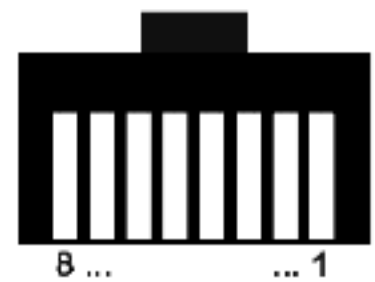


- Anm.:
- Ausgangssignale sind auf  $V_{REF} = 2,5V$  bezogen
  - Vorsicht:  $V_{REF}$  nicht auf GND kurzschliessen
  - $V_{REF}$  liegt an Schraubblöchern an für evtl. Schirmung

RJ45 Sicht auf Buchse

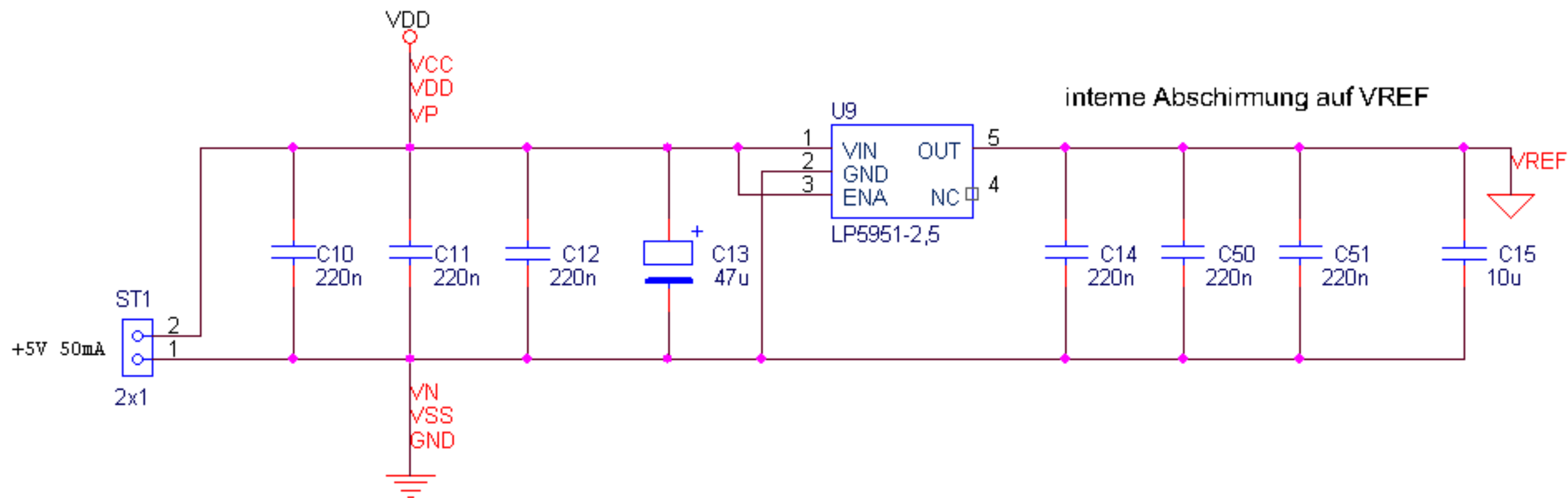


LAYERS:

#	layer	type	cupour
1	TOP	routing	GND
2	BOT	routing	VDD
3	GND	routing	GND
4	PWR	plane	VREF

v12 : Preamp mit MAX4066 statt DG403		
Title		
6-Kanal Chopper Preamplifier CHAMP6		
Size	Document Number	Rev
A	heinz@gfai.de	20
Date:	Tuesday, December 15, 2009	Sheet 1 of 6





Title

Power Supply

**M1**

Size

A4

Document Number

heinz@gfai.de

Rev

20

Date:

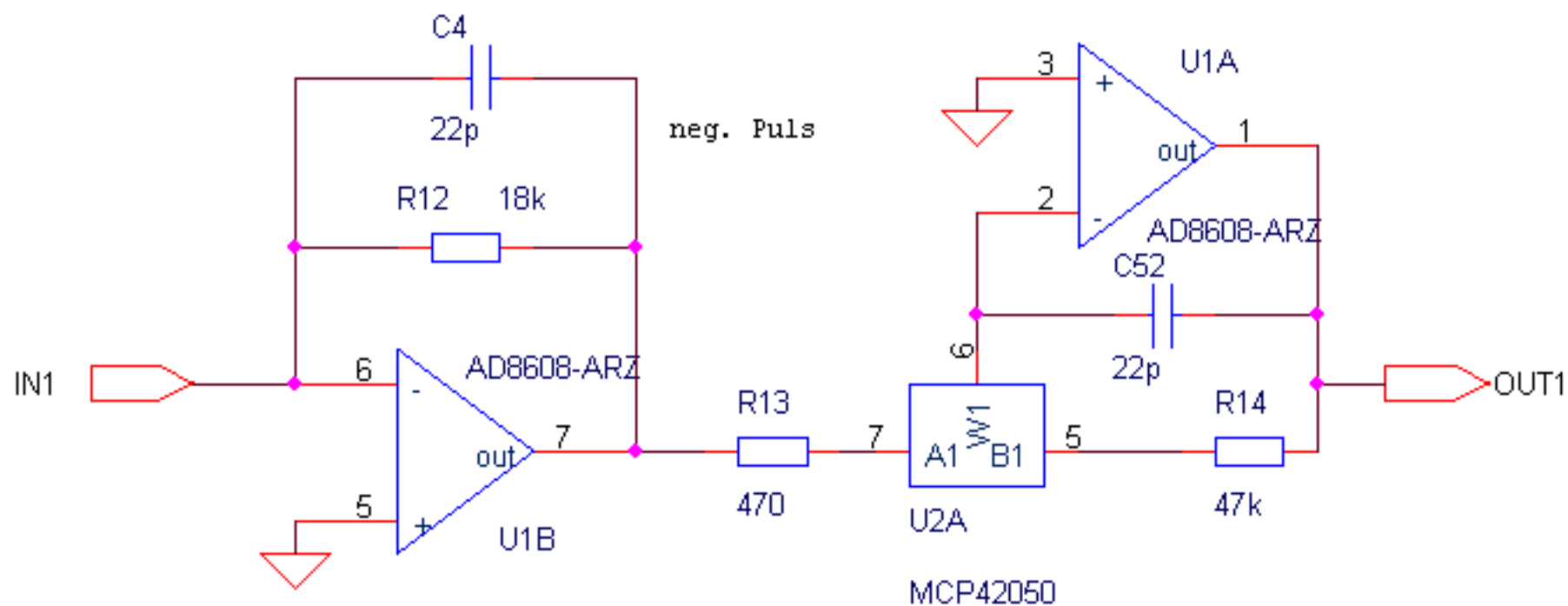
Monday, December 14, 2009

Sheet

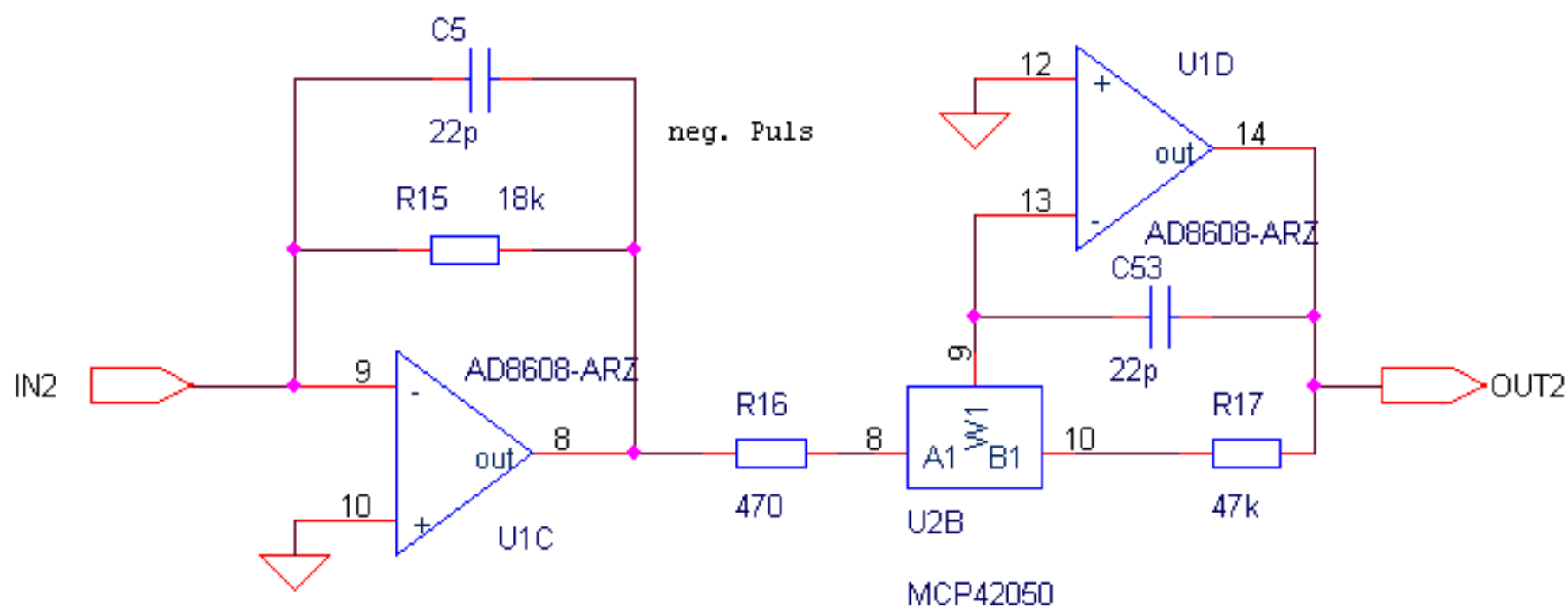
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of

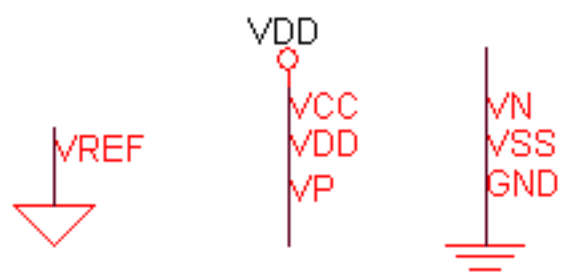
6



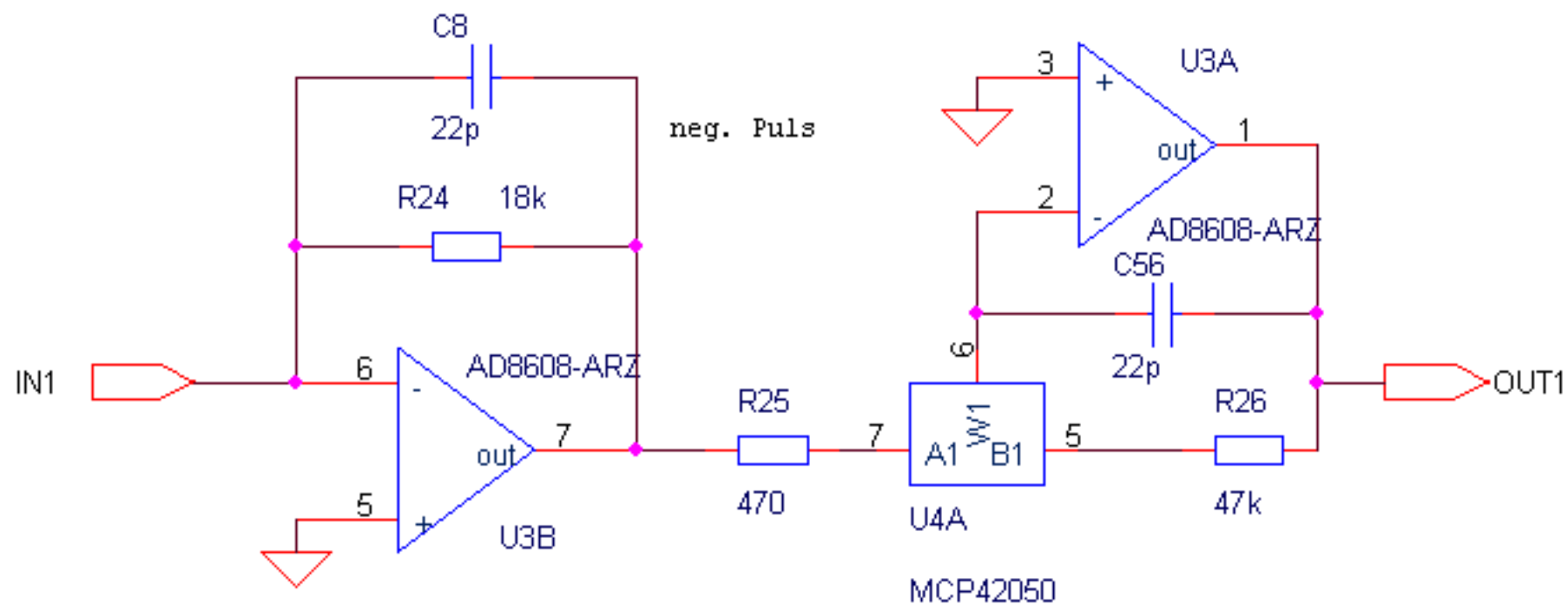
$$0,93 < |v| < 206$$



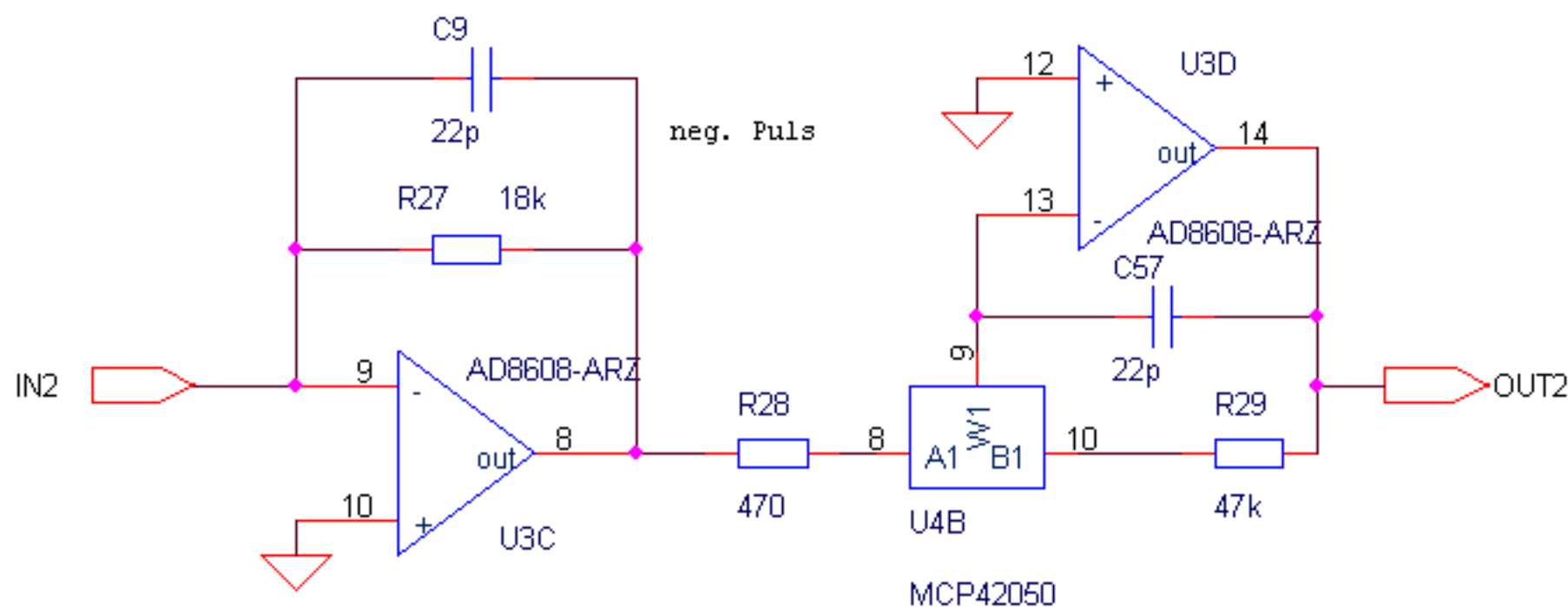
OPV: LT1679 bzw. AD8608



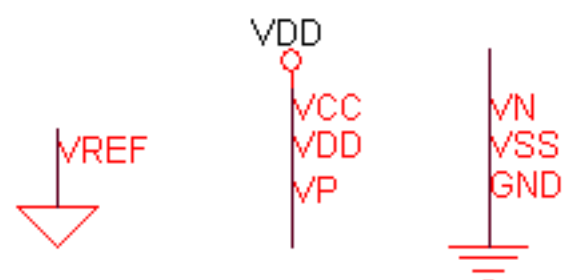
Title			M3
Preamp			
Size	Document Number		Rev
A	heinz@gfai.de		20
Date:	Tuesday, April 27, 2010	Sheet	1 of 6



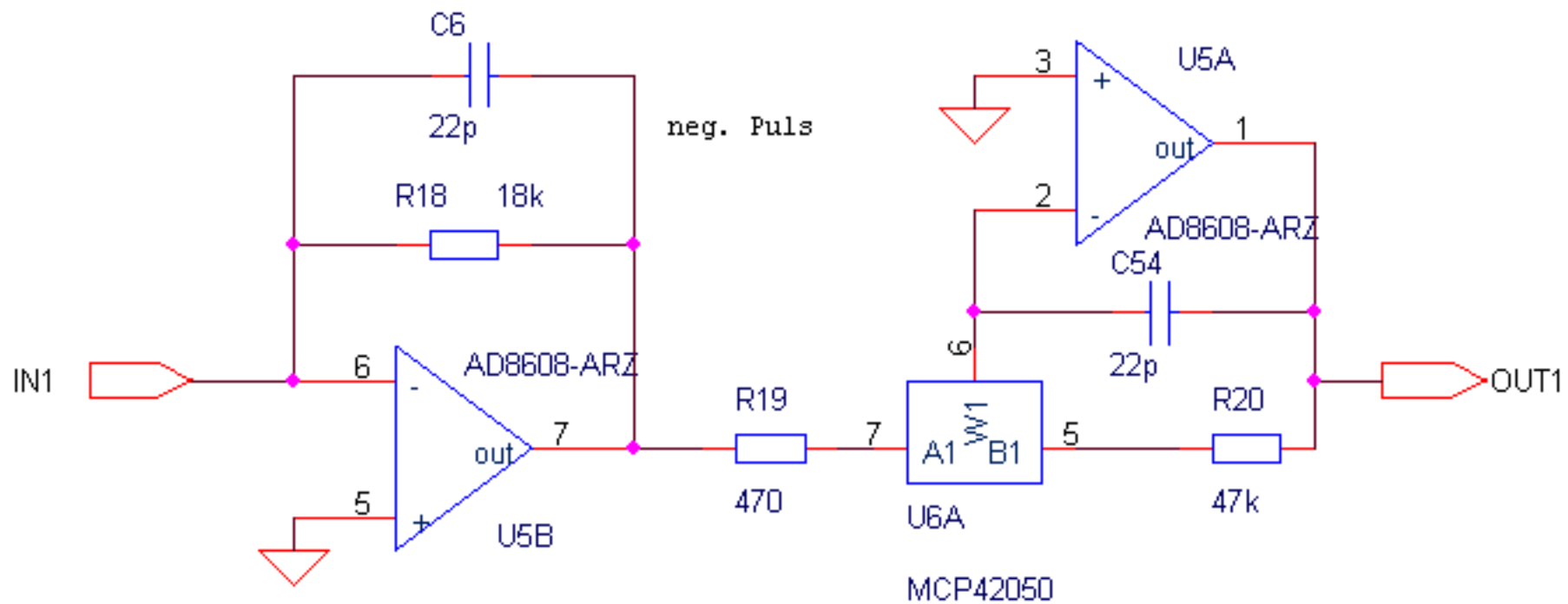
$$0,93 < |v| < 206$$



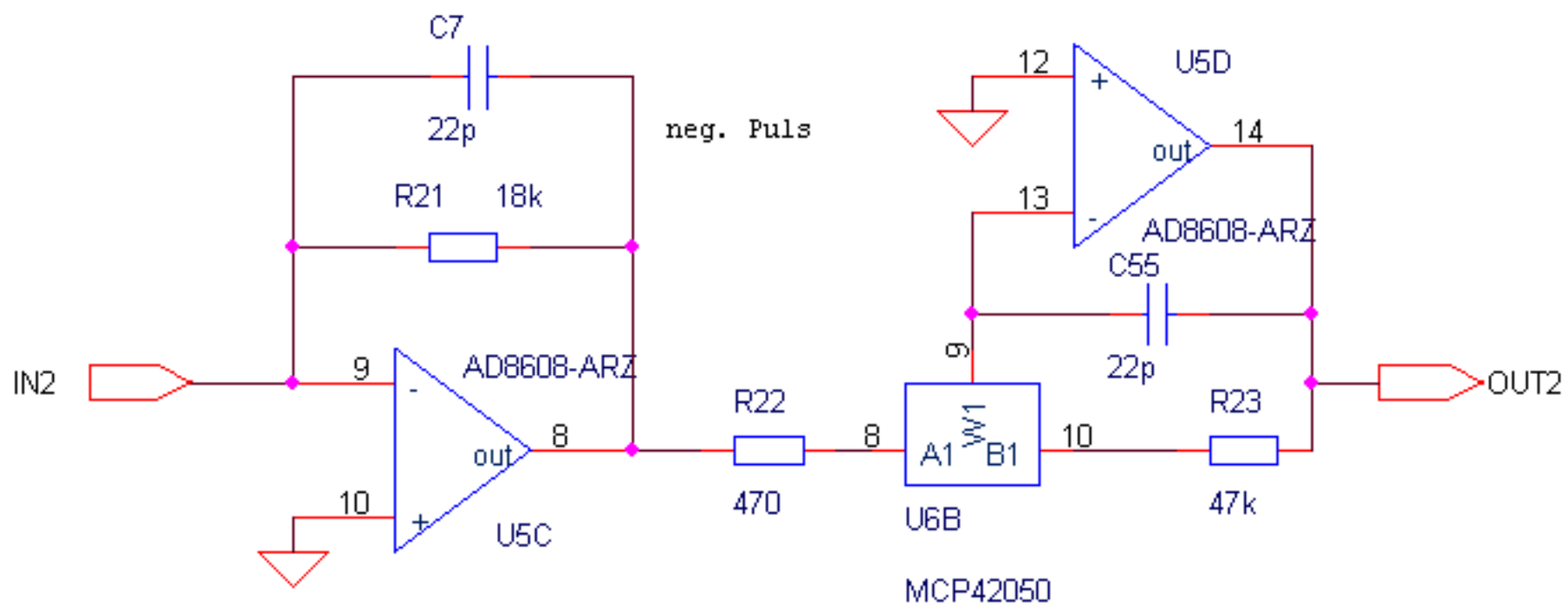
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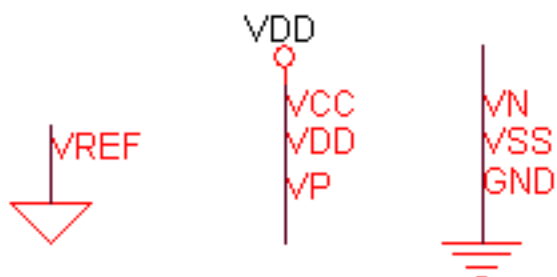
Title									
Preamp									
M4									
Size		Document Number							Rev
A		heinz@gfai.de							20
Date:		Tuesday, April 27, 2010				Sheet	3	of	6



$$0,93 < |v| < 206$$



OPV: LT1679 bzw. AD8608



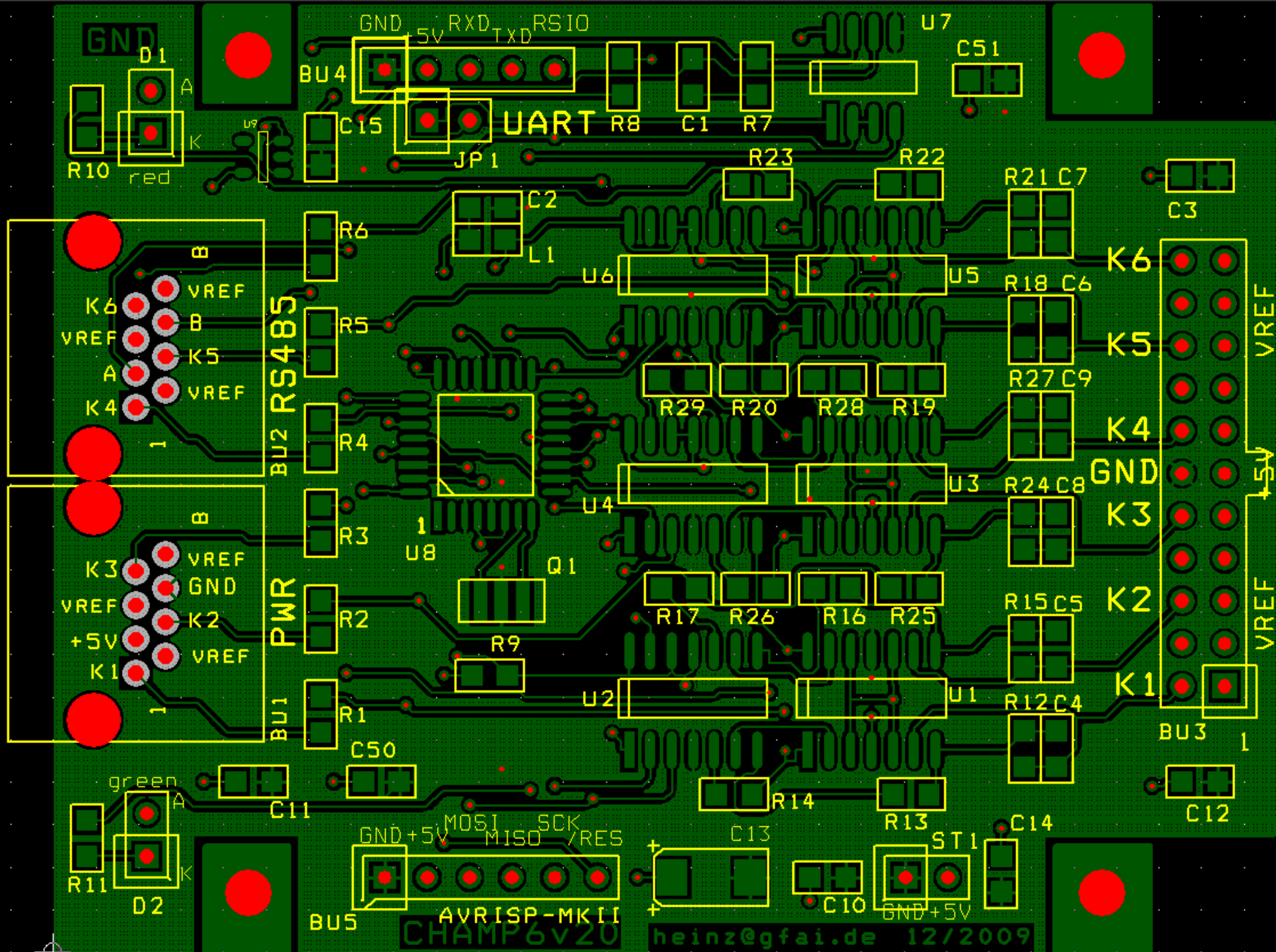
Title		Preamp	
		M5	
Size	Document Number		Rev
A	heinz@gfai.de		20
Date:	Tuesday, April 27, 2010		Sheet 2 of 6

6-Kanal Photo-Preamplifier CHAMP6  
Revised: Monday, December 14, 2009  
Revision: v20

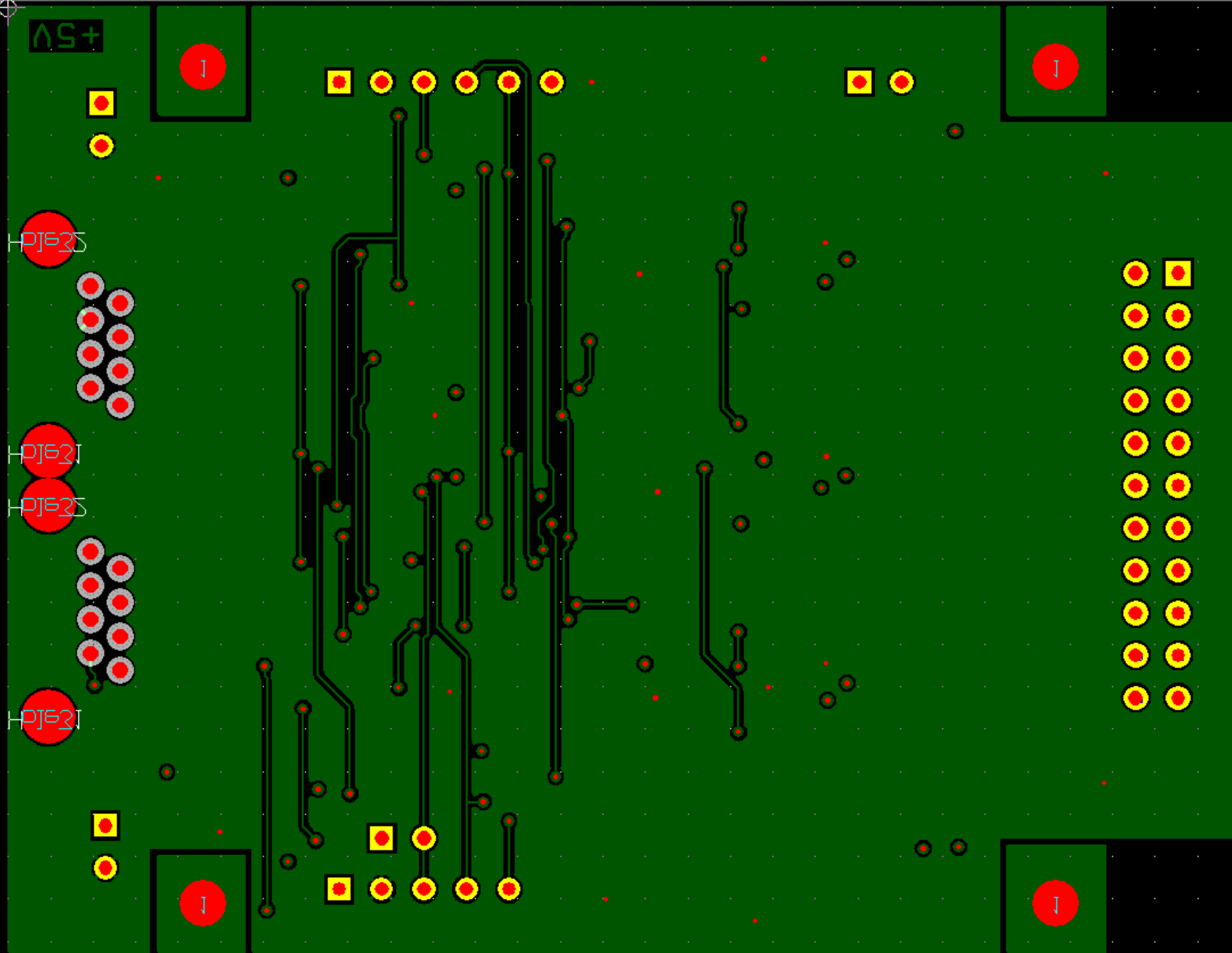
G. Heinz, GFaI e.V.  
Rudower Chaussee 30  
Umsatzsteuer-Identifikationsnummer: DE 153647354  
Tel. 6392-1652  
heinz@gfai.de

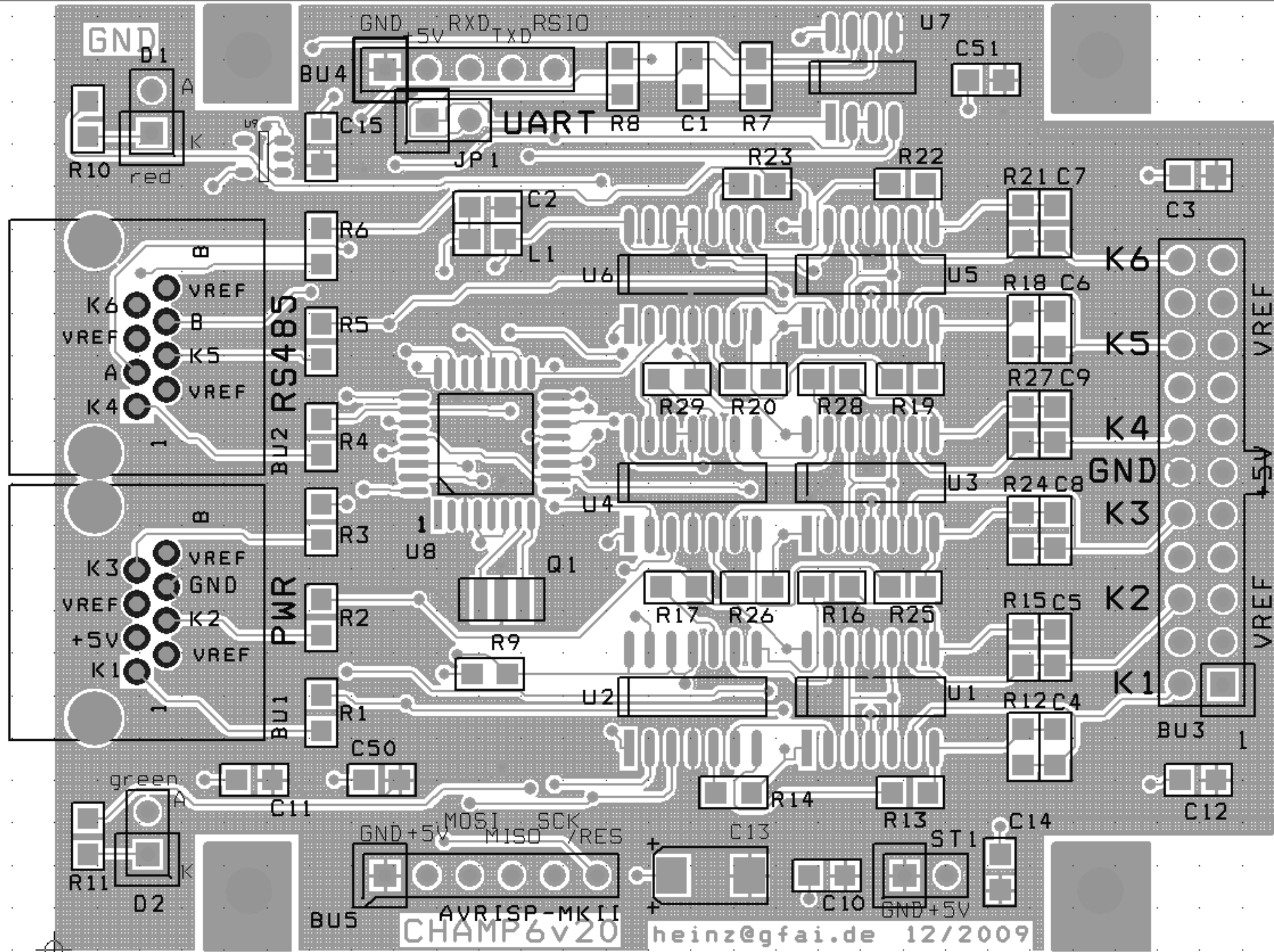
Bill Of Materials December 14,2009 15:01:52 Page1/1

Item	Qty Stck	Ref.	Part	Distr.	Price
1	2	BU1,BU2	Molex SD-43860 Mercateo-9251898 0,13		
2	1	BU3	Buchse 0,1" 11x2 90°		
3	1	BU4	Buchse 0,1" 5x1		
4	1	BU5	Buchse 0,1" 6x1		
5	1	C1	4.7n		
6	1	C2	100n		
7	7	C3,C10,C11, C12, C14,C50,C51	220n		
8	6	C4,C5,C6, C7,C8,C9	22p		
9	1	C13	47u		
10	1	C15	10u		
11	1	D1	LED 3mm red		
12	1	D2	LED 3mm green		
13	2	JP1,ST1	Stecker 0,1" 2x1		
14	1	L1	10uH, 100mA		
15	1	Q1	CSTCV14M7X54J-R0 (14.74 MHz) Mouser 2.06		
16	7	R1,R2,R3,R4,R5, R6,R7,	120		
17	8	R8,R9,R12,R15, R18,R21,R24,R27	18k		
18	2	R10,R11	680		
19	6	R13,R16,R19, R22,R25,R28	470		
20	6	R14,R17,R20, R23,R26,R29	47k		
21	3	U1,U3,U5	LT1679CS#PBF	Farnell	5,24
			Ersatz AD8608ARZ	rsonline	3,52
			evtl. AD8544ARZ	rsonline	0,64
22	3	U2,U4,U6	MCP42050-E/SL	Farnell	1,59
23	1	U7	LTC485CS8	rsonline	3,29
			Ersatz MAX485CSA	rsonline	2,84
			Ersatz MAX485CSA	elpro	1,08
			Ersatz SNLBC176		
24	1	U8	ATmega8-16AU	Farnell	3,60
25	1	U9	LP5951-2,5	Farnell	0,43



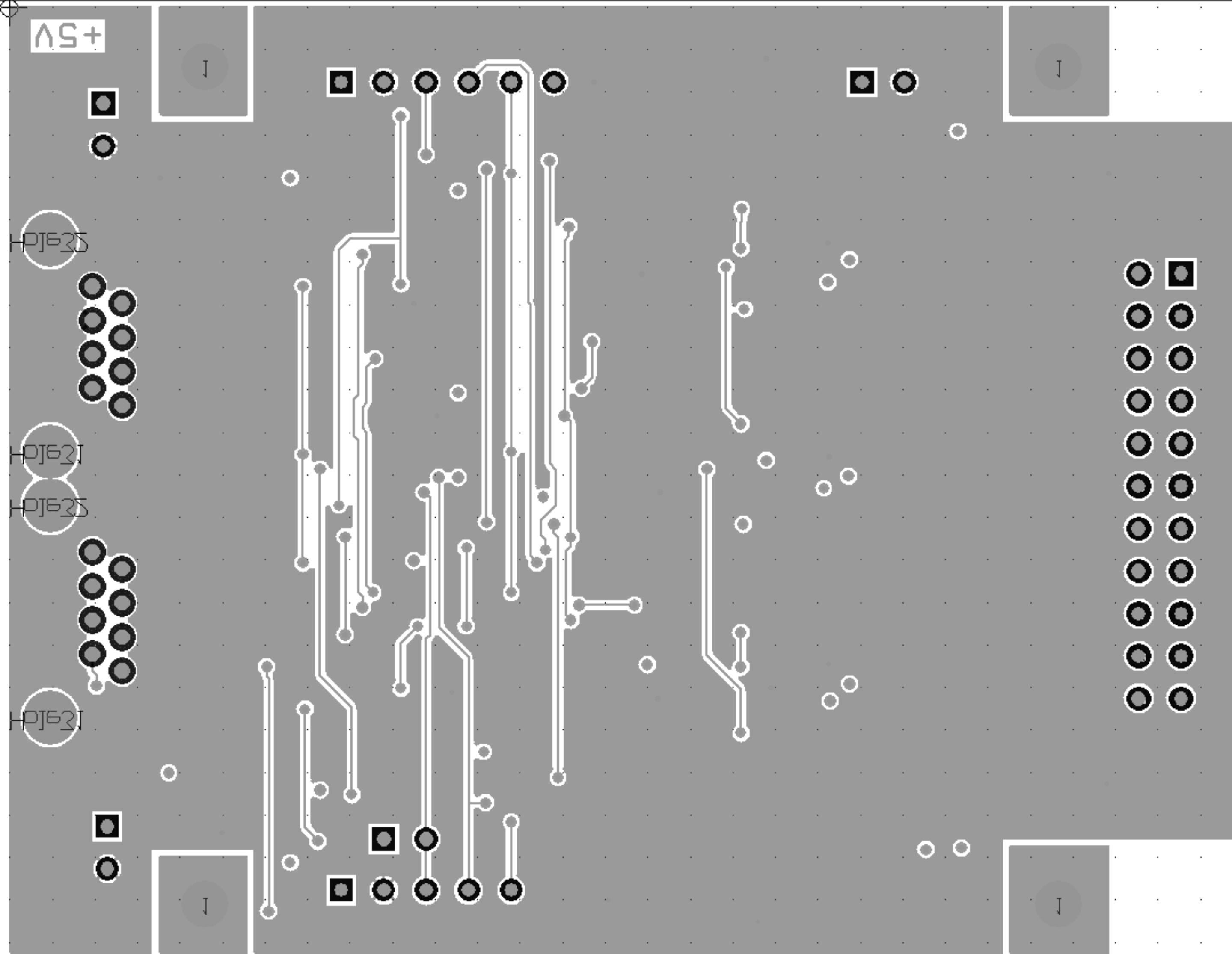






CHAMP 6V20

heinz@gfai.de 12/2009



Digital Controlled 6 Channel Photo-Amplifier

Champ6 v20

& ChampOS v20

Hyperterminal 115200 Baud, 8N1N

Documents: [www.gfai.de/~heinz/techdocs](http://www.gfai.de/~heinz/techdocs)

email [heinz@gfai.de](mailto:heinz@gfai.de)

hotline 030 6392-1652

K456

RS485

K123

PWR

01/2010

**Gfai**

Digital Controlled 6 Channel Photo-Amplifier

Champ6 v20

& ChampOS v20

Hyperterminal 115200 Baud, 8N1N

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hotline 030 6392-1652

K456

RS485

K123

PWR

01/2010

**Gfai**

PC

RS485

Champ6

K456

K123

9V unstab.

erdfrei + -

**Gfai**

PC

RS485

Champ6

K456

K123

9V unstab.

erdfrei + -

**Gfai**

PC

RS485

Champ6

K456

K123

9V unstab.

erdfrei + -

**Gfai**

OptoControl

COMP K6

IR K5

UV K4

SUM K3

STOP K2

SYNC K1

OptoControl

COMP K6

IR K5

UV K4

SUM K3

STOP K2

SYNC K1

OptoControl

COMP K6

IR K5

UV K4

SUM K3

STOP K2

SYNC K1

OptoControl

COMP K6

IR K5

UV K4

SUM K3

STOP K2

SYNC K1

OptoControl

COMP K6

IR K5

UV K4

SUM K3

STOP K2

SYNC K1

RS485 diff.

STOP K2

SYNC K1

RS485 900kb/s

RS485 900kb/s

RS485 900kb/s

RS485 900kb/s

RS485 900kb/s