

LED-Pinball-Display 20001

Dot-Matrix-Display 16x128 for Data East

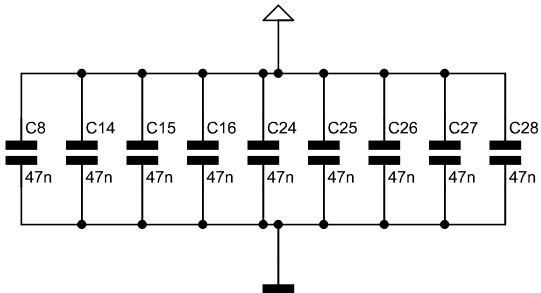
Board Part Number / Platinenbauteilenummer 2004040 Rev.F

Schematics / Schaltpläne

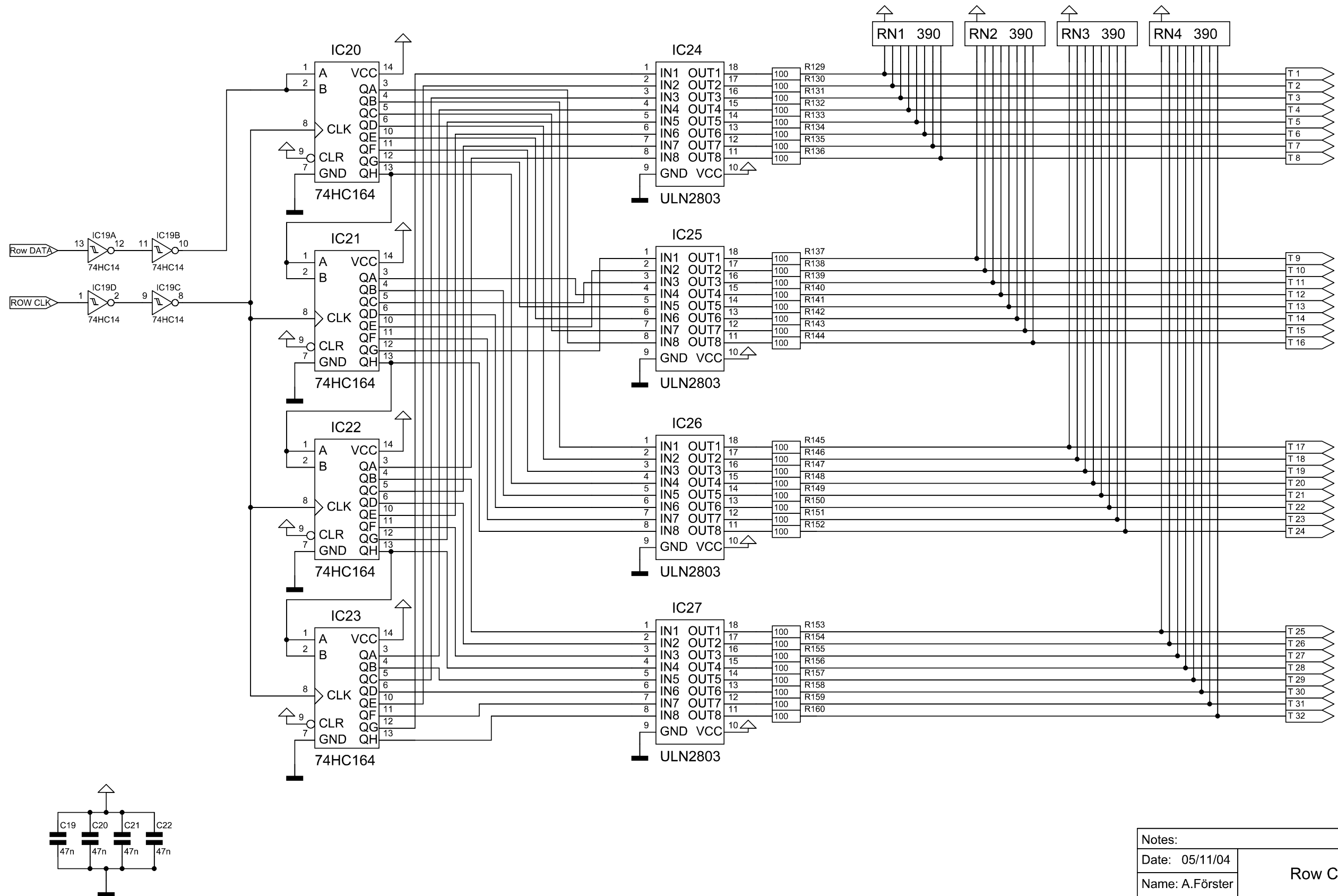
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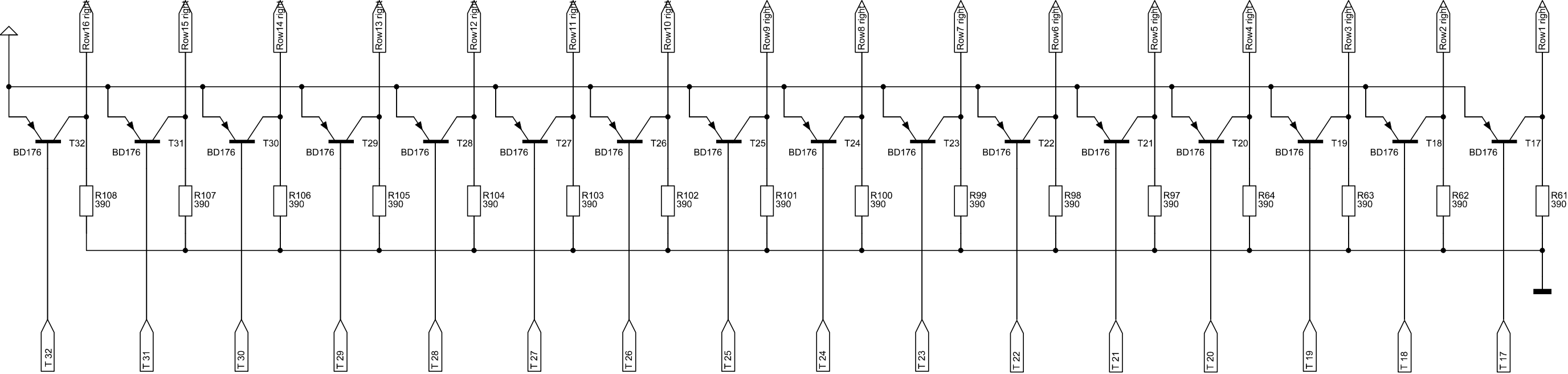
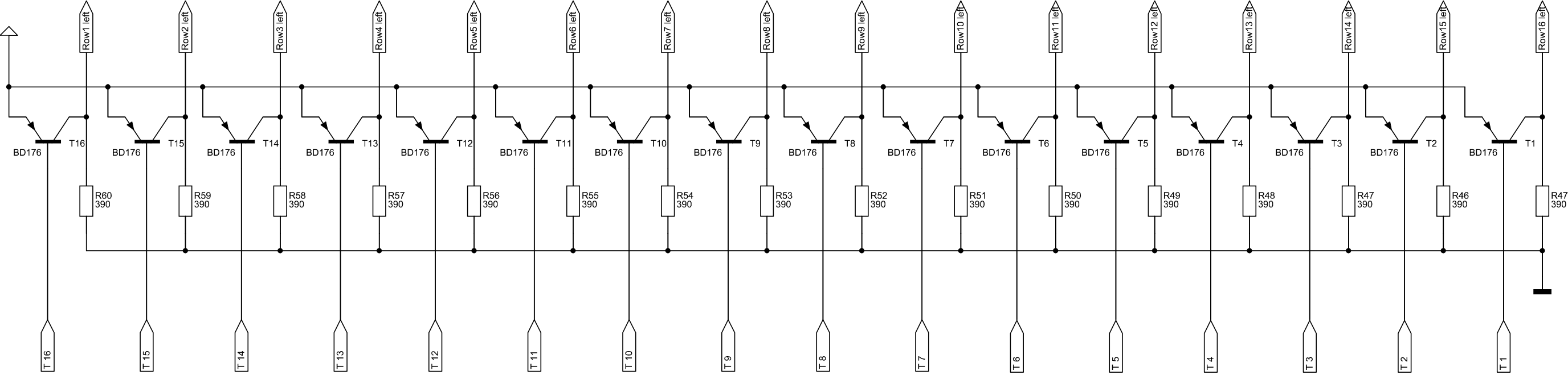
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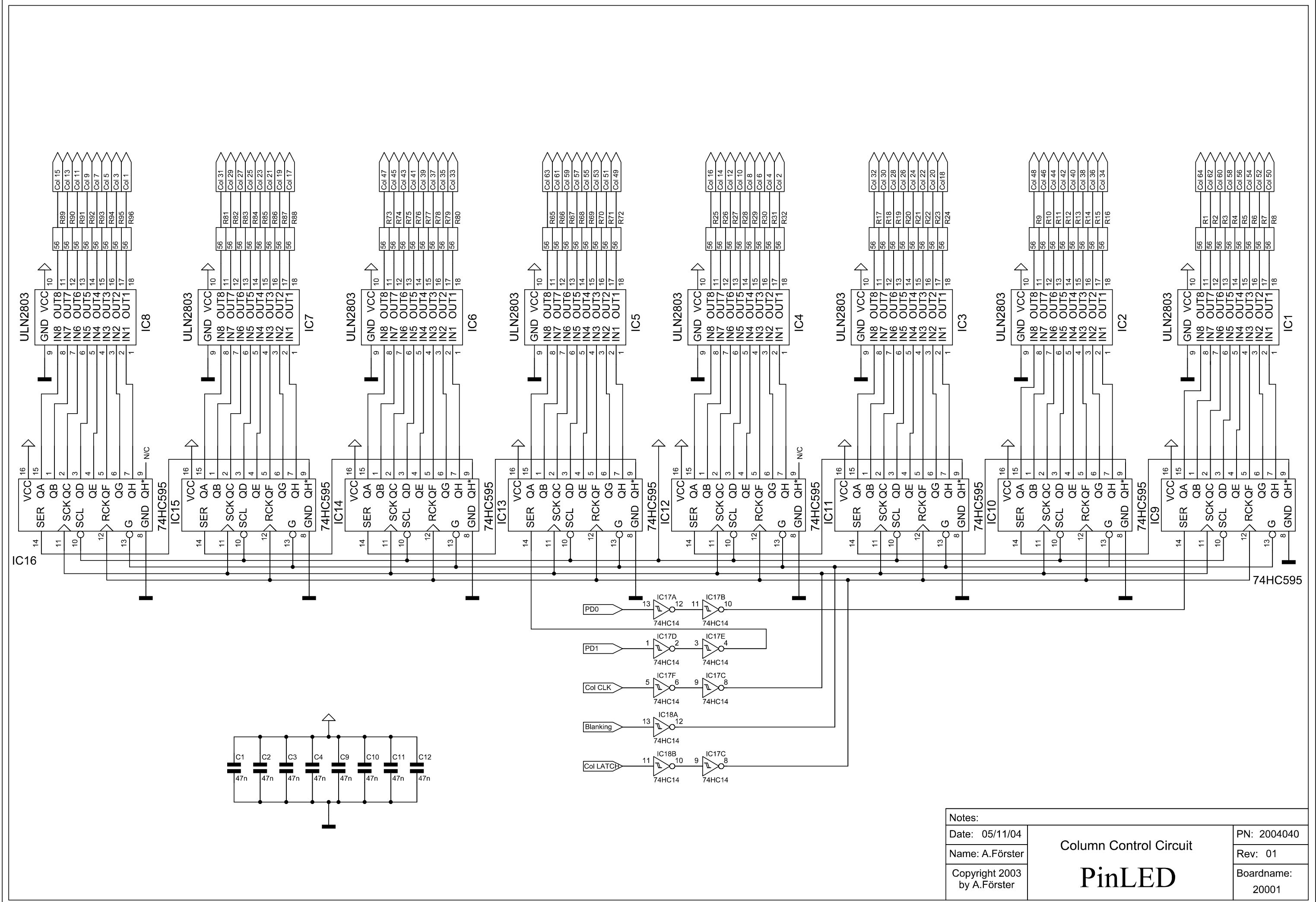
Notes: Schaltplan der Displayansteuerung ist identisch mit dem Original		
Date: 05/10/04	Display Controller Data East (PinLED)	PN: 2004040
Name: A.Förster		Rev: 01
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Notes:		
Date: 05/11/04	Row Control Circuit PinLED	PN: 2004040
Name: A.Förster		Rev: 01
Copyright 2003 by A.Förster		Boardname: 20001



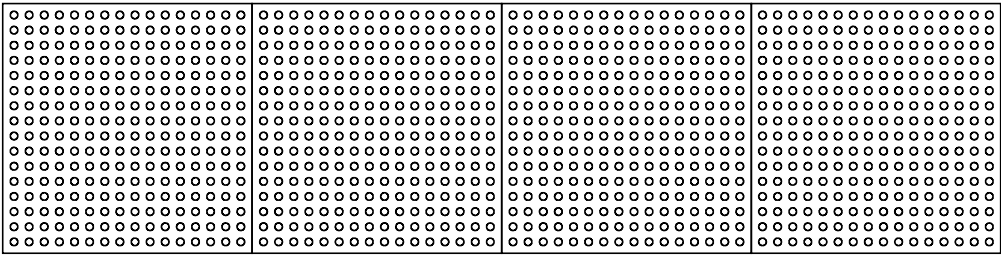
Notes:		
Date: 05/11/04	Row Driver Circuit PinLED	PN: 2004040
Name: A.Förster		Rev: 01
Copyright 2003 by A.Förster		Boardname: 20001



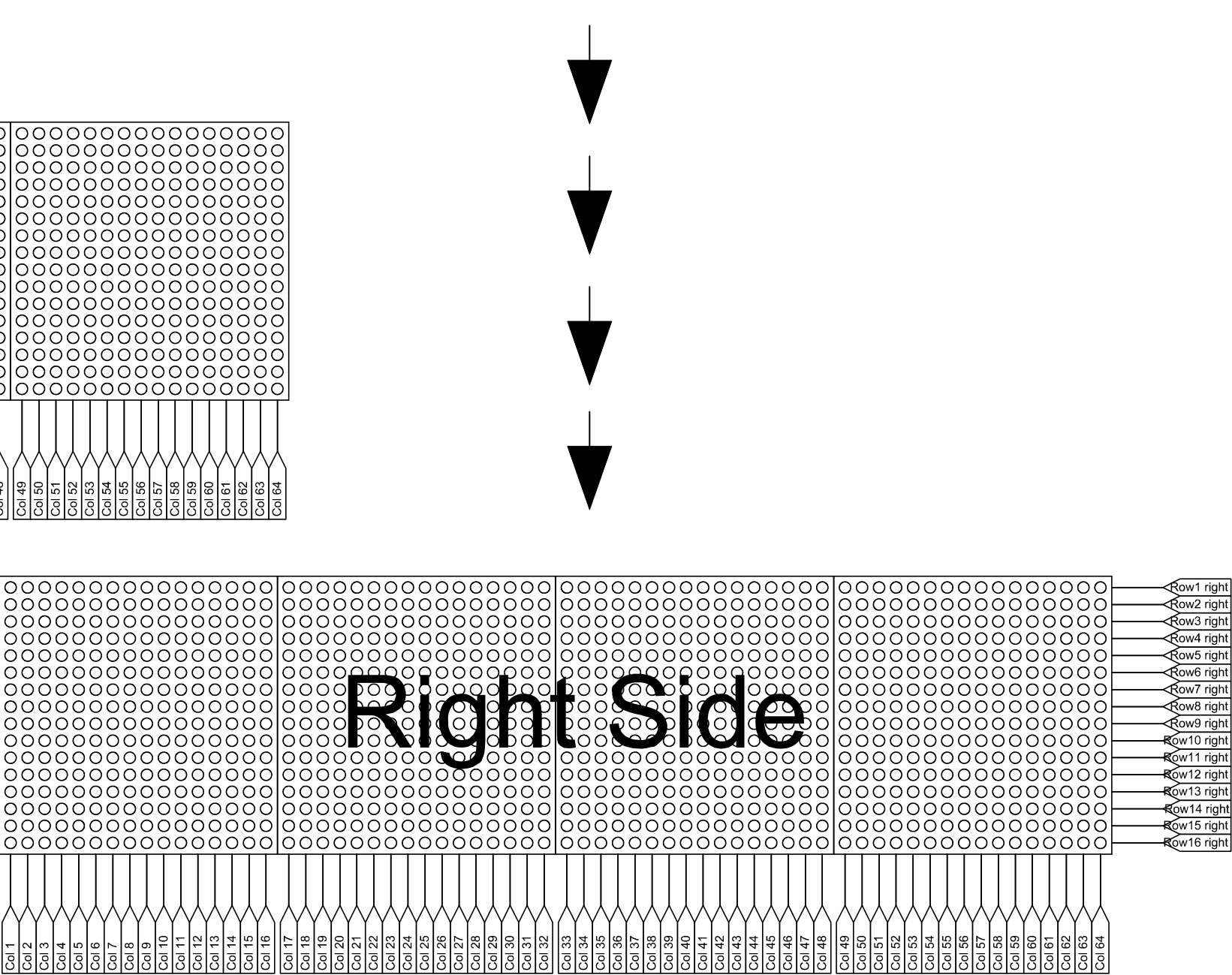
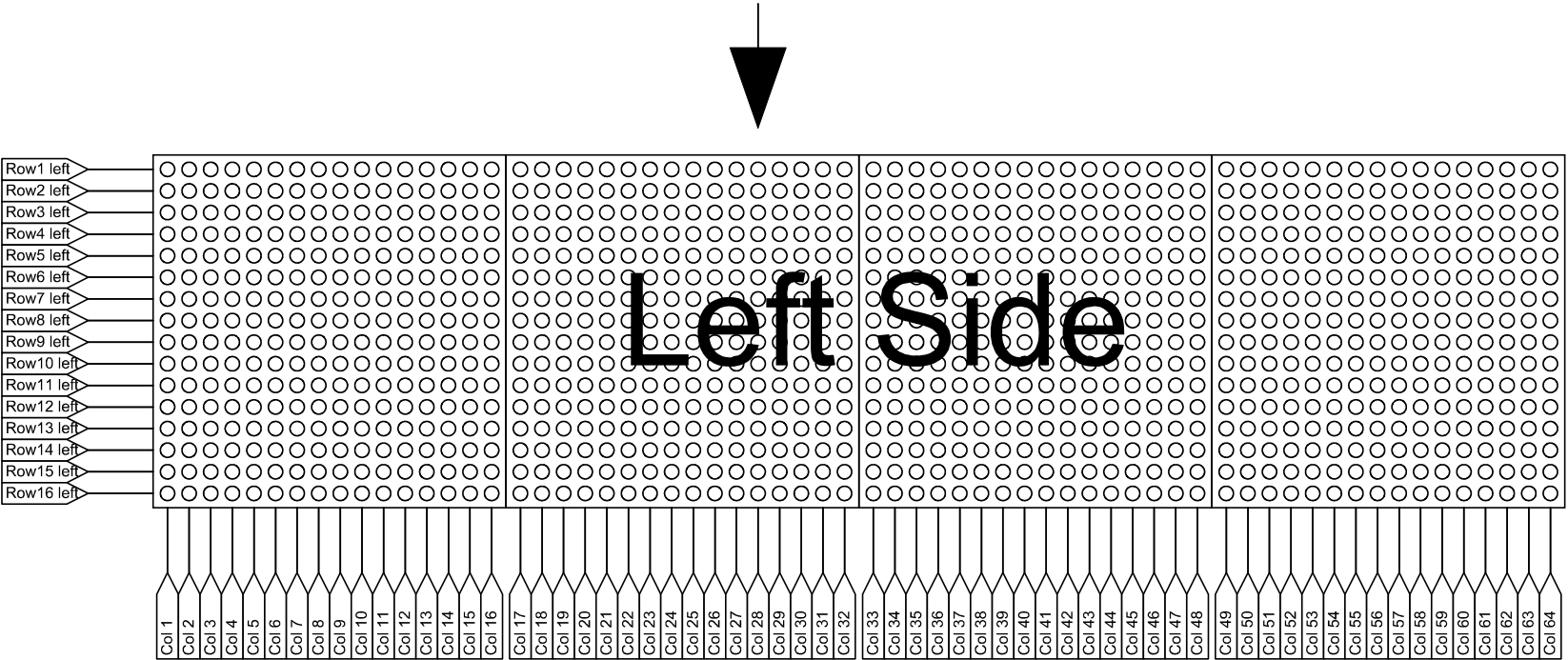
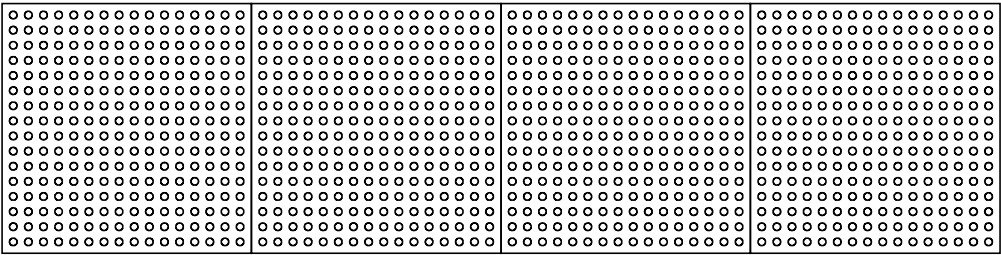
Notes:		
Date: 05/11/04	Column Control Circuit	PN: 2004040
Name: A.Förster		Rev: 01
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The LED-Dot-Matrix-Display is divided in a left and a right part

Left Side of the LED-Dot-Matrix-Display



Right Side of the LED-Dot-Matrix-Display



Notes:		
Date: 05/11/04	LED-Dot-Matrix-Display-Unit PinLED	PN: 2004040
Name:A.Förster		Rev: 01
Copyright 2003 by A.Förster		Boardname: 20001

Sichtbare Bauteile

The diagram illustrates a complex electronic circuit board layout. Key components include:

- Resistors (R):** Labeled R1 through R159, distributed across the board.
- Capacitors (C):** Labeled C1 through C27, including electrolytic capacitors like C6 and C24.
- Integrated Circuits (IC):** Labeled IC1 through IC21, including a CPU (IC28 Z80A), RAM (IC40), and various logic chips.
- Transistors (T):** Labeled T1 through T32, arranged in a central horizontal row.
- Other Components:** Includes a Zener diode (Z1), a relay (Q1), and a connector (RN6).

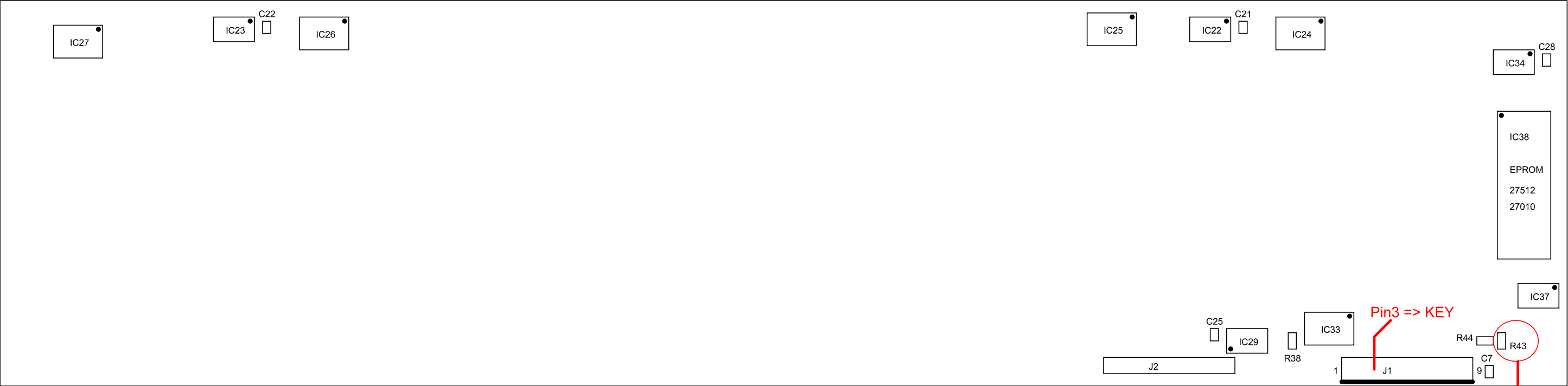
A red circle highlights a specific area on the right side of the board, and a red box contains the following text:

Beschriftungen auf der Unterseite zeigen beim Bestücken ALLE nach rechts oben !!!!

Verdeckte Bauteile

NUR R41 mit
0 Ohm
Widerstand
(Brücke)
bestücken !!!!
R39,40 und 42
bleiben frei !!!

Notes:		
Date: 05/11/04	Parts Location / Bestückungsplan Frontside / Vorderseite PinLED	PN: 2004040
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Pin3 => KEY

NUR R43 mit
0 Ohm
Widerstand
(Brücke)
bestücken !!!!
R44 bleibt
frei !!!

Notes:		
Date: 05/11/04	Parts Location / Bestückungsplan Backside / Rückseite PinLED	PN: 2004040
Name: A.Förster		Rev: 01
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Parts List / Bauteilliste

C1 to C4.....	47n.....	.0805
C5.....	47p.....	.0805
C6.....	100µ	
C7.....	100n.....	.0805
C8 to C28.....	47n.....	.0805
IC1 to IC8.....		ULN2803
IC9 to IC16.....		74HC595
IC17 to IC19.....		74HC14
IC20 to IC23.....		74HC164
IC24 to IC27.....		ULN2803
IC28.....		Z80A CPU
IC29.....		74HC04
IC30.....		74HC74
IC31.....		7407
IC32.....		MOS4020
IC33.....		74HC374
IC34.....		74HC139
IC35.....		74HC00
IC36.....		74HC259
IC37.....		74HC153
IC38.....		EPROM 27512/27010
IC40.....		RAM 6264
Dot1 to Dot8.....		LYT21616
Q1.....		8MHz Quarz HC18
R1 to R32.....	56 Ohm.....	1206
R33 and R36.....	4k7 Ohm.....	1206
R34 and R37.....	10k Ohm.....	1206
R35.....	15k Ohm.....	1206
R38.....	100k Ohm.....	1206
R41 and R43.....	0 Ohm.....	1206 als Brücke
R45 to R64.....	390 Ohm.....	1206
R65 to R96.....	56 Ohm.....	1206
R97 to R108.....	390 Ohm.....	1206
R129 to R160.....	100 Ohm.....	1206
RN1 to RN4.....	390 Ohm.....	SIL 9-8
RN5.....	3k9 Ohm.....	SIL 6-5
RN6.....	100k Ohm.....	SIL 9-8
T1 to T32.....	BD176	
J1.....	9 polige Steckerleiste gerade USA	
J2.....	2x13 polig gerade 2,54mm Raster	

- 32 x 1 polige Sockelleisten für LEDs
- 1x 40 poliger IC Sockel
- 1x 32 poliger IC Sockel
- 1x 28 poliger IC Sockel
- 8x Plastikunterlegscheiben 4mm

Notes:		
Date: 05/11/04	Parts List / Bestückungsliste PinLED	PN: 2004040
Name: A.Förster		Rev: 01
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