# SPARK7111 Upgrade Guide

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Review:                        Date:

Approve:                      Date:

# Category

# 1 History

| Date | Version | Modification | Author |
|---|---|---|---|
| 2010-10-25 | 1．0 | Create<br><br>Corresponds to SPARK7111 Software Version 1.1.** (etc: 1.1.16) | |
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# 2  Spark7111 Upgrade Guide- Uboot

Please be aware of following characters written in Red color.

## 2.1  Functions Overview

In SPARK7111 U-boot, we can:

- Upgrade entire Enigma2 system

- Upgrade entire Spark system

- Upgrade U-boot itself by RS232

- switch default booting system between SPARK and Enigma2

Front panel functions Overview:

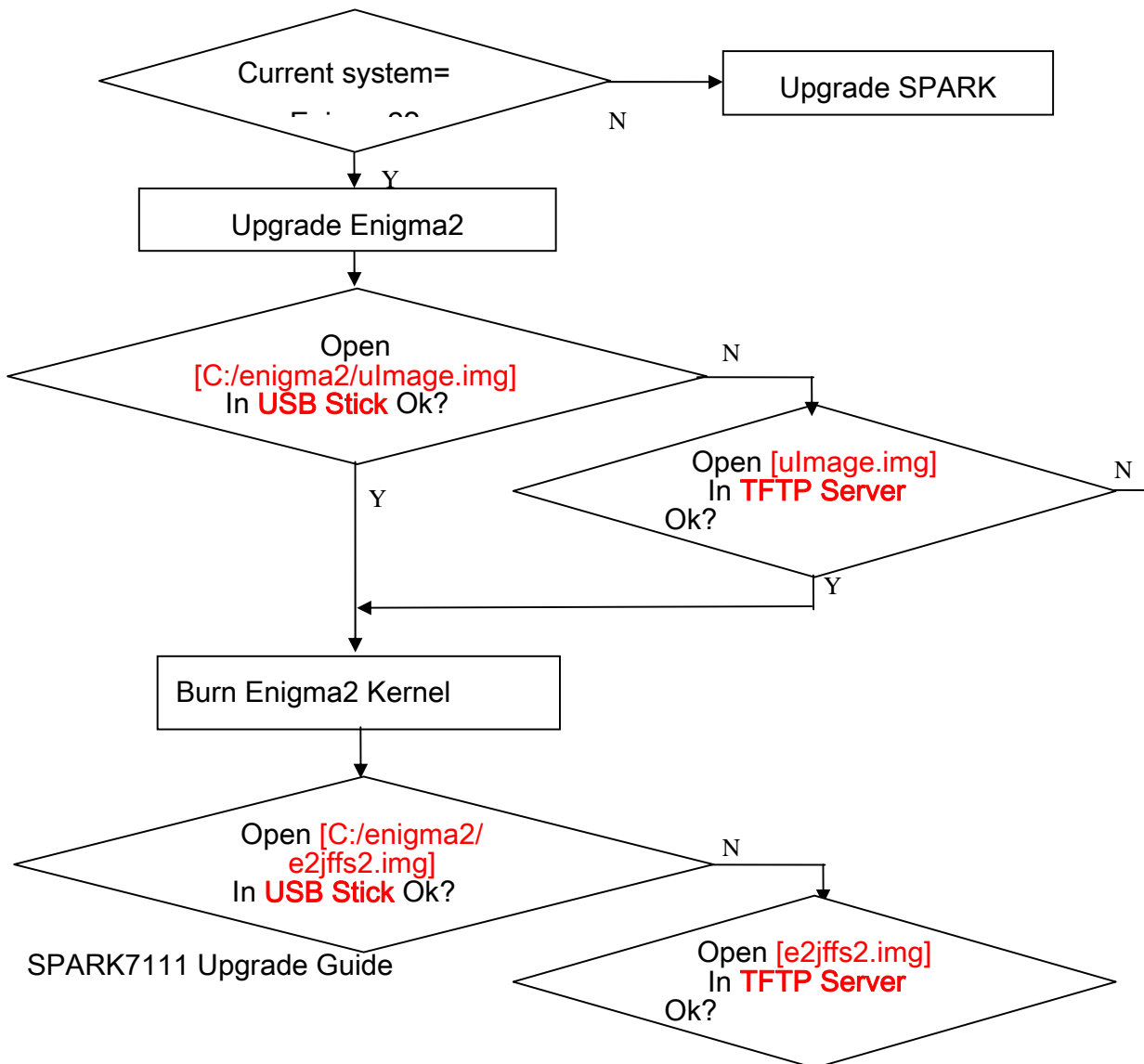| Key Combination | Function |
|---|---|
| [OK](press 5 sec) + [Down] + [OK] | Select engma2 as current system |
| [OK](press 5 sec) + [Up] + [OK] | Select Spark as current system |
| [OK](press 5 sec) + [Right] | Upgrade Current system By USB or TFTP |
| [OK](press 5 sec) + [Left] | Upgrade U-boot By RS232 |

Upgrade Overview:

| host | target | Protocol/Way | Auto/Manual | Upgrade time | How to |
|---|---|---|---|---|---|
| SPARK | Uboot | RS232 | Manual | 1.5 min | By front panel |

| Uboot | Enigma2 | USB | Manual | 2 min | By front panel |
|---|---|---|---|---|---|
| | | TFTP.. | Manual | 2 min | By front panel |
| | Spark | USB | Manual | 4 min | By front panel |
| | | TFTP.. | Manual | 4 min | By front panel |

## 2.2  How to Upgrade Enigma2

Upgrade Enigma2 flow:

Current system=
Enigma2?

N → Upgrade SPARK

Y

Upgrade Enigma2

Open
[C:/enigma2/uImage.img]
In USB Stick Ok?

N

Open [uImage.img]
In TFTP Server
Ok?

N

Y

Y

Burn Enigma2 Kernel

Open [C:/enigma2/
e2jffs2.img]
In USB Stick Ok?

N

Open [e2jffs2.img]
In TFTP Server
Ok?

```
        Y                          N                            N

                                                                 Y
                                         ┌─────────────────────────┘
          ┌──────────────────────────────┘
          ▼
┌──────────────────────────────┐
│   Burn Enigma2 Application    │
└──────────────────────────────┘
          │
          ▼
┌──────────────────────────────┐              ┌──────────────────────────────┐
│          Success             │              │          Failed              │
└──────────────────────────────┘              └──────────────────────────────┘
```
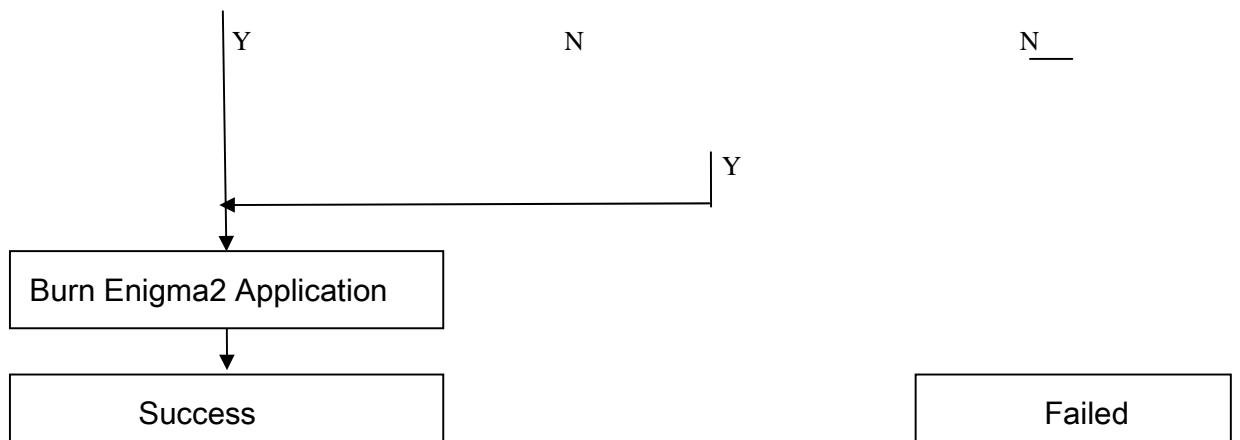
## 2.2.1  Upgrade Enigma2 by USB

**Preparation:**

1. We only recommend Kingston USB stick, we don't support USB hard disk

2. Please make sure your USB stick only have 1 partition and the file system is FAT32

3. Set default booting system to [enigma2].

**Upgrade Step:**

1. Make sure [C:/engima2] is exist, if not, please create this folder.

2. copy [uImage] and [e2jffs2.img] to [C:/engima2]

3. Connect USB stick to STB

4. Keep Pressing [OK] Button in Front Panel, then power on STB.

5. After 5 seconds, you will see [Forc] in LED, release [OK] button and press [Right] Button.

6. if everything OK, You will see [U LD] shining in LED

7. if upgrade success, You will see [SUCC] and STB reboot automatically

   If upgrade not finishes in 5 minutes, then there must be something wrong, please check your configuration and re-try.

## 2.2.2  Upgrade Enigma2 by TFTP

Since we have some restrictions and can not support all kinds of USB stick, we provide another option (TFTP) to upgrade Enigma2.
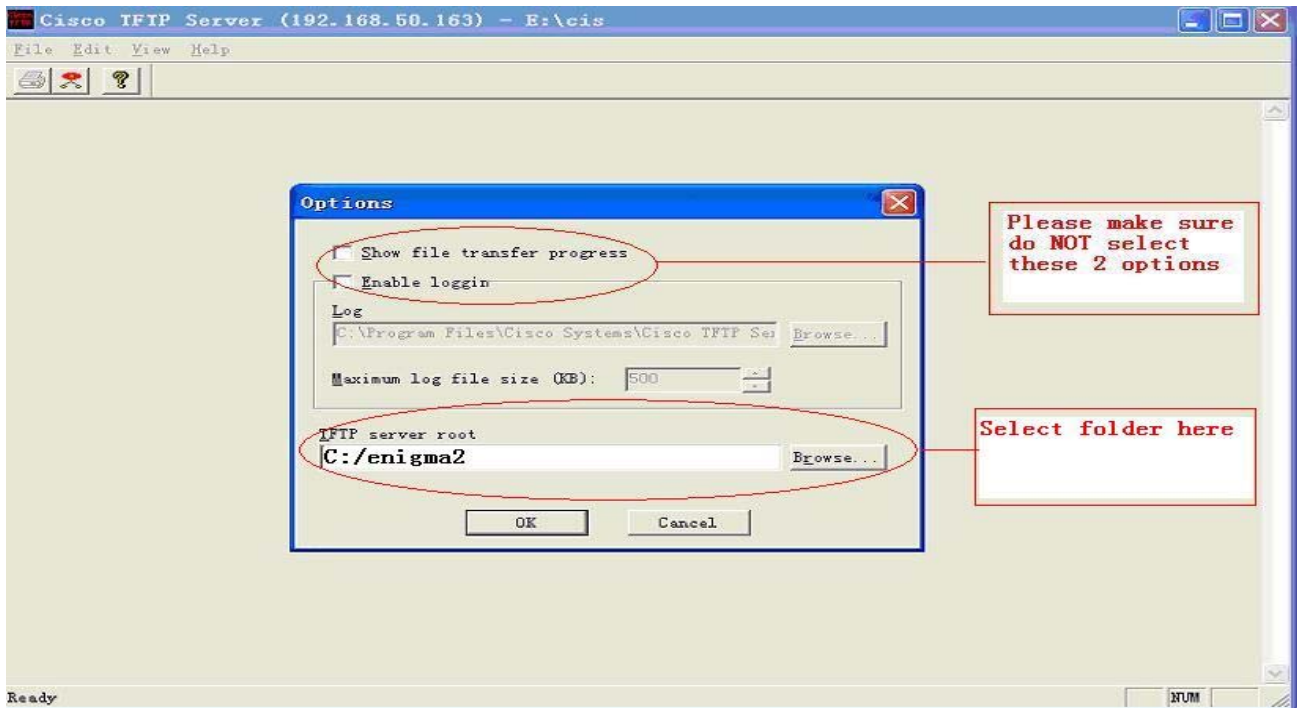
**Preparation:**

1.  Install TFTP tools [csicotftp11.rar] to your PC

2.  Set your PC IP addr to [192.168.40.19]

3.  connect your PC to STB by LAN, now we only support LAN, do not support WLAN

4.  Set default booting system to [enigma2]

**Upgrade Step:**

1.  copy [uImage] and [e2jffs2.img] to any folder of your PC, for example [C:/engima2]

2.  select folder in TFTP tools:
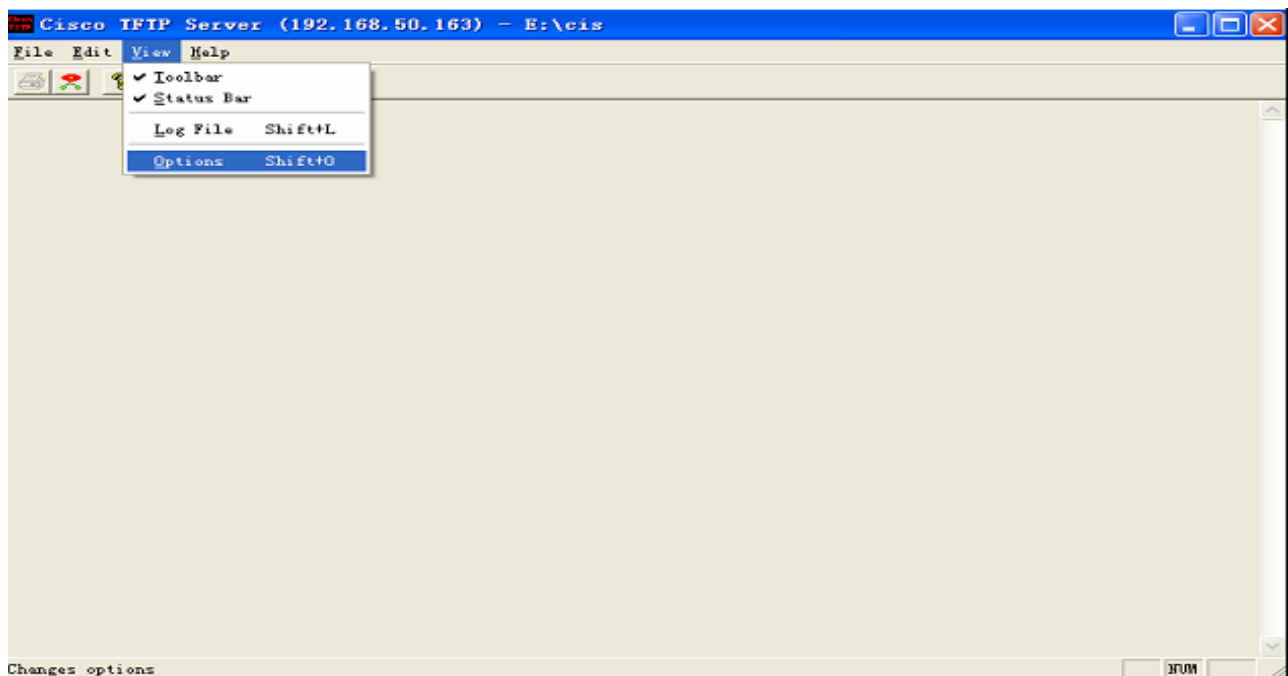
3. Keep Pressing [OK] Button in Front Panel, then power on STB.

4. After 5 seconds you will see [Forc] in LED, release [OK] button and press [Right] Button.

5. if everything OK, You will see [T LD] shining in LED and you will see some debug information in TFTP Server, like
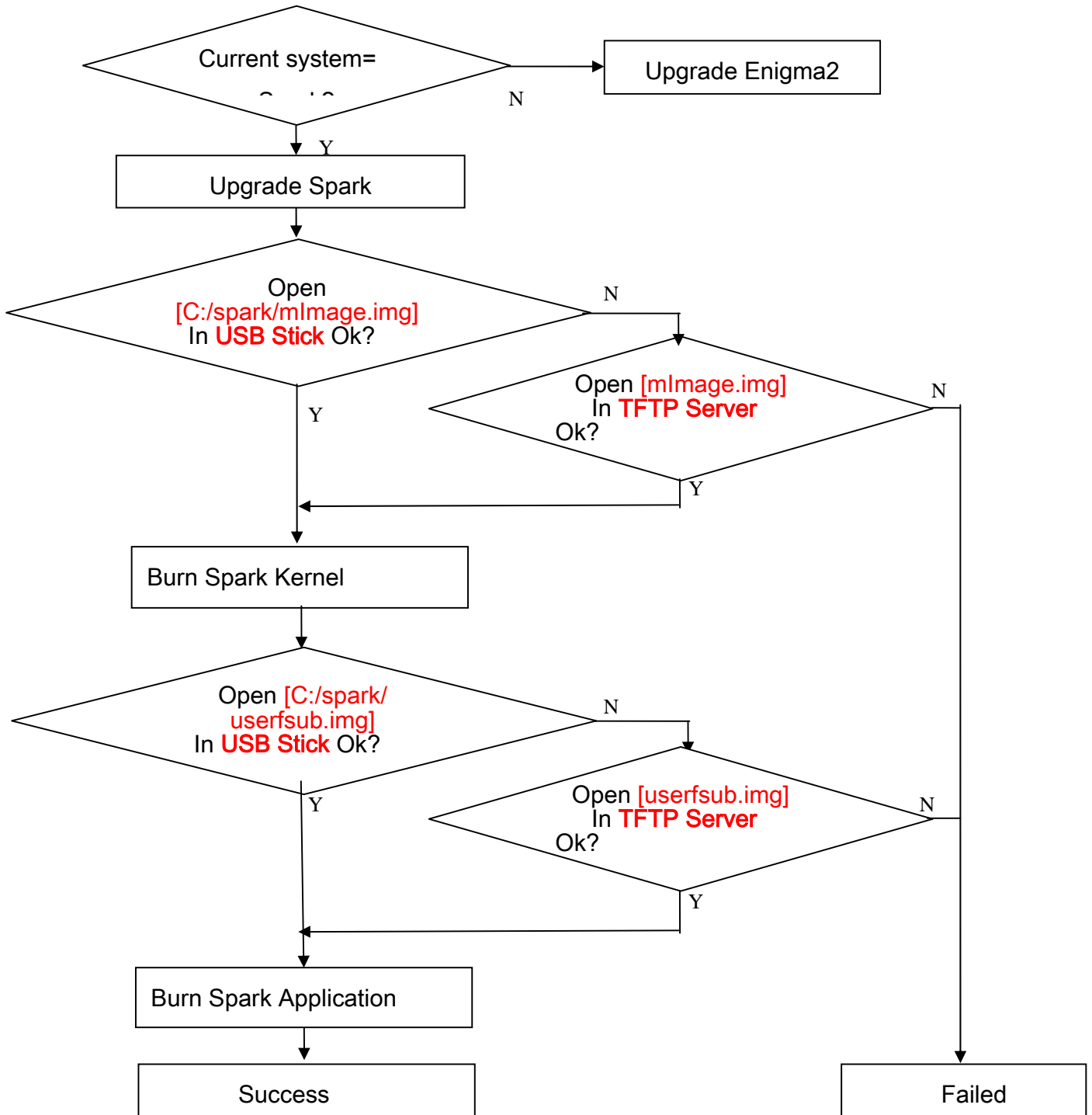
" Mon Oct 25 14:02:36 2010: Sending 'uImage' file to 192.168.40.19 in binary mode

Mon Oct 25 14:02:39 2010: Successful.

Mon Oct 25 14:02:50 2010: Sending 'e2jffs2.img' file to 192.168.40.19 in binary mode

Mon Oct 25 14:03:33 2010: Successful."

6. if upgrade success, You will see [SUCC] and STB reboot automatically

   If upgrade not finishes in 5 minutes, then there must be something wrong, please check your configuration and re-try.

## 2.3  How to Upgrade Spark

Upgrade Spark flow:

```
                  ┌─────────────────────┐
          ╱Current system=╲───N──→│   Upgrade Enigma2   │
          ╲               ╱        └─────────────────────┘
                  │ Y
          ┌───────────────┐
          │  Upgrade Spark │
          └───────────────┘
                  │
          ╱  Open                 ╲───N
          ╲ [C:/spark/mImage.img]  ╱      │
            In USB Stick Ok?              ↓
                  │ Y          ╱ Open [mImage.img] ╲───N
                  │            ╲  In TFTP Server   ╱     │
                  │              Ok?        │ Y         │
                  │←──────────────────────┘           │
                  ↓                                    │
          ┌───────────────┐                           │
          │ Burn Spark Kernel │                       │
          └───────────────┘                           │
                  │                                    │
          ╱  Open [C:/spark/      ╲───N               │
          ╲  userfsub.img]         ╱      │            │
            In USB Stick Ok?              ↓            │
                  │ Y        ╱ Open [userfsub.img] ╲───N│
                  │          ╲  In TFTP Server     ╱    │
                  │            Ok?        │ Y          │
                  │←────────────────────┘            │
                  ↓                                   ↓
          ┌───────────────────────┐          ┌──────────┐
          │ Burn Spark Application │          │  Failed  │
          └───────────────────────┘          └──────────┘
                  │
          ┌───────────────┐
          │    Success     │
          └───────────────┘
```

### 2.3.1 Upgrade Spark by USB

**Preparation:**

1. We only recommend Kingston USB stick, we don't support USB hard disk

2. Please make sure your USB stick only have 1 partition and the file system is FAT32

3. Set default booting system to [spark].

**Upgrade Step:**

1. Make sure [C:/spark] is exist, if not, please create this folder.

2. copy [mImage] and [userfsub.img] to [C:/spark]

3. Connect USB stick to STB

4. Keep Pressing [OK] Button in Front Panel, then power on STB.

5. After 5 seconds, you will see [Forc] in LED, release [OK] button and press [Right] Button.

6. if everything OK, You will see [U LD] shining in LED

7. if upgrade success, You will see [SUCC] and STB reboot automatically

8. If upgrade not finishes in 5 minutes, then there must be something wrong, please check your configuration and re-try.

### 2.3.2 Upgrade Spark by TFTP

Since we have some restrictions and can not support all kinds of USB stick, we provide another option (TFTP) to upgrade Enigma2/Spark.
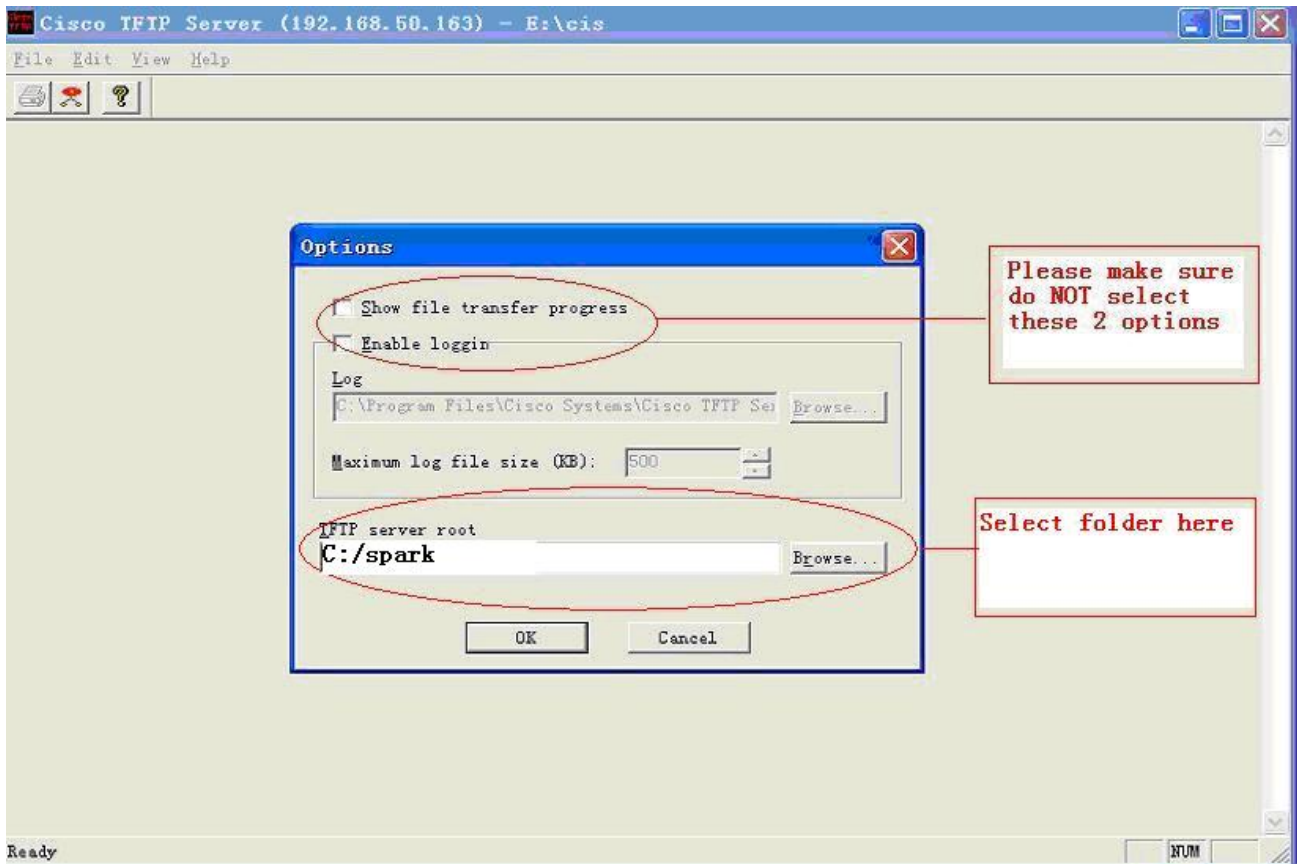
**Preparation:**

1. Install TFTP tools [csicotftp11.rar] to your PC

2. Set your PC IP addr to [192.168.40.19]

3.  connect your PC to STB by LAN, now we only support LAN, do not support WLAN

4.  Set default booting system to [spark]

**Upgrade Step:**

1.  copy [mImage] and [userfsub.img] to any folder of your PC, for example [C:/spark]

2.  select folder in TFTP tools:
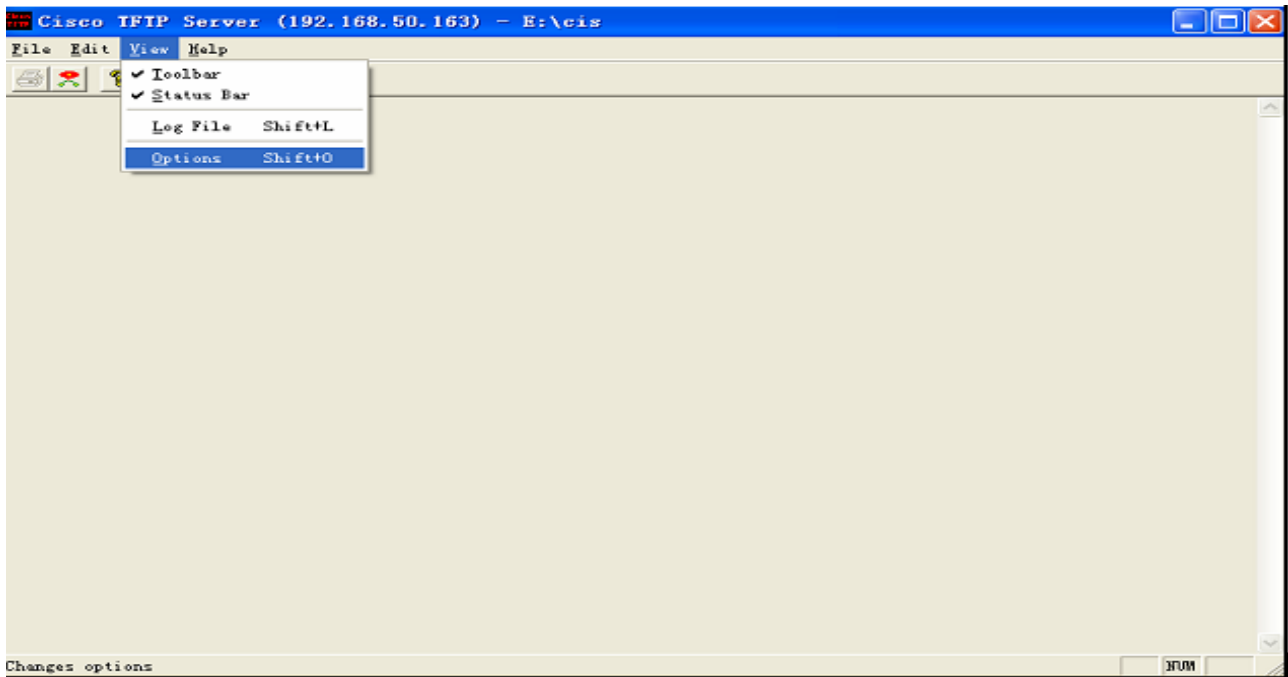
3. Keep Pressing [OK] Button in Front Panel, then power on STB.

4. After 5 seconds you will see [Forc] in LED, release [OK] button and press [Right] Button.

5. if everything OK, You will see [T LD] shining in LED and you will see some debug information in TFTP Server, like

" Mon Oct 25 14:02:36 2010: Sending 'mImage' file to 192.168.40.19 in binary mode

Mon Oct 25 14:02:39 2010: Successful.

Mon Oct 25 14:02:50 2010: Sending 'userfsub.img' file to 192.168.40.19 in binary mode

Mon Oct 25 14:03:33 2010: Successful."

6. if upgrade success, You will see [SUCC] and STB reboot automatically

If upgrade not finishes in 5 minutes, then there must be something wrong, please check your configuration and re-try.

## 2.4 How to switch from Spark to Enigma2

1. Keep Pressing [OK] Button in Front Panel, then power on STB.

2. After 5 seconds, you will see [Forc] in LED, release [OK] button and Press [Down] button you will see [EN16] in LED

3. Press [OK] to confirm your selection, STB will reboot automatically

## 2.5 How to switch from Enigma2 to spark

1. Keep Pressing [OK] Button in Front Panel, then power on STB.

2. After 5 seconds, you will see [Forc] in LED, release [OK] button and Press [UP] button you will see [SPAR] in LED

3. Press [OK] to confirm your selection, STB will reboot automatically

## 2.6 How to Upgrade Uboot by RS232

**Preparation:**

1. Open [HyperTerminal] and set default parameters

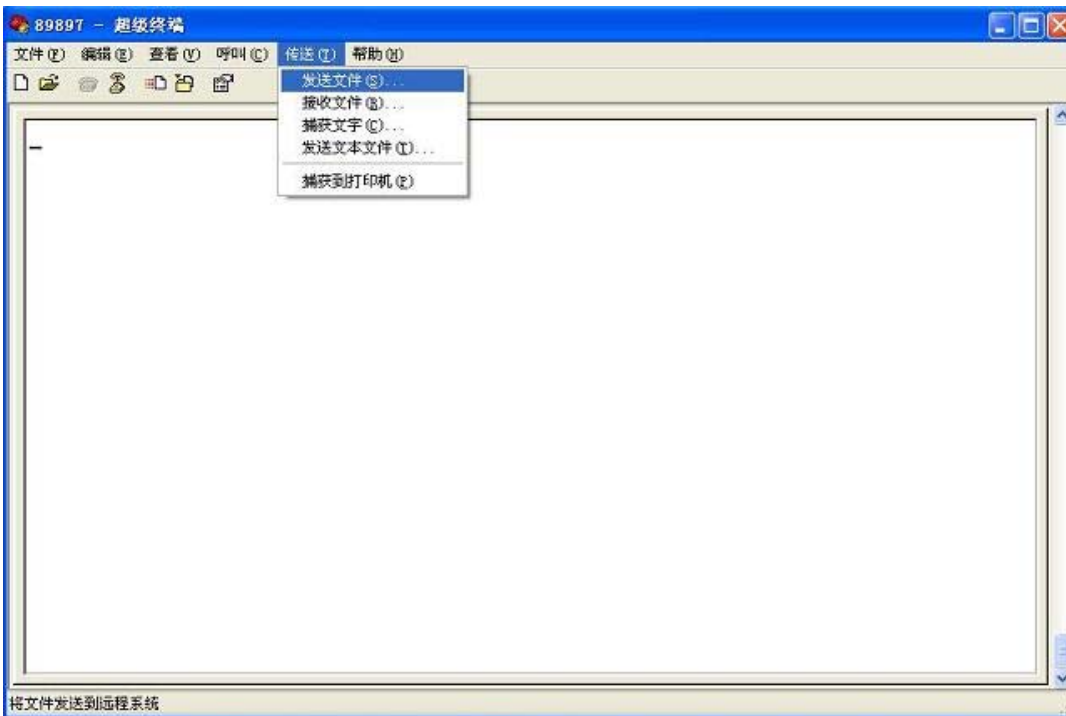Symbol rate: [1152000]
Data bits: [8]
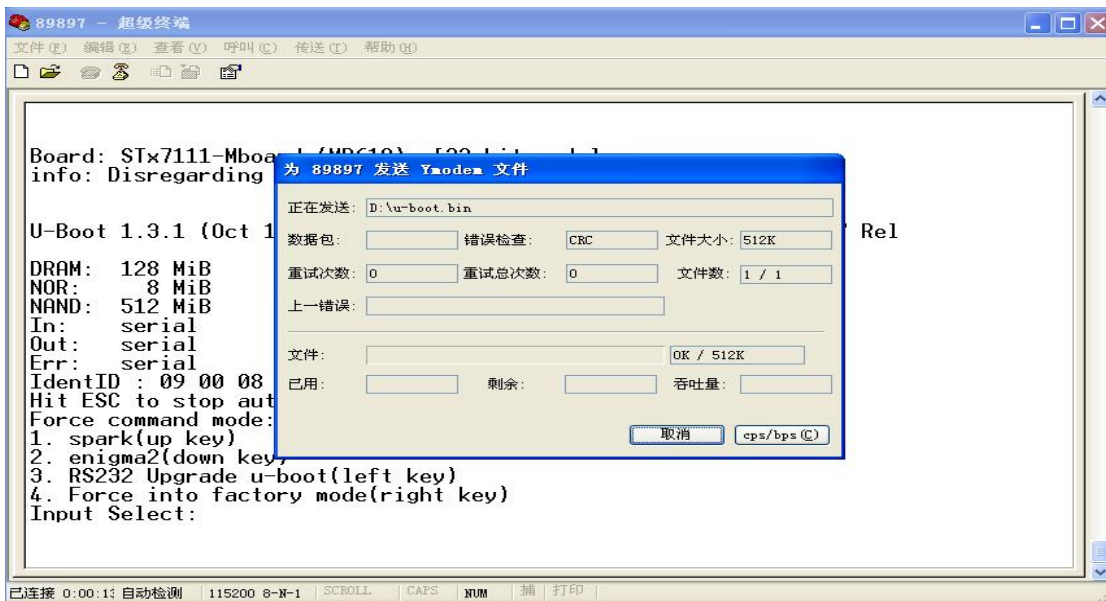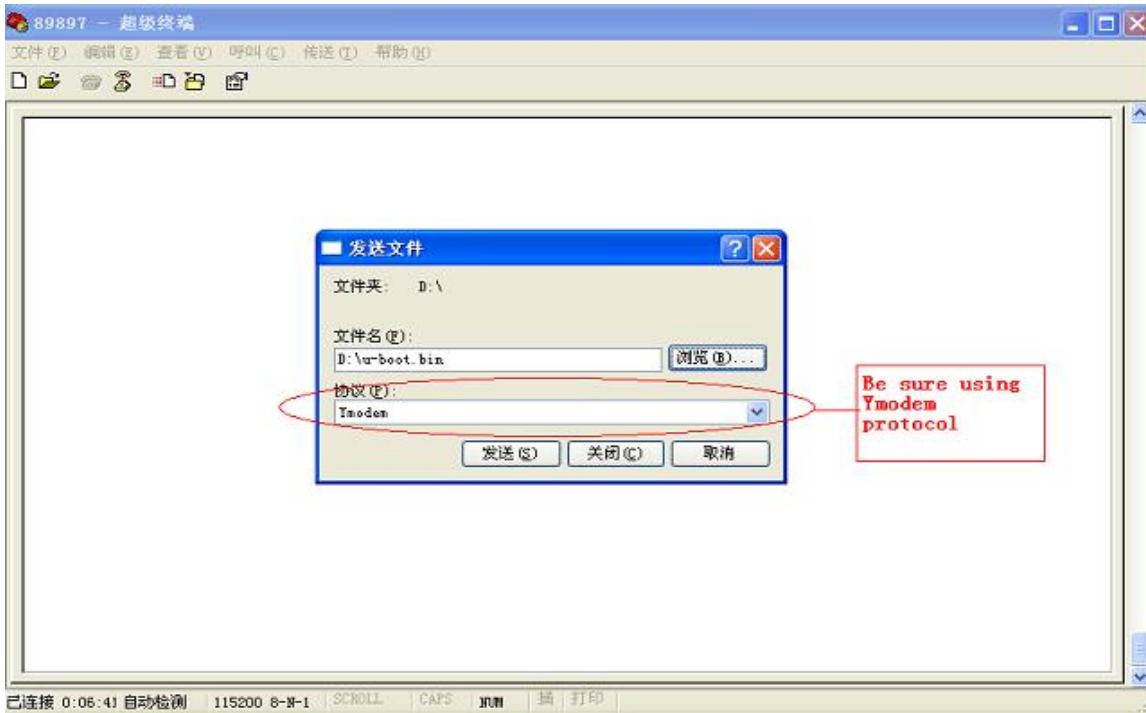Parity: [None]
Stop Bits: [1]
Data Flow Control: [None]
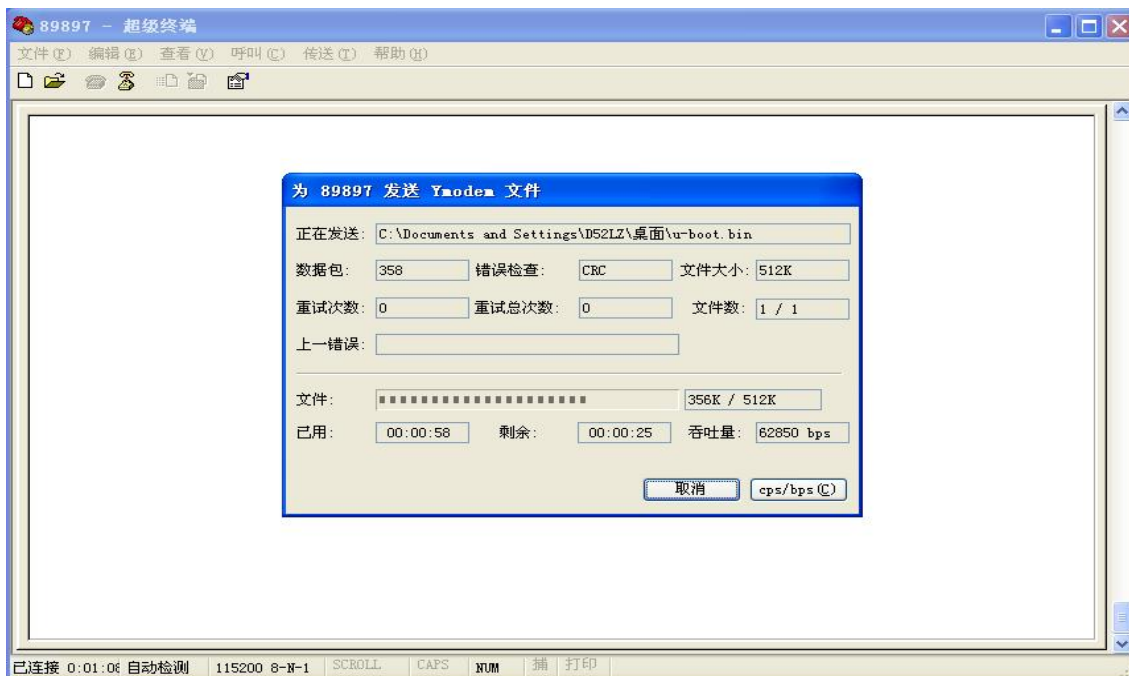
2. Select [Transfer/File Transfer] Option



3. Select [u-boot.bin] and use [Ymodem] Option, send file

**Upgrade Step:**

1.  Keep Pressing [OK] Button in Front Panel, then power on STB.

2.  After 5 seconds you will see [Forc] in LED, release [OK] button and press [Left] Button.

3. If everything is ok, in STB you will see [LOAD] shinning in LED. In HyperTerminal, you will see:



# 3 Spark7111 Upgrade Guide- Application

## 3.1 Functions Overview

In SPARK7111 Application, we can:

- Upgrade Spark Dbase, System can recover if power down

- Upgrade Spark Application, System can recover if power down

- Upgrade Spark Application+Dbase, System can recover if power down

- Upgrade Spark whole system (hidden),System can NOT recover if power down

Upgrade Overview:

| host | modules | Protocol/Way | Auto/Manual | Upgrade time | How to |
|------|---------|--------------|-------------|--------------|--------|

| | | USB | Manual | 2 min | By Menu |
|---|---|---|---|---|---|
| Spark Application | App | USB | Auto | 2 min | Auto detect C:/spark |
| | | SPARKONLINE | Auto | Depends on internet speed | Auto detect new version in spark online server |
| | Dbase | USB | Manual | 1 min | By Menu |
| | | SPARKONLINE | Manual | Depends on internet speed | By Menu |
| | App+Dbase | USB | Manual | 2 min | By Menu |
| | system | USB | Manual | 4 min | By hidden Menu |

## 3.2 Upgrade Option [Dbase]

Upgrade [Dbase] Option only includes channel list, Tp list, Satellite List.

Do not include User Preference Data (STB IP, default language etc)

**Upgrade Step:**

## 3.3 Upgrade Option [App]

Upgrade [App] Option only includes Application code. Do not include Dbase or User preference data.

**Upgrade Step:**

## 3.4  Upgrade Option [App+Dbase]

Upgrade [App+Dbase] Option only includes Application code, Dbase and User preference data.

**Upgrade Step:**


## 3.5  Upgrade Option [System]

Upgrade [System] Option includes all spark system as well as uboot.

**Upgrade Step:**

1.  Enter into Upgrade menu
2.  Select Upgrade package
3.  Press [EPG],[5], [2], [1], [0] to activate upgrade.

Capture place here

# 4 Plugin Upgrade Guide

## 4.1 Functions Notice!

1. make sure conax is disable in system/basic setting/conditional access/conax

2. Now only support camd.socket mode and Linux dvb API V3, so make sure set mgcamd to box type 6.

3. Now can only descramble one channel in mgcamd, which means you can NOT record one channel and watch the other channel.

4. Now can support multi-channel in oscamd, which means you can record one and watch the other one.

5 . Make sure don't open two clients at the same time. For example, don't start mgcamd and oscamd at the same time.

## 4.2 How to Upgrade plugin by USB

**Upgrade Step:**

1. Copy plugin folder to the root directory of first partition of USB stick (like c: /plugin).

2. Connect USB stick to stb. Stb shall prompt a message to user to upgrade plugin.Select yes to upgrade

## 4.3 How to Upgrade plugin by FTP

**Upgrade Step:**

1. Set your STB IP addr in system/Net setting menu

2. connect your PC to STB by LAN, now we only support LAN, do not support WLAN

3. Use ftp to telnet stb and copy plugin folder to /root.

## 4.4  How to config plugin

Mgcamd configuration:

1. Ftp to stb and config mgcamd in /var/keys

2. Setting like this      C: server addr server port account password

3. Better wait for sometime (10-20 seconds) because stb may need to flush cache data to nand flash.

4. Restart mgcamd


Oscamd configuration:

1. Ftp to stb and config oscamd in /var/tuxbox/config

2. Setting like this

   Device        = server addr, server port

   Account       = account name, password

3. Better wait for sometime (10-20 seconds) because stb may need to flush cache data to nand flash.

4. Restart oscamd