

3 to 39 OR

Doc. Nr.4050



3 FAN-IN/ 39 FAN-OUT Module

The 3 Fan-In / 39 Fan-Out is a simple and versatile NIM logic module. It consists of one 3 input OR followed by a large 39 x Fan-Out stage. In conjunction with the complementary module, i.e. the 39 Fan-In / 3 Fan-Out eliminates the extra cabling and time delay involved when conventional fan-ins and fan-outs must be cascaded.

INPUT

Number of inputs: 3 OR; 50 Ohm +/- 1%; direct coupled. Quiescent level is 0 V (DC).

Signal level requirements: Standard NIM logical 1 input, -12 mA to -36 mA.

OUTPUT

Number of Outputs: 39. Quiescent level 0 V (50 Ohm, DC)

Output Levels: Normal NIM (quiescently 0 mA, minimum -16 mA into 50 ohm load during output). Duration is equal to the logical sum of the three OR-ed input durations.

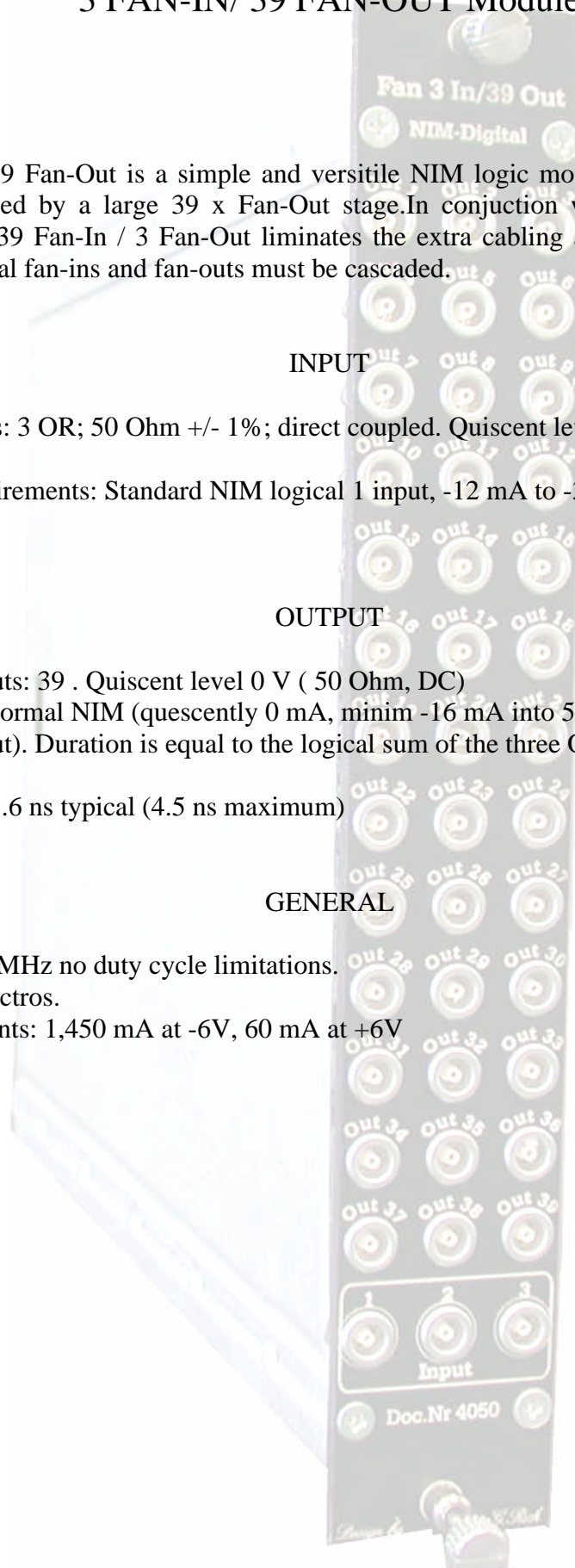
Rise/Fall Time: 3.6 ns typical (4.5 ns maximum)

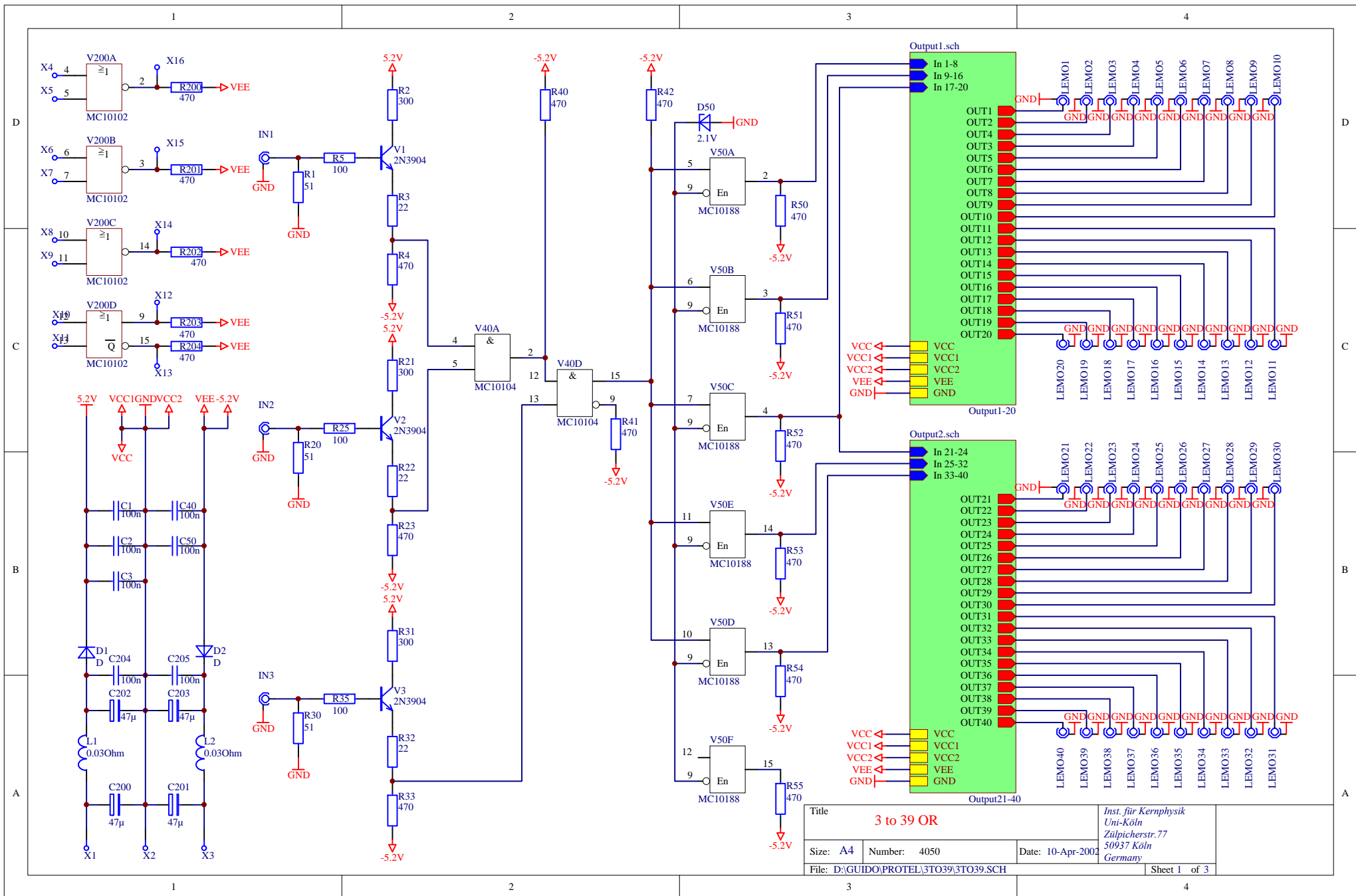
GENERAL

Rate: DC to 100 MHz no duty cycle limitations.

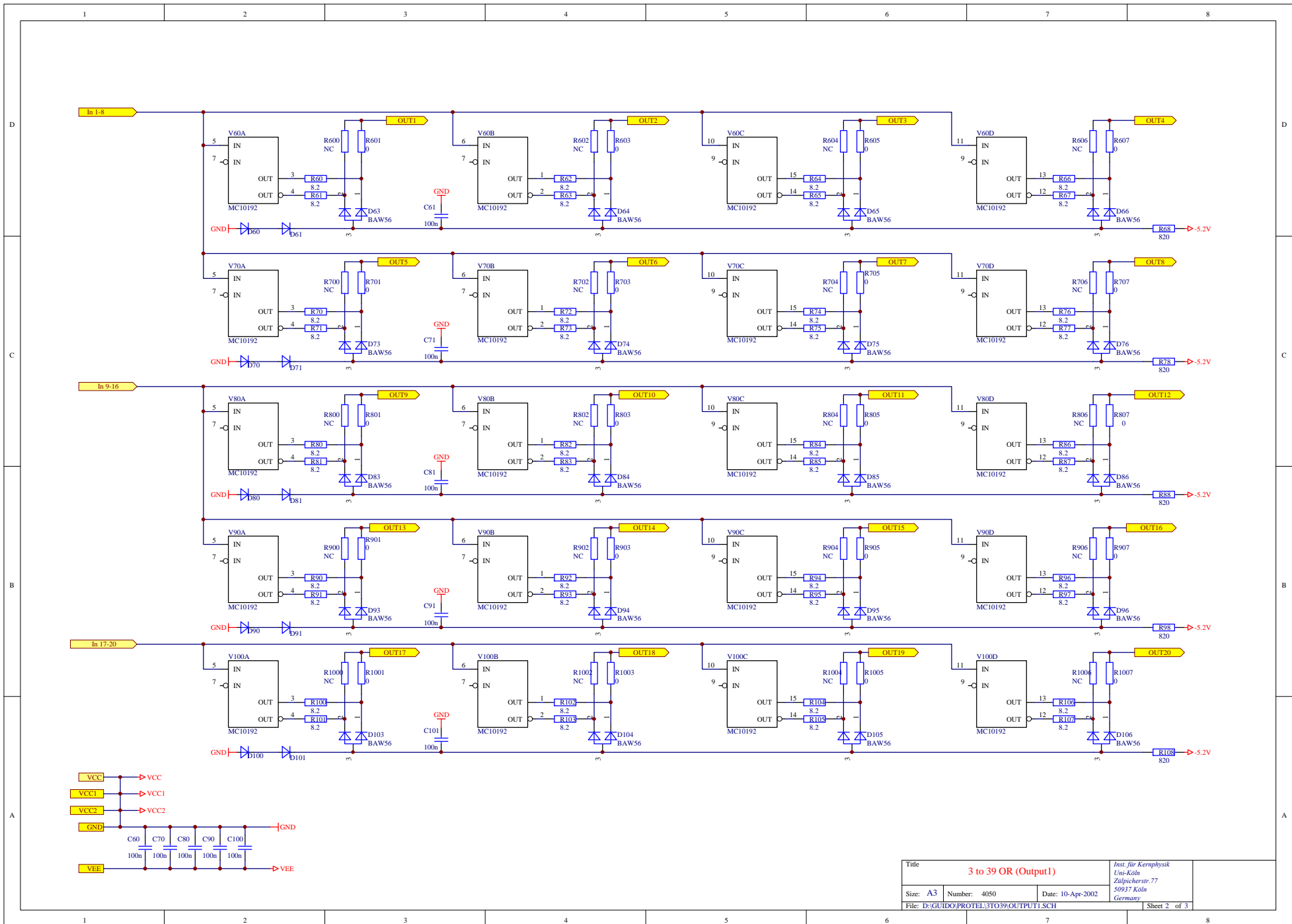
Lemo type connectors.

Power requirements: 1,450 mA at -6V, 60 mA at +6V

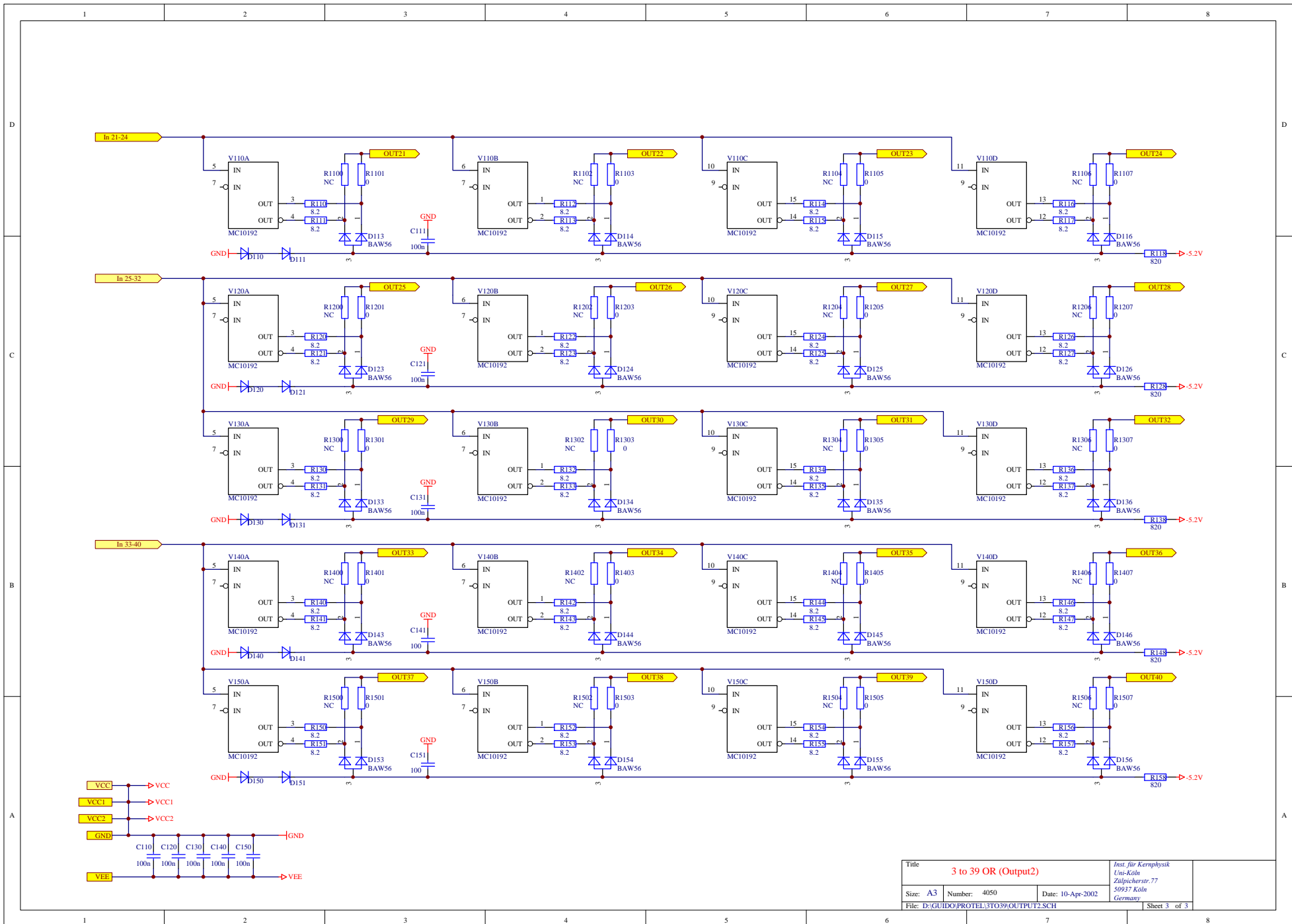




Title			3 to 39 OR		Inst. für Kernphysik Uni-Köln Zùlpicherstr. 77 50937 Köln Germany	
Size: A4	Number: 4050	Date: 10-Apr-2002				
File: D:\GUIDO\PROTEL\3TO39\3TO39.SCH			Sheet 1 of 3			



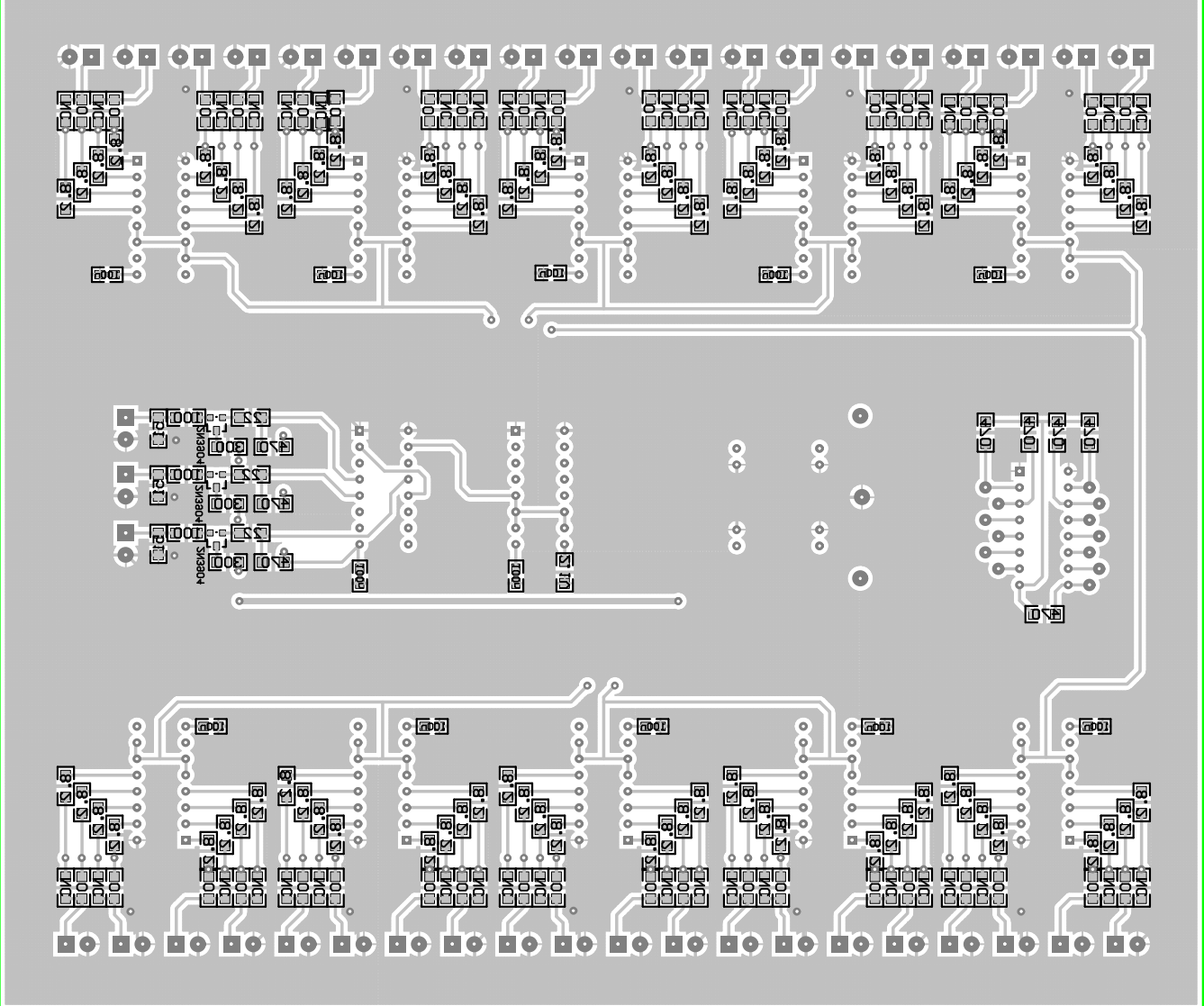
Title		3 to 39 OR (Output1)		Inst. für Kernphysik Uni-Köln Zùlpicherstr.77 50937 Köln Germany	
Size: A3	Number: 4050	Date: 10-Apr-2002			
File: D:\GUIDO\PROTEL3\TO39\OUTPUT1.SCH			Sheet 2 of 3		



Title		3 to 39 OR (Output2)		Inst. für Kernphysik Uni-Köln Zulpicherstr.77 50937 Köln Germany	
Size: A3	Number: 4050	Date: 10-Apr-2002			
File: D:\GUIDO\PROTEL\3TO39\OUTPUT2.SCH			Sheet 3 of 3		

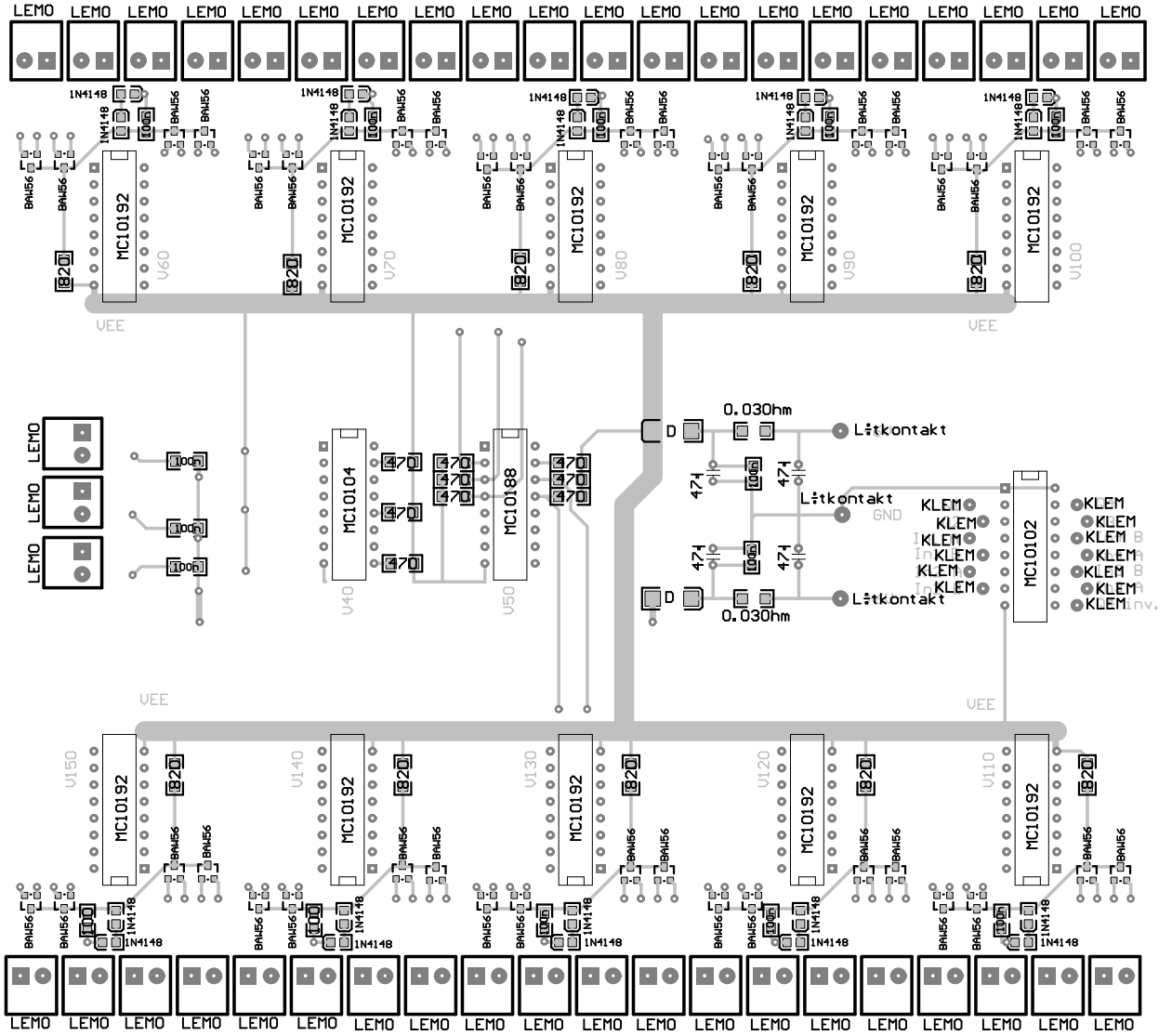
188.214 (mm)

191.77017 (mm)



188,214 (mm)

191,77017 (mm)



Designator	Part Type	Footprint	Description
C1	100n	1206	
C100	100n	805	
C101	100n	805	
C110	100n	805	
C111	100n	805	
C120	100n	805	
C121	100n	805	
C130	100n	805	
C131	100n	805	
C140	100n	805	
C141	100	805	
C150	100n	805	
C151	100	805	
C2	100n	1206	
C200	47 μ	c1r	
C201	47 μ	c1r	
C202	47 μ	c1r	
C203	47 μ	c1r	
C204	100n	805	
C205	100n	805	
C3	100n	1206	
C40	100n	805	
C50	100n	805	
C60	100n	805	
C61	100n	805	
C70	100n	805	
C71	100n	805	
C80	100n	805	
C81	100n	805	
C90	100n	805	
C91	100n	805	
D1	D	melf1	
D100	1N4148	melf2	
D101	1N4148	melf2	
D103	BAW56	SOT-23	High Speed Comman anode
D104	BAW56	SOT-23	High Speed Comman anode
D105	BAW56	SOT-23	High Speed Comman anode
D106	BAW56	SOT-23	High Speed Comman anode
D110	1N4148	melf2	
D111	1N4148	melf2	
D113	BAW56	SOT-23	High Speed Comman anode
D114	BAW56	SOT-23	High Speed Comman anode
D115	BAW56	SOT-23	High Speed Comman anode
D116	BAW56	SOT-23	High Speed Comman anode
D120	1N4148	melf2	
D121	1N4148	melf2	
D123	BAW56	SOT-23	High Speed Comman anode
D124	BAW56	SOT-23	High Speed Comman anode
D125	BAW56	SOT-23	High Speed Comman anode
D126	BAW56	SOT-23	High Speed Comman anode
D130	1N4148	melf2	
D131	1N4148	melf2	
D133	BAW56	SOT-23	High Speed Comman anode

D134	BAW56	SOT-23	High Speed Comman anode
D135	BAW56	SOT-23	High Speed Comman anode
D136	BAW56	SOT-23	High Speed Comman anode
D140	1N4148	melf2	
D141	1N4148	melf2	
D143	BAW56	SOT-23	High Speed Comman anode
D144	BAW56	SOT-23	High Speed Comman anode
D145	BAW56	SOT-23	High Speed Comman anode
D146	BAW56	SOT-23	High Speed Comman anode
D150	1N4148	melf2	
D151	1N4148	melf2	
D153	BAW56	SOT-23	High Speed Comman anode
D154	BAW56	SOT-23	High Speed Comman anode
D155	BAW56	SOT-23	High Speed Comman anode
D156	BAW56	SOT-23	High Speed Comman anode
D2	D	melf1	
D50	2.1V	1206	
D60	1N4148	melf2	
D61	1N4148	melf2	
D63	BAW56	SOT-23	High Speed Comman anode
D64	BAW56	SOT-23	High Speed Comman anode
D65	BAW56	SOT-23	High Speed Comman anode
D66	BAW56	SOT-23	High Speed Comman anode
D70	1N4148	melf2	
D71	1N4148	melf2	
D73	BAW56	SOT-23	High Speed Comman anode
D74	BAW56	SOT-23	High Speed Comman anode
D75	BAW56	SOT-23	High Speed Comman anode
D76	BAW56	SOT-23	High Speed Comman anode
D80	1N4148	melf2	
D81	1N4148	melf2	
D83	BAW56	SOT-23	High Speed Comman anode
D84	BAW56	SOT-23	High Speed Comman anode
D85	BAW56	SOT-23	High Speed Comman anode
D86	BAW56	SOT-23	High Speed Comman anode
D90	1N4148	melf2	
D91	1N4148	melf2	
D93	BAW56	SOT-23	High Speed Comman anode
D94	BAW56	SOT-23	High Speed Comman anode
D95	BAW56	SOT-23	High Speed Comman anode
D96	BAW56	SOT-23	High Speed Comman anode
IN1	LEMO	plug2	
IN2	LEMO	plug2	
IN3	LEMO	plug2	
L1	0.030hm	1206	Drossel
L2	0.030hm	1206	Drossel
LEMO1	LEMO	PLUG2	
LEMO10	LEMO	PLUG2	
LEMO11	LEMO	PLUG2	
LEMO12	LEMO	PLUG2	
LEMO13	LEMO	PLUG2	
LEMO14	LEMO	PLUG2	
LEMO15	LEMO	PLUG2	
LEMO16	LEMO	PLUG2	

LEM017	LEMO	PLUG2	
LEM018	LEMO	PLUG2	
LEM019	LEMO	PLUG2	
LEM02	LEMO	PLUG2	
LEM020	LEMO	PLUG2	
LEM021	LEMO	PLUG2	
LEM022	LEMO	PLUG2	
LEM023	LEMO	PLUG2	
LEM024	LEMO	PLUG2	
LEM025	LEMO	PLUG2	
LEM026	LEMO	PLUG2	
LEM027	LEMO	PLUG2	
LEM028	LEMO	PLUG2	
LEM029	LEMO	PLUG2	
LEM03	LEMO	PLUG2	
LEM030	LEMO	PLUG2	
LEM031	LEMO	PLUG2	
LEM032	LEMO	PLUG2	
LEM033	LEMO	PLUG2	
LEM034	LEMO	PLUG2	
LEM035	LEMO	PLUG2	
LEM036	LEMO	PLUG2	
LEM037	LEMO	PLUG2	
LEM038	LEMO	PLUG2	
LEM039	LEMO	PLUG2	
LEM04	LEMO	PLUG2	
LEM040	LEMO	PLUG2	
LEM05	LEMO	PLUG2	
LEM06	LEMO	PLUG2	
LEM07	LEMO	PLUG2	
LEM08	LEMO	PLUG2	
LEM09	LEMO	PLUG2	
R1	51	1206	
R100	37105	1206	
R1000	0	1206	
R1001	0	1206	
R1002	0	1206	
R1003	0	1206	
R1004	0	1206	
R1005	0	1206	
R1006	0	1206	
R1007	0	1206	
R101	37105	1206	
R102	37105	1206	
R103	37105	1206	
R104	37105	1206	
R105	37105	1206	
R106	37105	1206	
R107	37105	1206	
R108	820	1206	
R110	37105	1206	
R1100	0	1206	
R1101	0	1206	
R1102	0	1206	

R1103	0	1206	
R1104	0	1206	
R1105	0	1206	
R1106	0	1206	
R1107	0	1206	
R111	37105	1206	
R112	37105	1206	
R113	37105	1206	
R114	37105	1206	
R115	37105	1206	
R116	37105	1206	
R117	37105	1206	
R118	820	1206	
R120	37105	1206	
R1200	0	1206	
R1201	0	1206	
R1202	0	1206	
R1203	0	1206	
R1204	0	1206	
R1205	0	1206	
R1206	0	1206	
R1207	0	1206	
R121	37105	1206	
R122	37105	1206	
R123	37105	1206	
R124	37105	1206	
R125	37105	1206	
R126	37105	1206	
R127	37105	1206	
R128	820	1206	
R130	37105	1206	
R1300	0	1206	
R1301	0	1206	
R1302	0	1206	
R1303	0	1206	
R1304	0	1206	
R1305	0	1206	
R1306	0	1206	
R1307	0	1206	
R131	37105	1206	
R132	37105	1206	
R133	37105	1206	
R134	37105	1206	
R135	37105	1206	
R136	37105	1206	
R137	37105	1206	
R138	820	1206	
R140	37105	1206	
R1400	0	1206	
R1401	0	1206	
R1402	0	1206	
R1403	0	1206	
R1404	0	1206	
R1405	0	1206	

R1406	0	1206	
R1407	0	1206	
R141	37105	1206	
R142	37105	1206	
R143	37105	1206	
R144	37105	1206	
R145	37105	1206	
R146	37105	1206	
R147	37105	1206	
R148	820	1206	
R150	37105	1206	
R1500	0	1206	
R1501	0	1206	
R1502	0	1206	
R1503	0	1206	
R1504	0	1206	
R1505	0	1206	
R1506	0	1206	
R1507	0	1206	
R151	37105	1206	
R152	37105	1206	
R153	37105	1206	
R154	37105	1206	
R155	37105	1206	
R156	37105	1206	
R157	37105	1206	
R158	820	1206	
R2	300	1206	
R20	51	1206	
R200	470	1206	
R201	470	1206	
R202	470	1206	
R203	470	1206	
R204	470	1206	
R21	300	1206	
R22	22	1206	
R23	470	1206	
R25	100	1206	
R3	22	1206	
R30	51	1206	
R31	300	1206	
R32	22	1206	
R33	470	1206	
R35	100	1206	
R4	470	1206	
R40	470	1206	
R41	470	1206	
R42	470	1206	
R5	100	1206	
R50	470	1206	
R51	470	1206	
R52	470	1206	
R53	470	1206	
R54	470	1206	

R55	470	1206	
R60	37105	1206	
R600	0	1206	
R601	0	1206	
R602	0	1206	
R603	0	1206	
R604	0	1206	
R605	0	1206	
R606	0	1206	
R607	0	1206	
R61	37105	1206	
R62	37105	1206	
R63	37105	1206	
R64	37105	1206	
R65	37105	1206	
R66	37105	1206	
R67	37105	1206	
R68	820	1206	
R70	37105	1206	
R700	0	1206	
R701	0	1206	
R702	0	1206	
R703	0	1206	
R704	0	1206	
R705	0	1206	
R706	0	1206	
R707	0	1206	
R71	37105	1206	
R72	37105	1206	
R73	37105	1206	
R74	37105	1206	
R75	37105	1206	
R76	37105	1206	
R77	37105	1206	
R78	820	1206	
R80	37105	1206	
R800	0	1206	
R801	0	1206	
R802	0	1206	
R803	0	1206	
R804	0	1206	
R805	0	1206	
R806	0	1206	
R807	0	1206	
R81	37105	1206	
R82	37105	1206	
R83	37105	1206	
R84	37105	1206	
R85	37105	1206	
R86	37105	1206	
R87	37105	1206	
R88	820	1206	
R90	37105	1206	
R900	0	1206	

R901	0	1206	
R902	0	1206	
R903	0	1206	
R904	0	1206	
R905	0	1206	
R906	0	1206	
R907	0	1206	
R91	37105	1206	
R92	37105	1206	
R93	37105	1206	
R94	37105	1206	
R95	37105	1206	
R96	37105	1206	
R97	37105	1206	
R98	820	1206	
V1	2N3904	sot-23	
V100	MC10192	16DIP300	QUAD BUS DRIVER
V110	MC10192	16DIP300	QUAD BUS DRIVER
V120	MC10192	16DIP300	QUAD BUS DRIVER
V130	MC10192	16DIP300	QUAD BUS DRIVER
V140	MC10192	16DIP300	QUAD BUS DRIVER
V150	MC10192	16DIP300	QUAD BUS DRIVER
V2	2N3904	sot-23	
V200	MC10102	16DIP300	Quad NOR Gate
V3	2N3904	sot-23	
V40	MC10104	16DIP300	Quad 2 Input AND
V50	MC10188	16DIP300	HEX Buffers with Enable
V60	MC10192	16DIP300	QUAD BUS DRIVER
V70	MC10192	16DIP300	QUAD BUS DRIVER
V80	MC10192	16DIP300	QUAD BUS DRIVER
V90	MC10192	16DIP300	QUAD BUS DRIVER
X1	Lötkontakt	pin2	
X10	KLEM	PIN1	
X11	KLEM	PIN1	
X12	KLEM	PIN1	
X13	KLEM	PIN1	
X14	KLEM	PIN1	
X15	KLEM	PIN1	
X16	KLEM	PIN1	
X2	Lötkontakt	pin2	
X3	Lötkontakt	pin2	
X4	KLEM	PIN1	
X5	KLEM	PIN1	
X6	KLEM	PIN1	
X7	KLEM	PIN1	
X8	KLEM	PIN1	
X9	KLEM	PIN1	