



## Documentation project

# OAK\_EMUF

# V2\_11

## Issue: customer

1	partlist	10.06.02	OAK_EMUF.lst	V2_11	FG
17	schematic	10.06.02	OAK_EMUF.p2	V2_10	FG
*	tin mask component side			V2_10	
29	mounting map component side	10.06.02	OAK_EMUF.plc	V2_10	FG
*	design component side			V2_10	
*	solder mask component side			V2_10	
*	PCB dimension			V2_10	
*	PCB component side			V2_10	
*	PCB layer 2			V2_10	
*	PCB layer 3			V2_10	
*	PCB layer 4			V2_10	
*	PCB layer 5			V2_10	
*	PCB layer 6			V2_10	
*	PCB layer 7			V2_10	
*	PCB layer 8			V2_10	
*	PCB layer 9			V2_10	
*	PCB solder side			V2_10	
*	solder mask solder side			V2_10	
30	mounting map solder side	10.06.02	OAK_EMUF.pls	V2_10	FG
*	design solder side			V2_10	
*	tin mask solder side			V2_10	
*	test point solder side			V2_10	
*	test point solder side			V2_10	
31	connector	03.06.02	oak_emuf.stb	V2_10	FG
*	test			V0_99	
35	versions		version.txt		
*	quad component side			V2_10	
*	quad solder side			V2_10	
*	tips and tricks			V2_10	
*	manufacturing instructions			V2_10	
*	notes				

\* if required, these chapters can be ordered additionally

FG=final version EW=in development, this chapter can still be changed

printed on: 10.06.2002

Revision necessary:	yes	no	Corrected / new version:	
Name:		Date:	Name:	Date:

I:\PJ\OAK\_EMUF\PART\V2\_11\

BAT1	1	St.	BAT-99998-000	BS	---	Batterie	CR1/2AACD	3V	950mAh	Li thium	D-Sub
BU1	1	St.	STB-99553-000	BS	---	Buchse	SDE9SNT	9pol.			
C1	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C2	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C3	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C4	1	St.	KEL-99803-000	BS	SMD	Elko	ERS SMD	100u	+20%	50V	
C5	1	St.	KTL-99886-000	BS	SMD	Tantal	ETC-D	100nF	20%	10V	
C6	1	St.	KEL-99803-000	BS	SMD	Elko	ERS SMD	100u	+20%	50V	
C7	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C8	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C34	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C59	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C60	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C61	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C62	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C63	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C64	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C65	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C66	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C67	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C68	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C69	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C70	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C71	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C72	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C73	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C74	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C75	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C76	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
C77	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U

---	C78	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C79	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C80	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C81	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C82	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C83	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C84	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C85	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C86	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C87	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C88	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C89	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C101	1	St.	KKE-99805-000	LS	SMD	Kerko	0805	33pF	5%	50VDC	COG
---	C102	1	St.	KKE-99805-000	LS	SMD	Kerko	0805	33pF	5%	50VDC	COG
---	C103	1	St.	KKE-99717-000	LS	SMD	Kerko	0805	4.7nF	10%	50VDC	X7R
---	C201	1	St.	KKE-99805-000	LS	SMD	Kerko	0805	33pF	5%	50VDC	COG
---	C202	1	St.	KKE-99805-000	LS	SMD	Kerko	0805	33pF	5%	50VDC	COG
---	C203	1	St.	KTL-99909-000	BS	SMD	Tantal	ETC-C	10uF	20%	10V	
---	C300	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C303	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C304	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C305	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C306	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C307	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C308	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	C309	1	St.	KTL-99865-000	BS	SMD	Tantal	ETC-E	470uF		6V	
---	C310	1	St.	KTL-99866-000	BS	SMD	Tantal	ETC-E	330uF		10V	
---	C311	1	St.	KTL-99921-000	LS	SMD	Tantal	ETC-B	3.3uF	20%	16V	
---	C312	1	St.	KKE-99805-000	BS	SMD	Kerko	0805	33pF	5%	50VDC	COG
---	C313	1	St.	KKE-99805-000	BS	SMD	Kerko	0805	33pF	5%	50VDC	COG

---	CB101	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB102	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB103	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB104	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB105	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB106	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB107	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB108	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB109	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB110	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB111	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB112	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB113	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB114	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB115	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB116	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB117	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB118	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB119	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB121	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB123	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB125	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB127	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB128	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB129	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB131	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB134	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB135	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB136	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
---	CB140	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U

CB141	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB142	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB143	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB201	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB202	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB203	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB204	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB205	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB206	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB207	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB208	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB209	1	St.	KKE-99736-000	BS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB210	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB211	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB212	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB213	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB214	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB301	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB302	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB303	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB304	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB306	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB307	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB308	1	St.	KKE-99736-000	LS	SMD	Kerko	0805	100nF	20%	50VDC	Z5U
CB1001	1	St.	KKE-99605-000	LS	SMD	Kerko	0805	100nF	+10%	50V	X7R
CB1002	1	St.	KKE-99605-000	LS	SMD	Kerko	0805	100nF	+10%	50V	X7R
D1	1	St.	DSK-99982-000	BS	SMD	Schottky-Dio.	LLBAT42	30V	50mA		200mW
D201	1	St.	LED-99931-000	BS	SMD	LED	LST676-OT	gelb	30mA	63-500mdc/	
D202	1	St.	LED-99931-000	BS	SMD	LED	LST676-OT	gelb	30mA	63-500mdc/	
D203	1	St.	LED-99932-000	BS	SMD	LED	LHT674-KM	rot	30mA	10-50mdc/10	

D302	1	St.	DSP-99970-000	LS	SMD	Sup.,-Diode	SM6T136C	36V	600W	+/-10%	5uA
D303	1	St.	DSK-99971-000	LS	SMD	Schottky-Dio.	MBSR340T3	40V	3A		
D304	1	St.	DSK-99971-000	LS	SMD	Schottky-Dio.	MBSR340T3	40V	3A		
D305	1	St.	LED-99946-000	BS	SMD	LED	HSMG-T400	grün	30mA	10mcd/10mA	SMD/klar
D306	1	St.	LED-99946-000	BS	SMD	LED	HSMG-T400	grün	30mA	10mcd/10mA	SMD/klar
D307	1	St.	DSK-99982-000	BS	SMD	Schottky-Dio.	LLBAT42	30V	50mA		200mW
D308	1	St.	DSK-99982-000	BS	SMD	Schottky-Dio.	LLBAT42	30V	50mA		200mW
FP1	1	St.	GFT-0000K-000	BS	---						
IC1	1	St.	ICQ-99761-000	LS	SMD	IC	Quarzosz.	4.9152MHz			+/-100ppm
IC2	1	St.	ICI-99941-000	LS	SMD	IC	PCA82C251				
IC3	1	St.	ICI-99941-000	LS	SMD	IC	PCA82C251				
IC4	1	St.	ICR-99833-000	BS	SMD	IC	LT1076CQ	45V	64V		
IC5	1	St.	ICR-99833-000	BS	SMD	IC	LT1076CQ	45V	64V		
IC6	1	St.	ICE-99848-000	BS	SMD	IC	X25256				
IC7	1	St.	ICQ-99774-000	BS	SMD	IC	Quarzosz.	1.8432MHz			+/-100ppm
IC100	1	St.	ICE-99847-000	BS	SMD	IC	U634H256				
IC101	1	St.	ICM-99918-000	BS	SMD	IC	MPC555LF?2P40				
IC102	1	St.	ICE-99852-000	LS	SMD	IC	AM29LV160D?-??>	CMOS	+3V		
IC103	1	St.	ICE-99852-000	BS	SMD	IC	AM29LV160D?-??>	CMOS	+3V		
IC104	1	St.	ICE-99851-000	BS	SMD	IC	K7B163625?-Q (>				K7B163625M-QC85
IC105	1	St.	ICE-99851-000	LS	SMD	IC	K7B163625?-Q (>				K7B163625M-QC85
IC106	1	St.	ICD-99201-000	BS	SMD	IC	74LV244D				
IC201	1	St.	ICD-99203-000	BS	SMD	IC	74FCT164245TPV				
IC202	1	St.	ICD-99203-000	BS	SMD	IC	74FCT164245TPV				
IC203	1	St.	ICE-99915-000	BS	SMD	IC	93C46	CMOS		75/2000mA	
IC204	1	St.	ICI-99917-000	LS	SMD	IC	LAN91C96				
IC205	1	St.	ICD-99092-000	BS	SMD	IC	74AHC05				
IC206	1	St.	ICD-99203-000	BS	SMD	IC	74FCT164245TPV				
IC207	1	St.	ICD-99456-000	LS	SMD	IC	74HCL138	CMOS	+2...+6V		
IC208	1	St.	ICD-99112-000	BS	SMD	IC	TPS3307-33D				2-6V



---	L101	1	St.	DRO-99907-000	LS	SMD	Drossel HF	100uH	65mA	20	
---	L301	1	St.	DRO-99798-000	BS	SMD	Drossel Speich. CDRH125	22uH	2200mA	0.07R	
---	L302	1	St.	DRO-99798-000	BS	SMD	Drossel Speich. CDRH125	22uH	2200mA	0.07R	
---	LJ1	1	St.	XLJ-99710-000	LS	---	fikt.Bauteil	Lötjumper	2x2pol.		
---	LJ2	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		
---	LJ3	1	St.	XLJ-99710-000	LS	---	fikt.Bauteil	Lötjumper	2x2pol.		
---	LJ4	1	St.	XLJ-99710-000	BS	---	fikt.Bauteil	Lötjumper	2x2pol.		5 u. 6 brücken
---	LJ5	1	St.	XLJ-99710-000	LS	---	fikt.Bauteil	Lötjumper	2x2pol.		
---	LJ6	1	St.	XLJ-99710-000	LS	---	fikt.Bauteil	Lötjumper	2x2pol.		
---	LJ7	1	St.	XLJ-99710-000	LS	---	fikt.Bauteil	Lötjumper	2x2pol.		
---	LJ8	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		brücken
---	LJ9	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		
---	LJ10	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		
---	LJ11	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		
---	LJ12	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		
---	LJ13	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		
---	LJ14	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		
---	LJ15	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		
---	LJ16	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		
---	LJ17	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		
---	MA_BS	1	St.	XKO-99997-000	BS	---	fikt.Baut.	Marke für Best>			
---	MA_LS	1	St.	XKO-99997-000	LS	---	fikt.Baut.	Marke für Best>			
---	PLU	1	St.	PLJ-97444-000	LS	---	LP	2.10	10L FR4	1.5mm 35um	2x
---	R1	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		
---	R2	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.		
---	R3	1	St.	WDM-98980-000	LS	SMD	Met.Wid.	0805	1%	0.125W	200V
---	R4	1	St.	WDM-99010-000	LS	SMD	Met.Wid.	0805	1%	0.125W	200V
---	R5	1	St.	WDM-98948-000	LS	SMD	Met.Wid.	0805	1%	0.125W	200V
---	R6	1	St.	WDM-99010-000	LS	SMD	Met.Wid.	0805	1%	0.125W	200V
---	R7	1	St.	WDM-98948-000	LS	SMD	Met.Wid.	0805	1%	0.125W	200V



---	R8	1	St.	WDM-98979-000	LS	SMD	Met.Wid.	0805	2K2	1%	0.125W	200V
---	R9	1	St.	WDM-98987-000	LS	SMD	Met.Wid.	0805	1K1	1%	0.125W	200V
---	R10	1	St.	WDM-98977-000	LS	SMD	Met.Wid.	0805	2K7	1%	0.125W	200V
---	R11	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R12	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R13	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R14	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R15	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R16	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R17	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R18	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R19	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R20	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R21	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R22	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R23	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R24	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R25	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R26	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R27	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R28	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R29	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R30	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R31	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R32	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R33	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R34	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R35	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R36	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R37	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V

---	R38	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R39	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R40	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R41	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R42	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V
---	R43	1	St.	WDM-98979-000	LS	SMD	Met.Wid.	0805	2K2	1%	0.125W	200V
---	R44	1	St.	WDM-90326-000	LS	SMD	Met.Wid.	0805	2K74	1%		
---	R45	1	St.	WDM-98977-000	LS	SMD	Met.Wid.	0805	2K7	1%	0.125W	200V
---	R46	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R47	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R48	1	St.	WDM-98980-000	LS	SMD	Met.Wid.	0805	0R	1%	0.125W	200V
---	R49	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R50	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R51	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R52	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R53	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R54	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R55	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R56	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R57	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R58	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R59	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R60	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R61	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R62	1	St.	WDM-99019-000	LS	SMD	Met.Wid.	0805	51R	1%	0.125W	200V
---	R63	1	St.	WDM-99019-000	LS	SMD	Met.Wid.	0805	51R	1%	0.125W	200V
---	R101	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	LötJumper	1x2pol.			brücken
---	R102	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	LötJumper	1x2pol.			
---	R103	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	LötJumper	1x2pol.			
---	R104	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	LötJumper	1x2pol.			brücken

---	R105	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.	brücken
---	R106	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.	brücken
---	R107	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.	brücken
---	R108	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.	brücken
---	R109	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R110	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R111	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R112	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R113	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R114	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R115	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R116	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R117	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R118	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R119	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R120	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R121	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R122	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R123	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R124	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R125	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R126	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R127	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R128	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R129	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R130	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R131	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R132	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R133	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V
---	R134	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1% 0.125W 200V

---	R135	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R136	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R137	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R138	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R139	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R140	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R141	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R142	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R143	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R144	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R145	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R146	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R147	1	St.	WDM-98964-000	LS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R148	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V
---	R149	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R150	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R151	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R152	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R153	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R154	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R155	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R156	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R157	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R158	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R159	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R160	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R161	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R162	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R163	1	St.	WDM-98980-000	BS	SMD	Met.Wid.	0805	0R	1%	0.125W	200V
---	R164	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V

---	R165	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R166	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R167	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R168	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R169	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R170	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R171	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R172	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R173	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R174	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R175	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R176	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R177	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R178	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R179	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R180	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R181	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R182	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R183	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R184	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R185	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R186	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R187	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R188	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R189	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R190	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R191	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R192	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R193	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V
---	R194	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V

---	R195	1	St.	XLJ-99742-000	BS	---	fikt.Bauteil	Lötjumper	1x2pol.						
---	R196	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V			
---	R197	1	St.	WDM-99019-000	BS	SMD	Met.Wid.	0805	51R	1%	0.125W	200V			
NB	---	R199	1	St.	WDM-98980-000	LS	SMD	Met.Wid.	0805	0R	1%	0.125W	200V		
---	R201	1	St.	WDM-98996-000	BS	SMD	Met.Wid.	0805	470R	1%	0.125W	200V			
---	R202	1	St.	WDM-98996-000	BS	SMD	Met.Wid.	0805	470R	1%	0.125W	200V			
---	R203	1	St.	WDM-98996-000	BS	SMD	Met.Wid.	0805	470R	1%	0.125W	200V			
---	R204	1	St.	WDM-98917-000	LS	SMD	Met.Wid.	0805	1M	1%	0.125W	200V			
---	R205	1	St.	WDM-99017-000	LS	SMD	Met.Wid.	0805	62R	1%	0.125W	200V			
---	R206	1	St.	WDM-99017-000	LS	SMD	Met.Wid.	0805	62R	1%	0.125W	200V			
---	R207	1	St.	WDM-99003-000	LS	SMD	Met.Wid.	0805	240R	1%	0.125W	200V			
---	R208	1	St.	WDM-99003-000	LS	SMD	Met.Wid.	0805	240R	1%	0.125W	200V			
---	R209	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V			
---	R210	1	St.	WDM-99012-000	LS	SMD	Met.Wid.	0805	100R	1%	0.125W	200V			
---	R211	1	St.	WDM-98971-000	BS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V			
---	R213	1	St.	WDM-98971-000	LS	SMD	Met.Wid.	0805	4K7	1%	0.125W	200V			
---	R214	1	St.	WDM-99014-000	LS	SMD	Met.Wid.	0805	82R	1%	0.125W	200V			
---	R215	1	St.	WDM-98940-000	LS	SMD	Met.Wid.	0805	100K	1%	0.125W	200V			
---	R304	1	St.	WDM-99008-000	BS	SMD	Met.Wid.	0805	150R	1%	0.125W	200V			
---	R305	1	St.	WDM-98996-000	LS	SMD	Met.Wid.	0805	470R	1%	0.125W	200V			
---	R306	1	St.	WDM-90337-000	LS	SMD	Met.Wid.	0805	150R	0.1%	0.06W				
---	R307	1	St.	WDM-90337-000	LS	SMD	Met.Wid.	0805	150R	0.1%	0.06W				
---	R308	1	St.	WDM-98917-000	BS	SMD	Met.Wid.	0805	1M	1%	0.125W	200V			
---	R310	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.						
---	R311	1	St.	XLJ-99742-000	LS	---	fikt.Bauteil	Lötjumper	1x2pol.						
---	R333	1	St.	WDM-98964-000	BS	SMD	Met.Wid.	0805	10K	1%	0.125W	200V			
---	R501	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V			
---	R502	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V			
---	R503	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V			
---	R504	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V			

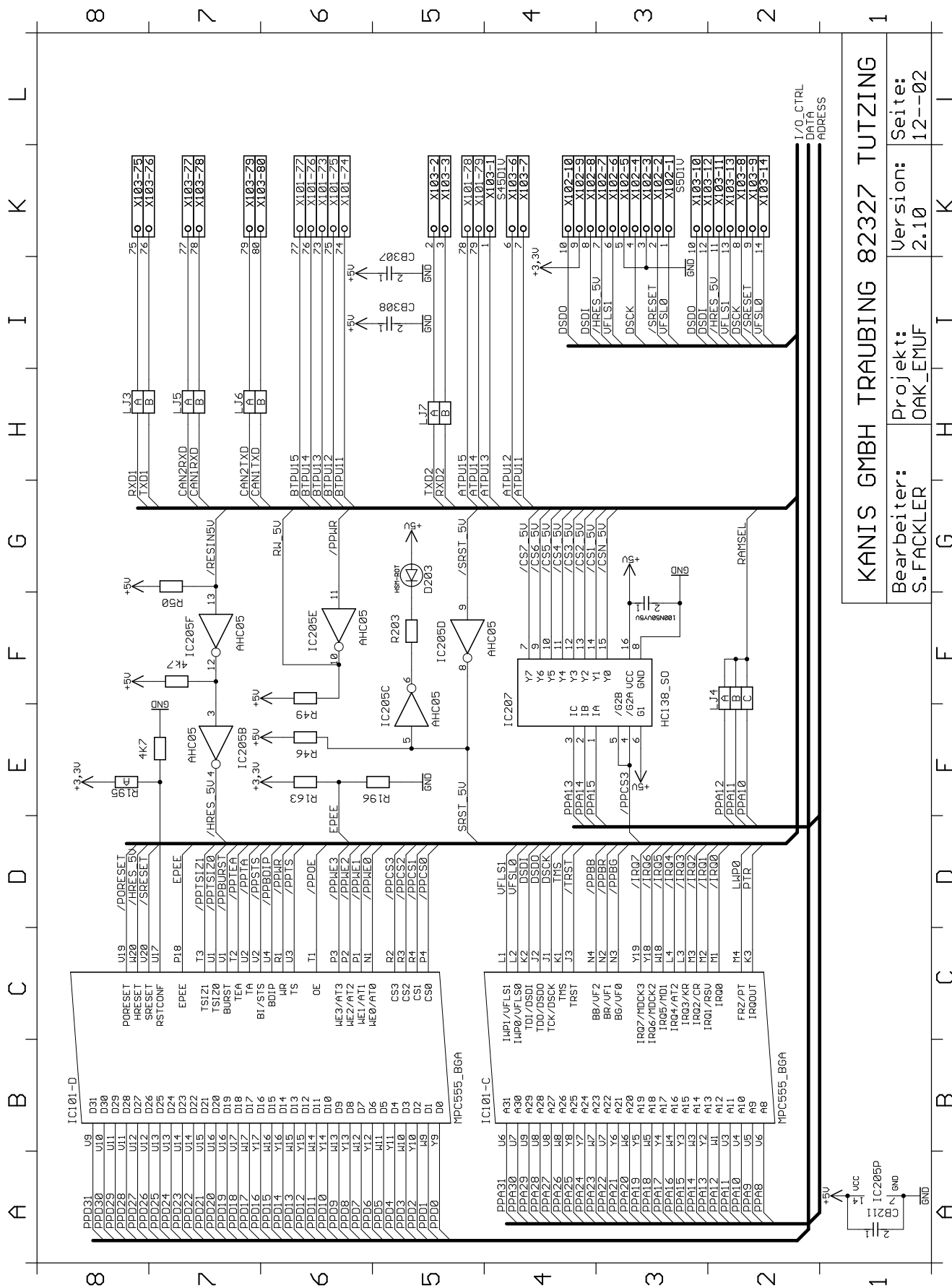
---	R505	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R506	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R507	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R508	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R509	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R510	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R511	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R512	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R513	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R514	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R515	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R516	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R517	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R518	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R519	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R520	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R521	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R522	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R523	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R524	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R525	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R526	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R527	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R528	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R529	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R530	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R531	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R532	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R533	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R534	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V

---	R535	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R536	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R537	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R538	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R539	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R540	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R541	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R542	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R543	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R544	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R545	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R546	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R547	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R548	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R549	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R550	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R551	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R552	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R553	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R554	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R555	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R556	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R557	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R558	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R559	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R560	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R561	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R562	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R563	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R564	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V



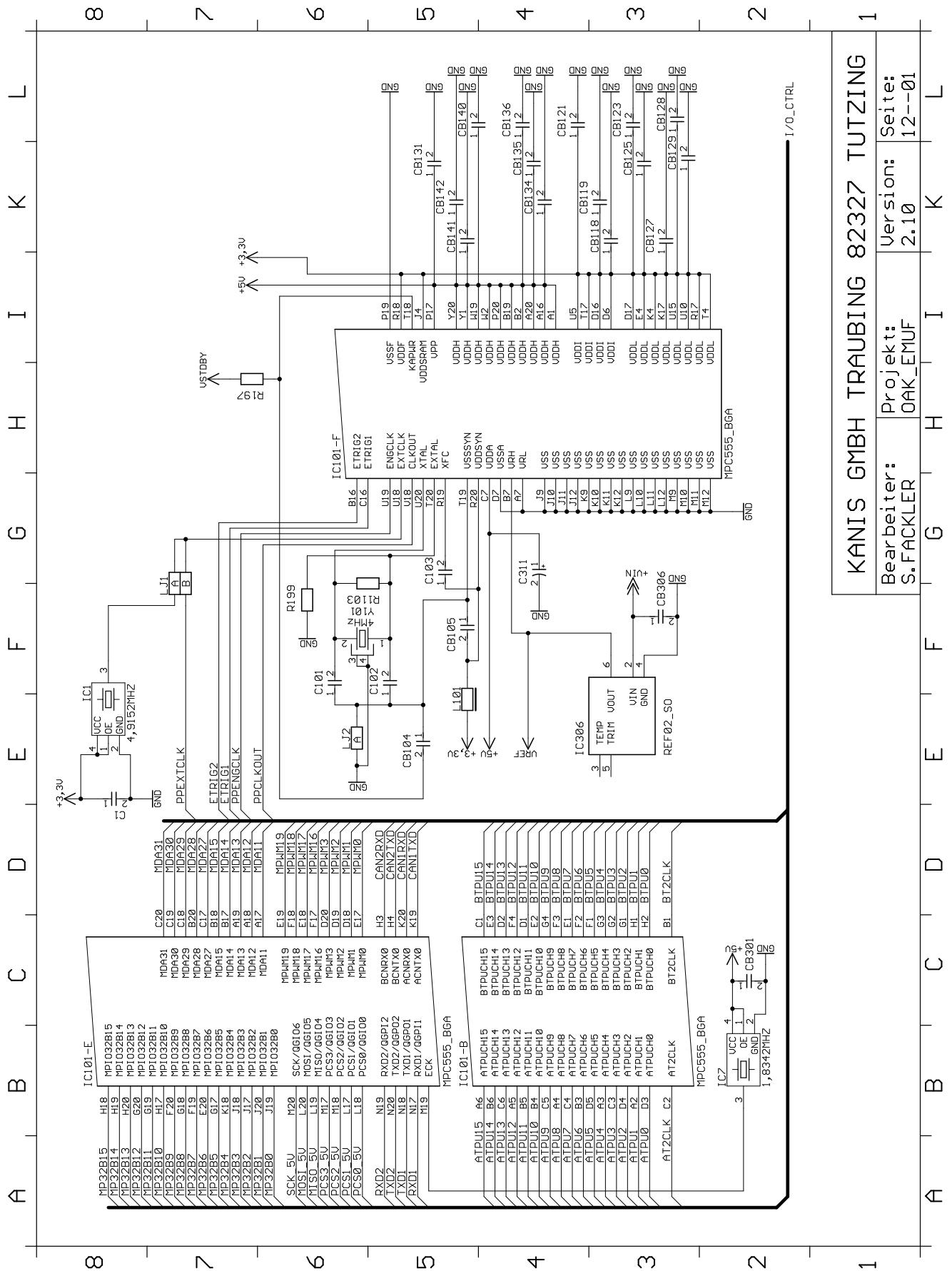
---	R565	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R566	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R567	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R568	1	St.	WDM-98893-000	LS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R569	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R570	1	St.	WDM-98893-000	BS	SMD	Met.Wid.	0603	68R	1%	0.063W	50V
---	R1103	1	St.	WDM-98917-000	LS	SMD	Met.Wid.	0805	1M	1%	0.125W	200V
---	REF	1	St.	KKO-99999-000	BS	---	fikt.Baut.	Layoutreferenz				
---	S201	1	St.	STS-99823-000	BS	---	Stiftl.	SL22/124-S	2pol.2reih	Q0.635mm	sel. Gold	RM2.54
---	ST1	1	St.	STS-99517-000	BS	---	Stiftl.	SDEX9PNTD	9pol.			Dsub
---	ST2	1	St.	STS-99811-000	BS	---	Stiftl.	SL22/124-S	26pol.2reih	Q0.635mm	sel. Gold	RM2.54
---	ST3	1	St.	STS-99451-000	BS	---	Stiftl.	0903 196 6921	96pol.3reih			VG a-b-c
---	TR201	1	St.	UEB-99996-000	BS	---	Übertrager	PE65424				
---	X101	1	St.	STS-99330-000	BS	---	Stiftl.	SL22/124-S	90pol.2reih		sel. Gold	RM2.54
---	X102	1	St.	STS-99445-000	BS	---	Stiftl.	0918 510 6324	10pol.2reih	Q0.635mm		Wanne
---	X103	1	St.	STS-99330-000	BS	---	Stiftl.	SL22/124-S	90pol.2reih		sel. Gold	RM2.54
---	X107	1	St.	STB-99513-000	BS	---	Buchse	SS6488S-NF	8/8pol.			Telefon
---	Y101	1	St.	QUA-99912-000	BS	---	Quarz	HC-49 (4mm)	4.000MHz			
---	Y201	1	St.	QUA-99893-000	BS	---	Quarz	HC-49 (4mm)	20.00MHz			
---	Y301	1	St.	QUA-99999-000	LS	---	Quarz	TC26MINI	32.768KHz			
---	ZERO	1	St.	KKO-99998-000	BS	---	fikt.Baut.	Nullpunkt f.Be>				

bei =customer provided parts, LS =solder side, BS =component side, ICT =incircuit test, SMD =surface mounted device, NB =not mounted  
 We reserve the right to use parts of a higher technical quality eg. 1% resistors instead of 5% resistors

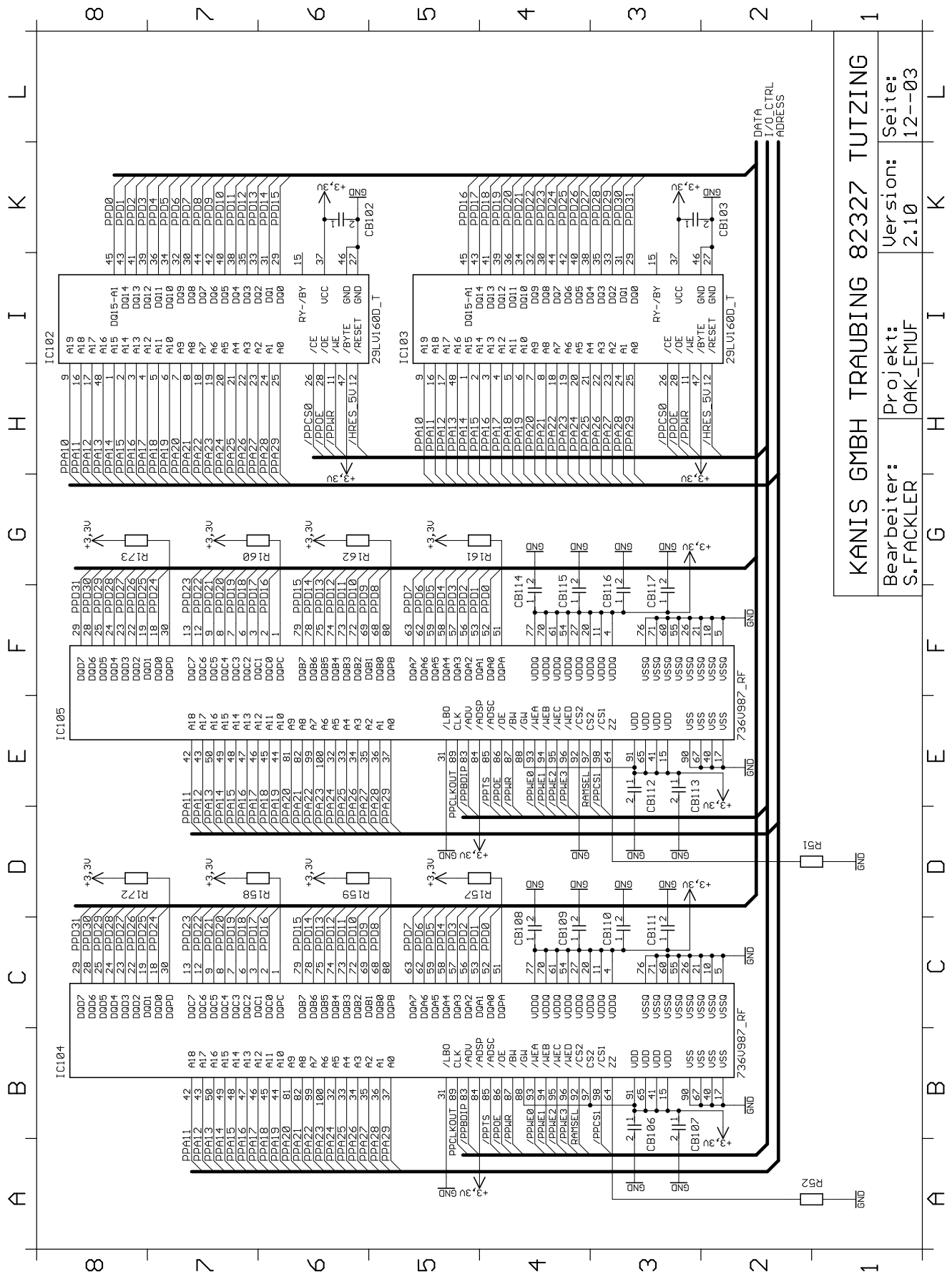


**KANIS GMBH TRAUBING 82327 TUTZING**

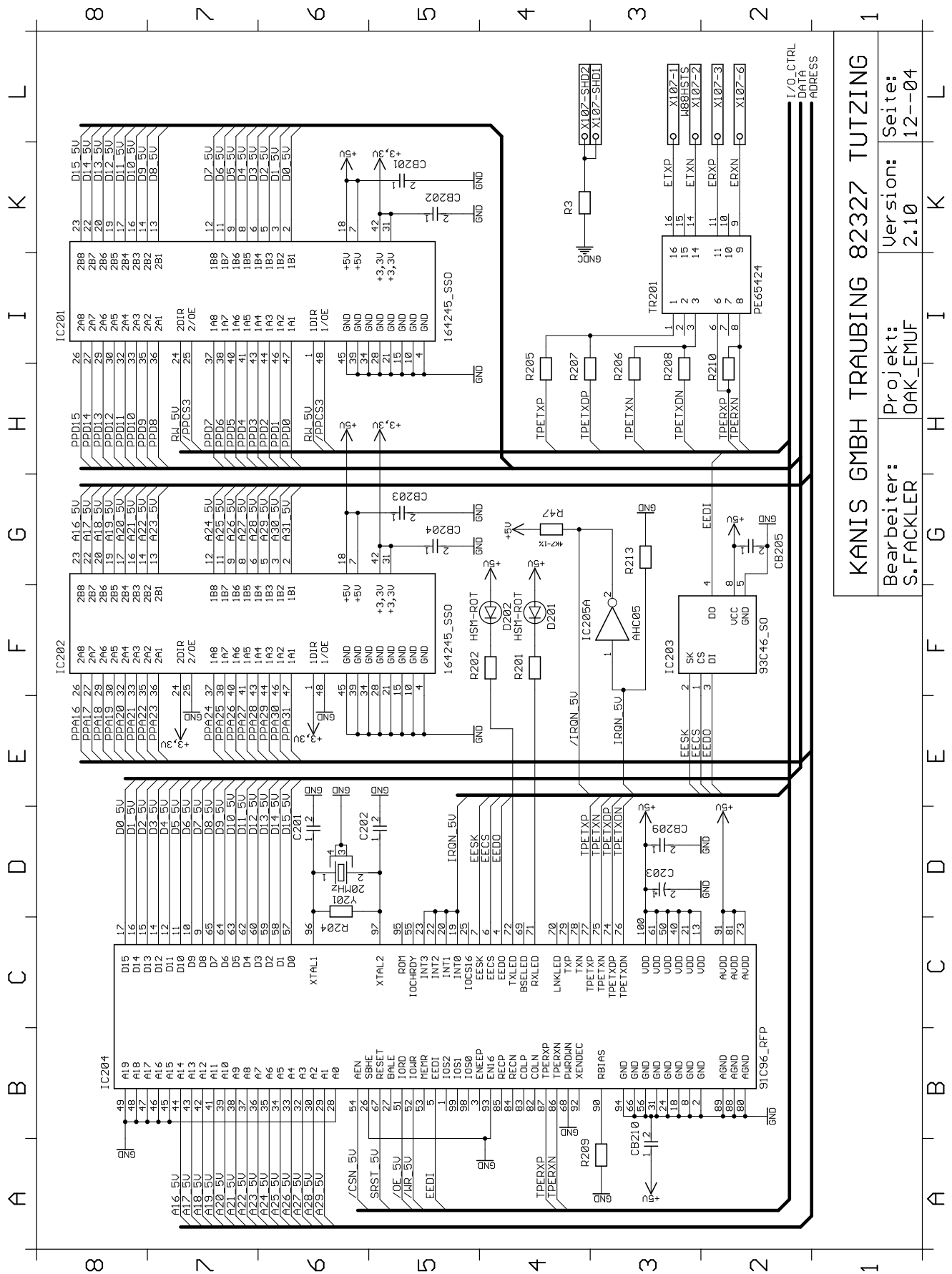
Bearbeiter: S.FACKLER	Projekt: OAK_EMUF	Version: 2.10
		Seite: 12--02



KANIS GMBH TRAUBING 82327 TUTZING  
 Bearbeiter: S.FACKLER  
 Projekt: OAK\_EMUF  
 Version: 2.10  
 Seite: 12--01

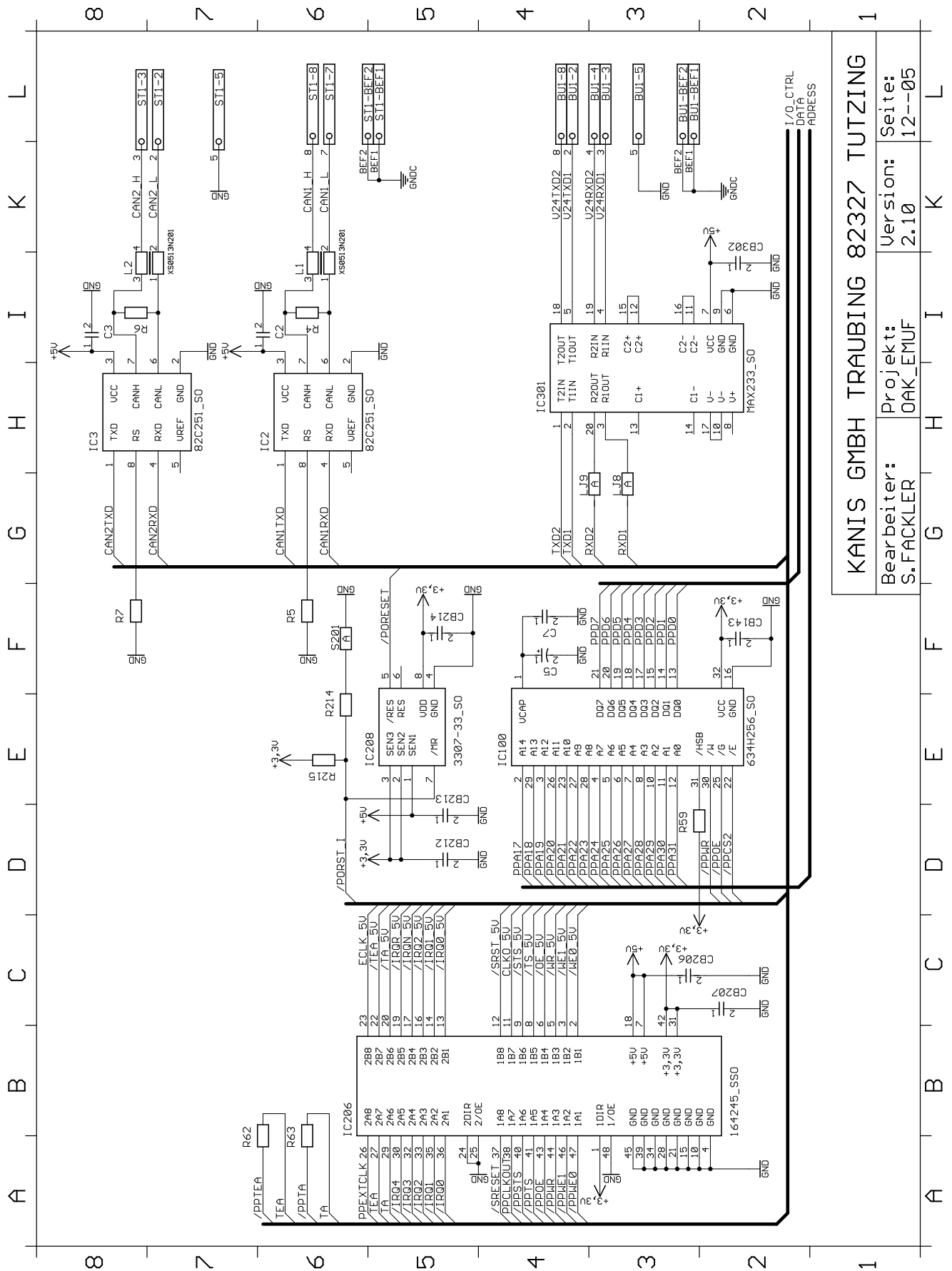


KANIS GMBH TRAUBING 82327 TUTZING  
 Bearbeiter: S.FACKLER  
 Projekt: OAK\_EMUF  
 Version: 2.10  
 Seite: 12--03

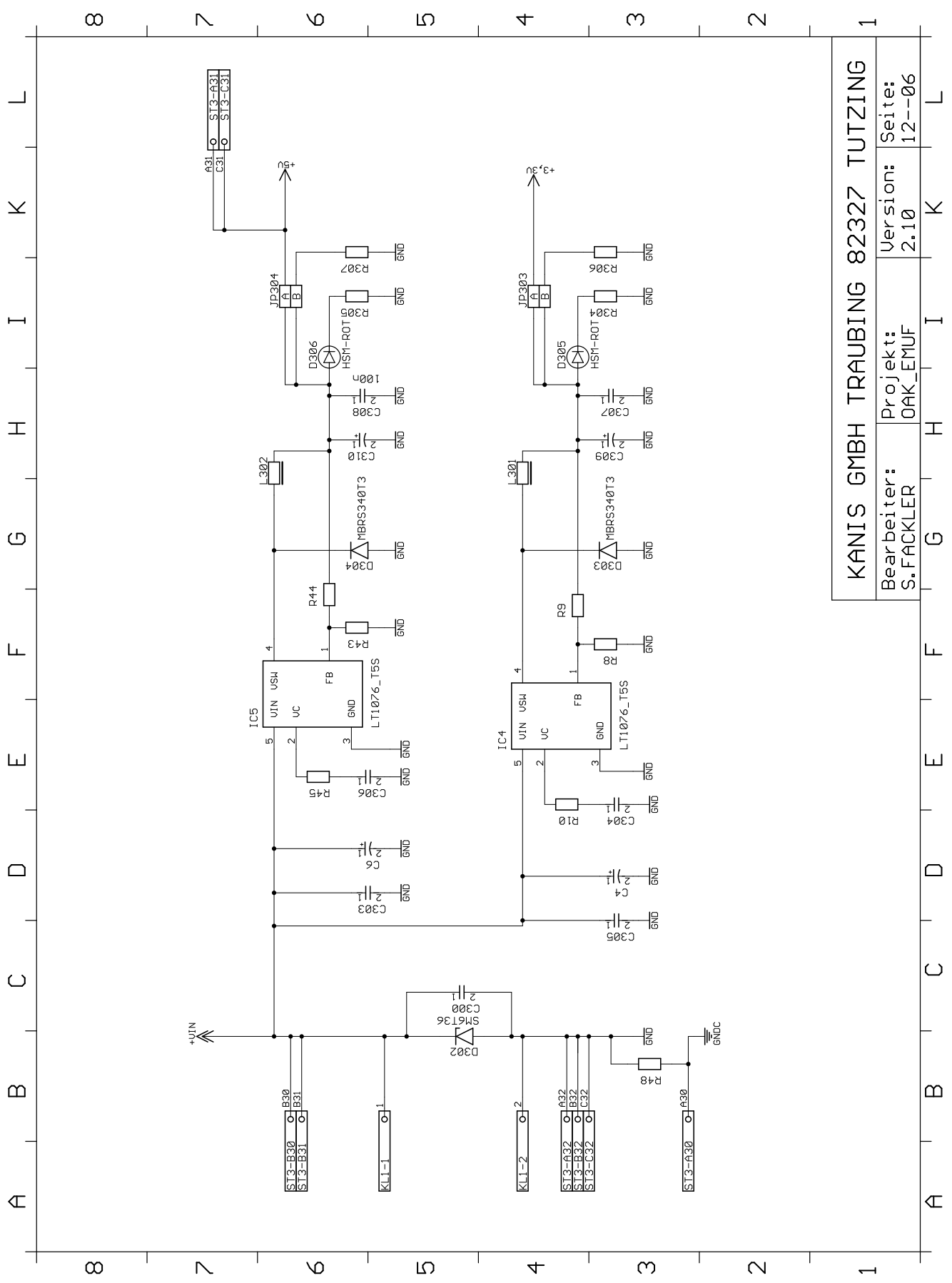


KANIS GMBH TRAUBING 82327 TUTZING

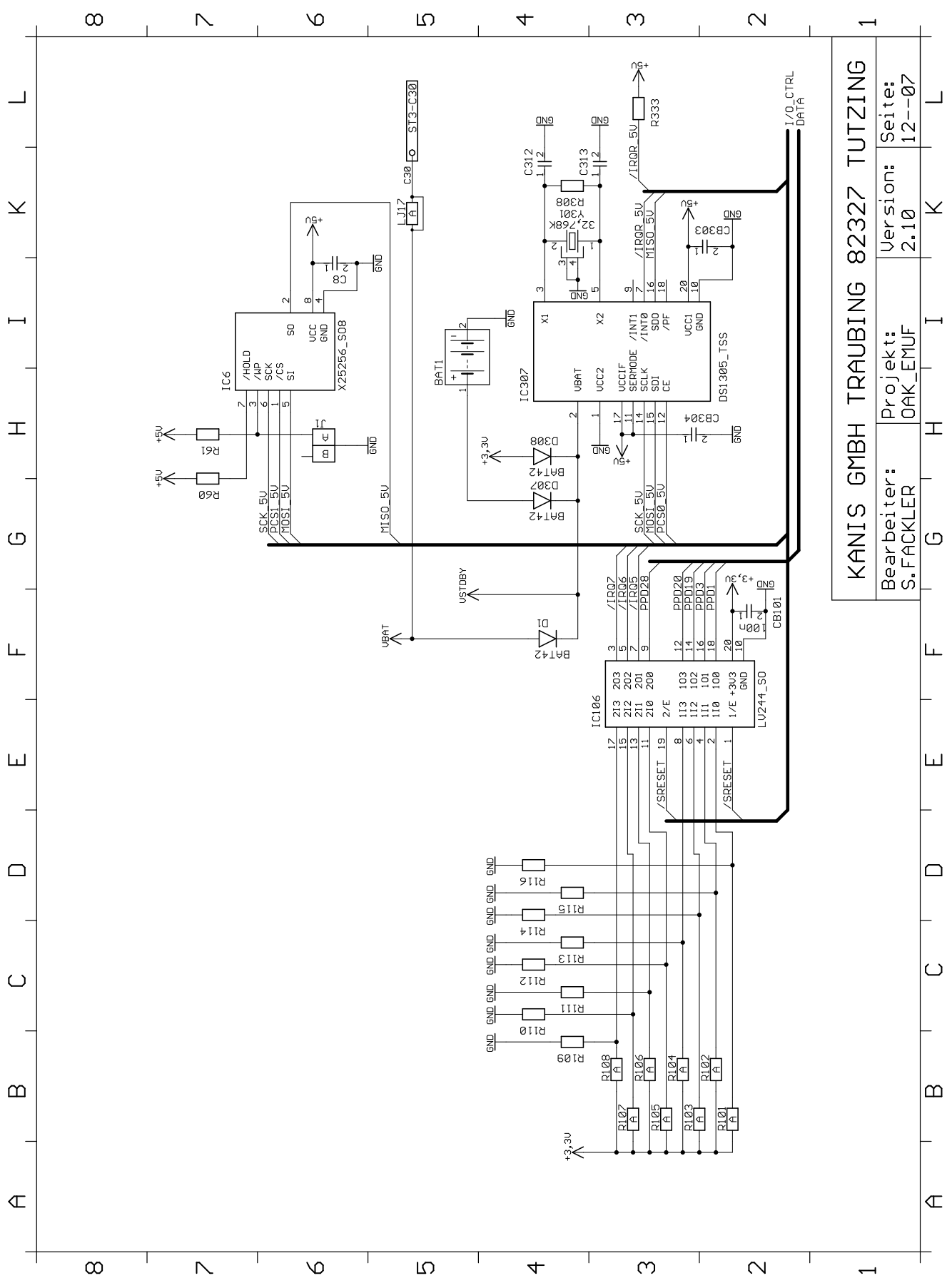
Bearbeiter: S.FACKLER  
 Projekt: OAK\_EMUF  
 Version: 2.10  
 Seite: 12--04



KANIS GMBH TRAUBING 82327 TUTZING  
 Bearbeiter: S.FACKLER Projekt: OAK\_EMUF Version: 2.10 Seite: 12--05

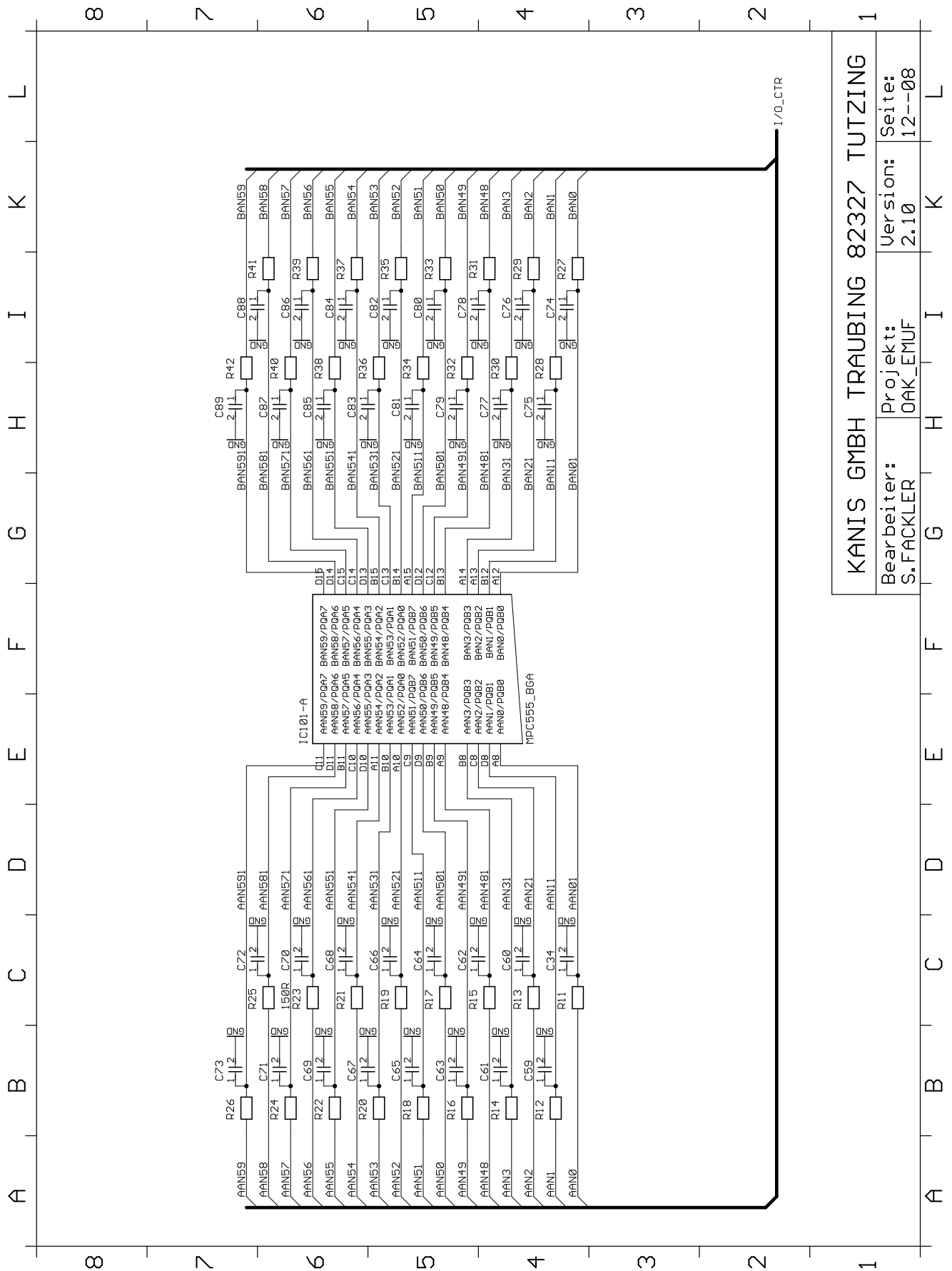


KANIS GMBH TRAUBING 82327 TUTZING			
Bearbeiter:	Projekt:	Version:	Seite:
S.FACKLER	OAK_EMUF	2.10	12--06



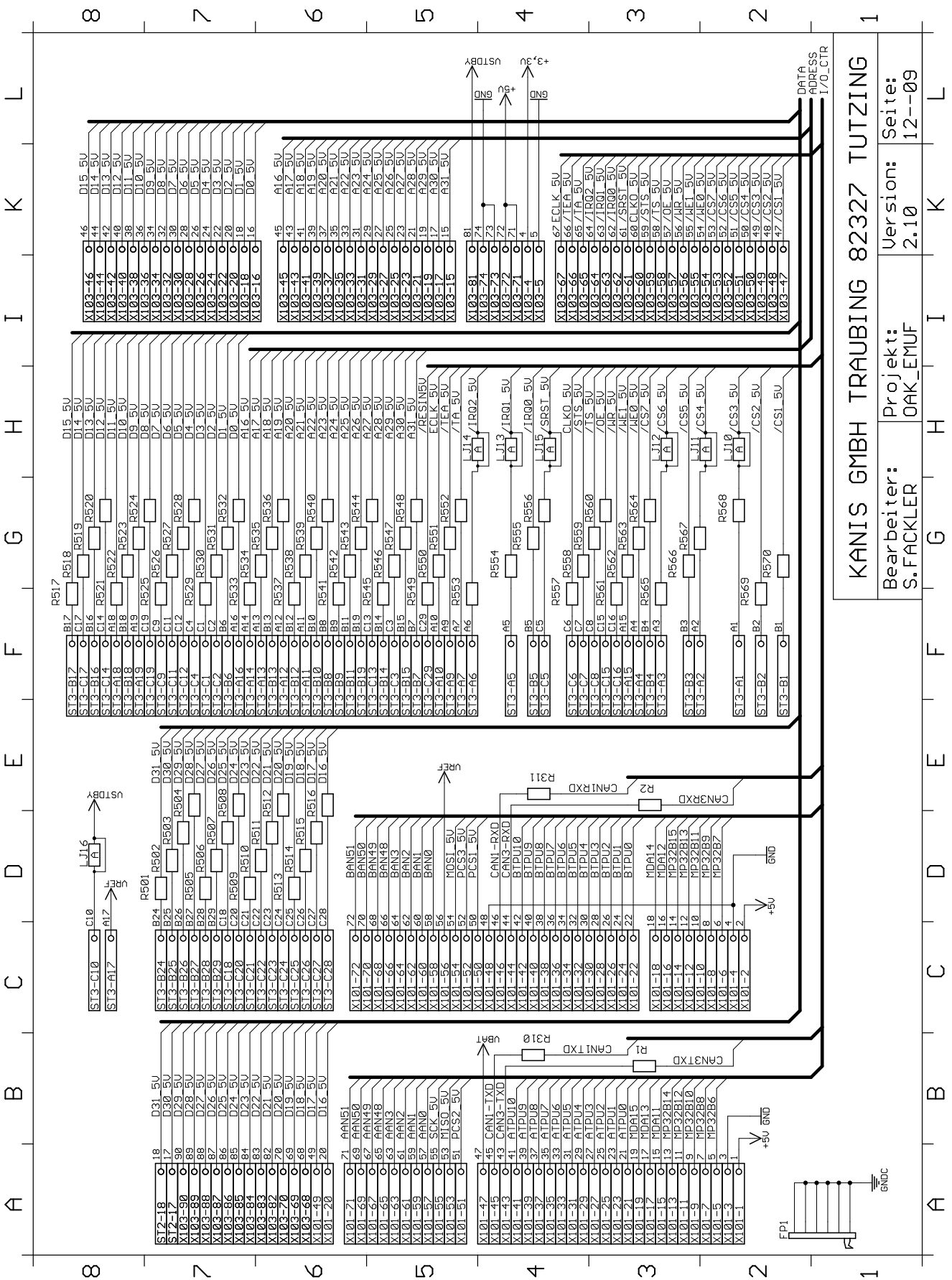
KANIS GMBH TRAUBING 82327 TUTZING  
 Bearbeiter: S.FACKLER Projekt: OAK\_EMUF Version: 2.10 Seite: 12--07

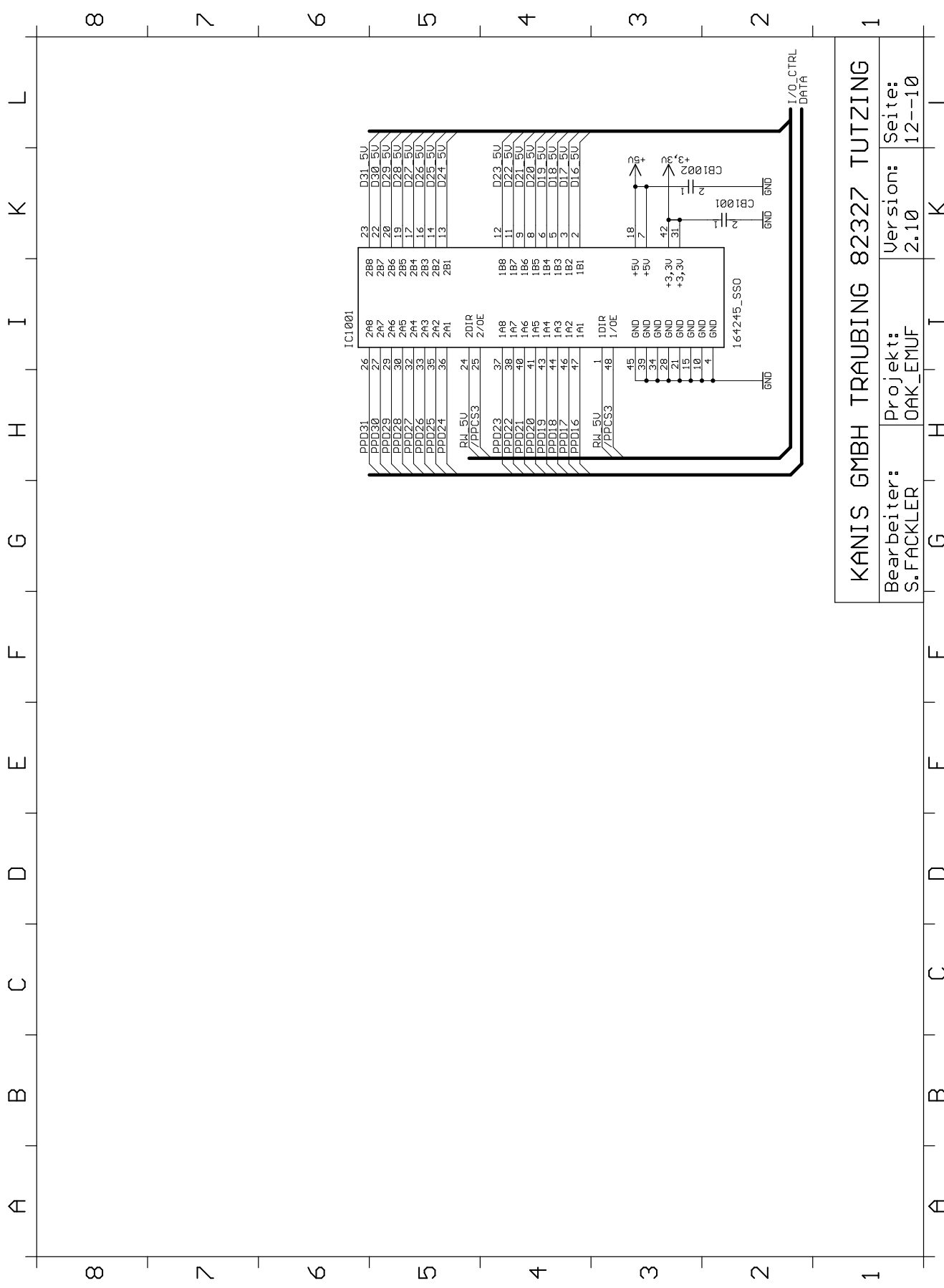




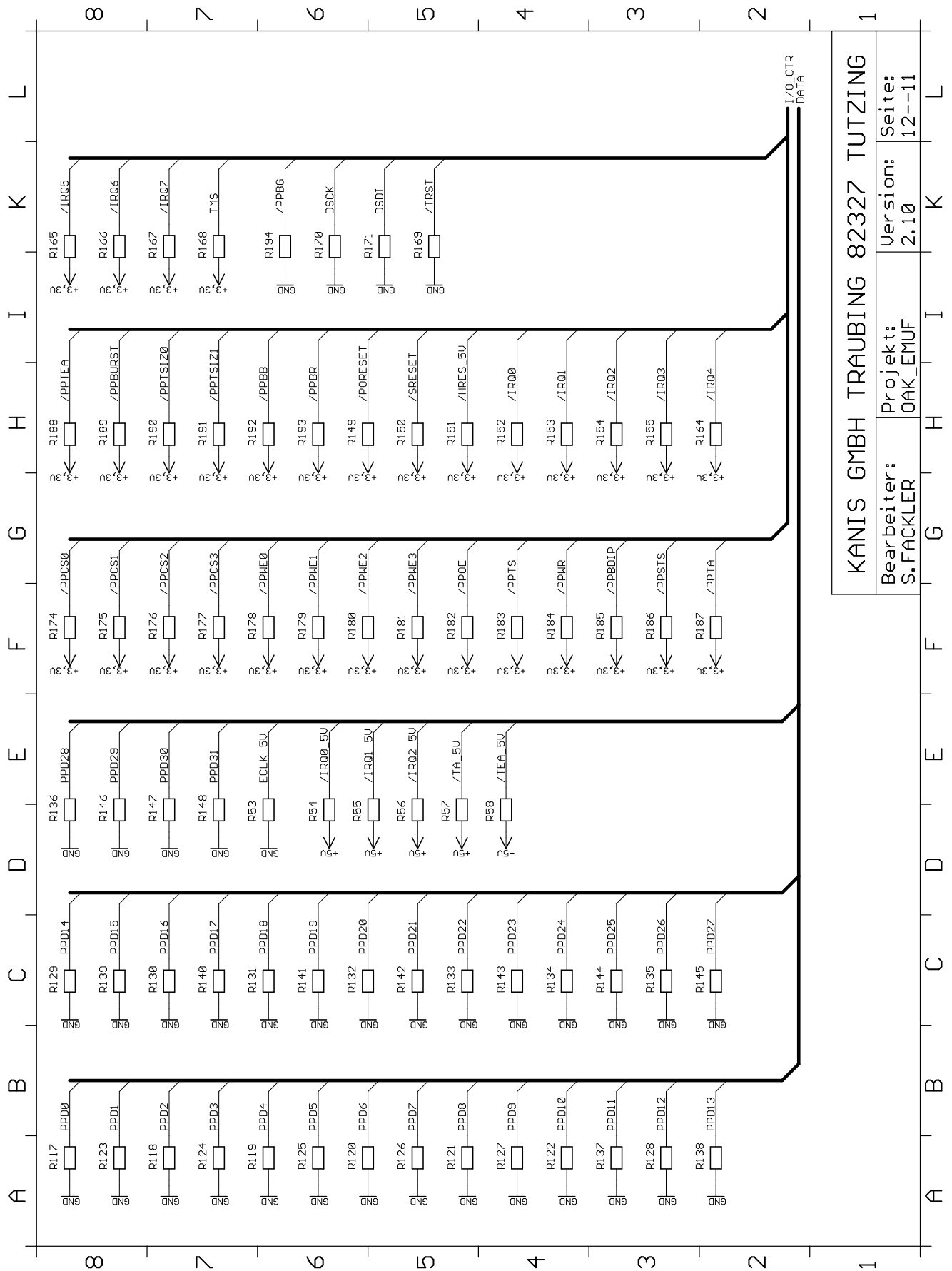
KANIS GMBH TRAUBING 82327 TUTZING

Bearbeiter: S.FACKLER    Projekt: OAK\_EMUF    Version: 2.10    Seite: 12--08

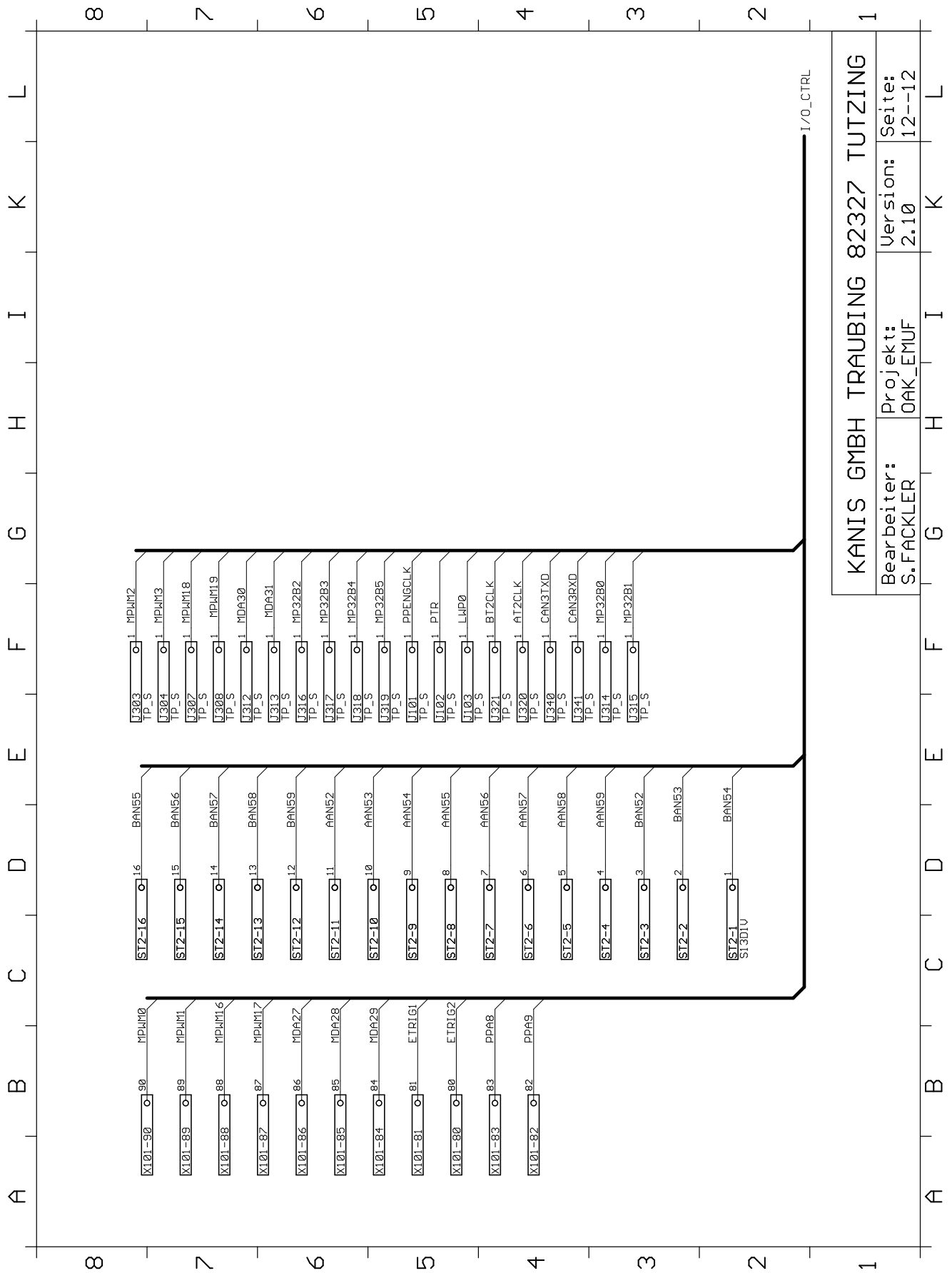




<b>KANIS GMBH TRAUBING 82327 TUTZING</b>			
Bearbeiter: S.FACKLER	Projekt: OAK_EMUF	Version: 2.10	Seite: 12--10



KANIS GMBH TRAUBING 82327 TUTZING	
Bearbeiter: S.FACKLER	Projekt: OAK_EMUF
Version: 2.10	Seite: 12--11

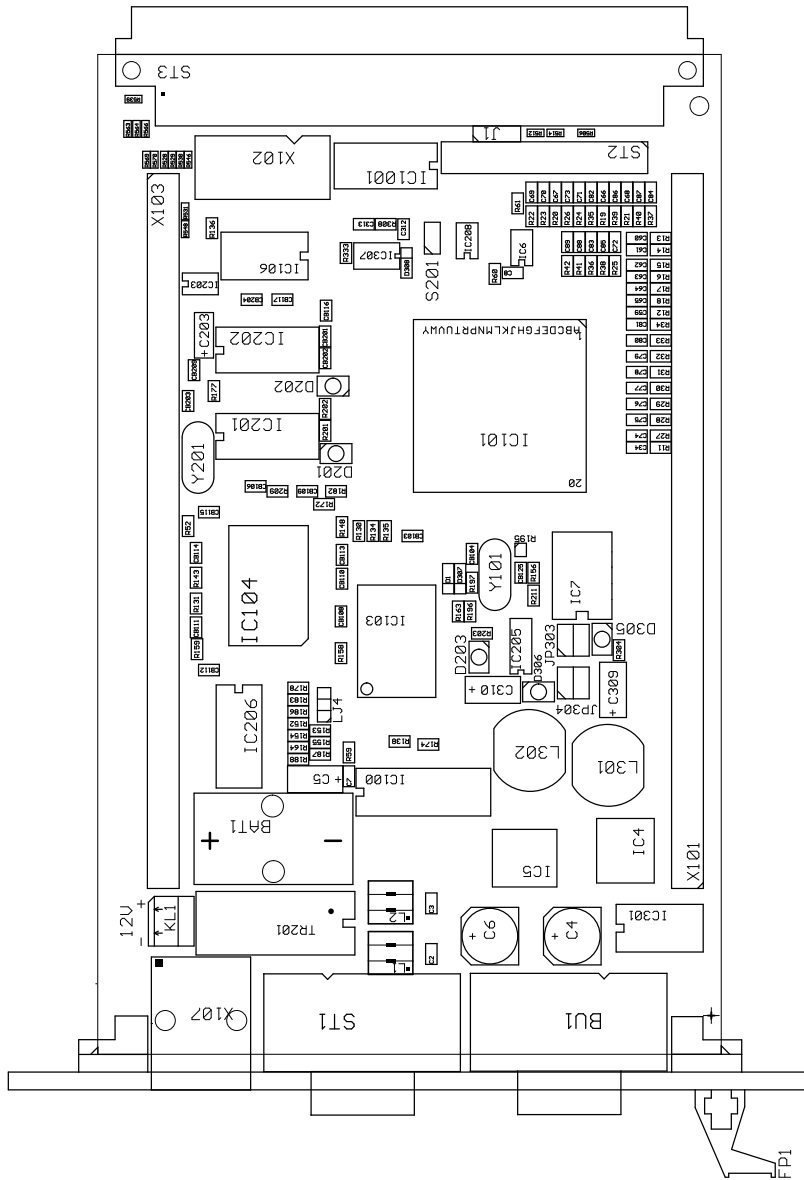


**KANIS GMBH TRAUBING 82327 TUTZING**

Bearbeiter: S.FACKLER    Projekt: OAK\_EMUF    Version: 2.10    Seite: 12--12

I:\PJ\OAK\_EMUF\LAY\V2\_10\PLOT\_PS\

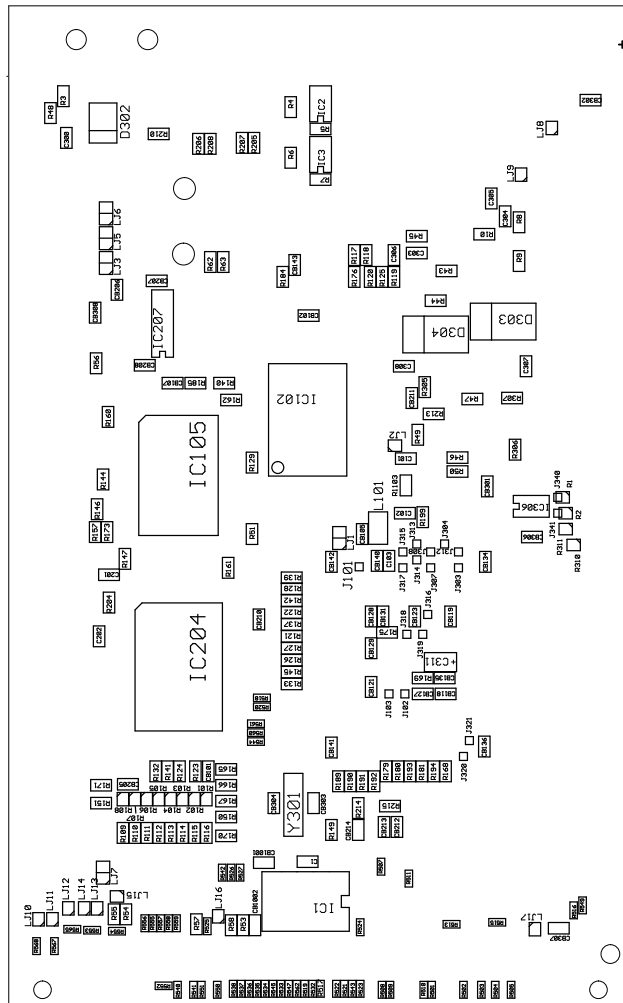
KANIS GMBH TRAUBING  
 82327 TUTZING  
 OAK\_EMUF 2.10  
 POS.PLAN BAUTEILESEITE



⊕ B

⊕ A

KANIS GMBH TRAUBING  
82327 TUTZING 2.10  
OAK\_EMUF  
POSITIONSPLAN LÖTSEITE



I:\PJ\OAK\_EMUF\LAY\V2\_10\

```

BU1      1          *** unconnected ***
         2          V24TXD1
         3          V24RXD1
         4          V24RXD2
         5          GND
         6          *** unconnected ***
         7          *** unconnected ***
         8          V24TXD2
         9          *** unconnected ***
        BEF1      GNDC
        BEF2      GNDC

ST1      1          *** unconnected ***
         2          CAN2_L
         3          CAN2_H
         4          *** unconnected ***
         5          GND
         6          *** unconnected ***
         7          CAN1_L
         8          CAN1_H
         9          *** unconnected ***
        BEF1      GNDC
        BEF2      GNDC

ST2      1          BAN54
         2          BAN53
         3          BAN52
         4          AAN59
         5          AAN58
         6          AAN57
         7          AAN56
         8          AAN55
         9          AAN54
        10         AAN53
        11         AAN52
        12         BAN59
        13         BAN58
        14         BAN57
        15         BAN56
        16         BAN55
        17         D30_5V
        18         D31_5V
        19         *** unconnected ***
        20         *** unconnected ***
        21         *** unconnected ***
        22         *** unconnected ***
        23         *** unconnected ***
        24         *** unconnected ***
        25         *** unconnected ***
        26         *** unconnected ***

ST3      A1          S$70
         A2          S$69
         A3          S$67
         A4          S$65
         A5          S$56
         A6          S$55
         A7          S$54
         A8          *** unconnected ***
         A9          S$53
         B1          S$72
         B2          S$71
         B3          S$68
         B4          S$57
         B5          S$66
         B6          S$33
         B7          S$50
         B8          S$42
         B9          S$43
         C1          S$31
         C2          S$48
         C3          S$32
         C4          S$30
         C5          S$58
         C6          S$59
         C7          S$60
         C8          S$61

```



C9	S\$27	
A10	S\$52	
A11	S\$40	
A12	S\$38	
A13	S\$36	
A14	S\$35	
A15	S\$64	
A16	S\$34	
A17	VREF	
A18	S\$23	
A19	S\$25	
A20		*** unconnected ***
A21		*** unconnected ***
A22		*** unconnected ***
A23		*** unconnected ***
A24		*** unconnected ***
A25		*** unconnected ***
A26		*** unconnected ***
A27		*** unconnected ***
A28		*** unconnected ***
A29		*** unconnected ***
A30	GNDC	
A31	+5V	
A32	GND	
B10	S\$41	
B11	S\$44	
B12	S\$39	
B13	S\$37	
B14	S\$47	
B15	S\$49	
B16	S\$21	
B17	S\$19	
B18	S\$24	
B19	S\$46	
B20		*** unconnected ***
B21		*** unconnected ***
B22		*** unconnected ***
B23		*** unconnected ***
B24	S\$3	
B25	S\$4	
B26	S\$5	
B27	S\$6	
B28	S\$7	
B29	S\$8	
B30	+VIN	
B31	+VIN	
B32	GND	
C10	N\$53	
C11	S\$28	
C12	S\$29	
C13	S\$45	
C14	S\$22	
C15	S\$62	
C16	S\$63	
C17	S\$20	
C18	S\$9	
C19	S\$26	
C20	S\$10	
C21	S\$11	
C22	S\$12	
C23	S\$13	
C24	S\$14	
C25	S\$15	
C26	S\$16	
C27	S\$18	
C28	S\$17	
C29	S\$51	
C30	N\$54	
C31	+5V	
C32	GND	
X101	1	+5V
	2	+5V
	3	GND
	4	GND
	5	MP32B6
	6	MP32B7
	7	MP32B8
	8	MP32B9
	9	MP32B10

10	MP32B11
11	MP32B12
12	MP32B13
13	MP32B14
14	MP32B15
15	MDA11
16	MDA12
17	MDA13
18	MDA14
19	MDA15
20	D16_5V
21	ATPU0
22	BTPU0
23	ATPU1
24	BTPU1
25	ATPU2
26	BTPU2
27	ATPU3
28	BTPU3
29	ATPU4
30	BTPU4
31	ATPU5
32	BTPU5
33	ATPU6
34	BTPU6
35	ATPU7
36	BTPU7
37	ATPU8
38	BTPU8
39	ATPU9
40	BTPU9
41	ATPU10
42	BTPU10
43	CAN3-TXD
44	CAN3-RXD
45	CAN1-TXD
46	CAN1-RXD
47	VBAT
48	GND
49	D17_5V
50	PCS1_5V
51	PCS2_5V
52	PCS3_5V
53	MISO_5V
54	MOSI_5V
55	SCK_5V
56	VREF
57	AAN0
58	BAN0
59	AAN1
60	BAN1
61	AAN2
62	BAN2
63	AAN3
64	BAN3
65	AAN48
66	BAN48
67	AAN49
68	BAN49
69	AAN50
70	BAN50
71	AAN51
72	BAN51
73	BTPU13
74	BTPU11
75	BTPU12
76	BTPU14
77	BTPU15
78	ATPU15
79	ATPU14
80	ETRIG2
81	ETRIG1
82	PPA9
83	PPA8
84	MDA29
85	MDA28
86	MDA27
87	MPWM17
88	MPWM16
89	MPWM1

	90	MPWM0
X102	1	VFSL0
	2	/SRESET
	3	GND
	4	DSCK
	5	GND
	6	VFLS1
	7	/HRESET
	8	DSDI
	9	+3,3V
	10	DSDO
X103	1	ATPU13
	2	N\$25
	3	N\$26
	4	+3,3V
	5	GND
	6	ATPU12
	7	ATPU11
	8	DSCK
	9	/SRESET
	10	DSDO
	11	/HRESET
	12	DSDI
	13	VFLS1
	14	VFSL0
	15	A31_5V
	16	D0_5V
	17	A30_5V
	18	D1_5V
	19	A29_5V
	20	D2_5V
	21	A28_5V
	22	D3_5V
	23	A27_5V
	24	D4_5V
	25	A26_5V
	26	D5_5V
	27	A25_5V
	28	D6_5V
	29	A24_5V
	30	D7_5V
	31	A23_5V
	32	D8_5V
	33	A22_5V
	34	D9_5V
	35	A21_5V
	36	D10_5V
	37	A20_5V
	38	D11_5V
	39	A19_5V
	40	D12_5V
	41	A18_5V
	42	D13_5V
	43	A17_5V
	44	D14_5V
	45	A16_5V
	46	D15_5V
	47	/CS1_5V
	48	/CS2_5V
	49	/CS3_5V
	50	/CS4_5V
	51	/CS5_5V
	52	/CS6_5V
	53	/CS7_5V
	54	/WE0_5V
	55	/WE1_5V
	56	/WR_5V
	57	/OE_5V
	58	/TS_5V
	59	/STS_5V
	60	CLKO_5V
	61	/SRST_5V
	62	/IRQ0_5V
	63	/IRQ1_5V
	64	/IRQ2_5V
	65	/TA_5V
	66	/TEA_5V
	67	ECLK_5V

68 D18\_5V  
69 D19\_5V  
70 D20\_5V  
71 +5V  
72 +5V  
73 GND  
74 GND  
75 N\$7  
76 N\$6  
77 N\$11  
78 N\$12  
79 N\$8  
80 N\$16  
81 VSTDBY  
82 D21\_5V  
83 D22\_5V  
84 D23\_5V  
85 D24\_5V  
86 D25\_5V  
87 D26\_5V  
88 D27\_5V  
89 D28\_5V  
90 D29\_5V

X107 1 ETXP  
2 ETXN  
3 ERXP  
4 \*\*\* unconnected \*\*\*  
5 \*\*\* unconnected \*\*\*  
6 ERXN  
7 \*\*\* unconnected \*\*\*  
8 \*\*\* unconnected \*\*\*  
9 N\$1  
10 N\$1

versions, , version.txt,

I:\PJ\OAK\_EMUF\HAND\

```

-----
|           Ing. Büro W.Kanis GmbH - Brückenweg 2, Traubing - D82327 Tutzing           |
|-----|
| Versionsnummern-Änderungs-Beschreibung für Projekt: OAK_EMUF                       |
|-----|
-----

```

```

=====
Eintrag durch Fackler Sepp am Fr 10.11.2000 13:40:40 an PC starr
Alte Version i:\pj\OAK_EMUF\Hand\V1_00\*. * verwendet
Neue Version i:\pj\OAK_EMUF\Hand\V1_10\*. * erstellt
Alte Version i:\pj\OAK_EMUF\Lay\V1_00\*. * verwendet
Neue Version i:\pj\OAK_EMUF\Lay\V1_10\*. * erstellt
Alte Version i:\pj\OAK_EMUF\Part\V1_00\*. * verwendet
Neue Version i:\pj\OAK_EMUF\Part\V1_10\*. * erstellt
Alte Version i:\pj\OAK_EMUF\Sch\V1_00\*. * verwendet
Neue Version i:\pj\OAK_EMUF\Sch\V1_10\*. * erstellt
Kommentar: Diverse Änderungen.

```

```

=====
Eintrag durch Fackler Sepp am Fr 20.01.2001 13:40:40 an PC starr
Alte Version i:\pj\OAK_EMUF\Hand\V1_10\*. * verwendet
Neue Version i:\pj\OAK_EMUF\Hand\V2_00\*. * erstellt
Alte Version i:\pj\OAK_EMUF\Lay\V1_10\*. * verwendet
Neue Version i:\pj\OAK_EMUF\Lay\V2_00\*. * erstellt
Alte Version i:\pj\OAK_EMUF\Part\V1_10\*. * verwendet
Neue Version i:\pj\OAK_EMUF\Part\V2_00\*. * erstellt
Alte Version i:\pj\OAK_EMUF\Sch\V1_10\*. * verwendet
Neue Version i:\pj\OAK_EMUF\Sch\V2_00\*. * erstellt
Alte Version i:\pj\OAK_EMUF\Manu\V1_00\*. * verwendet
Neue Version i:\pj\OAK_EMUF\Manu\V2_00\*. * erstellt
Kommentar: Diverse Änderungen.

```

```

=====
Eintrag durch Schlosser Iris am Thu 4.10.2001 15:43:02 an PC coolday
Freigabe von i:\pj\OAK_EMUF\Lay\V2_00
Kommentar: Freigabe durch Bals/Dienst/Kanis am 28.9.01
=====

```

Eintrag durch Kanis Wolfgang am Fr 16.11.2001 9:06:06 an PC trappi  
Freigabe von i:\pj\OAK\_EMUF\Hand\V2\_00  
Freigabe von i:\pj\OAK\_EMUF\Manu\V2\_00  
Freigabe von i:\pj\OAK\_EMUF\Mech\V1\_00  
Freigabe von i:\pj\OAK\_EMUF\Pal0\V1\_00  
Freigabe von i:\pj\OAK\_EMUF\Part\V2\_00  
Freigabe von i:\pj\OAK\_EMUF\Sch\V2\_00  
Freigabe von i:\pj\OAK\_EMUF\Soft\V0\_99  
Freigabe von i:\pj\OAK\_EMUF\Test\V0\_99  
Kommentar:

=====  
Eintrag durch Schuldes Josef am Mo 19.11.2001 16:16:55 an PC GRRR

=====  
Eintrag durch Fackler Sepp am Mo 17.12.2001 8:32:14 an PC starr

Alte Version i:\pj\OAK\_EMUF\Hand\V2\_00\\*. \* verwendet  
Neue Version i:\pj\OAK\_EMUF\Hand\V2\_10\\*. \* erstellt  
Alte Version i:\pj\OAK\_EMUF\Lay\V2\_00\\*. \* verwendet  
Neue Version i:\pj\OAK\_EMUF\Lay\V2\_10\\*. \* erstellt  
Alte Version i:\pj\OAK\_EMUF\Part\V2\_00\\*. \* verwendet  
Neue Version i:\pj\OAK\_EMUF\Part\V2\_10\\*. \* erstellt  
Alte Version i:\pj\OAK\_EMUF\Sch\V2\_00\\*. \* verwendet  
Neue Version i:\pj\OAK\_EMUF\Sch\V2\_10\\*. \* erstellt  
Kommentar:Änderung laut Herrn Bals.

=====  
Eintrag durch Fackler Sepp am Di 8.01.2002 17:21:05 an PC starr

Freigabe von i:\pj\OAK\_EMUF\Sch\V2\_10  
Freigabe von i:\pj\OAK\_EMUF\Lay\V2\_10  
Freigabe von i:\pj\OAK\_EMUF\Part\V2\_10  
Kommentar: Freigabe durch Herrn Dienst, Herrn Bals.

=====  
Eintrag durch Schuldes Josef am Fr 25.01.2002 9:23:15 an PC GRRR

=====  
Eintrag durch Schuldes Josef am Mo 4.02.2002 10:59:28 an PC GRRR

Alte Version i:\pj\OAK\_EMUF\Manu\V2\_00\\*. \* verwendet  
Neue Version i:\pj\OAK\_EMUF\Manu\V2\_10\\*. \* erstellt  
Kommentar: Neues Layout

=====  
Eintrag durch Schuldes Josef am Mo 13.05.2002 13:46:39 an PC GRRR

Freigabe von i:\pj\OAK\_EMUF\Manu\V2\_10  
Kommentar:

=====  
Eintrag durch Fackler Sepp am Mi 15.05.2002 07:59:09 an PC bush

=====  
Eintrag durch Fackler Sepp am Mi 15.05.2002 8:01:29 an PC starr

Alte Version i:\pj\OAK\_EMUF\Hand\V2\_10\\*. \* verwendet  
Neue Version i:\pj\OAK\_EMUF\Hand\V2\_11\\*. \* erstellt  
Alte Version i:\pj\OAK\_EMUF\Part\V2\_10\\*. \* verwendet  
Neue Version i:\pj\OAK\_EMUF\Part\V2\_11\\*. \* erstellt  
Kommentar:Farben der LED'S nach anweisung von Herrn Kanis geändert.

=====  
Eintrag durch Administrator Kanis am Mo 03.06.2002 10:27:31 an PC bse

Freigabe von i:\pj\OAK\_EMUF\Hand\V2\_11  
Freigabe von i:\pj\OAK\_EMUF\Part\V2\_11  
Kommentar: LED Farben geändert