EC1834 201.1

Seite 1 / 201.1

File: EC1834_201.1.kicad_sch

EC1834_201.3 RAM

Seite 3 – RAM

File: EC1834_201.3.kicad_sch

R52 – KWH 3936.
Widerstandsarray mit gemeinsamen
Pin 8 getauscht gegen RN mit gemeinsamen Pin 1!

EC1834 201.2

Seite 2 / 201.2

File: EC1834_201.2.kicad_sch

Power

Seite 4
Stromversorgung

File: Power.kicad_sch

Bus

Seite 5 – BUS

File: Bus.kicad_sch

Mario Göbel 2022	
Sheet: /	
File: EC1834-Board.kicad_sch	
Title: EC1834 Hauptplatine	
Size: A1 | Date: 2022-09-12	Rev: 1
KiCad E.D.A. kicad (6.0.7)	Id: 1/6

X1 Bus Connector auf Seite "BUS"

WDx = Drahtbrücken

{AEN AENBRD AENBRDW AENDMA ALE BHE BS-/WAIT CLK CLK86 DACK0 DEN DT-/R DRQ0 DRQ1 DRQ2 DRQ3 HOLDA HRQDMA IED INT IOCHRDY IORW IRQ0 IRQ1 IRQ2 IRQ3 IRQ4 IRQ5 IRQ6 IRQ7 IRQ8 IRQ10 IRQ11 IRQ12 IRQ14 IRQ15 MASTER MEMR NPNPI NMI PB3 PCLK OSC1 QS0 QS1 RDY-/WAIT READY RDYTODMA RESET RESETDRV TC TDYTODMA VA0 XA0 AEN BHE CLK DACK0BRD DACK0 DACK1 DACK2 DACK3 DMACS DMAAEN INTA INTRCS1 INTRCS2 IOR IOW GT1 LOCK MASTER MEMADRSEL MEMCS16 MEMR MEMW NMIADRCS NMIREGCS PPICS RESETDRV S0 S1 S2 TIMERCS XIOR XIOW XMEMR XMEMW}

D[0..15]

{A[0..19] VA0 BHE}

A0

DT-/R
AEN
XMEMW
AENBRD
MASTER
BHE
IORW
MEMR
MEMW
MEMCS16
MEMADRSEL
VA0
XIOR
XIOW
S0
S1
S2
LOCK
IED
HRQDMA
IRQ0
IRQ1
IRQ2
IRQ3
IRQ4
IRQ5
IRQ6
IRQ7
IRQ8
IRQ9
IRQ10
IRQ11
IRQ12
IRQ14
IRQ15
NPNPI
XA0
INTRCS1
INTRCS2
TC
AENDMA
RDY-/WAIT
RDYTODMA
AENDMA
DMAAEN
AENBRD
RESETDRV
HOLDA
IED
CLK86
DACK0BRD
IRQ8
DACK3
DACK2
DEN
MEMR
RESETDRV
BS-/WAIT
IOCHRDY
AENI
CLK
DACK0
PB3
INTA
INT
XOW
NMIADRCS
DACK1
DACK0
DMAEN
MASTER
WRITDMAGREG

D16B DL000D
D16A DL000D
D12D DL008D
D32D DL000D
D32A DL000D
D40D DL008D
D63B DL010D-D63
D47D DL008D
D7A DL032D
D32B DL000D
D40B DL008D
D88C DL008D
D14C DL010D
D59E DL004D
D34B DL004D
D33A DL002D
R117 1k
R12F 4k7 5P
D12C DL008D
D38A DL074
D15A DL074
D36A DL175
D39C DL000D
D39D DL000D
D36B DL175
D36C DL175
D36D DL175
D13A DL074
D11B DL020D
WD2
R12G 4k7 5P
D12A DL008D
D12B DL008D
D32C DL000D
CEN
RESETDRV
WD3
GND
+5V

D22A DS 8286
D8 D9 D10 D11 D12 D13 D14 D15

D24A DL374
D6 D5 D2 D3 D0 D3 D4 D7
AD6 AD5 AD2 AD3 AD0 AD3 AD4 AD7

D23A DS 8286
D0 D1 D2 D3 D4 D5 D6 D7
AD0 AD1 AD2 AD3 AD4 AD5 AD6 AD7

D21A DS 8286
D8 D9 D10 D11 D12 D13 D14 D15
AD8 AD9 AD10 AD11 AD12 AD13 AD14 AD15

D26A DS 8282
AD1 AD2 AD3 AD4 AD5 AD6 AD7 AD0
A1 A2 A3 A4 A5 A6 A7 VA0

D25A DS 8282
AD8 AD9 AD10 AD11 AD12 AD13 AD14 AD15
A8 A9 A10 A11 A12 A13 A14 A15

D2A DS 8282
AD0 AD19 AD16 AD17 AD18 BHE
A0 A19 A16 A17 A18 BHE

D46A DS 8216
A0 A3 GND

D20 K1810WM86
5PW1D
NMI READY CLK86 RESET QS0 QS1 INT S0 S1 S2 LOCK GT1 TEST
AD0 AD1 AD2 AD3 AD4 AD5 AD6 AD7 AD8 AD9 AD10 AD11 AD12 AD13 AD14 AD15 AD16 AD17 AD18 AD19 BHE

D1 K1810WM87
5PW1D
READY CLK86 RESET QS0 QS1 S0 S1 S2 GT1 NPNPI
AD0 AD1 AD2 AD3 AD4 AD5 AD6 AD7 AD8 AD9 AD10 AD11 AD12 AD13 AD14 AD15 AD16 AD17 AD18 AD19 BHE

D4A KR1810WG88
INTA CLK86 AENBRD CEN
DEN S0 S1 S2 DT/R ALE MCE IOWC WWTC IORC MRDC AIOWC AMWC

D5 p11
Koord C1 / Blatt 201.2
PS1:4

D10A DL000D
D3B DL020D
D34A DL004D
D38B DL074
D47A DL008D
D51A DL074
D39A DL000D
D37A DL032D
D35A DL175
D35B DL175
D14D DL010D
D40C DL008D
D126A DL074
D84A DS 8286
D8F DL004D
D8A DL004D
D11C 1k 5P
D83A DS 8286
D34E DL004D
D59A DL004D
D15B DL074
D88D DL008D
D7D DL032D
D8B DL004D
D7C DL032D
D7B DL032D
D43A 8284
R50 100
R51 100
E2
E1
PS2
5PW1D
5PW2D
V2 SA13D
R20 180k
R19 180
A202D
D42
R21 100k
C5 47µF
X2
C6 10nF
E6
C10 10pF
V1 14745,6KHz
R6 511
R5 511
R3 30
R7 30
R8 30
R9A R9B R9C R9D R9E R9F 30
R10A R10B R10C R10D R10E R10F R10G 4k7
R12E R12H 4k7 5P
Bei der Verwend. d. K1810GF84 entfällt E1

D13 DS 8286
D0 D1 D2 D3 D4 D5 D6 D7
CSBBH

D50A KR580IK57
IOR IOW MEMR MEMW DRQ0 DRQ1 DRQ2 DRQ3 RESET PCLK TDYTODMA HOLDA HRQDMA DMACS TC AENDMA
PDMA DACK1 DACK2 DACK3 DACK0 DB0 DB1 DB2 DB3 DB4 DB5 DB6 DB7 A4 A5 A6 A7 A0 A1 A2 A3 CS AEN MARK ADSTB
DACK1 DACK2 DACK3 DACK0 DACK0BRD

D45A DS 8282
XD0 XD1 XD2 XD3 XD4 XD5 XD6 XD7
A8 A9 A10 A11 A12 A13 A14 A15

D64A DS 8286
XA3 XA2 XA1 XA0
A7 A6 A5 A4 A3 A2 A1 A0
{1..4}
D64A PIN Pos abweichend von Zeichnung 1.13.120030.0/04

D47C DL008D
D88E DL008D
D33D DL002D
D33C DL002D
D33B DL002D
D8C DL004D
D8D DL004D
D8E DL004D
D40A DL008D
D71C DL002D
D62A DL032D

D51B DL074
D85A DL295
D85B DL295
D85C DL295

D49A KR580WN59A
D48A KR580WN59A
IRQ0 IRQ1 IRQ2 IRQ3 IRQ4 IRQ5 IRQ6 IRQ7 XA0 INTRCS1 XIOR XIOW
IRQ8 IRQ9 IRQ10 IRQ11 IRQ12 IRQ14 IRQ15 NPNPI XA0 INTRCS2 XIOR XIOW
SP PIC IR0 IR1 IR2 IR3 IR4 IR5 IR6 IR7 A0 CS RD WR INT D0 D1 D2 D3 D4 D5 D6 D7 CAS0 CAS1 CAS2 INTA
KR 580W N59A
R12I 4k7 5P
Br4
R52A 3k9 +5V
INTA INT

D61A DS 8216
D9A DS 8205
WRITDMAGREG
5PW2D

D27A DS 8286
CMEMR CMEMW CIOR CIOW AENBRD MASTER
XMEMR XMEMW XIOR XIOW VIOR VIOW

D85D DL295
D85E DL295
D85F DL295
XA0 XA1 XA2 XA3 XA4 XA5 XA6 XA7
A13 A16 A17 A18 A19

D67B DL074
D35C DL175
D35D DL175
R13 4,7k +5V
F4
IOCHRDY AEN RESETDRV

D9B DS 8286
XA0
XA5 XA6 XA7 XA8 XA9
DMACS INTRCS1 TIMERCS PPICS NMIADRCS NMIREGCS INTRCS2
W3 AEN

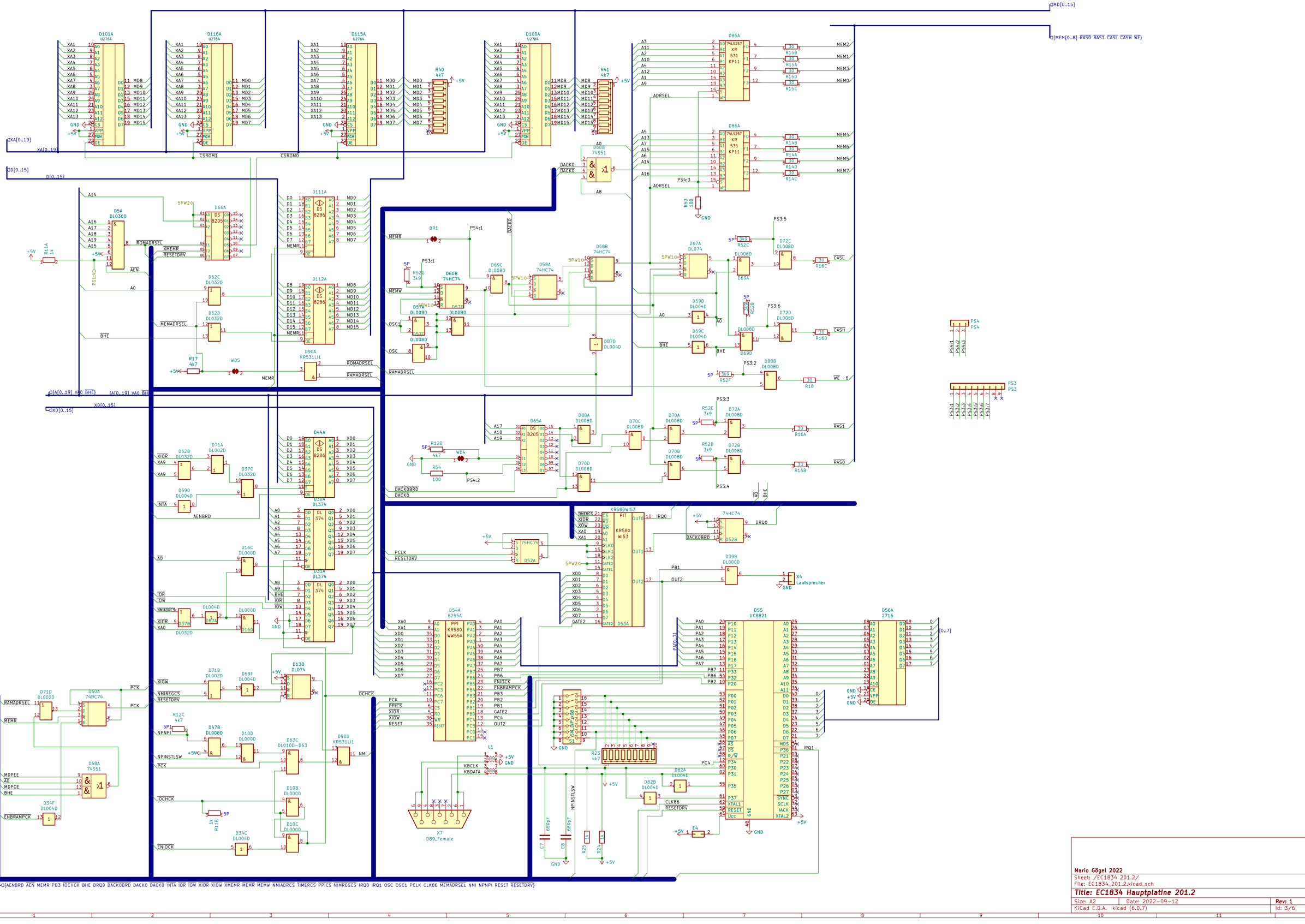
{AD[0..19] BHE}
{AENBRD AEN MEMR PB3 IOCHCK BHE DRQ0 DACK0BRD DACK0 DACK3 INTA IOR IOW XIOR XIOW XMEMR MEMW NMIADRCS TIMERCS PPICS NMIREGCS IRQ0 IRQ1 OSC OSC1 PCLK CLK86 MEMADRSEL MEMCS16 MEMR NPNPI RESET RESETDRV}

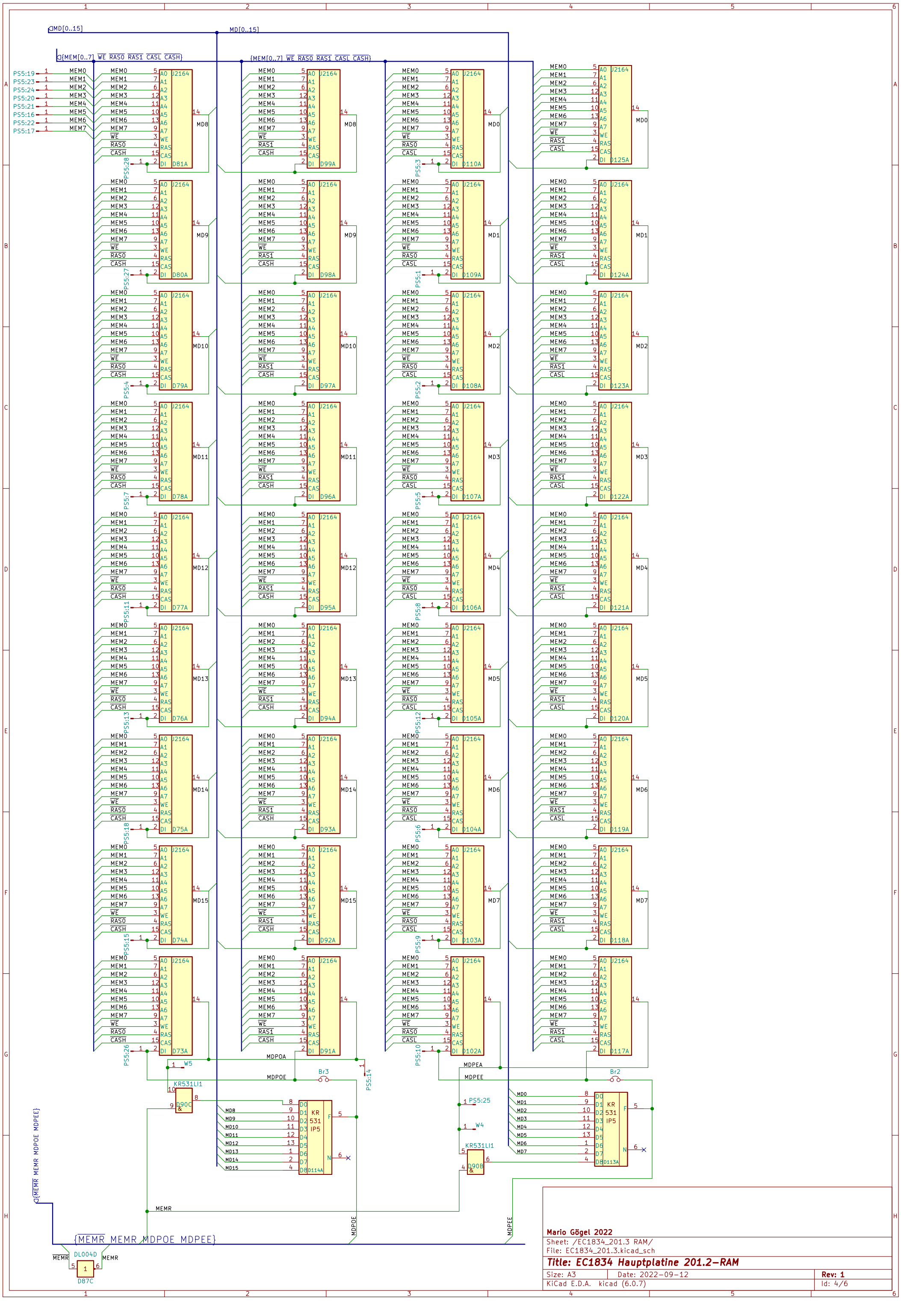
XA[0..19]
XD[0..15]

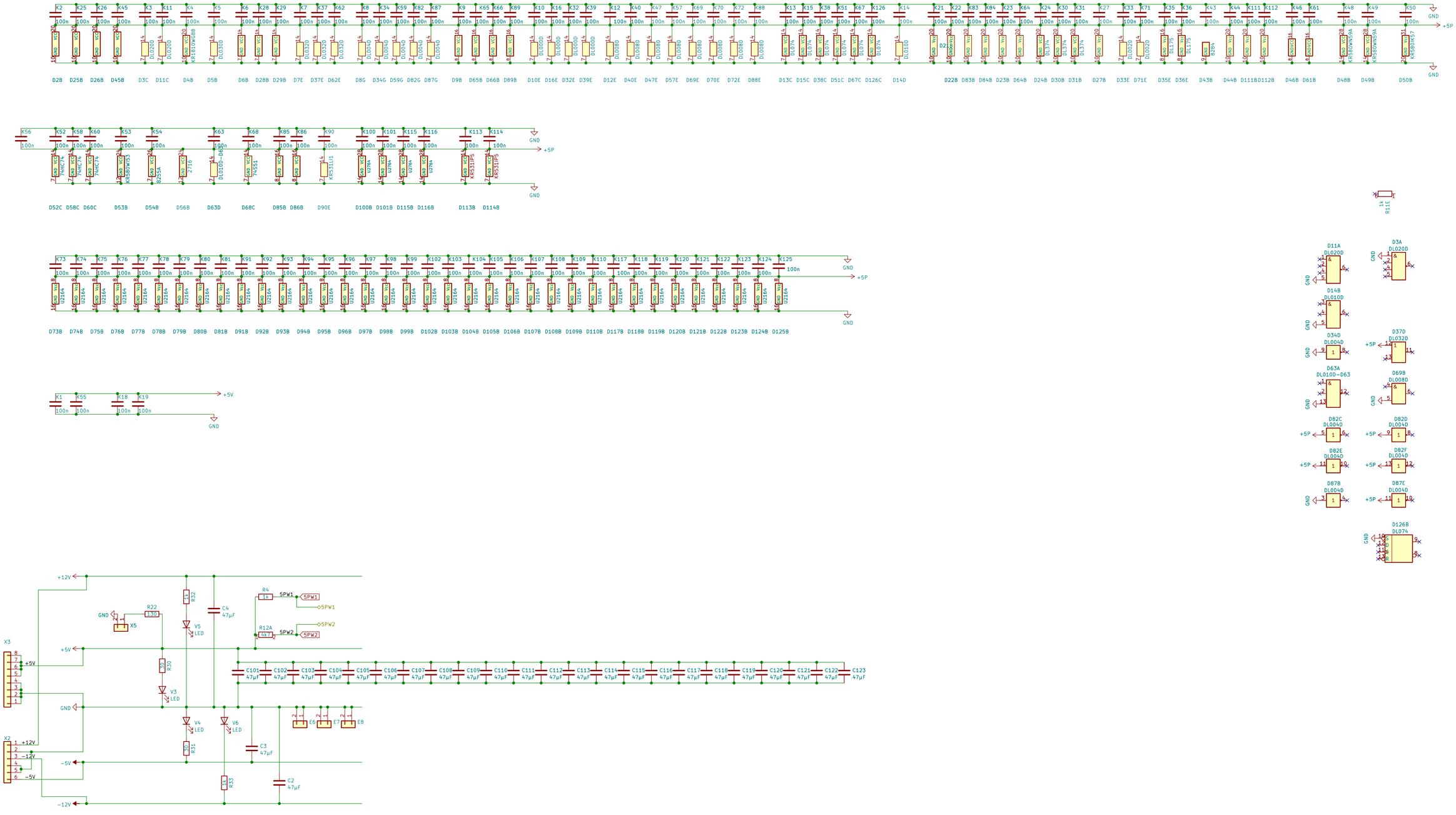
Mario Göbel 2022
Sheet: /EC1834 201.1/
File: EC1834_201.1.kicad_sch

Title: EC1834 Hauptplatine 201.

Size: A2	Date: 2022-09-12	Rev:
KiCad E.D.A. kicad (6.0.7)		Id: 2/6


D101A
U2764
D116A
U2764
D115A
U2764
D100A
U2764
R40
4k7
R41
4k7
+5V
GND
XA[0..19]
XA[0..19]
CSROM1
CSROM0
XD[0..15]
D[0..15]
A14
5PW2
D66A
8205
D111A
8286
D112A
8286
D5A
DL030D
A16
A17
A18
A19
A15
ROMADRSEL
XMEMR
RESETDRV
AEN
PS1:4
R11A
1k
A0
MEMADRSEL
BHE
D62C
DL032D
D62D
DL032D
R17
4k7
WD5
MEMR
D90A
KR531LI1
ROMADRSEL
RAMADRSEL
{A[0..19] VA0 BHE}
XD[0..15]
D44A
8286
D62B
DL032D
D71A
DL002D
D37C
DL032D
D59D
DL004D
INTA
AENBRD
D51A
DL374
D52A
DL374
D16C
DL000D
IOR
IOW
NMIADRCS
XIOR
XA0
D37B
DL032D
D67A
DL004D
D16D
DL000D
D71B
DL002D
D59F
DL004D
D13B
DL074
XIOW
NMIREGCS
RESETDRV
PCK
D71D
DL002D
D50A
74HC74
RAMADRSEL
MEMR
D68A
74S51
MDPEE
A0
MDPOE
BHE
D34F
DL004D
ENBRAMPCK
R12C
4k7
5P1
NPNPI
D47B
DL008D
D10D
DL000D
D63C
DL010D-D63
NPINSTLSW
PCK
D90D
KR531LI1
NMI
IOCHCK
R18B
1k
5P
D10B
DL000D
D10C
DL000D
D34C
DL004D
ENIOCK
D88B
74S51
DACK0
DACK0
AB
A0
A3
A11
A2
A10
A4
A12
A1
A9
D85A
74LS257
KR
531
KP11
ADRSEL
R15B
R15A
R15D
R15C
MEM2
MEM1
MEM3
MEM0
A5
A13
A7
A15
A6
A14
A16
D86A
74LS257
KR
531
KP11
ADRSEL
PS4:3
R14B
R14A
R14D
R14C
MEM4
MEM6
MEM5
MEM7
R53
100
GND
PS3:5
5P
3x9
R52C
D72C
DL008D
R16C
CASL
D67A
DL074
5PW1
D59B
DL004D
D59C
DL004D
D69A
DL008D
D69D
DL008D
R52B
PS3:6
D72D
DL008D
R16D
CASH
A0
BHE
D88B
DL008D
PS3:2
R52F
R18
WE
D72A
DL008D
R16A
RASI
D72B
DL008D
R16B
RASO
PS3:3
R52E
3x9
R52D
PS3:4
D70A
DL008D
D70B
DL008D
D70C
DL008D
D70D
DL008D
D88A
DL008D
D65A
8205
A17
A18
A19
BR1
PS4:1
MEMR
MEMW
OSC1
OSC
RAMADRSEL
DACK0
D58B
74HC74
5PW1
D58A
74HC74
D69C
DL008D
D57A
DL008D
D57B
DL008D
D87D
DL004D
R12D
4k7
WD4
R54
100
PS4:2
DACK0BRD
DACK0
PS4
PS3
KR580WI53
PIT
KR580
WI53
TIMERCS
XIOR
XOW
XA0
XA1
IRQ0
DRQ0
D52B
74HC74
PCLK
RESETDRV
D52A
74HC74
5PW2
XD0
XD1
XD2
XD3
XD4
XD5
XD6
XD7
GATE2
D53A
PB1
OUT2
D39B
DL000D
Y4
Lautsprecher
D54A
8255A
KR580
WW55A
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PB7
PB6
PB5
PB4
PB3
PB2
PB1
PB0
PC4
PC5
PC6
PC7
ENIOCK
ENBRAMPCK
OUT2
GATE2
PA[0..7]
D55
UC8821
P10
P11
P12
P13
P14
P15
P16
P17
P33
P32
P20
P00
P01
P02
P03
P04
P05
P06
P07
RS
DS
R/W
P34
P30
P31
P35
P37
XTAL1
RESET
Ucc
MD5
P36
P21
P22
P23
P24
P25
P26
P27
SYNC
SCLK
IACK
XTAL2
IRQ1
PC4
CLK86
RESETDRV
D56A
2716
[0..7]
S1
DIP-8
R23
4k7
L1
KBCLK
KBDATA
X7
DB9_Female
C7
680pF
C8
680pF
R25
1k
R24
1k
D82B
DL004D
D82A
DL004D
E4
NPINSTLSW
OCHCK
PCK
PPICS
XIOR
XIOW
RESET
MD0
MD1
MD2
MD3
MD4
MD5
MD6
MD7
MD8
MD9
MD10
MD11
MD12
MD13
MD14
MD15
XD0
XD1
XD2
XD3
XD4
XD5
XD6
XD7
MEMD[0..15]
{MEM[0..8] RASO RASI CASL CASH WE}
{AENBRD AEN MEMR PB3 IOCHCK BHE DRQ0 DACK0BRD DACK0 DACK0 INTA IOR IOW XIOR XIOW XMEMR MEMR MEMW NMIADRCS TIMERCS PPICS NMIREGCS IRQ0 IRQ1 OSC OSC1 PCLK CLK86 MEMADRSEL NMI NPNPI RESET RESETDRV}
Mario Göggel 2022
Sheet: /EC1834 201.2/
File: EC1834_201.2.kicad_sch
Title: EC1834 Hauptplatine 201.2
Size: A2
Date: 2022-09-12
Rev: 1
KiCad E.D.A. kicad (6.0.7)
Id: 3/6

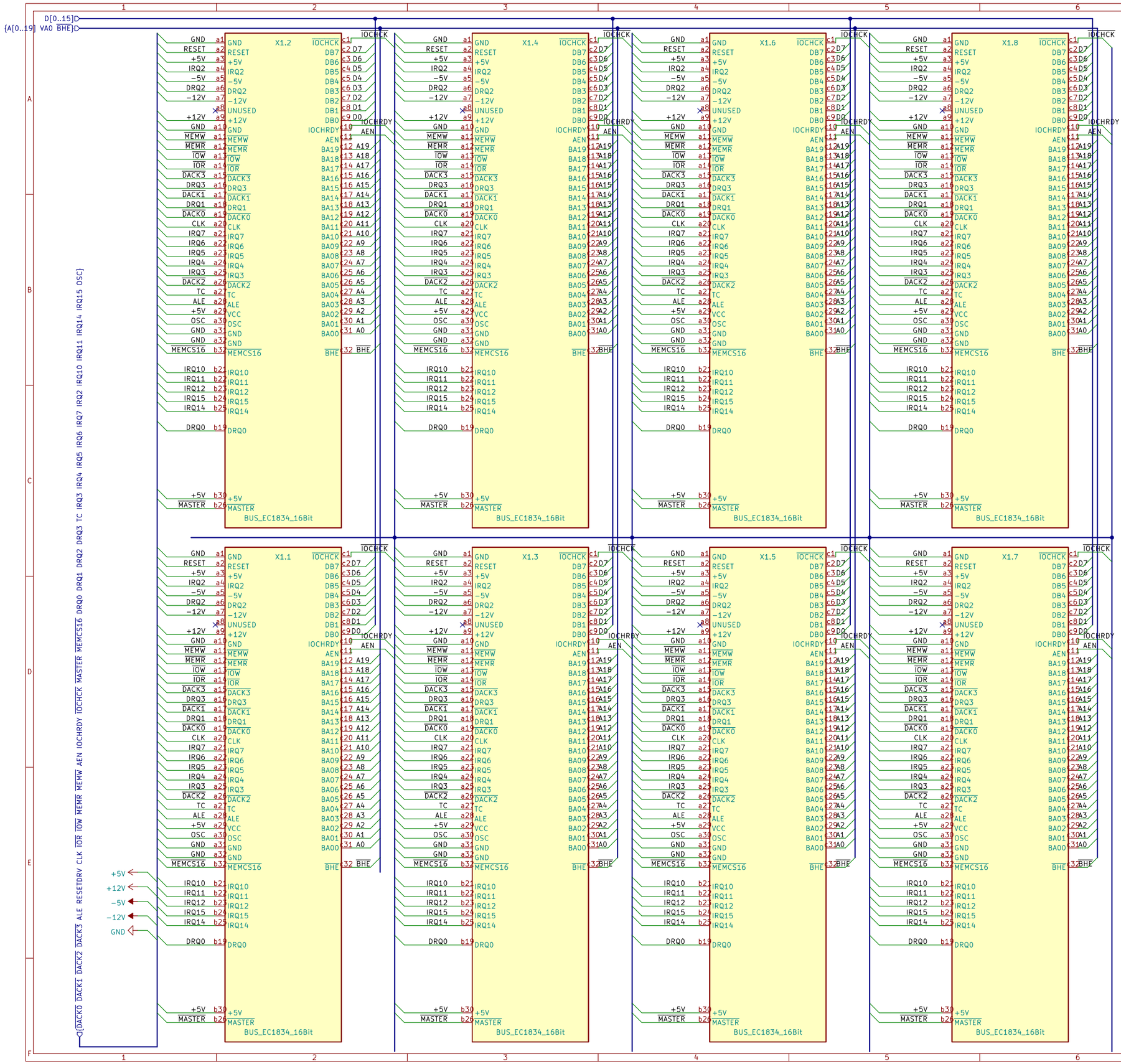

MD[0..15]
MD[0..15]
{MEM[0..7] WE RAS0 RAS1 CASL CASH}
{MEM[0..7] WE RAS0 RAS1 CASL CASH}
U2164
MEM0
MEM1
MEM2
MEM3
MEM4
MEM5
MEM6
MEM7
WE
RAS0
CASH
RAS1
CASL
MD8
MD9
MD10
MD11
MD12
MD13
MD14
MD15
MD0
MD1
MD2
MD3
MD4
MD5
MD6
MD7
D81A
D80A
D79A
D78A
D77A
D76A
D75A
D74A
D99A
D98A
D97A
D96A
D95A
D94A
D93A
D92A
D110A
D109A
D108A
D107A
D106A
D105A
D104A
D103A
D102A
D91A
D125A
D124A
D123A
D122A
D121A
D120A
D119A
D118A
D117A
PS5:19
PS5:23
PS5:24
PS5:20
PS5:21
PS5:16
PS5:22
PS5:17
PS5:28
PS5:27
PS5:4
PS5:7
PS5:11
PS5:13
PS5:18
PS5:15
PS5:26
PS5:3
PS5:1
PS5:2
PS5:5
PS5:8
PS5:12
PS5:6
PS5:9
PS5:10
MDPOA
MDPOE
MDPEA
MDPEE
W5
W4
Br3
Br2
PS5:14
PS5:25
KR531LI1
D90C
D90B
KR 531 IP5
D114A
D113A
MEMR
{MEMR MEMR MDPOE MDPEE}
DL004D
D87C
Mario Gögel 2022
Sheet: /EC1834_201.3 RAM/
File: EC1834_201.3.kicad_sch
Title: EC1834 Hauptplatine 201.2-RAM
Size: A3
Date: 2022-09-12
Rev: 1
KiCad E.D.A. kicad (6.0.7)
Id: 4/6



Mario Göbel 2022
Sheet: /Power/
File: Power.kicad_sch

Title: EC1834 Hauptplatine 201.2–Power

Size: A2	Date: 2022-09-12	**Rev: 1**
KiCad E.D.A. kicad (6.0.7)		Id: 5/6



Mario Gögel 2022

Sheet: /Bus/

File: Bus.kicad_sch

Title: EC1834 Hauptplatine 201.1–BUS

Size: A3	Date: 2022-09-12	**Rev: 1**
KiCad E.D.A. kicad (6.0.7)		Id: 6/6