Problems by READ-ACCESS TO SJA1000

CPU: 80C535 External Memory-Map Access

Test Programm:

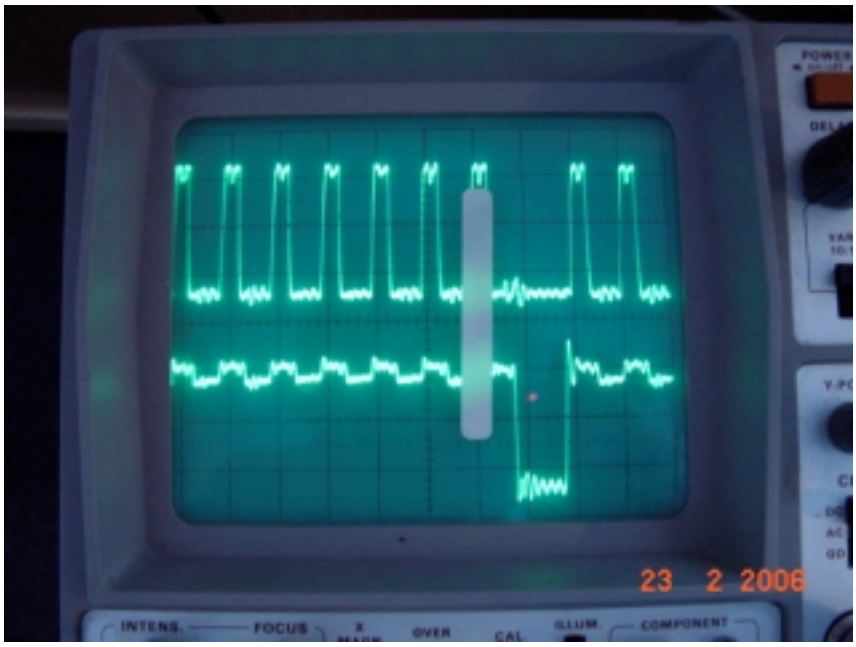
```
Canbase EQU 32512
Mov     DPTR,#(CANBASE+30)
Loop:
Movx    A,@DPTR
Jmp     Loop
```

Connections between SJA1000 and 80C535
/RD - /RD
/WR - /WR
ALE – ALE
/CS via GAL16V8
Mode = +5V

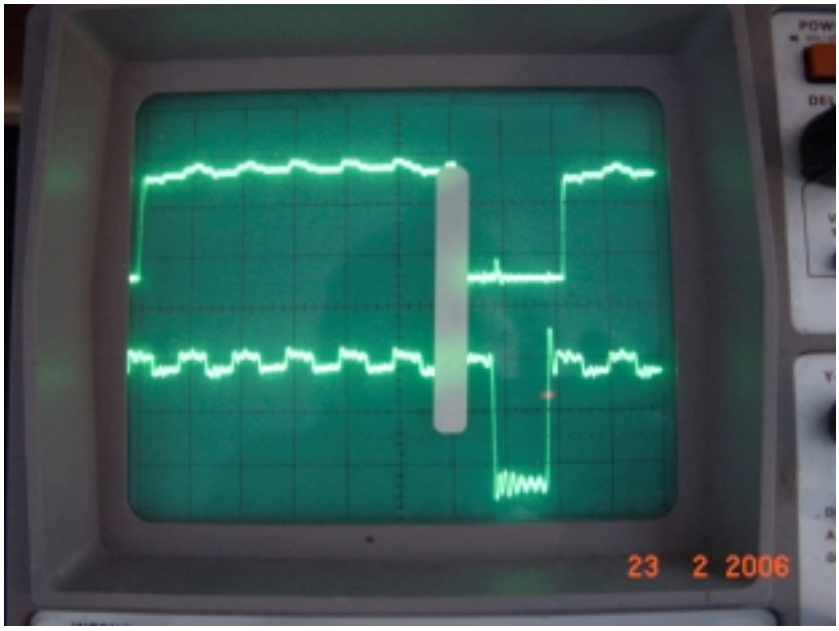
Problem Discription:
Register Reading is working well if content of register which is red < 11110000b
Otherwise result of reading is content of register which has same adresse as in the lower 4 bits of register which should be red.

Example1:
Reading Register 30dez (Content=$FF)
Result of reading is $40 this is content of register 31dez (clockdivider)

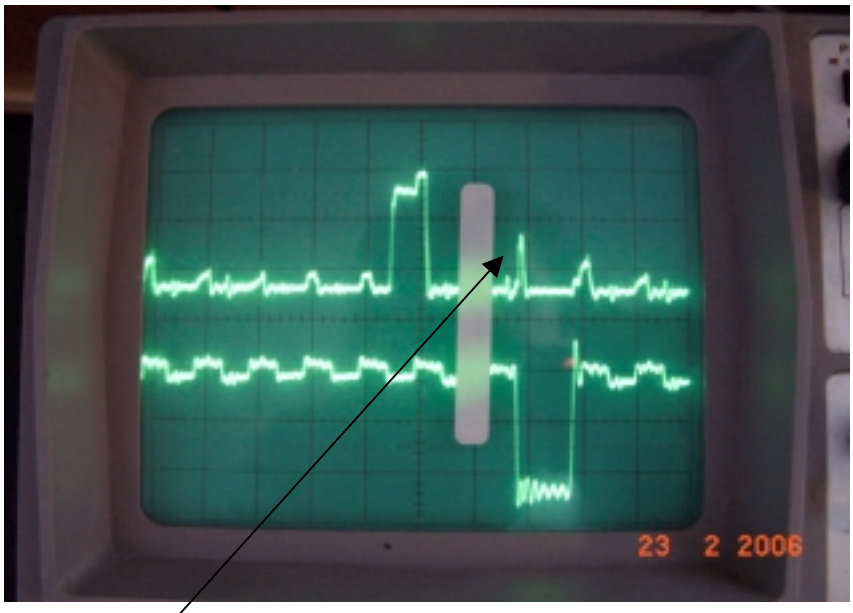
Example2:
Reading Register 2dez(status) (content=$0C)
Result of reading is $0C (O.K.)



Scope Picture 1:
Channel 1 : ALE (falling edge marked with stripe)
Channel 2: /RD



Scope Picture 2:
Channel 1 : /CS (stripe = falling edge of ALE)
Channel 2: /RD



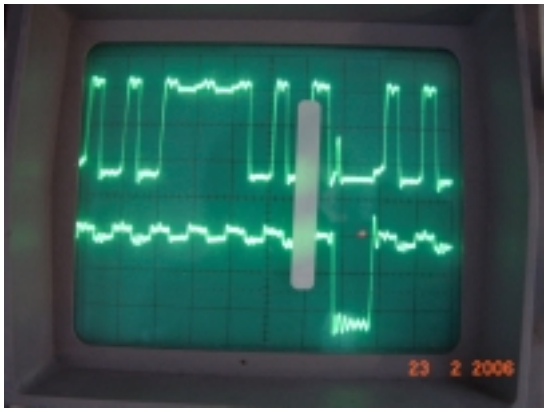
Scope Picture 3:
Channel 1 : /AD7 (stripe = falling edge of ALE)
Channel 2: /RD

At the short peak at Ad7 at falling edge of RD you see that the SJA1000 tries to put the right date from register 30 ($FF) to bus, but it will be overwritten by the content of register 31h ($40)

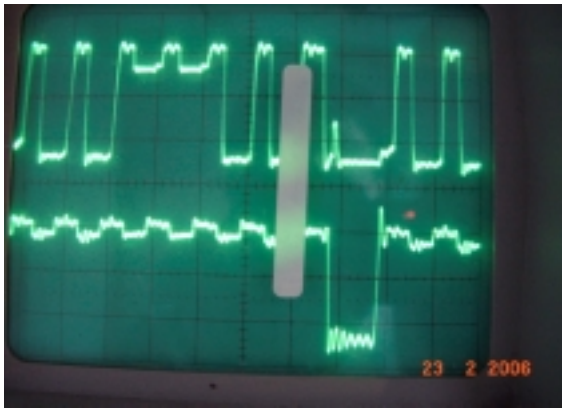
Better seen at AD6 (this bit is „1“ in register 30 and in register 31)

AD6

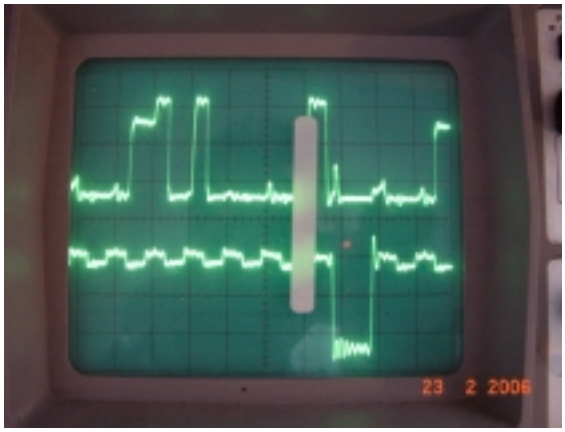
AD5



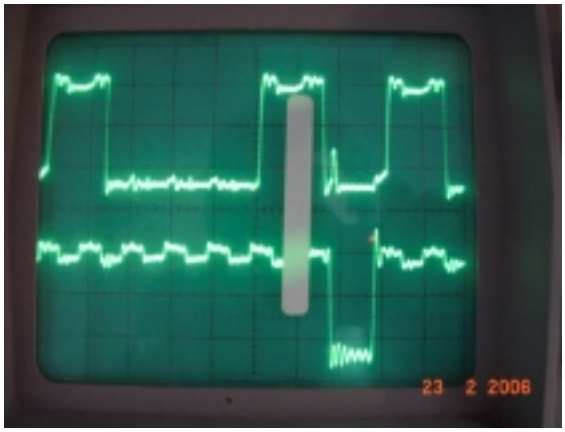
AD4



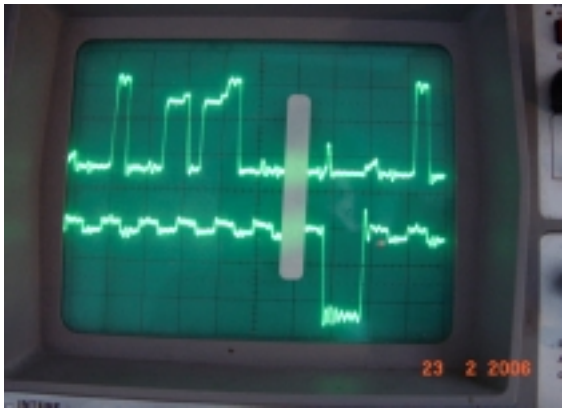
AD3



AD2



AD1



AD0