



```
C:\Users\Dan\Desktop>mkimxboot.exe -i sandisk-firmware.sb -b bootloader-fuzeplus  
.sansa -o firmware.sb -t dualboot
```

```
[INFO] mkimxboot models:
```

```
[INFO] Fuze+: idx=0 rb_model=fuz+ rb_num=72
```

```
[INFO] mkimxboot mapping:
```

```
[INFO] md5sum=c3e27620a877dc6b200b97dcb3e0ecc7 -> idx=0
```

```
[INFO] MD5 sum of the file: C3 E2 76 20 A8 77 DC 6B 20 0B 97 DC B3 E0 EC C7
```

```
[INFO] File is for model 0 (Fuze+)
```

```
Basic info:
```

```
SB version: 1.1
```

```
Header SHA-1: 38 26 5C 0F 76 8B BD 37 D9 6C 8B 87 22 5F 53 7F 53 EB C4 21 Ok
```

```
Flags: 100
```

```
Total file size : 34652624
```

```
Sizes and offsets:
```

```
# of encryption keys = 1
```

```
# of sections = 4
```

```
Versions
```

```
Random 1: 2E 47 73 67 74 6C
```

```
Random 2: 2D 8D 3F B5 71 36
```

```
Creation date/time = Mon Jun 20 22:31:40 2011
```

```
Product version = 2.38.6
```

```
Component version = 2.38.6
```

```
Drive tag = 0
```

```
First boot tag offset = c
```

```
First boot section ID = 0x00000000
```

```
Encryption keys
```

```
Key 0: 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00
```

```
CBC-MAC: FC 9B D1 10 96 7A 43 D2 8C 05 30 3F C8 E1 1A A2
```

```
DEK
```

```
Entry 0
```

```
Encrypted key: 6F 5A 04 BE 56 50 E4 CE BF C4 C9 77 7E 90 47 FC
```

```
CBC-MAC : FC 9B D1 10 96 7A 43 D2 8C 05 30 3F C8 E1 1A A2 Match
```

```
Decrypted key: 59 4C 94 60 F2 B1 58 6B 30 AA 91 B8 94 9C 51 80
```

```
Summary:
```

```
Real key: 59 4C 94 60 F2 B1 58 6B 30 AA 91 B8 94 9C 51 80
```

```
IV : 38 26 5C 0F 76 8B BD 37 D9 6C 8B 87 22 5F 53 7F
```

## Sections

Section '\_\_\_\_\_'

pos = d0 - 39a00

len = 39930

flags = 1 Boot Section (Encrypted)

LOAD | addr=0x00000000 | len=0x00001bec | crc=0xa18b807a Ok

LOAD | addr=0x00001bec | len=0x00000060 | crc=0x820d15e5 Ok

LOAD | addr=0x00001c4c | len=0x00000009 | crc=0x5b9c2f44 Ok

FILL | addr=0x00001c58 | len=0x00000047 | pattern=0x00000000

FILL | addr=0x00001ca0 | len=0x00000800 | pattern=0x00000000

CALL | addr=0x000001b4 | arg=0x00000000

LOAD | addr=0x00000000 | len=0x00001914 | crc=0x592774c6 Ok

LOAD | addr=0x00001914 | len=0x00000210 | crc=0xe251c29e Ok

LOAD | addr=0x00001b24 | len=0x0000000e | crc=0x9e03dbc8 Ok

FILL | addr=0x00001b34 | len=0x000000d6 | pattern=0x00000000

FILL | addr=0x00001c0c | len=0x00000800 | pattern=0x00000000

FILL | addr=0x0000240c | len=0x00000004 | pattern=0x00000000

CALL | addr=0x000000c4 | arg=0x00000000

LOAD | addr=0x00000000 | len=0x00003028 | crc=0x64afe53a Ok

LOAD | addr=0x00003028 | len=0x000000a8 | crc=0x361314c5 Ok

LOAD | addr=0x000030d0 | len=0x0000002a | crc=0x5e57e492 Ok

FILL | addr=0x000030fc | len=0x000000d6 | pattern=0x00000000

FILL | addr=0x000031d4 | len=0x00000800 | pattern=0x00000000

FILL | addr=0x000039d4 | len=0x00000004 | pattern=0x00000000

CALL | addr=0x000001e4 | arg=0x00000000

LOAD | addr=0x00000000 | len=0x00000924 | crc=0xe9ae8a6e Ok

LOAD | addr=0x00000924 | len=0x000001c8 | crc=0xe33aa409 Ok

LOAD | addr=0x00000aec | len=0x00000004 | crc=0x54bc948b Ok

FILL | addr=0x00000af0 | len=0x00000010 | pattern=0x00000000

CALL | addr=0x000000f8 | arg=0x00000001

LOAD | addr=0x00000000 | len=0x00000400 | crc=0x968b71a6 Ok

LOAD | addr=0x00000400 | len=0x00001d68 | crc=0x3609c226 Ok

LOAD | addr=0x40070400 | len=0x00000d28 | crc=0x09262d50 Ok

LOAD | addr=0x4009f6b8 | len=0x0000cd3c | crc=0x2d7ae8a4 Ok

LOAD | addr=0x400ac3f4 | len=0x00000004 | crc=0x4631b051 Ok

LOAD | addr=0x400ac3f8 | len=0x0000000a | crc=0x47905f02 Ok

LOAD | addr=0x400ac404 | len=0x00000048 | crc=0x7cd2b983 Ok

LOAD | addr=0x400ac44c | len=0x0000010c | crc=0x2b823eae Ok

LOAD | addr=0x400ac558 | len=0x00000043 | crc=0x49a4a0aa Ok

LOAD | addr=0x400ac59c | len=0x00022572 | crc=0x614cbae8 Ok

JUMP | addr=0x400ad010 | arg=0x00000000

Section 'host'

pos = 39a10 - eb940

len = b1f30

flags = 1 Boot Section (Encrypted)

LOAD | addr=0x00000000 | len=0x00000400 | crc=0x46049e44 Ok

LOAD | addr=0x00001c00 | len=0x00000152 | crc=0x665b9431 Ok

LOAD | addr=0x00002368 | len=0x00001ba8 | crc=0x5ffff095 Ok

LOAD | addr=0x00003f10 | len=0x00000004 | crc=0x22934e16 Ok

LOAD | addr=0x00003f14 | len=0x0000000a | crc=0xf356f725 Ok

LOAD | addr=0x00003f20 | len=0x00000020 | crc=0x6b10d3cc Ok

LOAD | addr=0x00003f40 | len=0x00000008 | crc=0xbf6ce256 Ok

LOAD | addr=0x40058000 | len=0x00001ac8 | crc=0x1c2a0168 Ok

LOAD | addr=0x401f7000 | len=0x0002a680 | crc=0xc6c8dd11 Ok

LOAD | addr=0x40221680 | len=0x00012588 | crc=0xcbeee71b Ok

LOAD | addr=0x40234000 | len=0x0000068c | crc=0x78ab0912 Ok

LOAD | addr=0x4023468c | len=0x00062e90 | crc=0x0364d49a Ok

LOAD | addr=0x4029751c | len=0x0000dc0e | crc=0x7951b92f Ok

LOAD | addr=0x402a512c | len=0x000002f8 | crc=0x9666a22c Ok

LOAD | addr=0x402a5a58 | len=0x000000a8 | crc=0xf7921d6b Ok

LOAD | addr=0x402a6000 | len=0x000000f4 | crc=0x4e89b6a2 Ok

JUMP | addr=0x4029830c | arg=0x00000000

Section 'play'

pos = eb950 - 67eec0

len = 593570

flags = 1 Boot Section (Encrypted)

LOAD | addr=0x40001000 | len=0x00000020 | crc=0x65c6e982 Ok

LOAD | addr=0x40001020 | len=0x00000008 | crc=0x0f5ff4f6 Ok

LOAD | addr=0x40001028 | len=0x0000000c | crc=0x30615483 Ok

LOAD | addr=0x40001034 | len=0x00000004 | crc=0xdbda3ac6 Ok

LOAD | addr=0x40001038 | len=0x00000004 | crc=0xce1d329e Ok

LOAD | addr=0x4000143c | len=0x0000371c | crc=0x305b6d82 Ok

LOAD | addr=0x40004b58 | len=0x002fbb38 | crc=0x419be173 Ok

LOAD | addr=0x40300690 | len=0x000000a4 | crc=0xff2715f0 Ok

FILL | addr=0x40300734 | len=0x000001bc | pattern=0x00000000

CALL | addr=0x400019b8 | arg=0x00000000

LOAD | addr=0x00000000 | len=0x00000400 | crc=0x41a44ef8 Ok

LOAD | addr=0x0000215c | len=0x00001ec4 | crc=0x8f1f81b8 Ok

LOAD | addr=0x00004020 | len=0x00000004 | crc=0x1d21a415 Ok  
LOAD | addr=0x00004024 | len=0x0000000a | crc=0x649ad4f9 Ok  
LOAD | addr=0x00004030 | len=0x00000050 | crc=0x1e3c8ebb Ok  
LOAD | addr=0x00004080 | len=0x00000014 | crc=0x6156a0e8 Ok  
LOAD | addr=0x40058000 | len=0x000033eb | crc=0x7c9df2f5 Ok  
LOAD | addr=0x40ef1000 | len=0x0008d460 | crc=0x4f84992d Ok  
LOAD | addr=0x40f7e460 | len=0x00003dc8 | crc=0x0d8e0e57 Ok  
LOAD | addr=0x40f82230 | len=0x00000840 | crc=0x6f2c1c46 Ok  
LOAD | addr=0x40f82a70 | len=0x000047e4 | crc=0xdb810f6c Ok  
LOAD | addr=0x40f87260 | len=0x00002040 | crc=0x3a729726 Ok  
LOAD | addr=0x40f892a0 | len=0x00001e4c | crc=0x2f893f1e Ok  
LOAD | addr=0x40f8b0ec | len=0x0001eb7c | crc=0x8b9d9c61 Ok  
LOAD | addr=0x40faa000 | len=0x00000534 | crc=0x021901ce Ok  
LOAD | addr=0x40faa534 | len=0x001b66d8 | crc=0x2b312465 Ok  
LOAD | addr=0x41160c0c | len=0x0000ce04 | crc=0x65bbac31 Ok  
LOAD | addr=0x4116da10 | len=0x00002230 | crc=0x09d998bf Ok  
LOAD | addr=0x4116fc40 | len=0x00001bcc | crc=0x55425def Ok  
LOAD | addr=0x4117180c | len=0x0000e0d2 | crc=0xd04726ad Ok  
LOAD | addr=0x4117f8e0 | len=0x00000270 | crc=0xf103d335 Ok  
LOAD | addr=0x41180184 | len=0x000000a8 | crc=0x5051ce59 Ok  
JUMP | addr=0x411725fc | arg=0x00000000

Section 'rsrc'

pos = 67f000 - 210c1b0

len = 1a8d1b0

flags = 2 Data Section

Final signature:

Encrypted SHA-1:

AA 98 34 9B AB 9D 0A A3 84 B4 A7 E2 51 63 B7 9B

6F BB 6C F7 05 3F 07 4D 10 98 6E 65 29 71 05 2E

File SHA-1:

0B 27 D0 9D F2 0D 5A 2B 91 3F 13 A4 4F 83 56 D7 CD 25 43 0E Ok

failed to open /dev/urandom : No such file or directory