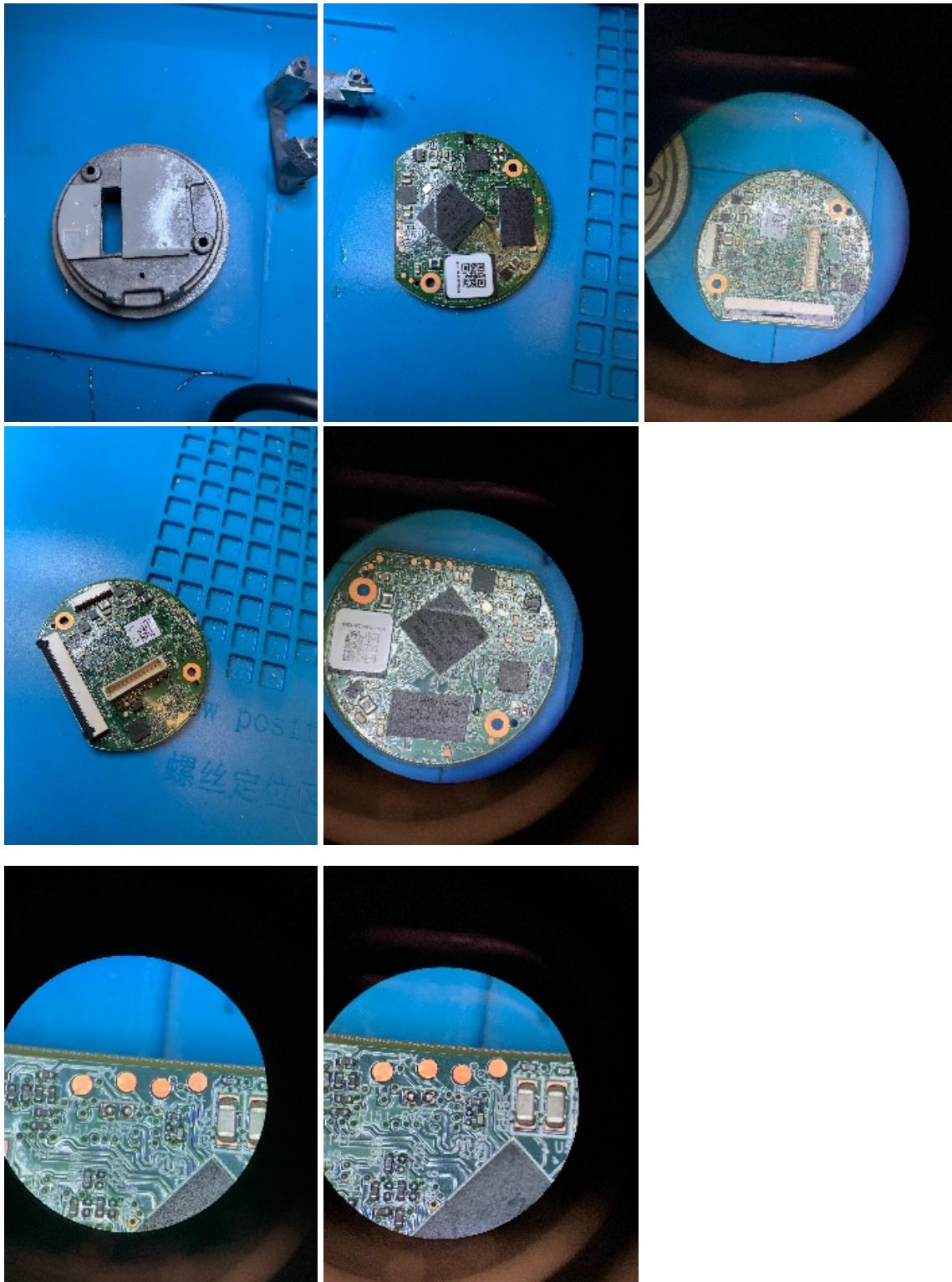
You need to carefully pry the inside plastic out from the outer casing. The board inside is held on by two screws that can be removed. Disconnect the wiring harness that connects to the upper logic board. Note that this board is conformally coated for waterproofing.



Remove the next three screws at the bottom, and remove the plastic parts revealing the metal plate and o-ring:



Carefully pull out the metal part to reveal the main board underneath. Remove the ribbon cable and screws to remove it:



Remove the plastic cover on the rear of the camera and remove the screw. The front bezel snaps off allowing you to remove the camera itself. Note the third picture containing a heatsink that sits in the black plastic (4th picture) fo the other side of the board.



The camera flex cable can be removed by scraping an adhesive cover off and scraping away the glue:



All components removed:



## Boot Log

```
===== NAND Report =====
> match (<= 2: not match) = 3
> default
236
SAMSUNG K9F2G08_256MB_PG2K
> select
239
WINBOND W29N01HVXINF_128MB_PG2K
=====
===== NAND Report =====
> match (<= 2: not match) = 3
> default
236
SAMSUNG K9F2G08_256MB_PG2K
> select
239
WINBOND W29N01HVXINF_128MB_PG2K
=====
[ 0.00000] Booting Linux on physical CPU 0x0
[ 0.00000] Linux version 3.10.0 (jenkins@6b393e71d8da) (gcc version 4.8.3 (OpenWrt/Linaro
[ 0.00000] CPU: ARMv7 Processor [414fc091] revision 1 (ARMv7), cr=10c53c7d
[ 0.00000] CPU: PIPT / VIPT nonaliasing data cache, VIPT aliasing instruction cache
[ 0.00000] Machine: Ambarella S2L (Flattened Device Tree), model: Ambarella S2LM UBNT G3 L
[ 0.00000] Memory policy: ECC disabled, Data cache writeback
[ 0.00000] Ambarella:      AHB = 0xe0000000[0xe0000000],0x01000000 0
[ 0.00000] Ambarella:      APB = 0xe8000000[0xe8000000],0x01000000 0
[ 0.00000] Ambarella:      PPM = 0x00000000[0xdfe00000],0x00200000 9
[ 0.00000] Ambarella:      AXI = 0xf0000000[0xf0000000],0x00030000 0
[ 0.00000] Ambarella:      DRAMC = 0xdffe0000[0xef000000],0x00020000 0
[ 0.00000] Ambarella:      DBGBUS = 0xec000000[0xec000000],0x00200000 0
[ 0.00000] Ambarella:      DBGMEM = 0xee000000[0xee000000],0x01000000 0
```

```
[ 0.000000] Ambarella: IAVMEM = 0x06e00000[          ],0x09200000
[ 0.000000] CPU: All CPU(s) started in SVC mode.
[ 0.000000] Built 1 zonelists in Zone order, mobility grouping on. Total pages: 27432
[ 0.000000] Kernel command line: console=ttyS0 ubi.mtd=lnx root=ubi0:rootfs ro rootfstype=u
[ 0.000000] PID hash table entries: 512 (order: -1, 2048 bytes)
[ 0.000000] Dentry cache hash table entries: 16384 (order: 4, 65536 bytes)
[ 0.000000] Inode-cache hash table entries: 8192 (order: 3, 32768 bytes)
[ 0.000000] Memory: 108MB = 108MB total
[ 0.000000] Memory: 104616k/104616k available, 5976k reserved, 0K highmem
[ 0.000000] Virtual kernel memory layout:
[ 0.000000]   vector    : 0xfffff000 - 0xfffff1000  (  4 kB)
[ 0.000000]   fixmap    : 0xfff00000 - 0xffffe000  ( 896 kB)
[ 0.000000]   vmalloc   : 0x87000000 - 0xff000000  (1920 MB)
[ 0.000000]   lowmem    : 0x80000000 - 0x86c00000  ( 108 MB)
[ 0.000000]   modules   : 0x7f000000 - 0x80000000  ( 16 MB)
[ 0.000000]     .text    : 0x80008000 - 0x80455300  (4405 kB)
[ 0.000000]     .init    : 0x80456000 - 0x804783dc  ( 137 kB)
[ 0.000000]     .data    : 0x8047a000 - 0x804a7ca0  ( 184 kB)
[ 0.000000]     .bss    : 0x804a7ca0 - 0x804c6878  ( 123 kB)
[ 0.000000] NR_IRQS:240
[ 0.000000] sched_clock: 32 bits at 54MHz, resolution 18ns, wraps every 79536ms
[ 0.000000] Console: colour dummy device 80x30
[ 0.000000] console [ttyS0] enabled
[ 0.224853] Calibrating delay loop... 597.60 BogoMIPS (lpj=2988032)
[ 0.282610] pid_max: default: 32768 minimum: 301
[ 0.287301] Mount-cache hash table entries: 512
[ 0.294229] CPU: Testing write buffer coherency: ok
[ 0.299380] Setting up static identity map for 0x8034e478 - 0x8034e4d8
[ 0.306868] devtmpfs: initialized
[ 0.311338] pinctrl core: initialized pinctrl subsystem
[ 0.316780] NET: Registered protocol family 16
[ 0.321992] DMA: preallocated 256 KiB pool for atomic coherent allocations
[ 0.329344] L310 cache controller enabled
[ 0.333376] 12x0: 8 ways, CACHE_ID 0x410000c8, AUX_CTRL 0x32020000, Cache size: 131072 B
[ 0.342876] ambarella-pinctrl e8009000.pinctrl: Ambarella pinctrl driver registered
[ 0.350872] ambarella-gpio gpio.0: Ambarella GPIO driver registered
[ 0.360857] bio: create slab <bio-0> at 0
[ 0.365888] ambarella-dma e0005000.dma: Ambarella DMA Engine
[ 0.372907] ambarella-i2c e8003000.i2c: Ambarella I2C adapter[0] probed!
[ 0.380696] ambarella-i2c e8007000.i2c: Ambarella I2C adapter[2] probed!
[ 0.388584] ambarella-pinctrl e8009000.pinctrl: request() failed for pin 3
[ 0.395568] cfg80211: Calling CRDA to update world regulatory domain
[ 0.401979] ambarella-pinctrl e8009000.pinctrl: pin-3 (ambarella-gpio:3) status -16
[ 0.409617] ambarella_phy ec170050.usbphy: Failed to request id pin -16
[ 0.416341] Switching to clocksource ambarella-cs-timer
[ 0.427889] ambarella-sd e0002000.sdmmc0: Slot0 use bounce buffer[0x86720000<->0x06920000]
[ 0.436194] ambarella-sd e0002000.sdmmc0: Slot0 req_size=0x00020000, segs=32, seg_size=0x00
[ 0.445060] ambarella-sd e0002000.sdmmc0: Slot0 use ADMA
[ 0.521678] ambarella-sd e0002000.sdmmc0: 1 slots @ 50000000Hz
```

```
[ 0.527690] NET: Registered protocol family 2
[ 0.535942] TCP established hash table entries: 1024 (order: 1, 8192 bytes)
[ 0.542979] TCP bind hash table entries: 1024 (order: 0, 4096 bytes)
[ 0.549349] TCP: Hash tables configured (established 1024 bind 1024)
[ 0.555774] TCP: reno registered
[ 0.559023] UDP hash table entries: 256 (order: 0, 4096 bytes)
[ 0.564886] UDP-Lite hash table entries: 256 (order: 0, 4096 bytes)
[ 0.571335] NET: Registered protocol family 1
[ 0.576013] RPC: Registered named UNIX socket transport module.
[ 0.581996] RPC: Registered udp transport module.
[ 0.586711] RPC: Registered tcp transport module.
[ 0.591393] RPC: Registered tcp NFSv4.1 backchannel transport module.
[ 0.598329] ambarella-adc e801d000.adc: Ambarella ADC driver init
[ 0.607042] msgmni has been set to 204
[ 0.612025] NET: Registered protocol family 38
[ 0.616548] Block layer SCSI generic (bsg) driver version 0.4 loaded (major 252)
[ 0.624063] io scheduler noop registered
[ 0.627968] io scheduler deadline registered
[ 0.632261] io scheduler cfq registered (default)
[ 0.637916] e8005000 uart: ttyS0 at MMIO 0xe8005000 (irq = 9) is a ambuart
[ 0.645689] brd: module loaded
[ 0.651280] loop: module loaded
[ 0.654467] lkdtm: No crash points registered, enable through debugfs
[ 0.663554] ambarella-nand e0001000.nand: in ecc-[1]bit mode
[ 0.669196] ambarella_nand: Use On Flash BBT
[ 0.673542] NAND device: Manufacturer ID: 0xef, Chip ID: 0xf1 (Unknown NAND 128MiB 3,3V 8-b
[ 0.685783] Bad block table found at page 65472, version 0x01
[ 0.691709] Bad block table found at page 65408, version 0x01
[ 0.698688] 9 ofpart partitions found on MTD device amba_nand
[ 0.706468] Creating 9 MTD partitions on "amba_nand":
[ 0.711535] 0x000000000000-0x000000020000 : "bst"
[ 0.717051] 0x000000020000-0x000000120000 : "bld"
[ 0.722480] 0x000000120000-0x000000200000 : "ptb"
[ 0.727866] 0x000000200000-0x000000300000 : "spl"
[ 0.733293] 0x000000300000-0x000000900000 : "pri"
[ 0.738652] 0x000000900000-0x000002b00000 : "urc"
[ 0.744053] 0x000002b00000-0x000002c00000 : "dsp"
[ 0.749415] 0x000002c00000-0x000007000000 : "lnx"
[ 0.755894] 0x000007000000-0x000007e00000 : "cfg"
[ 0.762557] ambarella-spi e0020000.spi: Ambarella spi controller 0 created.
[ 1.031592] libphy: Ambarella MII Bus: probed
[ 1.036387] ambarella-eth e000e000.ethernet: Ethernet PHY[1]: 0x004dd023!
[ 1.043703] ambarella-eth e000e000.ethernet: MAC Address[d6:e5:5e:80:77:64].
[ 1.051005] mousedev: PS/2 mouse device common for all mice
[ 1.056945] ambarella-rtc e8015000 rtc: rtc core: registered rtc-ambarella as rtc0
[ 1.064667] i2c /dev entries driver
[ 1.068768] ambarella-wdt e800c000.wdt: Ambarella Watchdog Timer Probed.
[ 1.075898] TCP: cubic registered
[ 1.079198] Initializing XFRM netlink socket
```

```
[ 1.083490] NET: Registered protocol family 17
[ 1.087987] VFP support v0.3: implementor 41 architecture 3 part 30 variant 9 rev 4
[ 1.095641] ThumbEE CPU extension supported.
[ 1.100986] UBI: attaching mtd7 to ubi0
[ 1.277656] UBI: scanning is finished
[ 1.286699] UBI: attached mtd7 (name "lnx", size 68 MiB) to ubi0
[ 1.292742] UBI: PEB size: 131072 bytes (128 KiB), LEB size: 126976 bytes
[ 1.299507] UBI: min./max. I/O unit sizes: 2048/2048, sub-page size 2048
[ 1.306198] UBI: VID header offset: 2048 (aligned 2048), data offset: 4096
[ 1.313058] UBI: good PEBs: 544, bad PEBs: 0, corrupted PEBs: 0
[ 1.318951] UBI: user volume: 1, internal volumes: 1, max. volumes count: 128
[ 1.326070] UBI: max/mean erase counter: 1/0, WL threshold: 4096, image sequence number: 18
[ 1.335095] UBI: available PEBs: 189, total reserved PEBs: 355, PEBs reserved for bad PEB h
[ 1.344388] UBI: background thread "ubi_bgt0d" started, PID 51
[ 1.350237] ambarella-rtc e8015000 rtc: setting system clock to 2106-02-07 06:28:15 UTC (42
[ 3.500896] UBIFS: static UBI volume - read-only mode
[ 3.547203] UBIFS: mounted UBI device 0, volume 0, name "rootfs", R/O mode
[ 3.554104] UBIFS: LEB size: 126976 bytes (124 KiB), min./max. I/O unit sizes: 2048 bytes/2
[ 3.563226] UBIFS: FS size: 40632320 bytes (38 MiB, 320 LEBs), journal size 9023488 bytes (
[ 3.572859] UBIFS: reserved for root: 0 bytes (0 KiB)
[ 3.577894] UBIFS: media format: w4/r0 (latest is w4/r0), UUID 24AC5E86-7B24-49B0-8AE4-FFEE
[ 3.589705] VFS: Mounted root (ubifs filesystem) readonly on device 0:12.
[ 3.596656] Freeing unused kernel memory: 136K (80456000 - 80478000)

tar: removing leading '/' from member names
...mounts done
...PLL set done
...filesystem init done
...set core dump ON
cp: can't stat '/usr/etc/daemons': No such file or directory
...base ok
...update ok
...symlinks ok
...httpd ok
...detect ok
...running /sbin/init
init started: BusyBox v1.29.2 ()
Please press Enter to activate this console.

UVC-G3-Flex-33d6 login: root
Password:
Login incorrect
UVC-G3-Flex-33d6 login: ubnt
Password:
Login incorrect
UVC-G3-Flex-33d6 login: root
Password:
Login incorrect
Please press Enter to activate this console.
```

No labels