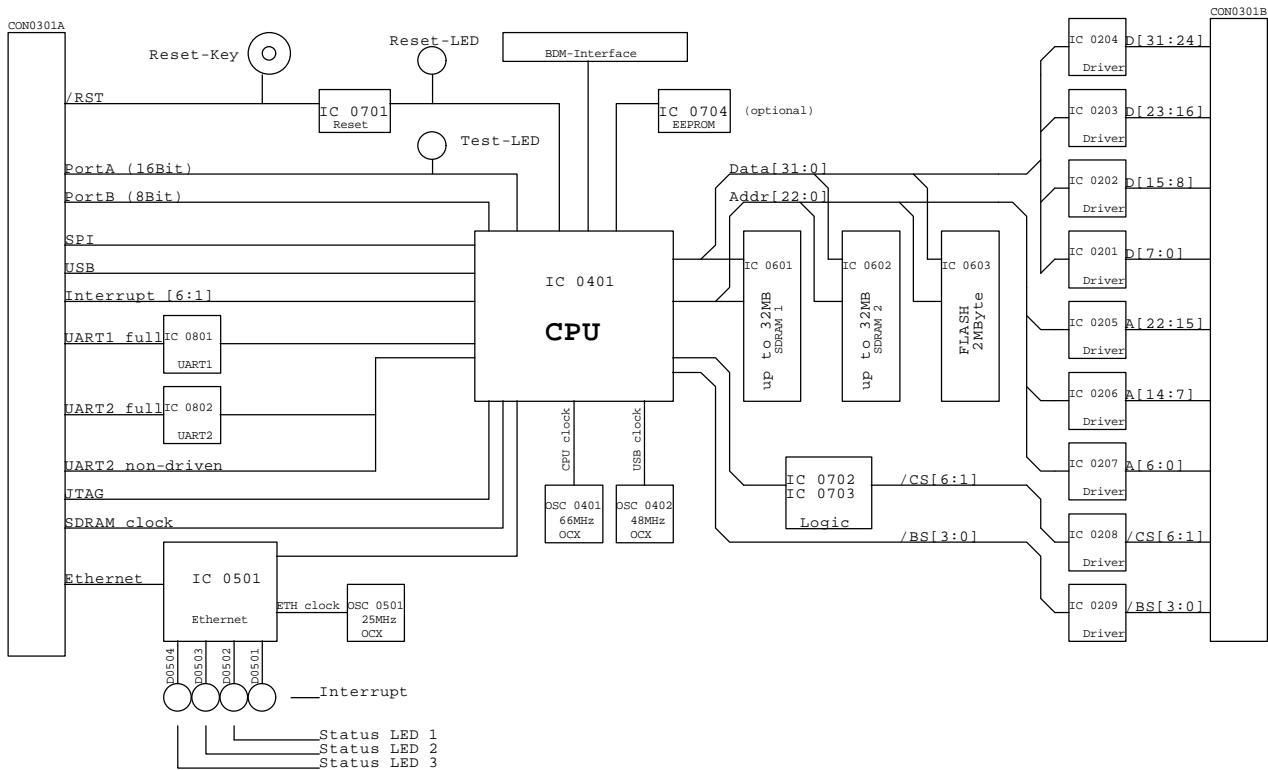


COBRA5272 Module R1.0



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| | | |
|-------------------------|-------------------------|--------------|
| Title | | |
| COBRA5272 module | | |
| Size | Document Number | Rev |
| B | COBRA5272 - Overview | 1.0 |
| Date: | Monday, August 19, 2002 | Sheet 1 of 9 |

Overview

of the BDM interface and the bus widths configuration

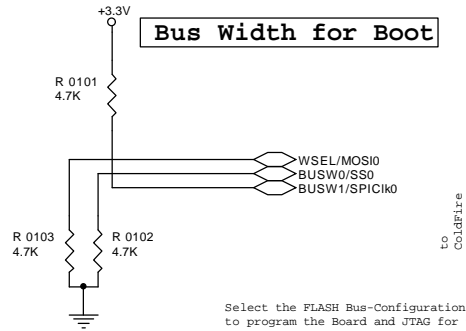
Start Configuration for ColdFire to select FLASH Width.

Default for (/WSEL): LOW
 Default for (/BUSW0): LOW
 Default for (/BUSW1): HIGH

BOOT ROM Configuration

| BUSW1 | BUSW0 | Data Bus Width |
|-------|-------|---|
| 0 | 0 | = 32 Bit |
| 0 | 1 | = 8 Bit |
| 1 | 0 | = 16 Bit Default at COBRA5272 Module |
| 1 | 1 | = Reserved |

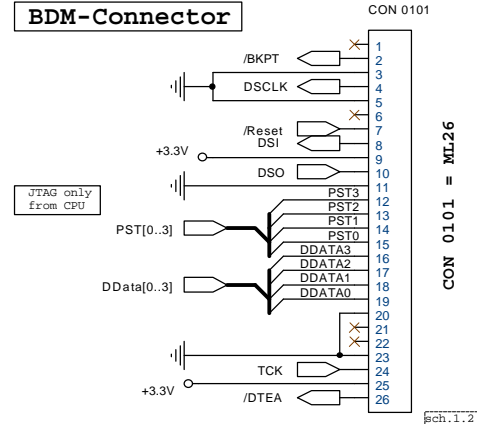
| WSEL | /CS0 Bus Width |
|------|---|
| 0 | = 32 Bit Default at COBRA5272 Module |
| 1 | = 16 Bit |



Select the FLASH Bus-Configuration at Start; BDM-Connector to program the Board and JTAG for the CPU

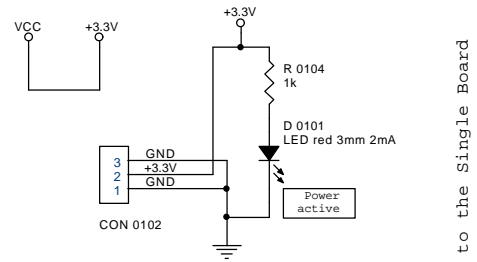
sch.1.1

BDM-Connector



sch.1.2

External Supply +3.3V

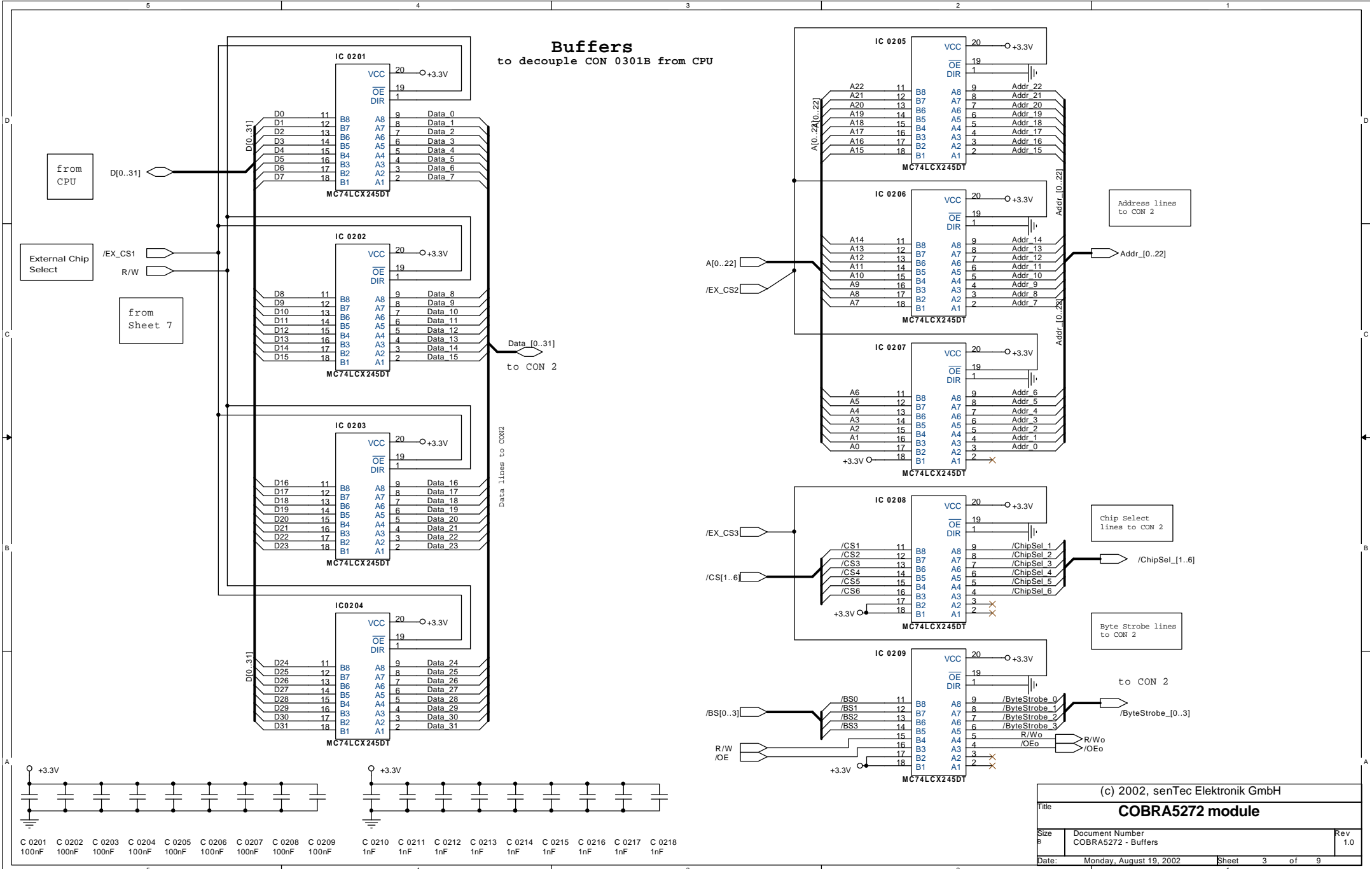


sch.1.3

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| | | |
|-------------------------|--|--------------|
| Title | | |
| COBRA5272 module | | |
| Size B | Document Number COBRA5272 - BDM + bus width | Rev 1.0 |
| Date: | Monday, August 19, 2002 | Sheet 2 of 9 |

Buffers to decouple CON 0301B from CPU

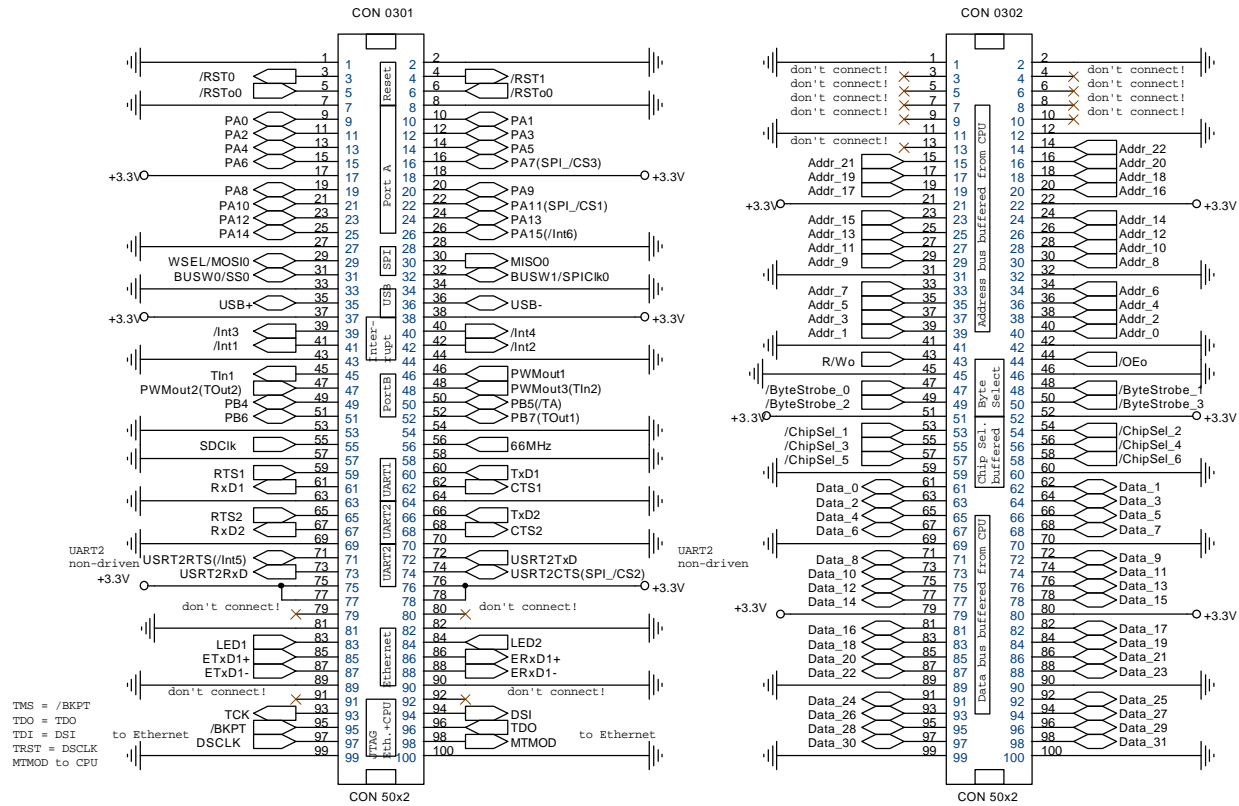


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| | | |
|--------------------------------------|------------------------|---------------------|
| Title | | |
| COBRA5272 module | | |
| Size | Document Number | Rev |
| 8 | COBRA5272 - Buffers | 1.0 |
| Date: Monday, August 19, 2002 | | Sheet 3 of 9 |

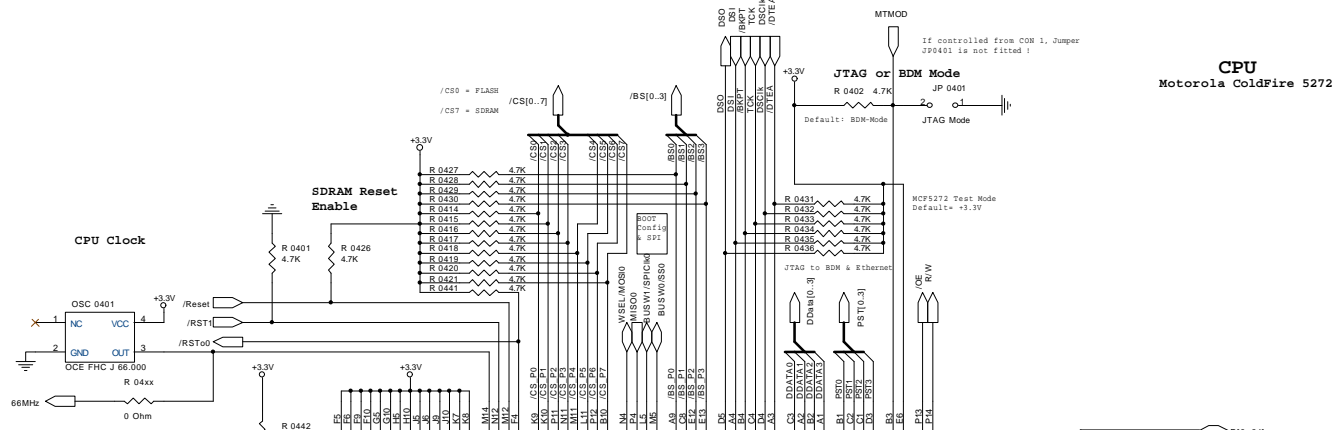
Connectors

with all needed lines to use the
COBRA5272 Module



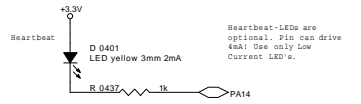
(c) 2002, senTec Elektronik GmbH

| | | |
|-------------------------|--|---------------------|
| Title | | |
| COBRA5272 module | | |
| Size | Document Number COBRA5272 - CON 1+2 | Rev 1.0 |
| Date: | Monday, August 19, 2002 | Sheet 4 of 9 |

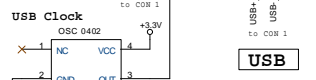
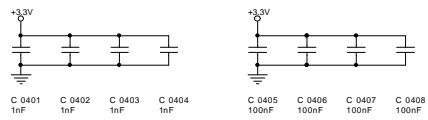


ColdFire CPU
IC 0401
MCF5272

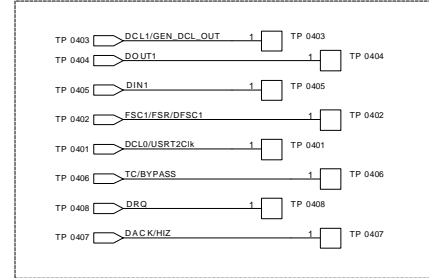
Debug LED: This LED is for test trial.



LED connected to Port PA14 because of 4mA current.



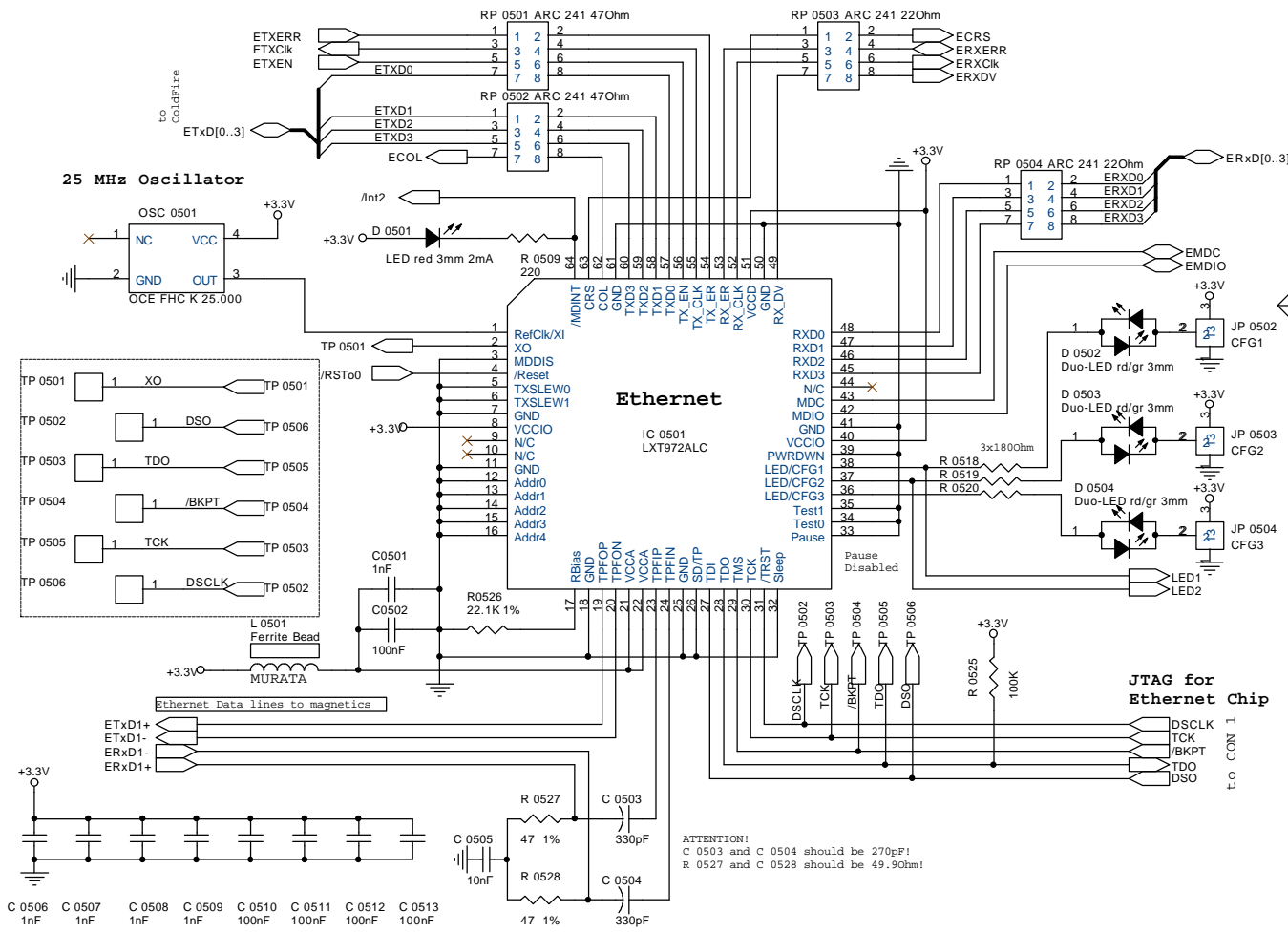
USB



| | | |
|----------------------------------|--------------------------|--------------|
| (c) 2002, senTec Elektronik GmbH | | |
| COBRA5272 module | | |
| File | Document Number | Rev |
| C | COBRA5272 - Coldfire CPU | 1.0 |
| Date: | Monday, August 19, 2002 | Sheet 5 of 8 |

Ethernet for 10 or 100MBit speed

ACHTUNG!
RP 0501, RP 0502 eigentlich 500ohm!



Hardware Configuration Settings for Jumper
JP 0502, JP 0503, JP 0504:

| Auto Neg | Speed (Mbps) | Duplex | LED CFG | | |
|----------|--------------|--------------|---------|------|------|
| | | | CFG1 | CFG2 | CFG3 |
| Disabled | 10 | Half Full | 1-2 | 1-2 | 1-2 |
| | 100 | Half Full | 1-2 | 2-3 | 2-3 |
| Enabled | 100 only | Half Full | 2-3 | 1-2 | 1-2 |
| | 10/100 | Half or Full | 2-3 | 2-3 | 2-3 |

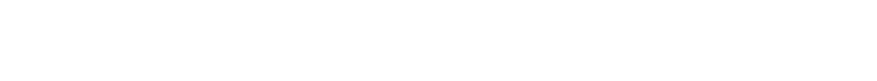
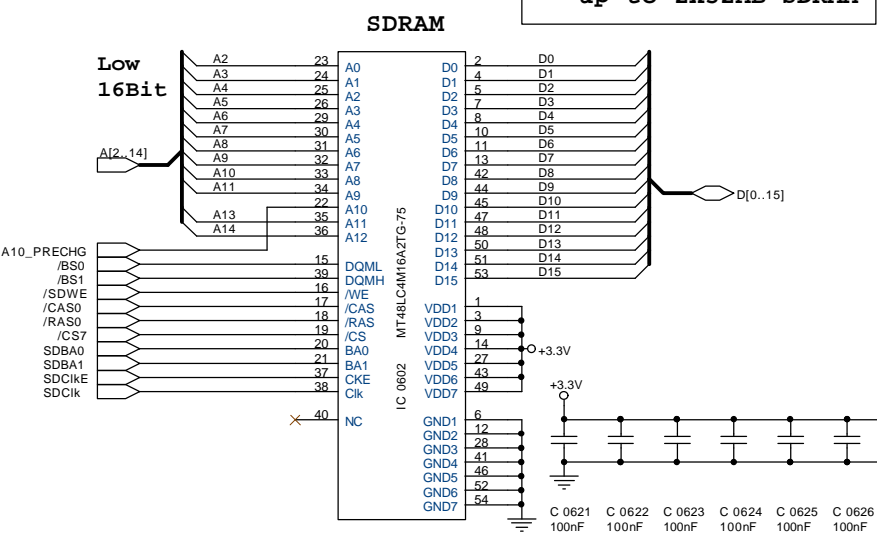
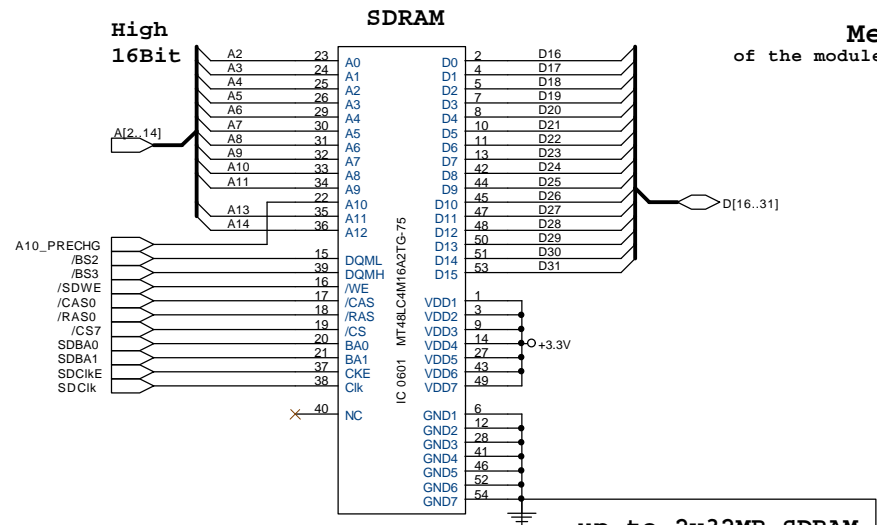
Jumper on COBRA5272 Module:

| | | |
|---------|---------|---------|
| JP 0502 | JP 0503 | JP 0504 |
|---------|---------|---------|

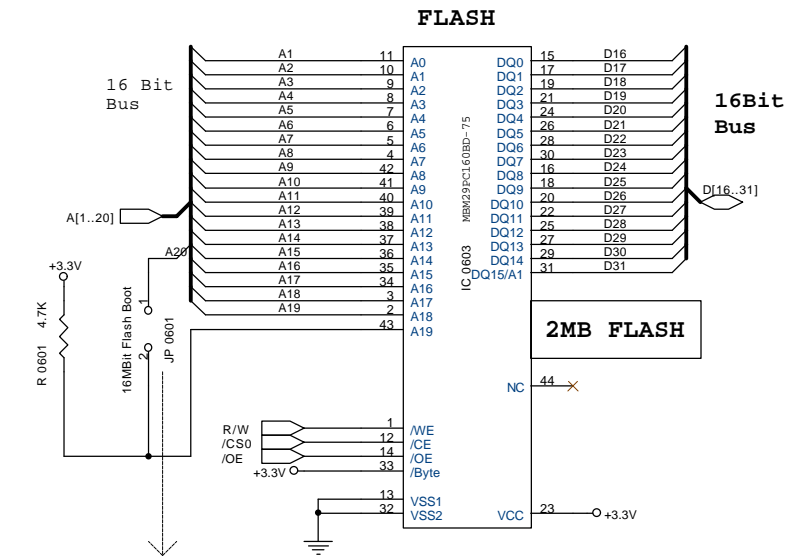
ATTENTION!
C 0503 and C 0504 should be 270pF!
R 0527 and C 0528 should be 49.9ohm!

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| | | |
|----------------------------------|---|------------|
| Title COBRA5272 module | | |
| Size B | Document Number COBRA5272 - Ethernet | Rev 1.0 |
| Date: Monday, August 19, 2002 | Sheet 6 | of 9 |



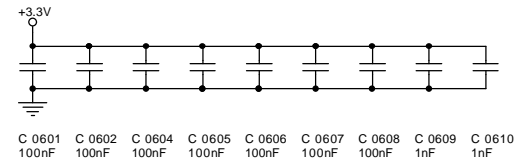
Memory of the module (FLASH and SDRAM)



| Jumper JP 0601 | |
|----------------|---------------------------|
| Jumper | Action |
| fitted | FLASH access at FFE0.0000 |
| not fitted | FLASH access at FFF0.0000 |

| Other SRAMs: | | |
|--------------------|-----------------|---------|
| Part | Memory per Chip | Manuf. |
| MT48LC4M16A2TG-75 | 8MB | MICRON |
| MT48LC8M16A2TG-75 | 16MB | MICRON |
| MT48LC16M16A2TG-75 | 32MB | MICRON |
| W986416 | 8MB | Winbond |
| W981216 | 16MB | Winbond |
| W9825+16 | 32MB | Winbond |
| K4S641632 | 8MB | Samsung |
| K4S281632 | 16MB | Samsung |
| K4S61632 | 32MB | Samsung |

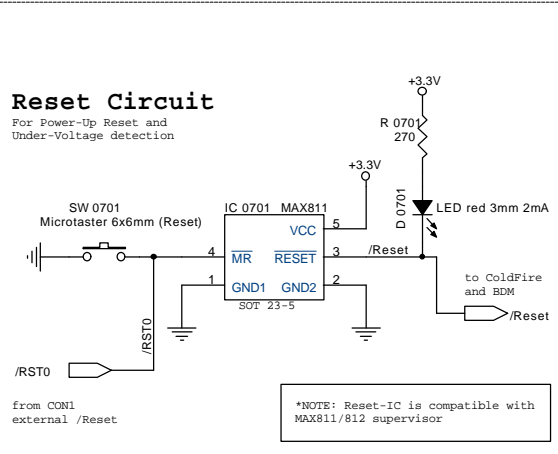
| Other FLASHs | | |
|--------------|-----------------|---------|
| Part | Memory per Chip | Manuf. |
| AM29PL160CB | 2MB | AMD |
| MBM29PL160C | 2MB | Fujitsu |



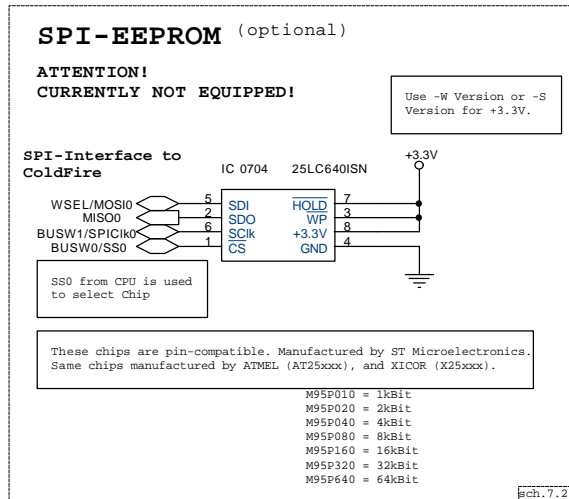
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| | | |
|----------------------------------|---|--------------|
| Title COBRA5272 module | | |
| Size B | Document Number COBRA5272 - Flash + SDRAM (up to 64MB) | Rev 1.0 |
| Date: | Monday, August 19, 2002 | Sheet 7 of 9 |

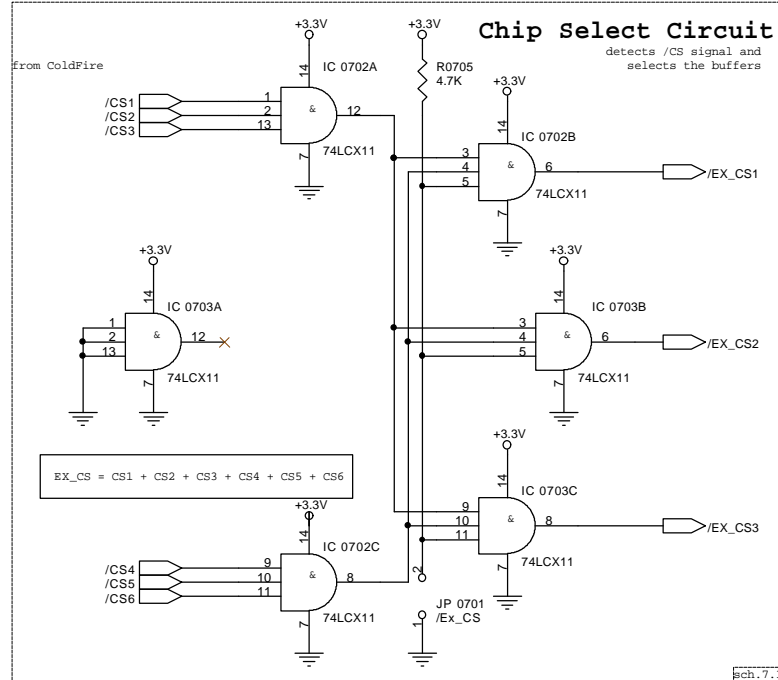
Circuits for Reset, Chip Select and the SPI-EEPROM



sch.7.1



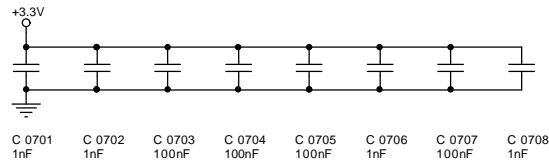
sch.7.2



sch.7.3

Jumper 0701

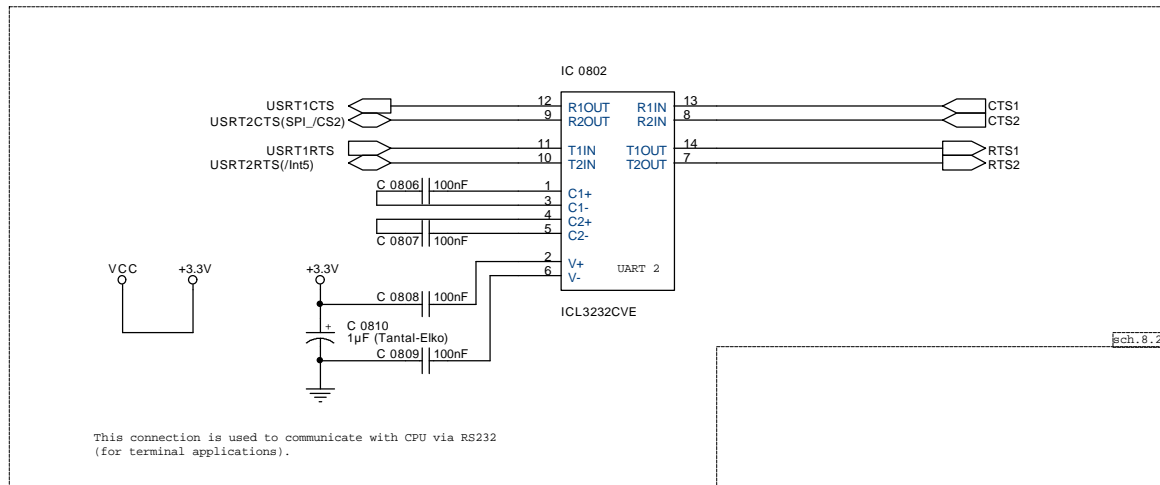
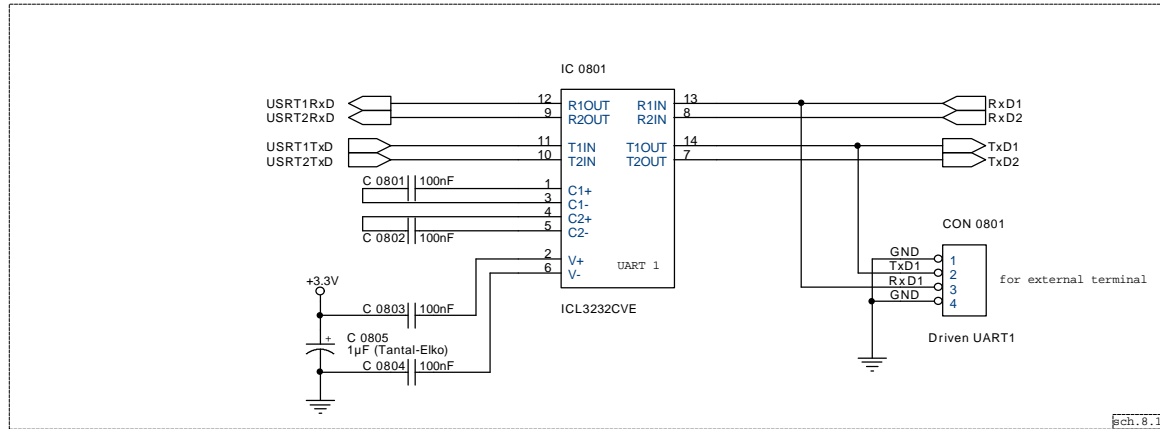
| Jumper | Action |
|------------|---|
| fitted | /EX_CSx are always LOW |
| not fitted | /EX_CSx are LOW, if one of /CS[1..6] is LOW |



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| | | |
|----------------------------------|--|--------------|
| Title COBRA5272 module | | |
| Size B | Document Number COBRA5272 - Reset, Chip Select and SPI EEPROM | Rev 1.0 |
| Date: | Monday, August 19, 2002 | Sheet 8 of 9 |

RS232
(serial interfaces)



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| | | |
|-------------------------|-------------------------|--------------|
| Title | | |
| COBRA5272 module | | |
| Size | Document Number | Rev |
| B | COBRA5272 - RS232 | 1.0 |
| Date: | Monday, August 19, 2002 | Sheet 9 of 9 |