



ROHDE & SCHWARZ

SERVICE DOCUMENTS

Step Synthesis / FM

819.4944.02

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5 Service Manual "Step Synthesis / FM"

5.1 Function Description

(See circuit diagram 819.4967 S and Fig. 5-1)

The module "FM stage" contains three separate function units:

- ▶ 625-kHz step synthesizer with PLL
- ▶ FM oscillator with PLL
- ▶ FM attenuator

5.1.1 625-kHz Step Synthesizer

The oscillator tuned with a total of 12 varicap diodes covers the frequency range from 23.125 MHz to 29.375 MHz in steps of 625 kHz. The active element (V217) is inductively coupled to the loop. The signal is output via a buffer amplifier and lowpass filter. To enable level monitoring (diagnostics), the RF voltage is rectified and applied to the multiplexer. By means of a second amplifier/level converter (V222/V270) the oscillator signal is compared in the phase detector with the reference frequency, integrated (N200) and applied to the varicap diodes. The accelerator circuit V201, V202 ensures fast settling. The output frequency is set by the place after the decimal point of the second n-divider. This decimal place is generated by D205 and D206 by blanking a pulse with each carry at the adder D205 via D203-D. D205 is a 4-bit full adder. The place after the decimal point has thus a significance of 1/16th resulting in 625-kHz steps with a clock frequency of 10 MHz. The tuning voltage is monitored in the window comparator N201 and, if necessary, an error signal is generated (LOW active).

5.1.2 FM Oscillator with PLL

The 40-MHz Colpitts oscillator is fine tuned using V13. The frequency is modulated using V9 to V12. The signal is applied to the output connector via buffer amplifiers and to the phase detector via the level converter V100. The level of the FM signal is monitored by detector diode V15. The oscillator and 40-MHz reference signal are each divided by a factor of 3 (D50, D51) and applied to the digital phase detector.

If the frequencies are different, one of the two outputs of the phase detector (P25 or P26) supplies a pulse sequence whose duty factor changes according to a sawtooth function. The repetition frequency is the difference between the frequencies. The sawtooth voltage is obtained from a lowpass and differentiated (C142, C143).

The steep edge of the sawtooth voltage triggers PULSE BLANKING, which generates from the reference frequency pulses with 3 selectable durations, depending on the deviation ranges. Using D63 either a positive or a negative voltage (depending on the offset) with this pulse duration can be applied to the FM INTEGRATOR N51 via the selector D64. An analog control current is applied to the integrator during the time elapsing between the pulses. The modulation signal is also applied to the integrator, however with reverse polarity. The control voltage is changed, if there is a time difference between the two signals.

5.1.3 FM Attenuator

The modulation signal FMOD is applied to the amplifier N8 using the switches D1 and D12 either directly, via the differentiator PHI-MOD or via the distortion circuit PREEMPHASIS. The amplifier N8 feeds the D/A converter D2/N1 (SPAN FINE) and the SPAN FIXED DIVIDERS via N2. The signal for the control circuit (X20/15) is coupled out via N3, the control signal UMOD for the FM oscillator via D4, respectively.

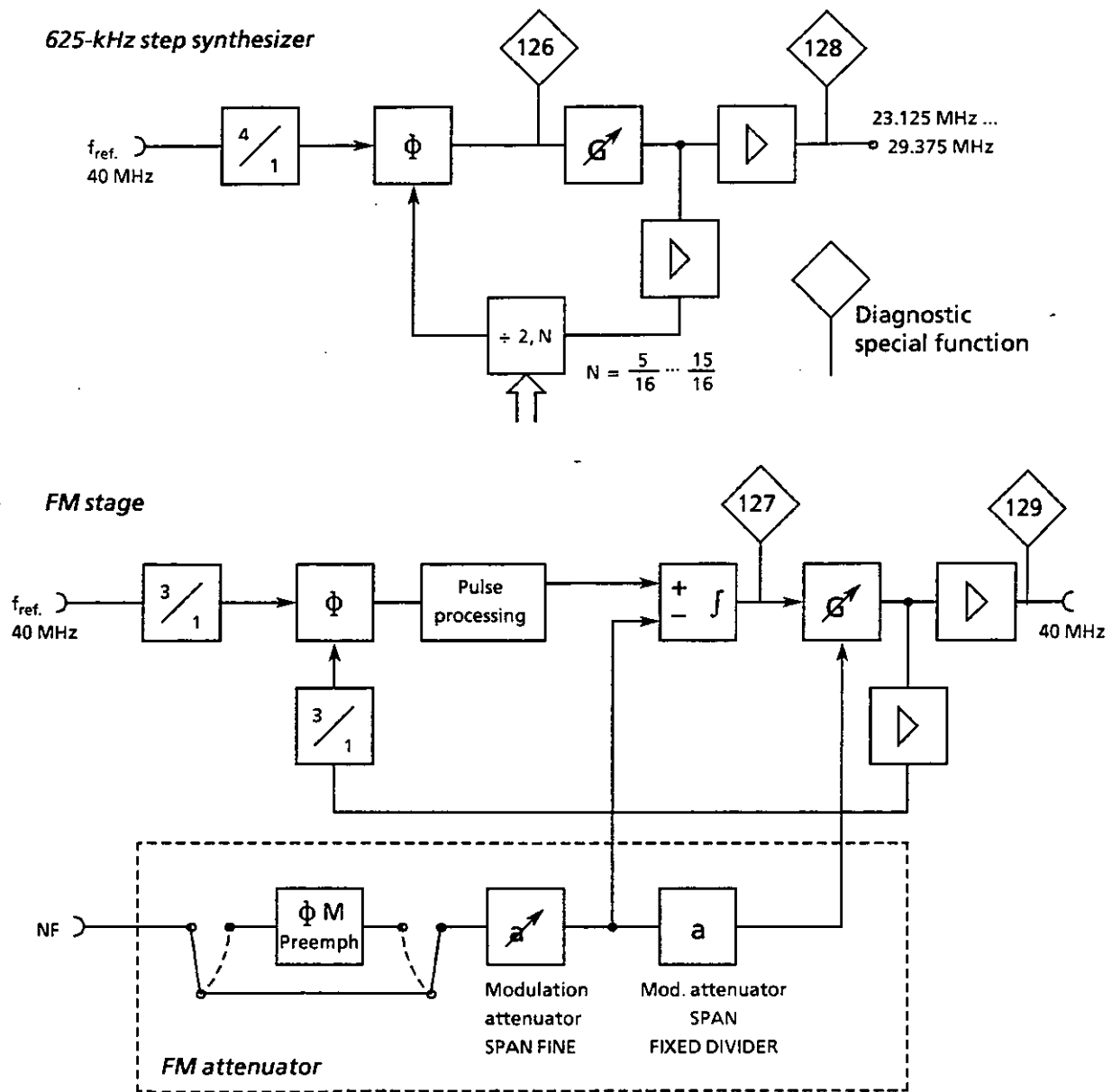


Fig. 5-1 Block diagram "Step Synthesis" and "FM Stage"

5.2 Testing and Adjustment

5.2.1 625-kHz Step Synthesizer

5.2.1.1 Frequency Adjustment

Adjusting the VCO using C211, C212

Preparations:

- Remove jumper X111 and connect a DC supply to X111/2.
- Connect a frequency counter to X81.

Adjustment:

- 1) with 2.5 V applied to X111/2 adjust to 23.125 ± 0.2 MHz using C211
- 2) with 19.5 V applied to X111/2 adjust to 29.375 ± 0.2 MHz using C212.

Repeat points 1) and 2) alternately until the tolerance limits can be adhered to for both points.

5.2.1.2 Level Adjustment

- Frequency entry: 1010 MHz
Adjust the output level at X81 to $+10$ dBm (± 0.2 dB) using R230.

5.2.2 FM Stage

5.2.2.1 Frequency and Control Voltage Adjustment

The following adjustment requires operation of the control circuit, which, however, need not be adjusted. Adjustments 5.5.2.1 to 5.5.2.3 must always be performed together. When changing R30, FM control must also be adjusted (5.2.2.6).

Setting:

- Set the DC voltage at P13 to $8\text{ V} \pm 0.2\text{ V}$ using R43.

Adjustment:

- Adjust the DC voltage at P11 to $7\text{ V} \pm 0.5\text{ V}$ using C42.

5.2.2.2 Span Adjustment

- Connect modulation analyzer with distortion meter to X83.
- Setting: SHIFT PRESET, RF 322 MHz, FM INT ON
- Span setting: 256 kHz

Adjustment: adjust the span to 256 kHz using R30.

5.2.2.3 Distortion Adjustment

- Connect modulation analyzer with distortion meter to X83.
- Setting: SHIFT PRESET, RF 322 MHz, FM INT ON
- Span setting: 256 kHz

Adjustment:

- Minimize distortion using C35 and R43 while keeping the DC voltage at P11 within the range $7 \pm 1\text{ V}$ using C42.

5.2.2.4 Level Adjustment

- Connect RF power meter to X83 1.
Adjust level to $5\text{ dBm} \pm 1\text{ dB}$ using R29.

5.2.2.5 Offset Adjustment

- Setting: SHIFT PRESET, RF 322 MHz, FM EXT DC ON, span 256 kHz

With the FM EXT input short-circuited, adjust the DC offset voltage at X7 1 to $0 \pm 0.1\text{ mV}$ using R39.

5.2.2.6 Adjustment of FM Control

- Close the oscillator compartment (4) with screening cover.
- Setting as in 5.2.2.4
- Connect DC voltage source V_{DC} to input FM EXT.

Measure the tuning voltage at P11 with $V_{DC} = 0\text{ V}$.

- $V_{DC} = 1.00\text{ V}$. Adjust to a minimum change in the tuning voltage with a set DC span.

Span	Adjust using	Tolerance at P11 1
256 kHz	R169	$\pm 1\text{ mV}$
32 kHz	R170	$\pm 0.5\text{ mV}$
4 kHz	R171	$\pm 0.1\text{ mV}$

This adjustment can easily and conveniently be made under computer control without opening the instrument up using the program included in the Service Kit SMGU-Z2.

5.3 Troubleshooting

5.3.1 Step Synthesis

In the case of synchronization errors (error code 43) it is recommended to open the control loop at X111 and to connect a DC supply to X111/2.

With an RF setting of 1005 MHz the divider factor 8/16 is switched on. The adder D205 generates a carry upon every second clock edge so that it is divided by 2 and 3 alternately. The nominal oscillator frequency is 25 MHz with a control voltage of about 9 V.

The signal path from the oscillator, or respectively from the reference frequency to the phase detector can be followed.

P100	Oscillator frequency	1 to 2 (V_{peak})
P110	"	TTL level
P111	10 MHz (average value)	TTL level
D202/11	40 MHz	TTL level
P112	10 MHz	TTL level

The output voltage of the integrator N200 must assume values between -2 and +22 V when varying the oscillator frequency around 25 MHz. To check the individual steps repeat this test with the following RF settings:

RF in MHz	Factor 2	f_{osc} in MHz	O_{vco} in V
1000.3	5	23.125	4
1001	6	23.750	5.6
1003	7	24.375	7.1
1005	8	25.000	8.5
1007	9	25.625	9.8
1009	10	26.250	11.1
1011	11	26.875	12.4
1013	12	27.500	13.6
1015	13	28.125	14.8
1017	14	28.750	16.0
1019	15	29.375	17.2

The reference voltages of the comparator N201 are:

N201/6 2 + -0.2 V
N201/3 20 + -0.5 V

5.3.2 FM Stage

With synchronization errors (error code 45) first check, whether the FM attenuator operates correctly. The voltage V_{MOD} at the cable W2 must be 0 + -2 mV_{dc} with a span of 0 Hz.

For testing the control circuit apply a control voltage to the oscillator at the feed-through L17 (interruption is unnecessary due to R174). With an RF of 322 MHz the FM span at the module is equal to the output span. Trace the signal according to the following table:

Test point	Level	Frequency	Meaning
P20	TTL	40 MHz	Oscillator
P24	TTL	13.333 MHz	$f_{osc}/3$
P21	TTL	40 MHz	Reference
P23	TTL	13.333 MHz	Reference/3
P25/26	TTL	13.333 MHz	1)
P27	TTL		Offset direction 2)
P28	TTL	$(f_{osc}-f_{ref})/3$	Trigger for pulse blanking
P29	TTL	104.166 MHz 833.333 kHz 6.66666 MHz	Span setting 4 kHz Span setting 32 kHz Span setting 256 kHz
D63	14; 15.4 ± 6 V	$(f_{osc}-f_{ref})/3$	Pulses for integration
P32	6.2 V DC		
P33	-6.2 V DC		-U(P32) must be + -5 mV

- 1) The pulse duty factor always varies only at one test point upon a change in the tuning voltage, the second test point exhibits constantly narrow pulses.
- 2) Alters the logic level when tuning the oscillator, "H" for $f_{osc} > f_{ref}$, "L" for $f_{osc} < f_{ref}$.

5.4 Interfaces

5.4.1 Analog Interfaces

Test point	Meaning	Level
X1 A1	FMOD Modulation freq.	0 Hz to 100 kHz, 1V _{rms}
X1 A3	PHI OFFS Phase offset	DC
X1 A17	TEST Analog diagnostics line	-5 V to +5 V
X1 A24	Power supply	+24 V
X1 A26	Power supply	+15 V
X1 A28	Power supply	+5 V
X1 A30	Power supply	-15 V
X1 A32	Power supply	+12 V STBY
X2	FM output	40 MHz. 5 dBm \pm 1 dB
X3	Reference input	40 MHz. 5 dBm \pm 2 dB
X4	Step synthesizer output	23.125 MHz to 29.375 MHz, 10 dBm \pm 1 dB

5.4.2 Digital Interfaces

Test point	Meaning
X1 A11	TFR.CLK Clock for data transmission
X1 A13	TF.DAT Data line from controller
X1 A15	RC.DAT Data line from controller
X1 A18	LOK Open-collector alarm line
X1 A19,20,21	BA2 to BA0 Strobe addresses
X1 A22	G1 Group line of strobe address

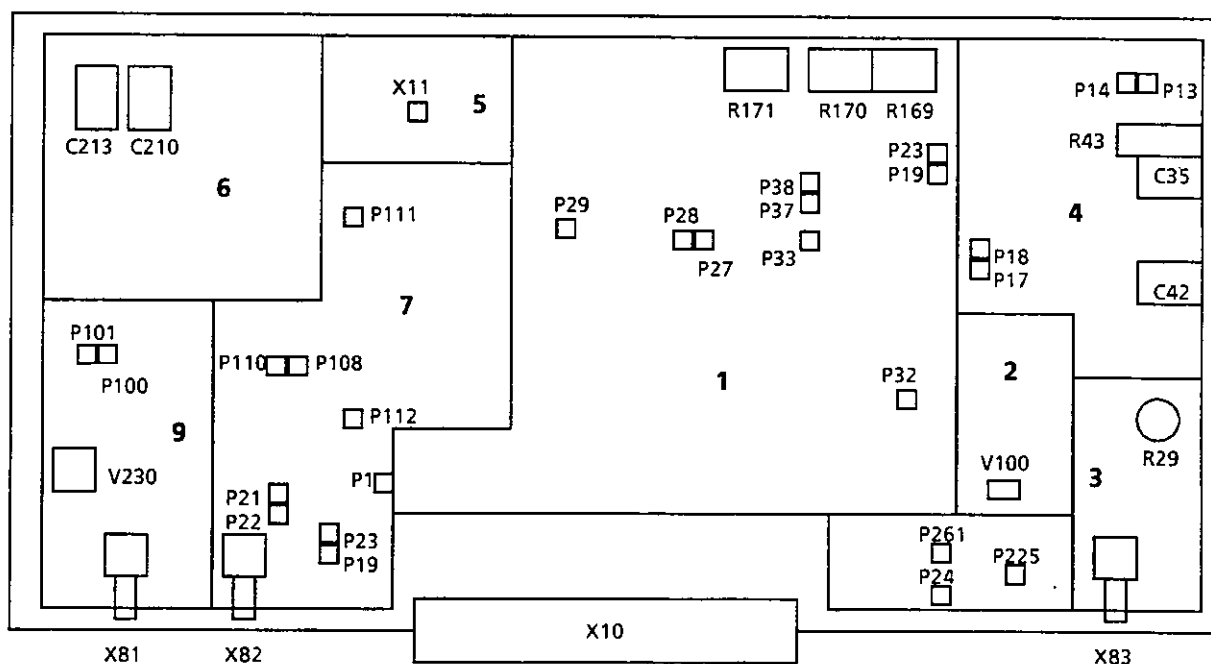
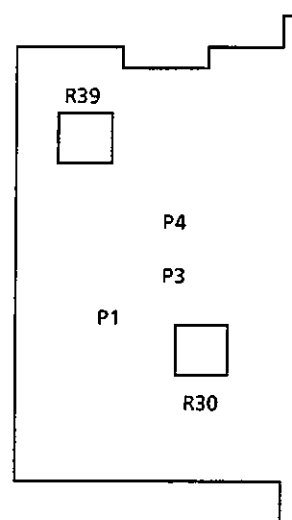


Fig. 5-2 Layout of test points and adjustment points

5.5 List of Required Test Equipment

AC/DC precision voltmeter		R & S UDS 5
RF power meter	50 MHz, 15 dBm	R & S NRV
Modulation analyzer	50 MHz, span 300 kHz, with distortion meter	R & S FAM
DC power supply		R & S NGT 20
Frequency counter	50 MHz	



ROHDE & SCHWARZ

Schaltteillisten

Stromläufe

Bestückungspläne

Part lists

Circuit diagrams

Components plans

Listes des pièces détachées

Schémas de Circuit

Plans des composants

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
A81	ED FM-INTERPOL-OSZILLATOR	0819.4967.02			
A82	EM-INTERPOL-OSCILLATOR ED FM-EICHLEITUNG FM-ATTENUATOR	0819.4980.02			

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 ROHDE & SCHWARZ			01	04.02.98	ZE STEPSYNTHESE/FM STEPSYNTHESES/FM	0819.4944.01 SA	1-

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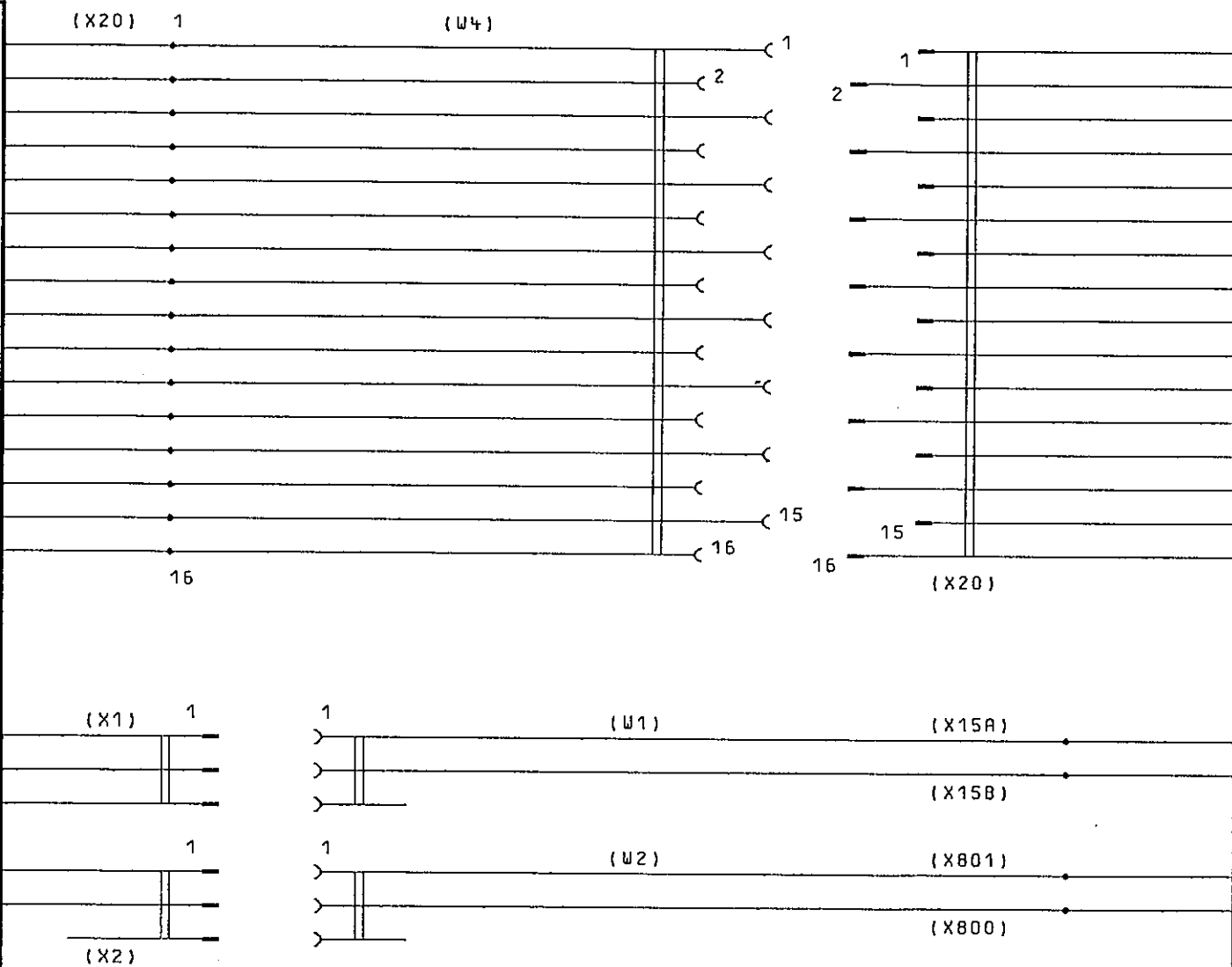
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A82	⊥
FM-EICHLLEITUNG	⊥
FM-ATTENUATOR	
	⊥
	+50
	⊥
	⊥
	⊥
	-15V
	⊥
	⊥
	UFM
	+15V
	FMOD
	⊥
	COD
	UMOD
	⊥
	COD


A81

FM-INTERPOL-OSZILLATOR


FM-INTERPOL-OSCILLATOR





				1 KGB	TAG	NARE	BENENNUNG			
				BEARB.		VL	STEPSYNTHESE/FM STEPSYNTHESES/FM			
				GEPR.		VL				
				NORM						
				PLOTT	4. 4.89	*				
							ZEICHN.-NR.		BLATT-NR.	
REND. IND.	RENDERUNGS- MITTEILUNG	DATUM	NARE	ROHDE&SCHWARZ			819.4944.01S		1	
				ZU GERÄT SMGU			REG. I.V. 819.0010		ERSTE Z.	

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C1	LD FILT.40DB/10GHZ10A300V LOWPASS-FILTER	0911.0705.00	SPECTRUM	SCI-9920-101HT	
C2	LD FILT.40DB/10GHZ10A300V LOWPASS-FILTER	0911.0705.00	SPECTRUM	SCI-9920-101HT	
C6	LD FILT.40DB/10GHZ10A300V LOWPASS-FILTER	0911.0705.00	SPECTRUM	SCI-9920-101HT	
C12 ..18	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6COG 101F 50PT	
C28	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C34	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C35	CT 13PF TAUCHTR.RD7X12 AIR-TYPE TRIMMER	CT 0092.4266.00	TEKELEC	AT 5401 1-14PF 250V-	
C36	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C37	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C38	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C39	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C40	CE 100UF+-20%25V RD8X9,5 ELECTROLYTIC CAPACITOR	0803.0580.00	MATSUSHITA	ECE-A1ESS-101	
C41	CC 10NF-20+50%7X8R4000 CAPACITOR	CC 0087.7525.00	VALVO	2222 640 51103	
C42	CT 9,2PF TAUCHTR.RD 7X12 AIR-TYPE TRIMMER	CT 0025.7373.00	TEKELEC	TL 191	
C43	XX TRIMMWERT SELECTED 22PF S.NR.006.9251 27PF S.NR.006.9268 33PF S.NR.006.9274				
C44	CG 33 PF+-1PF 250V TK+100 MICA CAPACITOR	CG 0006.9274.00	TAB	L1M	
C45	CC 5,6PF+-0,25PF3X4NPD CAPACITOR	CC 0087.6393.00	PHILIPS_CO	2222 678	
C46	CC 10NF-20+50%7X8R4000 CAPACITOR	CC 0087.7525.00	VALVO	2222 640 51103	
C47	CG 100PF+-1PF 250V TK+100 MICA CAPACITOR	CG 0006.9339.00	TAB	L1M	
C48	CG 56 PF+-1PF 250V TK+100 MICA CAPACITOR	CG 0006.9300.00	TAB	L1M	
C49	CE 10UF+-20%35V RD5,5XH6 ELECTROLYTIC CAPACITOR	0803.0667.00	NAT_PANASO	ECE-A1VKS-100	
C50	CE 10UF+-20%35V RD5,5XH6 ELECTROLYTIC CAPACITOR	0803.0667.00	NAT_PANASO	ECE-A1VKS-100	
C52	CC 10NF-20+50%7X8R4000 CAPACITOR	CC 0087.7525.00	VALVO	2222 640 51103	
C53	CC 2,7PF+-0,25PF3X4NPD CERAMIC CAPACITOR	CC 0087.6358.00	PHILIPS_CO	2222 678	
C55	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C58	CC 33PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8780.00	MURATA	GRM42-6COG 330F 50PT	
C59	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C60	CC 10PF+-0,25 50VNPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8480.00	MURATA	GRM42-6COG 100 C50PT	
C61	CC 2,2NF+-10%50VX7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8444.00	PHILIPS_CO	2222 581 16618	
C63	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6COG 101F 50PT	
C64	CE 10UF+-20%35V RD5,5XH6 ELECTROLYTIC CAPACITOR	0803.0667.00	NAT_PANASO	ECE-A1VKS-100	
C65	CE 10UF+-20%35V RD5,5XH6 ELECTROLYTIC CAPACITOR	0803.0667.00	NAT_PANASO	ECE-A1VKS-100	
C66	CE 10UF+-20%35V RD5,5XH6 ELECTROLYTIC CAPACITOR	0803.0667.00	NAT_PANASO	ECE-A1VKS-100	
C69	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C70	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C71	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C80	CC 39PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8796.00	MURATA	GRM42-6COG 390F 50PT	
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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C90	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C93	CC 33PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8780.00	MURATA	GRM42-6COG 330F 50PT	
C94	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6COG 101F 50PT	
C95	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C96	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C100	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C101	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C102	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C103	CC 180PF+-1%50V NPO 1206 CHIP CAPACITOR	CC 0099.8844.00	PHILIPS_CO	2238 863 18181	
C104	CC 180PF+-1%50V NPO 1206 CHIP CAPACITOR	CC 0099.8844.00	PHILIPS_CO	2238 863 18181	
C105	CC 120PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8838.00	MURATA	GRM42-6COG 121F 50PT	
C106	CC 120PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8838.00	MURATA	GRM42-6COG 121F 50PT	
C107	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6COG 101F 50PT	
C109	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6COG 101F 50PT	
C110	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6COG 101F 50PT	
C111	CC 330NF+-10%50V X7R 1812 CERAMIC CHIP CAPACITOR	CC 0007.7475.00	PHILIPS_CO	2222 594 16647	
C112	CK 1UF+-5%50V7,5X5,5X10,5 CAPACITOR	CK 0099.2998.00	ERO	MKT 1826-510/054-R	
C113	CK 1UF+-5%50V7,5X5,5X10,5 CAPACITOR	CK 0099.2998.00	ERO	MKT 1826-510/054-R	
C114	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C115	CK 1UF+-5%50V7,5X5,5X10,5 CAPACITOR	CK 0099.2998.00	ERO	MKT 1826-510/054-R	
C116	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C117	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C119	CE 100UF+-20%25V RD8X9,5 ELECTROLYTIC CAPACITOR	0803.0580.00	MATSUSHITA	ECE-A1ESS-101	
C121	CC 330PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8873.00	PHILIPS_CO	2238 863 18331	
C122	CE 100UF+-20%25V RD8X9,5 ELECTROLYTIC CAPACITOR	0803.0580.00	MATSUSHITA	ECE-A1ESS-101	
C123	CE 10UF+-20%35V RD5,5XH6 ELECTROLYTIC CAPACITOR	0803.0667.00	NAT_PANASO	ECE-A1VKS-100	
C124	CE 10UF+-20%35V RD5,5XH6 ELECTROLYTIC CAPACITOR	0803.0667.00	NAT_PANASO	ECE-A1VKS-100	
C130	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C133	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C134	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C135	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C137	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6COG 101F 50PT	
C138	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C142	CC 180PF+-2%6X7N750 CAPACITOR	CC 0087.6935.00	PHILIPS_CO	2222 678 58181	
C143	CC 180PF+-2%6X7N750 CAPACITOR	CC 0087.6935.00	PHILIPS_CO	2222 678 58181	
C144	CC 33NF+-10% 50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5172.00	PHILIPS_CO	2238 581 16634	
C145	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C149	CC 82PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8821.00	MURATA	GRM42-6COG 820F 50PT	
C150 ..153	CE 220UF+-20%25V RD8X19 ELECTROLYTIC CAPACITOR	0803.1063.00	NCC	SXE 25 VB 220 8X14	

MENP5	502	3PUA	AI	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No	Blatt-Nr. Page
 ROHDE & SCHWARZ			27	04.02.98	ED FM-INTERPOL-OSZILLATOR FM-INTERPOL-OSCILLATOR	0819.4967.01 SA	2+


Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthaltene in contained in
C154	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C157	CC 330NF+-10%50V X7R 1812 CERAMIC CHIP CAPACITOR	CC 0007.7475.00	PHILIPS_CO	2222 594 16647	
C181	CC 330PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8873.00	PHILIPS_CO	2238 863 18331	
C199	CC 1,8NF+-10%4X5R2000 CAPACITOR	CC 0087.7054.00	PHILIPS_CO	2222 630 01182	
C200	CE 15 UF+-20%16V 7X 5X11 ELECTROLYTIC CAPACITOR	CE 0087.9328.00	KEMET	T340 C156M016 AS	
C207	CK 2,2UF+-5% 50V RD7,2H13 CAPACITOR	CK 0350.5944.00	ROE	MKT1826-522/054	
C208	CK 2,2UF+-5% 50V RD7,2H13 CAPACITOR	CK 0350.5944.00	ROE	MKT1826-522/054	
C209	CC 180NF+-10%50V K1200VI CAPACITOR	0060.1178.00	UNION_CARB	CK 06 BX 184K	
C210	CG 39 PF+-1PF 250V TK+100 MICA CAPACITOR	CG 0006.9280.00	TAB	L1M	
C211	CT 13PF TAUCHTR.RD7X12 AIR-TYPE TRIMMER	CT 0092.4266.00	TEKELEC	AT 5401 1-14PF 250V-	
C212	CT 13PF TAUCHTR.RD7X12 AIR-TYPE TRIMMER	CT 0092.4266.00	TEKELEC	AT 5401 1-14PF 250V-	
C213	CG 10 PF+-1PF 250V TK+100 MICA CAPACITOR	CG 0006.9216.00	TAB	L1M	
C214	CG 10 PF+-1PF 250V TK+100 MICA CAPACITOR	CG 0006.9216.00	TAB	L1M	
C219	CC 270PF+-10%63V3X5D2000 CAPACITOR	CC 0099.5622.00	PHILIPS_CO	2222 630 21271	
C220	CC 4,7NF+-10%6X9R2000 CAPACITOR	CC 0087.7102.00	PHILIPS_CO	2222 630 01 472	
C221	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C222	CC 330PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8873.00	PHILIPS_CO	2238 863 18331	
C223	CC 1NF+-10%63V K2000 CERAMIC CAPACITOR	CC 0022.0784.00	PHILIPS_CO	2222 630	
C224	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C225	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C233	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C234	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C236	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C241	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C242	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C244	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C247	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C248	CC 120PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8838.00	MURATA	GRM42-6COG 121F 50PT	
C249	CC 22PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8396.00	MURATA	GRM42-6COG 220F 50PT	
C251	CC 180PF+-1%50V NPO 1206 CHIP CAPACITOR	CC 0099.8844.00	PHILIPS_CO	2238 863 18181	
C252	CC 68PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8815.00	MURATA	GRM42-6COG 680F 50PT	
C253	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6COG 101F 50PT	
C254	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C266	CC 10PF+-0,25 50VNPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8480.00	MURATA	GRM42-6COG 100 C50PT	
C270	LD FILT.40DB/10GHZ10A300V LOWPASS-FILTER	0911.0705.00	SPECTRUM	SCI-9920-101HT	
C271	LD FILT.40DB/10GHZ10A300V LOWPASS-FILTER	0911.0705.00	SPECTRUM	SCI-9920-101HT	
C273	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C280	CC 10NF-20+50%7X8R4000 CAPACITOR	CC 0087.7525.00	VALVO	2222 640 51103	
C281	CC 10NF-20+50%7X8R4000 CAPACITOR	CC 0087.7525.00	VALVO	2222 640 51103	
MENP5 502 3PUA ÄI Datum Date Schaltteilliste für Parts list for Sachnummer Stock No. Blatt-Nr Page					
 ROHDE & SCHWARZ		27 04.02.98	ED FM-INTERPOL-OSZILLATOR FM-INTERPOL-OSCILLATOR		0819.4967.01 SA 3+


Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C301	CK 100NF+-5%63VRD2,5H7MKT CAPACITOR	CK 0099.2930.00	ROEDERSTEI	MKT 1826-410-06-4W	
C303	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C304	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C306	CE 1UF +-10% 25V EIA3528 TANTALUM SMD-CAPACITOR	CE 0007.7217.00	KEMET	T 491 B105 K025 AS	
C307	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C309	CC 2,2NF+-10%50VX7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8444.00	PHILIPS_CO	2222 581 16618	
C310	LD FILT.40DB/10GHZ10A300V LOWPASS-FILTER	0911.0705.00	SPECTRUM	SCI-9920-101HT	
C311	CC 39PF+-2%4X5NPO CAPACITOR	CC 0087.6493.00	PHILIPS_CO	2222 678	
C312	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C316	CC 10NF-20+50%7X8R4000 CAPACITOR	CC 0087.7525.00	VALVO	2222.640 51103	
C320	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C322	CC 1NF+-10%63V K2000 CERAMIC CAPACITOR	CC 0022.0784.00	PHILIPS_CO	2222 630	
C323	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C406	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C420	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C431	CE 22UF+-20%63V RM5 ELECTROLYTIC CAPACITOR	0008.7433.00	PHILIPS_CO	2222 116 90111	
C435	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C437	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C438	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C450	CE 22UF+-20%63V RM5 ELECTROLYTIC CAPACITOR	0008.7433.00	PHILIPS_CO	2222 116 90111	
D9	BL PC74HC4094T 8ST.BUSREG BUS REGISTER	BL 0804.0977.00	PHILIPS_SE	(PC)74HC4094(D/T)	
D10	BL PC74HC238P 3T08 L.DEC DECODER/DEMULTIPLEXER	0620.0847.00	PHILIPS	(PC)74HC238N(P)	
D11	BL PC74HCT11T 3X3IN ANDG AND GATE	BL 0007.6191.00	PHILIPS_SE	(PC)74HCT11(D/T)	
D50	BL 74ACT74SC 2XRSFLIPFLOP IC DUAL D-FLIPFLOP	BL 0008.0680.00	TOSHIBA	(TC74)ACT74(FN)	
D51	BL 74ACT74SC 2XRSFLIPFLOP IC DUAL D-FLIPFLOP	BL 0008.0680.00	TOSHIBA	(TC74)ACT74(FN)	
D52	BL 74ACT74SC 2XRSFLIPFLOP IC DUAL D-FLIPFLOP	BL 0008.0680.00	TOSHIBA	(TC74)ACT74(FN)	
D53	BL 74ACT74SC 2XRSFLIPFLOP IC DUAL D-FLIPFLOP	BL 0008.0680.00	TOSHIBA	(TC74)ACT74(FN)	
D54	BL 74ACT00SC 4X 2-NAND IC QUAD 2INP NAND GATE	BL 0008.0668.00	RCA	CD74ACT00M	
D55	BL MM74HC132N 4X2IN.NAND QUAD 2INP.NAND SCHMITT TR	0099.9557.00	PHILIPS_SE	(PC)74HC132N(P)	
D56	BL MM74HCOON 4X2IN.NAND QUAD 2-INPUT NAND GATE	0571.3194.00	PHILIPS_SE	(PC)74HCOON(P)	
D57	BL MM74HC393N 2X4B.B.CTR DUAL 4-BIT BINARY COUNTER	0395.2950.00	PHILIPS_SE	(PC)74HC393N(P)	
D58	BL MM74HC132N 4X2IN.NAND QUAD 2INP.NAND SCHMITT TR	0099.9557.00	PHILIPS_SE	(PC)74HC132N(P)	
D59	BL MM74HC10N 3X3IN.NAND TRIPLE 3-INPUT NAND GATE	0571.3294.00	PHILIPS_SE	(PC)74HC10N(P)	
D60	BL MM74HC161N 8IN.COUNT. SYNC.BIN.COUNTER	0641.7111.00	PHILIPS_SE	(PC)74HC161N(P)	
D61	BL MM74HC30N 8IN.NAND G 8-INPUT NAND GATE	0099.9505.00	PHILIPS_SE	(PC)74HC30N(P)	
D62	BL MM74HC74N 2XD-FLIPFL DUAL D FLIP-FLOP	0571.3171.00	PHILIPS_SE	(PC)74HC74N(P)	
D63	BL PC74HC4053P 3X2CH.MUX ANALOG MULTIPLEXER	0807.6247.00	PHILIPS	(PC)74HC4053N(P)	
D64	BL MM74HC4052N 2X4CH. MUX DUAL 4CHANNEL MUX/DEMUX	0099.9686.00	PHILIPS	(PC)74HC4052N(P)	
MENPS 502 3PUA Äi Datum Schalteilliste für Parts list for Sachnummer Stock No. Blatt-Nr. Page					
 ROHDE & SCHWARZ		27 04.02.98	ED FM-INTERPOL-OSZILLATOR FM-INTERPOL-OSCILLATOR		0819.4967.01 SA 4+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D200	BL 74F74PC 2XD-FLIPFLOP DUAL D-FLIPFLOP	BL 0344.6694.00	PHILIPS_SE	N74F74N	
D201	BL 74F74PC 2XD-FLIPFLOP DUAL D-FLIPFLOP	BL 0344.6694.00	PHILIPS_SE	N74F74N	
D202	BL 74F74PC 2XD-FLIPFLOP DUAL D-FLIPFLOP	BL 0344.6694.00	PHILIPS_SE	N74F74N	
D203	BL 74FOOPC 4X2IN.NANDG QUAD-NAND-GATE	BL 0344.6659.00	PHILIPS_SE (N)	74FOON	
D204	BL PC74HC4094T 8ST.BUSREG BUS REGISTER	BL 0804.0977.00	PHILIPS_SE (PC)	74HC4094(D/T)	
D205	BL 74F283PC 4BIT-BIN.ADD 4BIT BINARY FULL ADDER	BL 0373.6482.00	PHILIPS_SE (N)	74F283N	
D206	BL 74F374PC 8B.D-FLIPF 3S 8BIT-D-REGISTER	BL 0344.6642.00	PHILIPS_SE	N74F374N	
D207	BL CD4051BE 8CH. MUX MULTIPLEXER	0339.4174.00	RCA	CD4051BE	
L1	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L7	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L8	LD 5,60UH10%1,800HMO,195A CHOKE	LD 0067.2957.00	DALE	IM2	
L10	LD 10 UH 10% 3R3 144 MA CHOKE	LD 0026.4184.00	DALE	IM2	
L11	LD 10 UH 10% 3R3 144 MA CHOKE	LD 0026.4184.00	DALE	IM2	
L12	LD 287NH 8,5W CM18P FE-K COIL+CORE	0613.6289.00	TOKO	E521HN080023	
L15					
L16	LD 47,0UH10%4,500HMO,110A CHOKE	LD 0067.3060.00	DALE	IM2	
L17	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L18	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L20	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L22	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L25	LD 0,56UH10%0,500HMO,550A CHOKE	LD 0067.2834.00	DALE	IM2	
L26	LU UEBERTRAGER TRANSFORMER	0451.1937.00			
L91	LD 0,47UH10%0,350HMO,660A CHOKE	LD 0067.2828.00	DALE	IM2	
L94	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L100	LD 100 UH10%8,000HMO,084A CHOKE	LD 0067.3101.00	DALE	IM2	
L101	LD 100 UH10%8,000HMO,084A CHOKE	LD 0067.3101.00	DALE	IM2	
L102	LD 120 UH10%13,00HMO,066A CHOKE	LD 0067.3118.00	DALE	IM2	
L103	LD 120 UH10%13,00HMO,066A CHOKE	LD 0067.3118.00	DALE	IM2	
L105	LD 1000UH10%72,00HMO,028A CHOKE	LD 0037.8005.00	DALE	IM2	
L106	LD 1000UH10%72,00HMO,028A CHOKE	LD 0037.8005.00	DALE	IM2	
L107	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L108	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L112	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L116	LD 4,70UH10%1,200HMO,239A CHOKE	LD 0067.2940.00	DALE	IM2	
L150	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L153					
L200	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L201	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L205	LD 10 UH 10% 3R3 144 MA CHOKE	LD 0026.4184.00	DALE	IM2	
L206	LD 10 UH 10% 3R3 144 MA CHOKE	LD 0026.4184.00	DALE	IM2	


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 ROHDE & SCHWARZ				27 04.02.98	ED FM-INTERPOL-OSZILLATOR FM-INTERPOL-OSCILLATOR	0819.4967.01 SA	5+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L207	LD SPULE COIL	0819.5386.00			
L208	LD 47,0UH10%4,500HMO,110A CHOKE	LD 0067.3060.00	DALE	IM2	
L209	LD 47,0UH10%4,500HMO,110A CHOKE	LD 0067.3060.00	DALE	IM2	
L220	LD 47,0UH10%4,500HMO,110A CHOKE	LD 0067.3060.00	DALE	IM2	
L221	LD 10 UH 10% 3R3 144 MA CHOKE	LD 0026.4184.00	DALE	IM2	
L222	LD 47,0UH10%4,500HMO,110A CHOKE	LD 0067.3060.00	DALE	IM2	
L224	LD 47,0UH10%4,500HMO,110A CHOKE	LD 0067.3060.00	DALE	IM2	
L226	LD 0,27UH10%0,160HMO,975A CHOKE	LD 0067.2792.00	DALE	IM2	
L227	LD 0,18UH10%0,120HM1,120A CHOKE	LD 0067.2770.00	DALE	IM2	
L228	LD 0,15UH10%0,100HM1,230A CHOKE	LD 0067.2763.00	DALE	IM2	
L270	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L272	LD 4,70UH10%1,200HMO,239A CHOKE	LD 0067.2940.00	DALE	IM2	
L274	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L300	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L400	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L402	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L405	LD 4,70UH10%1,200HMO,239A CHOKE	LD 0067.2940.00	DALE	IM2	
L406	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L407	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L410	LD 10UH BEI 0,81A 0,660HM CHOKE	LD 0026.4126.00	DALE	IM 6	
L419	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L420	LD 4,70UH10%1,200HMO,239A CHOKE	LD 0067.2940.00	DALE	IM2	
L430	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L431	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L460	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L461	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L462	LD 10GHZ 50DB100V10A4RDX9 LEAD-THROUGH FILTER	LD 0451.4636.00	SPECTRUM	51-713-036	
L470	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L471	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L472	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
N4	BO NE5532AFE 2XLN OPAMP OPERATIONAL AMPLIFIER	BO 0356.0450.00	SIGNETICS	NE5532AFE	
N5	BO LM393N 2X COMPAR COMPARATOR	BO 0803.0696.00	NSC	LM393N	
N51	BO OP07CZ OPAMP OPERATIONAL AMPLIFIER	BO 0303.6960.00	PMI	OP 07 CZ	
N52	BO OP200GP 2XLP OPAMP OPERATIONAL AMPLIFIER	0351.1636.00	ANALOG_DEV	OP200G(P)	
N200	BO SE5534AFE LN OPAMP OPERATIONAL AMPLIFIER	BO 0301.3335.00	SIGNETICS	SE5534AFE	
N201	BO LM393N 2X COMPAR COMPARATOR	BO 0803.0696.00	NSC	LM393N	
P1	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
P2	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	

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		27	04.02.98	ED FM-INTERPOL-OSZILLATOR FM-INTERPOL-OSCILLATOR	0819.4967.01 SA	6+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
P11 ..14	VL WIRE-WRAP PIN L=8,7	0088.4507.00	DUPONT CON	75403-001/75401-001	
P16	VL WIRE-WRAP PIN L=8,7	0088.4507.00	DUPONT CON	75403-001/75401-001	
P17	VL WIRE-WRAP PIN L=8,7	0088.4507.00	DUPONT CON	75403-001/75401-001	
P19 ..26	VL WIRE-WRAP PIN L=8,7	0088.4507.00	DUPONT CON	75403-001/75401-001	
P27	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
P28	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
P29	VL WIRE-WRAP PIN L=8,7	0088.4507.00	DUPONT CON	75403-001/75401-001	
P32	VL WIRE-WRAP PIN L=8,7	0088.4507.00	DUPONT CON	75403-001/75401-001	
P33	VL WIRE-WRAP PIN L=8,7	0088.4507.00	DUPONT CON	75403-001/75401-001	
P36	VL WIRE-WRAP PIN L=8,7	0088.4507.00	DUPONT CON	75403-001/75401-001	
P37	VL WIRE-WRAP PIN L=8,7	0088.4507.00	DUPONT CON	75403-001/75401-001	
P100	VL WIRE-WRAP PIN L=8,7	0088.4507.00	DUPONT CON	75403-001/75401-001	
P101	VL WIRE-WRAP PIN L=8,7	0088.4507.00	DUPONT CON	75403-001/75401-001	
P109 ..112	VL WIRE-WRAP PIN L=8,7	0088.4507.00	DUPONT CON	75403-001/75401-001	
R1	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R2	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R3	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R4	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	ROEDERSTEI	D25	
R5	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	ROEDERSTEI	D25	
R6	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R7	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	ROEDERSTEI	D25	
R8	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	ROEDERSTEI	D25	
R9	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R11	RG 392 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5672.00	ROEDERSTEI	D25	
R12	RG 392 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5672.00	ROEDERSTEI	D25	
R13	RG 392 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5672.00	ROEDERSTEI	D25	
R14	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R29	RS 0,5W 500 OHM+-20%KURV1 DEPOS.-CARBON POTENTIOMET	RS 0069.8023.00	BI_TECHNOL	82P R500	
R31	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R32	RG 39,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5937.00	ROEDERSTEI	D25	
R42	RG 2,15KOHM+-1%TK100 1206 CHIP RESISTOR	0007.0635.00	DRALORIC	CB 1206 ...	
R43	RS 0,75W10KOHM+-10%ERMET DEPOS.-CARBON POTENTIOMET	RS 0037.7396.00	BOURNS	3006 P-XXXXX	
R44	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R50	RL 0,60W 100KOHM+-1%TK50 RESISTOR	RL 0082.1764.00	RESISTA	MK2	
R51	RL 0,60W 221 OHM+-1%TK50 RESISTOR	RL 0083.0084.00	RESISTA	MK2	
R52	RL 0,60W 221 OHM+-1%TK50 RESISTOR	RL 0083.0084.00	RESISTA	MK2	
R53	RL 0,60W 10,0KOHM+-1%TK50 RESISTOR	RL 0083.1297.00	RESISTA	MK2	
R54	RL 0,60W 100 OHM+-1%TK50 RESISTOR	RL 0082.6543.00	RESISTA	MK2	
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R55	RL 0,60W 3,32KOHM+-1%TK50 RESISTOR	RL 0083.0990.00	RESISTA	MK2	
R56	RL 0,60W 3,92KOHM+-1%TK50 RESISTOR	RL 0083.1039.00	DRALORIC	SMA 0207	
R59	RG 182 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5595.00	ROEDERSTEI	D25	
R60	RG 332 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5650.00	PHILIPS_CO	RC02	
R61	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	ROEDERSTEI	D25	
R62	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	ROEDERSTEI	D25	
R63	RG 3,92KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5808.00	ROEDERSTEI	D25	
R64	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R65	RG 22,1KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5872.00	ROEDERSTEI	D25	
R66	RG 22,1KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5872.00	ROEDERSTEI	D25	
R67	RG 22,1KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5872.00	ROEDERSTEI	D25	
R70	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	ROEDERSTEI	D25	
R72	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R73	RG 30,1KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5908.00	ROEDERSTEI	D25	
R74	RG 2,61KOHM+-1%TK100 1206 CHIP RESISTOR	0007.0658.00	DRALORIC	CB 1206 ...	
R75	RG 2,61KOHM+-1%TK100 1206 CHIP RESISTOR	0007.0658.00	DRALORIC	CB 1206 ...	
R76	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R77	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R78	RG 1,21KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9968.00	ROEDERSTEI	D25	
R79	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R80	RL 0,40W 100 OHM2% UNGEW. RESISTOR	RL 0092.5956.00	DRALORIC	SMA 0204	
R82	RG 3,92KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5808.00	ROEDERSTEI	D25	
R83	RG 6,81KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0758.00	ROEDERSTEI	D25	
R84	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R85	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R86	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R90	RG 182 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5595.00	ROEDERSTEI	D25	
R96	RG 182 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5595.00	ROEDERSTEI	D25	
R100	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R101	RG 8,25KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0770.00	ROEDERSTEI	D25	
R102	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R103	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R104	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	PHILIPS_CO	RC02	
R105	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	ROEDERSTEI	D25	
R106	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R107	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	PHILIPS_CO	RC02	
R108	RG 8,25KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0770.00	ROEDERSTEI	D25	
R109	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	ROEDERSTEI	D25	
R110	RG 56,2 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8826.00	ROEDERSTEI	D25	
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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R111	RG 22,1 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5489.00	ROEDERSTEI	D25	
R112	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R113	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R114	RG 68,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8849.00	ROEDERSTEI	D25	
R116	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R117	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R119	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R120	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R121	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R122	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R125	RL 0,60W 10,0KOHM+-1%TK50 RESISTOR	RL 0083.1297.00	RESISTA	MK2	
R126	RL 0,60W 10,0KOHM+-1%TK50 RESISTOR	RL 0083.1297.00	RESISTA	MK2	
R127	RL 0,60W 100KOHM+-1%TK50 RESISTOR	RL 0082.1764.00	RESISTA	MK2	
R128	RL 0,60W 100KOHM+-1%TK50 RESISTOR	RL 0082.1764.00	RESISTA	MK2	
R131	RL 0,60W 10,0KOHM+-1%TK50 RESISTOR	RL 0083.1297.00	RESISTA	MK2	
R140	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R142	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
..146	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R148	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R150	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
..152	RG 1,0 K0 +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R155	RG 18,2 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5466.00	ROEDERSTEI	D25	
R156	RG 4,32KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5814.00	ROEDERSTEI	D25	
R157	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R158	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R159	RG 5,62KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0735.00	ROEDERSTEI	D25	
..161	RL 0,60W 499 KOHM+-1%TK50 RESISTOR	RL 0083.2612.00	DRALORIC	SMA 0207	
R162	RG 56,2KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.1883.00	ROEDERSTEI	D25	
R163	RG 2,74KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5766.00	PHILIPS_CO	RC02	
R164	RL 0,60W 274 KOHM+-1%TK50 RESISTOR	RL 0083.2364.00	RESISTA	MK2	
R165	RG 30,1KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5908.00	ROEDERSTEI	D25	
R166	RG 332 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5650.00	PHILIPS_CO	RC02	
R167	RS 0,5W2KOHM+-10%10X10X5 CERMET POTENTIOMETER	RS 0247.7961.00	SPECTROL	63X ... TO10	
R168	RS 0,5W10KOHM+-10%10X10X5 CERMET POTENTIOMETER T	RS 0247.7526.00	SPECTROL	63X ... TO10	
R169	RS 0,5W100KOHM+-10%10X10X CERMET POTENTIOMETER T	RS 0087.7683.00	SPECTROL	63X ... TO10	
R170	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	ROEDERSTEI	D25	
R171	RL 0,60W 221 OHM+-1%TK50 RESISTOR	RL 0083.0084.00	RESISTA	MK2	
R172	RL 0,60W 68,1KOHM+-1%TK50 RESISTOR	RL 0082.2602.00	RESISTA	MK2	
R173	RG 150 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5589.00	ROEDERSTEI	D25	
R174	RG 1,21KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9968.00	ROEDERSTEI	D25	
R175					
R176					
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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R177	RL 0,35W12,1KOHM+-0,1%T25 RESISTOR	RL 0084.3229.00	DRALORIC	SMA0207	
R178	RL 0,35W12,1KOHM+-0,1%T25 RESISTOR	RL 0084.3229.00	DRALORIC	SMA0207	
R179	RG 464 OHM+-1%TK100 1206 CHIP RESISTOR	0006.9045.00	DRALORIC	CB 1206 ...	
R180	RG 464 OHM+-1%TK100 1206 CHIP RESISTOR	0006.9045.00	DRALORIC	CB 1206 ...	
R181	RG 5,62KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0735.00	ROEDERSTEI	D25	
R182	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R183	RL 0,60W 3,01KOHM+-1%TK50 RESISTOR	RL 0083.0961.00	RESISTA	MK2	
R184	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R186	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R198	RL 0,60W 2,74KOHM+-1%TK50 RESISTOR	RL 0083.0926.00	RESISTA	MK2	
R199	RL 0,60W 2,74KOHM+-1%TK50 RESISTOR	RL 0083.0926.00	RESISTA	MK2	
R200	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R201	RG 1,78KOHM+-1%TK100 1206 CHIP RESISTOR	0007.0006.00	DRALORIC	CB 1206 ...	
R203 ..206	RL 0,60W 10,0 OHM+-1%TK50 RESISTOR	RL 0082.8852.00	RESISTA	MK2	
R207	RL 0,60W 110 OHM+-1%TK50 RESISTOR	RL 0082.9813.00	RESISTA	MK2	
R208	RL 0,60W 10,0KOHM+-1%TK50 RESISTOR	RL 0083.1297.00	RESISTA	MK2	
R209	RG 5,62KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0735.00	ROEDERSTEI	D25	
R210	RS 0,5W1KOHM+-10%10X10X5 CERMET POTENTIOMETER T	RS 0087.7560.00	SPECTROL	63 M ... TO 10	
R211	RL 0,60W 1,82KOHM+-1%TK50 RESISTOR	RL 0082.2277.00	RESISTA	MK2	
R212	RL 0,60W 27,4KOHM+-1%TK50 RESISTOR	RL 0082.2583.00	RESISTA	MK2	
R213	RL 0,60W 12,1KOHM+-1%TK50 RESISTOR	RL 0083.1351.00	RESISTA	MK2	
R214	RG 2,21KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5743.00	ROEDERSTEI	D25	
R215	RG 182 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5595.00	ROEDERSTEI	D25	
R216	RL 0,60W 10,0 OHM+-1%TK50 RESISTOR	RL 0082.8852.00	RESISTA	MK2	
R217	RG 681 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9080.00	ROEDERSTEI	D25	
R220	RG 47,5KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5950.00	ROEDERSTEI	D25	
R222	RG 681 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9080.00	ROEDERSTEI	D25	
R223	RL 0,60W 121 OHM+-1%TK50 RESISTOR	RL 0082.9859.00	RESISTA	MK2	
R228	RG 332 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5650.00	PHILIPS_CO	RC02	
R229	RG 22,1KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5872.00	ROEDERSTEI	D25	
R230	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	ROEDERSTEI	D25	
R232	RG 332 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5650.00	PHILIPS_CO	RC02	
R235	RG 8,25OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8488.00	PHILIPS	RC 02	
R240	RG 22,1KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5872.00	ROEDERSTEI	D25	
R270	RG 383 OHM+-1%TK100 1206 CHIP RESISTOR	0006.9022.00	DRALORIC	CB 1206 ...	
R271	RG 383 OHM+-1%TK100 1206 CHIP RESISTOR	0006.9022.00	DRALORIC	CB 1206 ...	
R272	RG 383 OHM+-1%TK100 1206 CHIP RESISTOR	0006.9022.00	DRALORIC	CB 1206 ...	
R273	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R274 ..277	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R279	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R280	RG 2,61KOHM+-1%TK100 1206 CHIP RESISTOR	0007.0658.00	DRALORIC	CB 1206 ...	
R281	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	ROEDERSTEI	D25	
R282	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R283	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R285	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R287	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R288	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R291	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R292	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R293	RL 0,60W 68,1 OHM+-1%TK50 RESISTOR	RL 0082.9636.00	RESISTA	MK2	
R294	RL 0,60W 68,1 OHM+-1%TK50 RESISTOR	RL 0082.9636.00	RESISTA	MK2	
R295	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R296	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R300	RL 0,60W 681 OHM+-1%TK50 RESISTOR	RL 0083.0490.00	RESISTA	MK2	
R301	RL 0,60W 681 OHM+-1%TK50 RESISTOR	RL 0083.0490.00	RESISTA	MK2	
R302	RL 0,60W 1,50KOHM+-1%TK50 RESISTOR	RL 0083.0732.00	RESISTA	MK2	
R303	RL 0,60W 1,50KOHM+-1%TK50 RESISTOR	RL 0083.0732.00	RESISTA	MK2	
R304	RG 2,0 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5737.00	ROEDERSTEI	D25	
R305	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	ROEDERSTEI	D25	
R306	RG 17,8KOHM+-1%TK100 1206 CHIP RESISTOR	0007.0887.00	ROEDERSTEI	D25	
R307	RG 3,83KOHM+-1%TK100 1206 CHIP RESISTOR	0007.0693.00	DRALORIC	CB 1206 ...	
R308	RG 22,1KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5872.00	ROEDERSTEI	D25	
R309	RG 332 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5650.00	PHILIPS_CO	RC02	
R310	RL 0,60W 2,00KOHM+-1%TK50 RESISTOR	RL 0083.0826.00	RESISTA	MK2	
R311	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R313	RL 0,60W 1,82KOHM+-1%TK50 RESISTOR	RL 0082.2277.00	RESISTA	MK2	
R320	RG 2,0 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5737.00	ROEDERSTEI	D25	
R321	RG 182 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5989.00	ROEDERSTEI	D25	
R322	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	ROEDERSTEI	D25	
R323	RL 0,60W 3,92KOHM+-1%TK50 RESISTOR	RL 0083.1039.00	DRALORIC	SMA 0207	
R324	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R325	RL 0,60W 2,00KOHM+-1%TK50 RESISTOR	RL 0083.0826.00	RESISTA	MK2	
R326	RG 22,1KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5872.00	ROEDERSTEI	D25	
R400	RL 0,60W 33,2 OHM+-1%TK50 RESISTOR	RL 0082.9359.00	RESISTA	MK2	
R450	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	ROEDERSTEI	D25	
R456	RL 0,60W22,10 OHM+-1%TK50 RESISTOR	RL 0082.9188.00	RESISTA	MK2	
V1	AM U310 N-D 25V JFET FET	AM 0454.6217.00	SILICONIX	U310	

MENP5	502 3PUA	Äi	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No.	Blatt-Nr Page
		27	04.02.98	ED FM-INTERPOL-OSZILLATOR FM-INTERPOL-OSCILLATOR	0819.4967.01 SA	11+

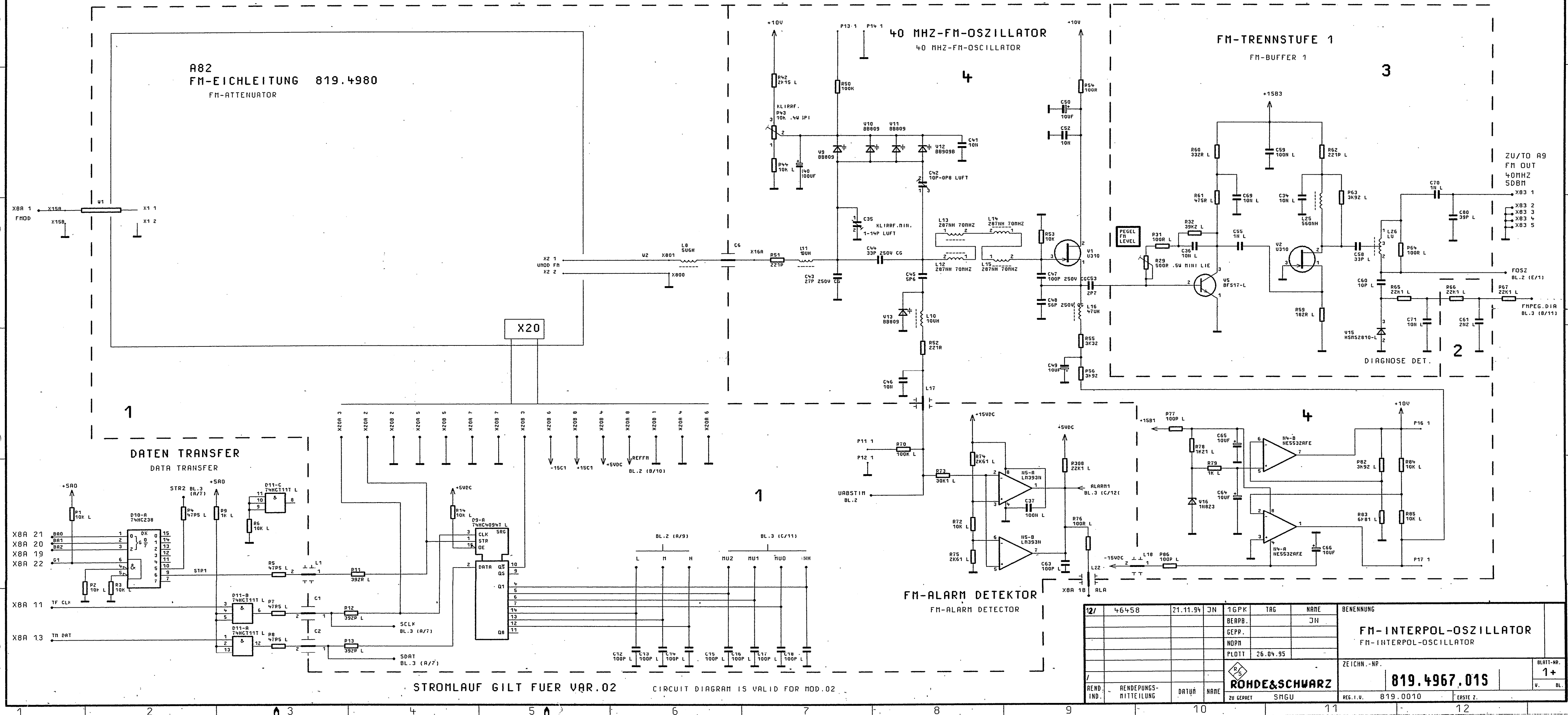
Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
V2	AM U310 N-D 25V JFET FET	AM 0454.6217.00	SILICONIX	U310	
V5	AK BFS17 N 30V 50MA TRANSISTOR	AK 0010.6460.00	VALVO	BFS17	
V9	AE BB809 26/ 6PF CDI TUNING DIODE	AE 0092.9616.00	VALVO	BB809	
V10	AE BB809 26/ 6PF CDI TUNING DIODE	AE 0092.9616.00	VALVO	BB809	
V11	AE BB809 26/ 6PF CDI TUNING DIODE	AE 0092.9616.00	VALVO	BB809	
V12	AE BB909B 25/ 3PF CDI TUNING DIODE	AE 0092.9600.00	PHILIPS	BB909B	
V13	AE BB809 26/ 6PF CDI TUNING DIODE	AE 0092.9616.00	VALVO	BB809	
V15	AE HSMS2810 SCHOTTKY DIODE	0520.7340.00	HEWLETT_PA	HSMS2810	
V16	AE 1N823 6,2V REFDI REFERENCE DIODE	0012.2278.00	SIEMENS	1N823	
V90	AM U310 N-D 25V JFET FET	AM 0454.6217.00	SILICONIX	U310	
V100	AK BFS17 N 30V 50MA TRANSISTOR	AK 0010.6460.00	VALVO	BFS17	
V101	AK BFS17 N 30V 50MA TRANSISTOR	AK 0010.6460.00	VALVO	BFS17	
V102	AD 1N4448 75V UDI DIODE	AD 0012.0700.00	PHILIPS_SE	1N4448 "	
V104	AD 1N4448 75V UDI DIODE	AD 0012.0700.00	PHILIPS_SE	1N4448 "	
V105	AD 1N4448 75V UDI DIODE	AD 0012.0700.00	PHILIPS_SE	1N4448 "	
V106	AE BZX55/B10 0,5W ZDI ZENER DIODE	AE 0289.4302.00	VALVO	BZX79B10	
V107	AE 1N827 6,2V REFDI REFERENCE DIODE	AE 0418.0029.00	COMPENSATE	1N827(A)	
V190 ..193	AD 1N4448 75V UDI DIODE	AD 0012.0700.00	PHILIPS_SE	1N4448 "	
V200	AK BCY79IX P 45V 200MA TRANSISTOR	AK 0010.3777.00	VALVO	BCY79IX	
V201	AK 2N2905A P 60V 600MA TRANSISTOR	AK 0010.3919.00	VALVO	2N2905A	
V202	AK 2N2219A N 40V 800MA TRANSISTOR	0083.6953.00	VALVO	2N2219A	
V203 ..214	AE BB620 45/03PF CDI TUNING DIODE	0848.5251.00	SIEMENS	BB620	
V215	AE 5082-2800 SCHOTTKY DIODE	AE 0012.9066.00	HEWLETT_PA	5082-2800	
V217	AM U310 N-D 25V JFET FET	AM 0454.6217.00	SILICONIX	U310	
V218	AM U310 N-D 25V JFET FET	AM 0454.6217.00	SILICONIX	U310	
V221	AM U310 N-D 25V JFET FET	AM 0454.6217.00	SILICONIX	U310	
V222	AM U310 N-D 25V JFET FET	AM 0454.6217.00	SILICONIX	U310	
V224	AK 2N2369A N 15V 200MA TRANSISTOR	AK 0010.4680.00	VALVO	2N2369A ODER BSX20	
V226	AE HSMS2800 SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V270	AK 2N2369A N 15V 200MA TRANSISTOR	AK 0010.4680.00	VALVO	2N2369A ODER BSX20	
V304	AE BZX55/B12 0,5W ZDI ZENER DIODE	AE 0218.8940.00	VALVO	BZX79B12	
V305	AD BAV99 70V DUO UDI DIODE	AD 0911.0092.00	VALVO	BAV99	
V307	AD BAV99 70V DUO UDI DIODE	AD 0911.0092.00	VALVO	BAV99	
V321	AE BZX55/B5V1 0,5W ZDI ZENER DIODE	AE 0262.5837.00	TELEFUNKEN	BZX55B5V1	
W1	DX KABEL W1 CABLE	0819.5405.00			
W2	DX KABEL W2 CABLE	0819.5486.00			
W3	DW KABEL W3 CABLE	0819.5470.00			
X11	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR	FP 0242.3600.00	BINDER	742-11-0179-00-36	
MENP5	502 3PUA	ÄI	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No.
		27	04.02.98	ED FM-INTERPOL-OSZILLATOR FM-INTERPOL-OSCILLATOR	0819.4967.01 SA
 ROHDE & SCHWARZ					12+

095.0026-0693

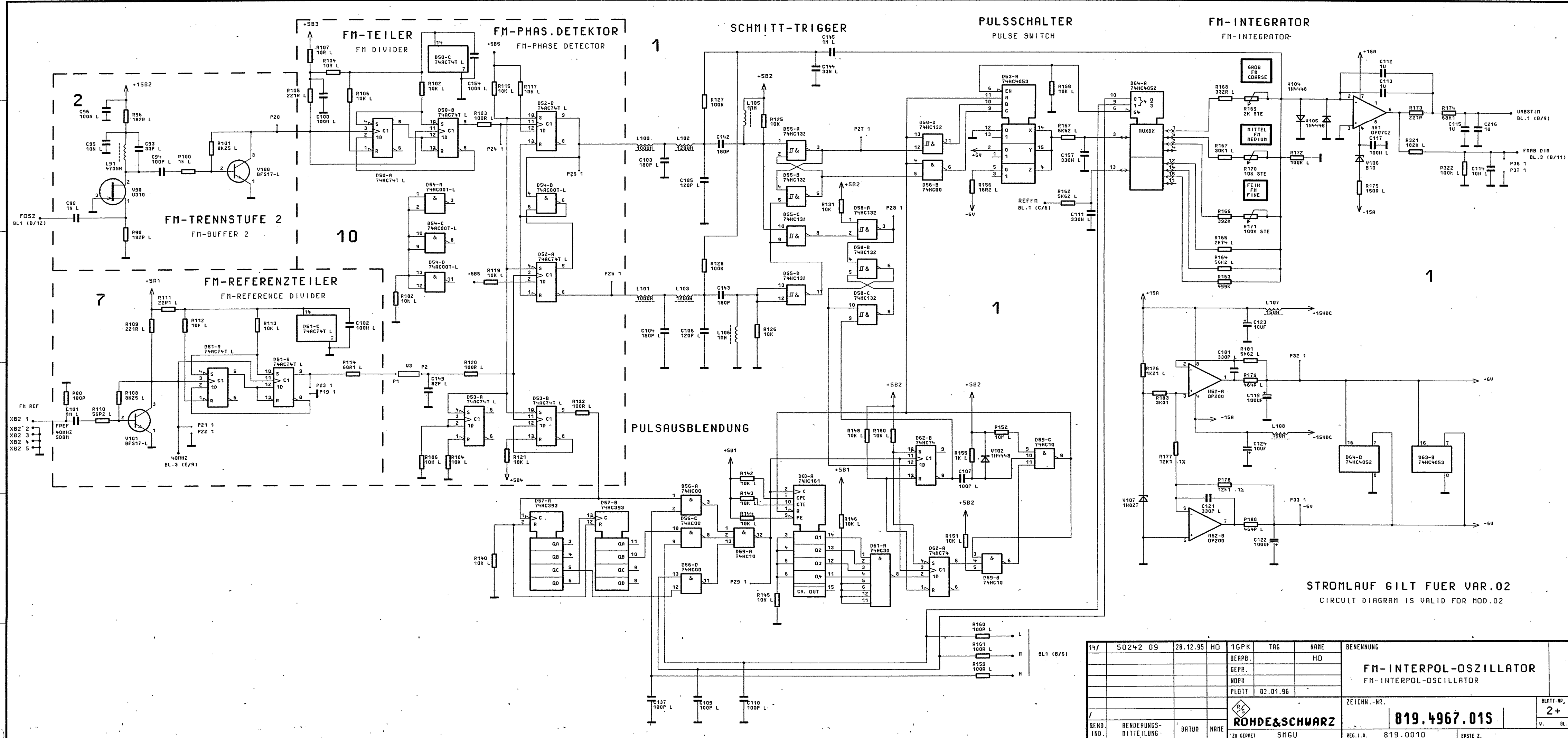
Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
X81	FJ EINBAUSTECKER F.GS SMB ANGLE CONNECTOR	FJ 0602.8804.00	IMS	81.1524.201	
X82	FJ EINBAUSTECKER F.GS SMB ANGLE CONNECTOR	FJ 0602.8804.00	IMS	81.1524.201	
X83	FJ EINBAUSTECKER F.GS SMB ANGLE CONNECTOR	FJ 0602.8804.00	IMS	81.1524.201	
X800	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
X801	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
X15A	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
X15B	VL LOETOESE 8,5 X 0,9 SOLDER LUG	0455.9384.00	VOGT	1001 T BZ SN-8 VERZI	
X16A	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
X20A	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X20B	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X8A	FP STECKERLEISTE 32POL. MULTIPOINT CONNECTOR	FP 0514.4550.00	SIEMENS	V42254-B1200-B641	

MENP5	502 3PUA	ÄI	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No.	Blatt-Nr. Page
 ROHDE & SCHWARZ		27	04.02.98	ED FM-INTERPOL-OSZILLATOR FM-INTERPOL-OSCILLATOR	0819.4967.01 SA	13-

B

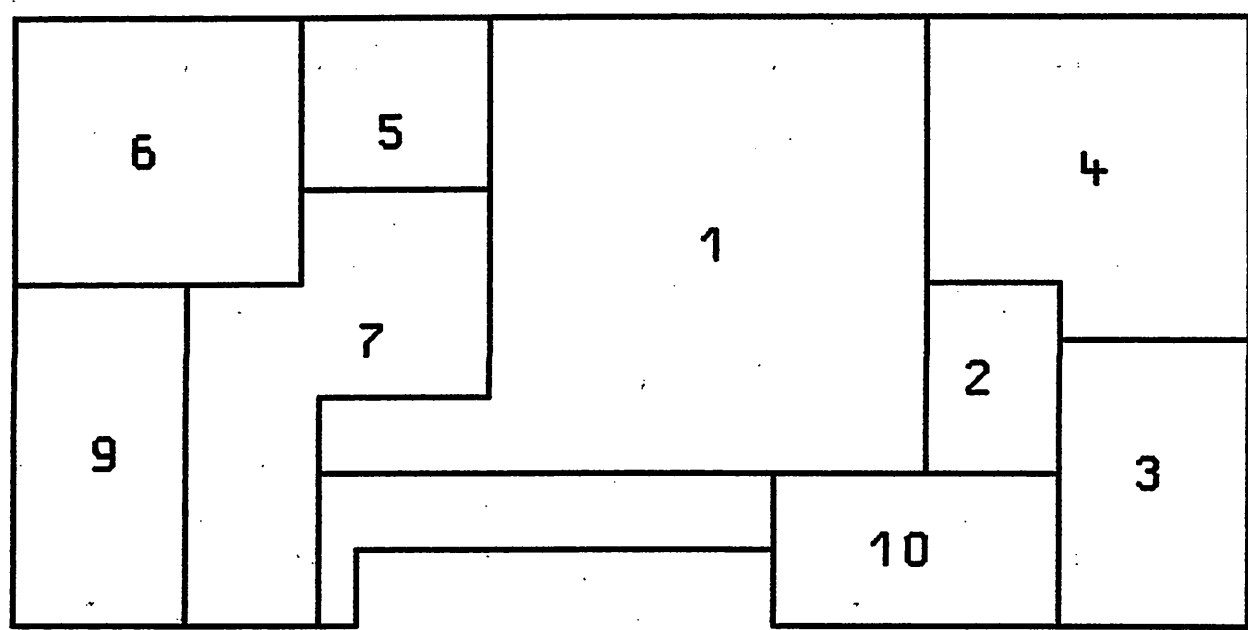
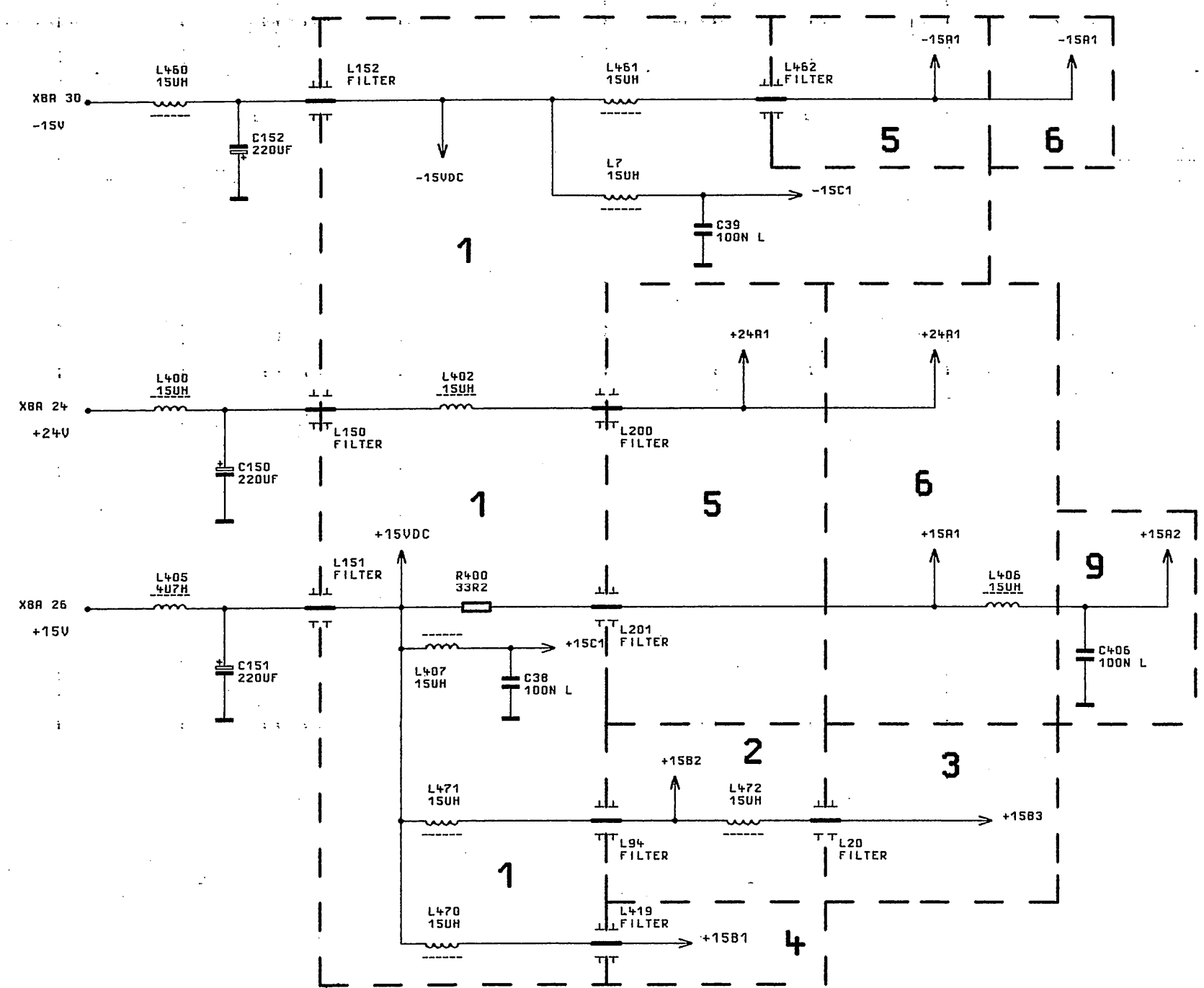


FÜR DIESE ZEICHNUNG BEHALTEN WIR UNS ALLE RECHTE VOR.
FÜR DIESE ZEICHNUNG BEHALTEN WIR UNS ALLE RECHTE VOR.
DIESE ZEICHNUNG IST EIN RECHNERAUSDRUCK. ÄNDERUNGEN KÖNNEN NUR DURCH ÄNDERUNG DES DATENSATZES ERFOLGEN.



FUER DIESE UNTERLAGE
BEHALTEN UIR UNS ALLE RECHTE VOR

ZEICHN.-NR.

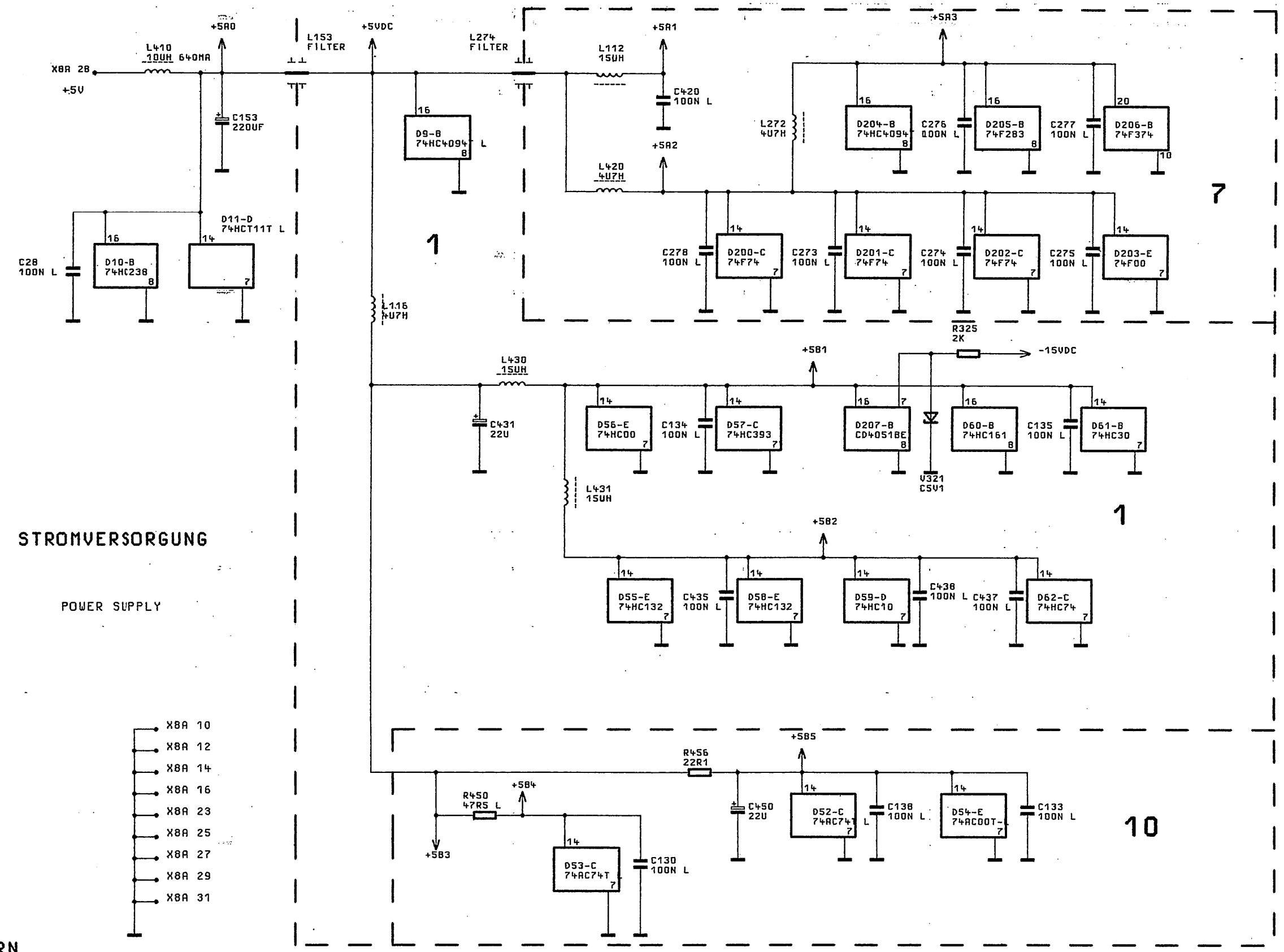


LAGE DER KAMMERN
LOCATION OF SUBMODULES

STROMVERSORGUNG

POWER SUPPLY

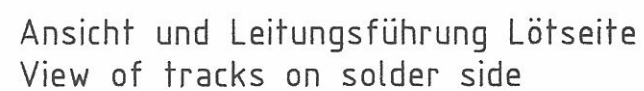
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- X8A 12
- X8A 14
- X8A 16
- X8A 23
- X8A 25
- X8A 27
- X8A 29
- X8A 31



STROMLAUF GILT FUER VAR.02
CIRCUIT DIAGRAM IS VALID FOR MOD.02

ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHRDETE
BAUELEMENTE ERFORDERN EINE
BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES
REQUIRE A SPECIAL HANDLING

B	39845	2.89	LS	1KGB	TAG	NANE	BEKENNUNG
C	39845	3.89	JN	BEARB.		HO	
7	44812	5.90	HO	GEPR.		HO	
				NORN			
				PLOTT	30. 5.90	*	
REND. IND.	RENDERUNGS-NITTEILUNG	DATUM	NANE	ROHDE&SCHWARZ		ZEICHN.-NR.	BLATT-NR.
				ZU GERAT SMGU		819.4967.015	4
				REG. I.V. 819.0010		ERSTE Z.	V. 4 BL.



(hierzu HVC 250)




ACHTUNG: EGB!
Elektrostatisch gefährdete Bauelemente erfordern eine besondere Handhabung.


ATTENTION ESD!
Electrostatic sensitive devices require a special handling.

[illegible]

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C1	CK 10NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7652.00	ROEDERSTEI	KP1830-310 06 1 3 W	
C3	CC 100PF+-2%6X9NPO CAPACITOR	CC 0087.6541.00	PHILIPS_CO	2222 678	
C7	CC 100PF+-2%6X7N150 CAPACITOR	CC 0087.6712.00	PHILIPS_CO	2222 678 34 101	
C10	CK 10NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7652.00	ROEDERSTEI	KP1830-310 06 1 3 W	
C11	CC 10PF+-0,25PF3X4NPO CAPACITOR	CC 0087.6429.00	PHILIPS_CO	2222 678 10109	
C15	CC 10PF+-0,25PF3X4NPO CAPACITOR	CC 0087.6429.00	PHILIPS_CO	2222 678 10109	
C17	CC 1PF+-0,25PF3X4P100 CAPACITOR	CC 0087.6170.00	PHILIPS_CO	2222 678	
C18	CK 100NF+-5%63VRD2,5H7MKT CAPACITOR	CK 0099.2930.00	ROEDERSTEI	MKT 1826-410-06-4W	
C20	CC 47PF+-2%5X6NPO CAPACITOR	CC 0087.6506.00	PHILIPS_CO	2222 678	
C21	CK 470PF +-1% 100V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7575.00	ROEDERSTEI	KP1830-147 01 1 3 W	
C22	CK 330PF +-1% 100V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7569.00	ROEDERSTEI	KP1830-133 01 1 3 W	
C24	CK 100NF+-5%63VRD2,5H7MKT CAPACITOR	CK 0099.2930.00	ROEDERSTEI	MKT 1826-410-06-4W	
C25	CK 100NF+-5%63VRD2,5H7MKT CAPACITOR	CK 0099.2930.00	ROEDERSTEI	MKT 1826-410-06-4W	
C26	CK 100NF+-5%63VRD2,5H7MKT CAPACITOR	CK 0099.2930.00	ROEDERSTEI	MKT 1826-410-06-4W	
C28	CK 10NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7652.00	ROEDERSTEI	KP1830-310 06 1 3 W	
C29	CK 100NF+-5%63VRD2,5H7MKT CAPACITOR	CK 0099.2930.00	ROEDERSTEI	MKT 1826-410-06-4W	
C30	CK 100NF+-5%63VRD2,5H7MKT CAPACITOR	CK 0099.2930.00	ROEDERSTEI	MKT 1826-410-06-4W	
C31	CK 100NF+-5%63VRD2,5H7MKT CAPACITOR	CK 0099.2930.00	ROEDERSTEI	MKT 1826-410-06-4W	
C32	CK 100NF+-5%63VRD2,5H7MKT CAPACITOR	CK 0099.2930.00	ROEDERSTEI	MKT 1826-410-06-4W	
C45	CC 150PF+-2%5X6N750 CAPACITOR	CC 0087.6929.00	PHILIPS_CO	2222 678 58151	
D1	BS LF13331N 4X ANALGSCH ANALOG SWITCH	BJ 0356.0515.00	NSC	LF13331N	
D2	BJ AD7533CQ 1X10B-DAC D/A-CONVERTER	BJ 0300.8740.00	ANALOG_DEV	AD7533CQ(CD)	
D3	BS LF13331N 4X ANALGSCH ANALOG SWITCH	BJ 0356.0515.00	NSC	LF13331N	
D4	BS LF13331N 4X ANALGSCH ANALOG SWITCH	BJ 0356.0515.00	NSC	LF13331N	
D6	BL PC74HC4094P 8ST.SH.REG 8ST.SHIFT A.STORE REGIST.	0099.9711.00	PHILIPS_SE	(PC)74HC4094N(P)	
D7	BL PC74HC4094P 8ST.SH.REG 8ST.SHIFT A.STORE REGIST.	0099.9711.00	PHILIPS_SE	(PC)74HC4094N(P)	
D8	BL PC74HC4094P 8ST.SH.REG 8ST.SHIFT A.STORE REGIST.	0099.9711.00	PHILIPS_SE	(PC)74HC4094N(P)	
D12	BS LF13331N 4X ANALGSCH ANALOG SWITCH	BJ 0356.0515.00	NSC	LF13331N	
L3	LD 47,0UH10%4,500HMO,110A CHOKE	LD 0067.3060.00	DALE	IM2	
L4	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
L5	LD 15,0UH10%2,800HMO,157A CHOKE	LD 0067.3001.00	DALE	IM2	
N1	BO LT318AJ8 OPAMP OPERATIONAL AMPLIFIER	0805.1454.00	LINEAR_TEC	LT 318 AJ8 /SL 30001	
N2	BO LT318AJ8 OPAMP OPERATIONAL AMPLIFIER	0805.1454.00	LINEAR_TEC	LT 318 AJ8 /SL 30001	
N3	BO LF411CN FET OPAMP OPERATIONAL AMPLIFIER	0349.3058.00	NSC	LF411CN	
N6	BO LF411CN FET OPAMP OPERATIONAL AMPLIFIER	0349.3058.00	NSC	LF411CN	
N8	BO HA7-2525-5 OPAMP OPERATIONAL AMPLIFIER	0352.7544.00	HARRIS	HA7-2525-5	
P1	FP STIFTELEISTE 36P.R2,54 PIN CONNECTOR	FP 0242.3600.00	BINDER	742-11-0179-00-36	

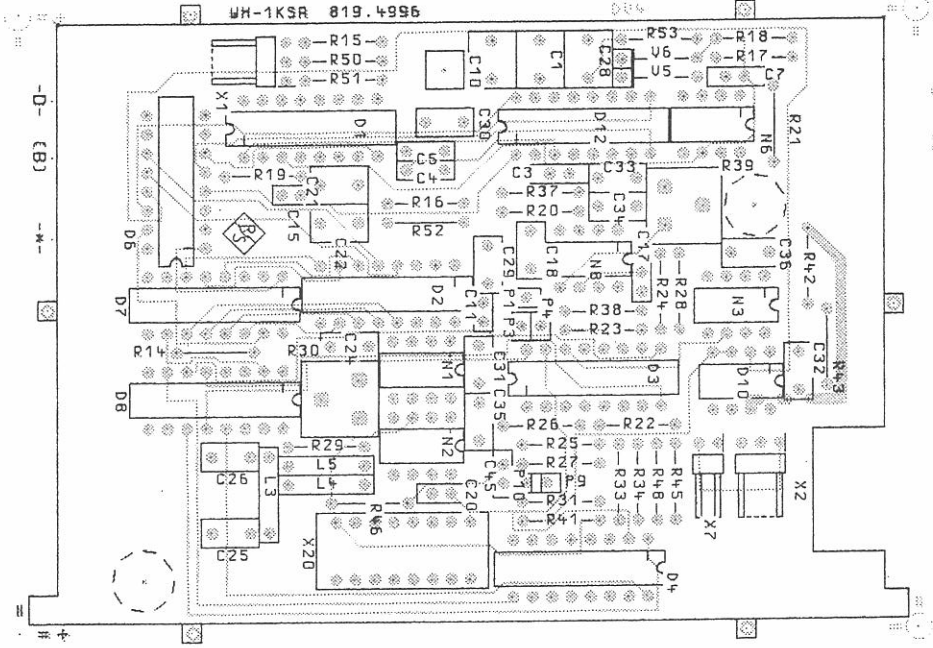
MENP5	502 3PUA	ÄI	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No.	Blatt-Nr. Page
 ROHDE & SCHWARZ			13	04.02.98	ED FM-EICHELLEITUNG FM-ATTENUATOR	0819.4980.01 SA 1+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
P3	FP STIFTELEISTE 36P.R2,54 PIN CONNECTOR	FP 0242.3600.00	BINDER	742-11-0179-00-36	
P4	FP STIFTELEISTE 36P.R2,54 PIN CONNECTOR	FP 0242.3600.00	BINDER	742-11-0179-00-36	
P9	FP STIFTELEISTE 36P.R2,54 PIN CONNECTOR	FP 0242.3600.00	BINDER	742-11-0179-00-36	
P10	FP STIFTELEISTE 36P.R2,54 PIN CONNECTOR	FP 0242.3600.00	BINDER	742-11-0179-00-36	
R14	RL 0,60W 10,0KOHM+-1%TK50 RESISTOR	RL 0083.1297.00	RESISTA	MK2	
R15	RL 0,60W 100 OHM+-1%TK50 RESISTOR	RL 0082.6543.00	RESISTA	MK2	
R16	RL 0,60W 475 KOHM+-1%TK50 RESISTOR	RL 0083.2593.00	RESISTA	MK2	
R17	RL 0,60W 10,0KOHM+-1%TK50 RESISTOR	RL 0083.1297.00	RESISTA	MK2	
R18	RL 0,35W7,50KOHM+-0,1%T25 RESISTOR	RL 0084.2822.00	DRALORIC	SMA0207	
R19	RL 0,60W 475 KOHM+-1%TK50 RESISTOR	RL 0083.2593.00	RESISTA	MK2	
R20	RL 0,60W 5,11KOHM+-1%TK50 RESISTOR	RL 0082.2348.00	RESISTA	MK2	
R21	RL 0,60W 30,1KOHM+-1%TK50 RESISTOR	RL 0083.1639.00	RESISTA	MK2	
R22	RL 0,35W2KOHM+-0,1%TK25 RESISTOR	RL 0083.9723.00	DRALORIC	SMA0207	
R23	RL 0,35W 1 KOHM+-0,1%TK25 RESISTOR	0083.9146.00	DRALORIC	SMA0207	
R24	RL 0,35W 1 KOHM+-0,1%TK25 RESISTOR	0083.9146.00	DRALORIC	SMA0207	
R25	RL 0,60W 1KOHM+-1%TK50 RESISTOR	RL 0082.2160.00	RESISTA	MK2	
R26	RL 0,60W 1KOHM+-1%TK50 RESISTOR	RL 0082.2160.00	RESISTA	MK2	
R27	RL 0,60W 100KOHM+-1%TK50 RESISTOR	RL 0082.1764.00	RESISTA	MK2	
R28	RL 0,60W 221 OHM+-1%TK50 RESISTOR	RL 0083.0084.00	RESISTA	MK2	
R29	RL 0,60W 7,50KOHM+-1%TK50 RESISTOR	RL 0083.1197.00	RESISTA	MK2	
R30	RS 0,5W20KOHM+-10%10X10X5 CERMET POTENTIOMETER T	RS 0087.7577.00	SPECTROL	63 M ... TO 10	
R31	RL 0,35W481 OHM+-0,1%TK25 RESISTOR	RL 0083.8533.00	DRALORIC	SMA0207	
R33	RL 0,35W120 OHM+-0,1%TK25 RESISTOR	RL 0083.7372.00	DRALORIC	SMA0207	
R34	RL 0,35W120 OHM+-0,1%TK25 RESISTOR	RL 0083.7372.00	DRALORIC	SMA0207	
R37	RL 0,60W 20,0KOHM+-1%TK50 RESISTOR	RL 0083.1522.00	RESISTA	MK2	
R38	RL 0,60W 20,0KOHM+-1%TK50 RESISTOR	RL 0083.1522.00	RESISTA	MK2	
R39	RS 0,5W20KOHM+-10%10X10X5 CERMET POTENTIOMETER T	RS 0087.7577.00	SPECTROL	63 M ... TO 10	
R42	RL 0,60W 5,11KOHM+-1%TK50 RESISTOR	RL 0082.2348.00	RESISTA	MK2	
R43	RL 0,60W 6,19KOHM+-1%TK50 RESISTOR	RL 0082.2283.00	RESISTA	MK2	
R45	RL 0,60W4,32 OHM+-1%TK50 METALFILMRESISTOR	RL 0099.8015.00	ROEDERSTEI	MK2	
R46	RL 0,60W 2,21KOHM+-1%TK50 RESISTOR	RL 0082.2477.00	RESISTA	MK2	
R48	RL 0,60W4,32 OHM+-1%TK50 METALFILMRESISTOR	RL 0099.8015.00	ROEDERSTEI	MK2	
R50	RL 0,60W 10,0KOHM+-1%TK50 RESISTOR	RL 0083.1297.00	RESISTA	MK2	
R51	RL 0,60W 10,0KOHM+-1%TK50 RESISTOR	RL 0083.1297.00	RESISTA	MK2	
R52	RL 0,60W 3,92KOHM+-1%TK50 RESISTOR	RL 0083.1039.00	DRALORIC	SMA 0207	
R53	RL 0,60W 82,5 OHM+-1%TK50 RESISTOR	RL 0082.9707.00	RESISTA	MK2	
V5	AE BZX55/B7V5 0,5W ZDI ZENER DIODE	AE 0349.3041.00	VALVO	BZX79B7V5	
V6	AE BZX55/B7V5 0,5W ZDI ZENER DIODE	AE 0349.3041.00	VALVO	BZX79B7V5	

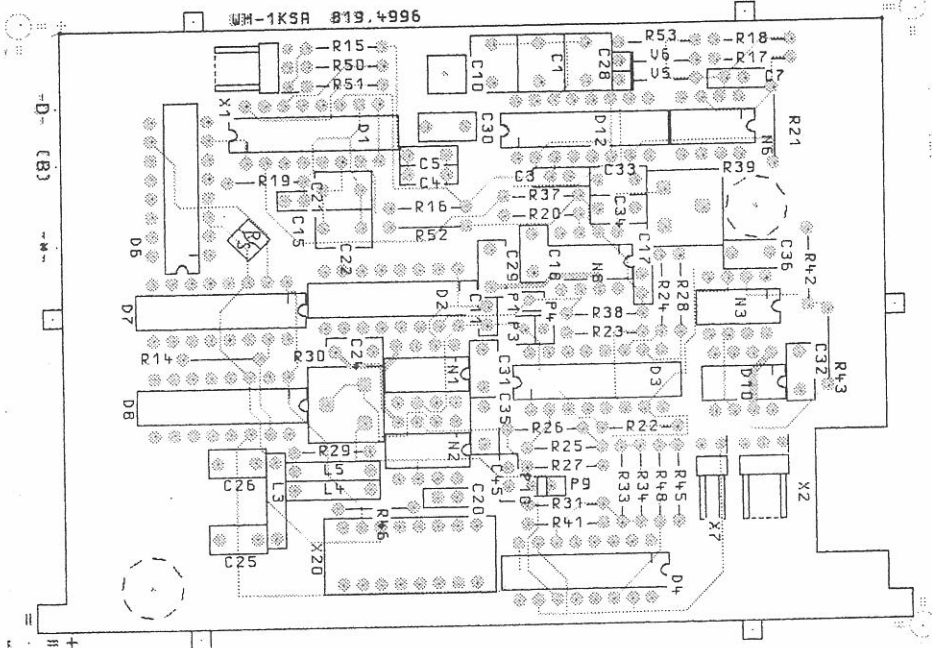
MENP5	502 3PUA	Äi	Datum Date	Schaltteilliste für Parts list for	Sachnummer Stock No.	Blatt-Nr. Page
 ROHDE & SCHWARZ		13	04.02.98	ED FM-EICHLERUNG FM-ATTENUATOR	0819.4980.01 SA	2+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
W4	DY KABEL W4 CABLE	0819.5392.00			
X1	FP STIFTL.WIN 36P.R2,54 ANGLE PIN CONNECTOR 3-POLIG/PINS	FP 0243.3578.00	BINDER	742-5-11-0187-00-36	
X2	FP STIFTL.WIN 36P.R2,54 ANGLE PIN CONNECTOR 3-POLIG/PINS	FP 0243.3578.00	BINDER	742-5-11-0187-00-36	
X7	FP STIFTL.WIN 36P.R2,54 ANGLE PIN CONNECTOR 2-POLIG/PINS	FP 0243.3578.00	BINDER	742-5-11-0187-00-36	

Ansicht und Leitungsführung Bauteilseite
View of tracks on component side




DV41



DV43

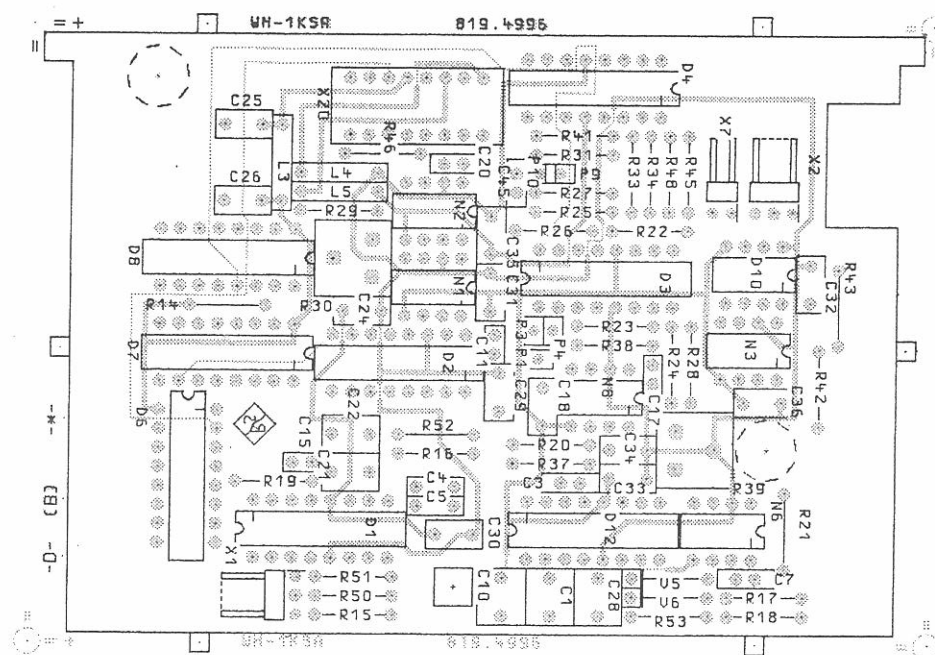


ACHTUNG: EGB!
Elektrostatisch gefährdete
Bauelemente erfordern eine
besondere Handhabung.
ATTENTION ESD!
Electrostatic sensitive
devices require a special
handling.

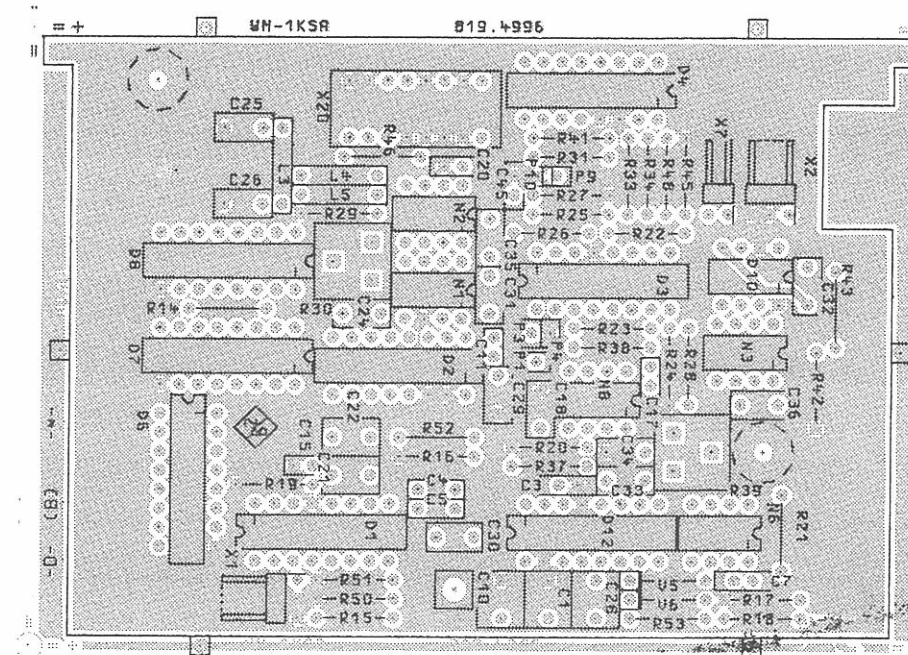
D	39845	4.89	JN	Maße ohne Toleranzangabe		Maßstab 1 : 1			
						Halbzeug, Werkstoff			
				1KGB	Tag	Name	Benennung FM - EICHLEITUNG		Z
				Bearb.	02.89	JN			
				Gepr.					
				Norm					
				 ROHDE & SCHWARZ		Zeichn.-Nr. 819.4980		Blatt-Nr. 2	
Änd. Zust	Änderungs- Mitteilung	Tag	Name	zu Gerät SMGU		reg. i. V. 819.0010 V		erste Z.	
								v.	Bt.

Für diese Unterlage behalten
wir uns alle Rechte vor.

Ansicht und Leitungsführung Lötseite
View of tracks on solder side



DV13



DV11



ACHTUNG: EGB!
Elektrostatisch gefährdete
Bauelemente erfordern eine
besondere Handhabung.
ATTENTION ESD!
Electrostatic sensitive
devices require a special
handling.

D	39845	4.89	JN	Maße ohne Toleranzangabe		Maßstab 1 : 1		
						Halbzeug, Werkstoff		
				1KGB	Tag	Name	Benennung FM - EICHLEITUNG	Z
				Bearb.	02.89	JN		
				Gepr.				
				Norm				
						Zeichn.-Nr. 819.4980		Blatt-Nr. 3
				zu Gerät SMGU		reg i. V. 819.0010 V		
Änd. Zust.	Änderungs- Mitteilung		Tag	Name	erste Z.			