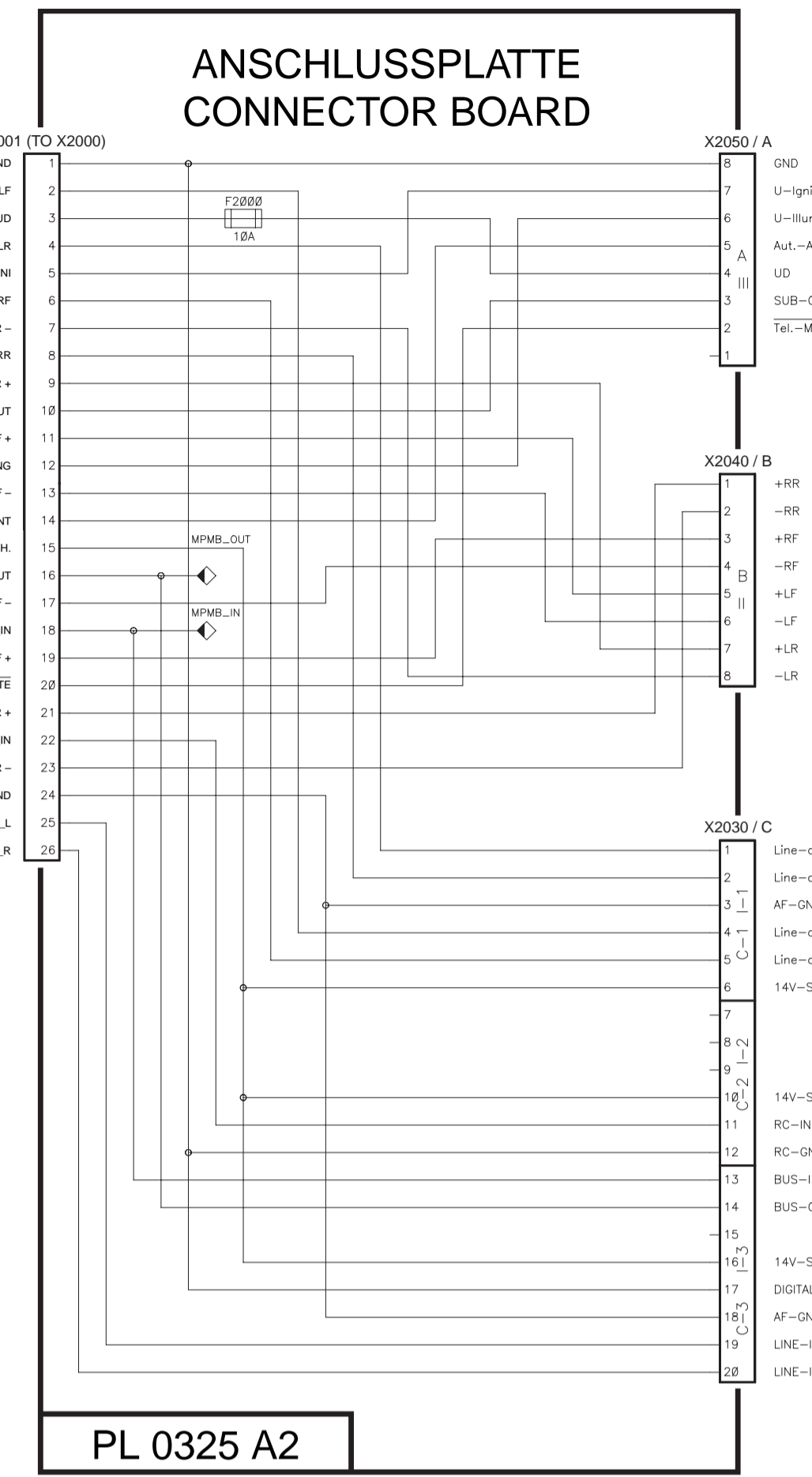
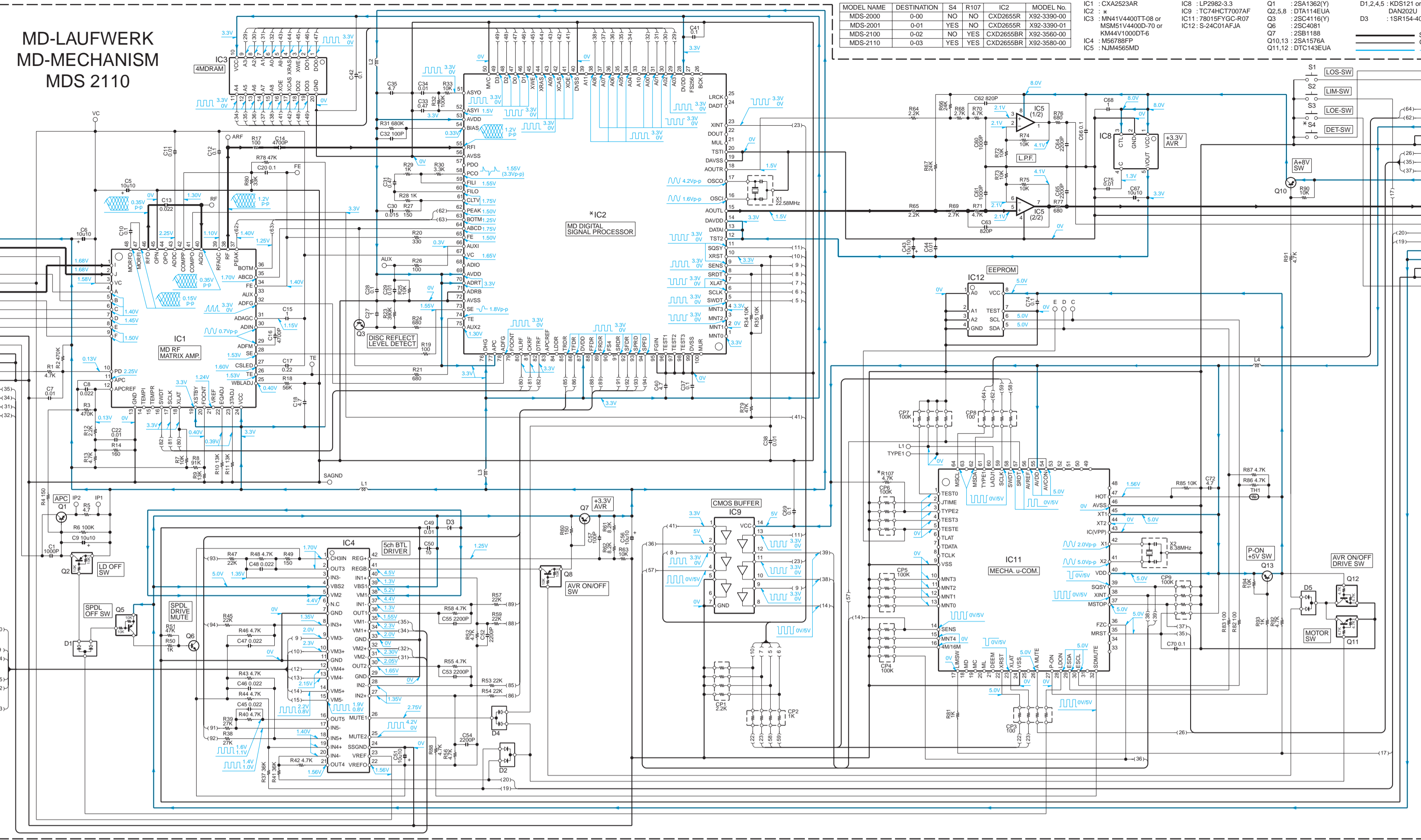
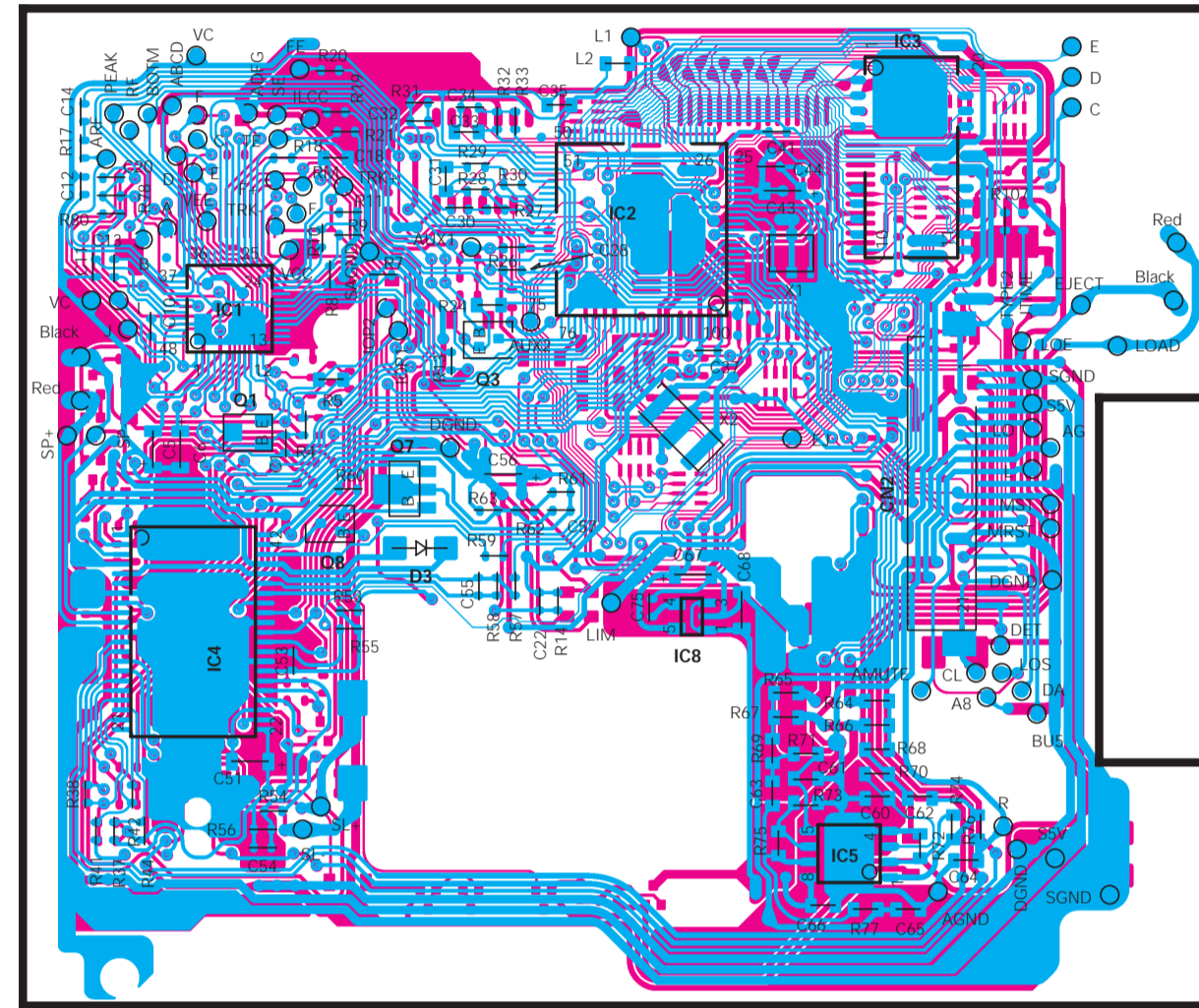
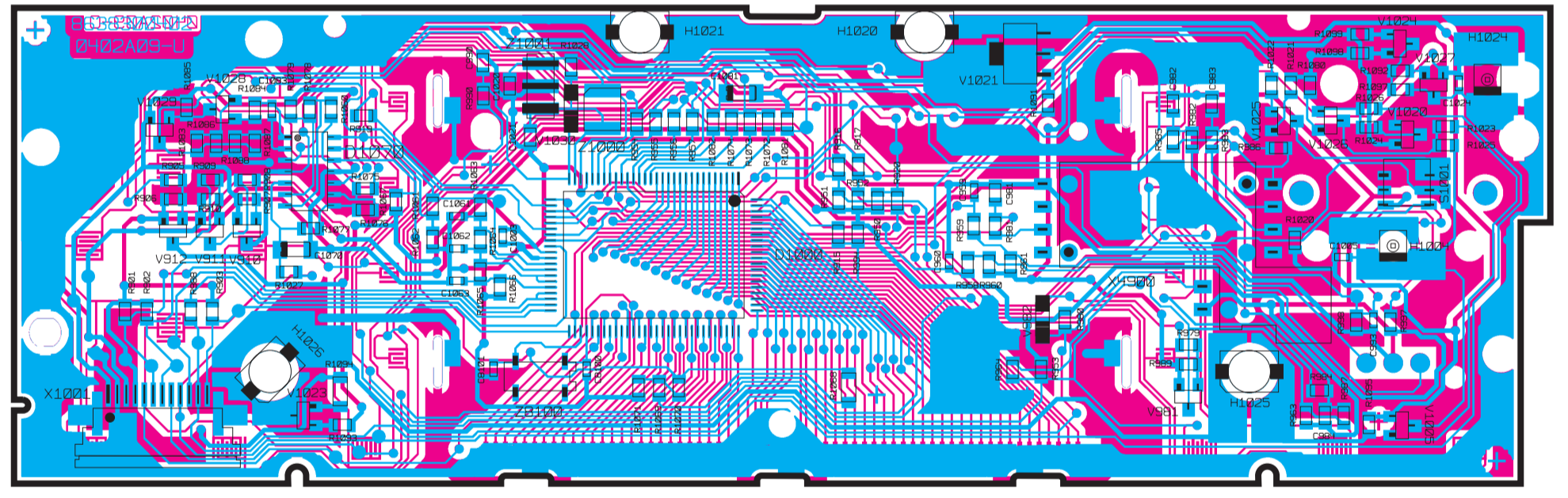


MD-LAUFWERK / MD-MECHANISM MDS 2110

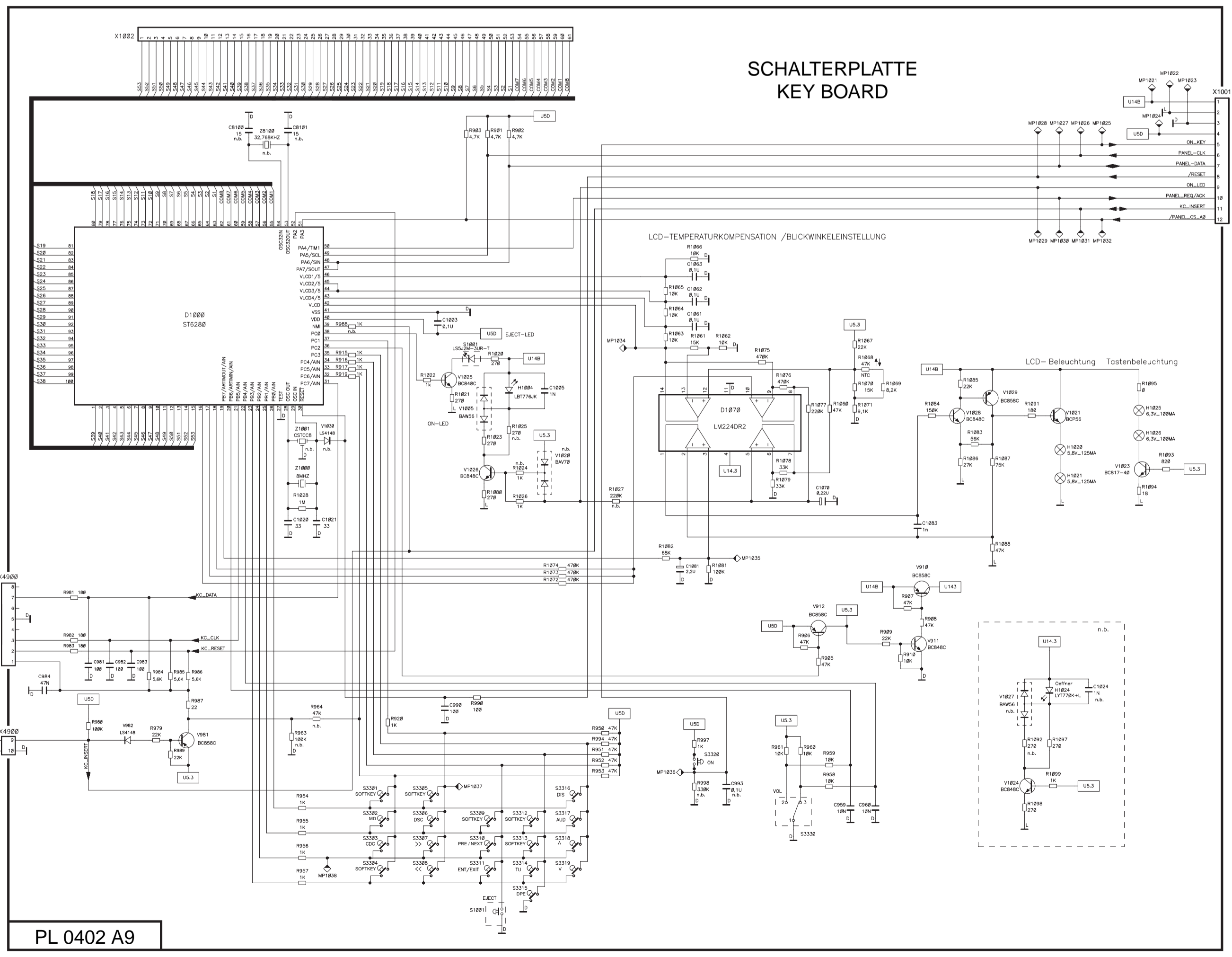
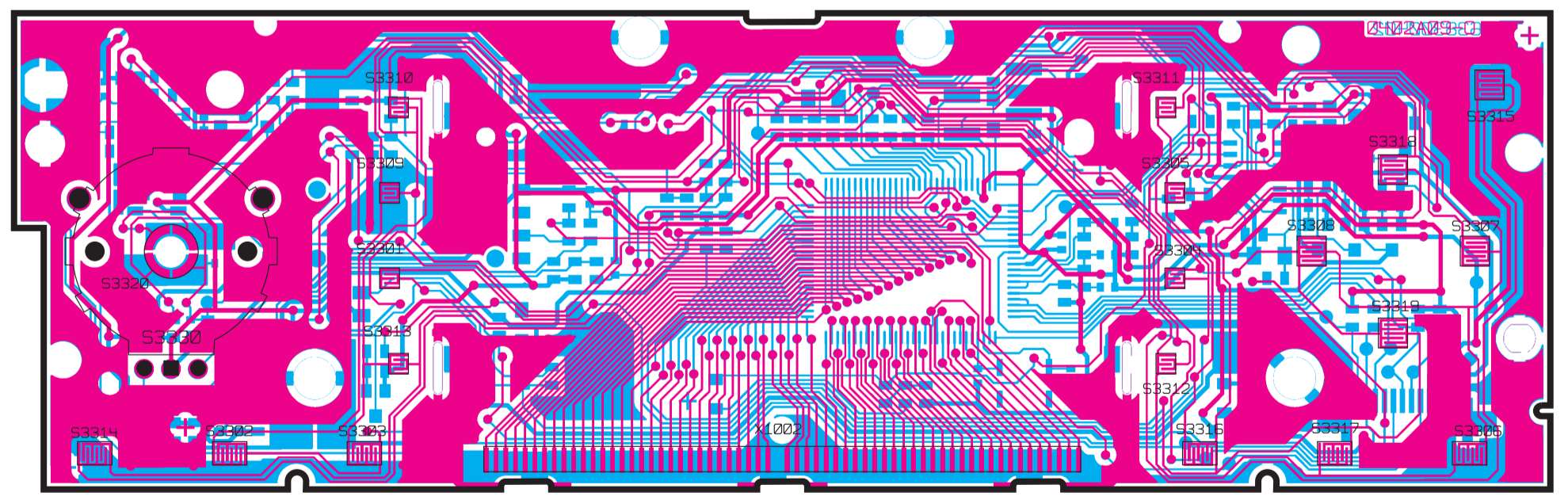


PL 0325 A2

Schalterplatte
Key board
PL 0402 A09
Chip



Schalterplatte
Key board
PL 0402 A09
B + Chip



PL 0402 A9



BLAUPUNKT AUTORADIO Dallas RMD 169 US
7 649 441 310

8 622 402 340 BN-WG 02/00

CLASS 1 LASER PRODUCT

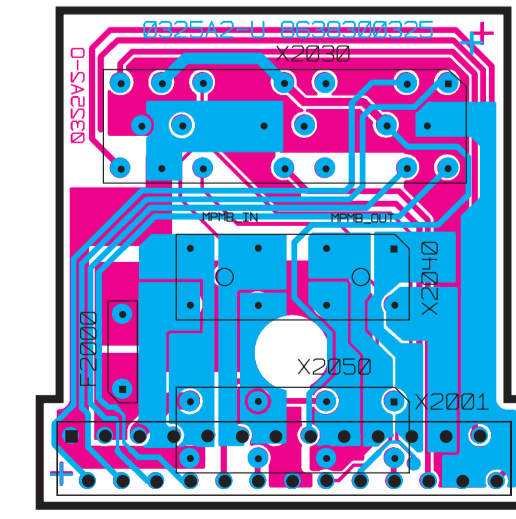


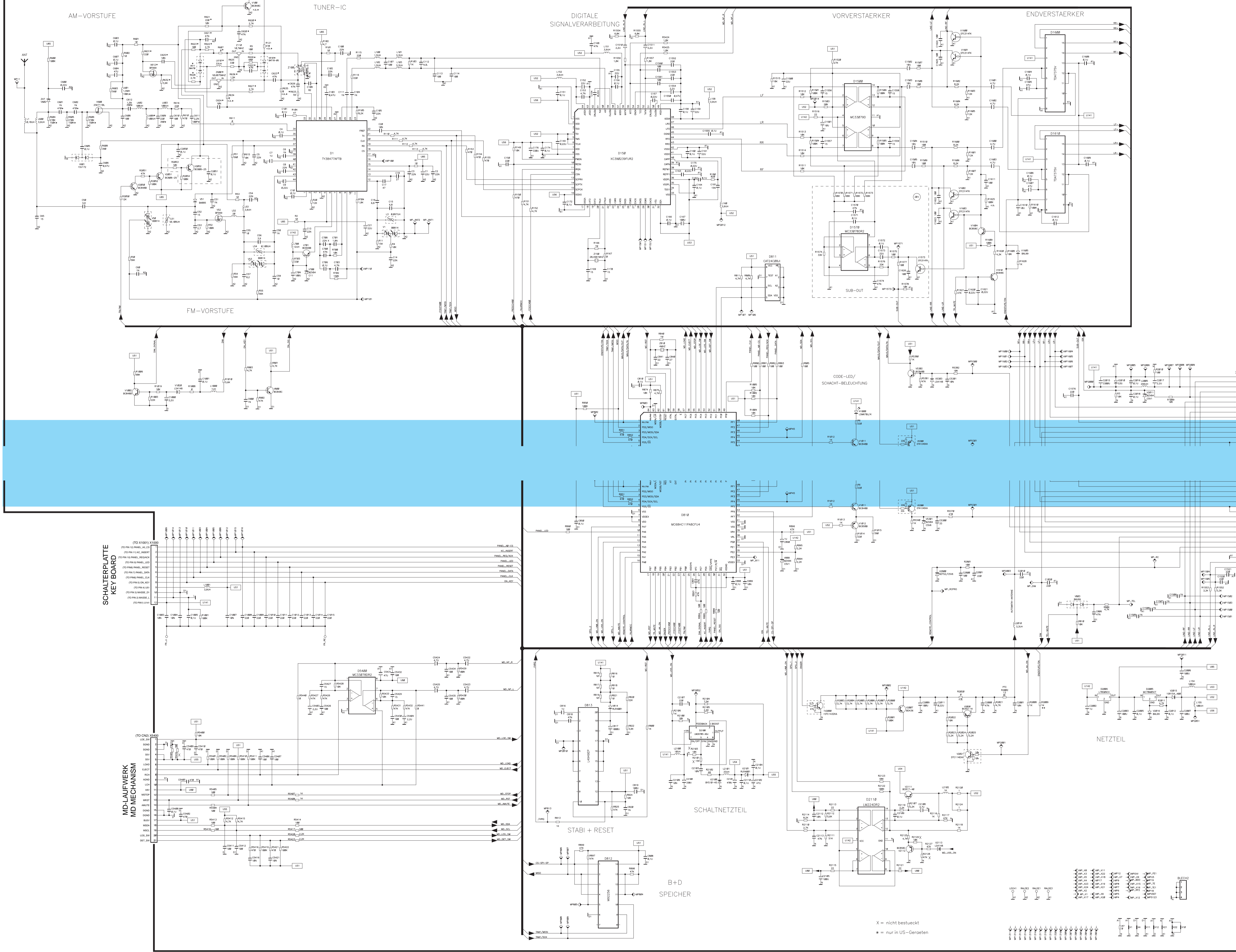
UNSIHTBARE LASERSTRAHLUNG
NICHT DEM STRAHL AUSSETZEN
LASERKLASSE 3B

CAUTION!
This unit contains a laser component!
For service observe the following important instructions:

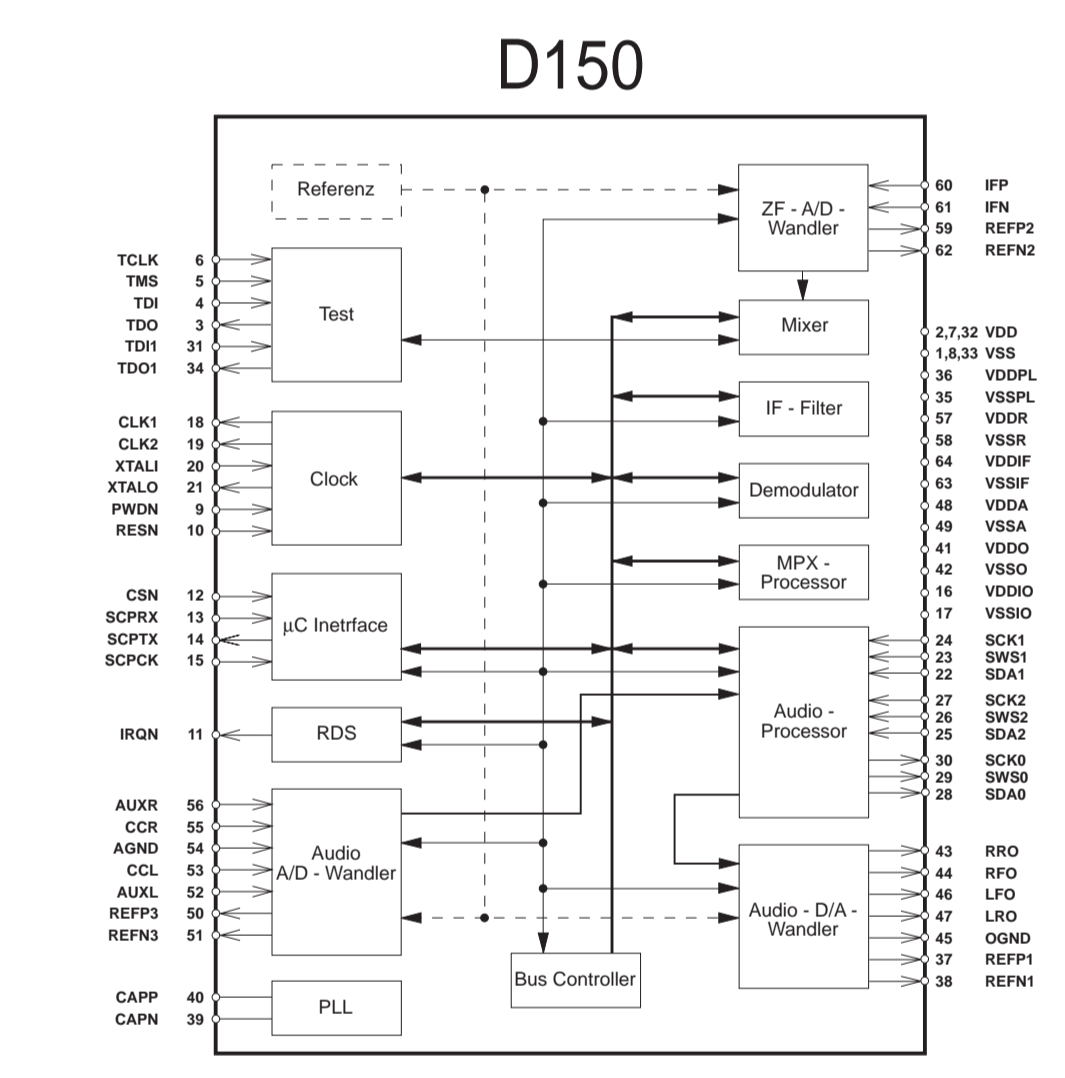
- The unit operates with an invisible laser beam. When the cover is removed, near the disc compartment, invisible laser beams are apparent.
- Avoid direct eye contact with these beams.
- Keep other people away from the working place.
- The viewing distance should not be less than 13cm. If this distance cannot be insured, use suitable laser safety goggles.

Anschlußplatte
Connector board
PL 0325 A02



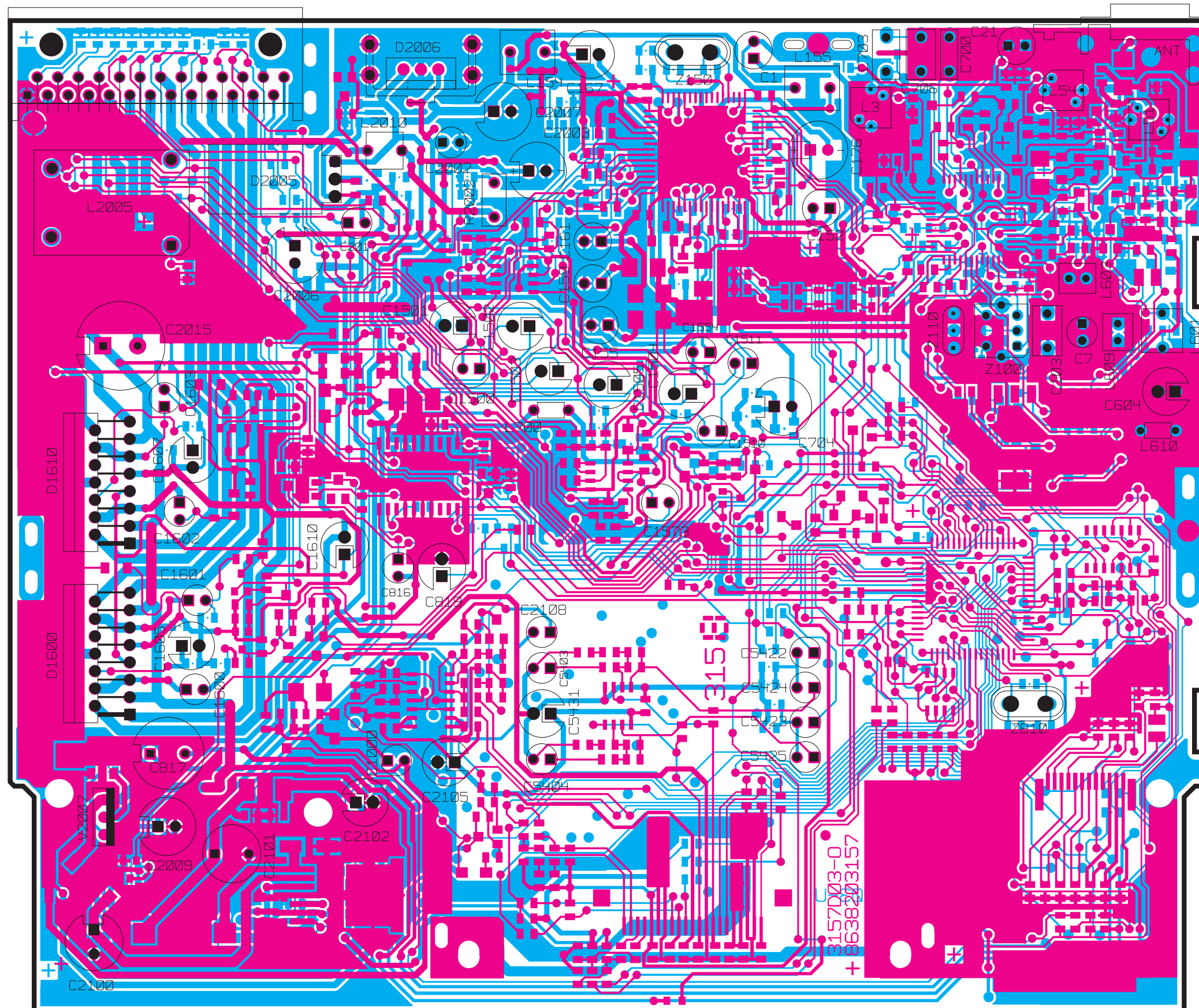


Pin-Belegung des IC D150				
Digital IC D150 Pin Configuration				
Pin No.	I/O	Name	Funktion	Function
1	-	VSS	Masse	Ground
2	-	VDD	5 V	5 V
4	i	TDI	Testdaten-Eingang	Test Data Input
5	i	TMS	Test Mode	Testmode
6	i	TCM	Test Clock	Testclock
7	-	VDD	5 V	5 V
8	-	VSS	Masse	Ground
9	-	PNON	Power down Zustand	Power down Mode
10	i	RESN	Reset	Hardware reset (active LOW)
11	O	IRGN	RDS Alarm/SL5	RDS alarm/search stop
12	i	CSN	Chip select Eingang	Chip select µC interface
13	i	SCPX	Serielle Daten µC Interface	Serial data µC interface IN
14	O	SCPXT	Serielle Daten µC Interface	Serial data µC interface OUT
15	i	SCPCX	Clock µC Interface	Clock µC interface
16	-	VDDO	Flussversorgung Digital Ein-/Ausgänge	Voltage for digital I/O
17	-	VSSIO	Masse Digitale Ein-/Ausgänge	Ground for digital I/O
18	O	CKL1	Programmierbarer Clock 1	Programmable clock 1
20	i	XTAL1	28.5 MHz Oszillator	Oscillator 28.5 MHz
21	O	XTAL0	28.5 MHz Oszillator	Oscillator 28.5 MHz
31	i	TD1	Testdaten-Eingang 1	Test Input 1
33	-	VSS	Masse	Ground
35	-	VSSPLL	Masse (Minus) PLL	Ground (minus) PLL
36	-	VDDPLL	Plus PLL 5V	PLL 5V (pos.)
37	O	REFP1	Audio D/A-Wandler Positive Referenz	Audio D/A converter (pos. reference)
38	O	REFN1	Audio D/A-Wandler Negative Referenz	Audio D/A converter (neg. reference)
39	-	CAPN	PLL Kapazität (negativ)	PLL capacity (neg.)
40	-	CAPP	PLL Kapazität (positiv)	PLL capacity (pos.)
41	O	VDDO	Audio D/A - Wandler 5V	Audio D/A converter (+5V)
42	-	VSSO	Audio D/A - Wandler Masse	Audio D/A converter (ground)
44	O	RFO	Audio Rechts (analog)	Analogic audio right
45	-	SDND	Masse Analogeingänge	Ground
46	-	LFO	Audio Links (analog)	Analogic audio left
48	-	VDDA	5V A/D - Wandler	5V A/D - converter
49	-	VSSA	Masse A/D - Wandler	Ground A/D - converter
50	O	REFP3	Audio D/A-Wandler Positive Referenz	Audio D/A converter (pos. reference)
51	O	REFN3	Audio D/A-Wandler Negative Referenz	Audio D/A converter (neg. reference)
52	i	AUXL	Externes Eingang links	Auxiliary left
53	i	CCL	Cassette Eingang links	Cassette input left
54	-	AGND	Audioeingänge Masse	Ground for audio inputs
55	i	CCR	Cassette Eingang rechts	Cassette input right
56	i	AUXR	Externes Eingang rechts	Auxiliary right
57	-	VDDR	5 V	5 V
58	-	VSSR	Masse	Ground
59	O	REFP2	Audio D/A-Wandler Positive Referenz	Audio D/A converter (pos. reference)
60	i	IFP	ZF Eingang (plus)	Positif IF input
61	i	IFN	ZF Eingang (minus)	IF input (neg.)
62	O	REFN2	Audio D/A-Wandler Negative Referenz	Audio D/A converter (neg. reference)
63	-	VSSIF	ZF A/D - Wandler (minus)	IF A/D converter (-)
64	-	VDDIF	ZF A/D - Wandler 5 V	IF A/D converter (+5V)

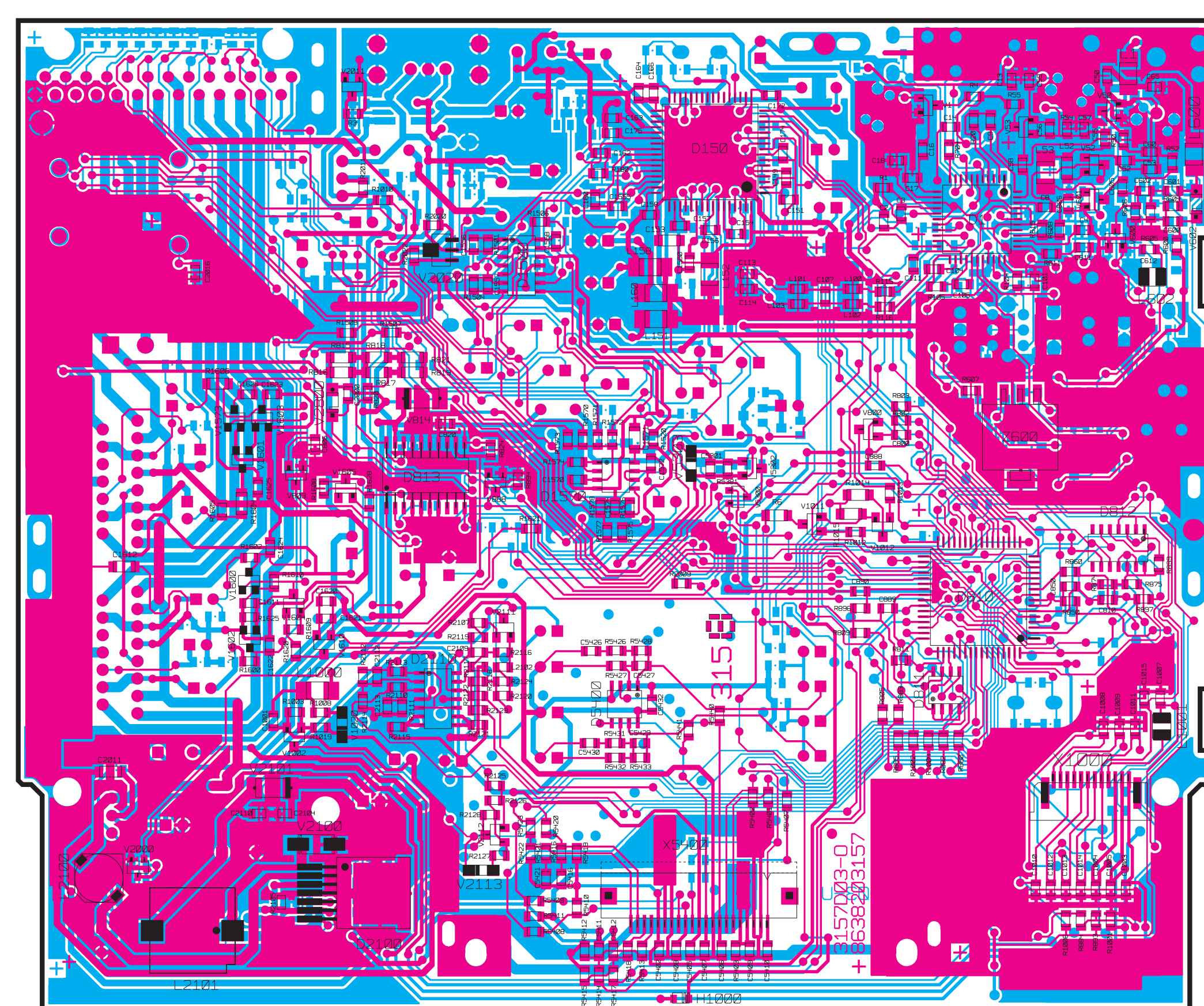


X = nicht bestückt
 * = nur in US-Geräten

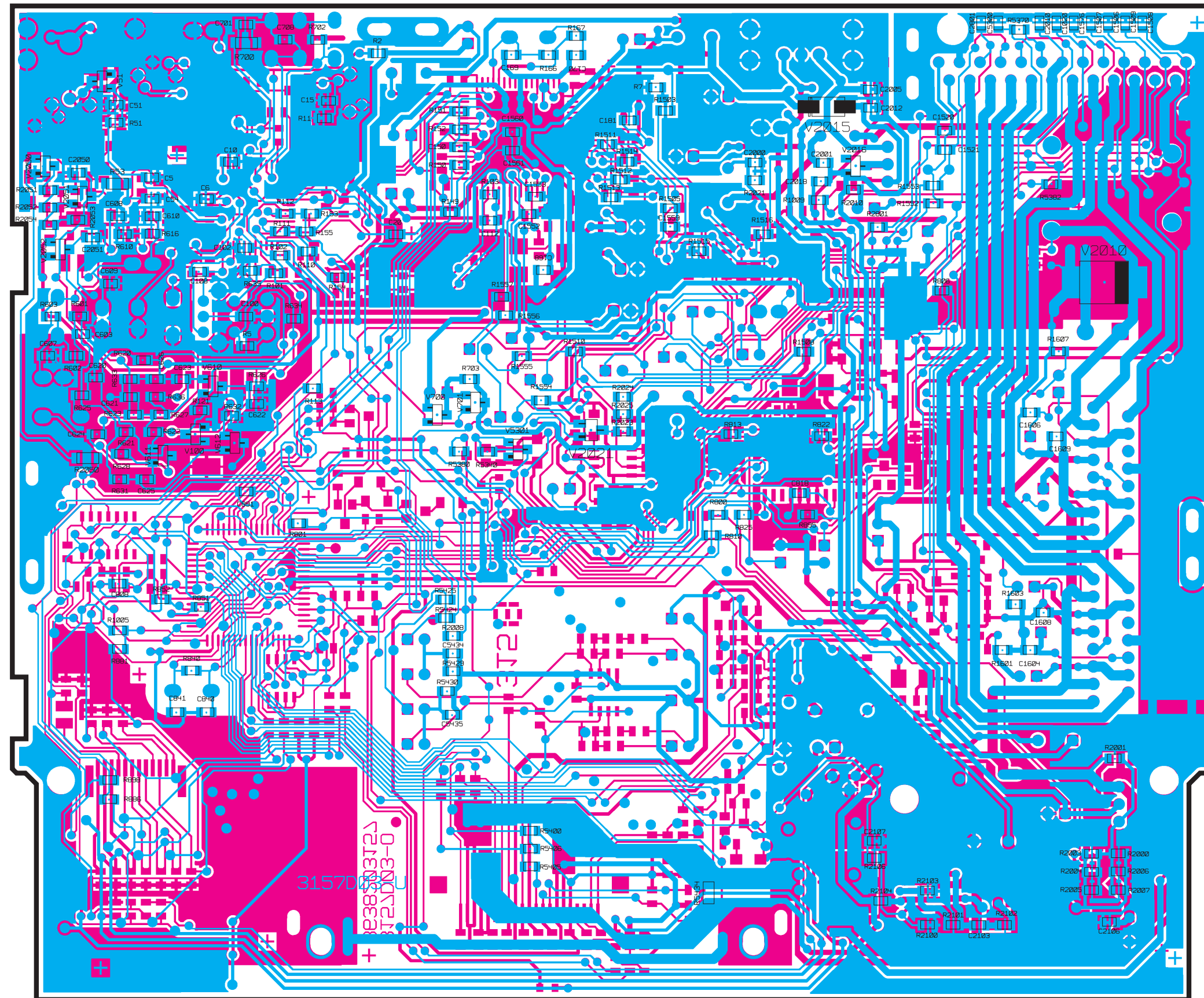
Hauptplatte
Main board
PL 3157 D03



Hauptplatte
Main board
PL 3157 D03
Chip



Hauptplatte
Main board
PL 3157 D03
Chip



Pin-Belegung des FM/AM Tuner-IC D1 Tuner IC D1 Pin configuration				
Pin No.	I/O	Name	Funktion	Function
1	-	MIXDEC	Mischer Entkopplung für PLL	Mixer decoupling for PLL
2	-	CINT	für PLL	for PLL
3	-	CHOLD	für PLL	for PLL
4	-	PLLGND	PLL - Masse	PLL Ground
5	-	VCC	8.5V	8,5V
6	-	VPLL	PLL Oberspannung	PLL top voltage
7	I	LFINP	Schleifenfiltereingang	PLL loop filter Input
8	O	LF1	Schleifenfilter 1	PLL loop filter Output 1
9	O	LF2	Schleifenfilter 2	PLL loop filter Output 2
10	O	LF3	Schleifenfilter 3	PLL loop filter Output 3
11	I	VTUNE	Abstimmspannung	Tuning voltage
12	I	OSCINP	Oszillator Eingang	Oscillator Input
13	O	OSCOU	Oszillator Ausgang	Oscillator Output
14	-	OSCGND	Oszillator Masse	Oscillator Ground
15	O	VCC	8.5V	8,5V
16	O	OSCBUF	Oszillatorausgangstreiber	Oscillator Buffer Output
17	I	DGND	Digitale Masse	Digital Ground
18	I	CS	Chip Select	Chip Select
19	I	RD	Dateneingang	DATA IN
20	I	CLK	Clock	Clock
21	O	TX	Datenausgang	DATA OUT
22	I	FREF	Referenzfrequenz	Reference frequency
23	-	IFAGC2	ZF Regelspannung 2	IF AGC 2
24	O	IFOUT1	ZF - Ausgang 1	IF output 1
25	O	IFOUT2	ZF - Ausgang 2	IF output 2
26	-	IFAGC1	ZF Regelspannung 1	IF AGC 1
27	-	IFGND	ZF - Masse	IF Ground
28	I	IFIN	ZF Eingang	IF Input
29	-	VDC	Interne Referenzspannung	Internal reference voltage
30	-	VCC	8.5V	8,5V
31	O	MIXOUT2	Mischerausgang 2	Mixer Output 2
32	O	MIXOUT1	Mischerausgang 1	Mixer Output 1
33	-	AMREF	AM - Referenzeingang	AM reference Input
34	I	AMMIXIN	AM Mischereingang	AM Mixer Input
35	-	RFAGC3	HF Regelzeitkonstante (aufregeln)	RF AGC 3
36	O	RFAGCAM	HF Steuerspannung Vorstufe AM	RF AGC for AM input stage
37	O	RFAGCFM	HF Steuerspannung Vorstufe FM	RF AGC for FM input stage
38	-	MIXGND	Mischer Masse	Mixer Ground
39	-	RFAGC2	HF Regelzeitkonstante (Detektor)	RF AGC 2
40	-	RFAGC1	HF Regelzeitkonstante (abregeln)	RF AGC 1
41	-	ANGGND	Analog Masse	Analog ground
42	-	FMMIXREF	Referenzspannung FM Mischer	Reference voltage FM mixer
43	I	FMMIXINP	FM Mischer Eingang	FM mixer input
44	-	RFAGCD	AGC Entkopplung	AGC decoupling

Prüfdiagnose Tuner IC (D1) Diagnosis test tuner IC (D1)						
Pin	Band	Frequenz	E'	Uss	Vermerke	Notice
24+25 (ZF-OUT)	FM	97,1 MHz	83 dB μ V	650 mVss	jeweils gegen Masse	respective against GND
28	FM	97,1 MHz	80 dB μ V	25 mVss		
31+32	FM	97,1 MHz	80 dB μ V	200 mVss	jeweils gegen Masse	respective against GND
31+32	AM	900 kHz	80 dB μ V	200 mVss	jeweils gegen Masse	respective against GND
34 (AM-IN)	AM	900 kHz	80 dB μ V	50 mVss	künstliche Antenne aus	not commutated
36	AM	900 kHz	ab 73 dB μ V			
37	FM	97,1 MHz	ab 80 dB μ V			
43 (FM-IN)	FM	97,1 MHz	94 dB μ V	5 mVss		