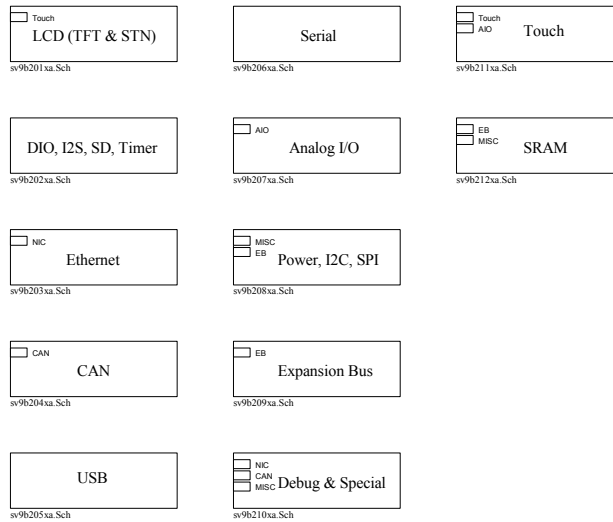
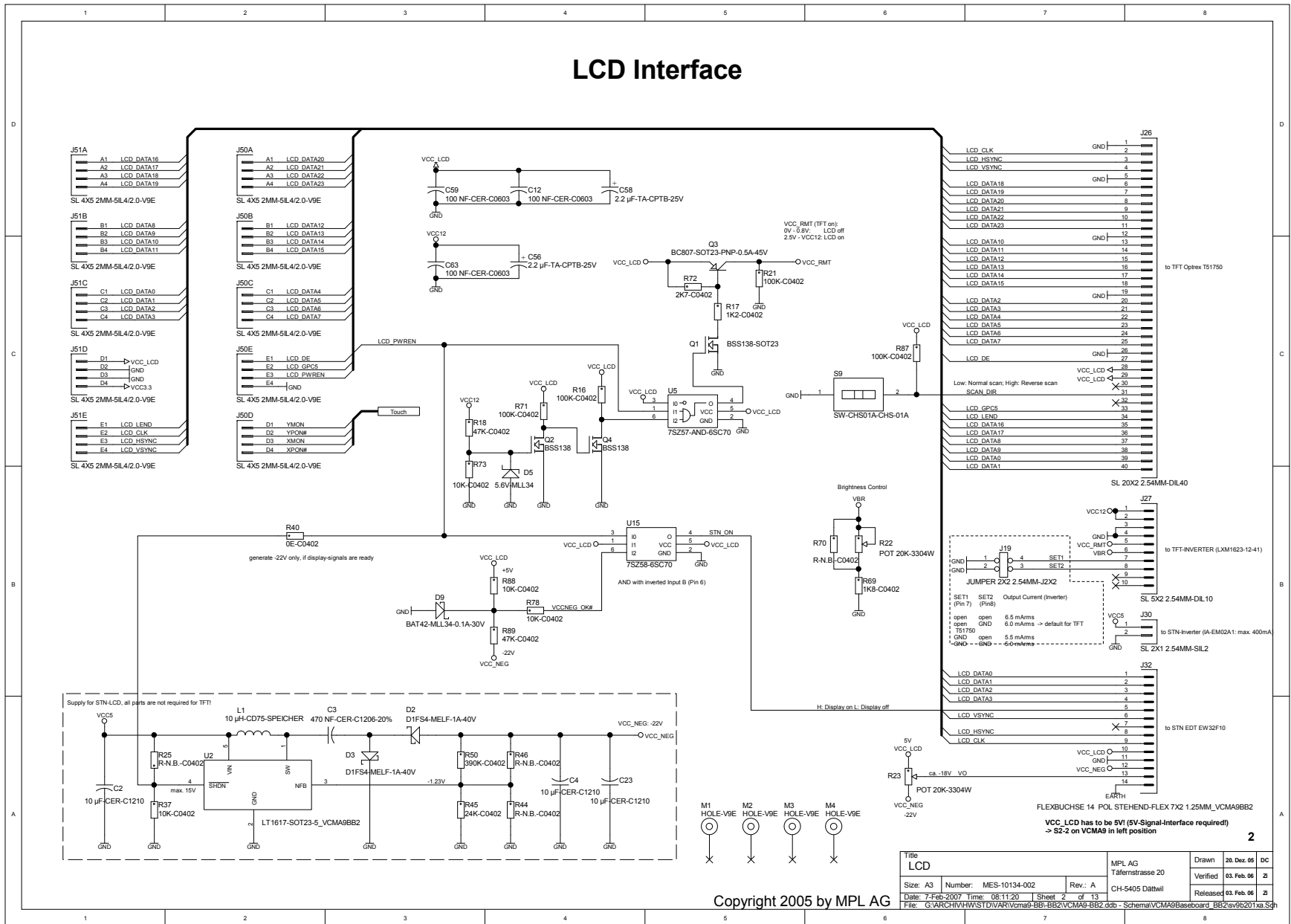


# VCMA9 Baseboard 2 Rev. A



Title VCMA9 Baseboard 2: Overview			MPL AG Täferstrasse 20		Drawn 20. Dez. 05	DC
Size: A3	Number: MES-10134-002	Rev.: A	CH-5405 Dättwil		Verified 03. Feb. 06	ZI
Date: 7-Feb-2007	Time: 08:11:14	Sheet 1 of 13	Released		03. Feb. 06	ZI
File: G:\ARCHIV\HW\STD\VAR\vcma9-BB-BB2\VCMA9-BB2.ddb - Schemal\VCMA9Baseboard_BB2\sv9b200xa.Sch						

# LCD Interface



Title <b>LCD</b>		MPL AG Tafelstrasse 20	Drawn 28. Dez. 05	DC
Size: A3	Number: MES-10134-002	Rev.: A	Verified 03. Feb. 06	Z
Date: 7-Feb-2007	Time: 08:11:20	Sheet 2 of 13	Released 03. Feb. 06	Z
File: G:\ARCHIV\HW\STDIV\VCMA9\BB-BB2\VCMA9-BB2.dob - Schem\VCMA9Baseboard_BB2\sv9b201xa.Sch				

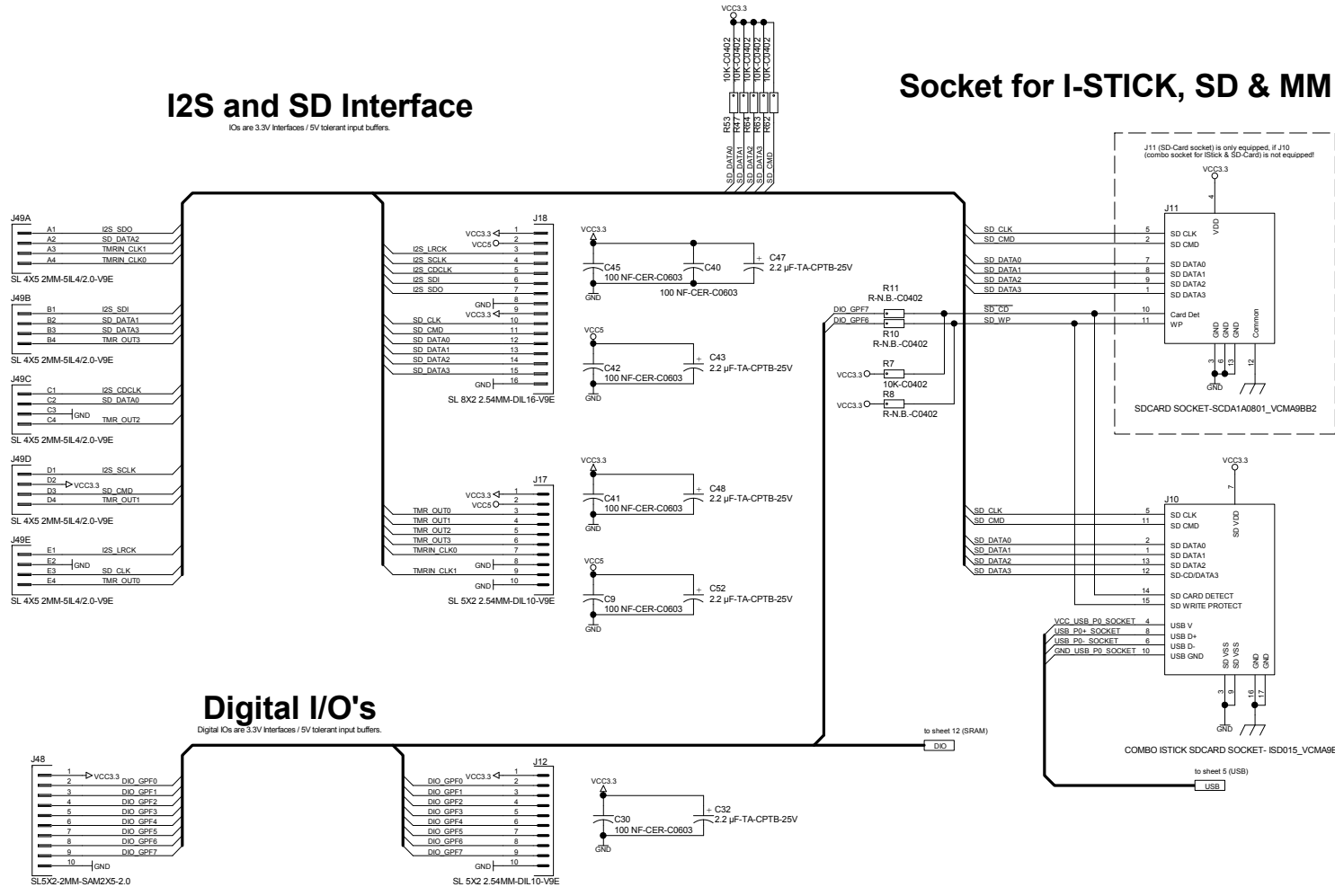
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FLEXBUCHSE 14 POL STEHEND-FLEX 7X2 1.25MM\_VCM98BB2  
**VCC\_LCD has to be 5V! (5V-Signal-Interface required)**  
 -> S2-2 on VCM98 in left position

## I2S and SD Interface

IOs are 3.3V Interfaces / 5V tolerant input buffers.

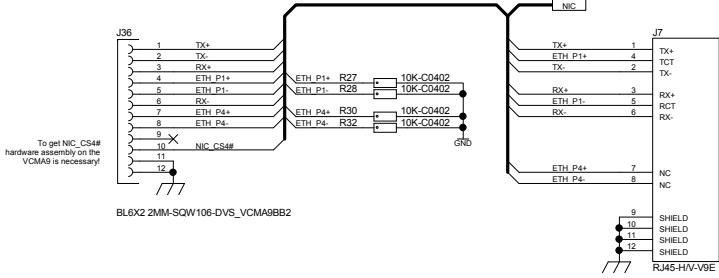
## Socket for I-STICK, SD & MM Card



Title DIO, I2S, SD, Timer		MPL AG Tafelstrasse 20	Drawn 28. Dez. 05	DC
Size: A3	Number: MES-10134-002	Rev.: A	Verified 03. Feb. 06	ZI
Date: 7-Feb-2007	Time: 08:11:24	Sheet 3 of 13	Released 03. Feb. 06	ZI
File: G:\ARCHIV\HW\STD\VAR\cm49-BB-BB2\VCMA9-BB2.dob - Schema\VCMA9Baseboard_BB2\ev9b202xa.Sch				

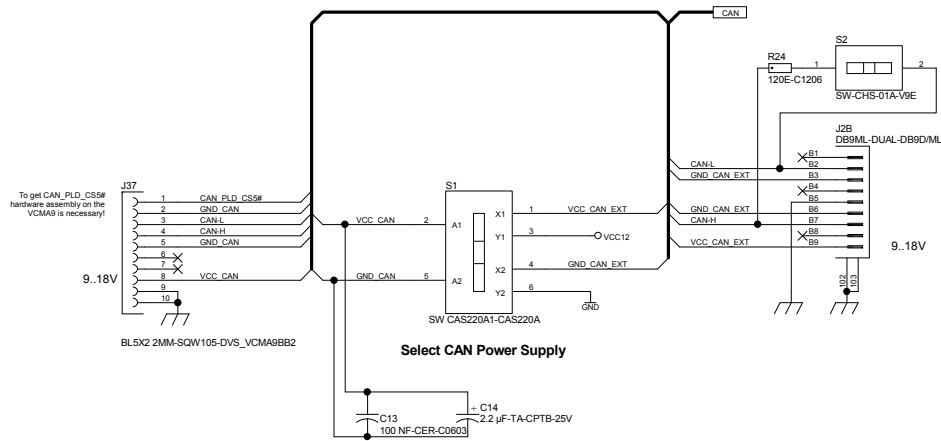
Copyright 2005 by MPL AG

# Ethernet Interface



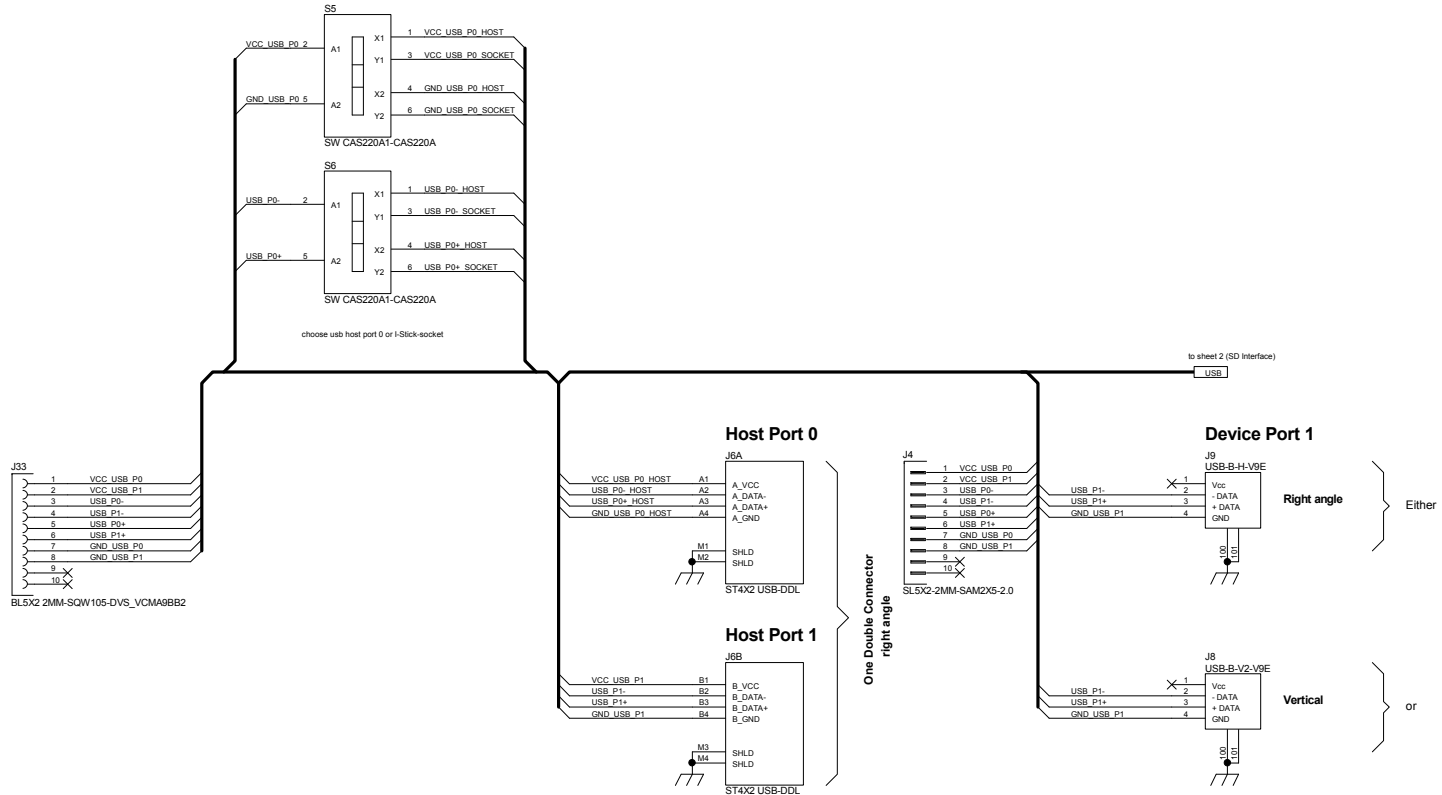
Title <b>Ethernet Interface</b>		MPL AG Täferstrasse 20	Drawn 20. Dez. 05	DC
Size: A3	Number: MES-10134-002	Rev.: A	Verified 03. Feb. 06	ZI
Date: 7-Feb-2007	Time: 08:11:26	Sheet 4 of 13	Released 03. Feb. 06	ZI
File: G:\ARCHIV\HW\STD\IVAR\vcma9-BB-BB2\VCMA9-BB2.ddb - Schemal\VCMA9Baseboard_BB2\sv96203xa.Sch				

# CAN Interface



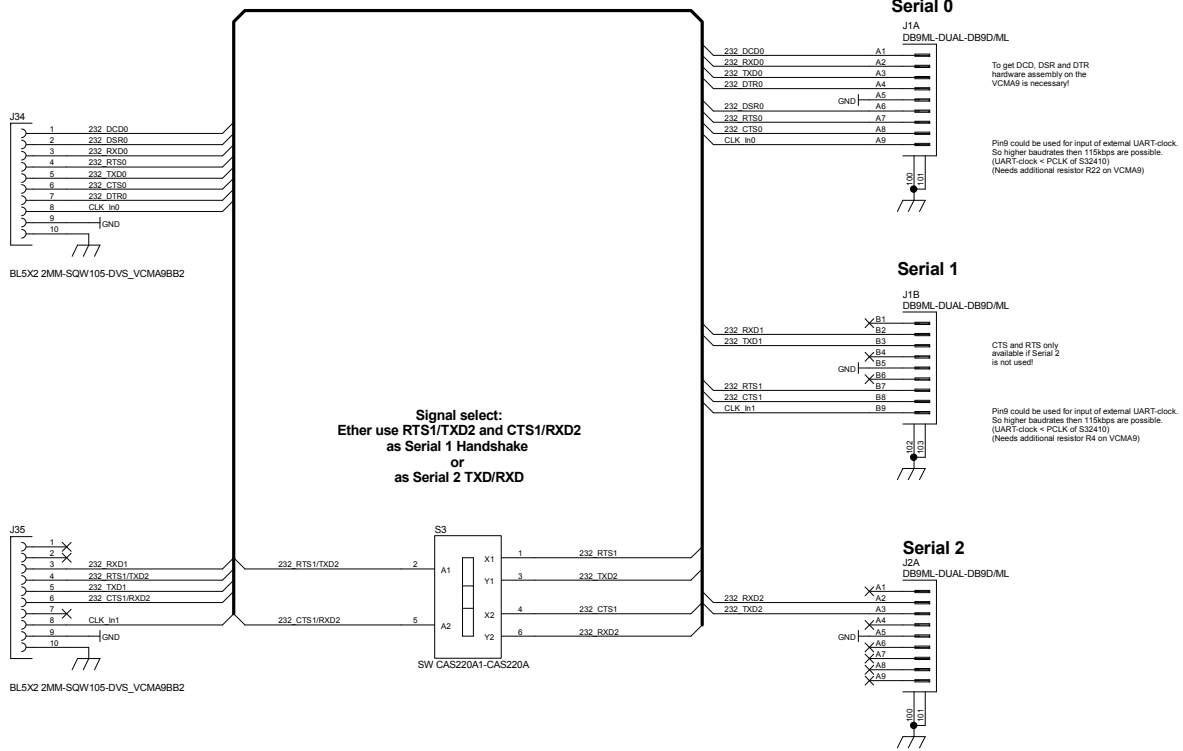
Title CAN Interface			MPL AG Täferstrasse 20	Drawn 20. Dez. 05	DC
Size: A3	Number: MES-10134-002	Rev.: A	CH-5405 Dättwil	Verified 03. Feb. 06	ZI
Date: 7-Feb-2007	Time: 08:11:29	Sheet 5 of 13	Released	03. Feb. 06	ZI
File: G:\ARCHIV\HW\STDIV\AR\Vcm9-BB-BB2\VCMA9-BB2.ddb - Schemal\VCMA9Baseboard_BB2\sv9b204xa.Sch					

# USB Interfaces



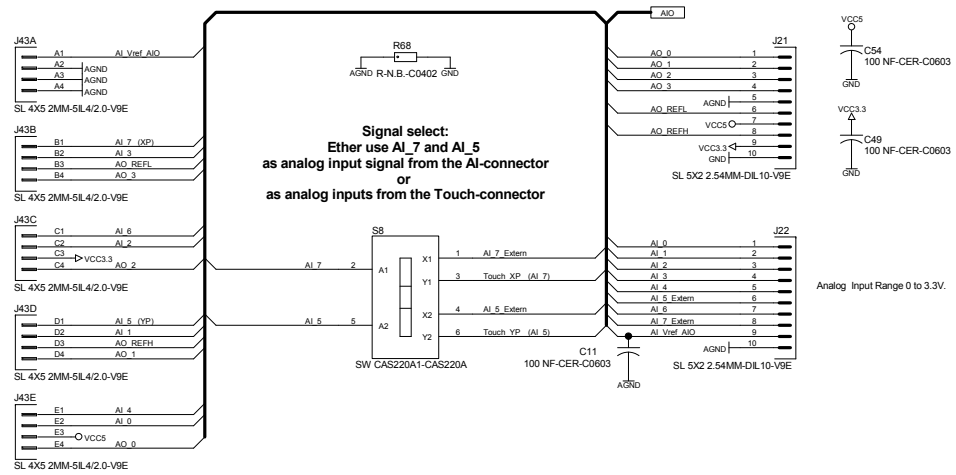
Title <b>USB Interface</b>			MPL AG Täferstrasse 20	Drawn 20. Dez. 05	DC
Size: A3	Number: MES-10134-002	Rev.: A	CH-5405 Dättwil	Verified 03. Feb. 06	ZI
Date: 7-Feb-2007	Time: 08:11:32	Sheet 6 of 13	Released 03. Feb. 06	ZI	
File: G:\ARCHIV\HW\STDIVAR\cmag-BB-BB2\VCMA9-BB2.ddb - Schemal\VCMA9Baseboard_BB2\ev9b205xa.Sch					

# RS232 Interfaces



Title RS232 Interfaces			MPL AG Täferstrasse 20		Drawn 20. Dez. 05	DC
Size: A3	Number: MES-10134-002	Rev.: A	CH-5405 Dättwil		Verified 03. Feb. 06	ZI
Date: 7-Feb-2007	Time: 08:11:35	Sheet 7 of 13	Released		03. Feb. 06	ZI
File: G:\ARCHIV\HW\STDIV\AR\vcma9-BB-BB2\VCMA9-BB2.ddb - Schemal\VCMA9Baseboard_BB2\sv9b206xa.Sch						

# Analog I/O's



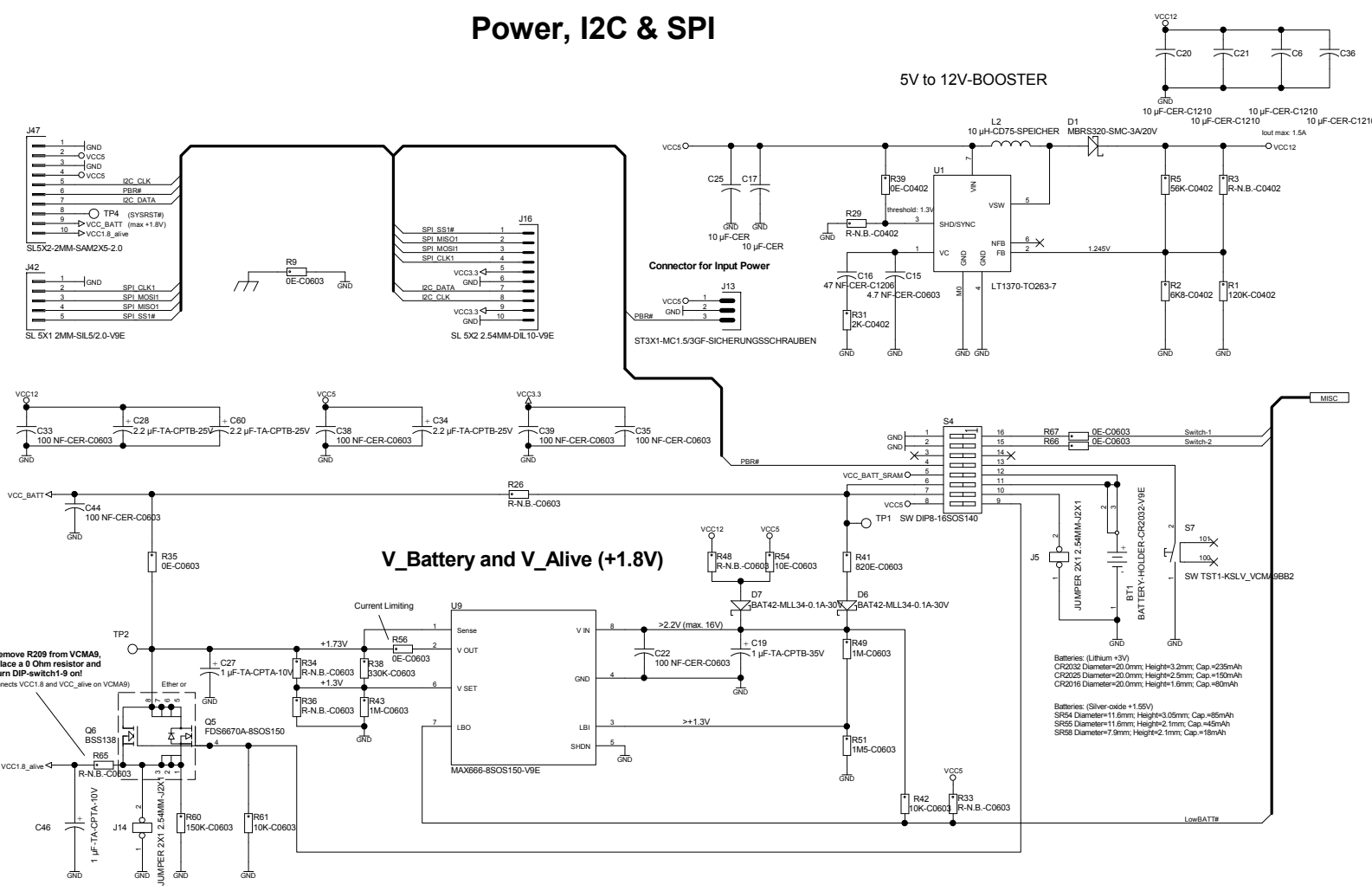
Analog Input Range 0 to 3.3V.

Title <b>Analog I/O</b>		MPL AG Tafelstrasse 20	Drawn 28. Dez. 05	DC
Size: A3	Number: MES-10134-002	Rev.: A	Verified 03. Feb. 06	ZI
Date: 7-Feb-2007	Time: 08:11:38	Sheet 8 of 13	Released 03. Feb. 06	ZI
File: G:\ARCHIV\HW\STDIV\AR\vcma9-BB-BB2\VCMA9-BB2.ddb - Schema\VCMA9Baseboard_BB2\sv95207.kx.Sch				

# Power, I2C & SPI

## 5V to 12V-BOOSTER

## V\_Battery and V\_Alive (+1.8V)



First remove R209 from VCMA9, then place a 0 Ohm resistor and turn DIP-switch1-9 on! (R209 connects VCC1.8 and VCC\_alive on VCMA9)

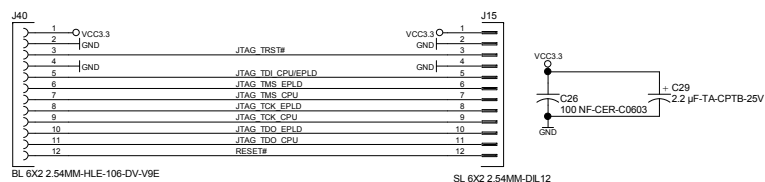
Batteries: (Lithium +3V)  
 CR2032 Diameter=20.0mm; Height=3.2mm; Cap.=235mAh  
 CR2025 Diameter=20.0mm; Height=2.5mm; Cap.=150mAh  
 CR2016 Diameter=20.0mm; Height=1.6mm; Cap.=80mAh  
 Batteries: (Silver-oxide +1.55V)  
 SR54 Diameter=11.6mm; Height=3.05mm; Cap.=85mAh  
 SR55 Diameter=11.6mm; Height=2.1mm; Cap.=45mAh  
 SR58 Diameter=7.9mm; Height=2.1mm; Cap.=18mAh

Title <b>Power, I2C, SPI and DIP-Switch</b>		MPL AG Tafelstrasse 20	Drawn 28. Dez. 05	DC
Size: A3	Number: MES-10134-002	Rev.: A	Verified 03. Feb. 06	z
Date: 7-Feb-2007	Time: 08:11:41	Sheet 9 of 13	Released 03. Feb. 06	z
File: G:\ARCHIV\HW\STD\VAR\VCma9-BB-BB2\VCMA9-BB2.dob - Schem\VCMA9Baseboard_BB2\sv9b208xa.Sch				

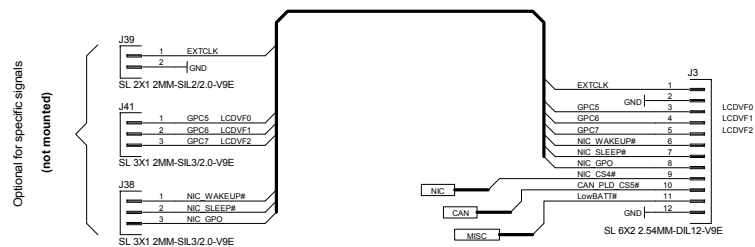
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## Debug / JTAG Interface



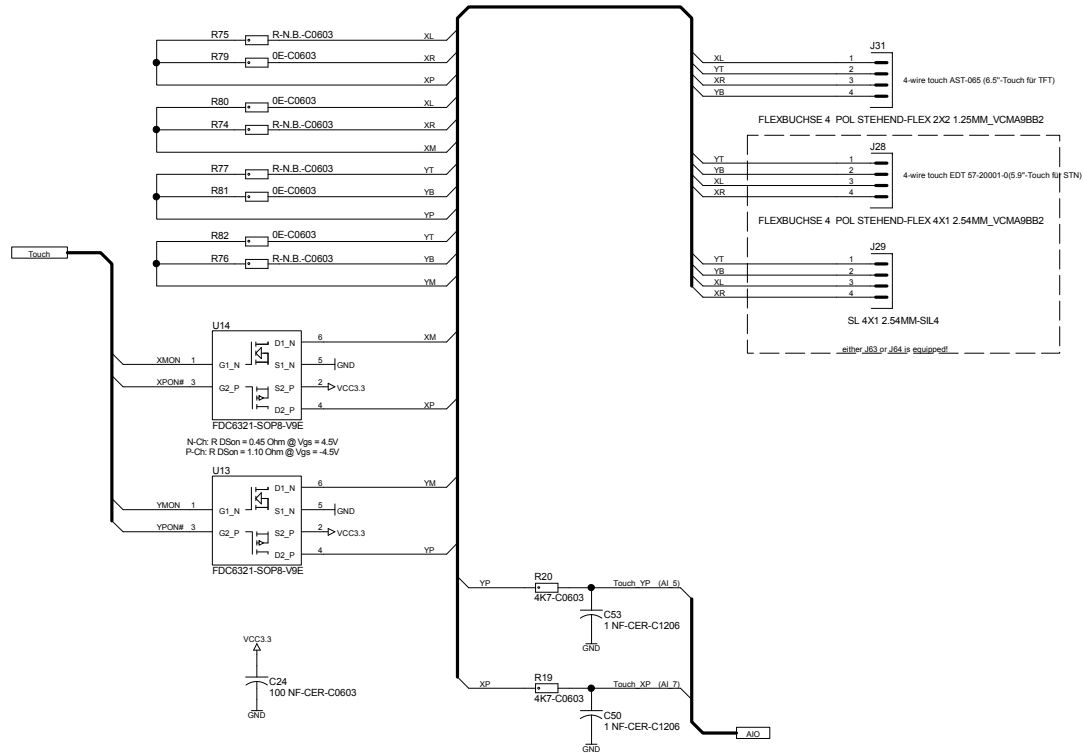
## Specific Signals



Optional for specific signals  
(not mounted)

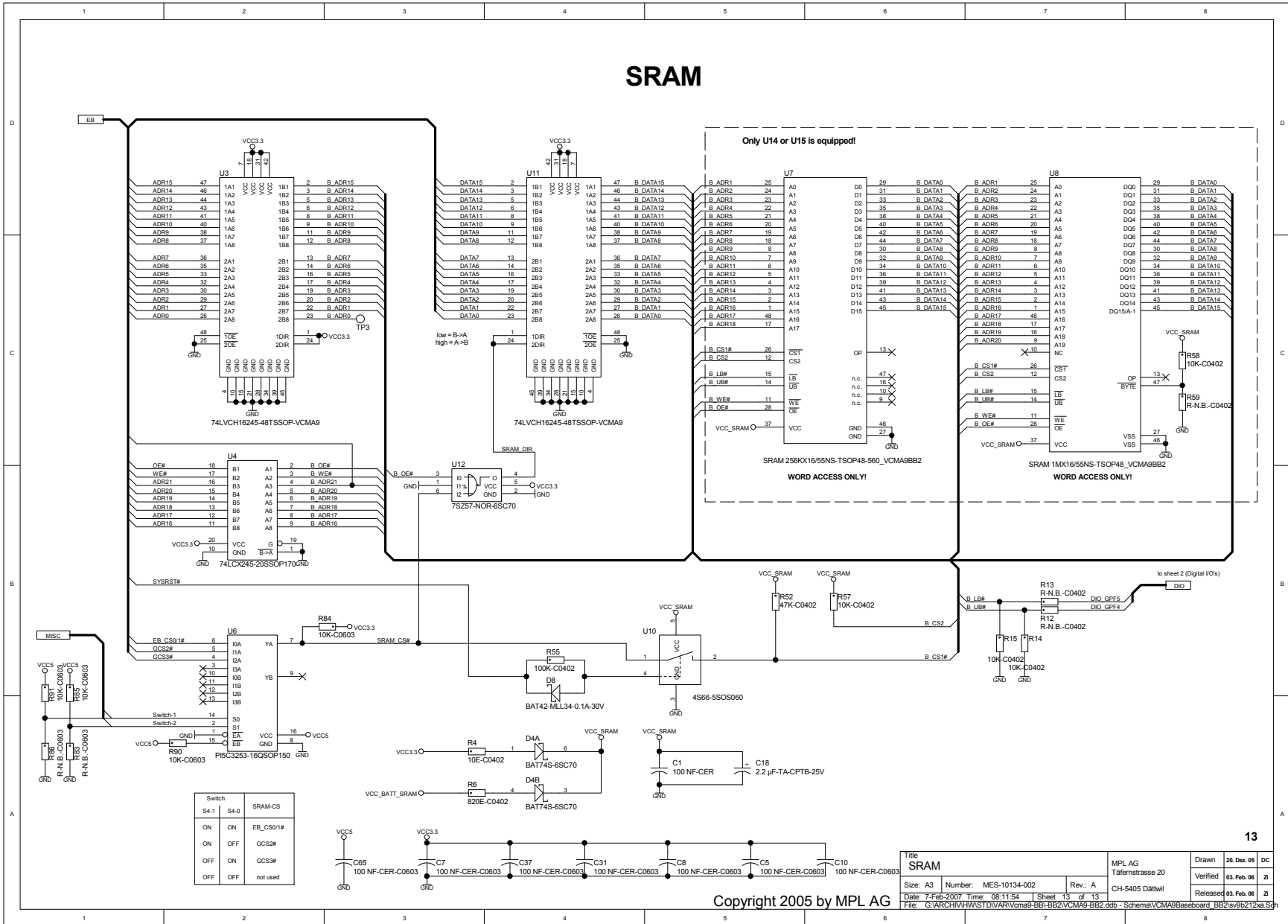
Title Debug & Specific			MPL AG Täferstrasse 20		Drawn 20. Dez. 05	DC
Size: A3	Number: MES-10134-002	Rev.: A	Verified 03. Feb. 06		z	
Date: 7-Feb-2007	Time: 08:11:47	Sheet 11 of 13	Released 03. Feb. 06		z	
File: G:\ARCHIV\HW\STDIVAR\vcma9-BB-BB2\VCMA9-BB2.dab - Schemal\VCMA9Baseboard_BB2\ev9b210xa.Sch						

# Touch Interface



Title Touch		MPL AG Tafelstrasse 20	Drawn 20. Dez. 05	DC
Size: A3	Number: MES-10134-002	Rev.: A	Verified 03. Feb. 06	ZI
Date: 7-Feb-2007	Time: 08:11:50	Sheet 12 of 13	Released 03. Feb. 06	ZI
File: G:\ARCHIV\HW\STDIV\AR\Vcmag-BB-BB2\VCMA9-BB2.ddb - Schemal\VCMA9Baseboard_BB2\sv9b211xa.Sch				

# SRAM



Switch	SRAM-CS
S4-1	S4.0
ON	ON
ON	EB_CS01#
ON	OFF
OFF	ON
OFF	GCS2#
OFF	GCS3#
OFF	not used

Title <b>SRAM</b>		MPL AG Täferstrasse 20	Drawn 20. Dez. 05	DC
Date: 7-Feb-2007	Time: 08:11:54	Sheet 13 of 13	Verified 03. Feb. 06	ZI
Size: A3	Number: MES-10134-002	Rev.: A	Released 03. Feb. 06	ZI
File: G:\ARCHIV\HW\STD\AV\VCMA9-BB-BB2\VCMA9-BB2.ddb - Schema\VCMA9Baseboard_BB2\sv9b212xa.Sch				

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