Downgrading from U-Boot 1.1.4/1.1.6 to U-Boot 1.1.3 on CC9P9360 modules to run old WinCE5.x or LxNETES-3.x firmware, using NVRAM from EEPROM.

EOL	Replacement
FS-382 U-Boot 1.1.3 NVRAM in EEPROM, R2 populated	CC-9P-T225-Z1 U-Boot 1.1.6 NVRAM in Flash, no R2 populated
FS-383 U-Boot 1.1.3 NVRAM in EEPROM, R2 populated	CC-9P-T236-Z1 U-Boot 1.1.4 NVRAM in Flash, no R2 populated
FS-3013 U-Boot 1.1.3 NVRAM in EEPROM, no R2 populated	CC-9P-V225-Z1 U-Boot 1.1.4 NVRAM in Flash, no R2 populated

Modules CC-9P-x2xx-Z1 have programmed NVRAM in a flash partition maintained by U-Boot 1.1.4 or higher. U-Boot 1.1.3 and operating systems WinCE5.x, LxNETES-3.x expect NVRAM in on module EEPROM.

Downgrade U-Boot and NVRAM into EEPROM from U-Boot console as following:

Connect ethernet with TFTP server providing your latest U-Boot 1.1.3 binary or USB stick with this binary. If it fits your need, you can also use latest U-Boot 1.1.3 FS.3 binary from Digi:
http://ftp1.digi.com/support/patches/uboot113fs3-binaries.zip
http://ftp1.digi.com/support/patches/UBootFixes_113F3.htm

On U-Boot 1.1.4/1.1.6 console type:

```
# printenv ethaddr
ethaddr=00:04:F3:xx:yy:zz <- remember the MAC address

# update uboot tftp u-boot-cc9p9360val.bin <- to update via ethernet/TFTP
or
# update uboot usb u-boot-cc9p9360val.bin <- to update from USB mem stick

# imm 50 500.2 <- invalidate environment in EEPROM
0500: dd ? ff <- enter any value different from displayed one
0501: 2b ? . <- enter "." to end modification of EERPOM
# reset <- to boot (your) U-Boot 1.1.3 (check its output)
```

U-Boot 1.1.3 should now boot with message:

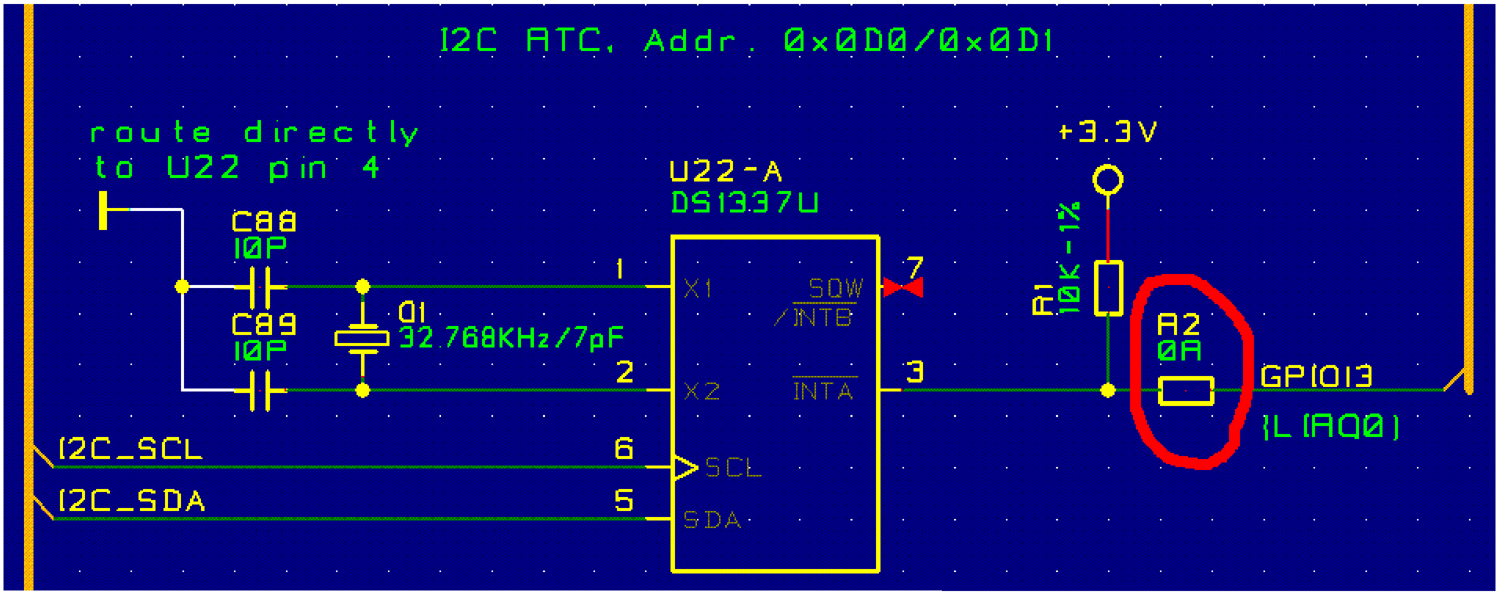
```
*** Warning - bad CRC, using default environment
# setenv ethaddr 00:04:F3:xx:yy:zz <- enter MAC you remembered above or from label/sticker
# saveenv
```

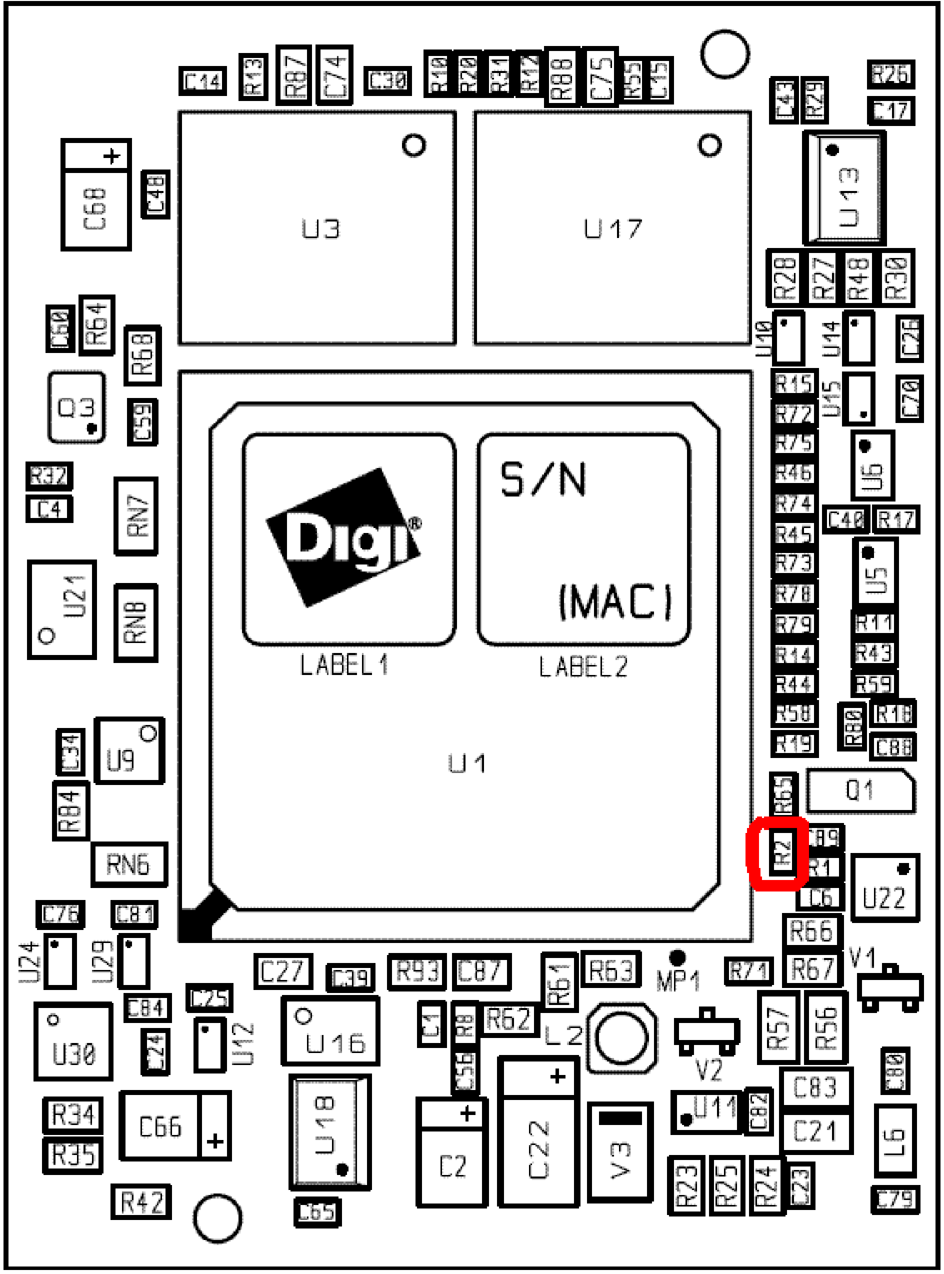
If you fail to downgrade, you can use the recovery instructions.

Check if placment option R2 affects your application

The CC9P9360 modules do have a on module Dallas DS1337 RTC. On modules FS-383 and FS-383 the interrupt output of this RTC is connected via a 0 Ohm resistor R2 to GPIO13, in order to allow software to get this interrupt.

On all other CC9P9360 modules (e.g. FS-3013 and all CC-9P-?2?? replacements) the resistor R2 is not populated, allowing to use GPIO13 for other purposes (e.g. serial ring indicator). Drawback is, that you can't use the DS1337 RTC interrupt input in your software. If your software depends on this, you should either change the software or patch the module with a 0 Ohm connection on R2.


I2C RTC, Addr. 0x0D0/0x0D1
route directly
to U22 pin 4
C88
10P
C89
10P
Q1
32.768KHz/7pF
U22-A
DS1337U
1
2
6
5
7
3
X1
X2
SCL
SDA
SQW
/INTB
INTA
I2C_SCL
I2C_SDA
+3.3V
R1
10K-1%
R2
0R
GPIO13
{L IRQ0}


C14
R13
R87
C74
C30
R40
R20
R31
R12
R88
C75
R55
C15
C43
R29
R26
C17
C68
C48
U3
U17
U13
R28
R27
R48
R30
C60
R64
R68
U10
U14
C26
Q3
C59
R15
U15
C70
R72
R75
R46
U6
R32
C4
RN7
R74
R45
C40
R17
R73
U21
RN8
R78
U5
R79
R11
R14
R43
R44
R59
R58
R80
R18
R19
C88
Digi
S/N
(MAC)
LABEL1
LABEL2
U1
C34
U9
R84
R65
Q1
RN6
R2
C89
R1
U22
C6
C76
C81
R66
U24
U29
R67
V1
C27
C39
R93
C87
R61
R63
MP1
R71
C84
C25
C1
R8
R62
L2
R57
R56
U30
U16
U12
C24
C56
V2
C83
C80
R34
C66
U18
C2
C22
V3
U11
C82
C21
L6
R35
R23
R25
R24
C23
R42
C65
C79