Ip add for xiaofang:10.0.0.186 ip add for dafang: 10.0.0.195

Mi/Yi Home App
acc id: 2305035978 pass : pass1234

Specification for XiaoFang:

Video Resolution: 1080P(1920x1080)
Compatible: Android, iOS
App: Mi Home
Interface: Micro-USB
Technical Features: Night Vision, Two-way Audio, WiFi, Remote Monitoring, Voice Intercom
Sensor Type: CMOS
FOV: 110°
Local Storage: SD card up to 64GB (FAT32)
Wifi: 2.4G 802.11 b/g/n
Power Supply: 5V/1A
Installation Type: Rotating Base Magnetic Adsorption
Lens Specifications: F2.0 Aperture
Infrared Lamp Board: 2PCS, 850mm, 0.5W
Night Vision Distance: 9m
Voice System: Support two-way voice transmission
Operating Temperature(Celcius): 0 Degree Celcius - 40 Degree Celsius
Product Weight: 100g
Product Size: 56 x 50 x 50 mm

Specification for DaFang:

Brand: Xiaomi
Model: Dafang
Compatible: Android, iOS
App: Mi Home

Interface: Micro-USB
Shape: Box Camera
Technical Features: Infrared, 360 Degrees, AI, Two-way Audio, Remote Control
Motion Detection Distance: 9m
WiFi Distance: 10M
Power Supply: 5V
Local Storage: SD card up to 32GB(FAT32) USB stick
Language: Chinese
FOV: 120 Degrees
Video Resolution: 1080P(1920x1080)
Frame Rate(FPS): 15FPS
Infrared LED: 6 LED's
Waterproof: No
Operating Temperature(Celcius): 0 Degree Celcius - 40 Degree Celsius
Product Weight: 0.2490kg
Product Size: 12.75 x 6.60 x 6.00 cm

Installation of microSD Bootloader (MUST BE DONE FIRST)

1. Download the CFW-Binary for your Camera

Name	SHA3-256
Xiaomi DaFang	d45826d5b471564366b3b9435509df7e8a2c0720656ea2b4bcac6dd0b42cc3eb
Xiaomi XiaoFang T20	333053c3e98af24e0e90746d95e310a3c65b61f697288f974b702a5bcbba48a9

Wyzecam V2/Neos SmartCam	ca8fd695fe1903bd12aca2752c86b62c9694430c9c41b2804b006c22e84f409d
Wyzecam Pan	f76990d187e763f160f5ad39331d6a3209d3025fe3719cb43c92dbad92cebba2
Sannce & clones	Start here
Other Ingenic T10/T20 Device	Start here

2. Format your microSD to FAT32. NTFS, EXFAT etc. won't work. Try to use smaller older SD cards like 512 MB or create just a single primary 512 MB partition on it for maximum success rate.
3. Copy the CFW-Binary from step 1 to the formatted microSD card and rename it to "demo.bin". There must not be other files on the microSD! This is really important and it won't work if there are any other files on there.
4. Remove the power cable from the camera and plug the microSD card into the camera
5. Hold down the setup button on the camera while
6. Plugging in the USB power cable
7. Keep the setup button pressed for another 10 seconds
8. Wait until the firmware has finished flashing (like 3 minutes). You can disconnect the power as soon as the base starts moving (DaFang/ Wyzecam Pan).
9. Remove the microSD card and power up the camera
10. You should see the blue led shining for 5 seconds (not blinking) before the base starts moving (DaFang/ Wyzecam Pan). If not, something went wrong. You should try another microSD card and look at the community tips at the bottom of the page. Start over from step 1.

Installation of the new firmware

1. Clone the repository from github. If you are on Windows download the repository as zip file. Make sure nothing gets windows line endings.

2. Copy everything from "firmware_mod" folder into the **root** of the microSD

It should look like this:

```
E:/
├── autoupdate.sh
├── bin
├── config
├── controlscripts
├── driver
├── media
├── run.sh
├── scripts
├── uEnv.bootfromnand.txt
├── uEnv.bootfromsdcard.txt
├── uboot-flash
└── www
```

3. Copy **config/wpa_supplicant.conf.dist to config/wpa_supplicant.conf**
4. **Modify the file** config/wpa_supplicant.conf on the microSD card **to match your wifi-settings**. Make sure wpa_supplicant.conf does not have windows line endings.
5. Insert the microSD card and power up the camera.
6. You can now login at https://dafang or your camera's IP address with the default credentials root/ismart12

Hint: The security warning about the unsafe https certificate can safely be ignored. A self-signed certificate is automatically generated on your camera during the first startup. By its nature your little camera's own certificate authority is not a never will be among the trusted ones delivered with the major browsers.

****SD card must be inserted before power is plugged in, if not it will not work.**

more information :
https://github.com/EliasKotlyar/Xiaomi-Dafang-Hacks/blob/master/hacks/install_cfw.md#installation-of-the-new-firmware

username: root

password: ismart12

find ip address of xiaofang camera using mac address@(xiaofang mac address : 78:11:dc:72:49:0c, dafang mac address : 78:11:dc:44:4c:05, shown as MiWiFi Router)
https://play.google.com/store/apps/details?id=com.overlook.android.fing&hl=en

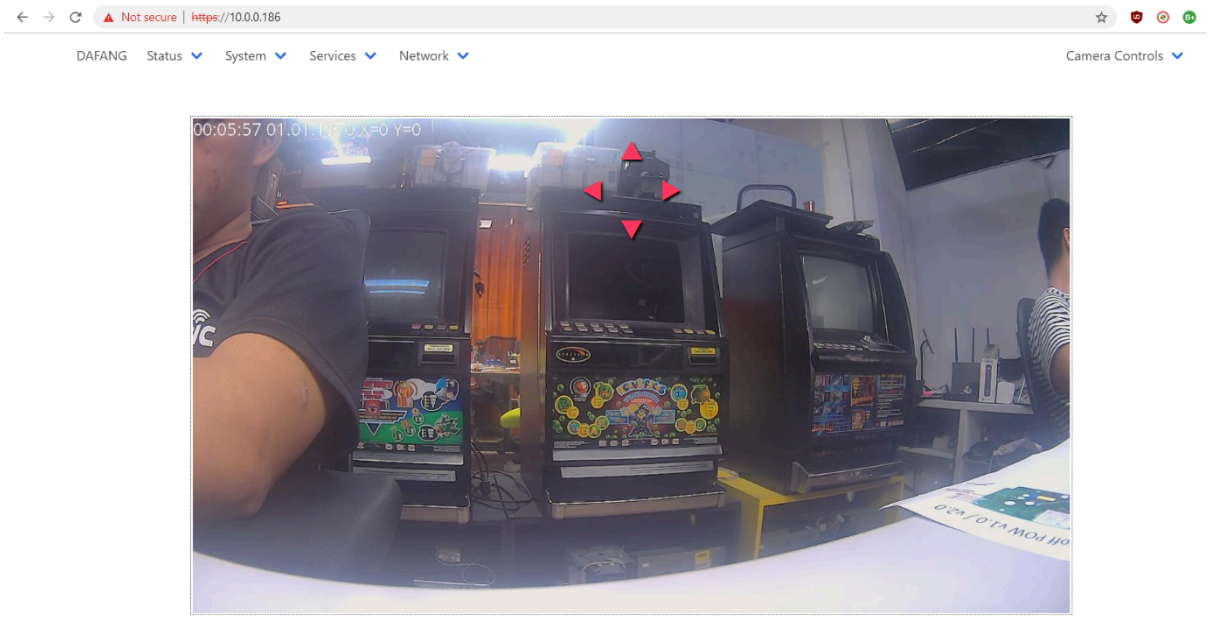
see video at phone using ip camera lite app @
https://play.google.com/store/apps/details?id=com.rcreations.ipcamviewer&hl=en_US

see vid in network stream at vlc media @

https://www.videolan.org/vlc/

XiaoFang (1280x720, SMART vid format, 50000 bitrate, 25fps)

Vlc network stream(ctrl+n) rtsp://10.0.0.186:8554/unicast



In web browser type in ip add of xiaofang

ntp server : 0.asia.pool.ntp.org to sync time

1920x1080 RTSP

What are the disadvantages?

If you flash the wrong u-boot, you can brick your device.

Attention : Please consider, that it may result in a completely hardbrick of your device, which may only be fixxed by desoldering/soldering the nand-flash. There is a recovery tutorial here:

https://github.com/Dafang-Hacks/spiflasher

Prepare for recovery *before* flashing!

If your Camera has different type/size of Ram, do not try to flash it! It is very likely that it will brick your device or at least have some malfunctions.

https://github.com/EliasKotlyar/Xiaomi-Dafang-Hacks/blob/master/hacks/flashinguboot.md

ssh root@10.0.0.195, password : ismart12

[root@DAFANG:system]# cat /proc/cmdline

console=ttyS1,115200n8 mem=104M@0x0 ispmem=8M@0x6800000 rmem=16M@0x7000000 init=/linuxrc rootfstype=squashfs root=/dev/mtdblock2 rw

mtdparts=jz_sfc:256k(boot),2048k(kernel),3392k(root),640k(driver),4736k(appfs),2048k(backupk),640k(backupd),2048k(backupa),256k(config),256k(para),-(flag)

mem + ipmem + rmem = 104M + 8M + 16M = 128M

i.e. Device with 128 MB RAM

You need more ram for high resolutions. You need to change your memory partitioning.

mem + ipmem + rmem = 87M + 9 M + 32M = 128M

Flashing the U-Boot bootloader:

1. Login via SSH

```
ssh root@10.0.0.195
```

```
cd /system/sdcard/
```

2. Backup the original bootloader in case you decide to restore later

```
dd if=/dev/mtd0 of=/system/sdcard/original-bootloader.bin
```

3. Download the correct bootloader for your device and RAM size.
4. Put the bootloader file in the root of your microsd card /system/sdcard.
5. Verify the MD5 hash of the file!! Do not skip this step or you may brick your camera!

```
md5sum NAME_OF_YOUR_NEW_BOOTLOADER_FILE.bin
```

The md5sum command will output a string of hex. That should match the hash listed next to the bin file you downloaded for your bootloader Again, do not proceed unless the MD5 matches the version you downloaded.

6. Now erase and write the bootloader. Do not do anything else between these commands once you have erased your bootloader. Your device will be unable to boot until you have written a new bootloader.

```
flash_eraseall /dev/mtd0
```

```
dd if=/system/sdcard/NAME_OF_YOUR_BOOTLOADER_FILE.bin of=/dev/mtd0
```

For example, if you're flashing dafang_128mb_v2.bin, your command should look like this:

```
dd if=/system/sdcard/dafang_128mb_v2.bin of=/dev/mtd0
```

7. Rename the uEnv.bootfromnand.txt in your minisd card root to uEnv.txt to enable booting from NAND:

```
mv uEnv.bootfromnand.txt uEnv.txt
```

Verify U-Boot-Loader works

Reboot your camera

The bootloader is configured to enable the blue led if it has found a valid uEnv.txt during boot up. Take a look at your LED when it first turns on.
If the led turns yellow -> The default configuration is used.
If the led turns blue -> The custom configuration from uEnv.txt is used.
If the led is not turning blue despite having an uEnv.txt on your microsd - try to format the sdcard as FAT16 and try again.
Enable FullHD(on 128Mb devices only)
Open the uEnv.txt file
vi /system/sdcard/uEnv.txt
and change the "boot-line" from:
mem=104M@0x0 ispmem=8M@0x6800000 rmem=16M@0x7000000
to:
mem=87M@0x0 ispmem=9M@0x5700000 rmem=32M@0x6000000
Reboot and check if the bootline has been applied properly using the following command:
cat /proc/cmdline

xiaofang has 64MB
console=ttyS1,115200n8 mem=41700K@0x0 ispmem=8M@0x28B9000 rmem=15644K@0x30B9000 init=/linuxrc rootfstype=squashfs root=/dev/mtdblock2 rw mtdparts=jz_sfc:256k(boot),2048k(kernel),3392k(root),640k(driver),4736k(appfs),2048k(backupk),640k(backupd),2048k(backupa),256k(config),256k(para),-(flag)

https://github.com/EliasKotlyar/Xiaomi-Dafang-Hacks/issues/573

with this parameters

mem=39M@0x0 ispmem=5M@0x2700000 rmem=20M@0x2C00000

the Xiaomi Xiaofang 1S 64Mb can do rtsp h264 stream FullHD 1920x1080 with 15fps

bitrate: 2000

video format: SMART

audio: mp3

in sample rate: 8000 / out: 44100

https://github.com/Dafang-Hacks/rootfs/blob/master/uEnv_dafang64.txt