



ROHDE&SCHWARZ

SERVICEUNTERLAGEN

Option MULTIFUNKTIONSGENERATOR SM-B6

1036.7760.02

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7. Prüfen und Instandsetzen der Baugruppe

7.1 Funktionsbeschreibung

Der Multifunktionsgenerator MGEN liefert als erweiterte Modulationsquelle komplexe Signale für VOR, ILS und Stereo Multiplex Modulation. Zur Erzeugung der Modulationssignale dient ein digitaler Signalprozessor(DSP). Für die Erzeugung der Standard Signale bis 1 MHz funktioniert der DSP als schneller Akkumulator, der ein EPROM für verschiedene Kurvenformen adressiert. Die Abtastrate beträgt hierbei 4.16666 MHz (25 MHz/6).

Komplexe Modulationssignale mit einer Bandbreite bis ca. 100 kHz werden vom DSP über einen seriell gesteuerten 16 Bit D/A-Wandler ausgegeben. Die Abtastrate beträgt hierbei 390.625 kHz (25 MHz/64). Über einen elektronischen Abschwächer und einen Verstärker können die auf der Baugruppe erzeugten Signale, sowie das von einer anderen Modulationsquelle LFGEN1 stammende Signal an den LF Ausgang geschaltet werden.

Die komplette Steuerung der Baugruppe erfolgt über die standardisierte SERBUS Schnittstelle.

7.1.1 Digitaler Signalprozessor, Taktgenerator

Der Signalprozessor DSP56001 von Motorola ist ein 24 bit Signalprozessor. Die Inkrementauflösung im Akkumulatorbetrieb beträgt 48 Bit; die erreichbare Genauigkeit der Frequenzeinstellung kann dadurch praktisch vernachlässigt werden. Im Data-EPROM D240 des DSP sind Sinuswerte für die Erzeugung der komplexen Modulationssignale gespeichert. Die Bestückung der DSP RAM D220 und D230 ist für spätere Erweiterungen vorgesehen.

An der parallelen Host-Schnittstelle des DSP wird über das Serial DSP Interface der Hauptrechner angeschlossen. An dieser Schnittstelle werden dem DSP sowohl Parameterwerte für bestimmte Abläufe als auch komplette Programme vom Host übergeben. Zum Hochfahren befindet sich im DSP ein Bootprogramm, mit dem das eigentliche Anwenderprogramm nach einem Reset vom Hauptrechner geladen wird. Für den Hauptrechner erscheint dabei die Hostschnittstelle wie ein Speicherbereich, in den geschrieben oder aus dem gelesen werden kann.

Im SME ist eine 50 MHz Referenzfrequenz vorhanden, an die die Taktfrequenz des DSP über die Buchse X53 angebunden wird. Der DSP selbst läuft mit einer Taktfrequenz von 25 MHz.

7.1.2 Paralleler 12 Bit D/A-Wandlerzweig

Der schnelle 12 Bit D/A-Wandler D370 wird wie eine Speicherstelle im Y-Speicherbereich des DSP angesprochen. Das 16 Bit Latch D300/D310 speichert den aktuellen Phasen-Akkumulatorwert des DSP. Das nachfolgende Kurvenform-EPROM D320 wird mit 14 Bit angesteuert. Von den abgespeicherten 16 Bit Amplitudenwerten werden für den nachfolgenden D/A-Wandler 12 Bit genutzt. Die Wahl der Kurvenform erfolgt durch Selektion eines entsprechenden Speicherbereichs im EPROM durch die drei höchstwertigen Adressleitungen. Eine Ablaufsteuerung mit Zähler sorgt für ein stabiles Einschwingen des EPROM und eine saubere Taktsynchronisation des D/A-Wandlers.

Am Analogausgang des Wandlers folgt ein steilflankiges passives Tiefpaßfilter mit einer Grenzfrequenz von ca. 1 MHz und einer

nachfolgenden $\sin x/x$ Entzerrung (FILT1). Um Modulationssignale mit der Abtastrate von 390.625 kHz auch an den 12 Bit Wandlerzweig ausgeben zu können (z.B. Pilotton), läßt sich das 100 kHz Filter mit wählbarer $\sin x/x$ Entzerrung zusätzlich an den Ausgang schalten (FILT3).

7.1.3 Serieller 16 Bit D/A-Wandlerzweig

An der synchronen seriellen Schnittstelle des DSP ist der 16 Bit D/A-Wandler D400 angeschlossen. An diesen Wandler werden die VOR- und ILS- bzw. das Stereomultiplexsignal ausgegeben. Das nachfolgende Antialiasing-Tiefpaßfilter mit einer Grenzfrequenz von ca. 150 kHz läßt Signalanwendungen bis mindestens 100 kHz zu. Um bei Stereomultiplexanwendungen ein sauberes Phasenübertragungsverhalten zu gewährleisten, befindet sich am Ausgang dieses Filters noch eine Phasenentzerrerschaltung. Außerdem läßt sich eine $\sin x/x$ Kompensation zuschalten.

Mit dem schaltbaren Treiberbaustein D460 läßt sich der serielle Datenstrom des DSP auf das Motherboard auskoppeln.

7.1.4 Pegelsteller, LFOUT Ausgangsverstärker

Zur Modulation des SME werden die einzelnen Signalzweige an den Ausgang INT2 der Baugruppe geschaltet.

Für die Ausgabe der Modulationssignale an den LF-Ausgang des Gerätes befindet sich auf der Baugruppe der Umschalter D580, die elektronische Pegeleinstellung mit D600/D620 und der Ausgangsverstärker N630. Unabhängig davon, welcher Filterzweig an den internen Modulationsausgang INT2 geschaltet wird, kann an den LF-Ausgang jeder der vorhandenen Filterausgänge bzw. auch das interne Modulationssignal INT1 einer anderen Baugruppe geschaltet werden. Bei Stereomodulation läßt sich für Synchronisationszwecke auch der Pilotton vom FILT3 Ausgang an den LF-Ausgang schalten. Die Amplitude am LF-Ausgang ist von 0...4Vs einstellbar, so daß am LF-Ausgang eine bis zum Faktor 4 höhere Amplitude gegenüber dem INT2 Ausgang zur Verfügung steht.

7.2 Meßgeräte und Hilfsmittel

- DC-Voltmeter	z.B. UDS5
- AC-Voltmeter kalibriert	z.B. URE 3
- Oscilloscope	z.B. BOL
- Spektrumanalysator mit hochohmigen Eingang	z.B. hp3585
- 600 Ohm Durchführungsabschluß	z.B. RAD 600
- Audioanalyzer	z.B. UPA
- Modulationsanalyzer für VOR, ILS	z.B. FMAV
- Stereo Meßdecoder	z.B. FMA
(Option Stereo Decoder FMA-B3)	
- Servicekit	(1039.3520)

7.3 Fehlersuche

Zur Überprüfung bzw. Fehlersuche einzelner Signalzweige kann die Diagnosefunktion verwendet werden. Da der Diagnose A/D-Wandler nur Gleichspannungen mißt, erscheint als Anzeige der Momentanwert der anliegenden Wechselspannung. Dazu muß die Signalfrequenz auf der Baugruppe so tief (typ. <0.1Hz) eingestellt werden, daß der Diagnose A/D-Wandler dem Signal folgen kann. Damit läßt sich durch Tendenzmessung mit der Diagnose ein vorhandenes Signal an den einzelnen Meßstellen prüfen.

Kein Signal oder fehlerhaftes Signal	DSP Takt an MP12 prüfen SERBUS Decoder und Serial DSP Interface prüfen
Standardsignale Sinus, Dreieck, Rechteck, Sägezahn, Rauschen fehlerhaft	Ausgang INT2 prüfen: z.B. mit Frequenz 0.1Hz und Diagnose TPOINT 1403 oder mit Oscilloscope an MP70 bzw. an X50A.7 12 Bit DAC1 Wandlerzweig prüfen: z.B. mit Diagnose 1401 (X390) DAC1 Ansteuerung und EPROM D320 prüfen (Pulse an MP35)
Modulation mit VOR-, ILS, oder Stereo fehlerhaft	Ausgang INT2 prüfen: z.B. mit Diagnose TPOINT 1403 und ID Frequenz 0.1Hz oder mit Oscilloscope an MP49 bzw an X50A.7 16 Bit DAC2 Wandlerzweig prüfen: z.B. mit Diagnose TPOINT 1402 (X460) Serielle D/A Wandler signale an X400/X401 prüfen
Übersprechdämpfung Stereo ungenügend	Tiefpaßfilter 200 kHz FILT2 prüfen Sinx/x ₂ Abgleich R493 nachgleichen Notfalls Phasenabgleich (R484) und HF2 Gain Abgleich (C457) vorsehen Abgleiche der Spulen des 200 kHz Tiefpaßfilters auf keinen Fall verändern
LF Ausgangssignal fehlerhaft	LFOUT Verstärker prüfen: z.B. mit Diagnose 1405 (MP61) elektronische Eichleitung prüfen Umschalter für LF Quelle D580 prüfen z.B. mit Diagnose 1404 Einzelne Filterausgangssignale an INT2 prüfen z.B. mit Diagnose 1403 wie oben

7.4 Prüfen und Abgleich

Zum Prüfen und Abgleichen der Baugruppe den im Servicekit mitgelieferten Adapter verwenden.

Um an den einzelnen Meßpunkten der Baugruppe die Signale messen zu können, ist der obere Abschirmdeckel zu entfernen.

7.4.1 Änderungszustand

Im Menue UTILITIES-->DIAG-->CONF wird der Änderungszustand sowie die Variante der einzelnen Baugruppen angezeigt. Der Änderungszustand wird mit den Widerständen R10,R11,R12 und R13 codiert, die Variante mit den Widerständen R15,R16,R17.

7.4.2 Prüfen der Datenübertragung, Stromaufnahme

Die Datenübertragung vom Steuerrechner erfolgt über die SERBUS-Schnittstelle mit einer Taktfrequenz von 4MHz. Nach dem SERBUS Dekoderbaustein D1 können gegebenenfalls die seriellen Datensignale an den Durchführungsfiltern Z20 bis Z28 geprüft werden.

Die maximal zulässige Stromaufnahme bei den einzelnen Versorgungsspannungen kann aus der Schnittstellenbeschreibung (7.6.3 Stromversorgung) entnommen werden. Um die Stromaufnahme zu messen, sind die Drosseln L800, L801, L802, L803 bzw. der Widerstand R830 auszulöten und ein Amperemeter in den jeweiligen Versorgungspfad einzuschleifen.

7.4.2.1 Digitale Schnittstelle

- Übersicht über die einzelnen Bits der beiden SERBUS Steuerkanäle:

Adresse 5A (SERBUS Kanal 1): 16 Bit zur DSP Steuerung

byte	bit	Bezeichnung	Funktion	Bemerkung	
MS- Byte	7	H7	HOST/DSP Datenbus bidirekt.	D4.16	
	6	H6		D4.4	
	5	H5		D4.15	
	4	H4		D4.5	
	3	H3		D4.14	
	2	H2		D4.6	
	1	H1		D4.13	
	0	H0		D4.7	
LS- Byte	7	DSP RESET	L: Reset	D3.11	
	6	frei		D3.12	
	5	HACKN_EN	Host Acknowledge enable	H: Enable	D3.13
	4	HWRITE_EN	Write enable zum DSP	H: Enable	D3.14
	3	HR/W*	Host Read/Write	H: Read	D3.7
	2	HA2	Adressleitungen für DSP-		D3.6
	1	HA1	Hostschnittstellen-		D3.5
	0	HA0	Speicher \$0...\$7		D3.4

Adresse 5B (SERBUS Kanal 2): 48 Bit zur Analogsteuerung

byte	bit	Bezeichnung	Latch	Funktion	Bemerkung	
MS- Byte	7	0 DB	DS47	H: Ein	D610.7	
	6	20 DB	DS46	H: Ein	D610.6	
	5	40 DB	DS45	H: Ein	D610.5	
	4	60 DB	DS44	H: Ein	D610.4	
	3	MSB 12 Bit elektronische Eichleitung für LFOUT Signal genutzt werden 20 dB, Rest mit mechan. Eichleitung s.o. max. Wert 4000 dez. für max. 4 Vs EMK-Spannung LSB		binärer D/A- Wandler Wert 0...4000	D600 D/A- Wandler	
	2					
	1					
	0					
	5					7
						6
						5
						4
4	7	WAVE2 Kurvenform Auswahl	DS31	0...7	D665.11	
	6	WAVE1 für schnellen 12 Bit	DS30		D665.12	
	5	WAVE0 D/A-Wandler Pfad	DS29		D665.13	
	4	ACLK_EN A/D_Clk ein/aus	DS28		H: Ein	D665.14
	3	ACLK3	DS27		D665.7	
	2	ACLK2 Faktor für	DS26		0..15	D665.6
	1	ACLK1 A/D_Clk Teiler	DS25		D665.5	
	0	ACLK0	DS24		D665.4	
3	7	INT2_EN Intern2 aktivieren	DS23	H:enable	D660.11	
	6	INT2_SEL1 FILT1=00, FILT2=01	DS22	0...2	D660.12	
	5	INT2_SELO FILT3=10	DS21		D660.13	
	4	frei	DS20		D660.14	
	3	LF4 FILT3	DS19	H: Ein	D660.7	
	2	LF3 FILT2 LFOUT Signal	DS18	H: Ein	D660.6	
	1	LF2 FILT1 Auswahl	DS17	H: Ein	D660.5	
	0	LF1 INT1	DS16	H: Ein	D660.4	
2	7	SFMT A/D-Wandler Sendeformat	DS15	H: High	D655.11	
	6	FSEL Dig. Filter Wahl FIR/COMB	DS14	L: FIR	D655.12	
	5	frei	DS13	D655.13		
	4	ATTEN 10:1 Pegelteiler	DS12	H: Ein	D655.14	
	3	EXT2_EN A/D-Wandler Eingangsschalter	DS11	H: Ein	D655.7	
	2	EXT1_EN	DS10	H: Ein	D655.6	
	1	PRE75 Prekompensation	DS9	H: Ein	D655.5	
	0	PRE50 für EXT1, EXT2	DS8	H: Ein	D655.4	
LS Byte	7	SI(X)3 sin(x)/x - Kompen-	DS7	H: Ein	D650.11	
	6	SI(X)2 sation	DS6	H: Ein	D650.12	
	5	SEROUT_EN Ser. Datentreiber	DS5	H: Ein	D650.13	
	4	frei	DS4	D650.14		
	3	DIAGN_EN1 Diagnose aktivieren	DS3	H: Ein	D650.7	
	2	DIAGN_A2 Diagnosemultiplexer	DS2	0..7	D650.6	
	1	DIAGN_A1 Steuerung	DS1		D650.5	
	0	DIAGN_A0	DS0		D650.4	

7.4.3 Prüfen der Takterzeugung und Referenz

- Einstellung: PRESET
- ▶ Referenzsignal am Ausgang X52 mit Oscilloscope prüfen: 50 MHz Sinus, Pegel typ. +/-2 Volt EMK
- ▶ Am Meßpunkt MP12 mit Tastkopf 1:10 das Taktsignal für den DSP prüfen: TTL-Signal, f=25 MHz

7.4.4 Prüfen u. Abgleich des DAC1-Wandlerzweiges

- AC/DC Voltmeter an INT2 Ausgang X50.A7 (MP70) anschließen
Zur Kontrolle der Signale Oscilloscope am LF Ausgang anschließen
- Einstellungen: PRESET; MODULATION AM; AM DEPTH 100%;
AM SOURCE INT LFGEN2
LF OUTPUT; STATE ON; SOURCE LFGEN2;
VOLTAGE 1.000 V; LFGEN2 FREQ 1kHz;
LFGEN2 SHAPE SIN

7.4.4.1 DAC1 Offset-Abgleich

- ▶ DC-Spannung am INT2 Ausgang messen und mit R392 (DAC1 OFFS ADJ) auf 0 ± 1 mV abgleichen.

7.4.4.2 DAC1 Amplitudenabgleich

- ▶ AC-Spannung am INT2-Ausgang messen und mit R380 (DAC1 AMPL ADJ) auf $0.7071 V_{\text{eff}} \pm 0.7 \text{ mV}_{\text{eff}}$ abgleichen. (Sinussignal)

7.4.4.3 Filter1 HF-Frequenzgang prüfen

- Einstellungen: wie bei 7.4.4; FREQ 1MHz
- ▶ AC-Spannung am INT2-Ausgang messen und auf zulässige Toleranz (± 0.5 dB) prüfen. Zu genaueren Kontrolle können noch weitere Frequenzpunkte geprüft werden.

Hinweis: Falls besondere Anforderungen an den Frequenzgang bei hohen Frequenzen gestellt werden, kann der Frequenzgang durch Einbau von C523 (HF1 GAIN ADJ) abgeglichen werden. Dann ist bei der Frequenz 1 MHz die AC-Spannung am INT2-Ausgang mit C523 (HF1 GAIN ADJ) auf $0.7071 V_{\text{eff}}$ abzugleichen. (Sinussignal)

7.4.4.4 Filter3 prüfen

- Einstellungen: PRESET; MODULATION STEREO; MODE R
LF OUTPUT; STATE ON; SOURCE LFGEN2;
STEREO OUTPUT PILOT; VOLTAGE 1.000 V
- ▶ AC-Spannung des Pilottons (Sinus 19 kHz) am LF Ausgang (MP73) prüfen: $0.707 V_{\text{eff}} \pm 14 \text{ mV}_{\text{eff}}$
(AC Spannung von LFOUT Amplitudenabgleich abhängig ->7.4.6.1)

7.4.4.5 Kurvenformen prüfen

- Einstellungen: wie in 7.4.4; LFGEN2 SHAPE SIN
- ▶ Die Kurvenformen Sinus, Dreieck, Rechteck, Sägezahn und Rauschen nacheinander einschalten und auf dem Oscilloscope am LF Ausgang prüfen. Da alle Kurven digital erzeugt werden, erübrigt sich eine genaue Nachmessung der einzelnen Kurven. Ausreißer in den Kurvenzügen durch ein fehlerhaftes EPROM D320 können leicht auf dem Oscilloscope erkannt werden.

7.4.5 Prüfen u. Abgleich des DAC2-Wandlerzweiges

Zur Prüfung und zum Abgleich des 16 Bit Wandlerzweiges DAC2 reicht es, den Frequenzgang und die Amplitude abzugleichen. Die einzelnen komplexen Modulationssignale werden durch Umprogrammieren des DSP gewonnen.

- AC/DC Voltmeter bzw. Audioanalyser am INT2 Ausgang X50.A7 (MP49) anschließen
- Zur Kontrolle des Signals und zur Triggerung Kanal 1 des Oscilloscopes am LF Ausgang anschließen
- Den zweiten Kanal des Oscilloscopes an den Monitorausgang des Audioanalyser anschließen (Notchfilterausgang)
- Einstellungen: PRESET; MODULATION VOR; STATE VAR;
VAR DEPTH 0%; COM/ID STATE ON;
COM/ID FREQ 1000 Hz; COM/ID DEPTH 100 %
LF OUTPUT; STATE ON; VOLTAGE 1.000 V;
SOURCE LFGEN2

Am INT2- und LF-Ausgang ist damit ein Sinussignal mit 1 kHz und 1 V Amplitude vorhanden

- Meßgeräteeinstellungen:
 - UPA: Distortion TOTAL, HP 300Hz, LP 100kHz
 - BOL: Trigger auf Kanal 1, LF-Signal

7.4.5.1 DAC2 MSB-Abgleich

- ▶ Das am Monitorausgang des UPA noch vorhandene Restsignal am Oscilloscope betrachten und mit R405 (MSB ADJ) den Klirrfaktor des 1kHz Signals am INT2 Ausgang auf Minimum abgleichen.

typ. erreichbare Werte mit eingeschalteten UPA-Filtern: < 0.02 %

Hinweis: Nach dem DAC2 MSB-Abgleich ist ein DAC2 Offset- und DAC2 Amplitudenabgleich durchzuführen.

7.4.5.2 DAC2 Offset-Abgleich

- ▶ DC-Spannung am INT2 Ausgang messen und mit R402 (DAC2 OFFS ADJ) auf 0 V \pm 1 mV abgleichen.

7.4.5.3 DAC2 Amplitudenabgleich

- ▶ AC-Spannung mit UPA am INT2-Ausgang messen und mit R465 (DAC2 AMPL ADJ) auf 0.7071 V_{eff} \pm 0.7 mV_{eff} abgleichen.

7.4.5.4 Sinx/x-Abgleich Filter2

- Einstellung: COM/ID FREQ 100 kHz

Alle Filter am UPA Audioanalyzer ausschalten

- ▶ AC-Spannung mit UPA am INT2-Ausgang messen und mit R493 (SI(X)2 ADJ) auf $0.7071 V_{\text{eff}} \pm 0.7 \text{ mV}_{\text{eff}}$ (gleiche Amplitude wie bei 1 kHz) abgleichen.

7.4.6 Prüfen und Abgleichen des LFOUT Verstärker

- AC-Voltmeter an den LF-Ausgang anschließen
- Einstellungen: PRESET; LF OUTPUT; STATE ON;
SOURCE LFGEN2; VOLTAGE 4.000 Volt;
LFGEN2 SHAPE SIN; LFGEN2 FREQ 1 kHz

7.4.6.1 LFOUT Amplitudenabgleich

- ▶ AC-Spannung am LF-Ausgang messen und mit R638 (LF AMPL ADJ) auf $2.828 V_{\text{eff}} \pm 3 \text{ mV}$ abgleichen. (Sinussignal)
- ▶ DC-Spannung am LF-Ausgang prüfen: max. $\pm 5 \text{ mV}$ (DAC1 Offset Abgleich beachten)

7.4.6.2 LFOUT Frequenzgangabgleich

- Einstellungen: wie bei 7.4.6; LFGEN2 FREQ 1 MHz
- ▶ AC-Spannung am LF-Ausgang messen und mit C605 (HF GAIN ADJ) auf gleiche Amplitude wie bei 1 kHz ($2.828 V_{\text{eff}} \pm 3 \text{ mV}$) abgleichen.

7.4.7 Prüfen spektraler Signaleigenschaften

- Am LF-Ausgang Audio Analyzer bzw. Spektrumanalyzer anschließen. Als Abschlußwiderstand 600 Ohm verwenden.
- Einstellungen: LF OUTPUT; STATE ON; VOLTAGE 1.000 V;
SOURCE LFGEN2; LFGEN2 SHAPE SIN;
LFGEN2 FREQ 1 kHz
- ▶ LFGEN2 Frequenz im Bereich 20 Hz bis 1 MHz und LF OUTPUT Pegel im Bereich 0.5 bis 4 V variieren. Dabei den Klirrfaktor bis 100 kHz und die harmonischen und nichtharmonischen Störsignale von 100 kHz bis 1 MHz prüfen.

Klirrfaktor bis 100 kHz: $< 0.1 \%$

Störsignalabstand im Bereich 100 kHz bis 1 MHz: $< 50 \text{ dB}$

7.4.8 Prüfen spezieller Modulationssignale

Bei sorgfältig durchgeführtem Abgleich der Baugruppe erübrigt sich im allgemeinen die Prüfung der speziellen Modulationssignale, da sie rein digital erzeugt werden und damit praktisch nur von der Programmierung des DSP abhängen.

7.4.8.1 VOR-Signal prüfen

- Einstellungen: PRESET; MODULATION VOR; MODE NORM;
 VOR DEFAULT SETTING
 LF OUTPUT; STATE ON; SOURCE LFGEN2;
 VOLTAGE 1 Volt
- Am RF-Signalausgang Modulationsanalyser für VOR (FMAV) anschließen und VOR-Phasenmessung einstellen.
- ▶ VOR Phase (BEARING ANGLE) bei 0° und 30° prüfen:
Phasenfehler < 0.1°
- ▶ FM Hub (REF DEVIATION) bei 480 Hz prüfen:
FM Hubfehler < 1 Hz

7.4.8.2 ILS-Signal prüfen

- Einstellungen: PRESET; MODULATION ILS-GS; MODE NORM;
 ILS DEFAULT SETTING
 LF OUTPUT; STATE ON; SOURCE LFGEN2;
 VOLTAGE 1 Volt
- Am RF-Signalausgang Modulationsanalyser für ILS (FMAV) anschließen und DDM Messung einstellen.
- ▶ DDM Fehler bei DDM = 0.0000, DDM = +0.4000 und DDM = -0.4000 prüfen:
DDM Fehler bei ILS-LOC (ILS-Localizer): < 0.0004 + 0.04*DDM
DDM Fehler bei ILS-GS (ILS-Glide Slope): < 0.0008 + 0.04*DDM

7.4.8.3 Stereo Multiplexsignal prüfen

- Am LF-Ausgang Stereo Meßdecoder (FMA-B3) anschließen. Externen Stereodecoder Eingang des FMA benutzen.
- Einstellungen: PRESET; MODULATION STEREO; MODE R
 LF OUTPUT; STATE ON; SOURCE LFGEN2;
 STEREO OUTPUT MPX
- ▶ Mit dem FMA die Übersprechdämpfung des Stereo Multiplex Signals zwischen 1 kHz und 15 kHz durch abwechselndes Messen von R und L prüfen:
Stereo Übersprechdämpfung > 60 dB

Hinweis: Durch feinfühliges Nachgleichen von R493 (sinx/x 2 ADJ) läßt sich gegebenenfalls der Frequenzgang des FILTER 2 auf optimales Stereo Übersprechen abgleichen.

7.4.9 Diagnosepunkte

Diagnosepunkt	Sollwert (bei Einstellung)	Wertebereich	Bemerkung
1400	0V (alle Einstellungen)	-10mV..10mV	0V, 10 kOhm, Referenz
1401	1V _S (Standardkurven)	-1V..+1V	Ausgang DAC1 (X390)
1402	2.25V _S (Spezial Signale)	-3V..+3V	Ausgang DAC2 (X460)
1403	1V _S (Standardkurven)	-1V..+1V	Ausgang INT2 (X50.A7)
1404	1V _S (Standardkurven)	-1V..+1V	LF SOURCE Wahlschalter (N590.6)
1405	4Vs (LF VOLTAGE 4V)	-4V..+4V	LF Ausgang (X50.A3)
1406	-	-	EXT1 INPUT MP72 (nicht benutzt)
1407	-	-	EXT2 INPUT MP71 (nicht benutzt)

7.5 Zerlegung und Zusammenbau

Nach dem Öffnen des Gerätes und dem Lösen der mechanischen Verriegelung am Motherboard die HF-Verbindungen an X51 und X53 lösen. Die Baugruppe kann nun aus ihrem Steckplatz entnommen werden. Nach dem Lösen der Schrauben und Abnehmen der Schirmdeckel kann die Baugruppe mit dem Adapter im Service Kit wieder in das Gerät eingesteckt werden und ist dann für Messungen an der Baugruppe auf beiden Seiten zugänglich. Der Einbau der Baugruppe und Zusammenbau des Geräts erfolgt entsprechend in umgekehrter Reihenfolge.

7.6 Externe Schnittstellen

7.6.1 Analoge Signalschnittstelle

Pin	Name	Ein/Ausgang	Herkunft/Ziel	Wertebereich	Signalbeschreibung
X53	REF50-IN	Eingang	Referenz	50 MHz, 9dBm	50 Mhz Referenzsignal
X51	REF50-OUT	Ausgang	Referenz	50 MHz, 9dBm	50 MHz Referenzsignal
X50.A1	MODCTRL-IN	Eingang	A3, FRO X50.31	HCMOS-Pegel	optionales Steuersignal
X50.A3	LFOUT	Ausgang	A3, FRO X20.6 A10,OPU1 X10A.3	max. 4V _S	LF Ausgang MGEN
X50.A4	EXT1	Eingang	A3, FRO X20.2	max. 1V _S	A/D Wandler Eingang 1 (VAR. 20)
X50.A5	EXT2	Eingang	A3, FRO X20.4	max. 1V _S	A/D Wandler Eingang 2 (VAR. 20)
X50.A6	INT1	Eingang	A10,OPU1 X10.B6 A6, FMOD X6.A6 A4, OPT X4A.7	max. 1V _S	Modulationsspannung
X50.A7	INT2	Ausgang	A10,OPU1 X10.A.7 A6, FMOD X6.A7	max. 1V _S	Modulationssignal
X50.A19	DIAG-5V	Ausgang	A3, FRO X50.44	-5V...5V	Diagnose

7.6.2 Digitale Signalschnittstelle

Pin	Name	Ein/Ausgang	Herkunft/Ziel	Wertebereich	Signalbeschreibung
X50.A8	BURST	Ausgang	A8, DSYN X8A.3 Rückwand X24.4	HCMOS-Pegel	Digitales Modulationssignal Burst (Strobepuls)
X50.A9	DATACLK	Ausgang	A8, DSYN X8A.3 A3, FRO X20.11	HCMOS-Pegel	Digitales Modulationssignal Clock
X50.A10	DATA	Ausgang	A8, DSYN X8A.2 A3, FRO X20.13	HCMOS-Pegel	Digitales Modulationssignal Data
X50.A12	SERBUS-CLK	Eingang	A3, FRO X50.40	HCMOS-Pegel	Serbus-Clock
X50.A14 X50.A15	SERBUS-DAT	bidir.	A3, FRO X50.39	HCMOS-Pegel	Serbus-Daten
X50.A16	SERBUS-SYNC	Eingang	A3, FRO X50.37	HCMOS-Pegel	Serbus-Synchronisation
X50.A17	SERBUS-INT	Ausgang	A3, FRO X50.38	HCMOS-Pegel	Serbus-Interrupt
X50.A18	RES-P	Eingang	A3, FRO X50.28	HCMOS-Pegel	Serbus-Reset

7.6.3 Stromversorgung

Pin	Name	Ein/Ausgang	Herkunft/Ziel	Wertebereich	Signalbeschreibung
X50.A24	VA15-P	Eingang	A2, POWS1	14.80V...15.75V max. 200mA	Versorgungsspannung analog
X50.A26	VA7.5-P	Eingang	A2, POWS1	7.45V...7.95V max. 100mA	Versorgungsspannung analog
X50.A28	VD-5P	Eingang	A2, POWS1	5.10V...5.25V max. 250mA	Versorgungsspannung digital
X50.A30	VA15-N	Eingang	A2, POWS1	-15.75V...-14.85V max. 300mA	Versorgungsspannung analog
X50.A11,13,21,23,25,27,29,31					Masse



ROHDE & SCHWARZ

SERVICE INSTRUCTIONS

Option Multifunction Generator SM-B6

1036.7760.02

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7. Checking and Repair of the Module

7.1 Functional Description

Being an extended modulation source, the multifunction generator MGEN provides complex signals for VOR, ILS and stereo multiplex modulation. A digital signal processor (DSP) is used for generation of the modulation signals. For generation of the standard signals below 1 MHz, the DSP operates as a fast accumulator, which addresses an EPROM for various waveforms. The sampling rate is 4.16666 MHz (25 MHz/6). Complex modulation signals with a bandwidth below approx. 100 kHz are provided by the DSP via a serially controlled 16-bit D/A converter, the sampling rate being 390.625 kHz (25 MHz/64). The signals generated on the module and the signal originating from a different modulation source LFGEN1 can be applied to the LF output via an electronic attenuator and an amplifier. The complete control of the module is performed via the standard SERBUS interface.

7.1.1 Digital Signal Processor, Clock Generator

The signal processor DSP56001 from Motorola is a 24-bit signal processor. With an incremental resolution of 48 bits in accumulator operation, the attainable accuracy of the frequency setting can virtually be neglected. The data EPROM D240 of the DSP stores sinewave values for generation of the complex modulation signals. Fitting of DSP RAM D220 and D230 is intended for future extensions.

The host computer is connected to the parallel host interface of the DSP via the serial DSP interface. Both parameters for certain procedures and complete programs are transferred from the host to the DSP via this interface. The DSP contains a bootstrap program which permits the host computer to load the user program following a reset. The host interface appears like a memory area to the host, which can be written to or read from.

In the SME, a 50-MHz reference frequency is provided to which the clock frequency of the DSP is linked via socket X53. The DSP itself uses a clock frequency of 25 MHz.

7.1.2 Parallel 12-bit D/A Converter Path

The fast 12-bit D/A converter D370 is addressed like a memory location in the Y-memory area of the DSP. The 16-bit latch D300/D310 stores the current phase accumulator value of the DSP. The subsequent waveform EPROM D320 is driven with 14 bits. 12 bits of the stored 16-bit amplitude values are used for the subsequent D/A converter. The waveform is chosen by selecting an appropriate memory area in the EPROM by means of the three most significant address lines. A sequence control system with counter ensures stable settling of the EPROM and proper clock synchronization of the D/A converter.

The analog output of the converter is followed by a steep-edged passive lowpass filter with a cutoff frequency of approx. 1 MHz and a subsequent $\sin x/x$ correction. (FILT1). In order to enable modulation signals with a sampling rate of 390.625 kHz to be also output to the 12-bit converter path (e.g. pilot tone), the 100-kHz

filter can additionally be connected to the output with selectable $\sin x/x$ correction (FILT3).

7.1.3 Serial 16-bit D/A Converter Path

The 16-bit D/A converter D400 is connected to the synchronous serial interface of the DSP. The VOR and ILS signals or the stereo multiplex signal are output to this converter. The subsequent antialiasing lowpass filter with a cutoff frequency of approx. 150 kHz permits signal applications up to at least 100 kHz. In order to ensure a proper phase response in the case of stereo multiplex applications, a phase correction circuit is provided at the output of this filter. Besides, a $\sin x/x$ correction can additionally be cut in.

The switchable driver D460 permits to couple out the serial data stream of the DSP to the motherboard.

7.1.4 Level Controller, LFOUT Output Amplifier

For modulation of the SME, the individual signal paths are connected to the output INT2 of the module.

For output of the modulation signals to the LF output of the instrument, the module accommodates switch D580, the electronic level adjustment with D600/D620 and the output amplifier N630. Irrespective of which filter path is connected to the internal modulation output INT2, each of the provided filter outputs or the internal modulation signal INT1 of another module can be connected to the LF output. In the case of stereo modulation, the pilot tone can also be applied from the FILT3 output to the LF output for synchronization purposes. The amplitude at the LF output can be set from 0 to 4 Vp so that an amplitude is provided at the LF output that is up to 4 times higher than that provided at the INT2 output.

7.2 Measuring Equipment and Accessories

- DC voltmeter	e.g. UDS5
- AC voltmeter calibrated	e.g. URE 3
- Oscilloscope	e.g. BOL
- Spectrum analyzer with high-impedance input	e.g. hp3585
- 600-ohm feed-through termination	e.g. RAD 600
- Audio analyzer	e.g. UPA
- Modulation analyzer for VOR, ILS	e.g. FMAV
- Stereo Decoder	e.g. FMA
(Option Stereo Decoder FMA-B3)	
- Service kit	(1039.3520)

7.3 Troubleshooting

For checking and troubleshooting of individual signal paths, the diagnostic function can be used. Since the diagnostic A/D converter measures only DC voltages, the instantaneous value of the applied AC voltage is displayed. To this end, the signal frequency on the module must be set so low that the diagnostic A/D converter is able to track the signal. Thus it is possible to check an available signal at the individual check points by means of the diagnosis.

No signal or faulty signal	<p>Check DSP clock at MP12</p> <p>Check SERBUS decoder and serial DSP interface</p>
Standard signal sine, triangle, square, sawtooth, noise faulty	<p>Check INT2 output: e.g. with frequency 0.1 Hz and diagnosis TPOINT 1403 or with oscilloscope at MP70 or X50A.7</p> <p>Check 12-bit DAC1 converter path: e.g. by means of diagnosis 1401 (X390)</p> <p>Check DAC1 control and EPROM D320 (pulse at MP35)</p>
Modulation with VOR, ILS, or stereo faulty	<p>Check INT2 output: e.g. with diagnosis TPOINT 1403 and ID frequency 0.1 Hz or with oscilloscope at MP49 or X50A.7</p> <p>Check 16-bit DAC2 converter path: e.g. by means of diagnosis TPOINT 1402 (X460)</p> <p>Check serial D/A converter signals at X400/X401</p>
Stereo crosstalk insufficient	<p>Check 200-kHz lowpass filter FILT2 Readjust $\sin x/x_2$ using R493 If necessary, allow for phase adjustment (R484) and RF2 gain adjustment (C457) Make sure not to change the adjustment of the coils of the 200-kHz lowpass filter</p>
LF output signal faulty	<p>Check LFOUT: e.g. by means of diagnosis 1405 (MP61) Check electronic attenuator Check switch for LF source D580, e.g. by means of diagnosis 1404</p> <p>Check individual filter output signals at INT2, e.g. by means of diagnosis 1403 as above</p>

7.4 Checking and Adjustment

For testing and adjustment of the module use the adapter supplied with the service kit.

In order to measure the signals at the individual test points of the module remove the upper screening cover.

7.4.1 Amendment

The menu UTILITIES-->DIAG-->CONF is used to display the amendment and the version of the individual modules. The amendment is encoded using resistors R10,R11,R12 and R13, the version using resistors R15,R16,R17.

7.4.2 Checking the Data Transmission, Current Consumption

The data are transmitted from the controller via the SERBUS interface with a clock frequency of 4 MHz. Following the SERBUS decoder D1, the serial data signals can be checked at the feed-through filters Z20 to Z28, if necessary.

The maximum permissible current consumption with the individual supply voltages can be obtained from the interface description (7.6.3 current supply). In order to measure the current consumption, unsolder chokes L800, L801, L802, L803 or resistor R830 and connect an ammeter into the supply path in question.

7.4.2.1 Digital Interface

- Overview of the individual bits of the two SERBUS control channels:

Address 5A (SERBUS channel 1): 16 bits for DSP control

byte	bit	Designation	Function	Remark	
MS byte	7	H7		D4.16	
	6	H6		D4.4	
	5	H5	8-bit host data bus to/from DSP for download, Programming, control, Parameter transfer etc.	HOST/DSP Data bus bidirect.	D4.15
	4	H4			D4.5
	3	H3		D4.14	
	2	H2		D4.6	
	1	H1		D4.13	
	0	H0		D4.7	
LS byte	7	DSP_RESET	L: Reset	D3.11	
	6	free		D3.12	
	5	HACKN_EN	Host Acknowledge enable	H: Enable	D3.13
	4	HWRITE_EN	Write enable to DSP	H: Enable	D3.14
	3	HR/W*	Host Read/Write	H: Read	D3.7
	2	HA2	Address lines for DSP		D3.6
	1	HA1	Host interface		D3.5
	0	HA0	memory \$0...\$7		D3.4

Address 5B (SERBUS channel 2): 48 bits for analog control

byte	bit	Designation	Latch	Function	Remark
MS byte	7	0 DB	DS47	H: On	D610.7
	6	20 DB	DS46	H: On	D610.6
	5	40 DB	DS45	H: On	D610.5
	4	60 DB	DS44	H: On	D610.4
	3	MSB 12-bit electronic attenuator for LFOUT signal 20 dB are used, rest with mechan. attenuator, see above max. value 4000 dec. for max. 4 Vp EMF voltage LSB		binary D/A converter Value 0...4000	D600 D/A convert.
	2				
	1				
	0				
	7				
	6				
	5				
	4				
4	7	WAVE2 Waveform selection	DS31	0...7 H: Ein 0..15	D665.11
	6	WAVE1 for fast 12-bit	DS30		D665.12
	5	WAVE0 D/A converter path	DS29		D665.13
	4	ACLK_EN A/D_Clk on/off	DS28		D665.14
	3	ACLK $\bar{3}$	DS27		D665.7
	2	ACLK2 Factor for	DS26		D665.6
	1	ACLK1 A/D_Clk divider	DS25		D665.5
	0	ACLK0	DS24		D665.4
3	7	INT2_EN activate INTERNAL2	DS23	H:enable 0...2	D660.11
	6	INT2_SEL1 FILT1=00, FILT2=01	DS22		D660.12
	5	INT2_SELO FILT3=10	DS21		D660.13
	4	free	DS20		D660.14
	3	LF4 FILT3	DS19		H: On D660.7
	2	LF3 FILT2 LFOUT signal	DS18		H: On D660.6
	1	LF2 FILT1 selection	DS17		H: On D660.5
	0	LF1 INT1	DS16		H: On D660.4
2	7	SFMT A/D conv. transm. format	DS15	H: High L: FIR	D655.11
	6	FSEL Dig. filter sel. FIR/COMB	DS14		D655.12
	5	free	DS13		D655.13
	4	ATTEN 10:1 Level attenuator	DS12		H: On D655.14
	3	EXT2_EN A/D converter input	DS11		H: On D655.7
	2	EXT1_EN switch	DS10		H: On D655.6
	1	PRE75 Precompensation	DS9		H: On D655.5
	0	PRE50 for EXT1, EXT2	DS8		H: On D655.4
LS byte	7	SI(X)3 sin(x)/x - compen-	DS7	H: On H: On H: On H: On 0..7	D650.11
	6	SI(X)2 sation	DS6		D650.12
	5	SEROUT_EN Ser. data driver	DS5		D650.13
	4	free	DS4		D650.14
	3	DIAGN_EN1 activate diagnosis	DS3		H: On D650.7
	2	DIAGN_A2 diagnosis multiplexer	DS2		D650.6
	1	DIAGN_A1 control	DS1		D650.5
	0	DIAGN_A0	DS0		D650.4

7.4.3 Checking the Clock Gen. and Reference

- Setting: PRESET
- ▶ Check reference signal at output X52 using oscilloscope:
50 MHz sine, level typ. +/-2 volts EMF
- ▶ Check the clock signal for the DSP at test point MP12 using
1:10 probe: TTL signal, f=25 MHz

7.4.4 Checking and Adjustment of DAC1 Conv. Path

- Connect AC/DC voltmeter to INT2 output X50.A7 (MP70)
Connect oscilloscope to LF output for checking the signals
- Settings: PRESET; MODULATION AM; AM DEPTH 100%;
AM SOURCE INT LFGEN2;
LF OUTPUT; STATE ON; SOURCE LFGEN2;
VOLTAGE 1.000 V; LFGEN2 FREQ 1kHz;
LFGEN2 SHAPE SIN

7.4.4.1 DAC1 Offset Adjustment

- ▶ Measure DC voltage at INT2 output and adjust to 0 ± 1 mV using
R392 (DAC1 OFFS ADJ).

7.4.4.2 DAC1 Amplitude Adjustment

- ▶ Measure AC voltage at INT2 output and use R380 (DAC1 AMPL ADJ)
to adjust to $0.7071 V_{rms} \pm 0.7$ mV_{rms} (sinewave signal).

7.4.4.3 Checking Frequency Response of Filter 1

- Settings: same as at 7.4.4; LFGEN2 FREQ 1 MHz
- ▶ Measure AC voltage at INT2 output and check for permissible
tolerance (± 0.5 dB). Further frequency points can be checked if
more thorough testing is required.

Note: If particular requirements are placed on the frequency response at high frequencies, the frequency response can be adjusted by fitting C523 (HF1 GAIN ADJ). Subsequently adjust the AC voltage at the INT2 output at a frequency of 1 MHz to $0.7071 V_{rms}$ using C523 (HF1 GAIN ADJ). (sinewave signal)

7.4.4.4 Checking Filter3

- Settings: PRESET; MODULATION STEREO; MODE R
LF OUTPUT; STATE ON; SOURCE LFGEN2;
STEREO OUTPUT PILOT; VOLTAGE 1.000 V
 - ▶ Check the AC voltage of the pilot tone (sine 19 kHz) at the LF
output (MP73): $0.707 V_{rms} \pm 14$ mV_{rms}
- (AC voltage at the LF output depends on LFOUT amplitude adjustment
->7.4.6.1)

7.4.4.5 Checking Waveforms

- Settings: same as at 7.4.4; LFGEN2 SHAPE SIN
- ▶ Activate the waveforms sine, triangle, square, sawtooth and noise one after the other and check on the oscilloscope at the LF output. Since all curves are generated digitally, accurate re-measurement of the individual waveforms is not necessary. Spikes due to a fault at EPROM D320 can easily be determined on the oscilloscope.

7.4.5 Checking and Adjustment of DAC2 Conv. Path

For testing and adjustment of the 16-bit converter path DAC2, it is sufficient to adjust the frequency response and the amplitude. The individual complex modulation signals are obtained by reprogramming the DSP.

- Connect AC/DC voltmeter or audio analyzer to the INT2 output X50.A7 (MP49)
- Connect channel 1 of the oscilloscope to the LF output for checking the signal and triggering
- Connect the second channel of the oscilloscope to the monitor output of the audio analyzer (notch filter output)
- Settings: PRESET; MODULATION VOR; STATE VAR;
 VAR DEPTH 0%; COM/ID STATE ON;
 COM/ID FREQ 1000 Hz; COM/ID DEPTH 100%
 LF OUTPUT; STATE ON; VOLTAGE 1.000 V;
 SOURCE LFGEN2

A sinewave signal of 1 kHz and 1 V amplitude is thus provided at the INT2 and LF output

- Settings of measuring instruments:
 - UPA: Distortion TOTAL, HP 300 Hz, LP 100 kHz
 - BOL: Trigger on channel 1, LF signal

7.4.5.1 DAC2 MSB Adjustment

- ▶ Examine the residual signal provided at the monitor output of the UPA on the oscilloscope and adjust the distortion factor of the 1-kHz signal at the INT2 output to minimum using R405 (MSB ADJ).

Typ. attainable values with UPA filters activated: < 0.02 %

Note: *Following the DAC2 MSB adjustment, perform a DAC2 offset and DAC2 amplitude adjustment.*

7.4.5.2 DAC2 Offset Adjustment

- ▶ Measure the DC voltage at the INT2 output and adjust to 0 V ± 1 mV using R402 (DAC2 OFFS ADJ).

7.4.5.3 DAC2 Amplitude Adjustment

- ▶ Measure the AC voltage at the INT2 output using the UPA and adjust to 0.7071 V_{rms} ± 0.7 mV_{rms} using R465 (DAC2 AMPL ADJ).

7.4.5.4 Sinx/x Adjustment Filter2

- Setting: same as at 7.4.5; COM/ID FREQ 100 kHz

Deactivate all filters of the UPA Audio Analyzer

- ▶ Measure the AC voltage at the INT2 output using the UPA and adjust to $0.7071 V_{rms} \pm 0.7 mV_{rms}$ using R493 (SI(X)2 ADJ) (same amplitude as with 1 kHz).

7.4.6 Checking and Adjustment of the LFOUT Amplifier

- Connect the AC voltmeter to the LF output
- Settings: PRESET; LF OUTPUT; STATE ON;
SOURCE LFGEN2; VOLTAGE 4.000 Volt;
LFGEN2 SHAPE SINE; LFGEN2 FREQ 1 kHz

7.4.6.1 LFOUT Amplitude Adjustment

- ▶ Measure the AC voltage at the LF output and adjust to $2.828 V_{rms} \pm 3 mV$ using R638 (LF AMPL ADJ). (sinewave signal)
- ▶ Check DC voltage at LF output: max. $\pm 5 mV$
(Note DAC1 offset adjustment)

7.4.6.2 LFOUT Frequency Response Adjustment

- Settings: same as at 7.4.6; LFGEN2 FREQ 1 MHz
- ▶ Measure the AC voltage at the LF output and adjust to the same amplitude as with 1 kHz ($2.828 V_{rms} \pm 3 mV$) using C605 (HF GAIN ADJ).

7.4.7 Checking Spectral Signal Characteristics

- Connect Audio Analyzer or Spectrum Analyzer to the LF output. Use 600-ohm termination.
- Settings: PRESET; LF OUTPUT; STATE ON; VOLTAGE 1.000 V;
SOURCE LFGEN2; LFGEN2 SHAPE SIN;
LFGEN2 FREQ 1 kHz
- ▶ Vary the LFGEN2 frequency in the range from 20 Hz to 1 MHz and the LF OUTPUT level in the range from 0.5 to 4 V. Check the distortion factor up to 100 kHz and the harmonic and non-harmonic spurious signals from 100 kHz to 1 MHz.

Distortion factor up to 100 kHz: < 0.1 %

Spurious signal suppression in the range from 100 kHz to 1 MHz:
< 50 dB

7.4.8 Checking of Special Modulation Signals

If the adjustment of the module has been carefully carried out, it is usually not necessary to check the special modulation signals, since they are digitally generated and thus virtually dependent on the programming of the DSP only.

7.4.8.1 Checking the VOR Signal

- Settings: PRESET; MODULATION VOR; MODE NORM;
 VOR DEFAULT SETTING
 LF OUTPUT; STATE ON; SOURCE LFGEN2;
 VOLTAGE 1.000 Volt
- Connect modulation analyzer for VOR (FMAV) to the RF signal output and set VOR phase measurement.
- ▶ Check VOR phase (BEARING ANGLE) at 0° and 30°:
Phase error < 0.1°
- ▶ Check FM deviation (REF DEVIATION) at 480 Hz:
FM deviation error < 1 Hz

7.4.8.2 Checking the ILS Signal

- Settings: PRESET; MODULATION ILS-GS; MODE NORM;
 ILS DEFAULT SETTING
 LF OUTPUT; STATE ON; SOURCE LFGEN2;
 VOLTAGE 1.000 Volt
- Connect modulation analyzer for ILS (FMAV) to RF signal output and set DDM measurement.
- ▶ Check DDM error with DDM = 0.0000, DDM = +0.4000 and DDM = -0.4000:
DDM error with ILS-LOC (ILS-Localizer): < 0.0004 + 0.04*DDM
DDM error with ILS-GS (ILS-Glide Slope): < 0.0008 + 0.04*DDM

7.4.8.3 Checking the Stereo Multiplex Signal

- Connect Stereo Decoder (FMA-B3) to the LF output. Use the external stereo decoder input of the FMA.
- Settings: PRESET; MODULATION STEREO; MODE R
 LF OUTPUT; STATE ON; SOURCE LFGEN2;
 STEREO OUTPUT MPX
- ▶ Using the FMA, check the crosstalk of the stereo multiplex signals between 1 kHz and 15 kHz by measuring R and L alternately:
Stereo crosstalk > 60 dB

Note: Careful readjustment of R493 (sinx/x 2 ADJ) permits to adjust the frequency response of FILTER 2 for optimum stereo crosstalk, if necessary.

7.4.9 Diagnostic Points

Diagn. point	Nominal value (for setting)	Value range	Remark
1400	0V (all settings)	-10mV..10mV	0V, 10 kohm, reference
1401	1V _p (standard curves)	-1V..+1V	Output DAC1 (X390)
1402	2.25V _p (special signals)	-3V..+3V	Output DAC2 (X460)
1403	1V _p (standard curves)	-1V..+1V	Output INT2 (X50.A7)
1404	1V _p (standard curves)	-1V..+1V	LF SOURCE switch (N590.6)
1405	4V _p (LF VOLTAGE 4V)	-4V..+4V	LF output (X50.A3)
1406	-	-	EXT1 INPUT MP72 (not used)
1407	-	-	EXT2 INPUT MP71 (not used)

7.5 Disassembly and Assembly

After opening the instrument and loosening the mechanical lock on the motherboard, loosen the RF connections at X51 and X53. The module can then be removed from its location. After loosening the screws and removing the screening cover, the module can be replaced with the adapter supplied in the service kit and is then accessible from both sides for measurements. For replacing the module and assembling the instrument, proceed in the reverse order.

7.6 Interface Description

7.6.1 Analog Signal Interface

Pin	Name	Inp./Output	Origin/Destination	Value range	Signal description
X53	REF50-IN	Input	Reference	50 MHz, 9dBm	50 MHz reference signal
X51	REF50-OUT	Output	Reference	50 MHz, 9dBm	50 MHz reference signal
X50.A1	MODCTRL-IN	Input	A3, FRO X50.31	HCMOS level	optional control signal
X50.A3	LFOUT	Output	A3, FRO X20.6 A10, OPU1 X10A.3	max. 4V _p	LF output MGEN
X50.A4 20)	EXT1	Input	A3, FRO X20.2	max. 1V _p	A/D converter input 1 (vers.
X50.A5 20)	EXT2	Input	A3, FRO X20.4	max. 1V _p	A/D converter input 2 (vers.
X50.A6	INT1	Input	A10, OPU1 X10.B6 A6, FMOD X6.A6 A4, OPT X4A.7	max. 1V _p	Modulation voltage
X50.A7	INT2	Output	A10, OPU1 X10.A.7 A6, FMOD X6.A7	max. 1V _p	Modulation signal
X50.A19	DIAG-5V	Output	A3, FRO X50.44	-5V...5V	Diagnosis

7.6.2 Digital Signal Interface

Pin	Name	Inp./output	Origin/Destination	Value range	Signal description
X50.A8	BURST	Output	A8, DSYN X8A.3 Rear panel X24.4	HCMOS level Burst (Strobe pulse)	Digital modulation signal
X50.A9	DATACLK	Output	A8, DSYN X8A.3 A3, FRO X20.11	HCMOS level	Digital modulation signal Clock
X50.A10	DATA	Output	A8, DSYN X8A.2 A3, FRO X20.13	HCMOS level	Digital modulation signal Data
X50.A12	SERBUS-CLK	Input	A3, FRO X50.40	HCMOS level	Serbus clock
X50.A14 X50.A15	SERBUS-DAT	bidir.	A3, FRO X50.39	HCMOS level	Serbus data
X50.A16	SERBUS-SYNC	Input	A3, FRO X50.37	HCMOS level	Serbus synchronization
X50.A17	SERBUS-INT	Output	A3, FRO X50.38	HCMOS level	Serbus interrupt
X50.A18	RES-P	Input	A3, FRO X50.28	HCMOS level	Serbus reset

7.6.3 Current Supply

Pin	Name	Inp./Output	Origin/Destination	Value range	Signal description
X50.A24	VA15-P	Input	A2, POWS1	14.80V...15.75V max. 200mA	Supply voltage analog
X50.A26	VA7.5-P	Input	A2, POWS1	7.45V...7.95V max. 100mA	Supply voltage analog
X50.A28	VD-5P	Input	A2, POWS1	5.10V...5.25V max. 250mA	Supply voltage digital
X50.A30	VA15-N	Input	A2, POWS1	-15.75V...-14.85V max. 300mA	Supply voltage analog
X50.A11,13,21,23,25,27,29,31					Ground



**Schaltteillisten
numerisch geordnet
Part lists
in numerical order
Listes des pièces détachées
par numéros de référence**

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C1	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C42	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6COG 101F 50PT	
C49	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
..54					
C60	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C61	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
..64					
C69	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C72	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C80	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C100	CC 22PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8396.00	MURATA	GRM42-6COG 220F 50PT	
C101	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C102	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C107	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C110	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C111	CC 39PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8796.00	MURATA	GRM42-6COG 390F 50PT	
C115	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C117	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C160	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C285	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C290	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
..293					
C300	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C301	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C320	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C321	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C322	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C340	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C341	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C342	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C367	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C368	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C369	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C375	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C380	CE 10UF +-10% 10V 6032 TANTALUM SMD-CAPACITOR	CE 0007.7281.00	KEMET	T491 C 106 K 010 AS	
C389	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C394	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C395	CE 10UF +-10% 10V 6032 TANTALUM SMD-CAPACITOR	CE 0007.7281.00	KEMET	T491 C 106 K 010 AS	
C396	CE 10UF +-10% 10V 6032 TANTALUM SMD-CAPACITOR	CE 0007.7281.00	KEMET	T491 C 106 K 010 AS	
C397	CE 10UF +-10% 10V 6032 TANTALUM SMD-CAPACITOR	CE 0007.7281.00	KEMET	T491 C 106 K 010 AS	
C400	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C412	CE 10UF +-10% 10V 6032 TANTALUM SMD-CAPACITOR	CE 0007.7281.00	KEMET	T491 C 106 K 010 AS	

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	ROHDE & SCHWARZ	13	04.02.98	ED MODULATIONSGENERATOR	1036.8272.01 SA	1+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C421	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C423	CE 10UF +-10% 10V 6032 TANTALUM SMD-CAPACITOR	CE 0007.7281.00	KEMET	T491 C 106 K 010 AS	
C441	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C450	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C451	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C452	CC 10PF+-0,25 50VNPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8480.00	MURATA	GRM42-6COG 100 C5OPT	
C458	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C460	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C461	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C462	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 5OPT	
C465	CC 39PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8796.00	MURATA	GRM42-6COG 390F 5OPT	
C466	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6COG 101F 5OPT	
C468	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C469	CC 820PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7381.00	PHILIPS_CO	2222 863 18821	
C470	CC 56PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8809.00	MURATA	GRM42-6COG 560F 5OPT	
C471	CC 390PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8880.00	PHILIPS_CO	2238 863 18391	
C472	CK 3,3NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7623.00	ROEDERSTEI	KP1830-233 06 1 3 W	
C473	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C474	CC 560PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.3186.00	PHILIPS_CO	2222 863 18561	
C475	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C476	CC 680PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7375.00	PHILIPS_CO	2222 863 18681	
C477	CK 3,3NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7623.00	ROEDERSTEI	KP1830-233 06 1 3 W	
C478	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C479	CC 1,5NF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7417.00	PHILIPS_CO	2222 863 18152	
C480	CC 39PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8796.00	MURATA	GRM42-6COG 390F 5OPT	
C481	CC 560PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.3186.00	PHILIPS_CO	2222 863 18561	
C482	CK 3,3NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7623.00	ROEDERSTEI	KP1830-233 06 1 3 W	
C483	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C484	CC 470PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8515.00	PHILIPS_CO	2238 863 18471	
C486	CC 470PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8515.00	PHILIPS_CO	2238 863 18471	
C487	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C489	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C490	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C491	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C492	CC 1,2NF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7400.00	PHILIPS_CO	2222 863 18122	
C493	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C495	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C496	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C497	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	

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		13	04.02.98	ED MODULATIONSGENERATOR	1036.8272.01 SA	2+

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C498	CC 8,2PF+-0,25 50VNPO1206 CERAMIC CHIP CAPACITOR	CC 0007.8242.00	MURATA	GRM42-6COG 8R2 C5OPT	
C500	CC 1,2NF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7400.00	PHILIPS_CO	2222 863 18122	
C501	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6COG 101F 50PT	
C502	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C503	CC 270PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8867.00	PHILIPS_CO	2222 863 18271	
C504	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C505	CC 270PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8867.00	PHILIPS_CO	2222 863 18271	
C507	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C508	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C509	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C511	CK 3,3NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7623.00	ROEDERSTEI	KP1830-233 06 1 3 W	
C512	CK 3,3NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR	CK 0007.7623.00	ROEDERSTEI	KP1830-233 06 1 3 W	
C514	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C515	CC 1,2NF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7400.00	PHILIPS_CO	2222 863 18122	
C520	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C521	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C524	CC 10PF+-0,25 50VNPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8480.00	MURATA	GRM42-6COG 100 C5OPT	
C525	CC 82PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8821.00	MURATA	GRM42-6COG 820F 50PT	
C526	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C527	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C528	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C529	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C530	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C531	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C532	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C539	CC 2,7NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.3228.00	PHILIPS_CO	2238 581 16619	
C540	CC 2,7NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.3228.00	PHILIPS_CO	2238 581 16619	
C541	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C542	CC 12NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.3263.00	PHILIPS_CO	2238 581 16628	
C543	CC 33NF+-10% 50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5172.00	PHILIPS_CO	2238 581 16634	
C544	CC 33NF+-10% 50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5172.00	PHILIPS_CO	2238 581 16634	
C545	CC 12NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.3263.00	PHILIPS_CO	2238 581 16628	
C550	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C551	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C555	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C556	CC 100PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8415.00	MURATA	GRM42-6COG 101F 50PT	
C557	CC 1NF+-1% 50V NPO 1206 SMD CERAMIC CAPACITOR	CC 0007.7398.00	PHILIPS_CO	2222 863 *8102	
C558	CC 1,8NF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0007.7423.00	PHILIPS_CO	2222 863 18182	
C570	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	

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	ROHDE & SCHWARZ	13	04.02.98	ED MODULATIONSGENERATOR	1036.8272.01 SA	3+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C571	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C572	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C573	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C577	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C585	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C586	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C587	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C590	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C591	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C592	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C600	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C602	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C603	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C605	CT 3P-10P 4,5X4 WS SMD CERAMIC CHIP TRIMMER	CT 0008.1206.00	PANASONIC	ECR-JA010A12	
C612	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C632	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C633	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C634	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C635	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C636	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C637	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C660 ..663	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C703	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C705	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C707	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C710	CK 10NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR NUR VAR/ONLY MOD: 20	CK 0007.7652.00	ROEDERSTEI	KP1830-310 06 1 3 W	
C711	CK 15NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR NUR VAR/ONLY MOD: 20	CK 0007.7669.00	WESTERMANN	FKP2	
C712	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C713	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C714	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C715	CK 15NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR NUR VAR/ONLY MOD: 20	CK 0007.7669.00	WESTERMANN	FKP2	
C716	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C717	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	

Tous droits réservés. Toute réimpression sans autorisation est formellement interdite.

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	ROHDE & SCHWARZ	13	04.02.98	ED MODULATIONSGENERATOR	1036.8272.01 SA	4+

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C718	CC 22PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8396.00	MURATA	GRM42-6COG 220F 50PT	
C719	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C720	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C721	CC 820PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.7381.00	PHILIPS_CO	2222 863 18821	
C723	CC 22PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8396.00	MURATA	GRM42-6COG 220F 50PT	
C728	CK 15NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR NUR VAR/ONLY MOD: 20	CK 0007.7669.00	WESTERMANN	FKP2	
C729	CC 1,5NF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.7417.00	PHILIPS_CO	2222 863 18152	
C730	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C731	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C741	CC 4,7NF+-10%50VX7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8450.00	PHILIPS_CO	2238 581 16623	
C742	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C744	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C745	CC 1,5NF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.7417.00	PHILIPS_CO	2222 863 18152	
C746	CC 1,5NF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.7417.00	PHILIPS_CO	2222 863 18152	
C749	CE 2,2UF +-10% 10V 3528 TANTALUM SMD-CAPACITOR NUR VAR/ONLY MOD: 20	CE 0007.7269.00	SPRAGUE	293D 225 X9 020 B2T	
C755	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C760	CE 1UF +-10% 25V EIA3528 TANTALUM SMD-CAPACITOR NUR VAR/ONLY MOD: 20	CE 0007.7217.00	KEMET	T 491 B105 K025 AS	
C761	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C762	CE 4,7UF+-10% 10V 3528 TANTALUM SMD-CAPACITOR NUR VAR/ONLY MOD: 20	CE 0007.7275.00	KEMET	T491 B 475 K 010 AS	
C765	CE 1UF +-10% 25V EIA3528 TANTALUM SMD-CAPACITOR NUR VAR/ONLY MOD: 20	CE 0007.7217.00	KEMET	T 491 B105 K025 AS	
C766	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C767	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C768	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C769	CE 4,7UF+-10% 10V 3528 TANTALUM SMD-CAPACITOR NUR VAR/ONLY MOD: 20	CE 0007.7275.00	KEMET	T491 B 475 K 010 AS	
C770	CE 47UF +-10% 10V 7343 TANTALUM SMD-CAPACITOR NUR VAR/ONLY MOD: 20	CE 0007.7300.00	KEMET	T491 D 476 K 010 AS	
C771	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C778	CK 15NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR NUR VAR/ONLY MOD: 20	CK 0007.7669.00	WESTERMANN	FKP2	
C779	CC 22PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8396.00	MURATA	GRM42-6COG 220F 50PT	
C780	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C781	CK 10NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR NUR VAR/ONLY MOD: 20	CK 0007.7652.00	ROEDERSTEI	KP1830-310 06 1 3 W	
C782	CK 15NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR NUR VAR/ONLY MOD: 20	CK 0007.7669.00	WESTERMANN	FKP2	
C783	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C784	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C785	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C786	CK 15NF +-1% 63V RM5 KP POLYPROPYLENE CAPACITOR NUR VAR/ONLY MOD: 20	CK 0007.7669.00	WESTERMANN	FKP2	
C787	CC 1PF+-0,25 50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8667.00	PHILIPS_CO	2238 863 15108	
C788	CC 820PF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.7381.00	PHILIPS_CO	2222 863 18821	
C789	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C790	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C791	CC 22PF+-1%50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8396.00	MURATA	GRM42-6COG 220F 50PT	
C792	CC 10NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8521.00	MURATA	GRM42-6X7R103K 50PT	
C793	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C794	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C795	CC 1,5NF+-1% 50V NPO 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.7417.00	PHILIPS_CO	2222 863 18152	
C796	CC 4,7NF+-10%50VX7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0099.8450.00	PHILIPS_CO	2238 581 16623	
C797	CE 2,2UF +-10% 10V 3528 TANTALUM SMD-CAPACITOR NUR VAR/ONLY MOD: 20	CE 0007.7269.00	SPRAGUE	293D 225 X9 020 B2T	
C798	CC 100NF+-10%50V X7R 1206 CERAMIC CHIP CAPACITOR NUR VAR/ONLY MOD: 20	CC 0007.5237.00	PHILIPS_CO	2238 581 55649	
C801	CE 100UF+-20%25V RM2.5 ELECTROLYTIC CAPACITOR	CE 0008.7891.00	PANASONIC	ECA-1EFG101I	
C803	CE 4,7UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7230.00	SPRAGUE	293D475X9035D2W	
C805	CE 4,7UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7230.00	SPRAGUE	293D475X9035D2W	
C806	CE 4,7UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7230.00	SPRAGUE	293D475X9035D2W	
C811	CE 100UF+-20%25V RM2.5 ELECTROLYTIC CAPACITOR	CE 0008.7891.00	PANASONIC	ECA-1EFG101I	
C812	CE 100UF+-20%25V RM2.5 ELECTROLYTIC CAPACITOR	CE 0008.7891.00	PANASONIC	ECA-1EFG101I	
C814	CE 100UF+-20%25V RM2.5 ELECTROLYTIC CAPACITOR	CE 0008.7891.00	PANASONIC	ECA-1EFG101I	

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	ROHDE & SCHWARZ	13	04.02.98	ED MODULATIONSGENERATOR	1036.8272.01 SA	6+

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
C815	CE 100UF+-20%25V RM2.5 ELECTROLYTIC CAPACITOR	CE 0008.7891.00	PANASONIC	ECA-1EFG101I	
C817	CE 100UF+-20%25V RM2.5 ELECTROLYTIC CAPACITOR	CE 0008.7891.00	PANASONIC	ECA-1EFG101I	
C820	CE 4,7UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7230.00	SPRAGUE	293D475X9035D2W	
C822	CE 4,7UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7230.00	SPRAGUE	293D475X9035D2W	
C823	CE 4,7UF +-10% 25V 7343 TANTALUM SMD-CAPACITOR	CE 0007.7230.00	SPRAGUE	293D475X9035D2W	
C830	CE 2,2UF +-10% 10V 3528 TANTALUM SMD-CAPACITOR	CE 0007.7269.00	SPRAGUE	293D 225 X9 020 B2T	
C831	CE 4,7UF+-10% 10V 3528 TANTALUM SMD-CAPACITOR	CE 0007.7275.00	KEMET	T491 B 475 K 010 AS	
C841	CE 4,7UF+-10% 10V 3528 TANTALUM SMD-CAPACITOR	CE 0007.7275.00	KEMET	T491 B 475 K 010 AS	
C842	CE 1UF +-10% 25V EIA3528 TANTALUM SMD-CAPACITOR	CE 0007.7217.00	KEMET	T 491 B105 K025 AS	
C843	CE 4,7UF+-10% 10V 3528 TANTALUM SMD-CAPACITOR	CE 0007.7275.00	KEMET	T491 B 475 K 010 AS	
C844	CE 1UF +-10% 25V EIA3528 TANTALUM SMD-CAPACITOR	CE 0007.7217.00	KEMET	T 491 B105 K025 AS	
C845	CE 4,7UF+-10% 10V 3528 TANTALUM SMD-CAPACITOR	CE 0007.7275.00	KEMET	T491 B 475 K 010 AS	
C846	CE 1UF +-10% 25V EIA3528 TANTALUM SMD-CAPACITOR	CE 0007.7217.00	KEMET	T 491 B105 K025 AS	
C847	CE 4,7UF+-10% 10V 3528 TANTALUM SMD-CAPACITOR	CE 0007.7275.00	KEMET	T491 B 475 K 010 AS	
C855	CE 10UF +-10% 10V 6032 TANTALUM SMD-CAPACITOR	CE 0007.7281.00	KEMET	T491 C 106 K 010 AS	
C856	CE 4,7UF+-10% 10V 3528 TANTALUM SMD-CAPACITOR	CE 0007.7275.00	KEMET	T491 B 475 K 010 AS	
C857	CE 4,7UF+-10% 10V 3528 TANTALUM SMD-CAPACITOR	CE 0007.7275.00	KEMET	T491 B 475 K 010 AS	
C858	CE 4,7UF+-10% 10V 3528 TANTALUM SMD-CAPACITOR	CE 0007.7275.00	KEMET	T491 B 475 K 010 AS	
C860	CE 1UF +-10% 25V EIA3528 TANTALUM SMD-CAPACITOR	CE 0007.7217.00	KEMET	T 491 B105 K025 AS	
D1	BG TH3032.1C SERBUSD ASIC IC GATE ARRAY	0008.6143.00	THESYS	TH3032.1C	
D3	BL PC74HCT4094T 8ST.SHREG SHIFT REGISTER	BL 0007.6885.00	PHILIPS	(PC)74HCT4094(D)	
D4	BL PC74HCT299T 8B.SHIFTR. SHIFT REGISTER	BL 0007.6633.00	PHILIPS	(PC)74HCT299(T)	
D5	BL PC74HCT00T 4X2IN.NAND NAND GATE	BL 0007.6156.00	PHILIPS_SE	(PC)74HCT00D(T)	
D6	BL PC74HCT00T 4X2IN.NAND NAND GATE	BL 0007.6156.00	PHILIPS_SE	(PC)74HCT00D(T)	
D15	BC DSP56001FE27 SIGNPROC DIGITAL SIGNAL PROCESSOR	0007.9549.00	MOTOROLA	DSP56001FE27	
D100	BL 74ACT00SC 4X 2-NAND IC QUAD 2INP NAND GATE	BL 0008.0668.00	RCA	CD74ACT00M	
D110	BL 74ACT74SC 2XRSFLIPFLOP IC DUAL D-FLIPFLOP	BL 0008.0680.00	TOSHIBA	(TC74)ACT74(FN)	
D175	BL PC74HCT191T U/D BI.CTR UP/DOWN COUNTER	BL 0007.6479.00	PHILIPS	(PC)74HCT191(T)	
D200	BL PC74HCT138T LINE DECOD LINE DECODER	BL 0007.5120.00	PHILIPS_SE	(PC)74HCT138D(T)	
D205	BL 74ACT04SC 6X INVERTER IC HEX INVERTER	BL 1012.9379.00	HARRIS	(CD74)ACT04(M)	
D210	BL 74ACT32SC 4X2-IN OR IC QUAD 2-INPUT OR GATE	BL 1012.9385.00	HARRIS	CD74ACT32M	
D240	HS SINUS TABLE	0855.6814.00			
D250	BL 74ACT32SC 4X2-IN OR IC QUAD 2-INPUT OR GATE	BL 1012.9385.00	HARRIS	CD74ACT32M	
D300	BL PC74HCT574T 8XD-FF 3S OCTAL D-TYPE FLIPFLOP	BL 0007.6727.00	PHILIPS	(PC)74HCT574(T)	
D310	BL PC74HCT574T 8XD-FF 3S OCTAL D-TYPE FLIPFLOP	BL 0007.6727.00	PHILIPS	(PC)74HCT574(T)	
D320	HS EPROM MGEN-WAVE	1036.8372.00			
D330	BL PC74HCT30T 8IN NAND NAND GATE	BL 0007.6233.00	PHILIPS_SE	(PC)74HCT30(D/T)	
D335	BL PC74HCT30T 8IN NAND NAND GATE	BL 0007.6233.00	PHILIPS_SE	(PC)74HCT30(D/T)	
D340	BL PC74HCT191T U/D BI.CTR UP/DOWN COUNTER	BL 0007.6479.00	PHILIPS	(PC)74HCT191(T)	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
D350	BL 74ACT32SC 4X2-IN OR IC QUAD 2-INPUT OR GATE	BL 1012.9385.00	HARRIS	CD74ACT32M	
D355	BL PC74HCT00T 4X2IN.NAND NAND GATE	BL 0007.6156.00	PHILIPS_SE	(PC)74HCT00D(T)	
D370	BJ TDC1012N7 1X12B-DAC D/A-CONVERTER	0377.6393.00	RAYTHEON	1012N7C1	
D400	BJ PCM56P-K 1X16B-DAC D/A-CONVERTER	0836.4284.00	BURR_BROWN	PCM56P-K	
D403	BL PC74HCT04T 6XINVERT HEXINVERTER	BL 0007.5372.00	PHILIPS_SE	(PC)74HCT04(D/T)	
D460	BL PC74HCT125T 4XBUFF. 3S QUAD LINE DRIVER	BL 0007.5395.00	PHILIPS_SE	(PC)74HCT125(D/T)	
D485	BS DG419DY 1XUM ANALOGSCH ANALOG SWITCH	0746.0322.00	SILICONIX	DG419DY	
D550	BS DG419DY 1XUM ANALOGSCH ANALOG SWITCH	0746.0322.00	SILICONIX	DG419DY	
D570	BL PC74HCT138T LINE DECOD LINE DECODER	BL 0007.5120.00	PHILIPS_SE	(PC)74HCT138D(T)	
D580	BS DG412DY 4X ANALOGSCH ANALOG SWITCH	0520.7728.00	SILICONIX	DG412DY	
D600	BJ DAC8143 1X12B-DAC 12B SERIAL D/A-CONVERTER	1012.9510.00	PMI	DAC8143FS	
D610	BL PC74HCT4094T 8ST.SHREG SHIFT REGISTER	BL 0007.6885.00	PHILIPS	(PC)74HCT4094(D)	
D620	BS DG412DY 4X ANALOGSCH ANALOG SWITCH	0520.7728.00	SILICONIX	DG412DY	
D640	BL PC74HC4051T 8CH.AN.MUX 8CHANNEL ANAL.MULTIPLEXER	BL 0007.3592.00	PHILIPS_SE	(PC)74HC4051(D/T)	
D645	BL PC74HCT04T 6XINVERT HEXINVERTER	BL 0007.5372.00	PHILIPS_SE	(PC)74HCT04(D/T)	
D650	BL PC74HCT4094T 8ST.SHREG SHIFT REGISTER	BL 0007.6885.00	PHILIPS	(PC)74HCT4094(D)	
D655	BL PC74HCT4094T 8ST.SHREG SHIFT REGISTER	BL 0007.6885.00	PHILIPS	(PC)74HCT4094(D)	
D660	BL PC74HCT4094T 8ST.SHREG SHIFT REGISTER	BL 0007.6885.00	PHILIPS	(PC)74HCT4094(D)	
D665	BL PC74HCT4094T 8ST.SHREG SHIFT REGISTER	BL 0007.6885.00	PHILIPS	(PC)74HCT4094(D)	
D700	BS DG413DY 2A2R ANALOGSCH QUAD ANALOG CMOS.SWITCH NUR VAR/ONLY MOD: 20	1004.7058.00	SILICONIX	DG413DY	
D740	BJ XSP56ADC16 1X16B-ADC A/D-CONVERTER NUR VAR/ONLY MOD: 20	1001.6696.00	MOTOROLA	DSP56ADC16S 2C35R	
D750	BL PC74HCT257T 4X2CH. MUX QUAD 2-INPUT MULTIPLEXER NUR VAR/ONLY MOD: 20	BL 0007.6591.00	PHILIPS	(PC)74HCT257(T)	
D755	BL PC74HCT04T 6XINVERT HEXINVERTER NUR VAR/ONLY MOD: 20	BL 0007.5372.00	PHILIPS_SE	(PC)74HCT04(D/T)	
D775	BS DG412DY 4X ANALOGSCH ANALOG SWITCH NUR VAR/ONLY MOD: 20	0520.7728.00	SILICONIX	DG412DY	
D780	BS DG413DY 2A2R ANALOGSCH QUAD ANALOG CMOS.SWITCH NUR VAR/ONLY MOD: 20	1004.7058.00	SILICONIX	DG413DY	
D795	BJ XSP56ADC16 1X16B-ADC A/D-CONVERTER NUR VAR/ONLY MOD: 20	1001.6696.00	MOTOROLA	DSP56ADC16S 2C35R	
K502	SR 5V 500 OHM 1X1 SIL RELAY 5V SIL	1012.9604.00	HAMLIN	HE3621A0500	
K503	SR 5V 500 OHM 1X1 SIL RELAY 5V SIL	1012.9604.00	HAMLIN	HE3621A0500	
K504	SR 5V 500 OHM 1X1 SIL RELAY 5V SIL	1012.9604.00	HAMLIN	HE3621A0500	
L100	LD 1,20UH10%,180HMO,620A CHOKE	LD 0067.2870.00	DALE	IM2	
L102	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
L103	LD 0,15UH10%,100HM1,230A CHOKE	LD 0067.2763.00	DALE	IM2	
L110	LD 0,39UH10%,300HMO,710A CHOKE	LD 0067.2811.00	DALE	IM2	
L113	LD 0,33UH10%,220HMO,830A CHOKE	LD 0067.2805.00	DALE	IM2	

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	ROHDE & SCHWARZ	13	04.02.98	ED MODULATIONSGENERATOR	1036.8272.01 SA	8+

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L150	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L160	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L370	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L371	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L390	LD 1,20UH10%, 180HMO, 620A CHOKE	LD 0067.2870.00	DALE	IM2	
L391	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L392	LD 1,20UH10%, 180HMO, 620A CHOKE	LD 0067.2870.00	DALE	IM2	
L460	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L461	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L470	LD 250UH	0855.6872.00			1036.8366.00
L471	LD 480UH	0855.6895.00			1036.8366.00
L472	LD 420UH	0855.6889.00			1036.8366.00
L473	LD 202UH	0855.6866.00			1036.8366.00
L485	LD 100UH 10% 0,06A 1210 SMD-INDUCTOR	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K) 100	
L486	LD 100UH 10% 0,06A 1210 SMD-INDUCTOR	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K) 100	
L500	LD 8,20UH10%2,700HMO, 160A CHOKE	LD 0067.2970.00	DALE	IM2	
L501	LD 10 UH 10% 3R3 144 MA CHOKE	LD 0026.4184.00	DALE	IM2	
L502	LD 8,20UH10%2,700HMO, 160A CHOKE	LD 0067.2970.00	DALE	IM2	
L520	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L521	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L525	LD 22UH 10% 0,14A 1210 SMD-INDUCTOR	LD 0520.7886.00	SIEMENS	B82422-A1223-J(K) 100	
L530	LD 82,0UH10%7,300HMO, 088A CHOKE	LD 0067.3099.00	DALE	IM2	
L531	LD 100 UH10%8,000HMO, 084A CHOKE	LD 0067.3101.00	DALE	IM2	
L532	LD 82,0UH10%7,300HMO, 088A CHOKE	LD 0067.3099.00	DALE	IM2	
L550	LD 100UH 10% 0,06A 1210 SMD-INDUCTOR	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K) 100	
L551	LD 100UH 10% 0,06A 1210 SMD-INDUCTOR	LD 0007.9261.00	SIEMENS	B82422-A1104-J(K) 100	
L750	LD 22UH 10% 0,14A 1210 SMD-INDUCTOR	LD 0520.7886.00	SIEMENS	B82422-A1223-J(K) 100	
L797	NUR VAR/ONLY MOD: 20 LD 22UH 10% 0,14A 1210 SMD-INDUCTOR	LD 0520.7886.00	SIEMENS	B82422-A1223-J(K) 100	
L800 . .803	LD 15UH 10% 1R2 0,46A CHOKE	LD 0026.4149.00	DALE	IM 6	
L804	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L806	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L807	LD 1,20UH10%, 180HMO, 620A CHOKE	LD 0067.2870.00	DALE	IM2	
L820	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L822	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L823	LD 1,20UH10%, 180HMO, 620A CHOKE	LD 0067.2870.00	DALE	IM2	
L830	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L831	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L840 . .843	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	
L850	LD 1,20UH10%, 180HMO, 620A CHOKE	LD 0067.2870.00	DALE	IM2	
L851	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K) 100	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
L852	LD 10UH 10% 0,18A 1210 SMD-INDUCTOR	LD 0007.9255.00	SIEMENS	B82422-A1103-J(K)100	
L855	LD 1UH 10% 0,38A 1210 SMD-INDUCTOR	LD 6006.0130.00	SIEMENS	B82422-A1102-J(K)100	
MP12	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
MP13	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
MP20	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
MP21	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
MP35	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
MP45	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
MP49	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
MP51	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
MP55	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
MP60	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
MP61	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
MP70	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
MP71	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
...77					
MP80	VL STECKLOETOESE 7,5X1,1 PLUG-IN SOLDERING LUG	VL 0078.2747.00	-	R&S-ZCHNG.078.2747	
...84					
N450	BO AD844BQ OPAMP CURRENT FB OPAMP	1010.6150.00	ANALOG_DEV	AD844BQ	
N460	BO AD846BN CF OPAMP CURRENT-FEEDBACK OPAMP	0007.9855.00	ANALOG_DEV	AD846BN	
N470	BO AD843KN FET OPAMP IC OPAMP	1039.1285.00	ANALOG_DEV	AD843KN	
N485	BO NE5532AFE 2XLN OPAMP OPERATIONAL AMPLIFIER	BO 0356.0450.00	SIGNETICS	NE5532AFE	
N520	BO AD846BN CF OPAMP CURRENT-FEEDBACK OPAMP	0007.9855.00	ANALOG_DEV	AD846BN	
N530	BO AD846BN CF OPAMP CURRENT-FEEDBACK OPAMP	0007.9855.00	ANALOG_DEV	AD846BN	
N540	BO AD846BN CF OPAMP CURRENT-FEEDBACK OPAMP	0007.9855.00	ANALOG_DEV	AD846BN	
N590	BO AD846BN CF OPAMP CURRENT-FEEDBACK OPAMP	0007.9855.00	ANALOG_DEV	AD846BN	
N601	BO AD843KN FET OPAMP IC OPAMP	1039.1285.00	ANALOG_DEV	AD843KN	
N630	BO AD844BQ OPAMP CURRENT FB OPAMP	1010.6150.00	ANALOG_DEV	AD844BQ	
N700	BO LT1056S8 FET OPAMP OPERATIONAL AMPLIFIER NUR VAR/ONLY MOD: 20	0007.7800.00	LINEAR_TEC	LT1056(S8)	
N715	BO NE5534D OPAMP OPERATIONAL AMPLIFIER NUR VAR/ONLY MOD: 20	0815.7555.00	SIGNETICS	NE5534(D)	
N717	BO NE5534D OPAMP OPERATIONAL AMPLIFIER NUR VAR/ONLY MOD: 20	0815.7555.00	SIGNETICS	NE5534(D)	
N730	BO NE5532AFE 2XLN OPAMP OPERATIONAL AMPLIFIER NUR VAR/ONLY MOD: 20	BO 0356.0450.00	SIGNETICS	NE5532AFE	
N760	BO OP07CS8 OPAMP OPERATIONAL AMPLIFIER NUR VAR/ONLY MOD: 20	0007.7781.00	LINEAR_TEC	LT1001(CS8)	
N762	BO OP07CS8 OPAMP OPERATIONAL AMPLIFIER NUR VAR/ONLY MOD: 20	0007.7781.00	LINEAR_TEC	LT1001(CS8)	
N780	BO LT1056S8 FET OPAMP OPERATIONAL AMPLIFIER NUR VAR/ONLY MOD: 20	0007.7800.00	LINEAR_TEC	LT1056(S8)	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
N785	BO NE5534D OPAMP OPERATIONAL AMPLIFIER NUR VAR/ONLY MOD: 20	0815.7555.00	SIGNETICS	NE5534(D)	
N788	BO NE5534D OPAMP OPERATIONAL AMPLIFIER NUR VAR/ONLY MOD: 20	0815.7555.00	SIGNETICS	NE5534(D)	
N790	BO NE5532AFE 2XLN OPAMP OPERATIONAL AMPLIFIER NUR VAR/ONLY MOD: 20	BO 0356.0450.00	SIGNETICS	NE5532AFE	
N830	BO UA7905UC -5V1AO VREGL VOLTAGE REGULATOR	BO 0282.5449.00	NSC	LM7905 CT	
N831	BO M78L05ACM+5V5%OA1 VREG VOLTAGE REGULATOR	0351.3451.00	NSC	LM78L05ACM	
N832	BO M78L05ACM+5V5%OA1 VREG VOLTAGE REGULATOR	0351.3451.00	NSC	LM78L05ACM	
N833	BO M78L05ACM+5V5%OA1 VREG VOLTAGE REGULATOR	0351.3451.00	NSC	LM78L05ACM	
N860	BO M78L05ACM+5V5%OA1 VREG VOLTAGE REGULATOR	0351.3451.00	NSC	LM78L05ACM	
R1	RG 10,OKOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R3	RG 10,OKOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R4	RG 10,OKOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R6	RG 10,OKOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R11	RG 10,OKOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R14	RG 10,OKOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R15	RG 10,OKOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R16	RG 10,OKOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 02 20	RG 0007.0793.00	PHILIPS_CO	RC02	
R17	RG 10,OKOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 04 20	RG 0007.0793.00	PHILIPS_CO	RC02	
R19	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R20	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R21	RG 10,OKOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R25	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R30	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
..33	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R34	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
..45	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	ROEDERSTEI	D25	
R46	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R47	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R48	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R49	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R50	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
..54	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5614.00	ROEDERSTEI	D25	
R60	RG 15,OKOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5843.00	ROEDERSTEI	D25	
R65	RG 15,OKOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5843.00	ROEDERSTEI	D25	
R66	RG 15,OKOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5843.00	ROEDERSTEI	D25	
R70	RG 15,OKOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5843.00	ROEDERSTEI	D25	
..78	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R80	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R83	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
..88	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R92	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R94	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R95	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R96	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R97	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R100	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R101	RG 12,1KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0841.00	PHILIPS_CO	RC02	
R102	RG 35,7KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5920.00	ROEDERSTEI	D25	
R109	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R110	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R125	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R127	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8810.00	ROEDERSTEI	D25	
R130	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8810.00	ROEDERSTEI	D25	
R140	RG 47,5KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5950.00	ROEDERSTEI	D25	
R200	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R201	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R215	RG 18,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5850.00	ROEDERSTEI	D25	
R216	RG 18,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5850.00	ROEDERSTEI	D25	
R250	RG 47,5KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5950.00	ROEDERSTEI	D25	
R260	RG 18,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5850.00	ROEDERSTEI	D25	
R261	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R262	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R263	RG 18,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5850.00	ROEDERSTEI	D25	
R264	RG 18,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5850.00	ROEDERSTEI	D25	
R270	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R282	RG 18,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5850.00	ROEDERSTEI	D25	
R283	RG 18,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5850.00	ROEDERSTEI	D25	
R285	RG 18,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5850.00	ROEDERSTEI	D25	
R290	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R320	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R321	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R322	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R325	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R326	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R340	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8810.00	ROEDERSTEI	D25	
R341	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R360	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R371	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R372	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R373	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	

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	ROHDE & SCHWARZ	13	04.02.98	ED MODULATIONSGENERATOR	1036.8272.01 SA	12+

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R375	RG 0-OHM WIDERSTAND-CHIP RESISTOR CHIP 0-OHM	RG 0007.5108.00	DRALORIC	CR 1206	
R376	RG 1,62KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9997.00	ROEDERSTEI	D25	
R377	RG 1,62KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9997.00	ROEDERSTEI	D25	
R378	RG 7,5KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0764.00	ROEDERSTEI	D25	
R379	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R380	RS 0,25W500 OHM+-20% SMD POTENTIOMETER	RS 0007.9603.00	BI_TECHNOL	23 B R... TR	
R381	RG 1,3 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5708.00	ROEDERSTEI	D25	
R385	RG 24,3 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5495.00	ROEDERSTEI	D25	
R386	RG 24,3 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5495.00	ROEDERSTEI	D25	
R387	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	ROEDERSTEI	D25	
R390	RG 4,75OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8420.00	PHILIPS	RC 02	
R391	RS 0,25W 10 OHM+-20% SMD POTENTIOMETER	RS 0007.9555.00	BOURNS	3314G--1-	
R393	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R394	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8810.00	ROEDERSTEI	D25	
R400	RG 68,1KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.1902.00	ROEDERSTEI	D25	
R401	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R402	RS 0,25W50KOHM +-20% SMD POTENTIOMETER	RS 0007.9661.00	BOURNS	3314G--1-	
R403	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R404	RG 200 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5995.00	ROEDERSTEI	D25	
R405	RS 0,25W100KOHM+-20% SMD POTENTIOMETER	RS 0007.9678.00	BOURNS	3314G--1-	
R406	RG 475 KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.6079.00	ROEDERSTEI	D25	
R408	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R410	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	PHILIPS_CO	RC02	
R420	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	PHILIPS_CO	RC02	
R430	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R431	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R432	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R450	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R452	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R454	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R455	RG 182 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5595.00	ROEDERSTEI	D25	
R460	RG 0-OHM WIDERSTAND-CHIP RESISTOR CHIP 0-OHM	RG 0007.5108.00	DRALORIC	CR 1206	
R461	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R462	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R465	RS 0,25W 50 OHM+-20% SMD POTENTIOMETER	RS 0007.9578.00	BOURNS	3314G--1-	
R466	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R470	RG 301 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5643.00	ROEDERSTEI	D25	
R472	RG 301 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5643.00	ROEDERSTEI	D25	
R473	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	ROEDERSTEI	D25	

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	ROHDE & SCHWARZ	13	04.02.98	ED MODULATIONSGENERATOR	1036.8272.01 SA	13+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R474	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	ROEDERSTEI	D25	
R475	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R476	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R477	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8884.00	PHILIPS_CO	RC02	
R480	RG 2,74KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5766.00	PHILIPS_CO	RC02	
R481	RG 2,74KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5766.00	PHILIPS_CO	RC02	
R482	RG 2,21KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5743.00	ROEDERSTEI	D25	
R483	RG 1,21KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.9968.00	ROEDERSTEI	D25	
R485	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R488	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	ROEDERSTEI	D25	
R491	RG 332 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5650.00	PHILIPS_CO	RC02	
R492	RG 332 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5650.00	PHILIPS_CO	RC02	
R493	RS 0,25W200 OHM+-20% SMD POTENTIOMETER	RS 0007.9590.00	BOURNS	3314G--1-	
R495	RG 301 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5643.00	ROEDERSTEI	D25	
R501	RG 5,62OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8442.00	PHILIPS	RC 02	
R502	RG 56,2 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8826.00	ROEDERSTEI	D25	
R520	RG 825 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.7259.00	ROEDERSTEI	D25	
R521	RG 825 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.7259.00	ROEDERSTEI	D25	
R525	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R527	RG 4,75OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8420.00	PHILIPS	RC 02	
R528	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R530	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8810.00	ROEDERSTEI	D25	
R531	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	ROEDERSTEI	D25	
R532	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R533	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8810.00	ROEDERSTEI	D25	
R535	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8810.00	ROEDERSTEI	D25	
R540	RL 0,60W 1,0 OHM+-1%TK50 METALFILMRESISTOR	RL 0099.7860.00	ROEDERSTEI	MK2	
R541	RG 56,2 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8826.00	ROEDERSTEI	D25	
R550	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R551	RG 825 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.7259.00	ROEDERSTEI	D25	
R552	RG 825 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.7259.00	ROEDERSTEI	D25	
R553	RG 825 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.7259.00	ROEDERSTEI	D25	
R569	RG 4,75OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8420.00	PHILIPS	RC 02	
R570	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	PHILIPS_CO	RC02	
R571	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	PHILIPS_CO	RC02	
R572	RG 10,0 OHM+-1%TK100 1206 CHIP -RESISTOR	RG 0006.8649.00	PHILIPS_CO	RC02	
R580	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	ROEDERSTEI	D25	
R581	RG 0-OHM WIDERSTAND-CHIP RESISTOR CHIP O-OHM	RG 0007.5108.00	DRALORIC	CR 1206	
R582	RG 0-OHM WIDERSTAND-CHIP RESISTOR CHIP O-OHM	RG 0007.5108.00	DRALORIC	CR 1206	

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	ROHDE & SCHWARZ	13	04.02.98	ED MODULATIONSGENERATOR	1036.8272.01 SA	14+

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R583	RG 0-OHM WIDERSTAND-CHIP RESISTOR CHIP 0-OHM	RG 0007.5108.00	DRALORIC	CR 1206	
R585	RG 100,0KOH+-1%TK100 1206 CHIP RESISTOR	RG 0007.1948.00	ROEDERSTEI	D25	
R589	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	ROEDERSTEI	D25	
R590	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R591	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R600	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R610	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R620	RL 0,35W100 OHM+-0,1%TK25 RESISTOR	RL 0083.7220.00	DRALORIC	SMA0207	
R621	RL 0,35W 1 KOHM+-0,1%TK25 RESISTOR	0083.9146.00	DRALORIC	SMA0207	
R622	RL 0,35W124 OHM+-0,1%TK25 RESISTOR	RL 0083.7408.00	DRALORIC	SMA0207	
R623	RG 39,2KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5937.00	ROEDERSTEI	D25	
R624	RL 0,35W1,98KOHM+-0,1%T25 RESISTOR	RL 0083.9717.00	DRALORIC	SMA0207	
R627					
R628	RL 0,35W110 OHM+-0,1%TK25 RESISTOR	RL 0083.7308.00	DRALORIC	SMA0207	
R629	RL 0,35W124 OHM+-0,1%TK25 RESISTOR	RL 0083.7408.00	DRALORIC	SMA0207	
R630	RG 8,25KOHM+-1%TK100 1206 CHIP RESISTOR	RG 0007.0770.00	ROEDERSTEI	D25	
R631	RG 3,92KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5808.00	ROEDERSTEI	D25	
R631	NUR VAR/ONLY MOD: 02 04 20 RG 7,5KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0764.00	ROEDERSTEI	D25	
R632	NUR VAR/ONLY MOD: 08 RG 909 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.7265.00	ROEDERSTEI	D25	
R634	RG 4,75OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8420.00	PHILIPS	RC 02	
R635	RG 4,75OHM+-1%TK100 1206 CHIP-RESISTOR	RG 0007.8420.00	PHILIPS	RC 02	
R636	RG 30,1KOHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5908.00	ROEDERSTEI	D25	
R637	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R638	RS 0,25W500 OHM+-20% SMD POTENTIOMETER	RS 0007.9603.00	BI_TECHNOL	23 B R... TR	
R638	NUR VAR/ONLY MOD: 02 04 20 RS 0,25W 1KOHM +-20% SMD RG POTENTIOMETER	RS 0007.9610.00	BI_TECHNOL	23 B R... TR	
R642	NUR VAR/ONLY MOD: 08 RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	ROEDERSTEI	D25	
R643	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5695.00	ROEDERSTEI	D25	
R644	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R645	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R650	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R651	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R652	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R665	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR	RG 0007.0793.00	PHILIPS_CO	RC02	
R701	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR	RG 0006.7271.00	PHILIPS_CO	RC02	
R702	NUR VAR/ONLY MOD: 20 RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP	RG 0007.5566.00	ROEDERSTEI	D25	
R704	NUR VAR/ONLY MOD: 20 RG 1,0MOHM+-1%TK100 1206 CHIP RESISTOR	RG 0815.7532.00	PHILIPS_CO	RC 02	

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	ROHDE & SCHWARZ	13	04.02.98	ED MODULATIONSGENERATOR	1036.8272.01 SA	15+

Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R705	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.7271.00	PHILIPS_CO	RC02	
R711	RL 0,35W100 OHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.7220.00	DRALORIC	SMA0207	
R713	RL 0,35W4,99KOHM+-0,1%T25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0084.2480.00	DRALORIC	SMA0207	
R714	RL 0,35W5,49KOHM+-0,1%T25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0084.2568.00	DRALORIC	SMA0207	
R715	RL 0,35W121 OHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.7389.00	ROEDERSTEI	MK2	
R716	RL 0,35W909 OHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.9069.00	DRALORIC	SMA0207	
R717	RL 0,35W162 OHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.7620.00	DRALORIC	SMA0207	
R718	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0007.0793.00	PHILIPS_CO	RC02	
R723	RG 1,82KOHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 20	RG 0007.5720.00	ROEDERSTEI	D25	
R724	RG 909 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.7265.00	ROEDERSTEI	D25	
R725	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.8884.00	PHILIPS_CO	RC02	
R726	RG 1,82KOHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 20	RG 0007.5720.00	ROEDERSTEI	D25	
R727	RG 909 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.7265.00	ROEDERSTEI	D25	
R728	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.8884.00	PHILIPS_CO	RC02	
R730	RL 0,35W2KOHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.9723.00	DRALORIC	SMA0207	
R731	RS 0,25W100 OHM+-20% SMD POTENTIOMETER NUR VAR/ONLY MOD: 20	RS 0007.9584.00	BI_TECHNOL	23 B R... TR	
R732	RL 0,35W953 OHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.9100.00	DRALORIC	SMA0207	
R733	RL 0,35W2KOHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.9723.00	DRALORIC	SMA0207	
R734	RL 0,35W2KOHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.9723.00	DRALORIC	SMA0207	
R735	RL 0,35W2KOHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.9723.00	DRALORIC	SMA0207	
R739	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.7271.00	PHILIPS_CO	RC02	
R740	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.8884.00	PHILIPS_CO	RC02	
R741	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.8884.00	PHILIPS_CO	RC02	
R743	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.8810.00	ROEDERSTEI	D25	
R744	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0007.0793.00	PHILIPS_CO	RC02	
R746	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	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
R747	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.8884.00	PHILIPS_CO	RC02	
R750	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0007.0793.00	PHILIPS_CO	RC02	
R752	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0007.0793.00	PHILIPS_CO	RC02	
R759	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0007.0793.00	PHILIPS_CO	RC02	
R760	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0007.0793.00	PHILIPS_CO	RC02	
R761	RG 3,92KOHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 20	RG 0007.5808.00	ROEDERSTEI	D25	
R762	RS 0,25W500 OHM+-20% SMD POTENTIOMETER NUR VAR/ONLY MOD: 20	RS 0007.9603.00	BI_TECHNOL	23 B R... TR	
R763	RG 4,32KOHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 20	RG 0007.5814.00	ROEDERSTEI	D25	
R764	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 20	RG 0007.5614.00	ROEDERSTEI	D25	
R765	RG 6,81KOHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0007.0758.00	ROEDERSTEI	D25	
R766	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 20	RG 0007.5695.00	ROEDERSTEI	D25	
R767	RG 3,92KOHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 20	RG 0007.5808.00	ROEDERSTEI	D25	
R768	RS 0,25W500 OHM+-20% SMD POTENTIOMETER NUR VAR/ONLY MOD: 20	RS 0007.9603.00	BI_TECHNOL	23 B R... TR	
R769	RG 4,32KOHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 20	RG 0007.5814.00	ROEDERSTEI	D25	
R770	RG 221 OHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 20	RG 0007.5614.00	ROEDERSTEI	D25	
R771	RG 475 OHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 20	RG 0007.5695.00	ROEDERSTEI	D25	
R772	RG 6,81KOHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0007.0758.00	ROEDERSTEI	D25	
R774	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.8884.00	PHILIPS_CO	RC02	
R775	RG 47,5 OHM+-1%TK100 1206 RESISTOR CHIP NUR VAR/ONLY MOD: 20	RG 0007.5566.00	ROEDERSTEI	D25	
R776	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.8884.00	PHILIPS_CO	RC02	
R777	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.7271.00	PHILIPS_CO	RC02	
R778	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.8884.00	PHILIPS_CO	RC02	
R779	RG 1,0MOHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0815.7532.00	PHILIPS_CO	RC 02	
R780	RG 1,0 KO +-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.7271.00	PHILIPS_CO	RC02	
R783	RL 0,35W100 OHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.7220.00	DRALORIC	SMA0207	
R785	RL 0,35W4,99KOHM+-0,1%T25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0084.2480.00	DRALORIC	SMA0207	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
R786	RL 0,35W5,49KOHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0084.2568.00	DRALORIC	SMA0207	
R787	RL 0,35W121 OHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.7389.00	ROEDERSTEI	MK2	
R788	RL 0,35W909 OHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.9069.00	DRALORIC	SMA0207	
R789	RL 0,35W162 OHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.7620.00	DRALORIC	SMA0207	
R790	RG 10,0KOHM+-1%TK100 1206 RG CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0007.0793.00	PHILIPS_CO	RC02	
R791	RS 0,25W100 OHM+-20% SMD POTENTIOMETER NUR VAR/ONLY MOD: 20	RS 0007.9584.00	BI_TECHNOL	23 B R... TR	
R792	RL 0,35W953 OHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.9100.00	DRALORIC	SMA0207	
R793	RL 0,35W2KOHM+-0,1%TK25 RESISTOR NUR VAR/ONLY MOD: 20	RL 0083.9723.00	DRALORIC	SMA0207	
..796					
R797	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.8884.00	PHILIPS_CO	RC02	
R798	RG 100 OHM+-1%TK100 1206 CHIP RESISTOR NUR VAR/ONLY MOD: 20	RG 0006.8884.00	PHILIPS_CO	RC02	
R801	RG 51,1 OHM+-1%TK100 1206 CHIP RESISTOR	RG 0006.8810.00	ROEDERSTEI	D25	
R830	RD 2.4W 22 OHM+-1% WIRE-WOUND RESISTOR	RD 0087.5116.00	TEPRO	TS-2B	
RN1 ...5	RN 9X47 KOHM+-2% SIL10 H5 RESISTOR NETWORK	RN 0341.9286.00	BOURNS	4610X-T09-473	
V160	AE HSMS2800 SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V161	AE HSMS2800 SCHOTTKY DIODE	AE 0836.8421.00	HEWLETT_PA	HSMS-2800(#L31)	
V380	AE 1N827 6,2V REF DIODE	AE 0418.0029.00	COMPENSATE	1N827(A)	
V393	AE BZV55/C3V9 0,5W ZDI ZENER DIODE	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
V394	AE BZV55/C3V9 0,5W ZDI ZENER DIODE	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
V400	AE ICL8069DCQ 1,2V REF DIODE	AE 0332.3908.00	HARRIS	ICL8069DCSQ	
V401	AE ICL8069DCQ 1,2V REF DIODE	AE 0332.3908.00	HARRIS	ICL8069DCSQ	
V460	AE BZV55/C3V9 0,5W ZDI ZENER DIODE	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
V461	AE BZV55/C3V9 0,5W ZDI ZENER DIODE	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
V527	AE BZV55/C3V9 0,5W ZDI ZENER DIODE	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
V528	AE BZV55/C3V9 0,5W ZDI ZENER DIODE	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
V570	AD BAS32 75V UDI DIODE	AD 0006.7288.00	PHILIPS	BAS32 (L)	
V571	AD BAS32 75V UDI DIODE	AD 0006.7288.00	PHILIPS	BAS32 (L)	
V572	AD BAS32 75V UDI DIODE	AD 0006.7288.00	PHILIPS	BAS32 (L)	
V580	AD BAS32 75V UDI DIODE	AD 0006.7288.00	PHILIPS	BAS32 (L)	
V581	AD BAS32 75V UDI DIODE	AD 0006.7288.00	PHILIPS	BAS32 (L)	
V590	AE BZV55/C3V9 0,5W ZDI ZENER DIODE	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
V591	AE BZV55/C3V9 0,5W ZDI ZENER DIODE	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
V630	AD BAS32 75V UDI DIODE	AD 0006.7288.00	PHILIPS	BAS32 (L)	
V631	AD BAS32 75V UDI DIODE	AD 0006.7288.00	PHILIPS	BAS32 (L)	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
V700	AD BAS32 75V UDI DIODE NUR VAR/ONLY MOD: 20	AD 0006.7288.00	PHILIPS	BAS32 (L)	
V701	AD BAS32 75V UDI DIODE NUR VAR/ONLY MOD: 20	AD 0006.7288.00	PHILIPS	BAS32 (L)	
V715	AE BZV55/C3V9 0,5W ZDI ZENER DIODE NUR VAR/ONLY MOD: 20	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
V716	AE BZV55/C3V9 0,5W ZDI ZENER DIODE NUR VAR/ONLY MOD: 20	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
V760	AK BC850B N 45V 200MA TRANSISTOR NUR VAR/ONLY MOD: 20	AK 0007.7969.00	VALVO	BC850B	
V764	BO LT1009CZ 2V5 20MA VREF VOLTAGE REFERENCE NUR VAR/ONLY MOD: 20	0345.2886.00	LINEAR_TEC	LT-1009CZ	
V765	AK BC850B N 45V 200MA TRANSISTOR NUR VAR/ONLY MOD: 20	AK 0007.7969.00	VALVO	BC850B	
V775	AD BAS32 75V UDI DIODE NUR VAR/ONLY MOD: 20	AD 0006.7288.00	PHILIPS	BAS32 (L)	
V776	AD BAS32 75V UDI DIODE NUR VAR/ONLY MOD: 20	AD 0006.7288.00	PHILIPS	BAS32 (L)	
V785	AE BZV55/C3V9 0,5W ZDI ZENER DIODE NUR VAR/ONLY MOD: 20	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
V786	AE BZV55/C3V9 0,5W ZDI ZENER DIODE NUR VAR/ONLY MOD: 20	AE 0006.9816.00	PHILIPS_SE	BZV55B3V9	
X50	FP STECKERLEISTE 32POL. CONNECTOR 32P.	FP 0008.5718.00	DEUT_ELCO	16 8457 064 002 027	
X51	FJ EINBAUSTECKER F.GS SMB ANGLE CONNECTOR	FJ 0602.8804.00	IMS	81.1524.201	
X53	FJ EINBAUSTECKER F.GS SMB ANGLE CONNECTOR	FJ 0602.8804.00	IMS	81.1524.201	
X100	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR 3-POLIG/3 PINS	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X110	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR 2-POLIG/2 PINS	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X130	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR 2-POLIG/2 PINS	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X131	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR 2-POLIG/2 PINS	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X140	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR 3-POLIG/3 PINS	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X220	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR 36-POLIG/36 PINS	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X221	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR 36-POLIG/36 PINS	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X390	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR 4-POLIG/4 PINS	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X400	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR 7-POLIG/7 PINS	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X401	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR 7-POLIG/7 PINS	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X460	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR 4-POLIG/4 PINS	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X530	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X750	FP STIFTLISTE 36P.R2,54 PIN CONNECTOR NUR VAR/ONLY MOD: 20	FP 0242.3600.00	BINDER	742-11-0179-00-36	

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Kennz. Comp. No.	Benennung Designation	Sachnummer Stock No.	Hersteller Manufacturer	Bezeichnung Designation	enthalten in contained in
X760	10-POLIG/10 PINS FP STIFTLISTE 36P.R2,54 PIN CONNECTOR NUR VAR/ONLY MOD: 20	FP 0242.3600.00	BINDER	742-11-0179-00-36	
X10A	10-POLIG/10 PINS FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X13A	FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X14A	FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X22A	FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X39A	FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X40A	FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X40B	FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X40C	FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X46A	FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X53A	FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X75A	FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X75B	FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X75C	NUR VAR/ONLY MOD: 20 FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X75D	NUR VAR/ONLY MOD: 20 FP KURZSCHLUSSBUCHSE SHORTING PLUG	FP 0491.7042.00	IS	IPC-254-BL01	
X75E	NUR VAR/ONLY MOD: 20 FP KURZSCHLUSSBUCHSE SHORTING PLUG NUR VAR/ONLY MOD: 20	FP 0491.7042.00	IS	IPC-254-BL01	
Z20	LD SMD-T-FILTER 100PF	1039.1356.00	MURATA	NFM61ROOT101T1	
..28	SMD-FILTER				
Z460	LD SMD-T-FILTER 100PF	1039.1356.00	MURATA	NFM61ROOT101T1	
Z461	SMD-FILTER				
Z462	LD SMD-T-FILTER 100PF	1039.1356.00	MURATA	NFM61ROOT101T1	
Z500	SMD-FILTER				
Z580	LD SMD-T-FILTER 100PF	1039.1356.00	MURATA	NFM61ROOT101T1	
Z630	SMD-FILTER				
Z640	LD SMD-T-FILTER 100PF	1039.1356.00	MURATA	NFM61ROOT101T1	
Z700	SMD-FILTER				
Z770	NUR VAR/ONLY MOD: 20 LD SMD-T-FILTER 100PF	1039.1356.00	MURATA	NFM61ROOT101T1	
Z800	SMD-FILTER				
..805	NUR VAR/ONLY MOD: 20 LD SMD PI-FILTER 10GHZ SURFACE-MOUNT-FILTER	LD 0008.5901.00	OXLEY	SLT/P/22000/SM3	

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XY-Liste

XY List

Erklärung der Spaltenbezeichnungen:

Part: Bauelement-Kennzeichen.

Side: - Leiterplatten-Seite, auf der sich das Bauelement befindet.

XY: Koordinaten (Millimeter) des Bauelementes auf der Leiterplatte bezogen auf den Nullpunkt.

SQR, PG: Planquadrat und Seite des Schaltbildes für das jeweilige Bauelement.

Explanation of column designations:

Part: Identification of instrument part.

Side: Side of the PC board on which instrument part is positioned.

XY: Coordinates (millimeter) of the component on the PC board in reference to zero point.

SQR, PG: Square and page of the diagram for the respective instrument part.

Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg
B100	B	72	23	3D	3	C451	A	145	108	7E	6	C523	B	276	137	4E	7
C1	A	167	39	2A	2	C452	B	149	97	6E	6	C524	B	282	141	4E	7
C42	A	151	26	2E	2	C457	B	248	100	10C	6	C525	B	279	141	5E	7
C49	A	173	32	1A	2	C458	A	96	97	1A	6	C526	B	288	102	6B	7
C50	A	41	95	7B	3	C460	A	169	110	10E	6	C527	A	261	67	7E	7
C51	A	39	90	7B	3	C461	A	162	97	10E	6	C528	A	293	108	4C	7
C52	A	32	95	7B	3	C462	A	151	98	8D	6	C529	A	293	119	4C	7
C53	A	36	91	8B	3	C465	A	177	102	6C	6	C530	A	300	137	2C	7
C54	A	33	92	8B	3	C466	A	177	106	6C	6	C531	A	296	123	2B	7
C60	A	74	97	9F	2	C467	B	177	115	6B	6	C532	A	298	104	5C	7
C61	A	34	65	9B	3	C468	A	176	112	6B	6	C533	A	293	98	6C	7
C62	A	27	53	10B	3	C469	A	174	107	6B	6	C534	B	293	120	3B	7
C63	A	41	45	11B	3	C470	A	196	106	7C	6	C535	B	296	113	4B	7
C64	A	54	52	11B	3	C471	A	196	102	7C	6	C536	B	292	107	5B	7
C69	A	83	89	3A	2	C472	B	186	114	6B	6	C537	B	298	102	5B	7
C72	A	65	78	2A	2	C473	A	186	108	6B	6	C538	A	293	95	6C	7
C80	A	92	68	6B	2	C474	A	186	110	7B	6	C539	A	295	104	5C	7
C100	A	57	12	2E	3	C475	A	215	106	8C	6	C540	A	293	110	4C	7
C101	A	46	21	2E	3	C476	A	215	102	8C	6	C541	A	290	119	4C	7
C102	A	32	13	2D	3	C477	B	205	114	7B	6	C542	B	293	123	3B	7
C107	A	69	19	3D	3	C478	A	205	110	7B	6	C543	B	296	116	4B	7
C110	A	28	14	4E	3	C479	A	205	108	7B	6	C544	B	292	105	5B	7
C111	A	23	18	5E	3	C480	A	234	106	8C	6	C545	B	295	102	5B	7
C115	A	64	42	4B	3	C481	A	234	102	8C	6	C550	A	296	89	7C	7
C117	A	76	43	5B	3	C482	B	224	114	8B	6	C551	A	288	80	7B	7
C160	A	44	65	9B	3	C483	A	224	108	8B	6	C555	B	283	93	6D	7
C285	A	60	82	11E	4	C484	A	224	110	8B	6	C556	B	283	81	6D	7
C290	A	64	59	8E	4	C485	B	239	114	9B	6	C557	B	283	78	6D	7
C291	A	88	128	11E	4	C486	A	241	107	9B	6	C558	B	283	95	6D	7
C292	A	59	135	10E	4	C487	A	241	101	9B	6	C570	A	262	77	10B	7
C293	A	31	139	9E	4	C489	A	251	100	11B	6	C571	A	254	77	11B	7
C300	A	131	129	1A	5	C490	A	244	114	3A	6	C572	A	270	77	11B	7
C301	A	114	129	2A	5	C491	A	256	107	3A	6	C573	A	254	86	11C	7
C320	A	140	124	3A	5	C492	A	258	114	9C	6	C577	B	290	102	6B	7
C321	A	74	122	3A	5	C493	A	264	116	9C	6	C585	A	290	85	3D	7
C322	A	72	134	4A	5	C495	A	264	119	3A	6	C586	A	283	93	3D	7
C340	A	120	129	5A	5	C496	A	260	114	4A	6	C587	A	287	93	4D	7
C341	A	129	121	6A	5	C497	A	257	119	4A	6	C590	A	293	44	11F	7
C342	A	109	122	5A	5	C498	A	265	108	10C	6	C591	A	283	53	11E	7
C367	A	225	129	11D	5	C500	A	243	137	2E	7	C592	A	283	40	11E	7
C368	B	225	129	10C	5	C501	A	247	131	2E	7	C600	A	290	38	2E	8
C369	B	236	138	10D	5	C502	A	253	137	2E	7	C601	A	290	26	4E	8
C375	A	197	137	9E	5	C503	A	257	133	3E	7	C602	A	282	17	4E	8
C380	A	203	133	11E	5	C504	A	264	137	3E	7	C603	A	289	22	4E	8
C389	A	184	137	9D	5	C505	A	266	134	3E	7	C605	B	287	27	4E	8
C394	A	220	128	10C	5	C507	A	247	128	2F	7	C612	A	272	34	10F	8
C395	A	180	130	9C	5	C508	A	257	135	3F	7	C632	A	243	14	7E	8
C396	A	199	130	9C	5	C509	A	266	131	3F	7	C633	A	250	27	7D	8
C397	A	181	133	9C	5	C510	B	246	133	2E	7	C634	A	231	25	8D	8
C400	A	130	97	6D	6	C511	B	251	137	2E	7	C635	A	244	19	11D	8
C412	A	135	107	4E	6	C512	B	267	137	3E	7	C636	A	251	20	11D	8
C421	A	132	107	4E	6	C514	A	268	129	3E	7	C637	A	261	18	11D	8
C423	A	140	99	5D	6	C515	A	271	129	4E	7	C660	A	244	46	10C	8
C441	A	92	100	2A	6	C520	A	284	121	5F	7	C661	A	244	62	11C	8
C450	A	148	105	7E	6	C521	A	275	137	5E	7	C662	A	241	76	10B	8
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Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg
D335-B				4A	5	D645-G				11E	8	L470	B	173	104	6B	6
D340-A	B	114	126	5C	5	D650-A	B	246	42	9F	8	L471	B	192	104	7B	6
D340-B				5A	5	D650-B				11C	8	L472	B	211	104	8B	6
D350-A	B	111	126	3C	5	D655-A	B	240	65	9D	8	L473	B	231	104	8B	6
D350-B				3C	5	D655-B				11C	8	L485	A	270	117	8C	6
D350-C				4C	5	D660-A	B	240	74	9C	8	L486	A	274	114	8C	6
D350-D				7A	5	D660-B				11B	8	L500	B	254	126	2E	7
D350-E				6A	5	D665-A	B	72	69	9B	8	L501	B	264	134	3E	7
D355-A	B	130	126	3D	5	D665-B				11B	8	L502	B	273	131	3E	7
D355-B				6C	5	D700-A	B	216	67	3E	9	L520	B	283	112	4F	7
D355-C				7C	5	D700-B				3B	9	L521	B	283	122	5E	7
D355-D				7A	5	D700-C				3C	9	L525	A	278	141	5E	7
D355-E				6A	5	D700-D				3F	9	L530	B	290	112	4C	7
D370-A	B	175	125	8E	5	D700-E				2D	9	L531	B	300	110	4C	7
D370-B				9C	5	D740	B	144	86	11E	9	L532	B	300	97	5C	7
D400	B	141	110	4E	6	D750-A	B	107	84	10D	9	L550	A	287	83	5D	7
D403-A	B	98	98	2E	6	D750-B				2A	9	L551	A	283	90	5D	7
D403-B				2E	6	D755-A	B	114	62	10D	9	L750	B	129	90	11F	9
D403-C				2E	6	D755-B				11D	9	L797	B	117	59	11C	9
D403-D				2E	6	D755-C				10D	9	L800	B	137	14	2F	10
D403-E				2D	6	D755-D				11D	9	L801	B	122	14	2E	10
D403-F				2D	6	D755-E				10C	9	L802	B	132	14	2C	10
D403-G				2A	6	D755-F				11C	9	L803	B	127	14	2B	10
D460-A	B	107	98	3C	6	D755-G				2A	9	L804	B	105	87	4E	10
D460-B				3C	6	D775-A	B	205	73	5F	9	L806	B	274	98	6E	10
D460-C				3B	6	D775-B				5E	9	L807	B	250	37	7E	10
D460-D				3B	6	D775-C				5C	9	L820	B	120	52	4D	10
D460-E				1A	6	D775-D				5B	9	L822	B	274	104	6D	10
D485-A	B	267	114	8C	6	D775-E				3D	9	L823	B	253	37	7D	10
D485-B				4A	6	D780-A	B	170	67	8E	9	L830	B	254	42	4D	10
D550-A	B	283	84	5D	7	D780-B				8B	9	L831	A	111	101	5D	10
D550-B				3D	7	D780-C				8B	9	L840	A	79	13	4B	10
D570-A	B	240	84	10C	7	D780-D				8E	9	L841	B	268	49	5C	10
D570-B				9D	7	D780-E				5A	9	L842	A	92	84	7C	10
D580-A	B	295	66	10E	7	D795	B	144	64	11B	9	L843	A	106	51	9C	10
D580-B				10F	7	K502-A	B	265	88	6E	7	L850	B	92	51	4A	10
D580-C				10D	7	K502-B				11C	7	L851	B	111	98	5A	10
D580-D				10E	7	K503-A	B	257	88	6E	7	L852	B	96	51	6A	10
D580-E				9D	7	K503-B				11C	7	L855	B	232	37	7B	10
D600	B	295	32	2D	8	K504-A	B	273	88	6E	7	MP12	B	57	39	5D	3
D610-A	B	267	35	6C	8	K504-B				11C	7	MP13	B	83	43	5C	3
D610-B				11F	8	L100	B	48	11	2E	3	MP20	B	152	33	4D	2
D620-A	B	257	13	6E	8	L102	A	68	47	3B	3	MP21	B	91	65	6B	2
D620-B				6D	8	L103	B	51	11	2F	3	MP35	B	105	117	4B	5
D620-C				6D	8	L110	B	25	21	4E	3	MP45	B	122	99	7E	6
D620-D				6E	8	L113	B	23	11	5F	3	MP49	B	271	109	11C	6
D620-E				11D	8	L150	A	37	98	6C	3	MP51	B	209	126	10E	5
D640-A	B	260	56	3B	8	L160	A	48	51	11C	3	MP55	B	291	78	7C	7
D640-B				11E	8	L370	B	232	126	10D	5	MP60	B	291	29	5E	8
D645-A	B	265	65	2B	8	L371	B	229	126	10C	5	MP61	B	231	13	8E	8
D645-B				2C	8	L390	B	223	126	8C	5	MP70	B	286	119	5F	7
D645-C				7D	8	L391	A	188	133	9C	5	MP71	B	184	67	8C	9
D645-D				7C	8	L392	B	213	128	9C	5	MP72	B	184	73	8F	9
D645-E				7B	8	L460	B	174	118	10F	6	MP73	B	162	86	10F	9
D645-F				7B	8	L461	B	161	110	10E	6	MP74	B	162	76	10E	9
ROHDE & SCHWARZ	ÄI	Datum Date	XY-Liste für XY-list for				Sach-Nummer Stock-Nr	Blatt Page									
	02	09.10.92	MODULATIONSGENERATOR MOD.GEN				1036.8272.01 XY	3+									

Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg
MP75	B	162	64	10C	9	R19	B	148	37	5B	2	R102	A	39	21	3E	3
MP76	B	162	51	10B	9	R20	B	149	53	6B	2	R109	A	34	13	4E	3
MP77	B	130	71	4D	9	R21	A	185	17	4C	2	R110	A	25	14	5E	3
MP80	B	94	32	3D	10	R25	A	67	77	8E	2	R125	A	66	39	4B	3
MP81	B	66	29	5B	10	R30	A	79	84	8C	2	R127	A	61	39	4D	3
MP82	B	262	45	7C	10	R31	A	79	90	8D	2	R130	A	83	37	4C	3
MP83	B	100	91	8C	10	R32	A	68	81	8D	2	R140	B	18	44	8D	3
MP84	B	95	65	10C	10	R33	A	79	87	8D	2	R200	A	68	50	2E	4
N450	B	154	110	7E	6	R34	A	72	83	8C	2	R201	A	68	53	2E	4
N460	B	160	107	10E	6	R35	A	84	73	8C	2	R215	A	60	92	4A	4
N470	B	225	140	10D	5	R36	A	72	86	8C	2	R216	A	34	119	3C	4
N485-A	B	248	104	9C	6	R37	A	77	82	8C	2	R250	A	34	37	1C	4
N485-B				11C	6	R38	A	72	88	8C	2	R251	A	31	37	1C	4
N485-C				3A	6	R39	A	80	82	8C	2	R252	A	28	37	1C	4
N520	B	284	134	4F	7	R40	A	77	92	8C	2	R253	A	25	44	1C	4
N530	B	292	134	2C	7	R41	A	83	82	8C	2	R254	A	24	41	1C	4
N540	B	292	89	7C	7	R42	B	171	50	6E	2	R255	A	24	48	1B	4
N590	B	294	55	11E	7	R43	B	144	53	6E	2	R260	A	57	108	6C	4
N601	B	293	15	4E	8	R44	B	139	53	6D	2	R261	A	54	130	6C	4
N630	B	247	13	7E	8	R45	A	154	40	5D	2	R262	A	55	132	6C	4
N700	B	230	79	4E	9	R46	A	149	15	2D	2	R263	A	62	116	5C	4
N715	B	214	86	5E	9	R47	A	181	40	5B	2	R264	A	71	73	7B	4
N717	B	189	90	7E	9	R48	B	156	53	6D	2	R270	A	91	131	8D	4
N730-A	B	178	78	9E	9	R49	B	161	46	6B	2	R280	B	74	110	6B	4
N730-B				9F	9	R50	A	140	19	2E	2	R281	B	69	110	6B	4
N730-C				4A	9	R51	A	151	15	2E	2	R282	A	84	107	6B	4
N760	B	149	57	8D	9	R52	A	161	15	2D	2	R283	A	64	88	6A	4
N762	B	152	86	5D	9	R53	A	156	15	2D	2	R285	A	58	82	8B	4
N780	B	229	57	4B	9	R54	A	154	15	2D	2	R290	B	83	70	2B	3
N785	B	214	50	5B	9	R60	A	71	99	9F	2	R320	A	144	128	3E	5
N788	B	195	50	7B	9	R65	A	44	97	11C	3	R321	A	147	132	3E	5
N790-A	B	178	55	9B	9	R66	A	44	100	11C	3	R322	A	142	132	3E	5
N790-B				9B	9	R70	A	41	55	11E	3	R325	A	125	137	2E	5
N790-C				3A	9	R71	A	34	55	11D	3	R326	A	111	137	2D	5
N830	B	110	18	2D	10	R72	A	34	58	11D	3	R340	A	122	123	5C	5
N831	B	253	53	6C	10	R73	A	34	53	11D	3	R341	A	122	121	5C	5
N832	B	96	84	8C	10	R74	A	34	48	11D	3	R342	A	122	126	5C	5
N833	B	102	58	9C	10	R75	A	34	50	11D	3	R343	A	114	121	5C	5
N860	B	77	30	4B	10	R76	A	41	53	11D	3	R344	A	122	118	5C	5
R1	A	159	29	3E	2	R77	A	41	48	11D	3	R345	A	111	118	5C	5
R2	A	161	29	3E	2	R78	A	41	50	11D	3	R346	A	105	122	7A	5
R3	A	164	29	3E	2	R80	A	95	57	7B	2	R347	A	128	118	7A	5
R4	A	166	29	3E	2	R83	B	179	33	5E	2	R360	A	158	127	8E	5
R5	A	169	29	3E	2	R84	B	145	37	5E	2	R361	A	158	124	8E	5
R6	A	171	29	3E	2	R85	B	141	34	5D	2	R362	A	158	122	8E	5
R7	A	174	29	3E	2	R86	B	136	37	5D	2	R363	A	158	119	8E	5
R10	A	181	20	4E	2	R87	B	184	33	5C	2	R364	B	158	131	8E	5
R11	A	181	25	4D	2	R88	B	189	33	5C	2	R365	B	158	128	8E	5
R12	A	181	22	4D	2	R92	A	66	99	11D	2	R366	A	158	130	8E	5
R13	A	181	27	4D	2	R94	A	161	36	2E	2	R367	A	158	132	8E	5
R14	A	164	33	3D	2	R95	A	197	47	6C	2	R368	A	158	135	8E	5
R15	A	181	30	4D	2	R96	B	179	50	6C	2	R369	B	158	133	8D	5
R16	A	181	32	4D	2	R97	B	134	53	6D	2	R371	B	158	122	8D	5
R17	A	181	35	4D	2	R100	A	46	23	3F	3	R372	B	158	119	8D	5
R18	A	181	37	4D	2	R101	A	40	26	3E	3	R373	B	158	126	8D	5
ROHDE & SCHWARZ	AI	Datum Date		XY-Liste für XY-list for				Sach-Nummer Stock-Nr				Blatt Page					
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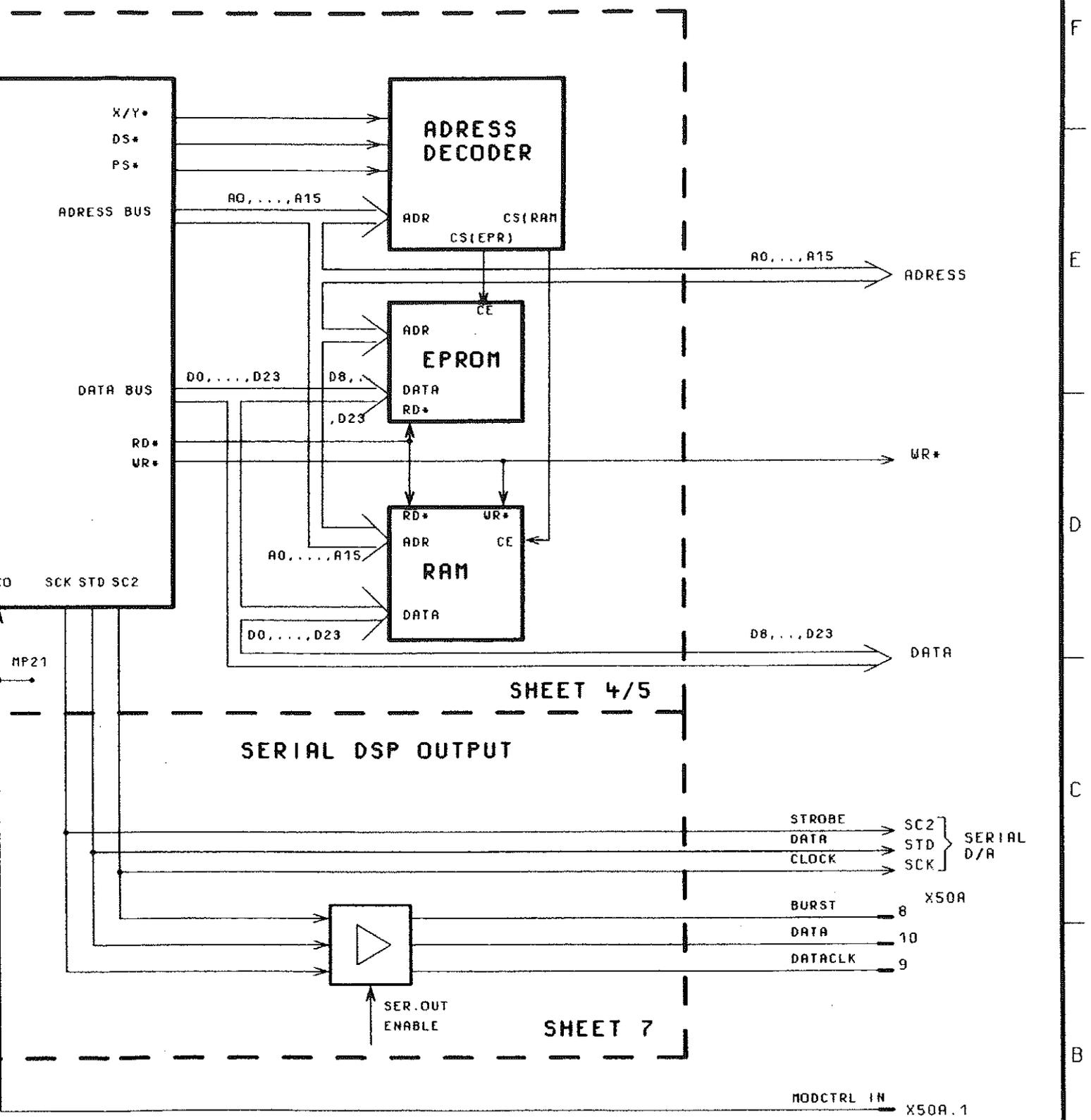
Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg
R375	A	194	138	9E	5	R491	A	251	114	9C	6	R643	B	211	28	2A	8
R376	A	191	138	9E	5	R492	A	258	116	9C	6	R644	A	258	60	3B	8
R377	A	191	131	9E	5	R493	B	246	115	10C	6	R645	A	269	63	7B	8
R378	A	209	137	10E	5	R495	A	251	117	10C	6	R650	A	248	42	9F	8
R379	A	211	139	10E	5	R501	A	240	131	1E	7	R651	A	250	72	8D	8
R380	B	214	135	10E	5	R502	A	273	129	4E	7	R652	A	239	81	8C	8
R381	A	212	131	10E	5	R520	A	284	138	4E	7	R665	A	77	75	8B	8
R385	B	222	140	9D	5	R521	B	284	138	4E	7	R701	B	224	38	2E	9
R386	A	222	137	9C	5	R525	A	281	130	4E	7	R702	B	207	38	1E	9
R387	A	219	140	10D	5	R527	B	224	18	7E	7	R704	A	228	76	3E	9
R388	A	219	135	10C	5	R528	A	258	70	6E	7	R705	A	228	81	4F	9
R389	A	219	131	10C	5	R530	A	290	133	2C	7	R706	A	224	79	3F	9
R390	A	229	138	10D	5	R531	A	288	121	2B	7	R711	B	219	76	4E	9
R391	B	222	134	10D	5	R532	A	296	133	2C	7	R713	B	217	86	5E	9
R392	B	219	135	9C	5	R533	B	299	122	3C	7	R714	B	205	76	6F	9
R393	A	233	129	11D	5	R535	A	284	124	1C	7	R715	B	203	76	6E	9
R394	A	235	136	11C	5	R540	B	300	95	6C	7	R716	B	200	86	6E	9
R400	A	128	100	6D	6	R541	B	293	102	6B	7	R717	B	197	76	7E	9
R401	A	125	97	6E	6	R550	A	296	86	7C	7	R718	A	182	80	8F	9
R402	B	125	97	6D	6	R551	B	296	92	6C	7	R723	A	185	70	8B	9
R403	A	111	110	6D	6	R552	B	290	86	6D	7	R724	A	174	72	8B	9
R404	B	142	100	5E	6	R553	B	290	88	6D	7	R725	A	174	70	8B	9
R405	B	140	100	5D	6	R569	B	211	18	7E	7	R726	A	171	67	8E	9
R406	B	146	97	5D	6	R570	A	246	84	10C	7	R727	A	177	67	8E	9
R408	A	126	107	5E	6	R571	A	246	86	10C	7	R728	A	177	69	8E	9
R410	A	120	110	4D	6	R572	A	246	89	10C	7	R730	B	181	76	9F	9
R420	A	116	97	6E	6	R580	B	224	23	9F	7	R731	B	161	71	9E	9
R430	B	82	107	1E	6	R581	A	293	67	9E	7	R732	B	184	86	9E	9
R431	B	78	114	1E	6	R582	A	297	67	9E	7	R733	B	186	86	10F	9
R432	B	72	114	1D	6	R583	A	286	67	9D	7	R734	B	168	76	10E	9
R450	A	100	100	3C	6	R585	A	290	64	10D	7	R735	B	166	86	10E	9
R451	A	101	97	3C	6	R589	B	207	23	8F	7	R739	A	168	72	4D	9
R452	A	103	102	3B	6	R590	A	291	51	11E	7	R740	A	168	83	10E	9
R453	A	103	105	3B	6	R591	A	283	43	11E	7	R741	A	168	80	10E	9
R454	A	97	103	3B	6	R600	A	279	42	2E	8	R743	A	133	83	11E	9
R455	A	155	107	9E	6	R610	A	276	27	5C	8	R744	A	104	80	11E	9
R460	A	157	101	8E	6	R620	B	281	22	5E	8	R746	A	95	79	11D	9
R461	A	164	107	10E	6	R621	B	279	12	5E	8	R747	A	95	73	11D	9
R462	A	154	100	8D	6	R622	B	276	12	5E	8	R750	A	114	83	9D	9
R465	B	157	100	9E	6	R623	A	274	15	5E	8	R752	A	111	81	9D	9
R466	A	161	110	9E	6	R624	B	274	12	5E	8	R759	A	111	78	9C	9
R470	A	170	102	5B	6	R625	B	271	12	5E	8	R760	A	111	76	9C	9
R472	A	244	101	9B	6	R626	B	266	12	5D	8	R761	A	128	67	7D	9
R473	B	108	50	4C	6	R627	B	264	12	5D	8	R762	B	134	67	7D	9
R474	B	113	50	4B	6	R628	B	261	12	5D	8	R763	A	143	67	7D	9
R475	A	103	31	4C	6	R629	B	269	12	5D	8	R764	A	155	63	8D	9
R476	A	108	31	4C	6	R630	A	271	15	5D	8	R765	A	148	63	8D	9
R477	A	113	29	4B	6	R631	A	246	26	7E	8	R766	A	155	70	8C	9
R480	A	265	105	10C	6	R632	A	250	15	6E	8	R767	A	128	75	5D	9
R481	A	261	110	11C	6	R634	B	207	13	8F	8	R768	B	134	73	5D	9
R482	A	258	100	10C	6	R635	B	224	13	8E	8	R769	A	143	76	5D	9
R483	A	265	103	10C	6	R636	A	234	21	8E	8	R770	A	156	78	6D	9
R484	B	266	111	10C	6	R637	A	229	25	8D	8	R771	A	159	76	6C	9
R485	A	265	100	10C	6	R638	B	240	25	7E	8	R772	A	148	79	6D	9
R488	B	103	50	4C	6	R642	B	227	28	2B	8	R774	A	95	81	11D	9
ROHDE & SCHWARZ	ÄI	Datum Date	XY-Liste für XY-list for				Sach-Nummer Stock-Nr				Blatt Page						
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Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg	Part	Side	X	Y	Sqr	Pg
R775	B	207	33	1B	9	RN4-C				11C	4	X50B	B	189	11		
R776	A	95	76	11D	9	RN4-D				11C	4	X51	B	17	15	5F	3
R777	B	224	33	2B	9	RN4-E				11C	4	X53	B	42	15	1F	3
R778	A	95	70	11C	9	RN4-F				11C	4	X53A	B	42	15	2C	7
R779	A	228	58	3B	9	RN4-G				11C	4	X75A	B	98	82	11D	9
R780	A	228	60	4C	9	RN4-H				11C	4	X75B	B	98	82	11D	9
R781	A	224	55	3C	9	RN4-I				11C	4	X75C	B	98	82	11D	9
R783	B	219	64	4B	9	RN5-A	B	42	142	11C	4	X75D	B	98	82	11D	9
R785	B	217	53	5B	9	RN5-B				11C	4	X75E	B	98	82	11C	9
R786	B	205	53	6C	9	RN5-C				11C	4	X100	B	32	26	5E	3
R787	B	203	64	6B	9	RN5-D				11C	4	X110	B	78	23	3D	3
R788	B	200	53	6B	9	RN5-E				11C	4	X130	B	13	43	8C	3
R789	B	197	64	7B	9	RN5-F				11C	4	X131	B	15	46	8C	3
R790	A	185	57	8C	9	RN5-G				11C	4	X140	B	18	48	8D	3
R791	B	161	66	9B	9	RN5-H				11B	4	X220	B	12	140	2D	4
R792	B	186	64	9B	9	RN5-I				11B	4	X221	B	15	140	2D	4
R793	B	166	53	10B	9	V160	A	14	40	8C	3	X390	B	237	135	11C	5
R794	B	168	64	10B	9	V161	A	18	40	8C	3	X400	B	107	109	3E	6
R795	B	184	53	10C	9	V380	B	208	141	10E	5	X401	B	107	111	3E	6
R796	B	181	64	9B	9	V393	A	231	126	11D	5	X460	B	157	104	9E	6
R797	A	168	60	10B	9	V394	A	228	126	11D	5	X530	B	287	128	2C	7
R798	A	168	57	10B	9	V400	B	119	108	6E	6	X750	B	102	88	11D	9
R801	A	132	60	11B	9	V401	B	114	100	6D	6	X751	B	99	68	11C	9
R830	B	117	33	2D	10	V460	A	148	98	8D	6	X752	B	99	65	11C	9
RN1-A	B	20	136	10D	4	V461	A	148	100	8D	6	X760	B	99	88	11D	9
RN1-B				10D	4	V527	A	264	67	7E	7	X761	B	102	68	11C	9
RN1-C				10D	4	V528	A	266	67	7E	7	X762	B	102	65	11C	9
RN1-D				10D	4	V570	A	262	83	10C	7	Z20	B	179	39	5E	2
RN1-E				10D	4	V571	A	254	83	11C	7	Z21	B	144	39	5E	2
RN1-F				10D	4	V572	A	270	83	11C	7	Z22	B	138	39	5D	2
RN1-G				10D	4	V580	A	283	57	10F	7	Z23	B	133	39	5D	2
RN1-H				10C	4	V581	A	283	70	9F	7	Z24	B	184	39	5C	2
RN1-I				10C	4	V590	A	283	37	11E	7	Z25	B	156	39	5D	2
RN2-A	B	21	37	10C	4	V591	A	283	34	11E	7	Z26	B	169	39	5B	2
RN2-B				10C	4	V630	A	236	15	8E	8	Z27	B	189	39	5C	2
RN2-C				10C	4	V631	A	236	21	8E	8	Z28	B	149	39	5B	2
RN2-D				10C	4	V700	A	224	48	2F	9	Z460	B	103	47	4C	6
RN2-E				10C	4	V701	A	220	51	2E	9	Z461	B	108	47	4C	6
RN2-F				10C	4	V715	A	165	74	8E	9	Z462	B	113	47	4B	6
RN2-G				10C	4	V716	A	165	71	8F	9	Z500	B	221	18	7E	7
RN2-H				10C	4	V760	A	151	69	8D	9	Z580	B	213	23	8F	7
RN2-I				10C	4	V764	B	122	70	4D	9	Z630	B	221	13	8E	8
RN3-A	B	18	138	11D	4	V765	A	151	75	6D	9	Z640	B	221	28	2B	8
RN3-B				11D	4	V775	A	227	48	2C	9	Z700	B	213	38	2E	9
RN3-C				11D	4	V776	A	231	51	2B	9	Z770	B	213	33	2B	9
RN3-D				11D	4	V785	A	165	69	8B	9	Z800	B	123	38	3F	10
RN3-E				11D	4	V786	A	165	66	8C	9	Z801	B	118	38	3E	10
RN3-F				11D	4	X39A	B	239	129	11C	5	Z802	B	98	38	3D	10
RN3-G				11D	4	X40A	B	104	112	3E	6	Z803	B	128	38	3C	10
RN3-H				11C	4	X40B	B	104	112	3E	6	Z804	B	93	38	3B	10
RN3-I				11C	4	X40C	B	104	112	3D	6	Z805	B	93	13	3B	10
RN4-A	B	43	139	11C	4	X46A	B	159	104	9E	6						
RN4-B				11C	4	X50A	B	189	11	2B	2						

ROHDE & SCHWARZ	ÄI	Datum Date	XY-Liste für XY-list for	Sach-Nummer Stock-Nr	Blatt Page
		02 09.10.92	MODULATIONSGENERATOR MOD.GEN	1036.8272.01 XY	6-



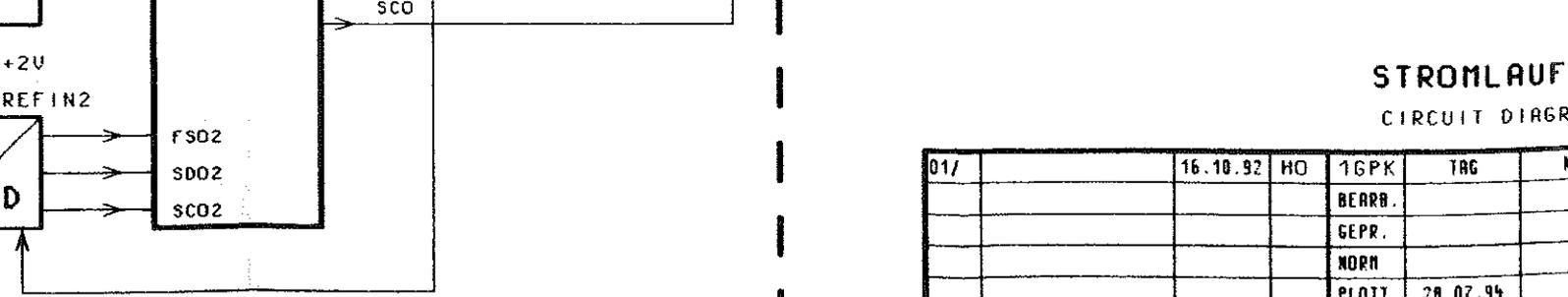
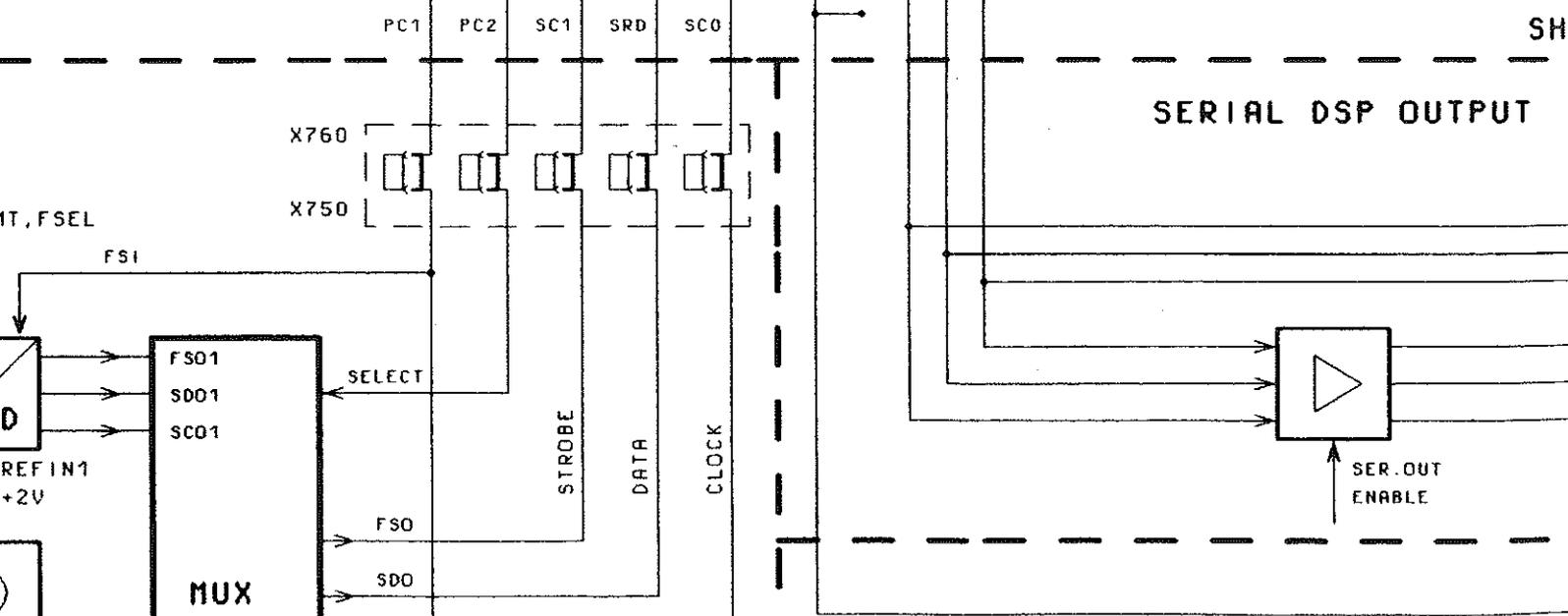
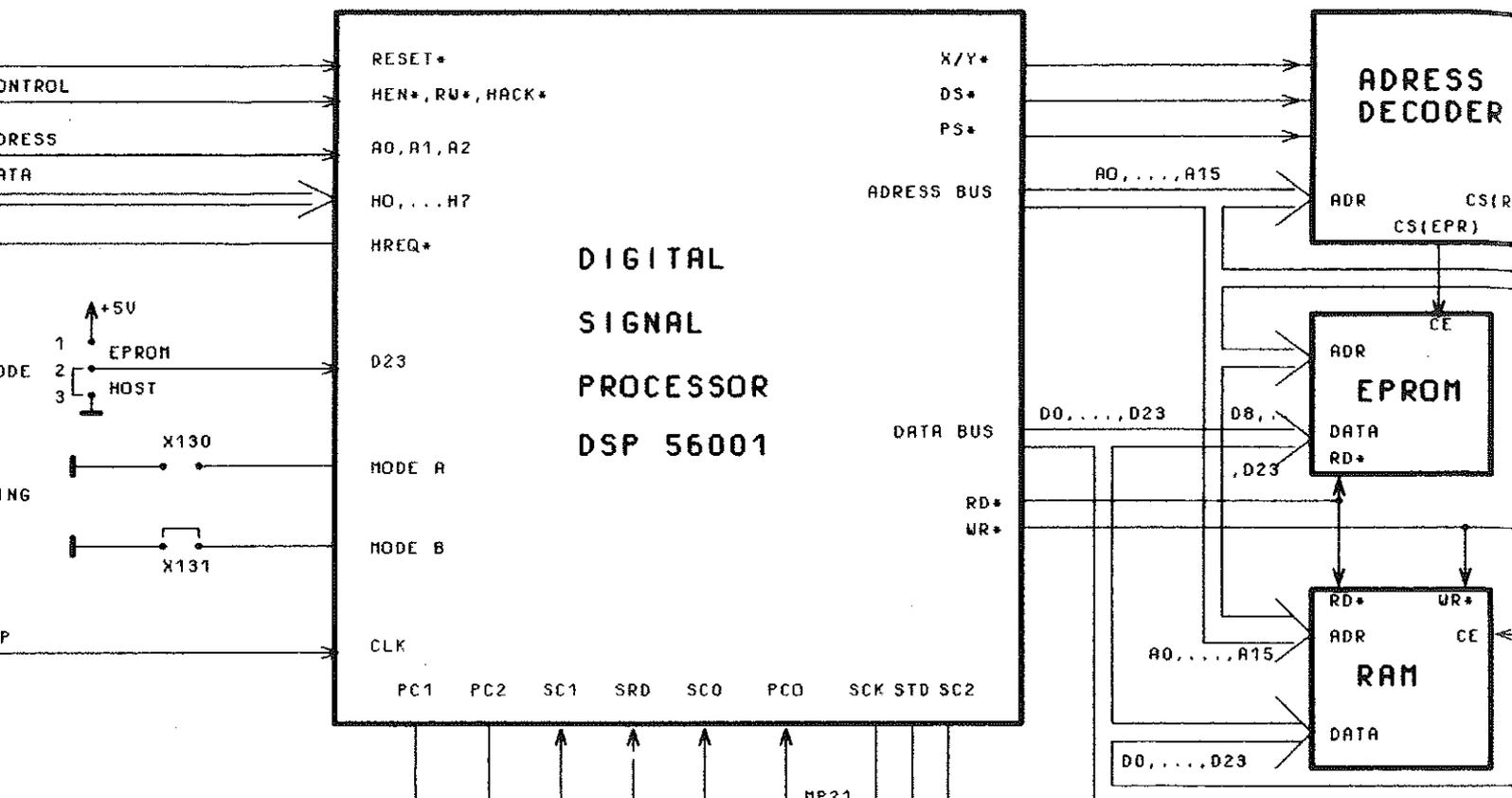
Stromläufe
Bestückungspläne
Circuit diagrams
Components plans
Schémas de circuit
Plans des composants



STROMLAUF GILT FUER VAR.02,04,20
 CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,20

01/		15.10.92	HO	1GPK	TAG	NAME	BENENNUNG	
				BEARB.		HO	MODULATIONSGENERATOR MOD. GEN	
				GEPR.				
				NORM				
				PLOTT	28.07.94			
02/	48742 00	27.07.94	HO			ZEICHN.-NR.		BLATT-NR.
REND. IND.	BERECHNUNGS- MITTEILUNG	DATUM	NAME			1036.8272.01S		1+
				ROHDE & SCHWARZ		1036.8250		V. BL.
				ZU GERÄT	SMP	REG.-I.V.	1036.8250	ERSTE Z.
							1036.8250	

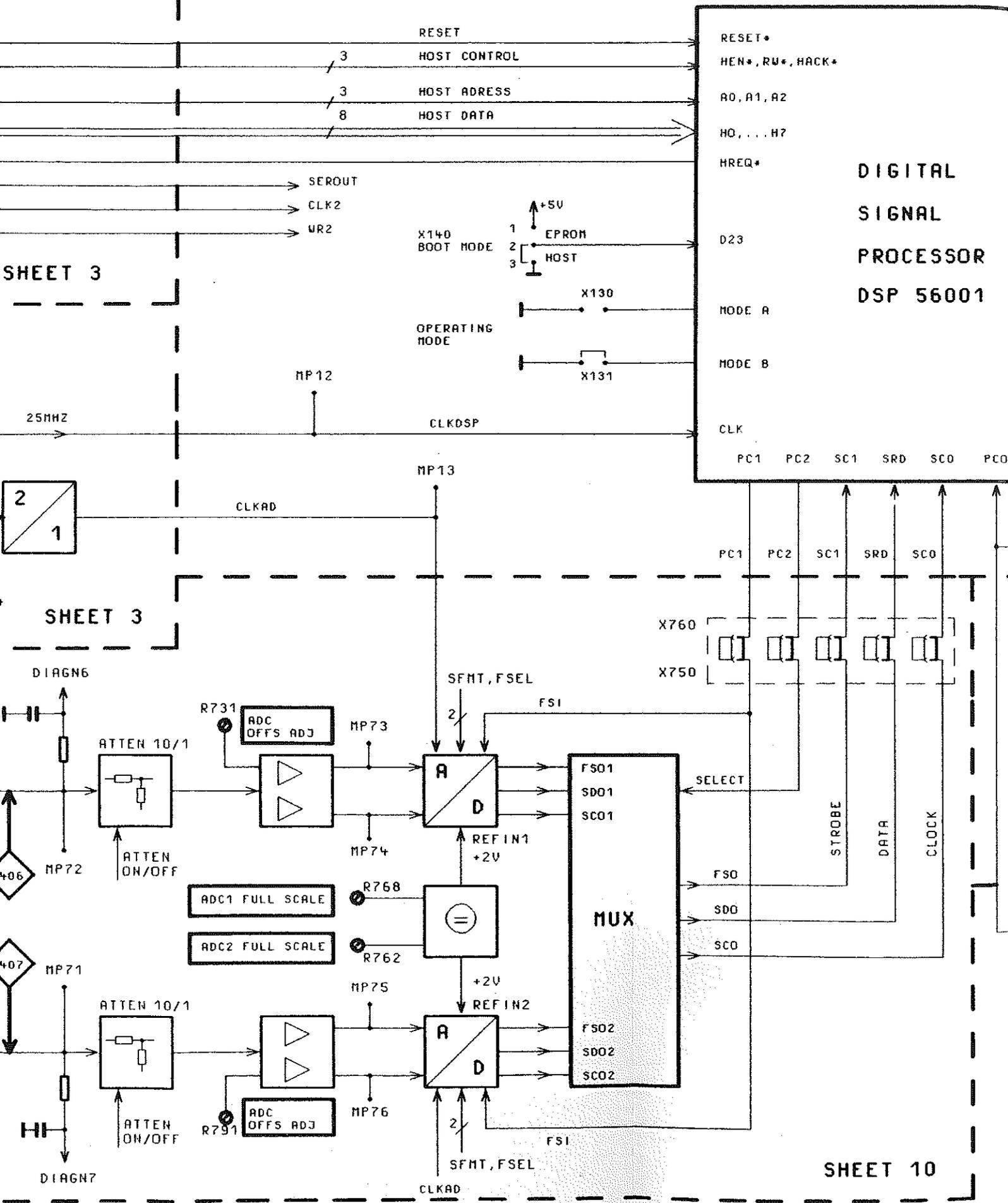
DIGITAL SIGNAL PROCESSOR



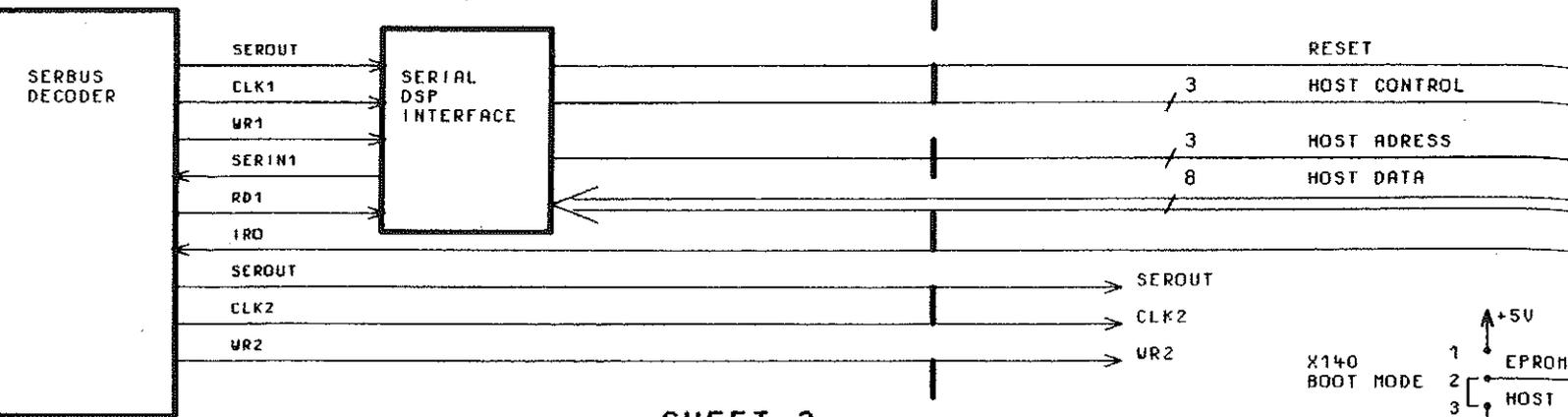
SHEET 10

01/		16.10.92	HO	1GPK	TAG	
				BEARR.		
				GEPR.		
				NDRN		
				PLOTT	28.07.94	
02/	48742 00	27.07.94	HO			
REND. IND.	RENDERUNGS-NITTEILUNG	DATUR	NAME	 ROHDE & SCHWARZ ZU GERNET SMP		

DIGITAL SIGNAL PROCESSOR

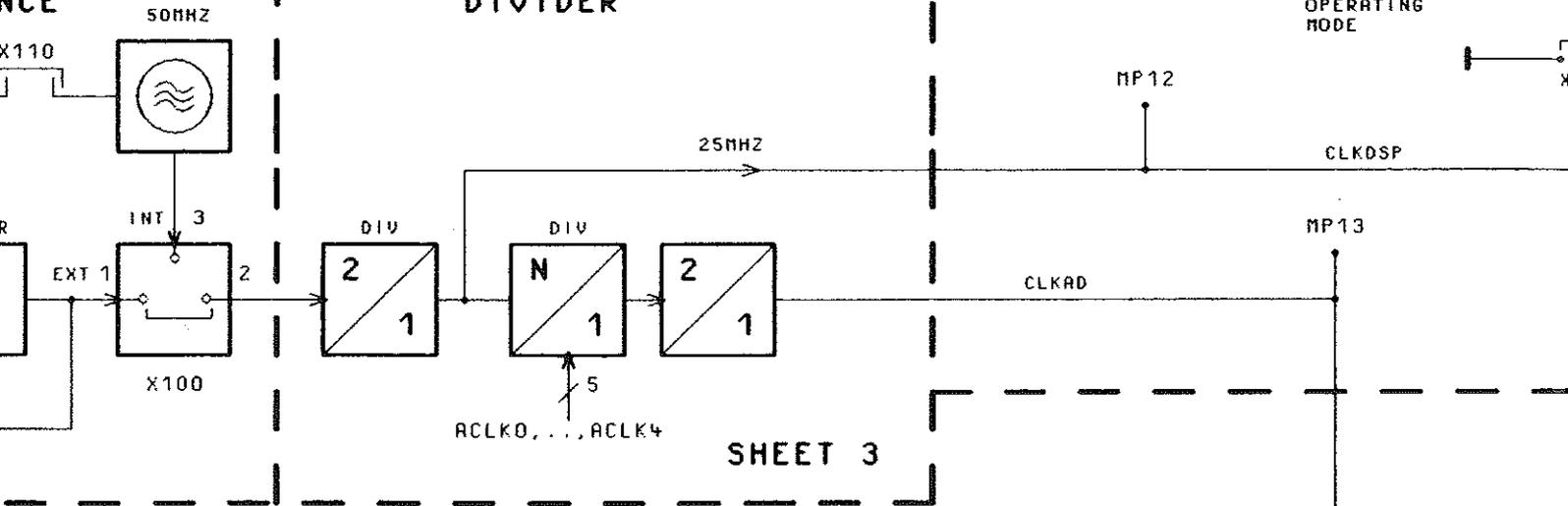


SERIAL CONTROL INTERFACE



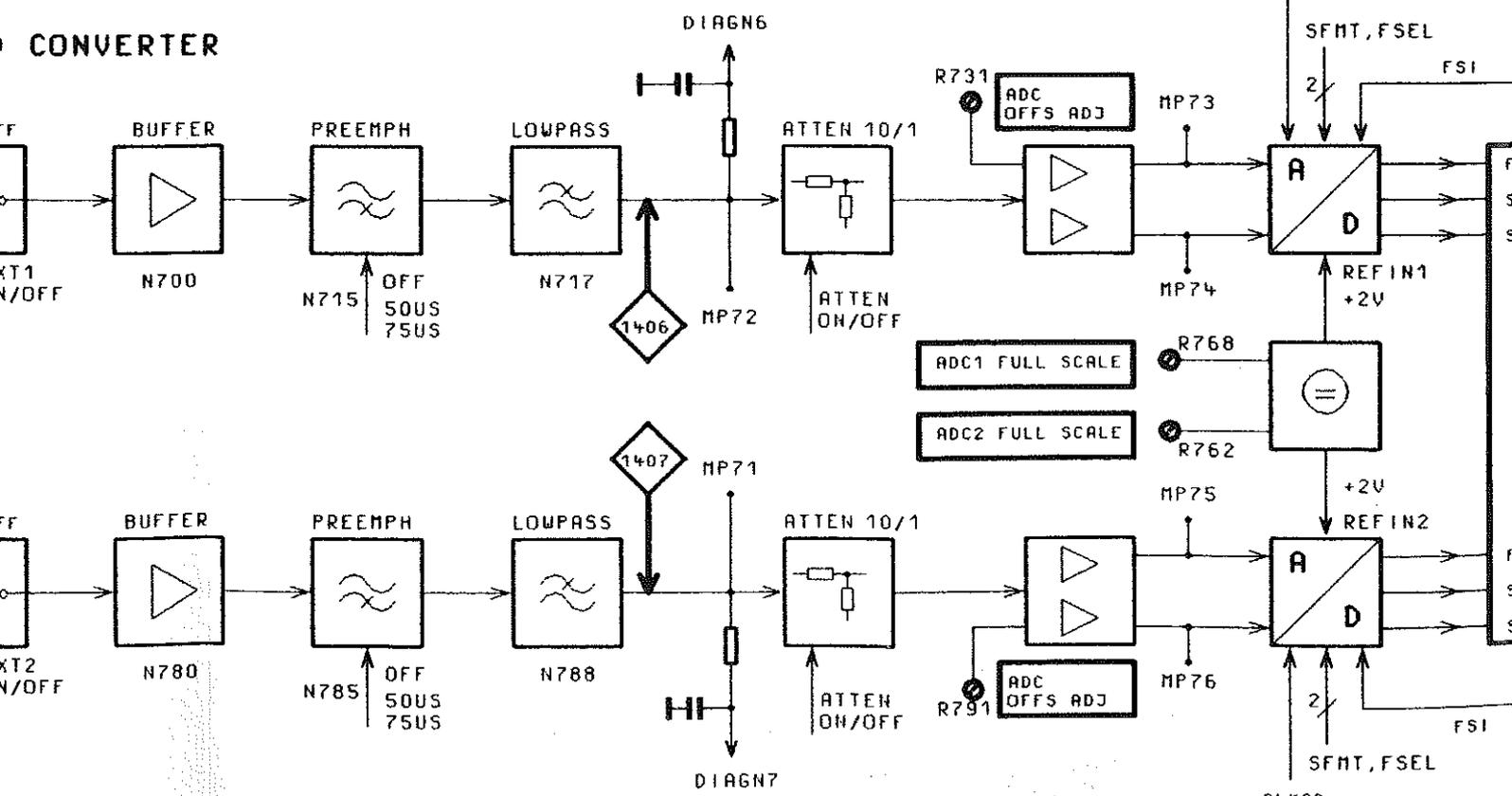
SHEET 3

DIVIDER

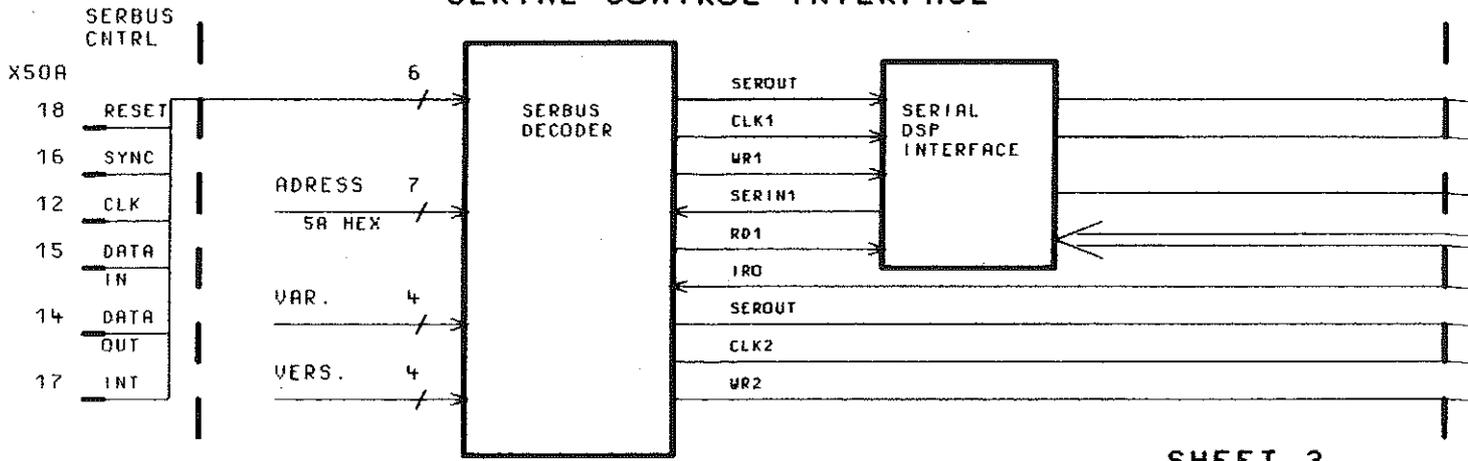


SHEET 3

CONVERTER



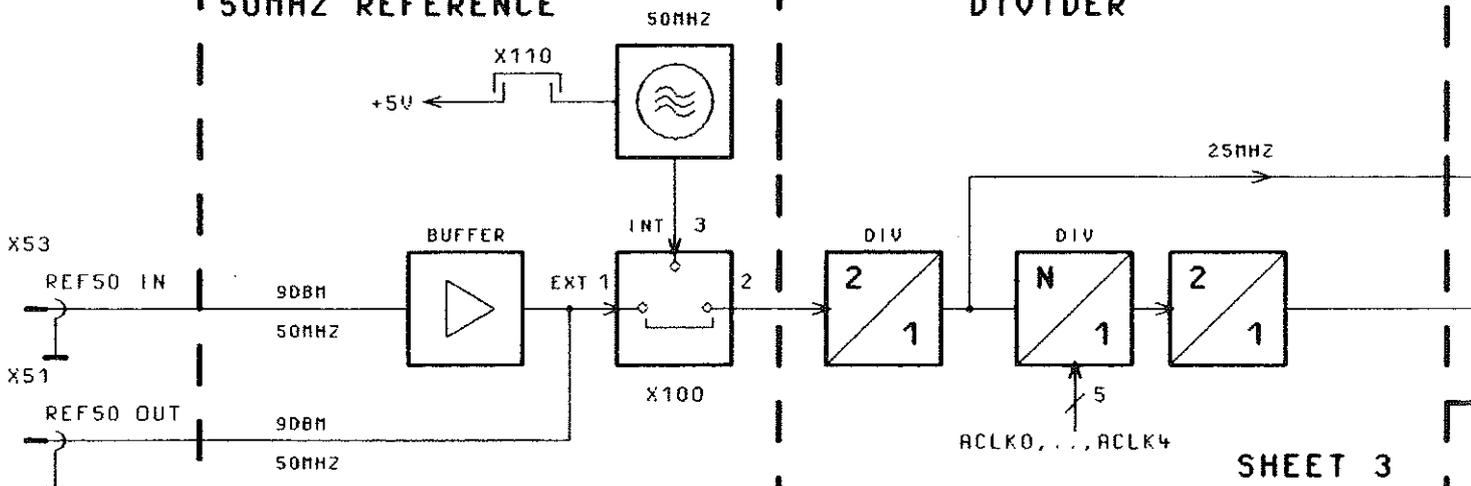
SERIAL CONTROL INTERFACE



SHEET 3

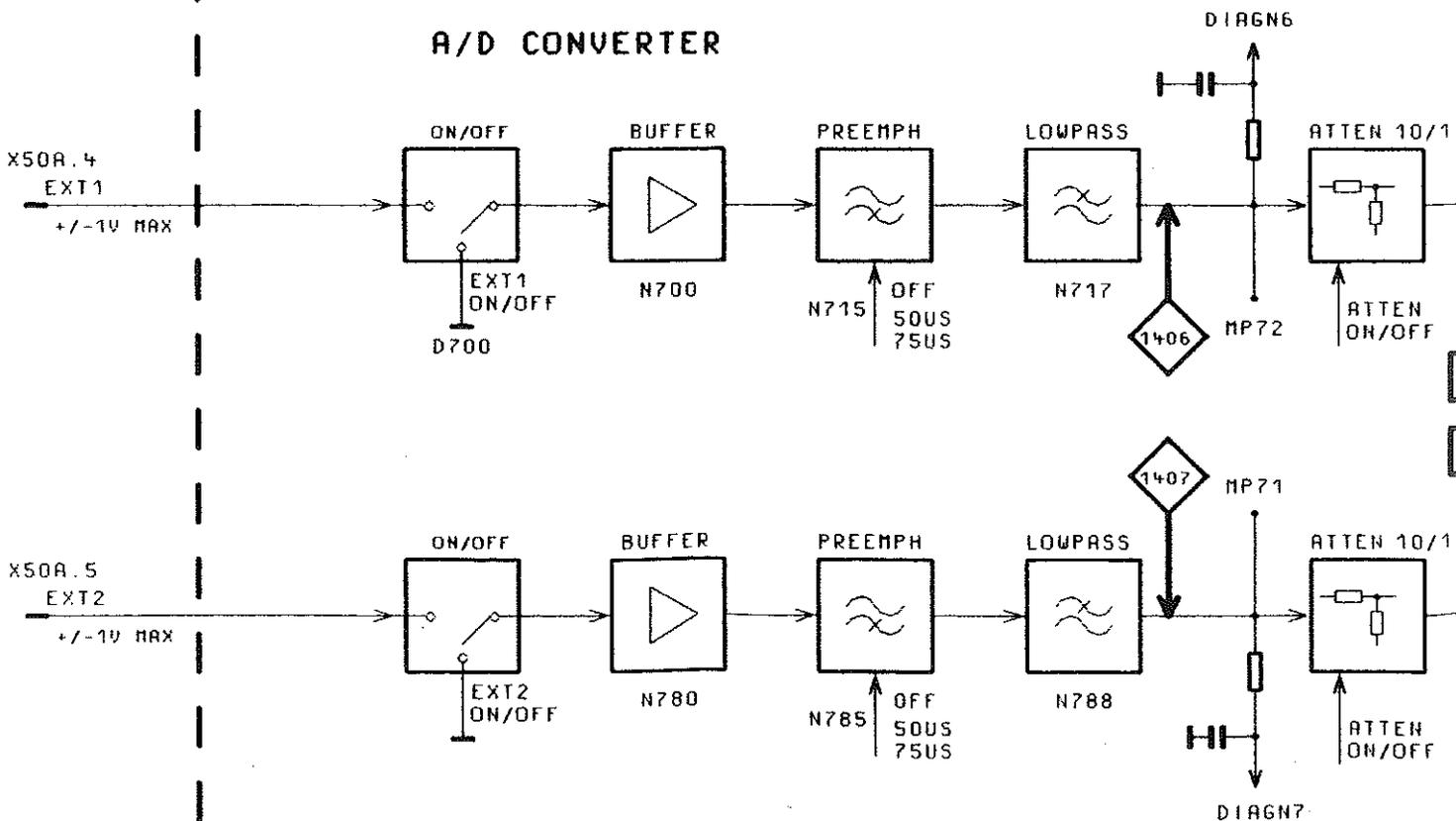
50MHZ REFERENCE

DIVIDER



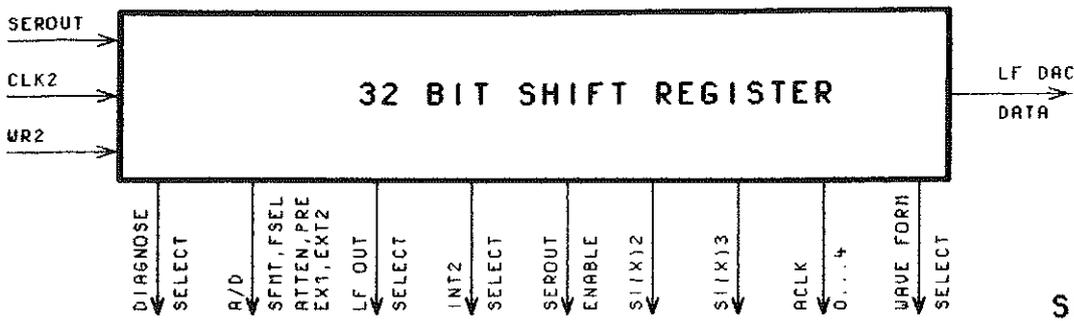
SHEET 3

A/D CONVERTER



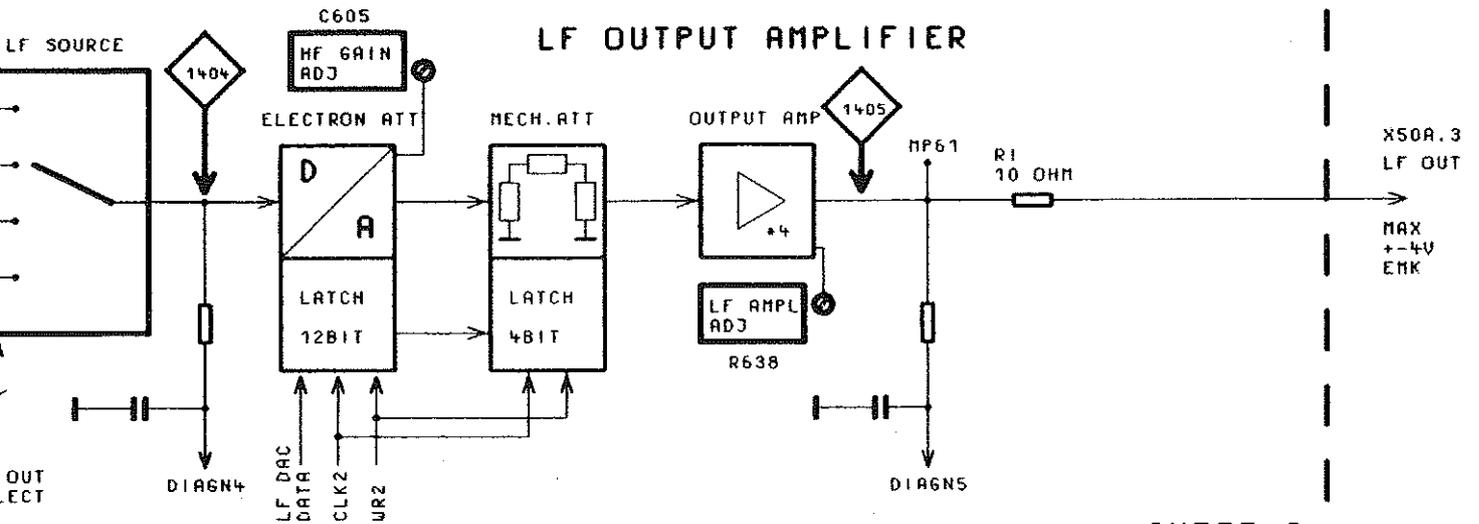
FÜR DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR.
 ZEICHN.-NR.

SHIFT REGISTER



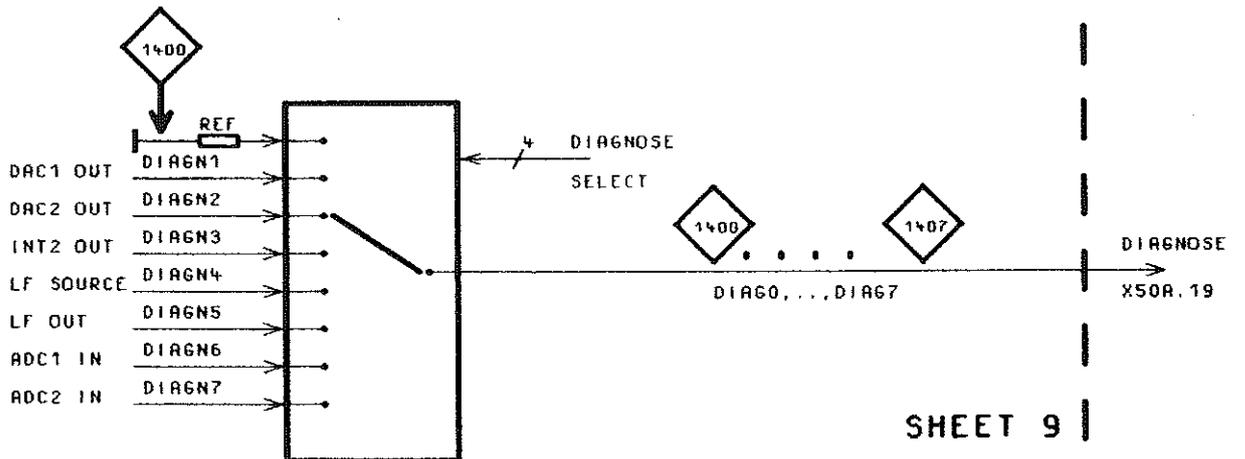
SHEET 9

LF OUTPUT AMPLIFIER



SHEET 9

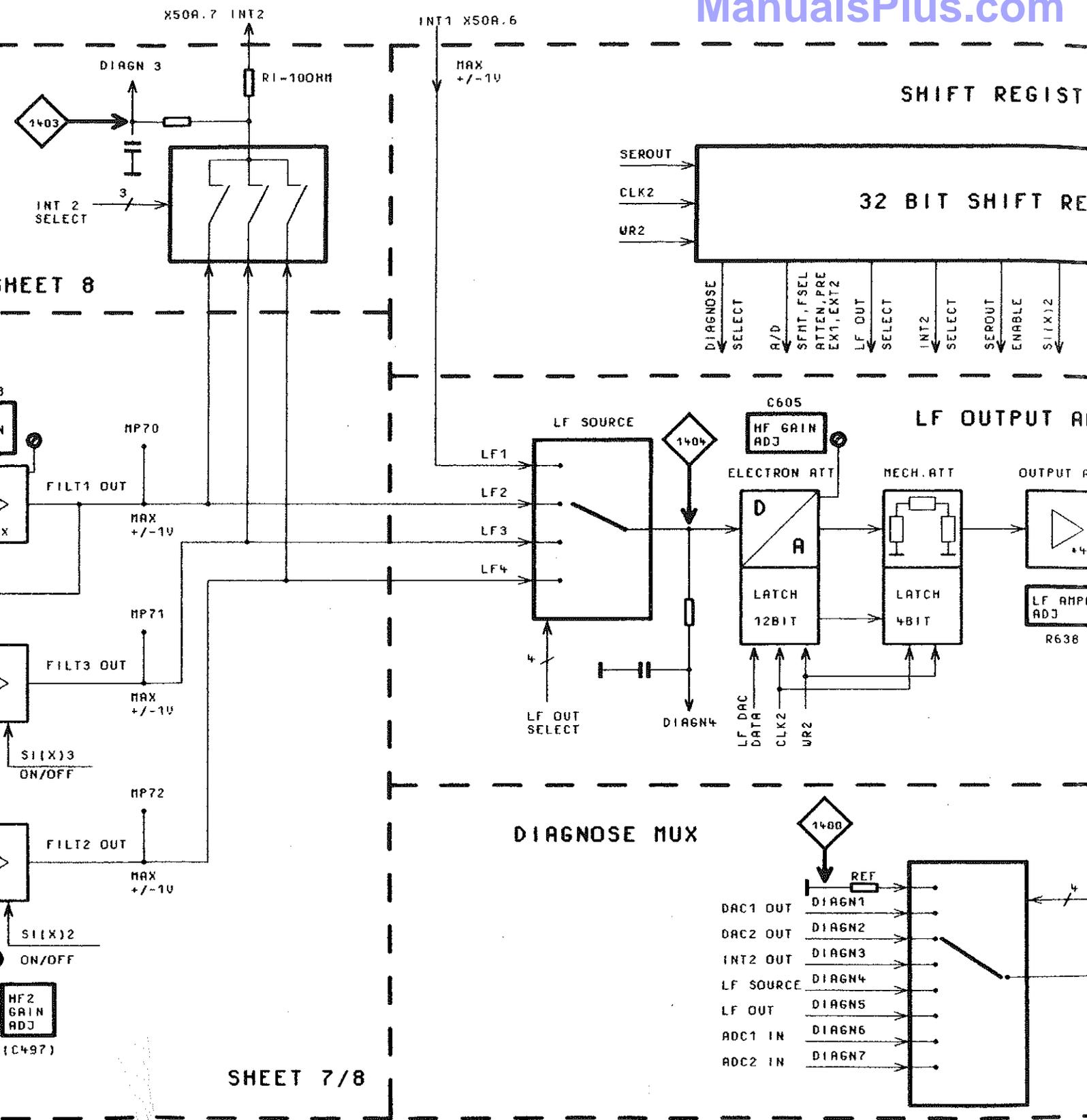
DIAGNOSE MUX



SHEET 9

20

01/		16.10.92	HO	1GPK	TRG	NARE	BENENNUNG	
				BEARB.		HO	MODULATIONSGENERATOR MOD. GEN	
				GEPP.				
				NOPN				
				PLOTT	28.07.94			
02/	48742 00	27.07.94	HO			ZEICHN.-NP.		BLATT-NR.
REND. IND.	RENDERUNGS-MITTEILUNG	DATUR	NARE			1036.8272.015		2+
				ROHDE & SCHWARZ		PEG. I. V.	1036.8250	ERSTE Z.
				ZU GERÄT SMP			1036.8250	



SHEET 8

SHEET 7/8

STROMLAUF GILT FUER VAR.02,04,20

CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,20

01/		16.10.92	HO	16PK	1AG	NAME
				BEARB.		HO
				GEPP.		
				WOPR		
				PL011	28.07.94	
02/	48742 00	27.07.94	HO			
REND. IND.	ÄNDERUNGS-NITTEILUNG	DATUM	NAME			
				ZU GERÄT	SMP	

SHEET 6

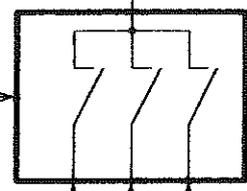
INT2 SELECT

DIAGN 3

R1-100HM



INT 2 SELECT



SHEET 8

FILTER

DIAGN 1



X390

LOW PASS 1MHZ



7.ORD.

C523

HF1 GAIN ADJ



FILT1 OUT

MP70

MAX +/-1V

DAC1 OUTPUT

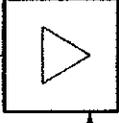
SHEET 7

DIAGN 2



X460

LOW PASS 100KHZ



FILT3 OUT

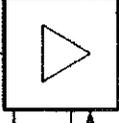
MP71

MAX +/-1V

DAC2 OUTPUT

MAX +/-3V

LOW PASS 200KHZ



FILT2 OUT

MP72

MAX +/-1V

SI(X)2 ADJ

R493

HF2 GAIN ADJ

(C497)

SI(X)2 ON/OFF

SI(X)3 ON/OFF

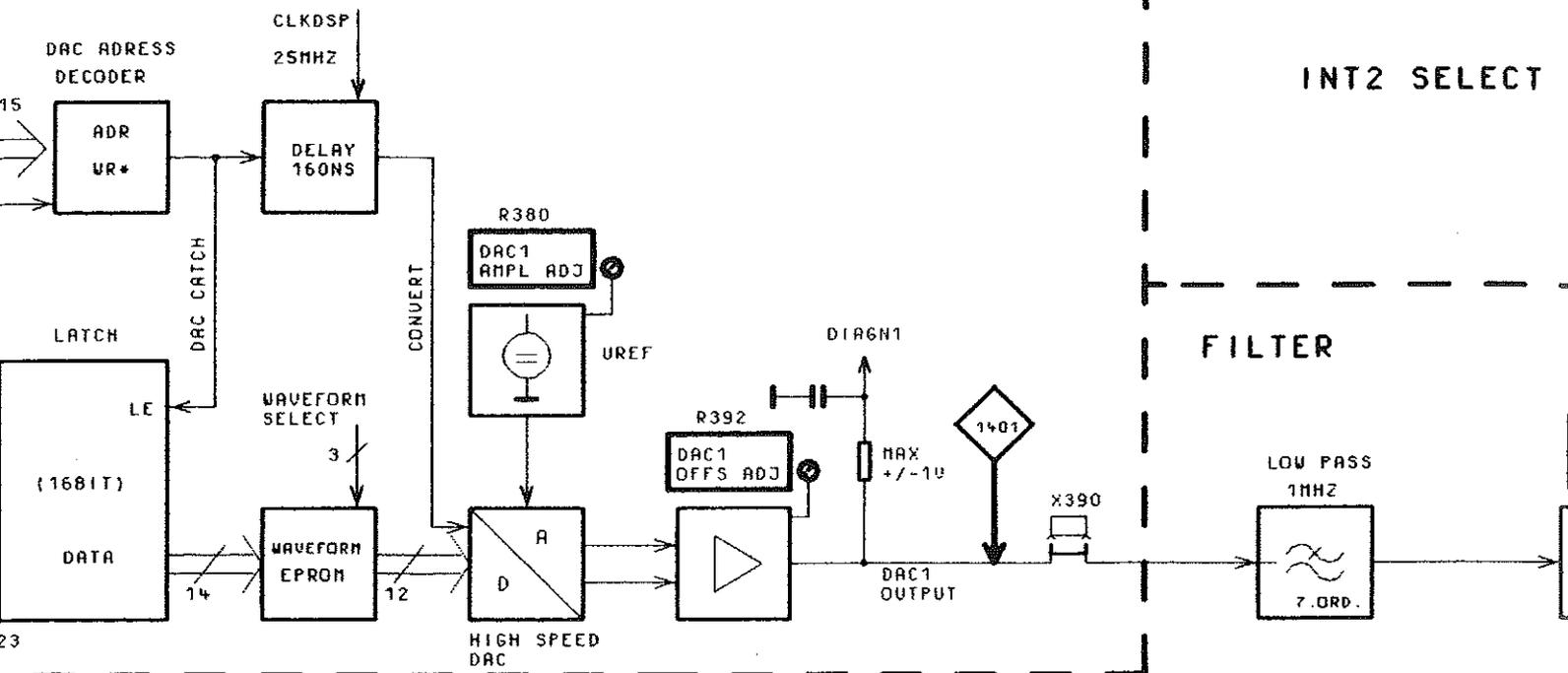
SHEET 7/8

STROMLAUF GILT FUER VAR.02,04

CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,20

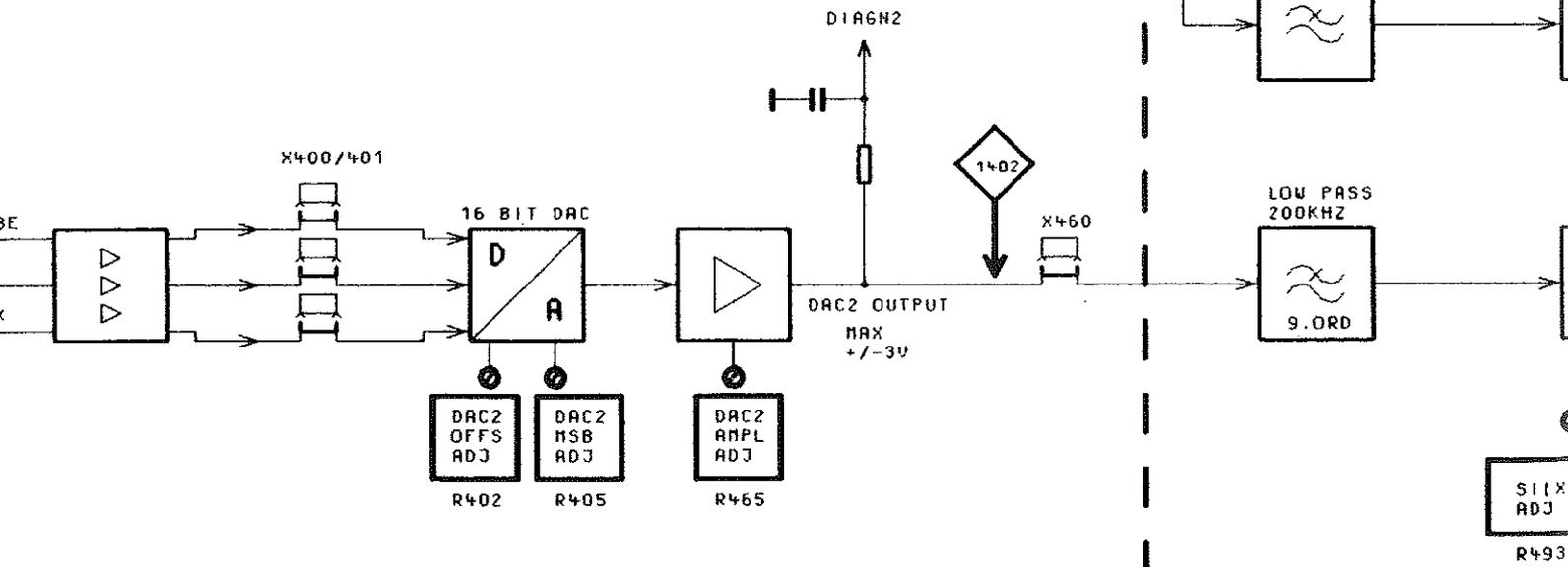
HIGH SPEED D/A CONVERTER

SHEET 6



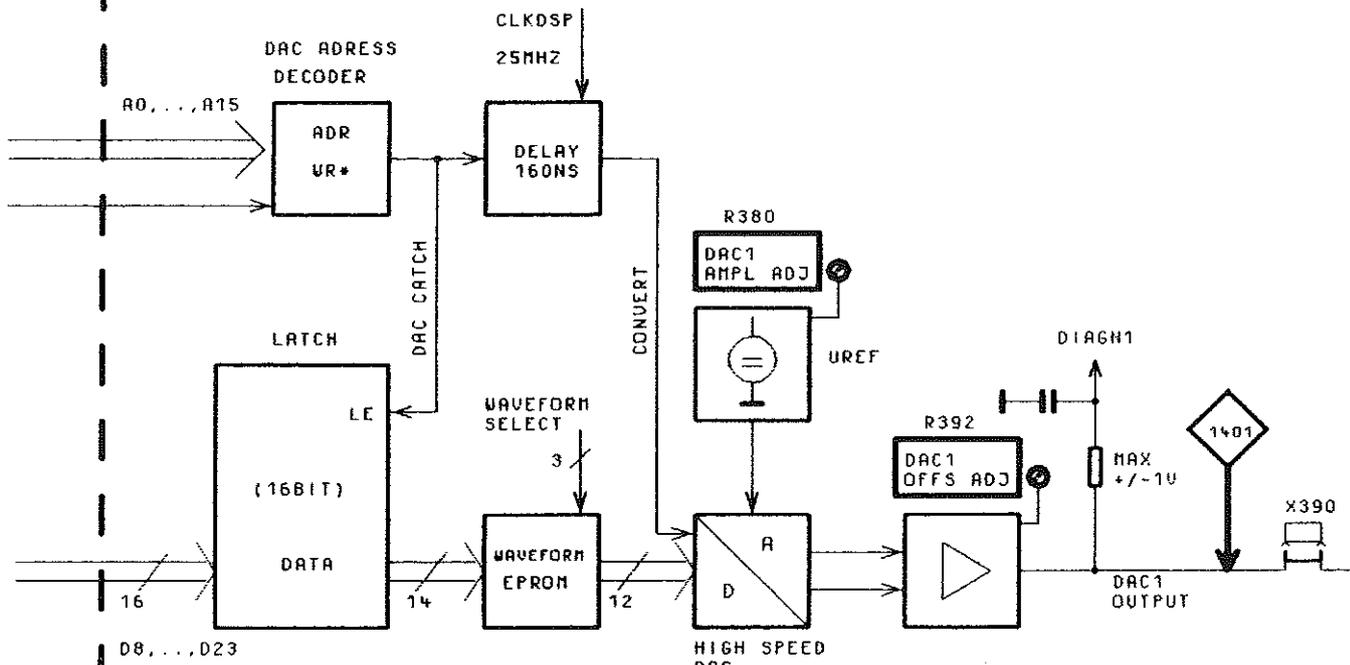
SERIAL D/A CONVERTER

SHEET 7



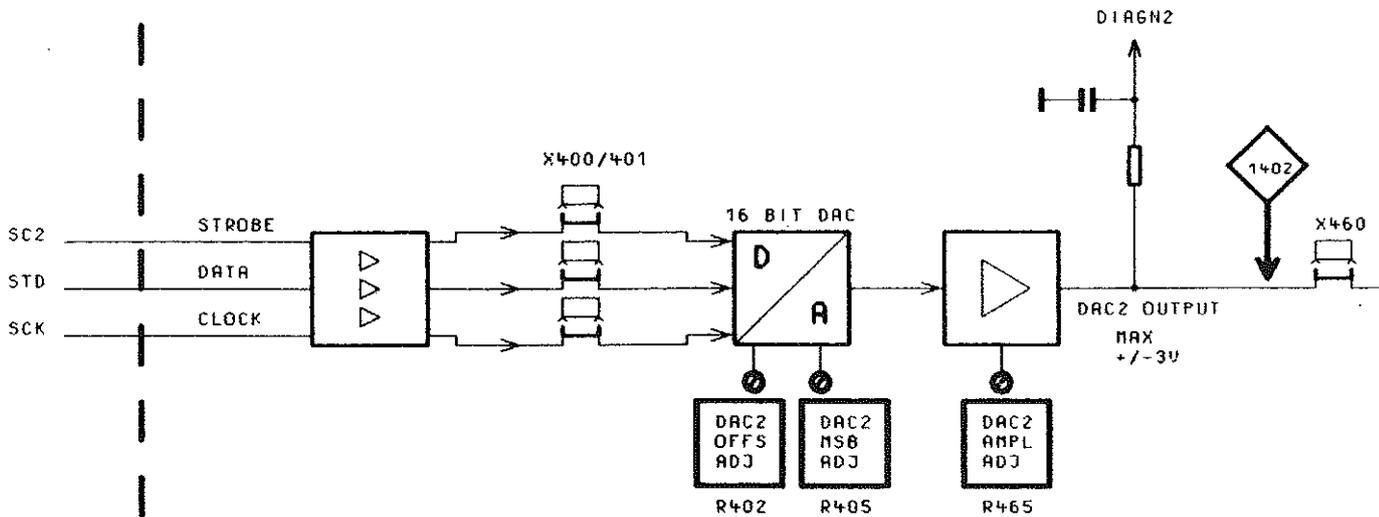
HIGH SPEED D/A CONVERTER

SHEET 6



SERIAL D/A CONVERTER

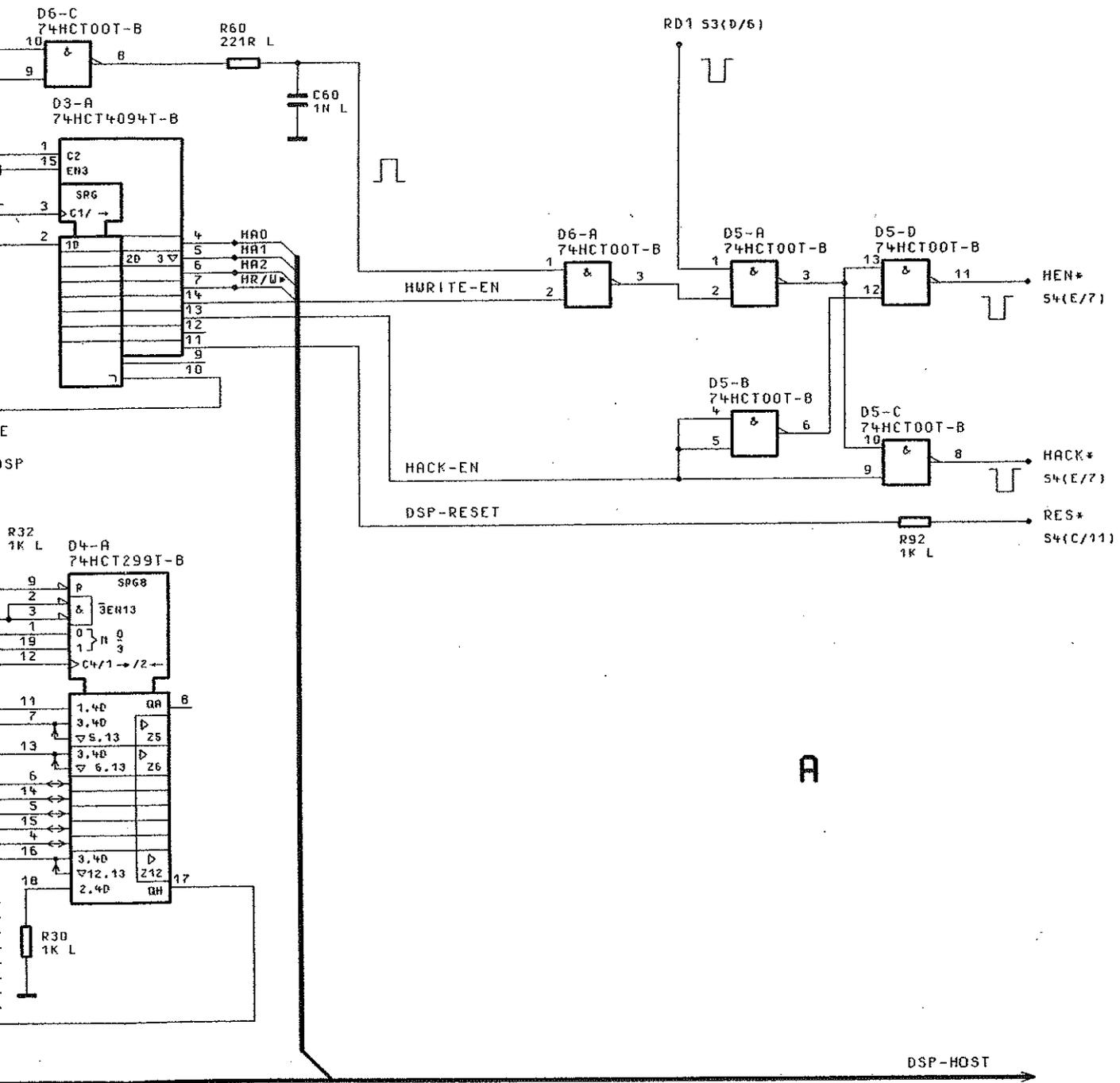
SHEET 7



BEHALTEN WIP UNS ALLE RECHTE VOR
FUER DIESE UNTERLAGE

ZEICHN.-NR.

P INTERFACE



02/03	50237 02	06.09.96	BU	1GPK	TAG	NAM	BENENNUNG	
				BEARB.		HO	MODULATIONSGENERATOR MOD. GEN	
				GEPR.				
				NORN				
				PLOTT	06.09.96			
02/02	50237 01	12.05.96	HO	 ROHDE & SCHWARZ		ZEICHN.-NR.		BLATT-NR.
REND. IND.	BENDERUNGS-RITTEILUNG	DATUM	NAM			1036.8272.015		3+
				ZU GERÄT	SMP	REG.-I.V.	1036.8250	ERSTE Z.
							1036.8250	

SERIAL DSP 1

USTAND STROMLAUF
/ R12 / R13

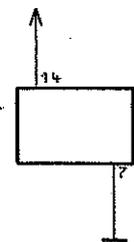
R17	*

STUECKT

- 10K L *
- 10K L
- 10K L *
- 10K L *
- 10K L
- 10K L
- 10K L *

R21
10K L

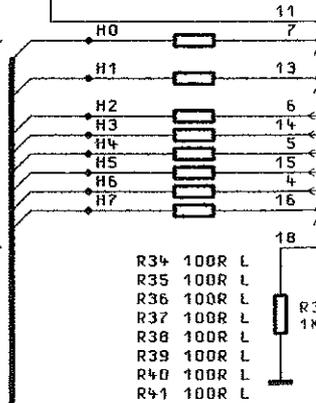
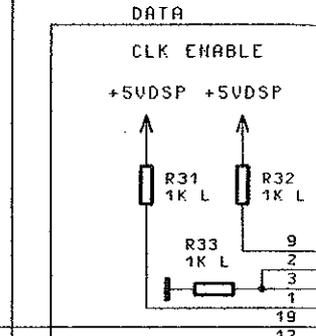
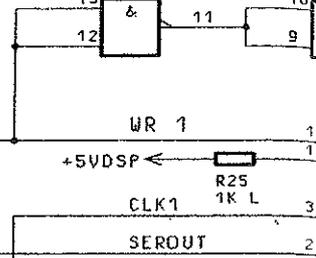
+5VDSP



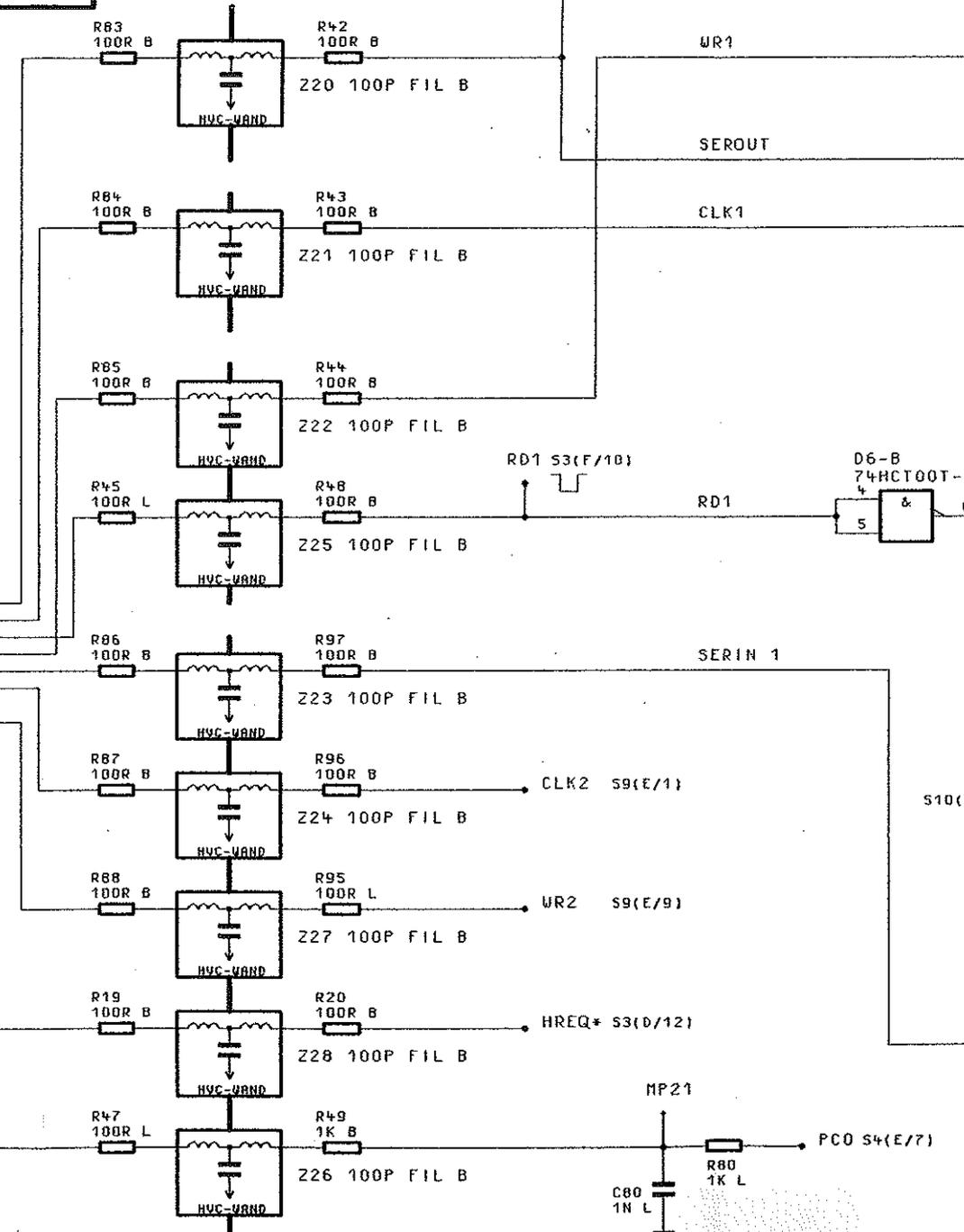
D6-E
74HCT00T-B

SEROUT S9(F/8)

D6-D
74HCT00T-B



- R34 100R L
- R35 100R L
- R36 100R L
- R37 100R L
- R38 100R L
- R39 100R L
- R40 100R L
- R41 100R L



STROMLAUF GILT FUER VAR.02,04,08,20

CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,08,20



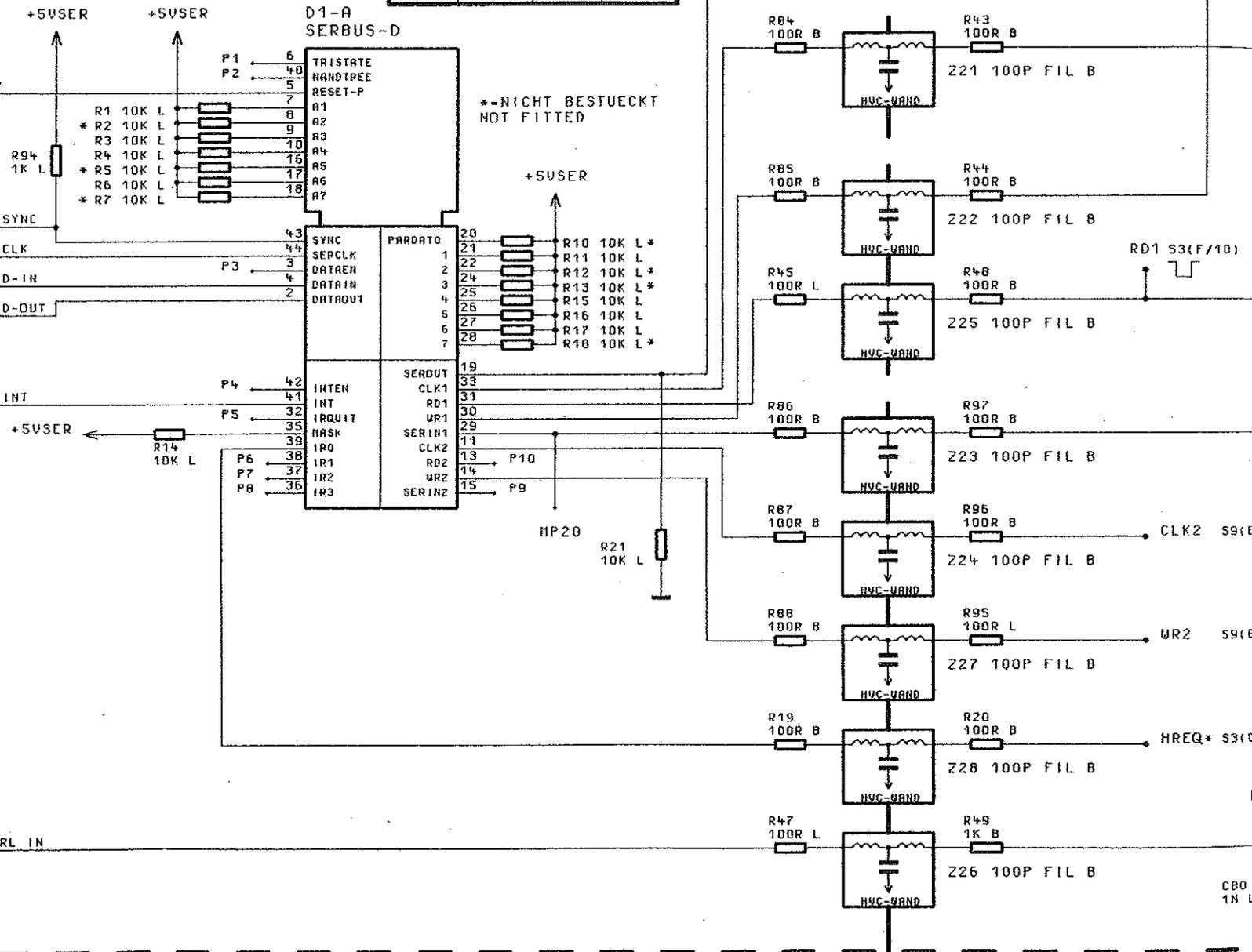
ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHREDETE
BAUELEMENTE ERFORDERN EINE
BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES
REQUIRE A SPECIAL HANDLING

SERBUS CONTROL INTERFACE

SERBUS-ADRESSE
R1...R7
NGEN: 5A HEX

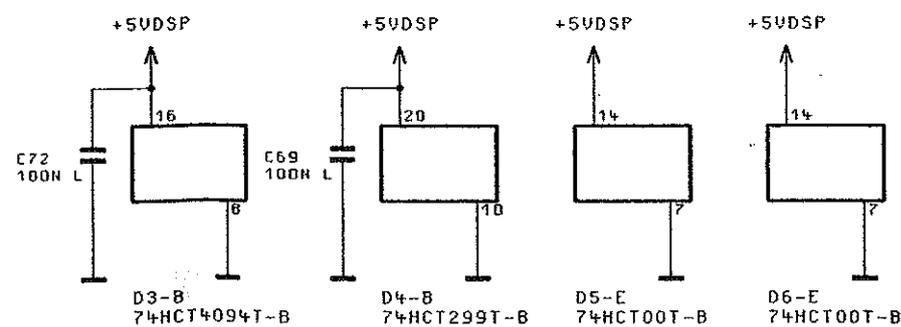
ÄNDERUNGSZUSTAND STROMLAUF
R10 / R11 / R12 / R13

VARIANTE	R15 R16 R17		
	VAR04	*	
VAR08	*	*	



STROMLAUF GILT FUER

CIRCUIT DIAGRAM IS VALID FOR M



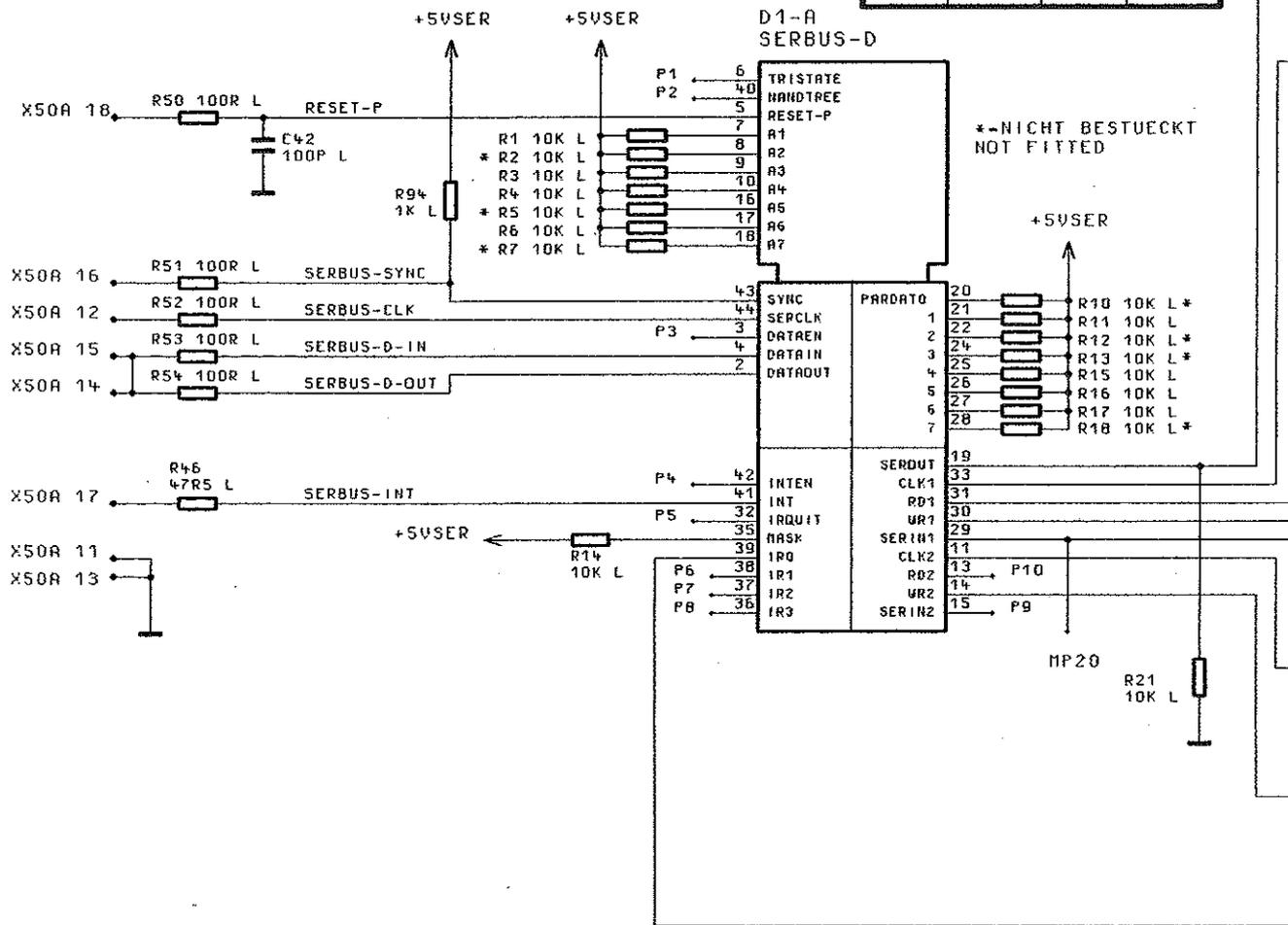
SERBUS CONTROL INTERFACE

G

SERBUS-ADRESSE
R1...R7
MGEN: 5A HEX

ÄNDERUNGSZUSTAND STROMLAUF
R10 / R11 / R12 / R13

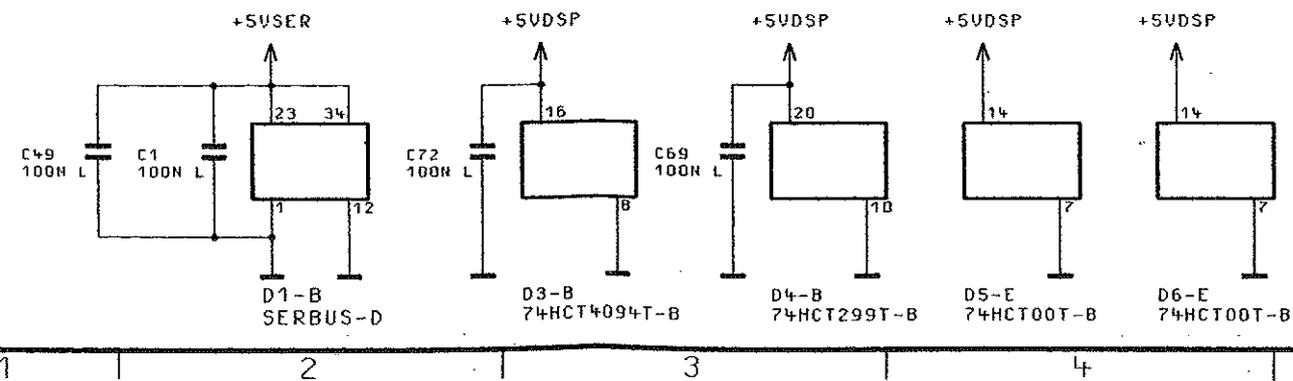
VARIANTE		
R15	R16	R17
VAR04	*	*
VAR08	*	*



FÜR DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR

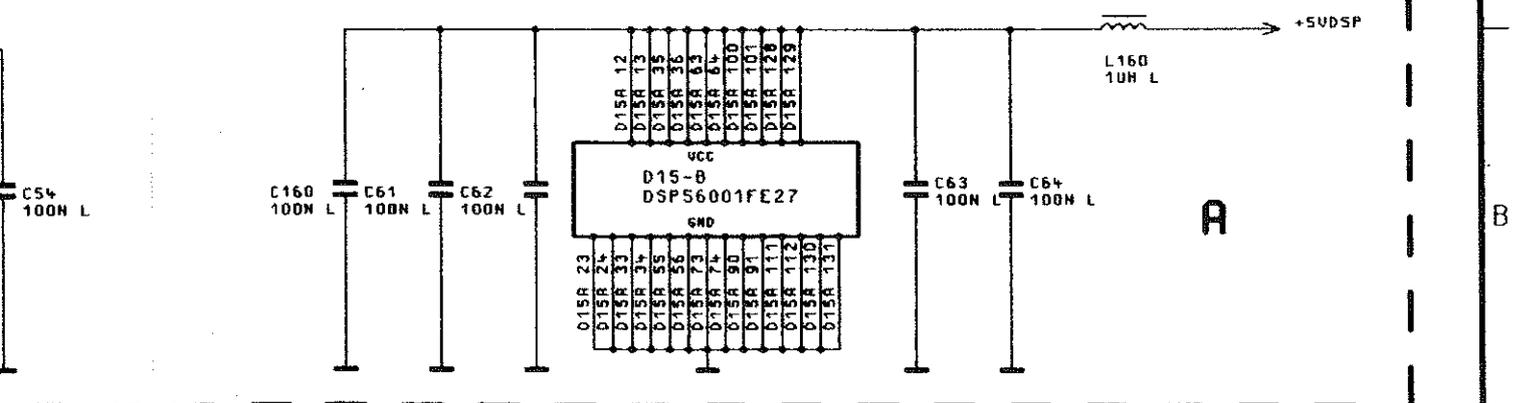
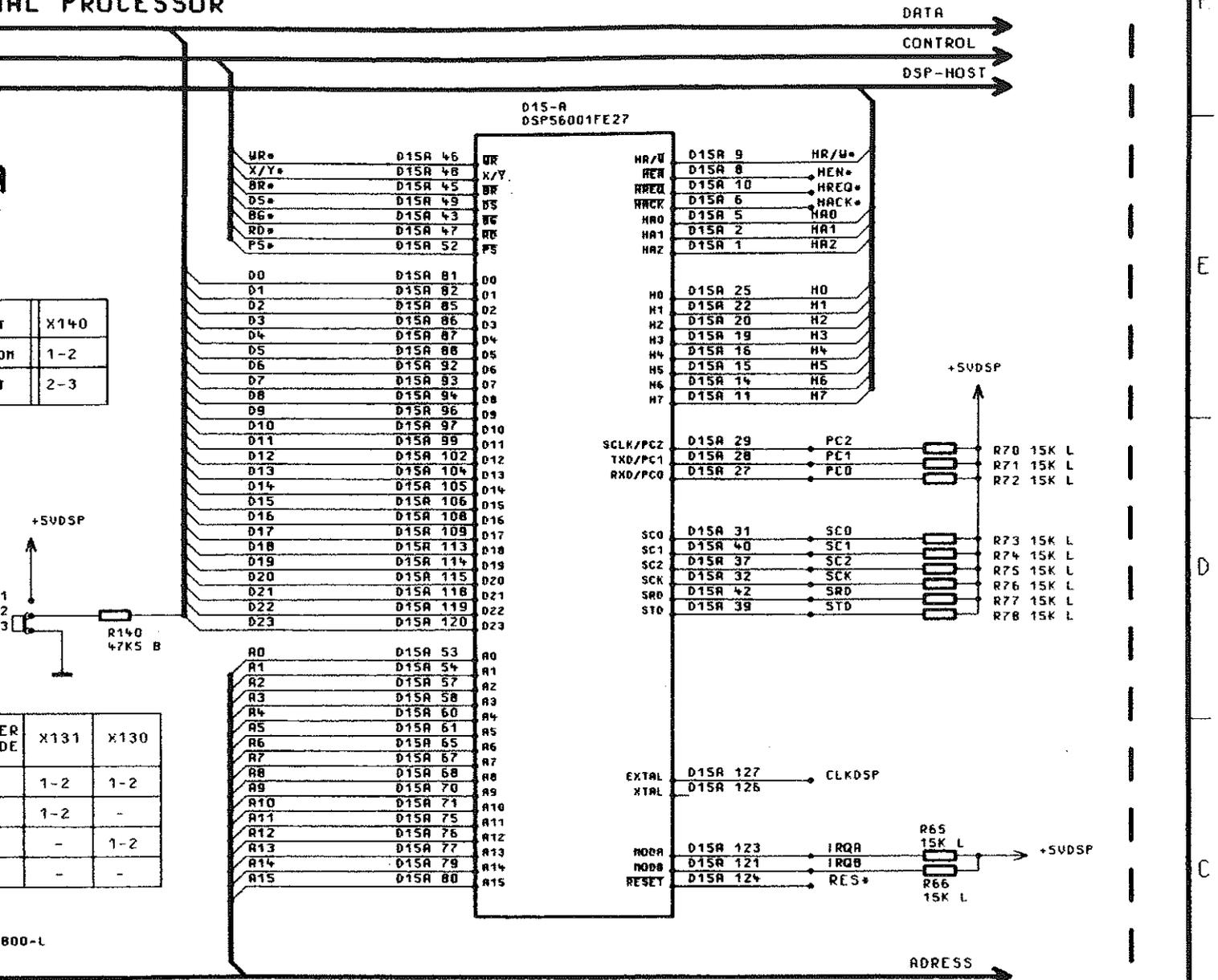
ZEICHN.-NR.

X50A 1 MODCTRL IN



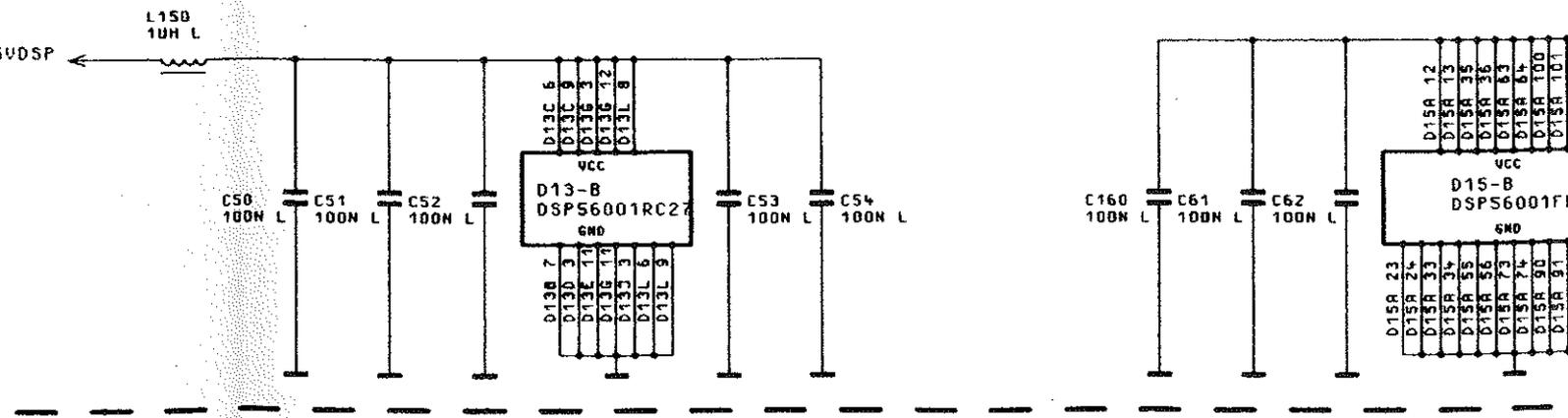
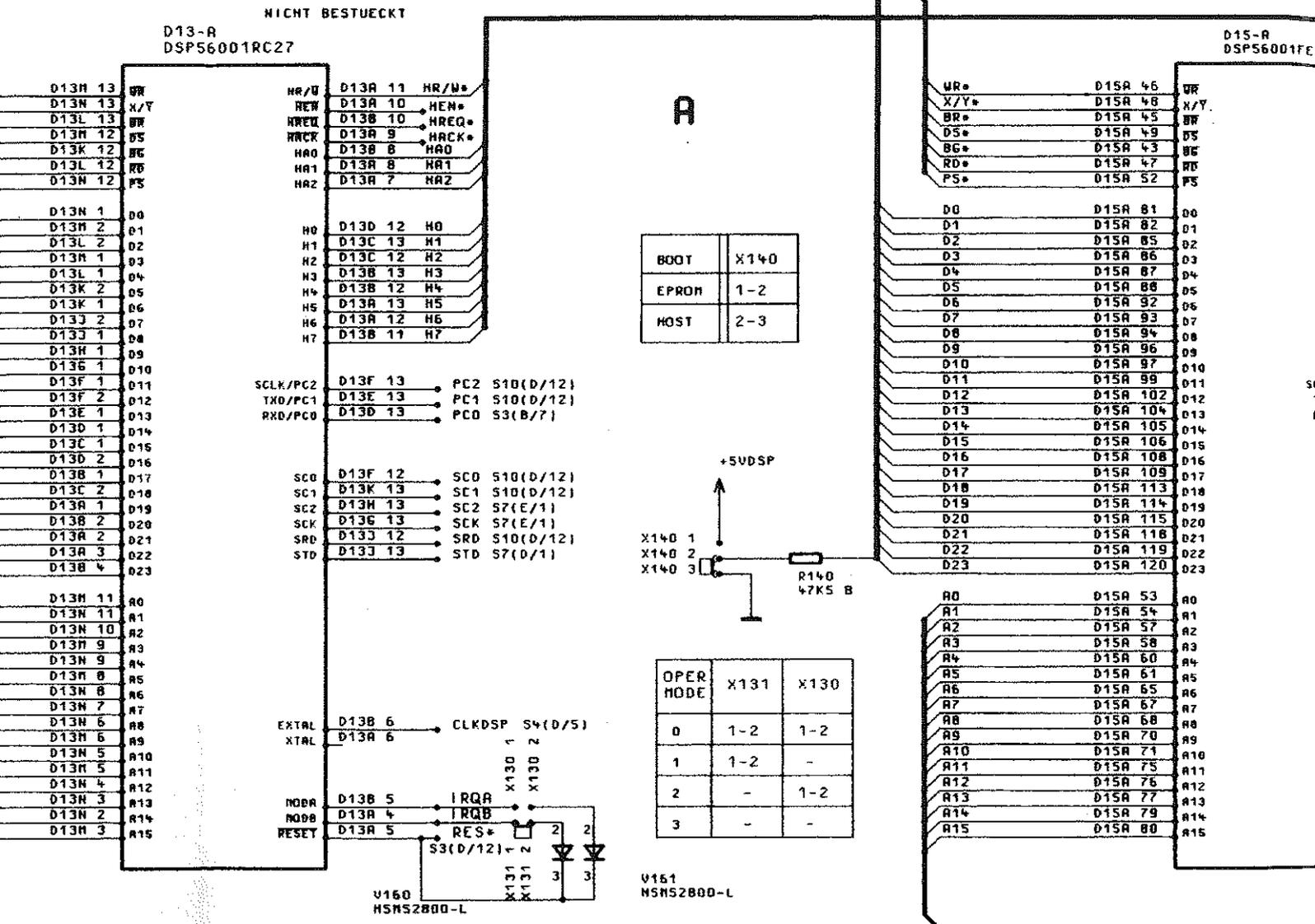
1 2 3 4

DIGITAL PROCESSOR



D1/	16.10.92	HO	1GPK	TAG	NAME	BENENNUNG
			BEARB.		HO	MODULATIONSGENERATOR MOD. GEN
			GEPR.			
			NORN			
			PLOTT	28.07.94		
D2/	48742 00	27.07.94	HO	ROHDE&SCHWARZ		ZEICHN.-NR.
REND. IND.	RENDERUNGS-MITTEILUNG	DATUM	NAME			1036.8272.015
				ZU GEHÖRT	SMP	REG. I. N.
						1036.8250
						ERSTE Z.
						1036.8250

DIGITAL SIGNAL PROCESSOR

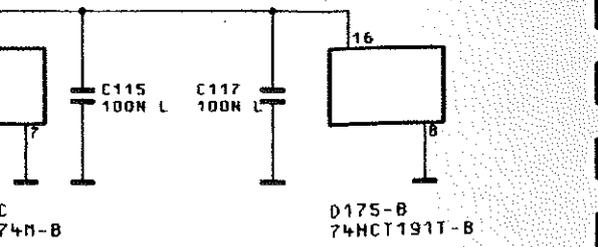
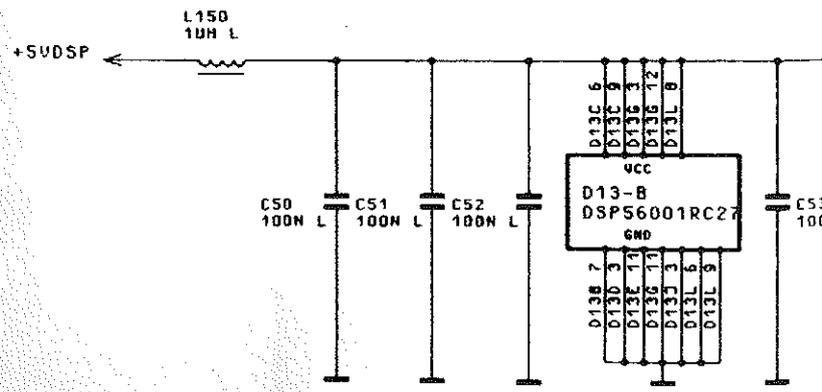
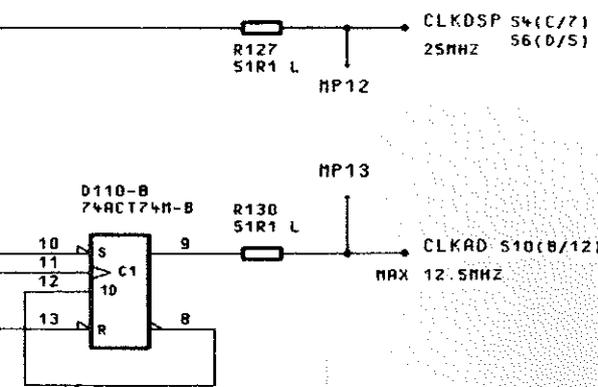
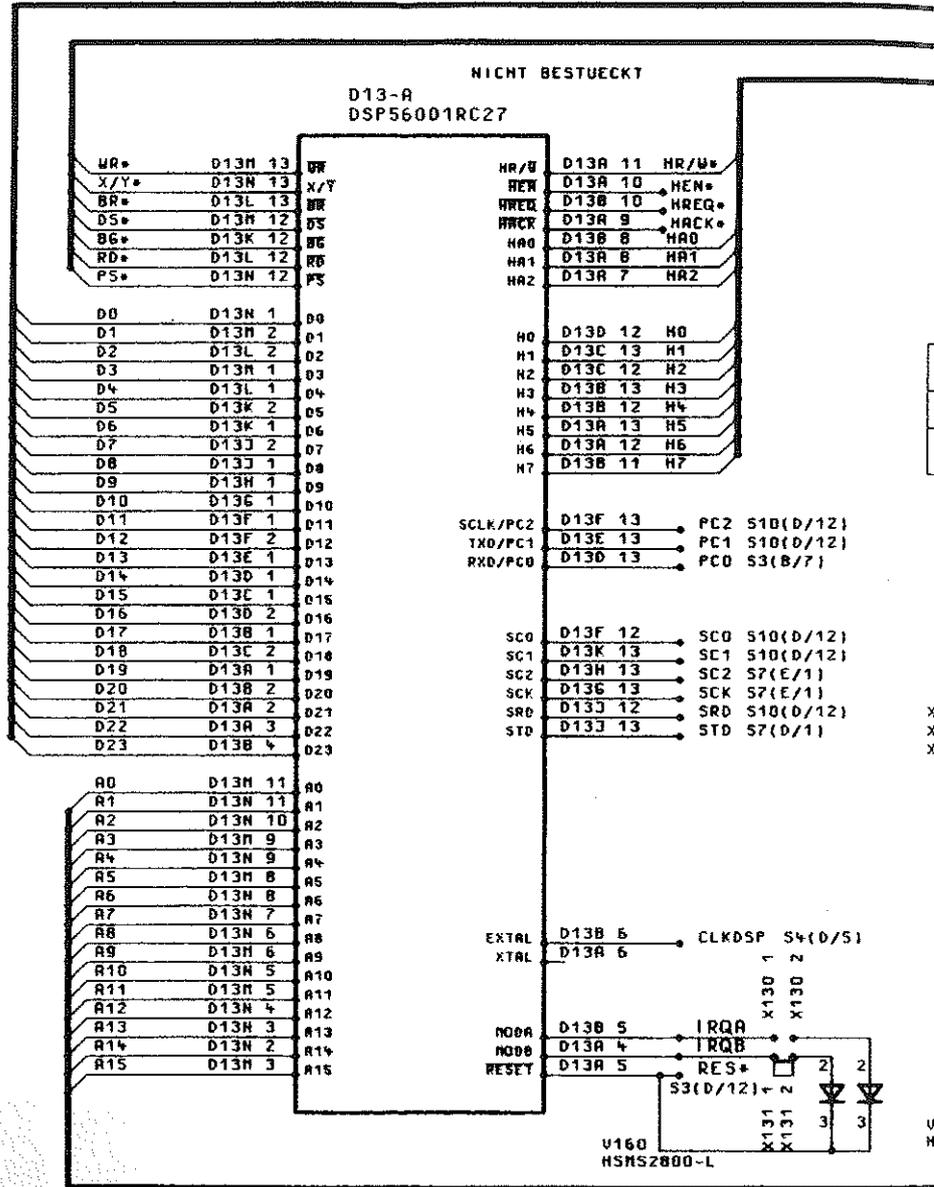
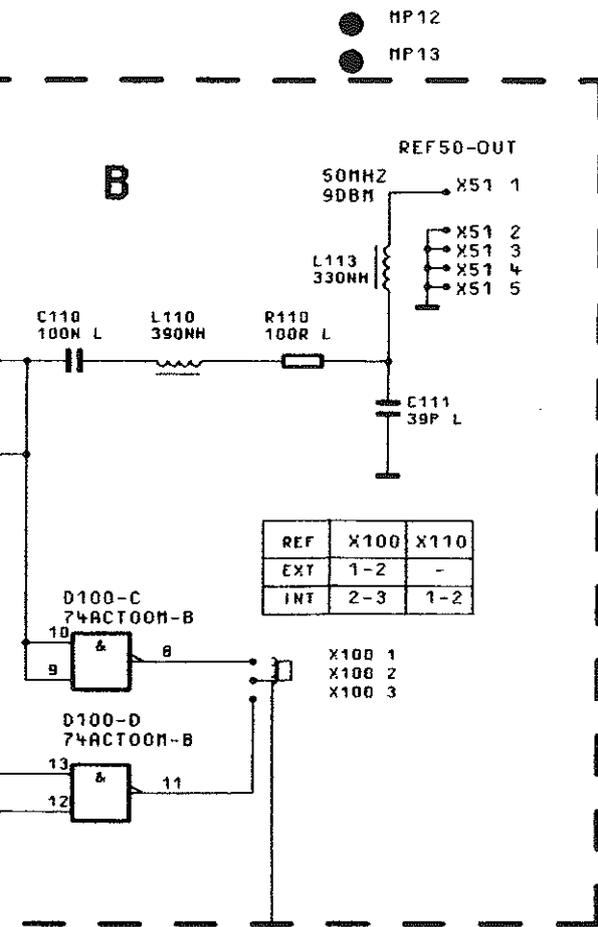


STROMLAUF GILT FUER VAR.02,04,20
CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,20

ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHRDETE
BAUELEMENTE ERFORDERN EINE
BESONDERE HANDHABUNG.

ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES
REQUIRE A SPECIAL HANDLING

01/		16.10.92	HO	1GPK	TAG	NAM
				BEARB.		HO
				GEPR.		
				NORM		
				PLOTT	28.07.94	
02/	48742 00	27.07.94	HO			
REND IND.	RENDEUNGS- MITTEILUNG	ORTUM	NARNE			
				ROHDE&SCHWA		
				ZU GEPREY	SMP	

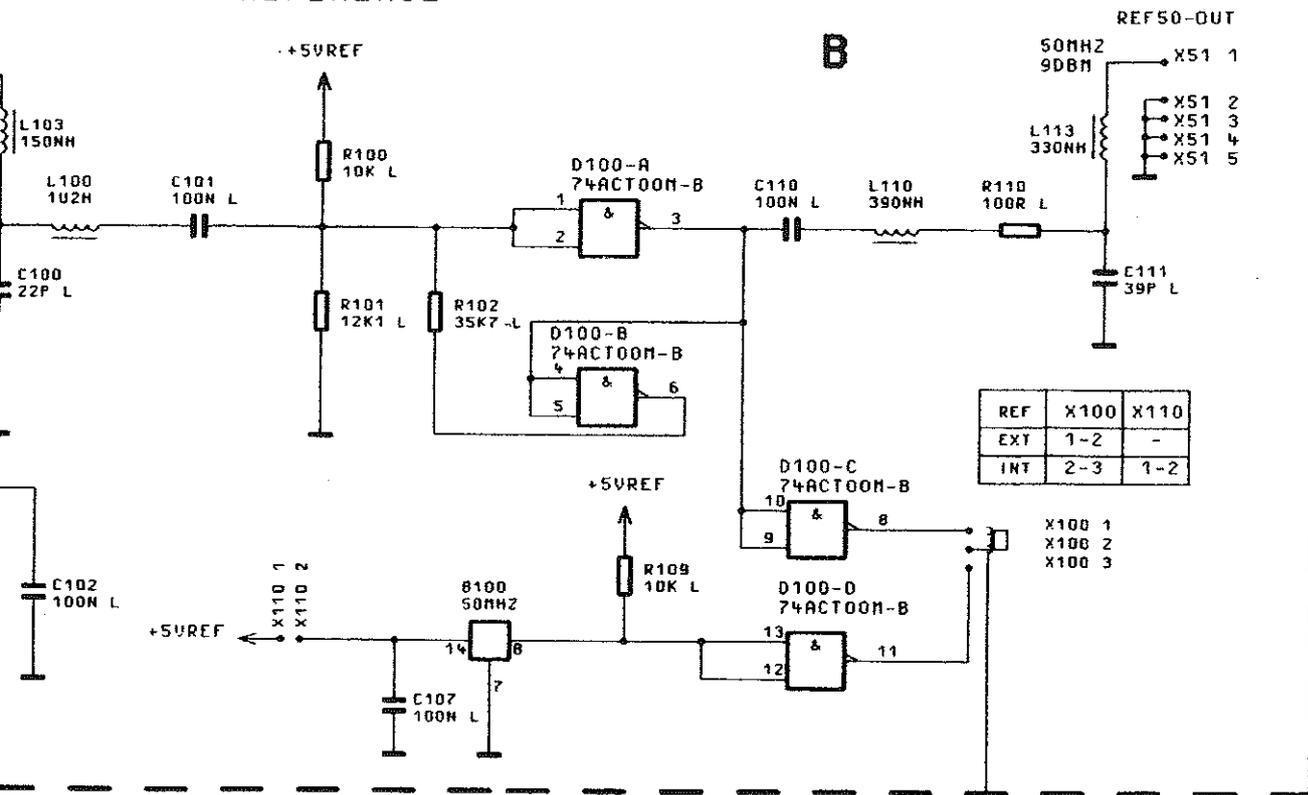


STROMLAUF GILT FUER VAR.02,04,20
CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,20

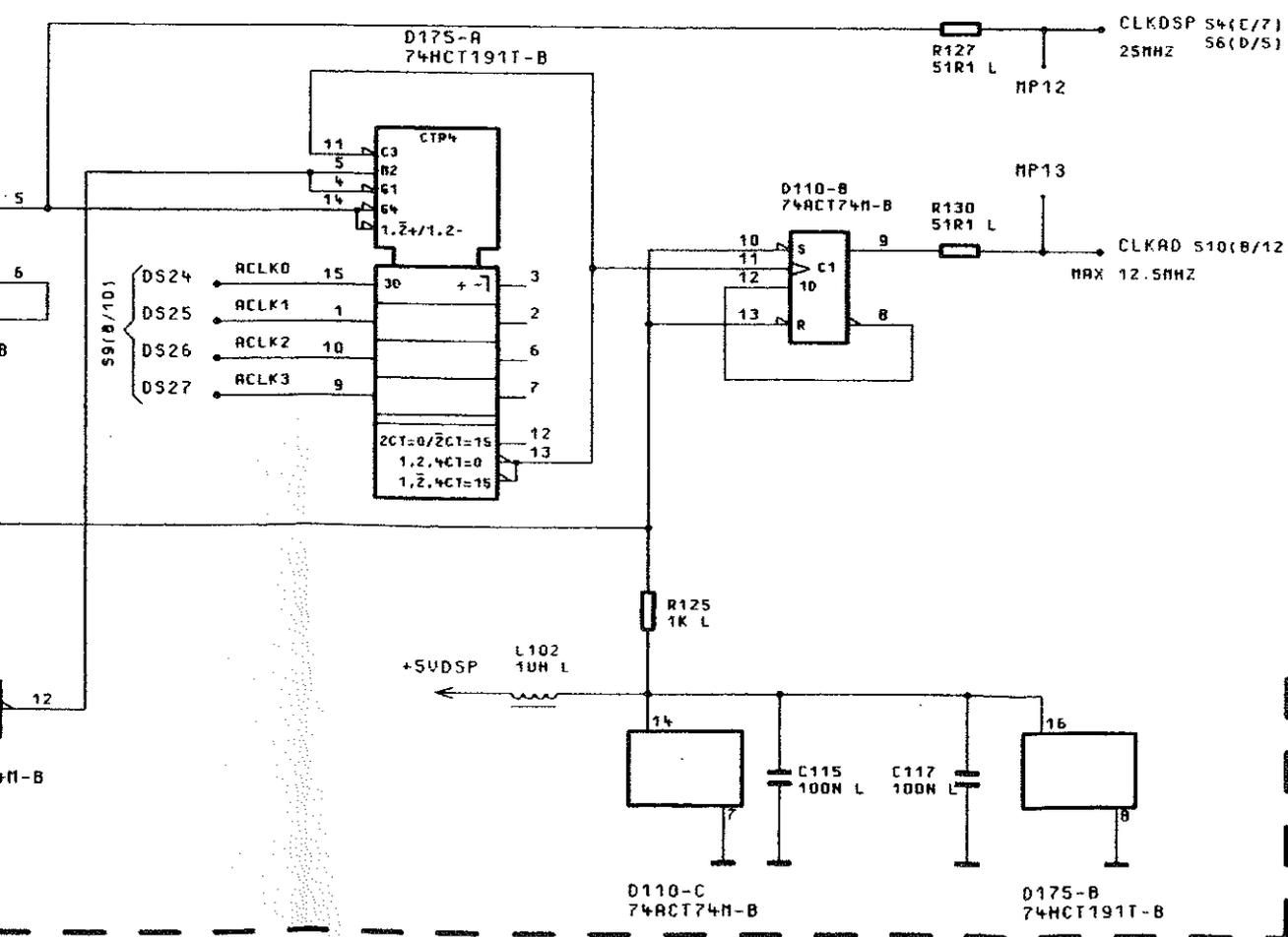


ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHRDETE
BAUELEMENTE ERFORDERN EINE
BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICE
REQUIRE A SPECIAL HANDLING

REFERENCE



CLK DIVIDER



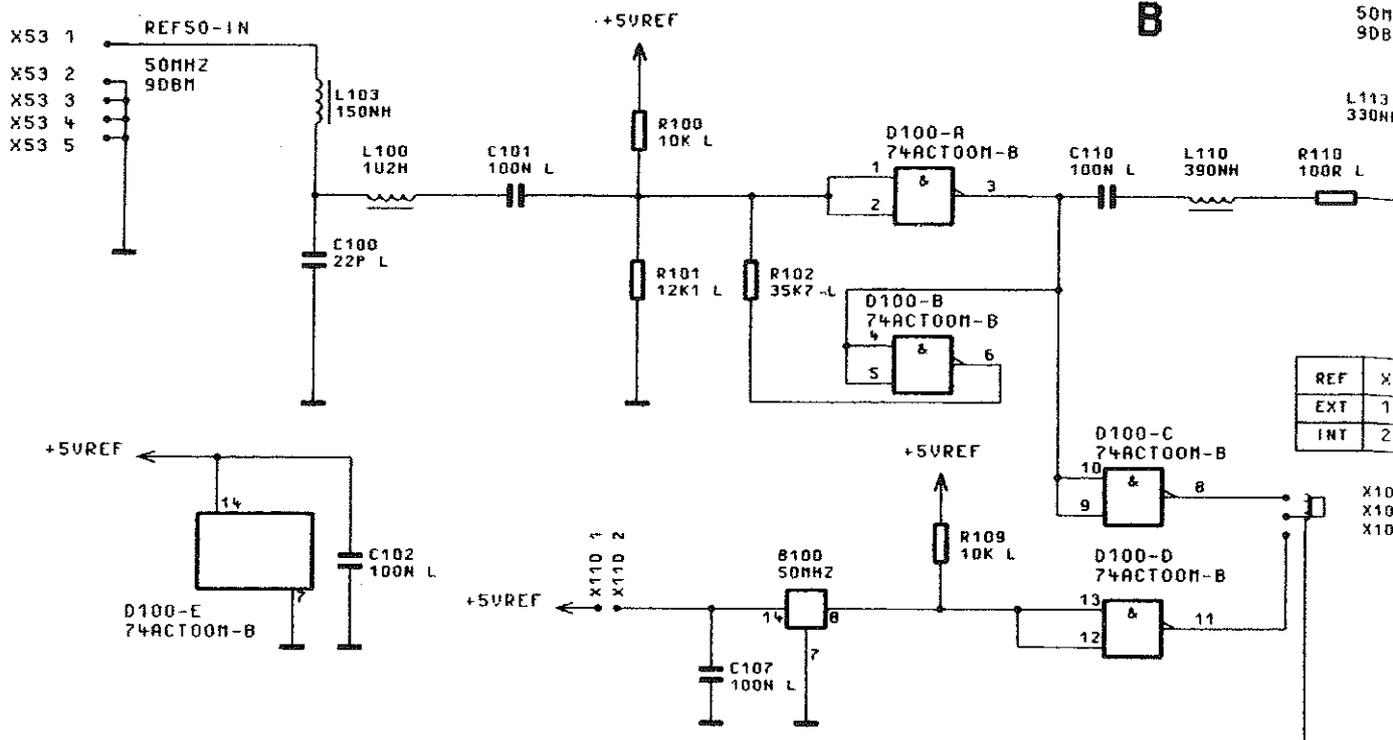
- UR*
 - X/Y*
 - BR*
 - DS*
 - RG*
 - RD*
 - P5*
- D0
 - D1
 - D2
 - D3
 - D4
 - D5
 - D6
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 - D8
 - D9
 - D10
 - D11
 - D12
 - D13
 - D14
 - D15
 - D16
 - D17
 - D18
 - D19
 - D20
 - D21
 - D22
 - D23

- A0
- A1
- A2
- A3
- A4
- A5
- A6
- A7
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- A10
- A11
- A12
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- A14
- A15

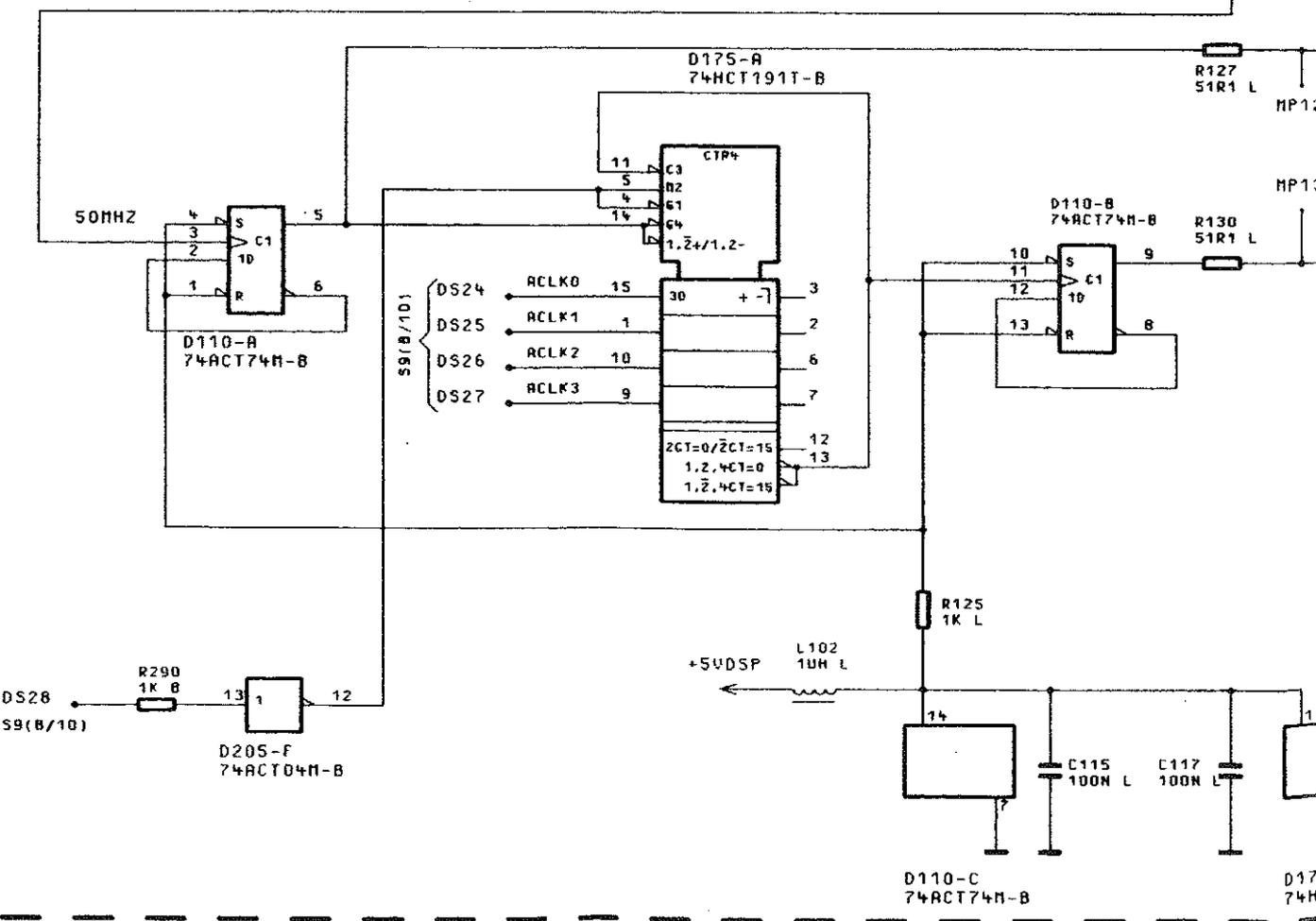
+5VDSP

STRO
CIRCUIT

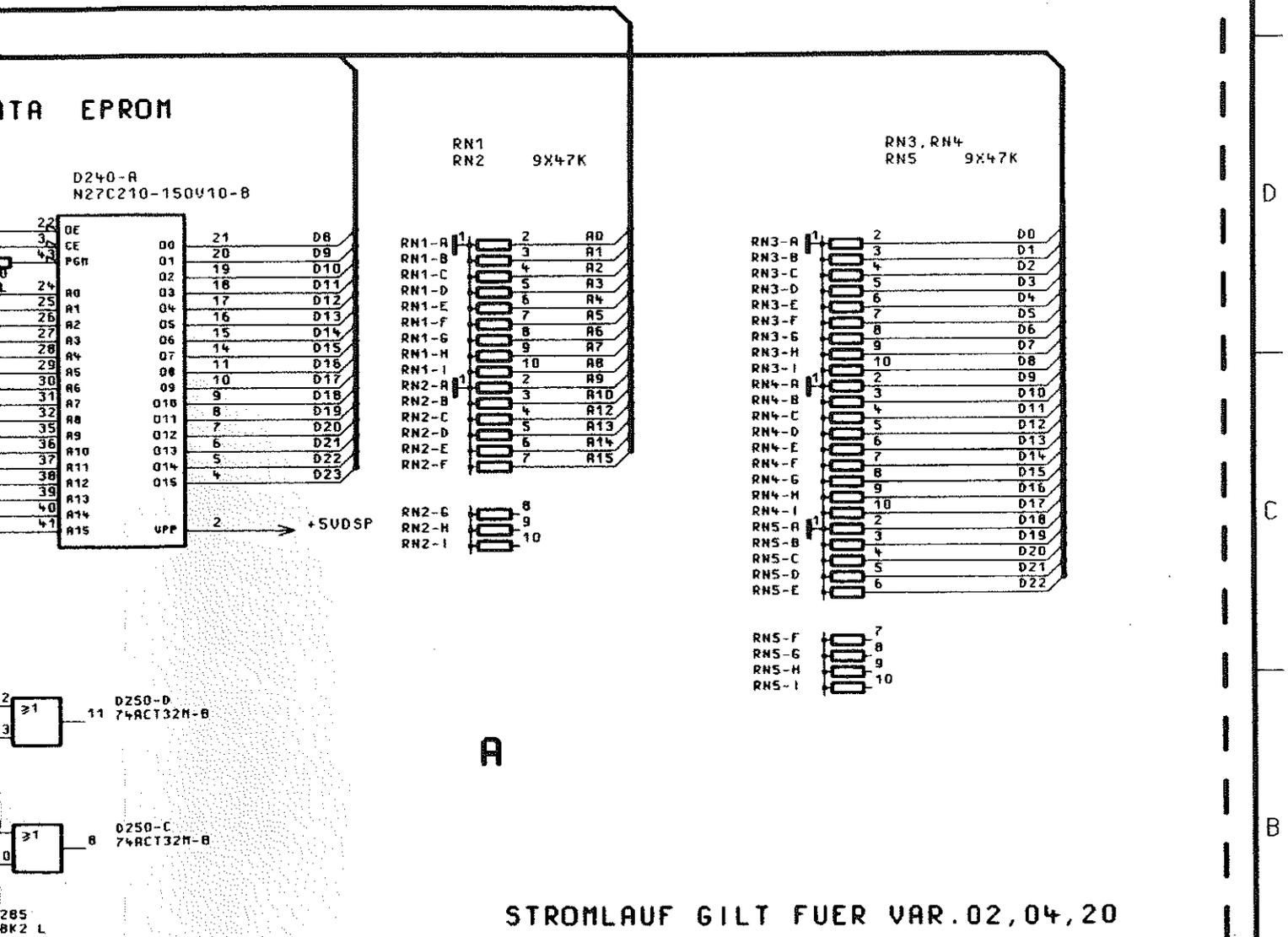
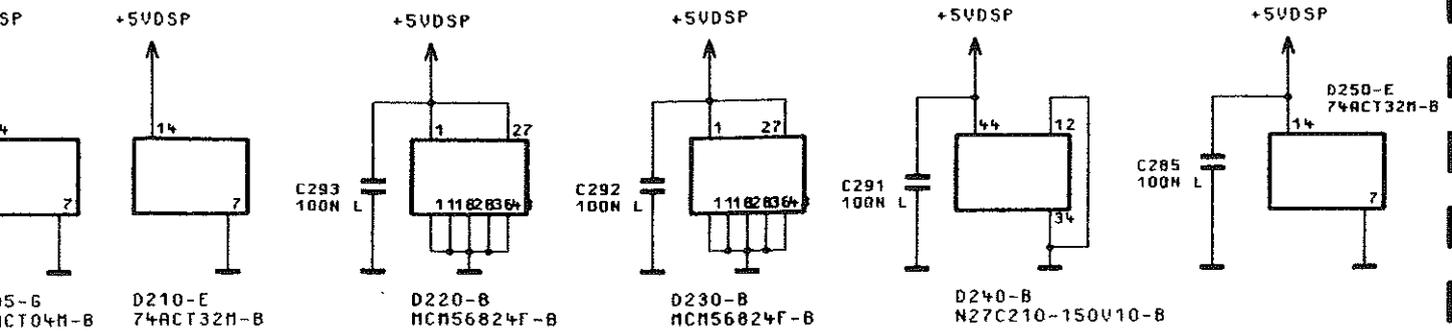
REFERENCE



CLK DIVIDER



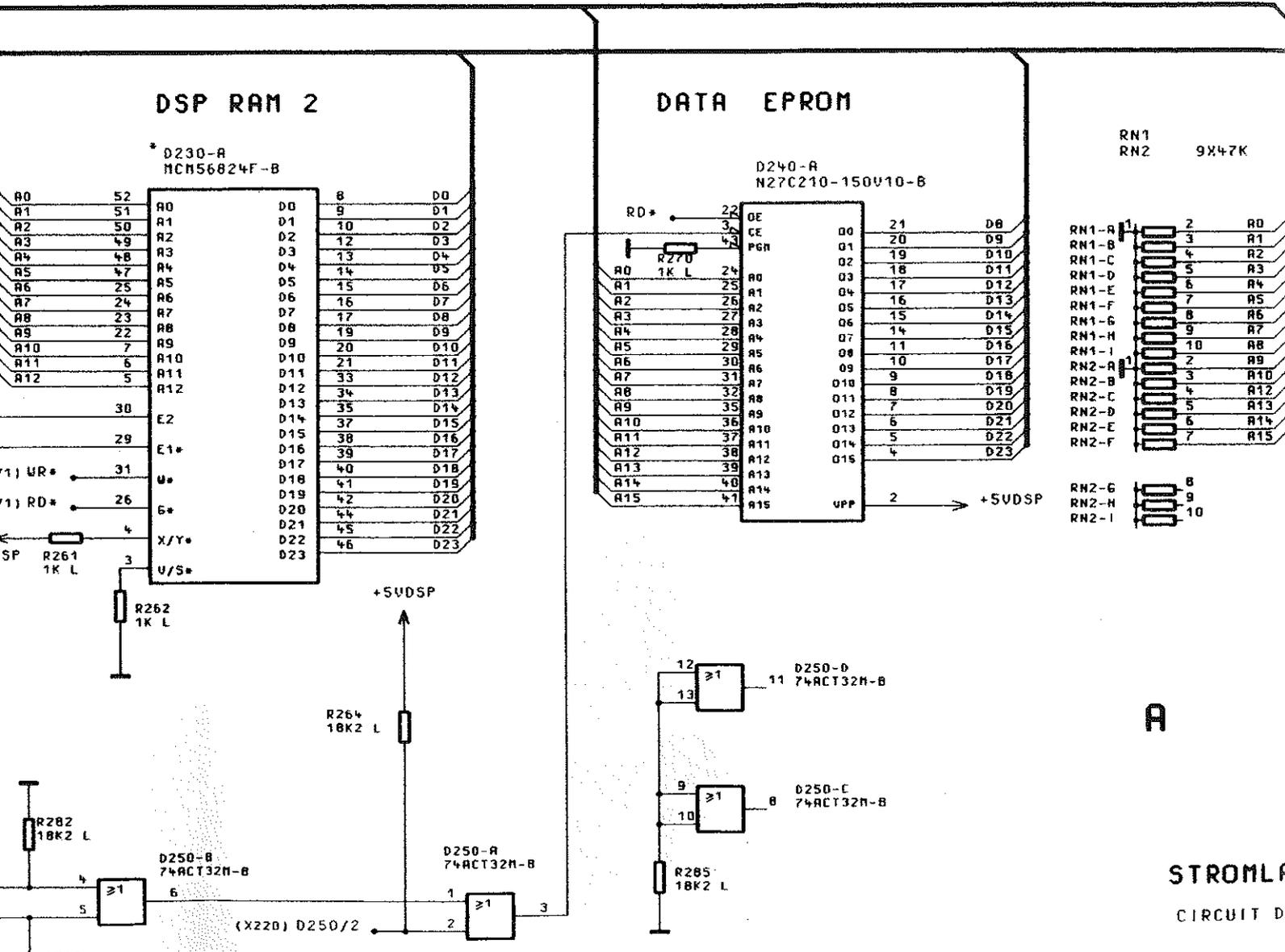
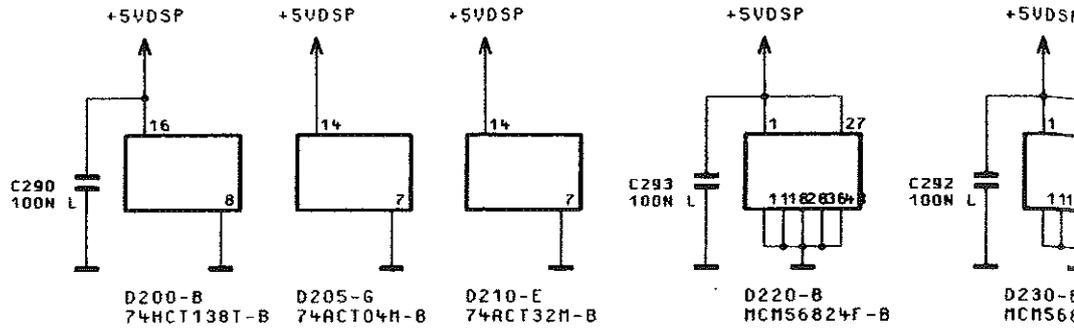
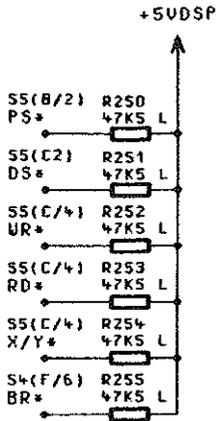
BEHALTEN WIR UNS ALLE RECHTE VOR



STROMLAUF GILT FUER VAR.02,04,20

CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,20

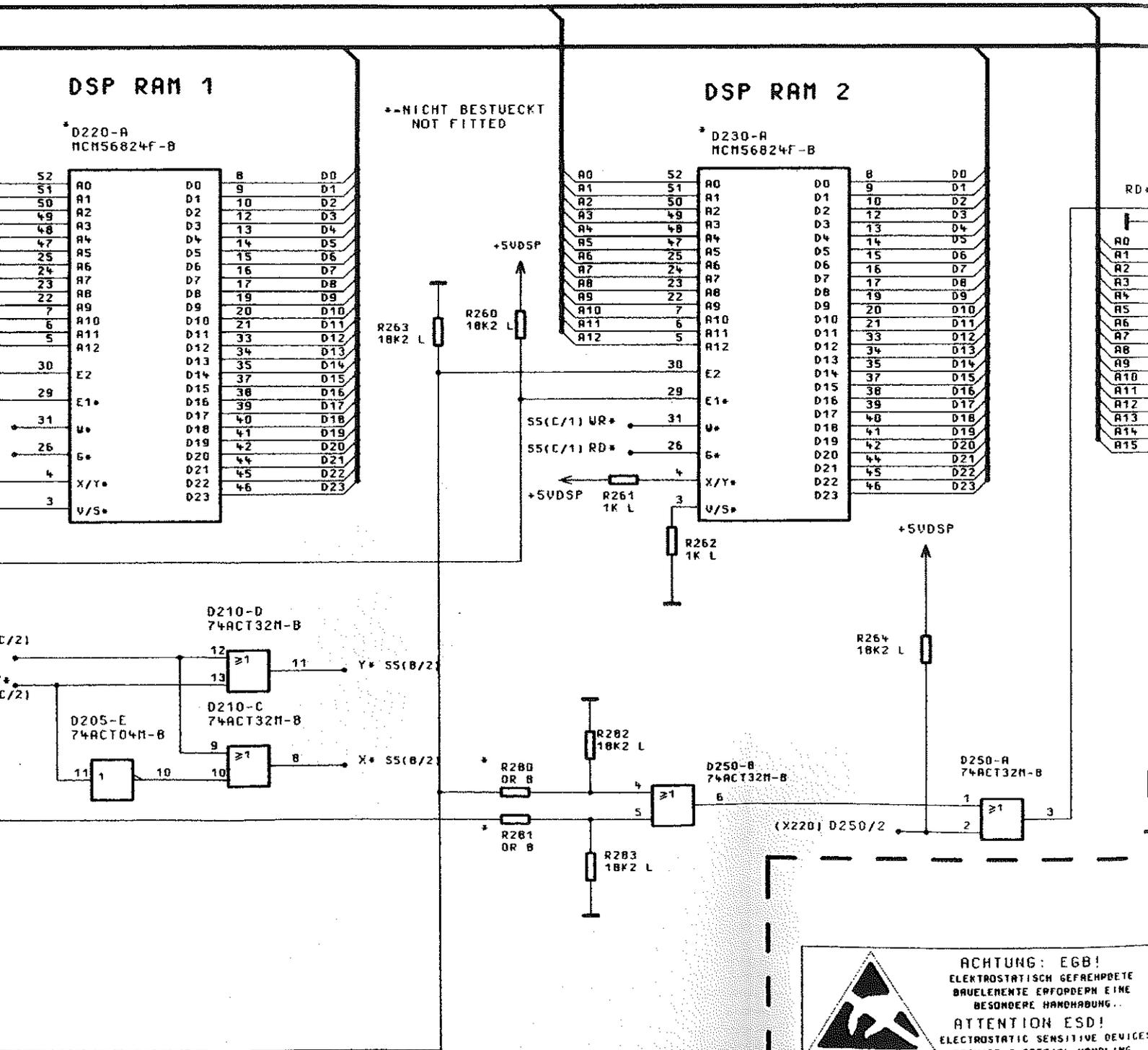
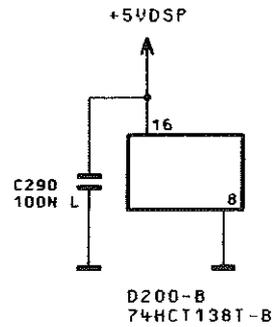
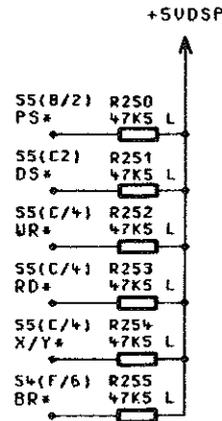
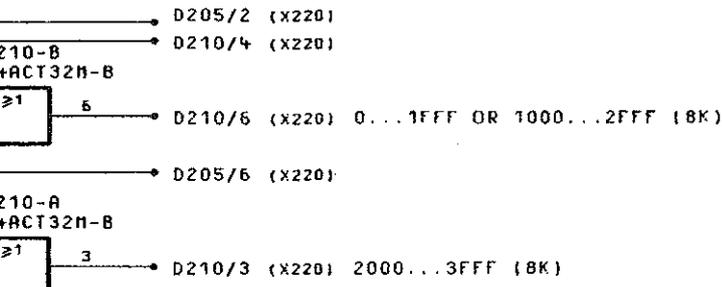
01/		16.10.92	HO	1GPK	TAG	NAME	BENENNUNG		
				BEARB.		HO	MODULATIONSGENERATOR		
				GEPR.			MOD. GEN		
				NORM					
				PLOTT	28.07.94				
02/	48742.00	27.07.94	HO	ROHDE&SCHWARZ		ZEICHN.-NR.		ALERT-NR.	
REND. IND.	RENDERUNGS-NITTEILUNG	DATUM	NAME			1036.8272.015		5+	
				ZU GERÄT	SMP	PEG. I. U.	1036.8250	EPSTE Z.	1036.8250



ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHRDETE
BAUELEMENTE ERFORDERN EINE
BESONDERE HANDhabUNG...

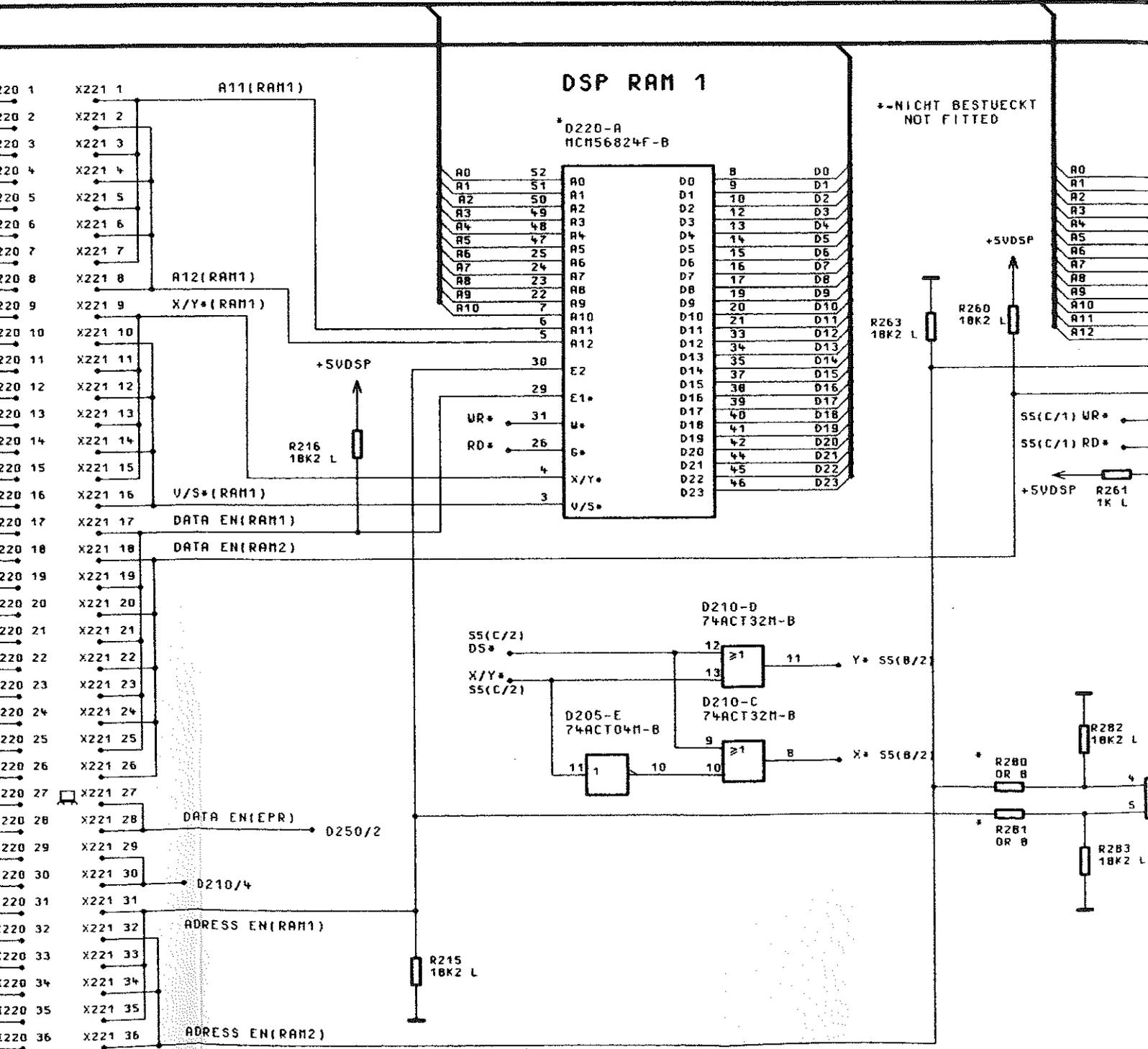
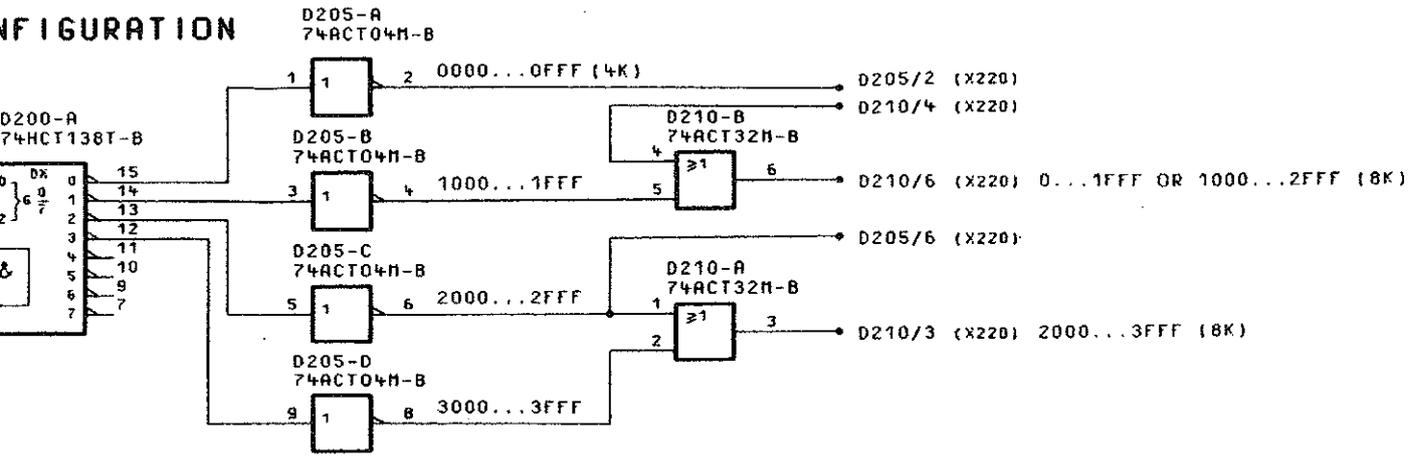
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES
REQUIRE A SPECIAL HANDLING

01/		16.10.92	HO	1GPK	TAG	
				BEARB.		
				GEPR.		
				NORM		
				PLOTT	28.07.94	
02/	48742 00	27.07.94	HO			
REND IND.	RENDPUNGS- MITTEILUNG	DATUM	NAMEN	RONDE&SCHU ZU SERNET SMP		

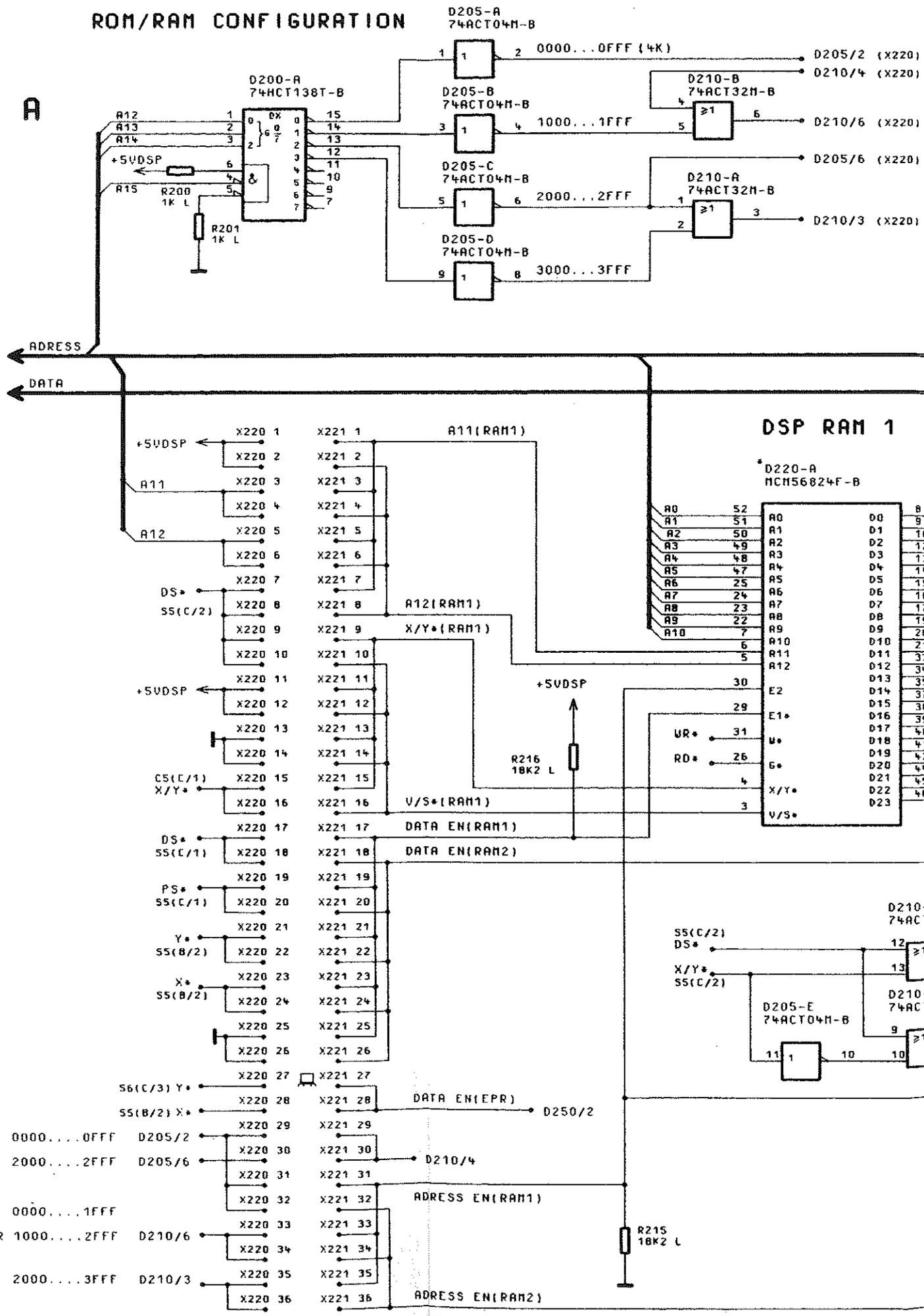


ACHTUNG: EGB!
 ELEKTROSTATISCH GEFÄHRDETE
 BAUELEMENTE ERFORDERN EINE
 BESONDERE HANDLUNG..
ATTENTION ESD!
 ELECTROSTATIC SENSITIVE DEVICES
 REQUIRE A SPECIAL HANDLING

CONFIGURATION



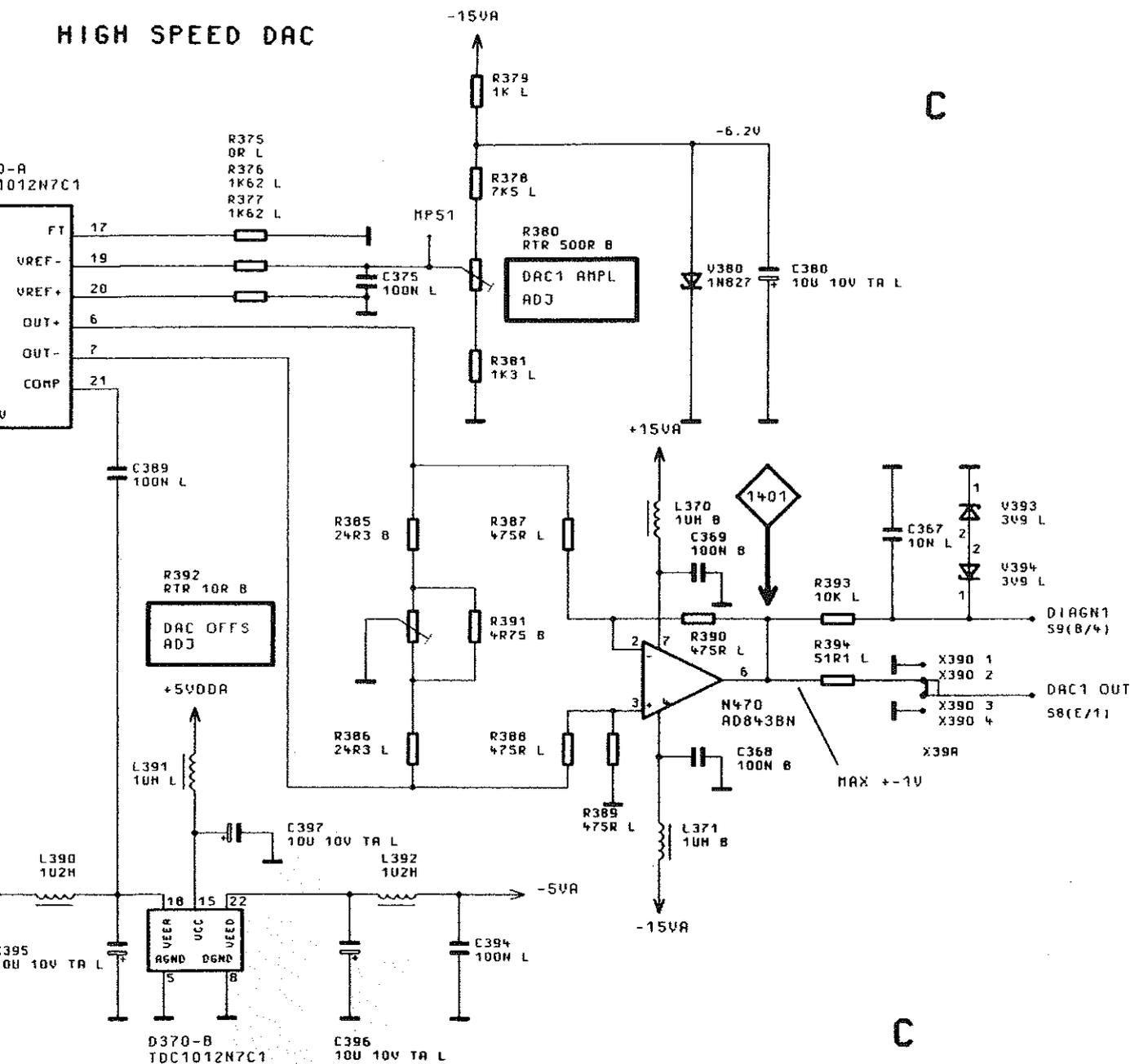
ROM/RAM CONFIGURATION



BEHALTEN WIR UNS ALLE RECHTE VOR

ZEICHN.-NR.

HIGH SPEED DAC

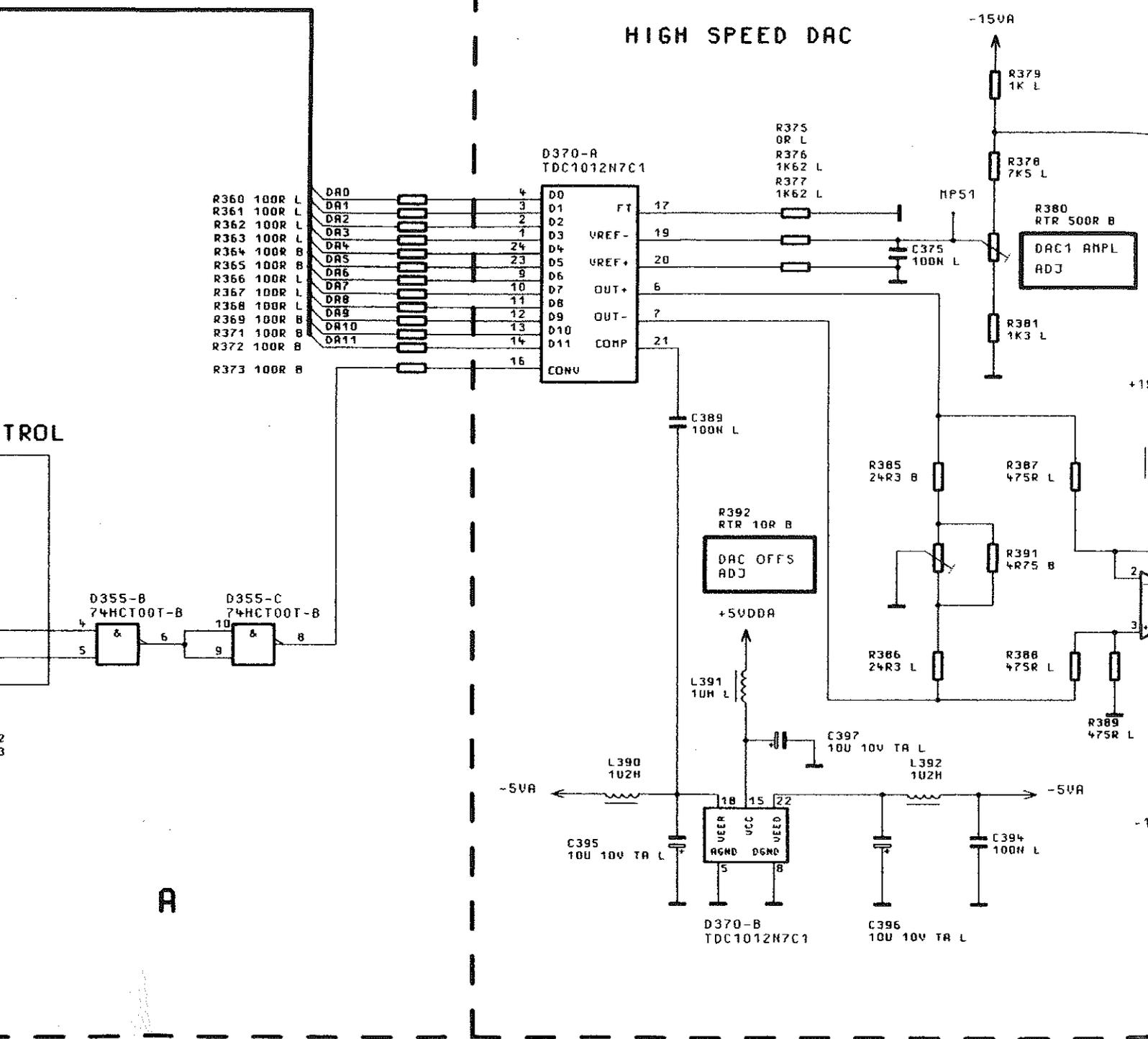


OMLAUF GILT FUER VAR.02,04,20

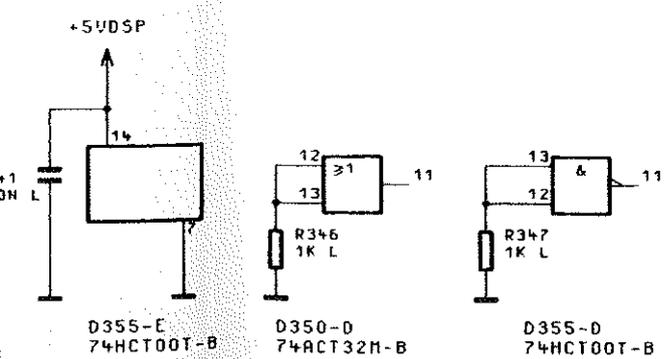
IT DIAGRAM IS VALID FOR MOD.02,04,20

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

01/	16.10.92	HO	16PK	TAG	NAME	BENENNUNG
			BEARB.		HO	MODULATIONSGENERATOR MOD. GEN
			GEPP.			
			NORM			
			PLOTT	28.07.94		
02/	48742 00	27.07.94	HO	RONDE&SCHWARZ		ZEICHN.-NR.
REND. IND.	RENDERUNGS- MITTEILUNG	DATUM	NAME	1036.8272.01S		BLATT-NR. 6+
			ZU GEHÖRT SMP	REG. I. V.	1036.8250	ERSTE Z.
					1036.8250	BL.



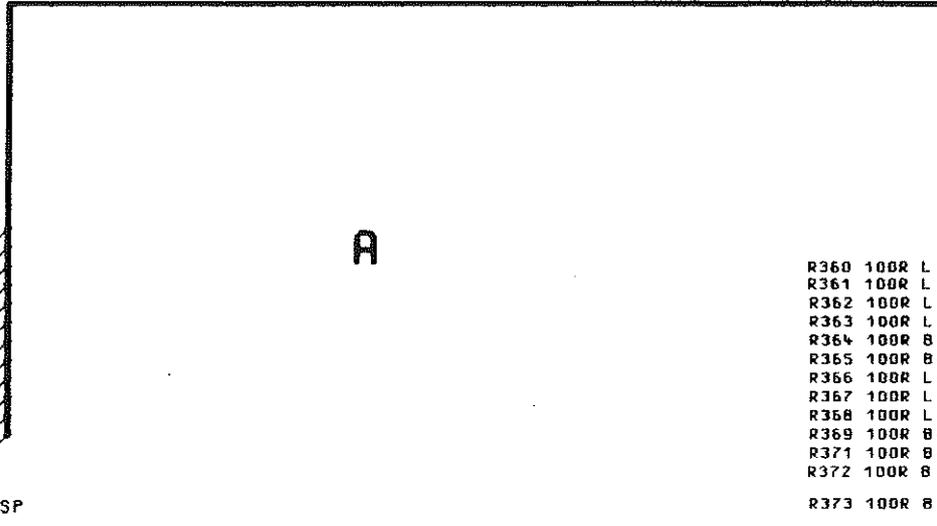
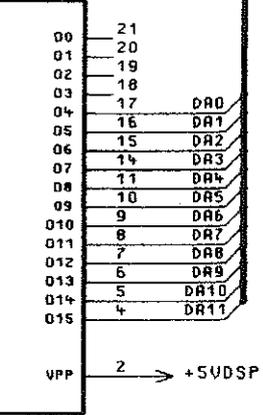
STROMLAUF GILT FUER VAR.02,04,20
CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,20



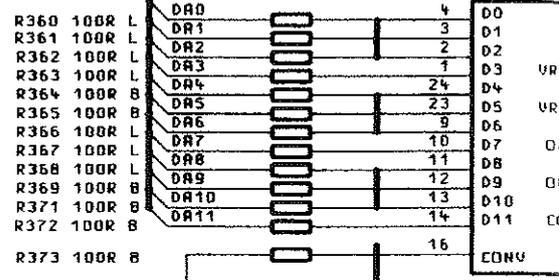
01/		16.10.92	HO	16PK	TRG	NAME
				BERPB.		HO
				GEPR.		
				WORA		
				PLDTT	28.07.94	
02/	48742 00	27.07.94	HO			
REND IND.	RENDERUNGS- MITTEILUNG	DATUM	NAME			
				ZU GERÄT	SMP	

HP35

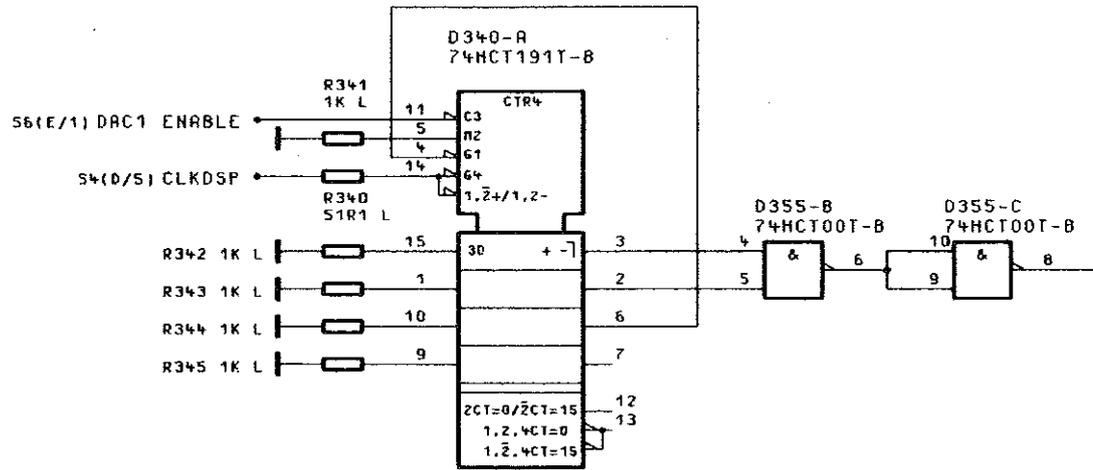
-A
220-B



D370-A
TDC1012



DAC DELAY CONTROL



2M-B



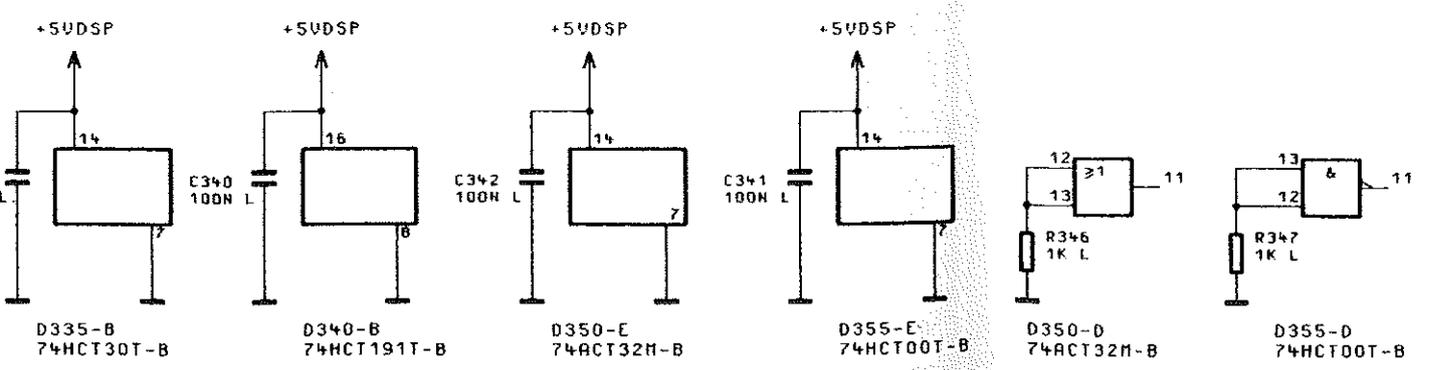
-5VA

C395
100 10

A

STRONGLY

CIRCUIT



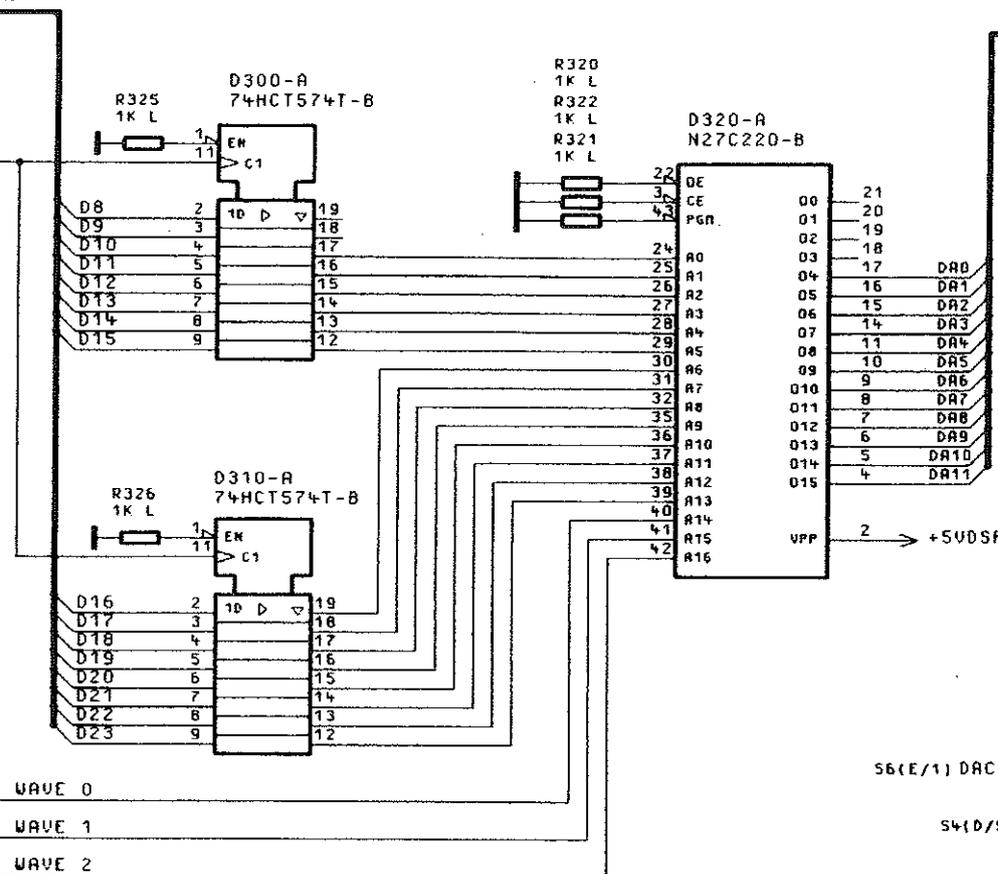
5

6

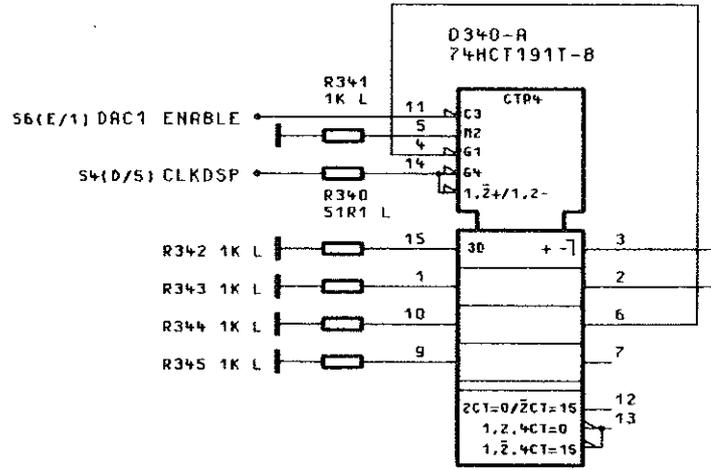
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8

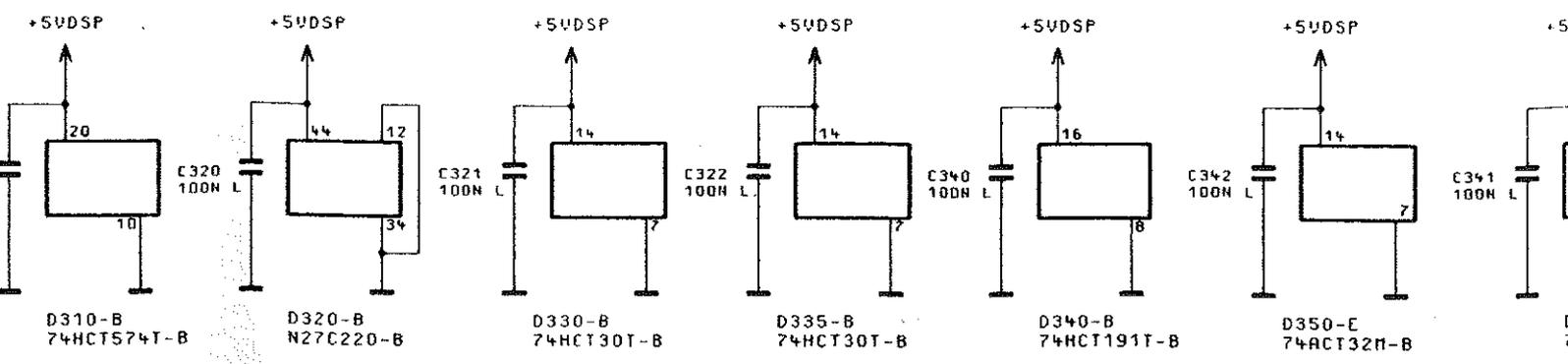
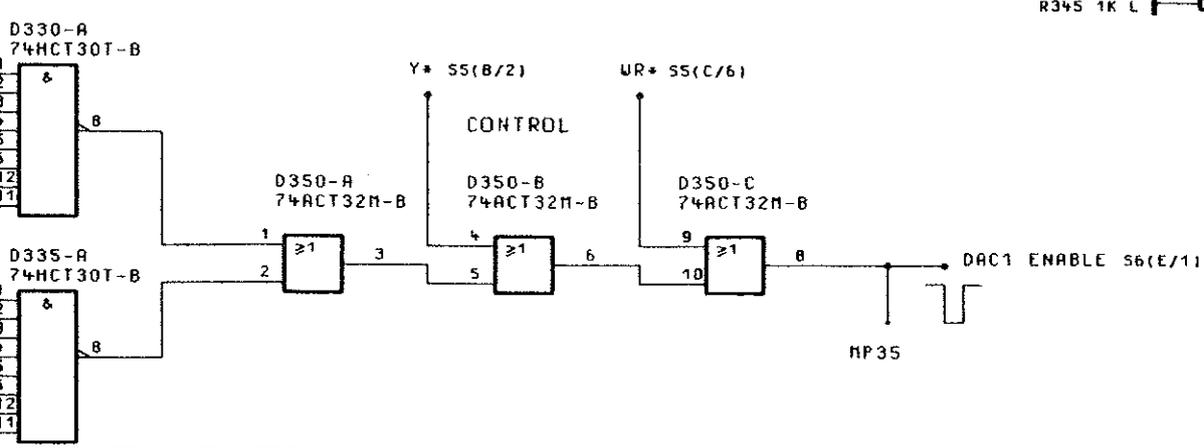
HIGH SPEED WAVEFORM



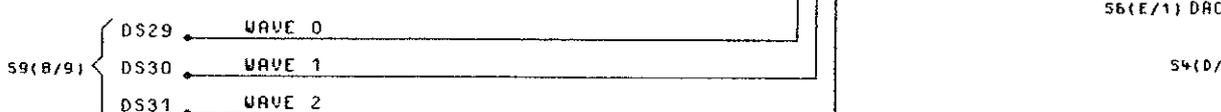
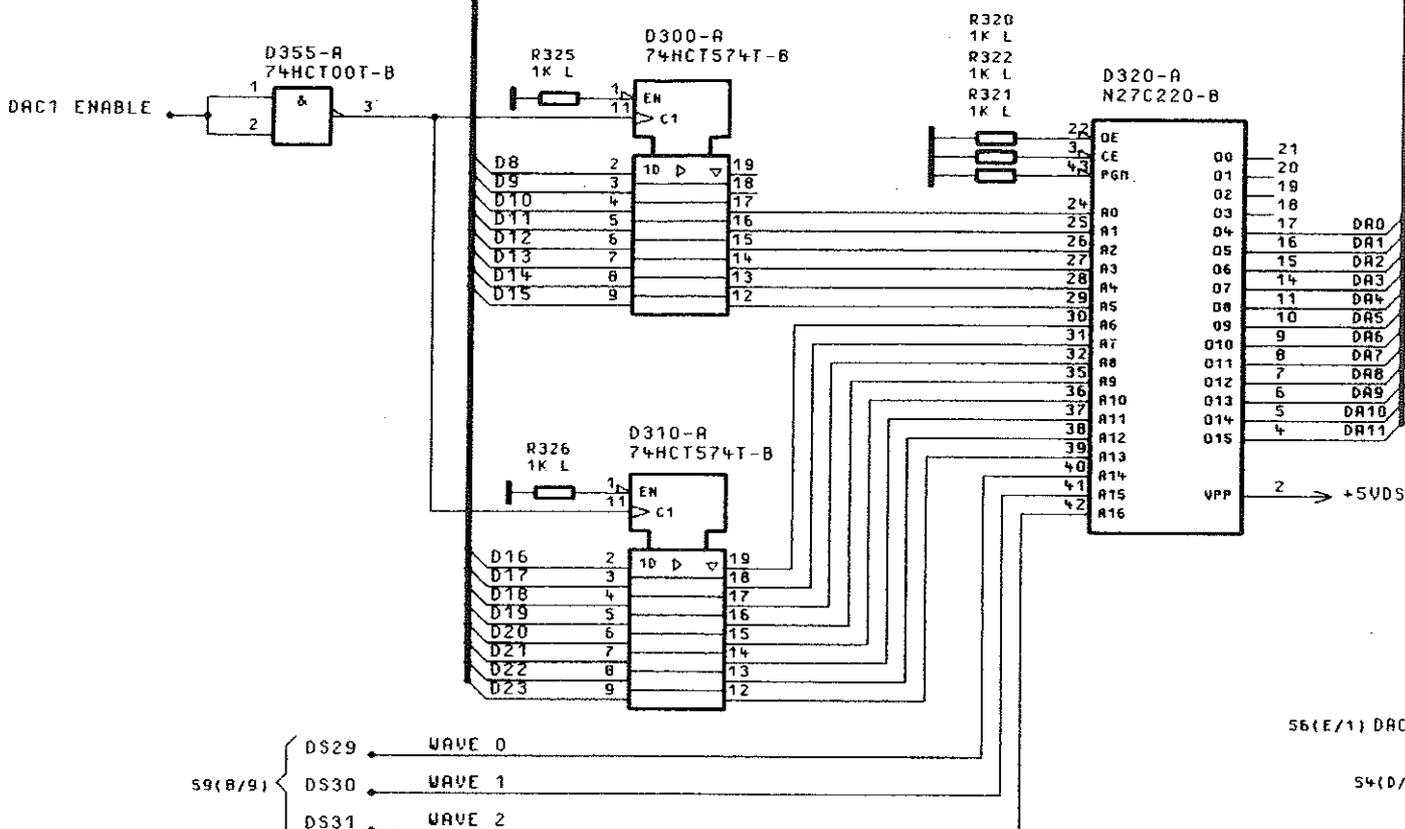
DAC DELAY CONTROL



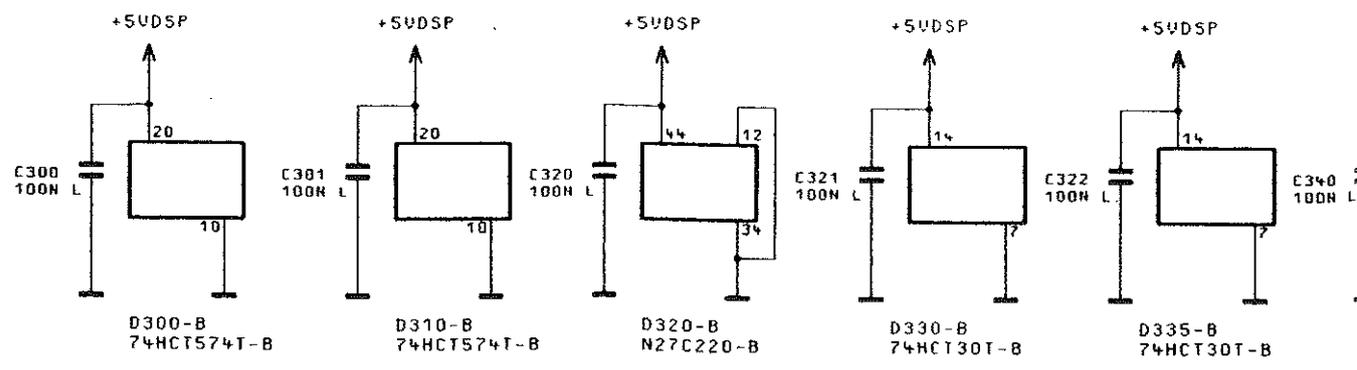
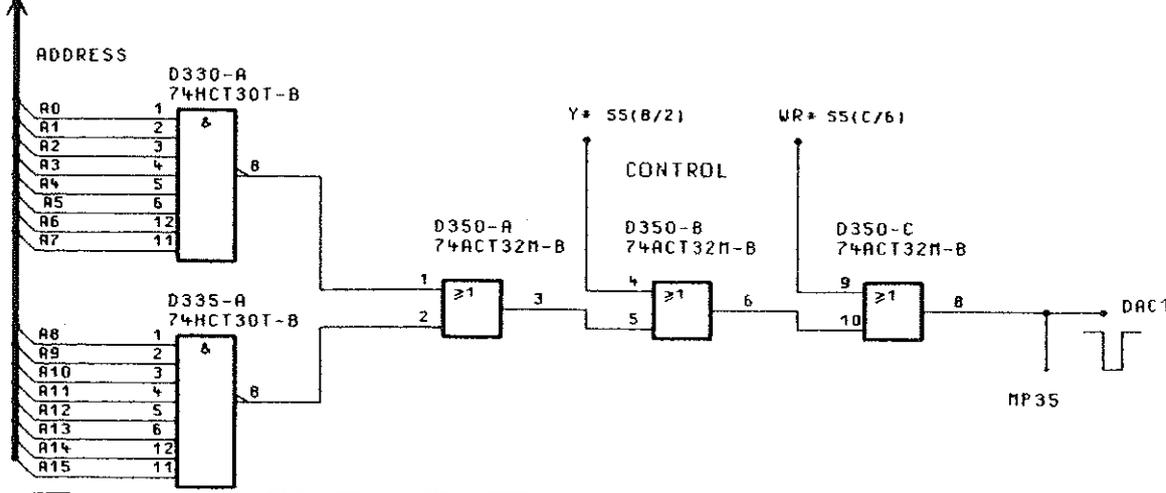
ADDRESS DECODER



HIGH SPEED WAVEFORM



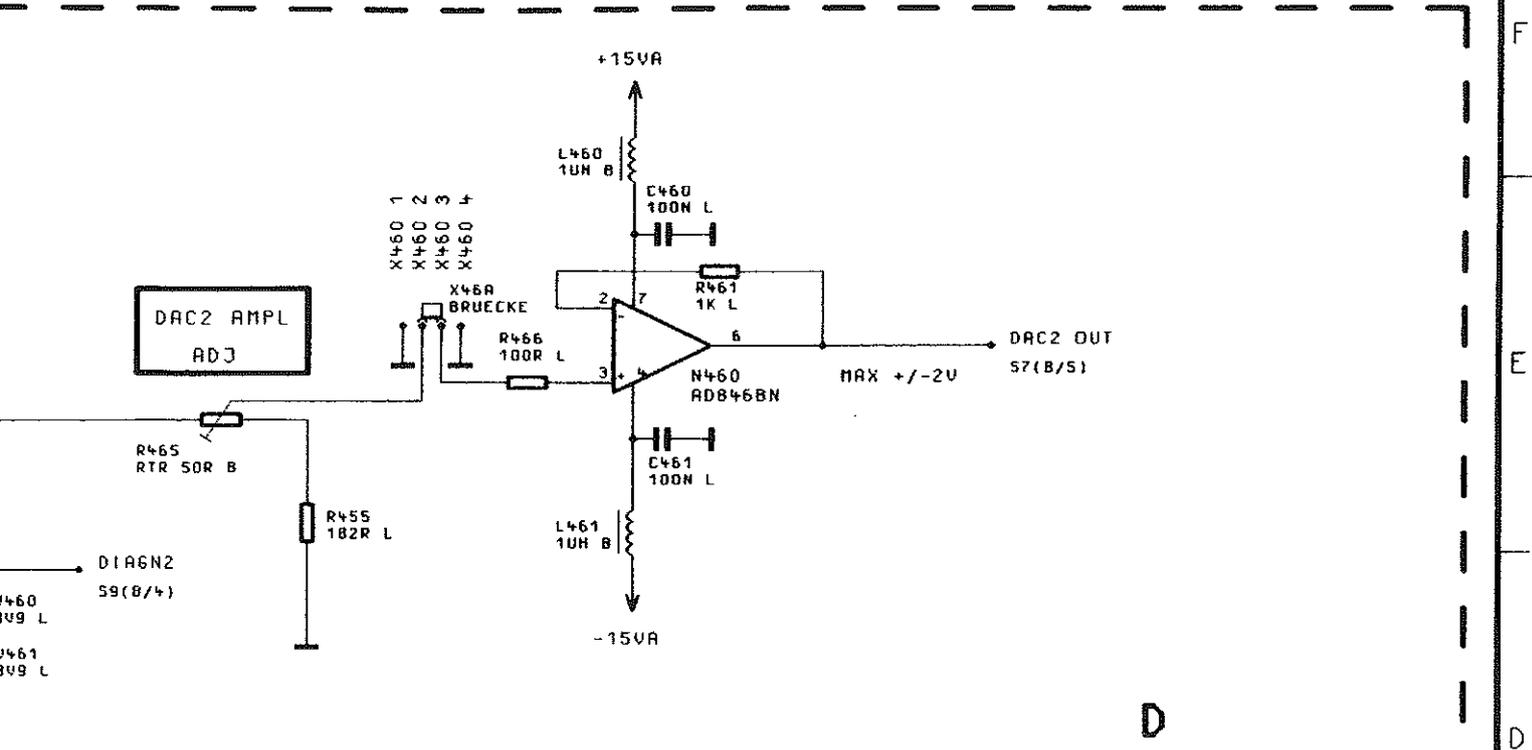
DAC-ADDRESS DECODER



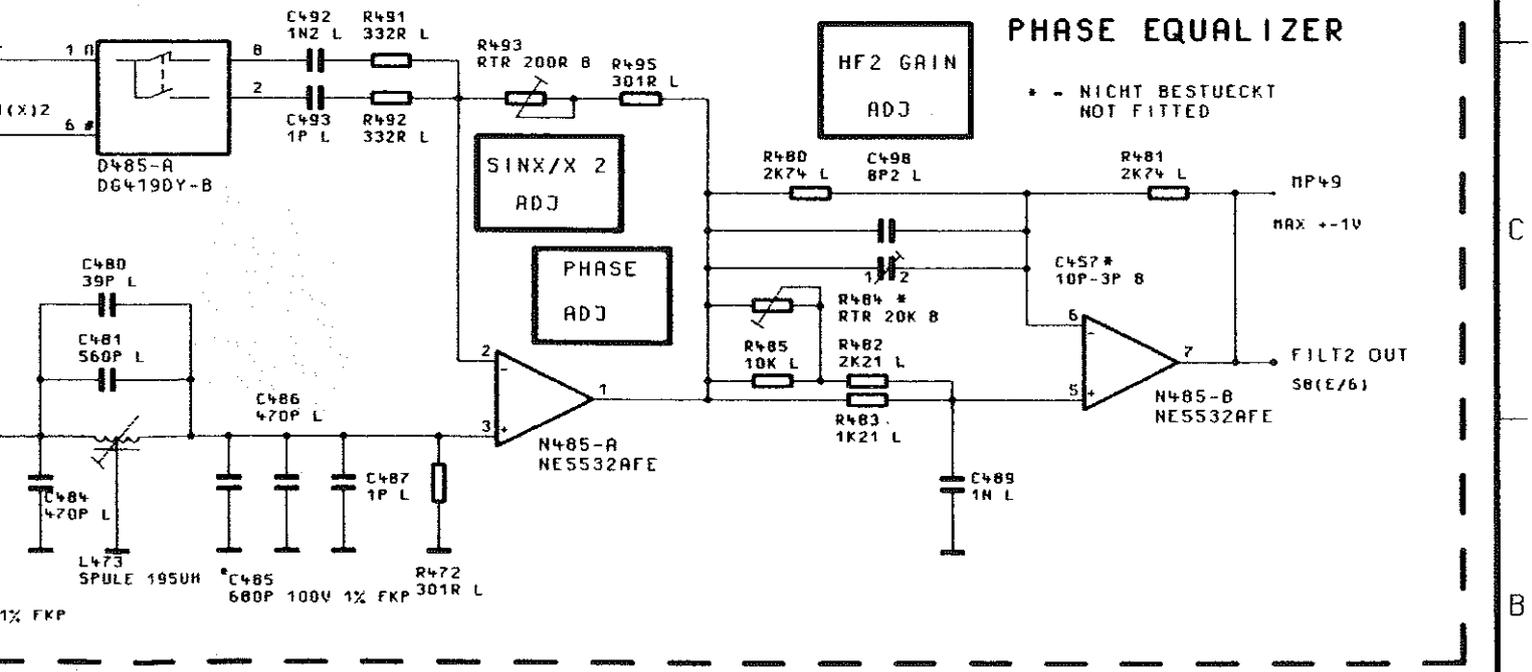
FUER DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR

ZEICHN.-NR.

R465 R493 R484 C457 MP49

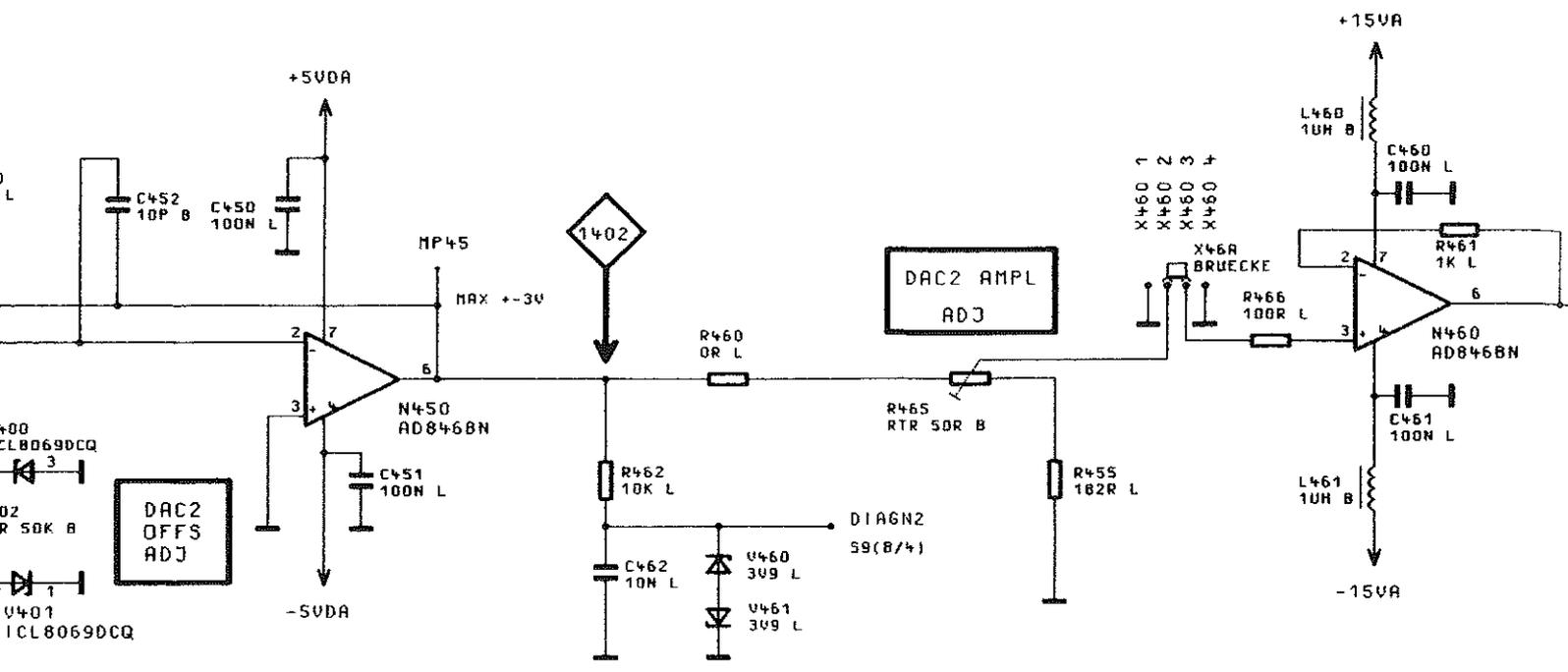


SIN X/X KOMP

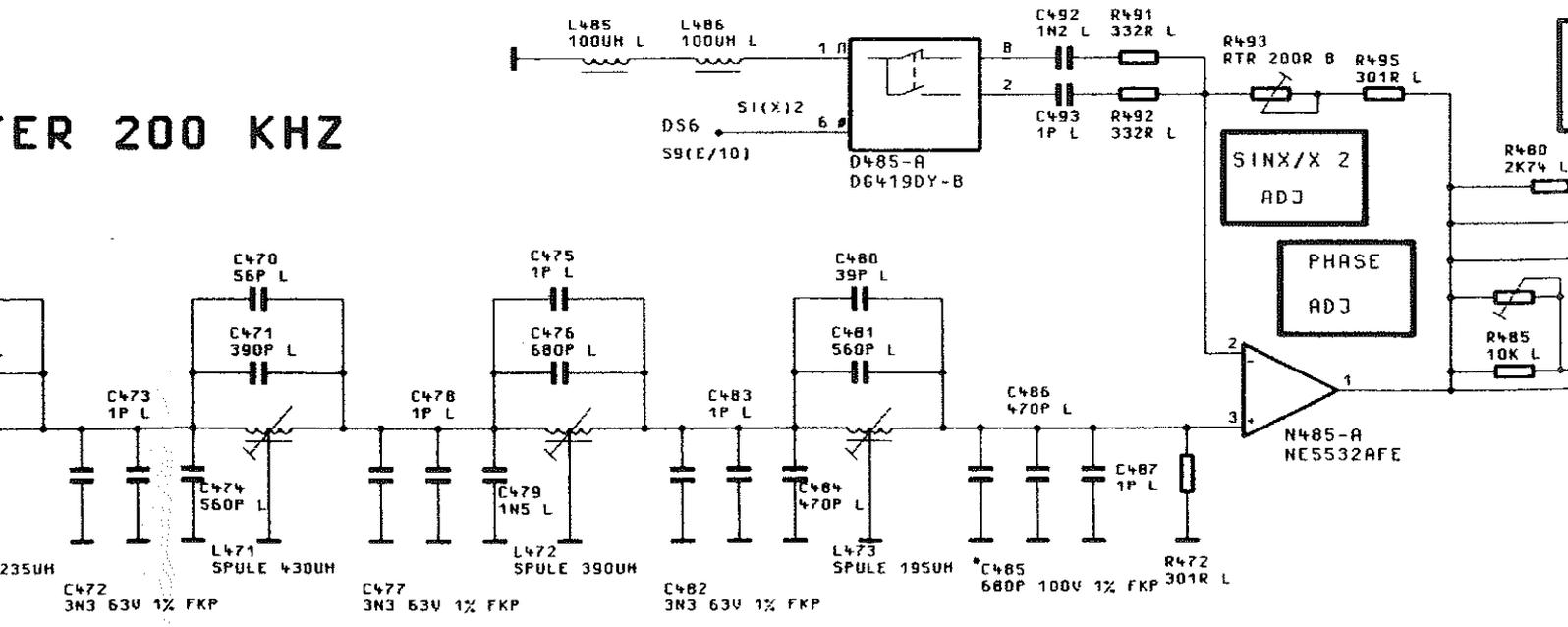


STROMLAUF GILT FUER VAR.02,04,20
CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,20

01/		16.10.92	HO	1GPK	TAG	NAME	BENENNUNG		
				BERRB.		HO	MODULATIONSGENERATOR MOD. GEN		
				GEPR.					
				NDPR					
				PLOTT	28.07.94				
02/	48742 00	27.07.94	HO				ZEICHN.-NR.		
REND. IND.	RENDERUNGS-MITTEILUNG	DATUM	NAME				1036.8272.015	BLATT-NR. 7+	
				ZU GERÄT	SMP	REG. I.V.	1036.8250	ERSTE Z.	1036.8250



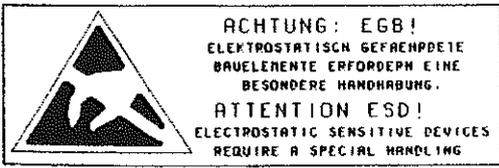
SIN X/X KOMP



ER 200 KHZ

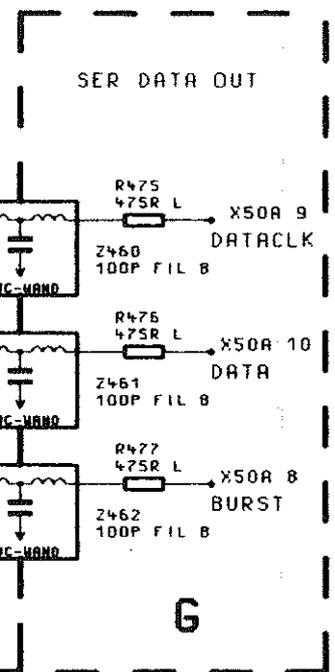
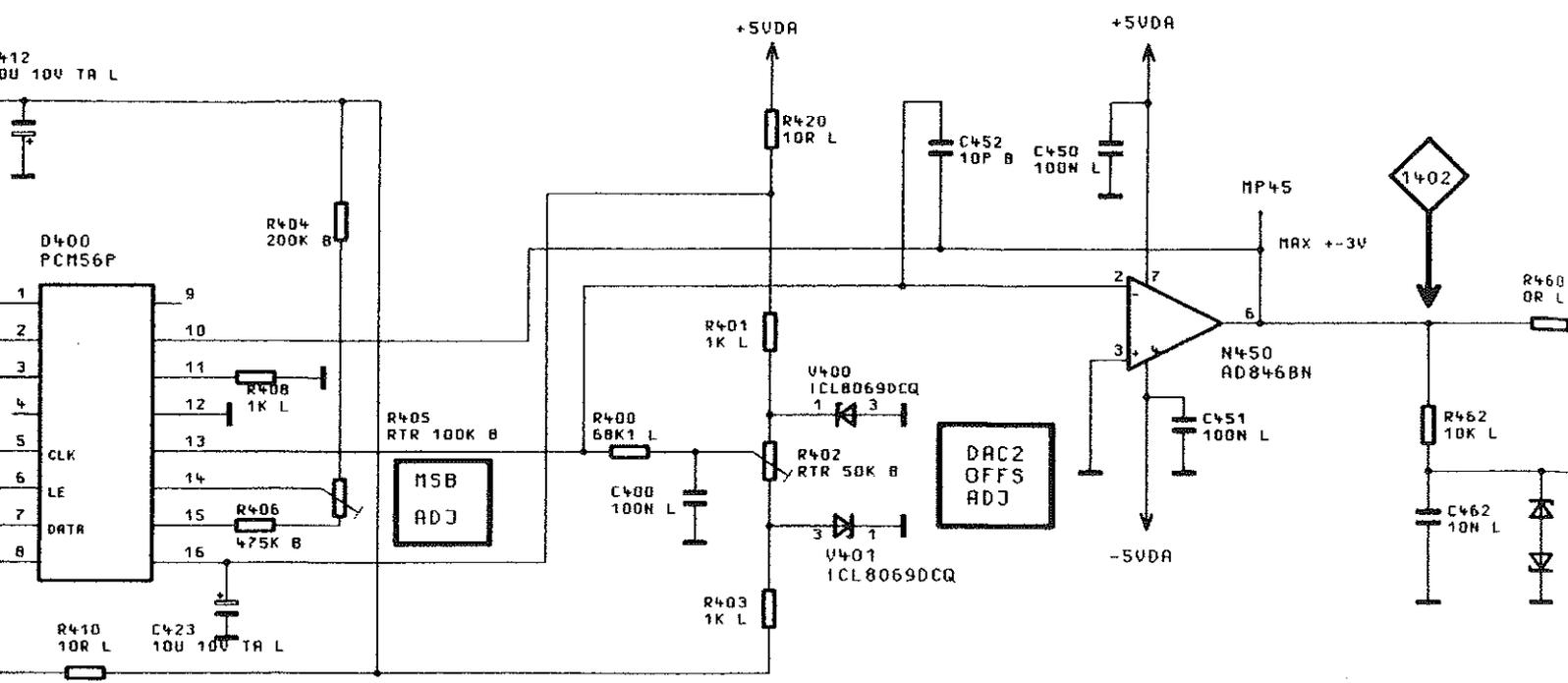
STROMLAUF GILT FUER VAR. 02

CIRCUIT DIAGRAM IS VALID FOR MOD.02,04

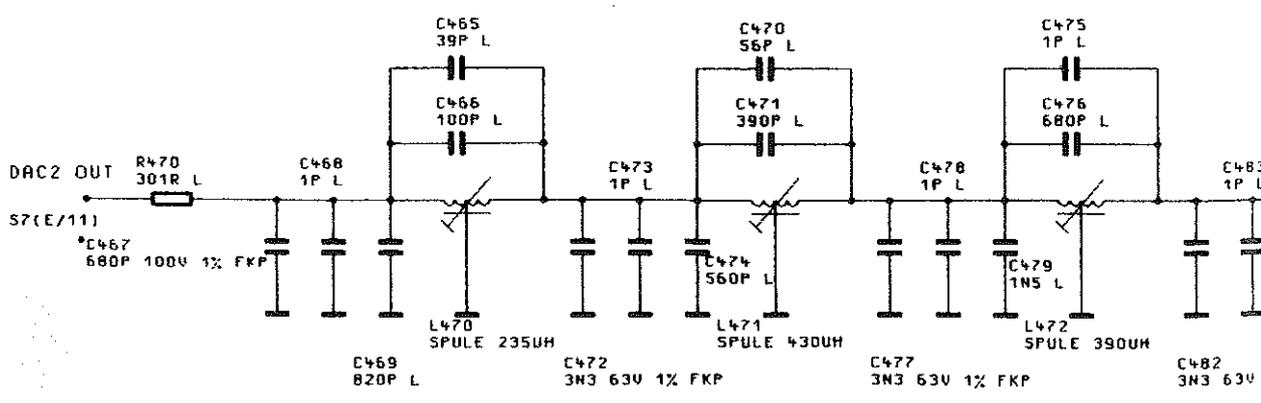


01/		16.10.92	HO	16PK	TAG	NARE
				BEARB.		HO
				GEPP.		
				WORN		
				PL011	28.07.94	
02/	48742 00	27.07.94	HO			
REND. IND.	RENDERUNGS-MITTEILUNG	DATUM	NARE	ROHDE&SCHWARZ ZU GERÄT SMP		

CONVERTER



LOW PASS FILTER 200 KHZ



D485-B
D6419DY-B

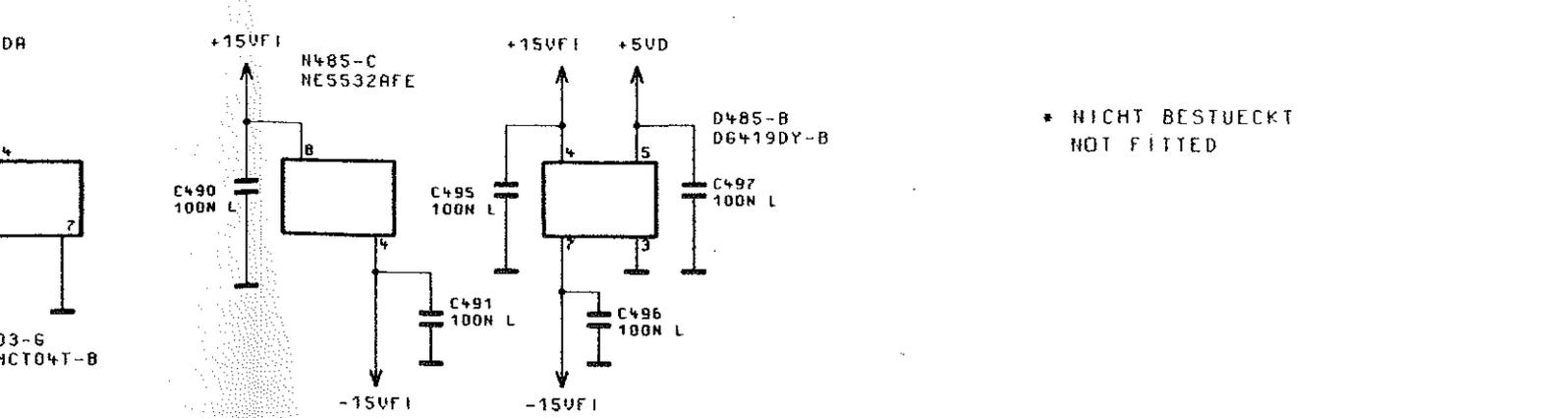
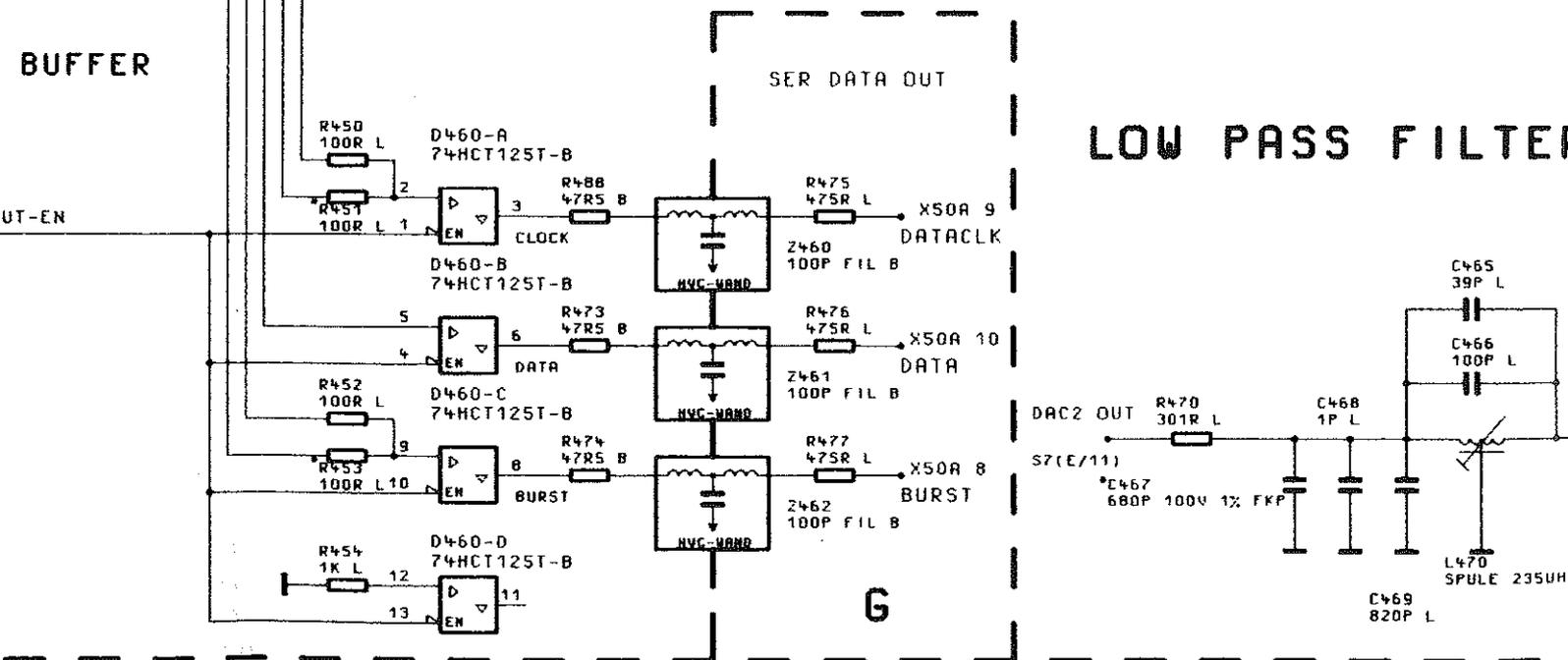
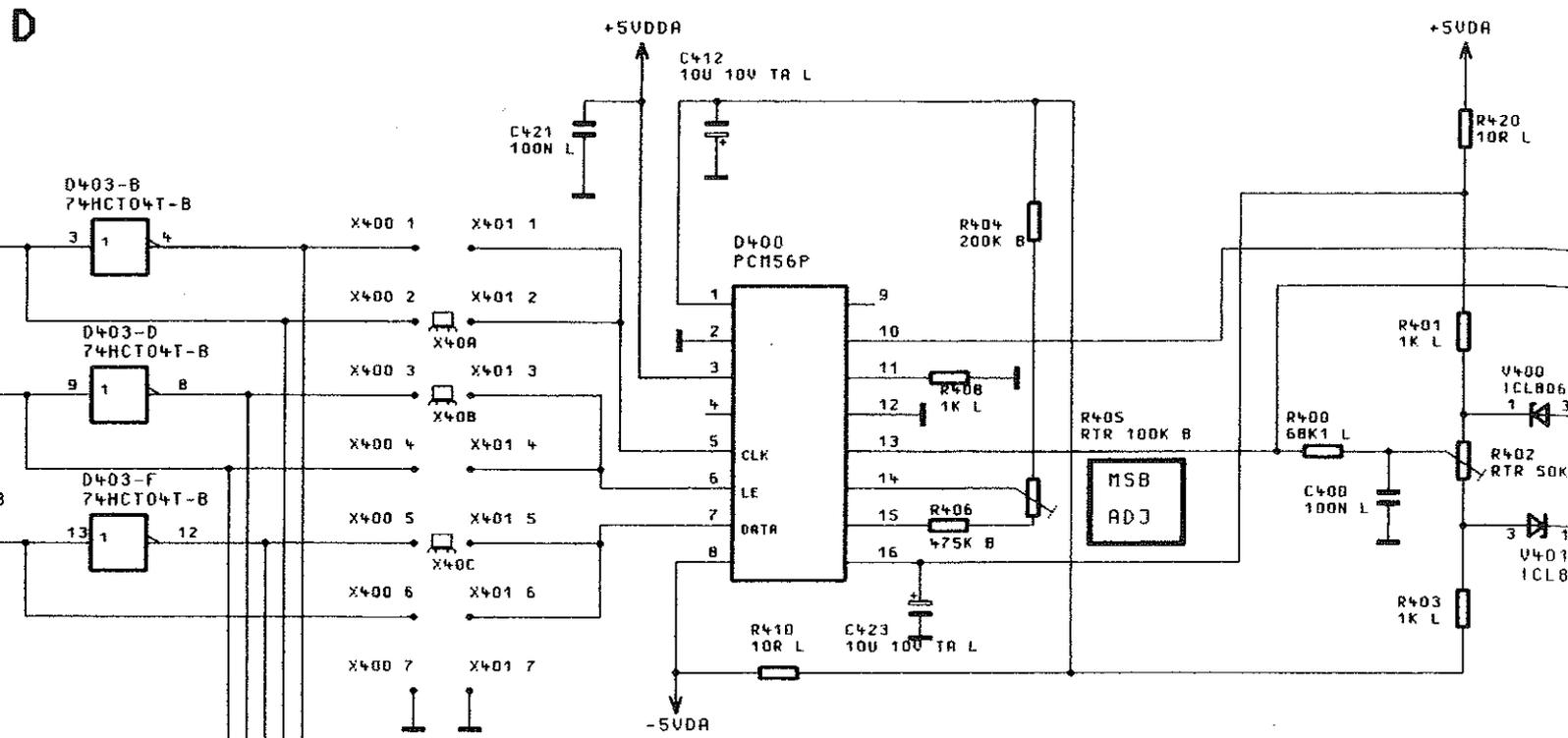
C497
100N L

* NICHT BESTUECKT
NOT FITTED



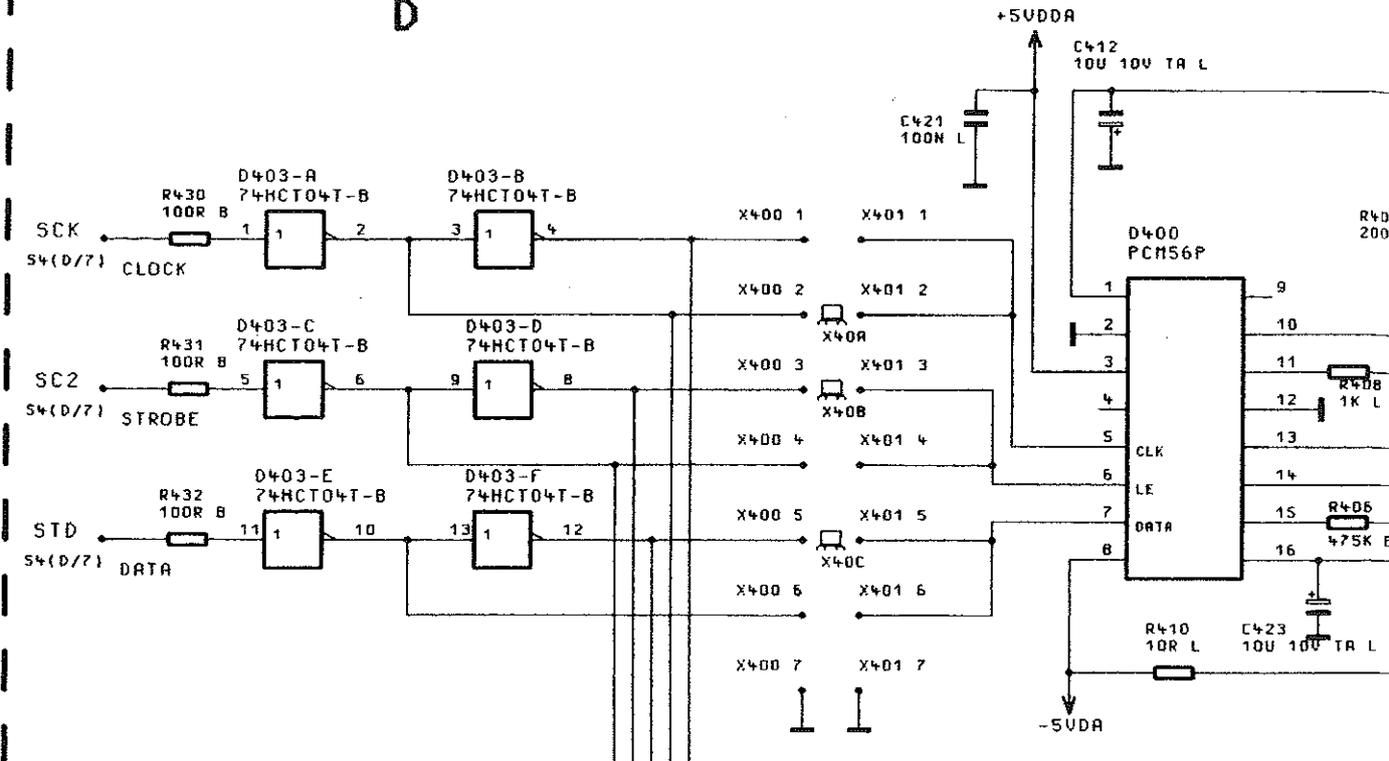
ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHRDETE
BAUELEMENTE ERFORDERN EINE
BESONDERE HANDHABUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES
REQUIRE A SPECIAL HANDLING

16 BIT D/A CONVERTER

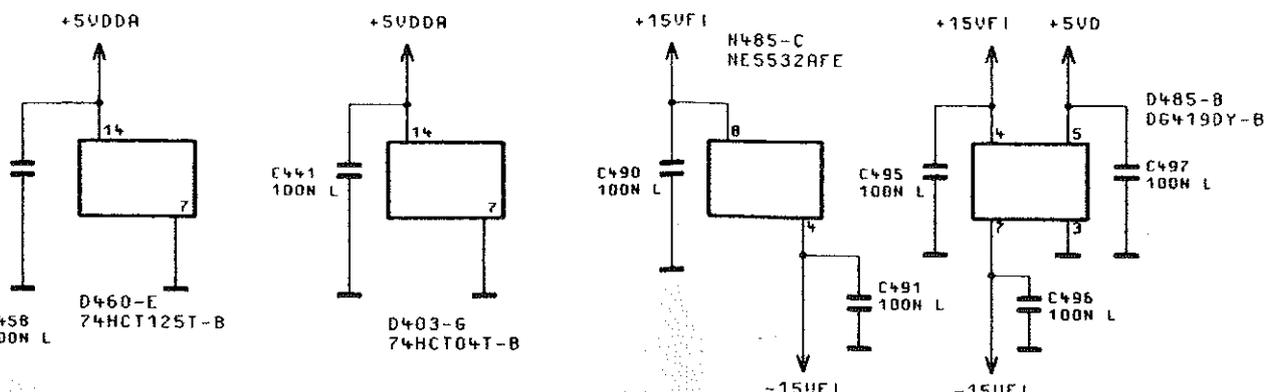
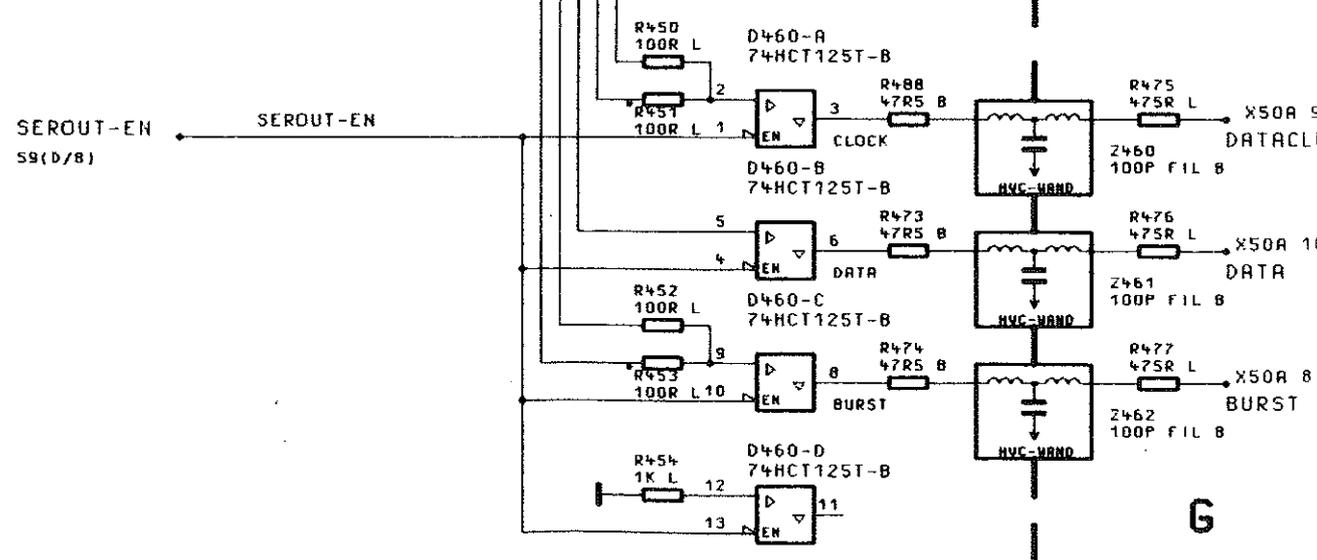


* NICHT BESTUECKT
NOT FITTED

16 BIT D/A CONVERTER



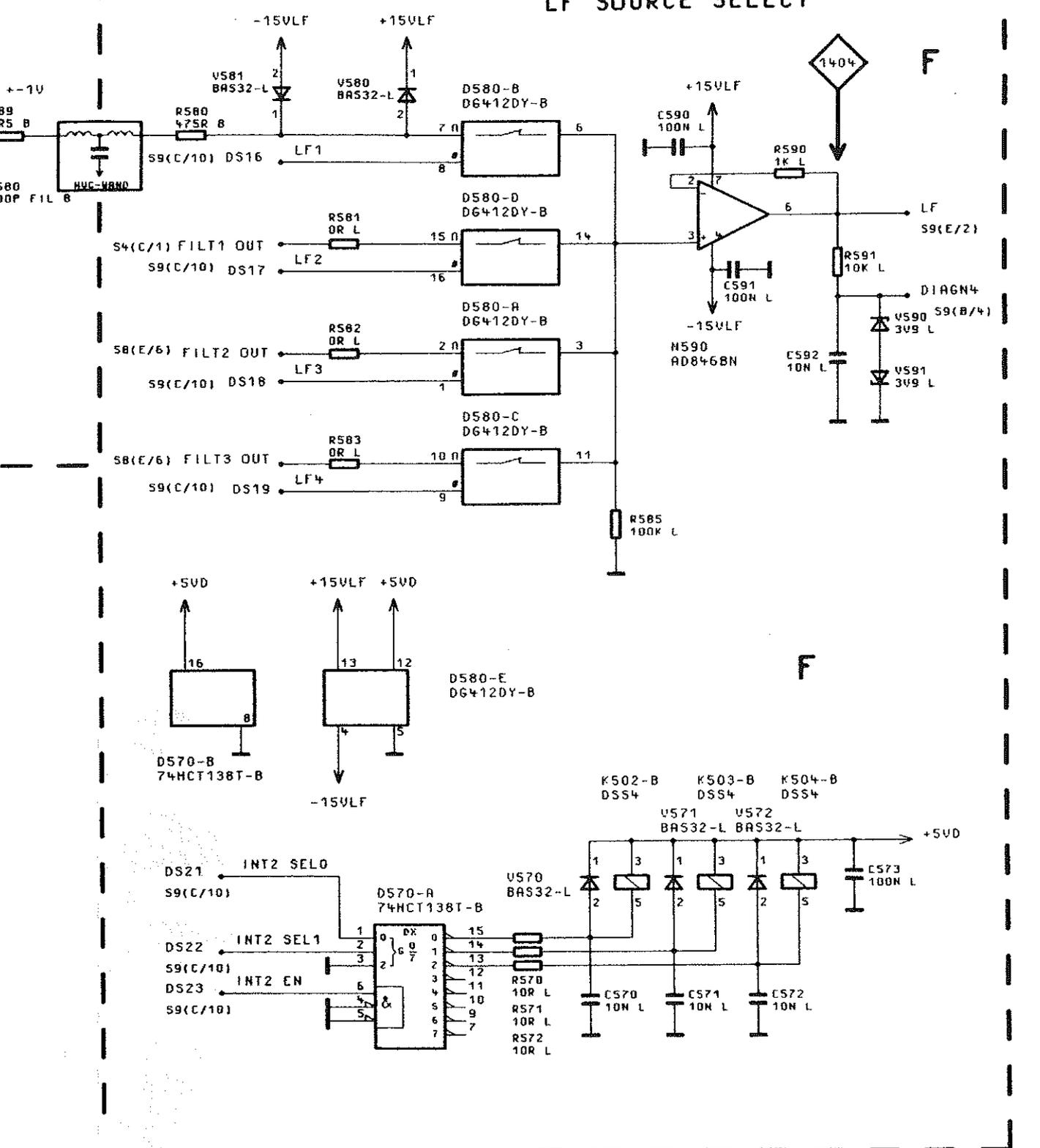
SER. DSP DATA BUFFER



FÜR DIESE UNTERLAGE BEHALTEN WIR UNS ALLE RECHTE VOR

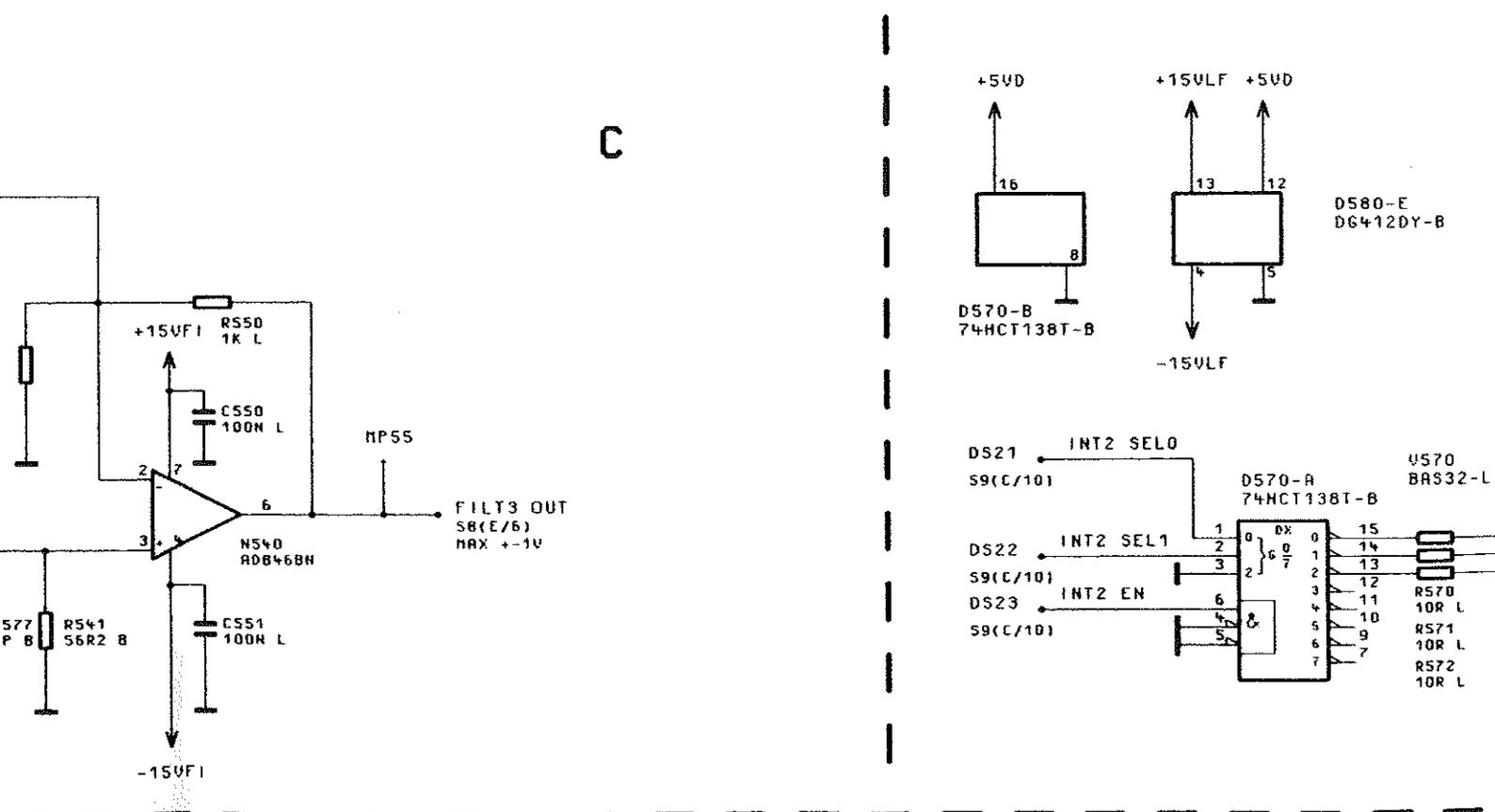
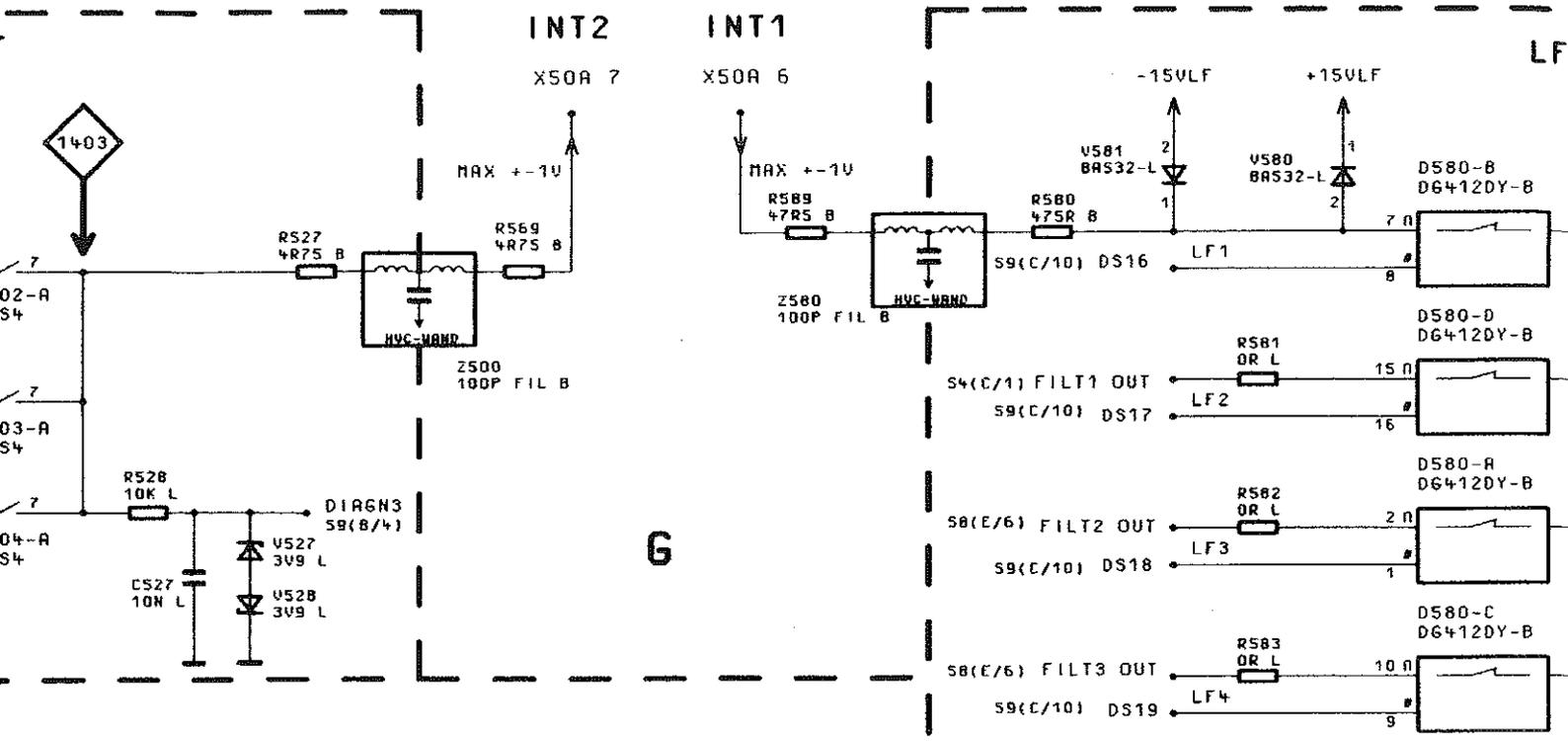
ZEICHN.-NR.

LF SOURCE SELECT



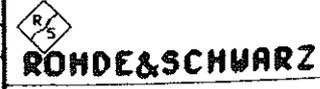
01/		15.10.92	HO	1GPK	TAG	NAME	BENENNUNG
				BEARB.		HO	MODULATIONSGENERATOR MOD. GEN
				GEPR.			
				NORN			
				PLOTT	28.07.94		
02/	48742 00	27.07.94	HO	ROHDE & SCHWARZ			ZEICHN.-NR.
REND. IND.	ÄNDERUNGS-MITTEILUNG	DATUM	NAME				1036.8272.01S
				ZU GERÄT	SMP	REG. I. V.	1036.8250
						EPSTE Z.	1036.8250

HP55



R VAR. 02, 04, 20

R MOD. 02, 04, 20

D1/	16.10.92	HO	1GPK	TAG	NAME
			BEARB.		HO
			GEPR.		
			NORM		
			PLOTT	28.07.94	
D2/	48742 00	27.07.94	HO		
REND. IND.	RENDERUNGS-MITTEILUNG	DATUM	NAME		
				ZU GERÄT	SMP

CS23

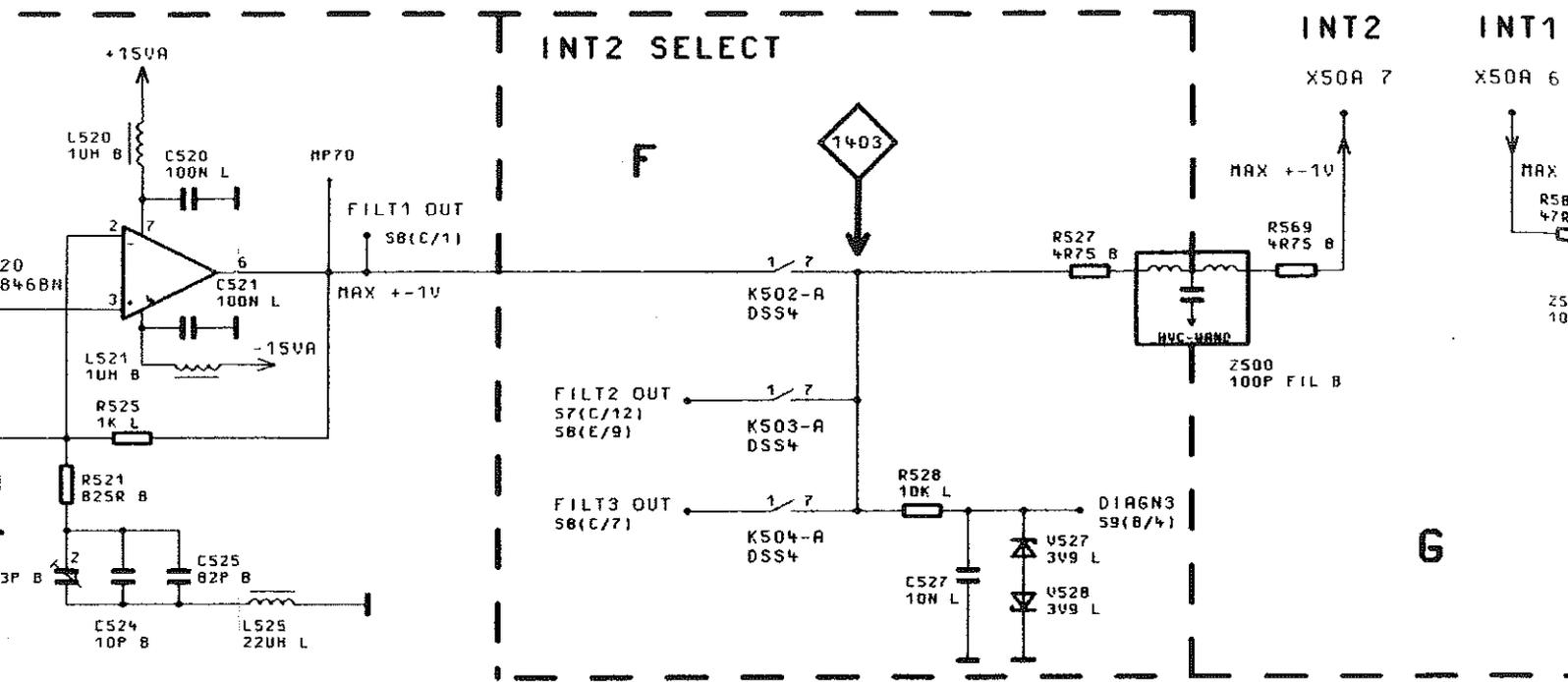
HP70

HP55

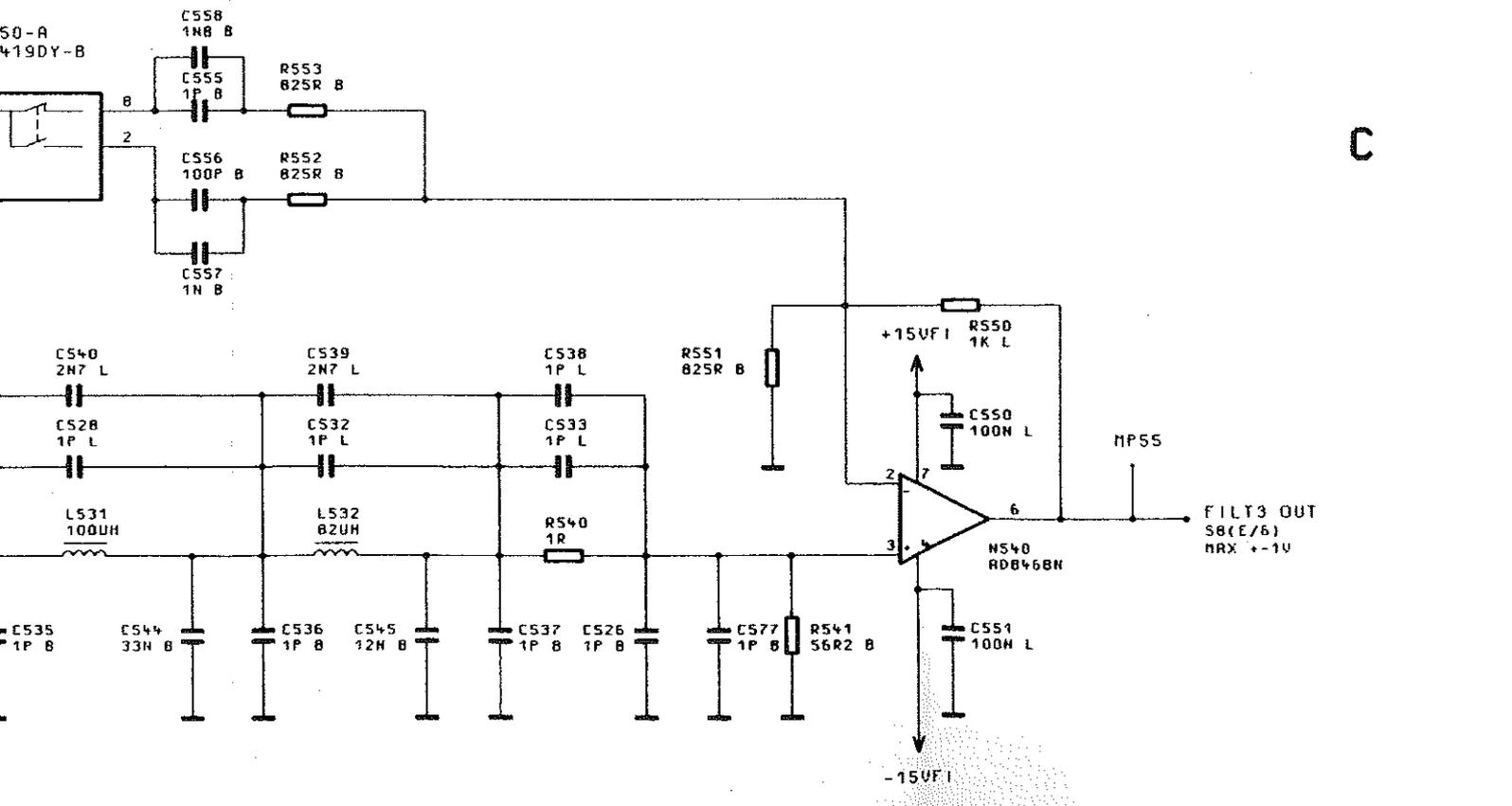
INT2 SELECT

INT2

INT1



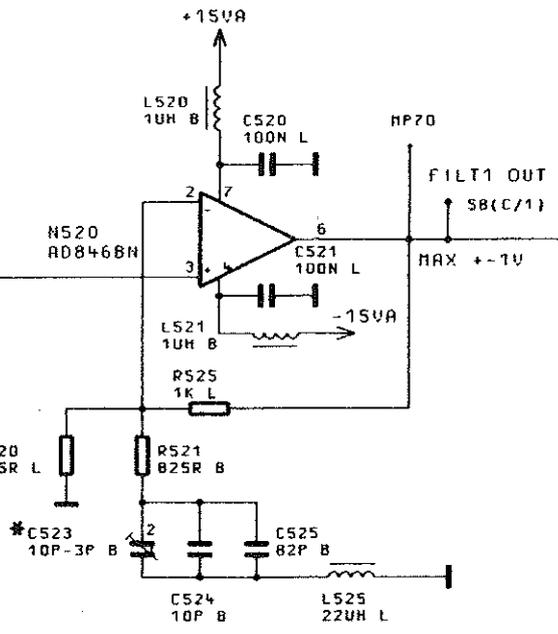
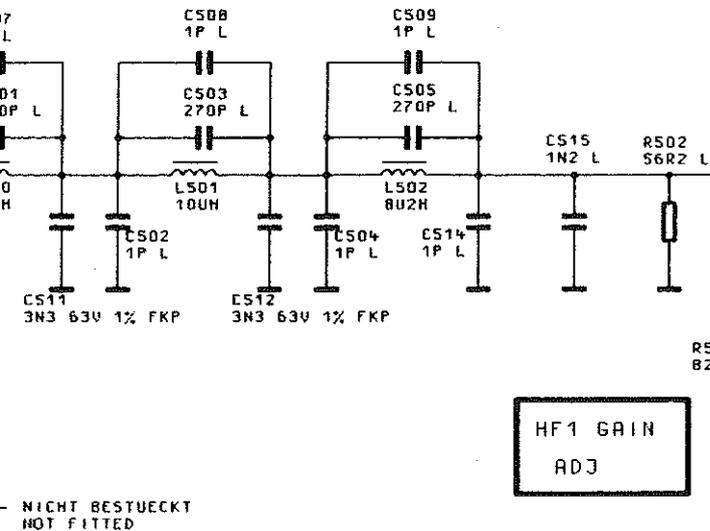
YX KOMPENSATION



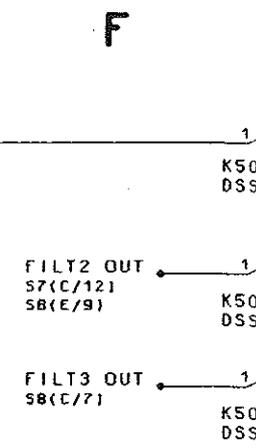
STROMLAUF GILT FUER VAR.02,04,20

CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,20

S FILTER 1MHZ

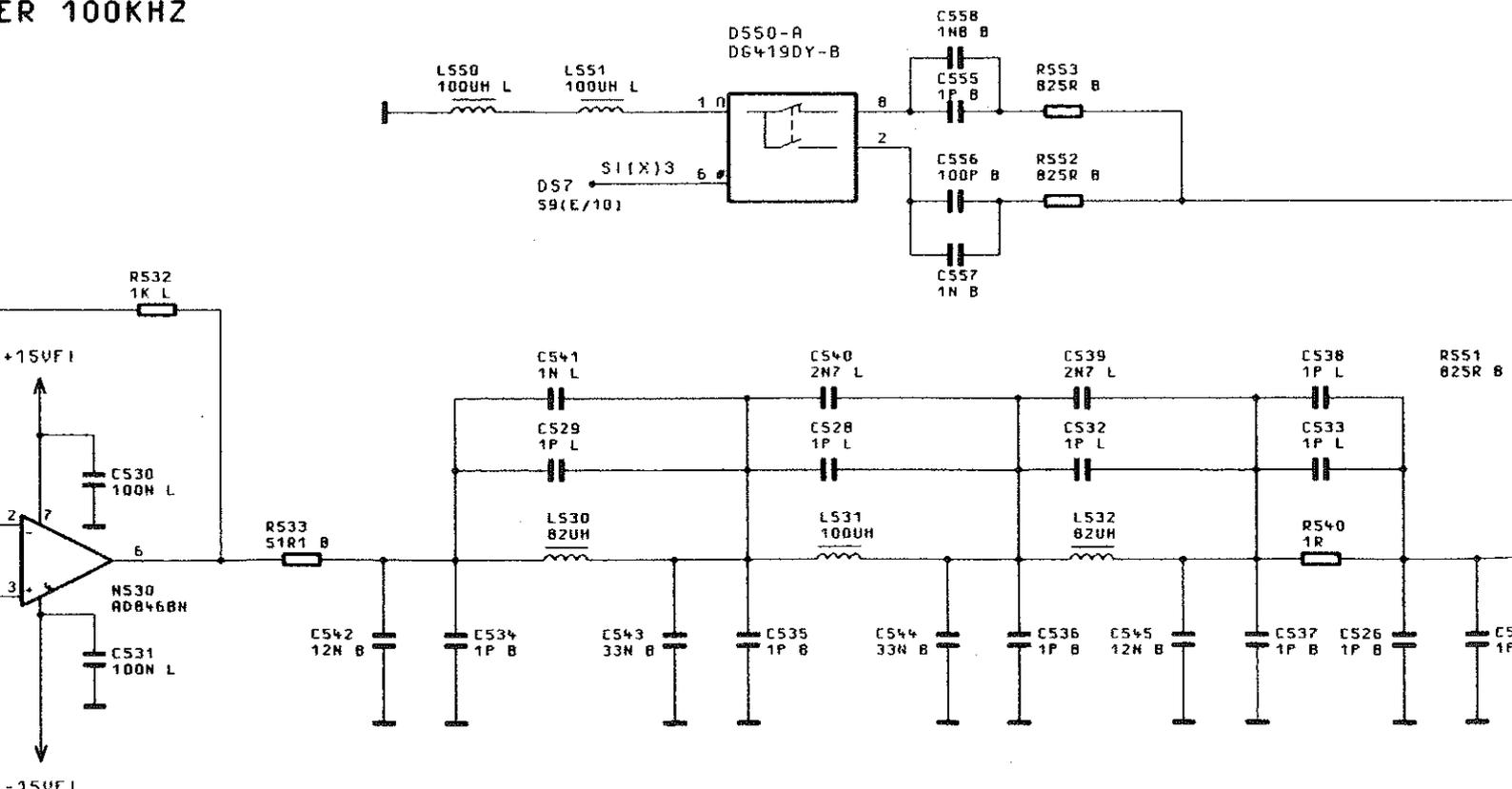


INT2 SELECT



- NICHT BESTUECKT
NOT FITTED

SIN X/X KOMPENSATION

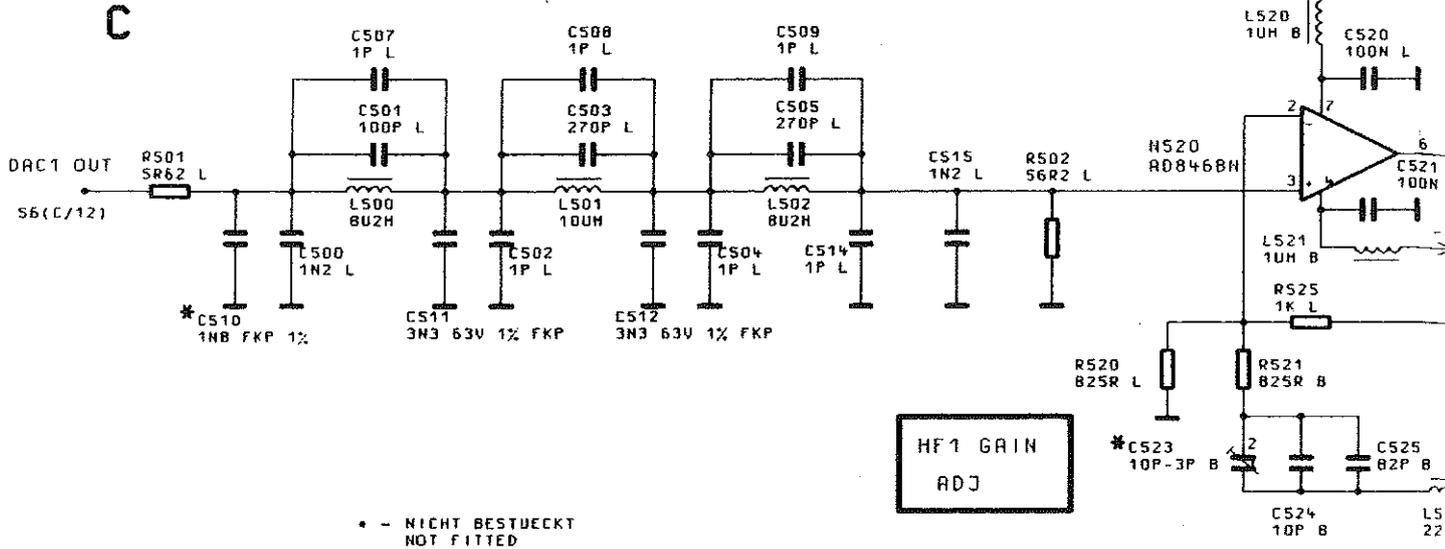


ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHRDETE
BAUELEMENTE ERFORDERN EINE
BESONDERE HANDLUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES
REQUIRE A SPECIAL HANDLING

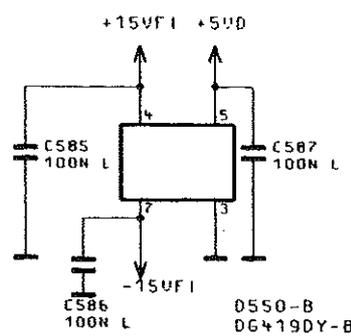
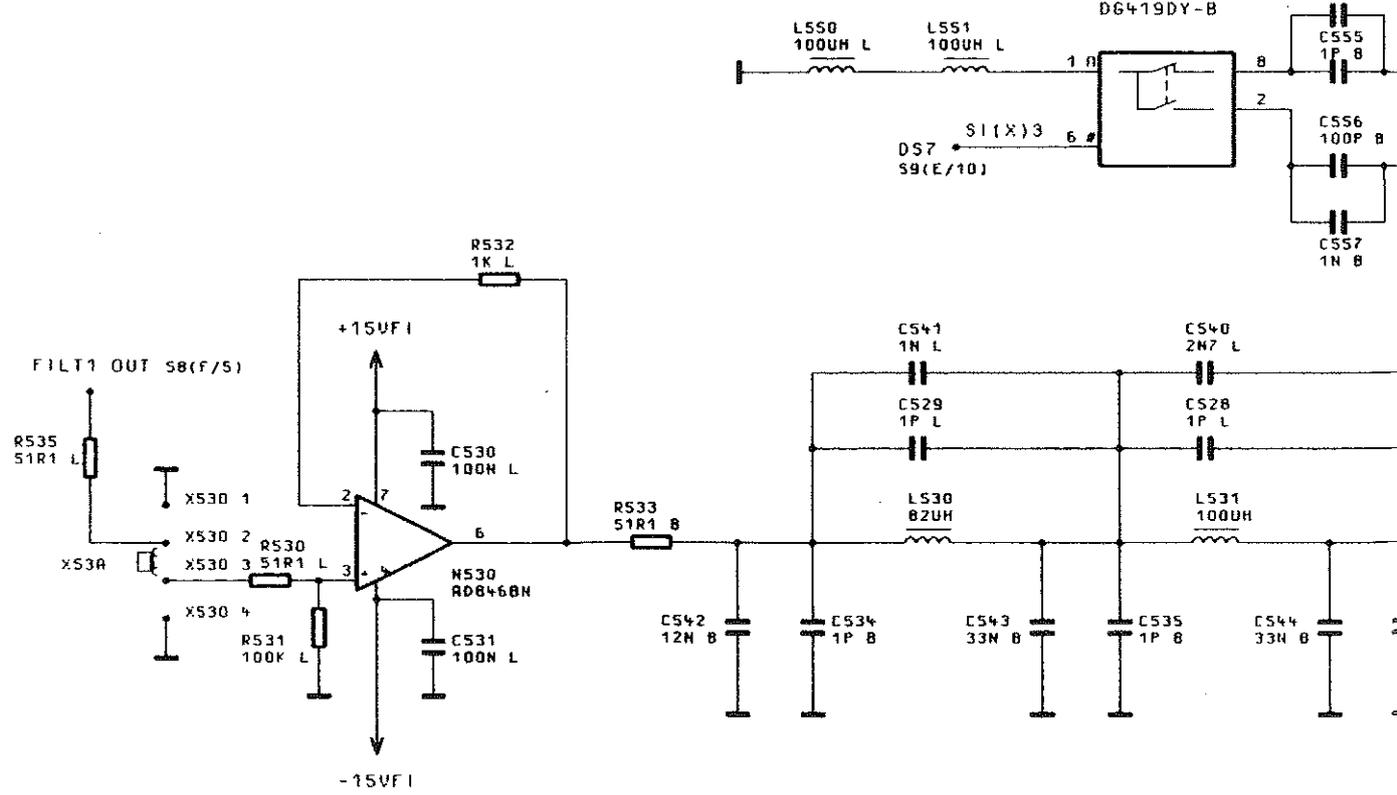
STROMLAUF GILT FUER

CIRCUIT DIAGRAM IS VALID FOR

LOW PASS FILTER 1MHZ



LOW PASS FILTER 100KHZ

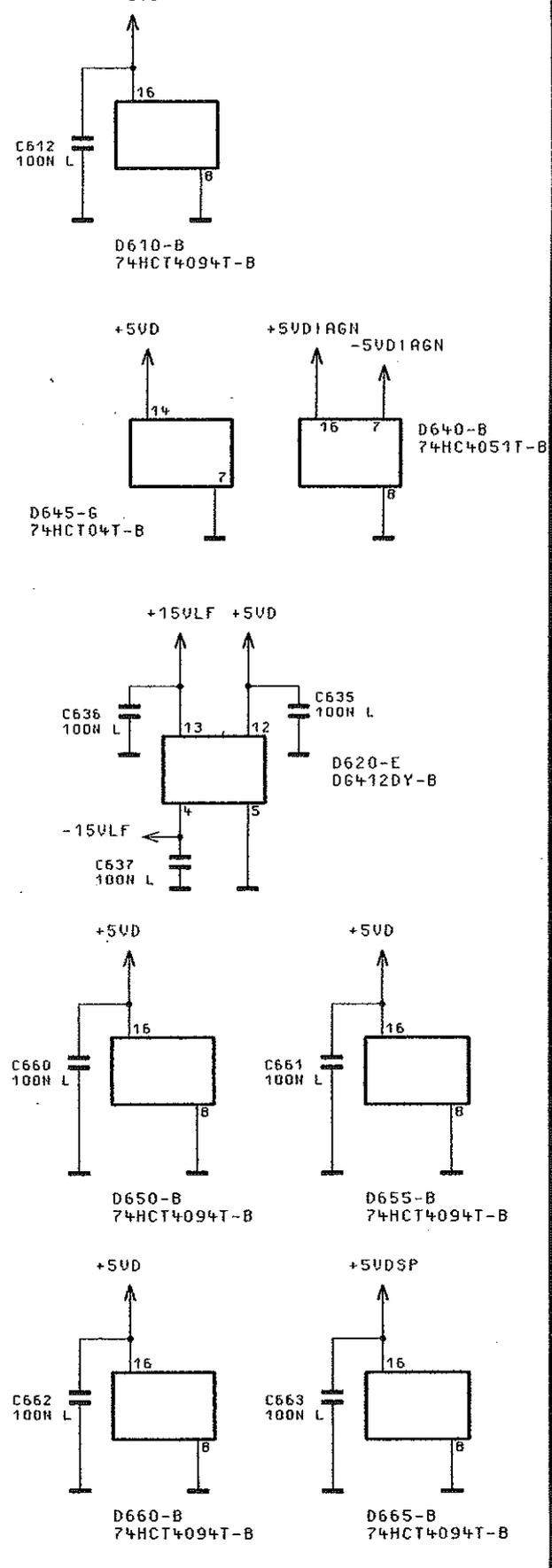
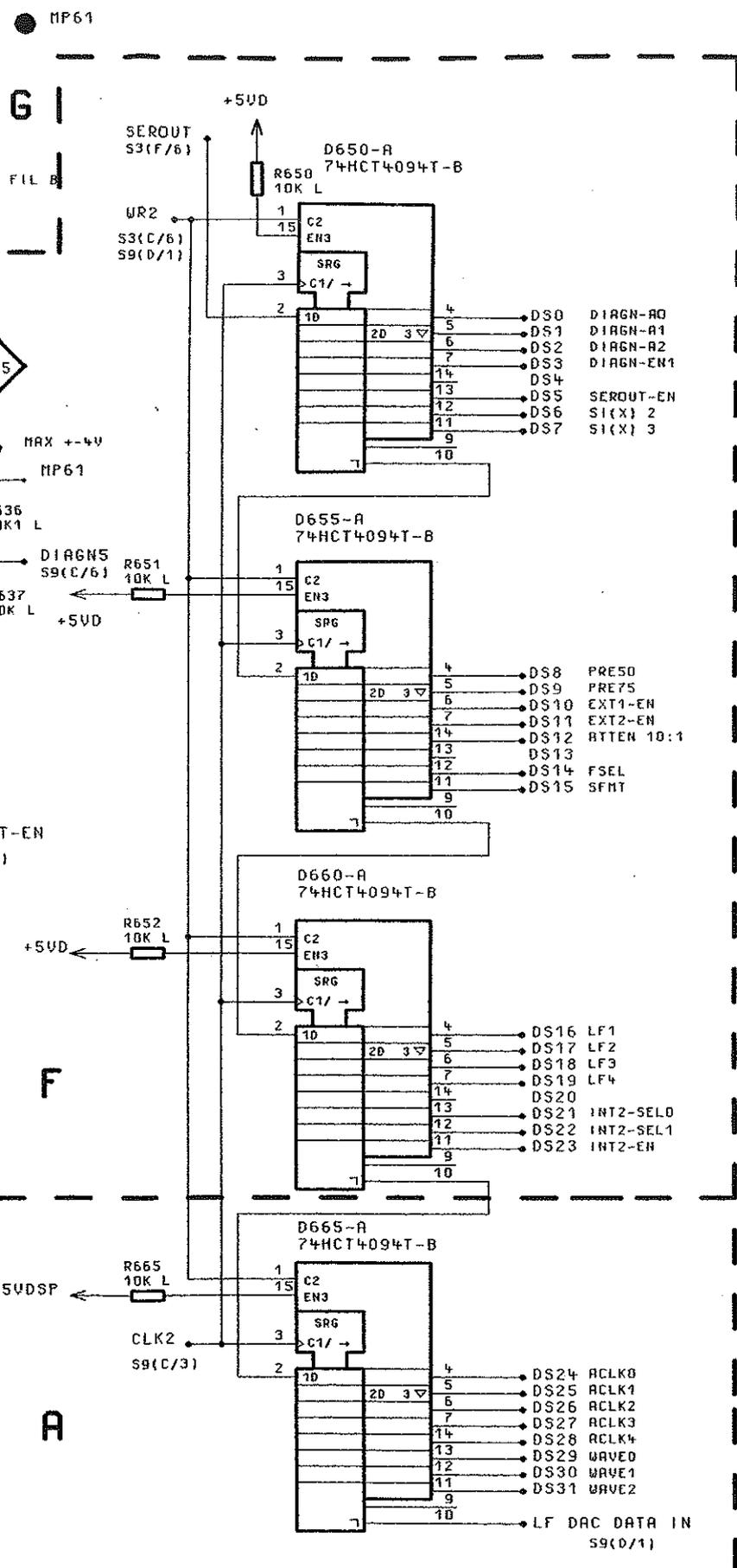




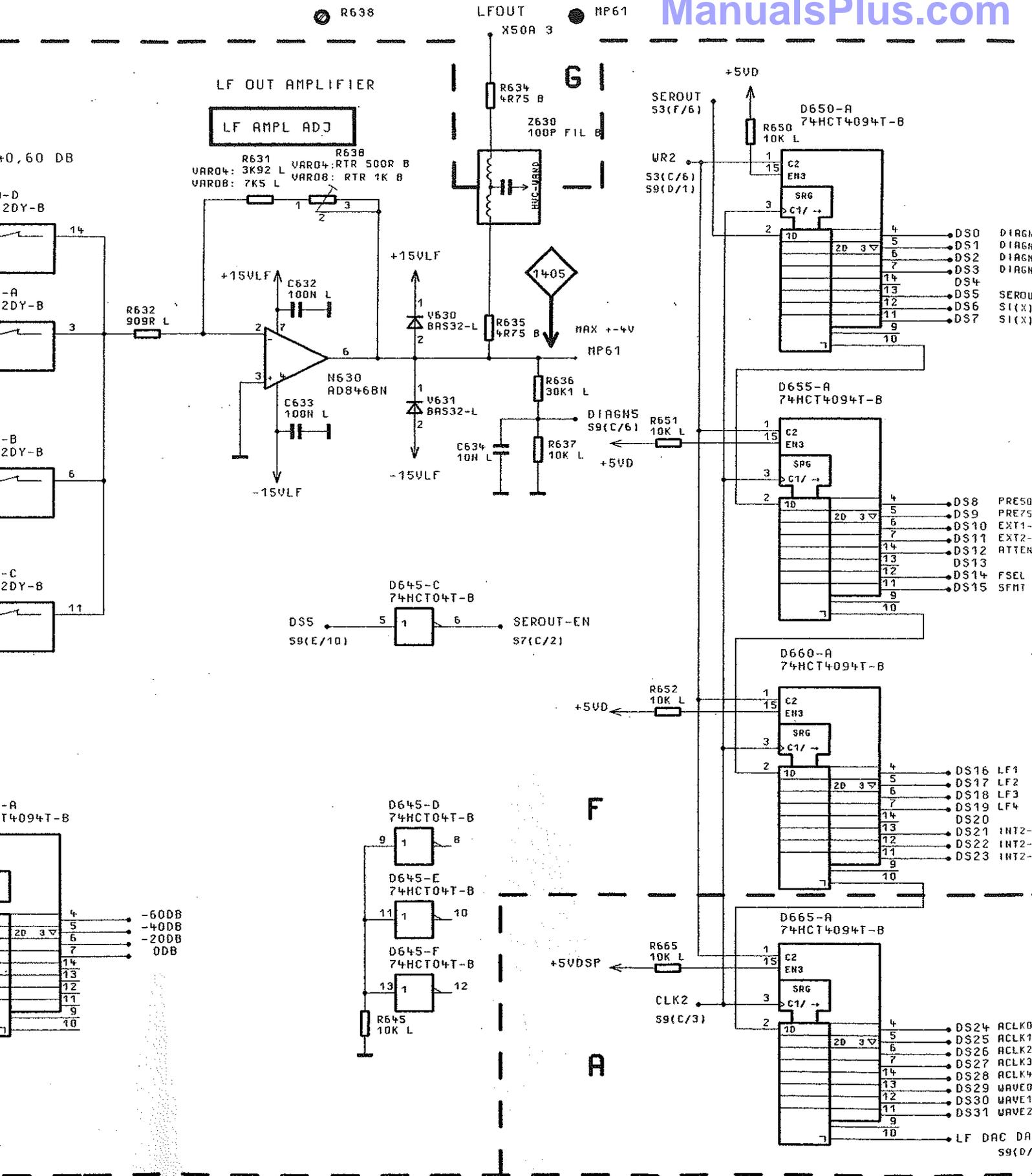
ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHRDENE
BAUELEMENTE ERFORDERN EINE
BESONDERE HANDHABUNG.

ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES
REQUIRE A SPECIAL HANDLING

BEHALTEN UIR UNS ALLE RECHTE UDR



02/02	50237 01	12.05.96	HO	16PK	TAG	NAME	BENENNUNG
				BEARB.		HO	MODULATIONSGENERATOR MOD. GEN
				GEPP.			
				NORM			
				PLOTT	06.09.96		
				ROHDE & SCHWARZ		ZEICHN.-NR.	1036.8272.01S
REND. IND.	ÄNDERUNGS-MITTEILUNG	DATUM	NAME			REG. I. V.	
				ZU GERÄT	SMP		BLATT-NR.
							9+
							V. 11/81

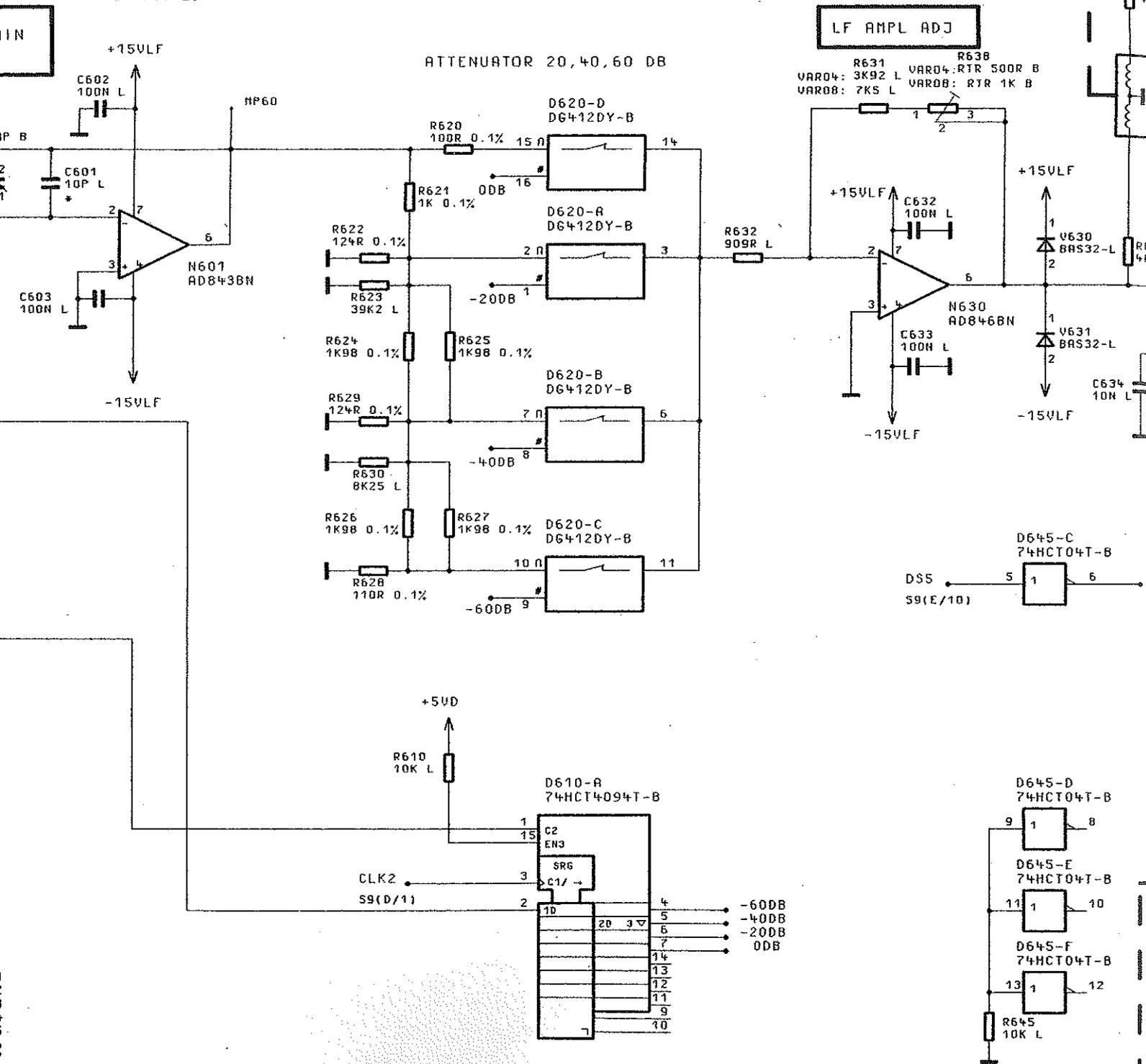


8,20

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

02/02	50237 01	12.05.96	HO	16PK	TAG
				BEARB.	
				GEPR.	
				NORM	
				PLOTT	06.09.96
/					
REND. IND.	RENDERUNGS- MITTEILUNG	DATUM	NAME	 ROHDE & SCHWARZ ZU GERÄT SMP	

* - NICHT BESTUECKT
NOT FITTED



STROMLAUF GILT FUER VAR.02,04,08,20

CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,08,20

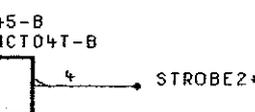
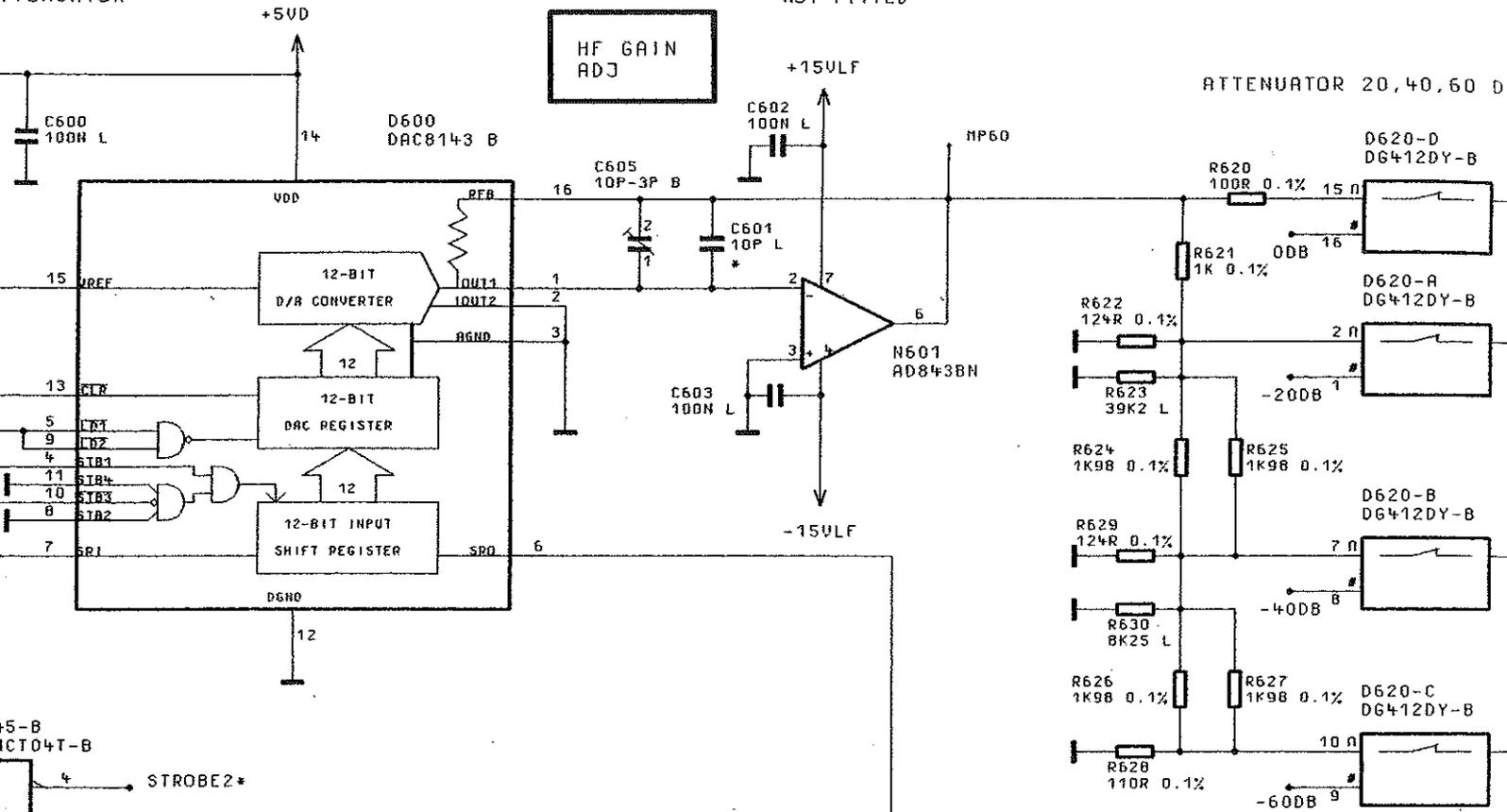


ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHR
BAUELEMENTE ERFORDERN
BESONDERE HANDHABUNG
ATTENTION ESD!
ELECTROSTATIC SENSITIVE
REQUIRE A SPECIAL HAND

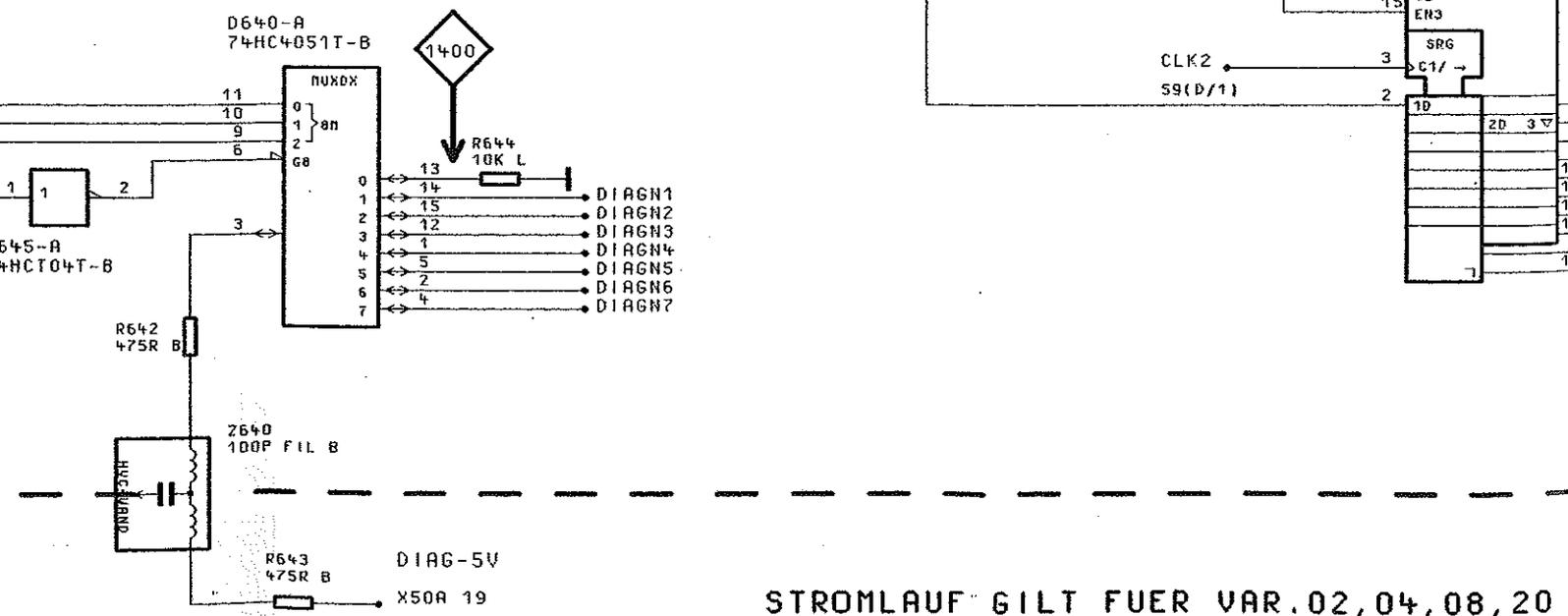
AMPLIFIER

ATTENUATOR

* - NICHT BESTUECKT
NOT FITTED

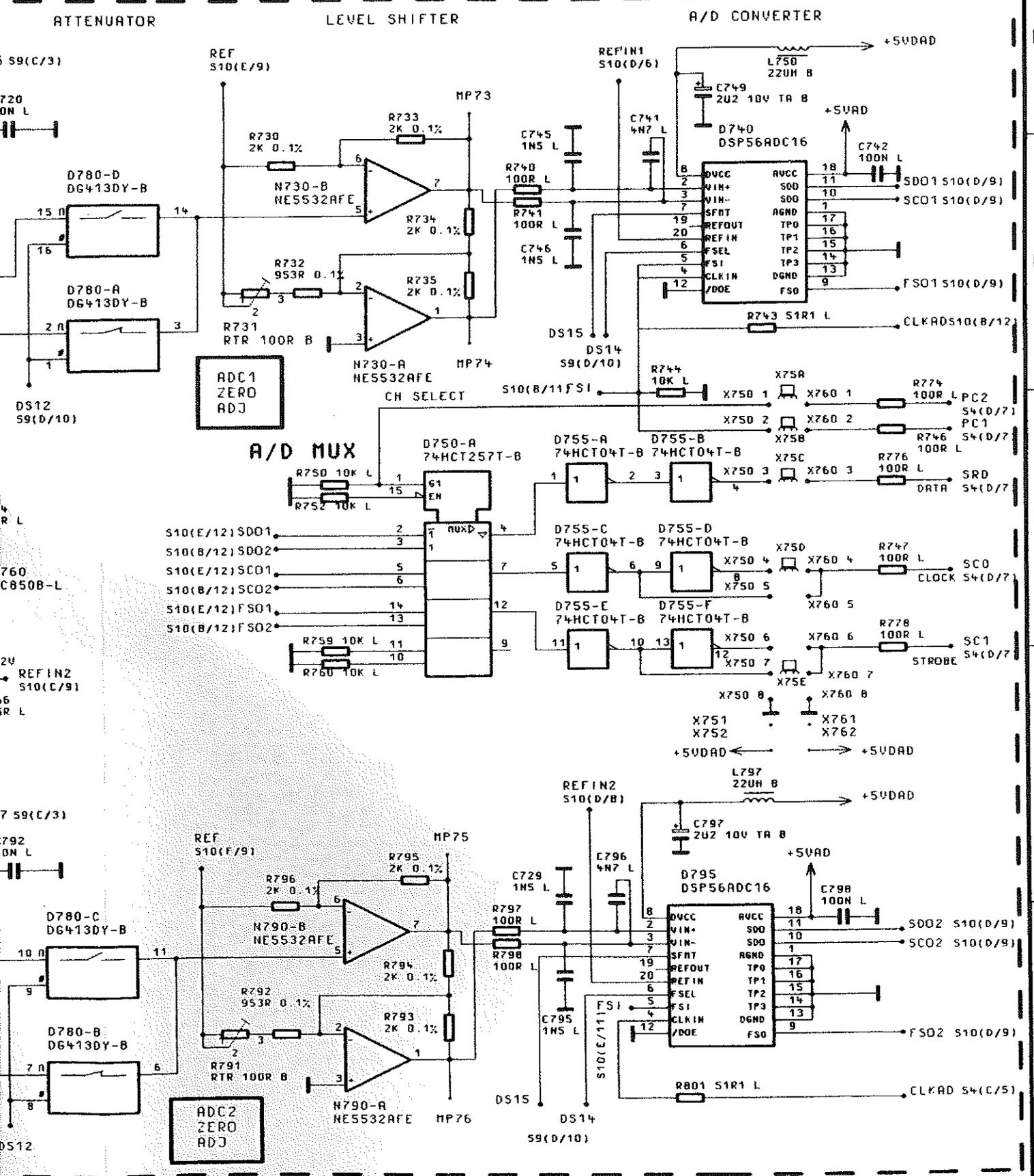


DIAGNOSE MUX

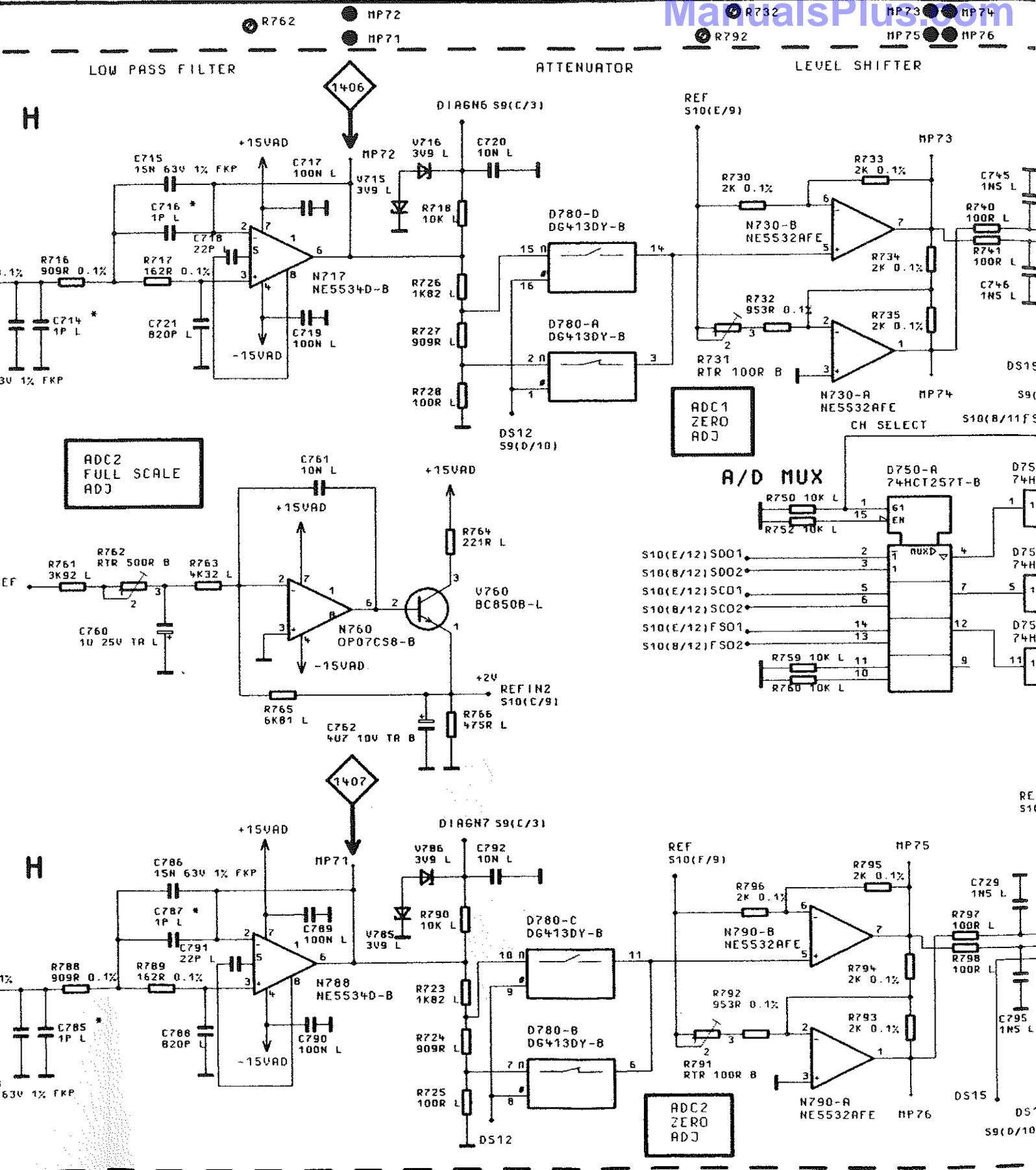


STROMLAUF GILT FUER VAR.02,04,08,20

CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,08,20



01/	16.10.92	HO	16PK	TAG	NAME	BENENNUNG		
			BEARB.		HO	MODULATIONSGENERATOR MOD. GEN		
			GEPP.					
			NORM					
			PLQ11	28.07.94				
02/	48742 00	27.07.94	HO			ZEICHN.-NR.	BLATT-NR.	
REND. IND.	RENDERUNGS-NITTEILUNG	DATUM	NAME	ROHDE&SCHWARZ		1036.8272.01S	10+	
			ZU GERÄT	SMP	REG. I. V.	1036.8250	ERSTE Z.	1036.8250
	9			10		11		12



STROMLAUF GILT FUER VAR. 02, 04, 20

CIRCUIT DIAGRAM IS VALID FOR MOD. 02, 04, 20



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

01/	16.10.92	HO	1GPK	TAG	NAM
			BCARB.		HO
			GEPR.		
			NORM		
			PLOTT	28.07.94	
02/	48742 00	27.07.94	HO		
REND. IND.	RENDERUNGS-MITTEILUNG	DATUM	NAM	 ZU GERÄT SMP	

R768

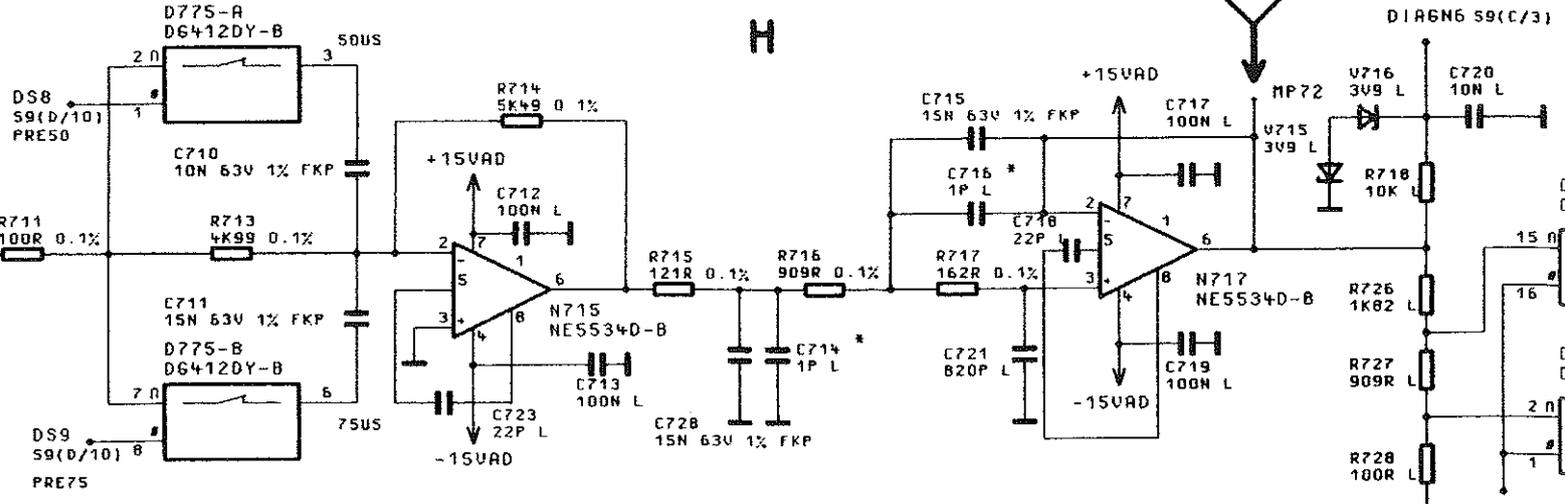
R762

MP72

MP71

PREEMPHASIS

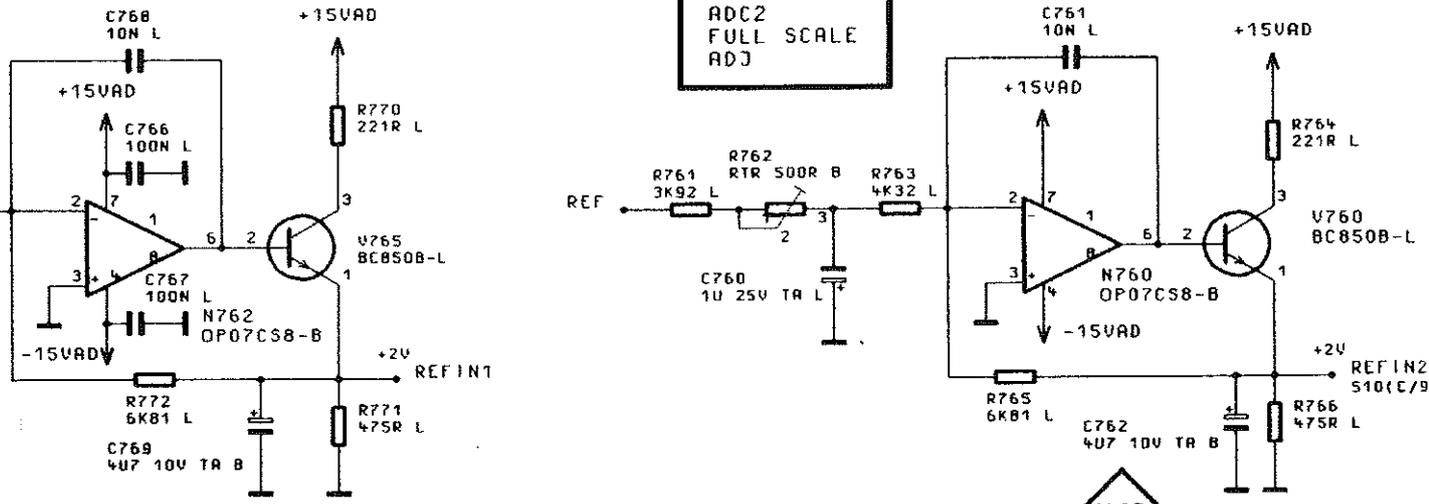
LOW PASS FILTER



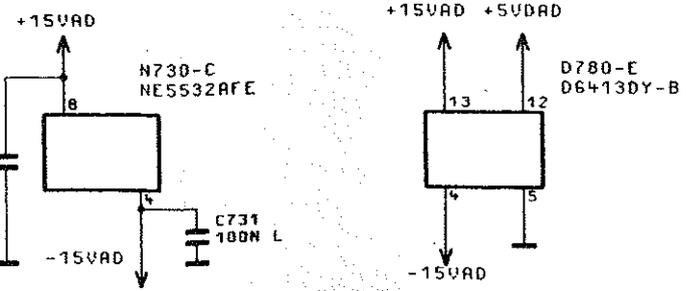
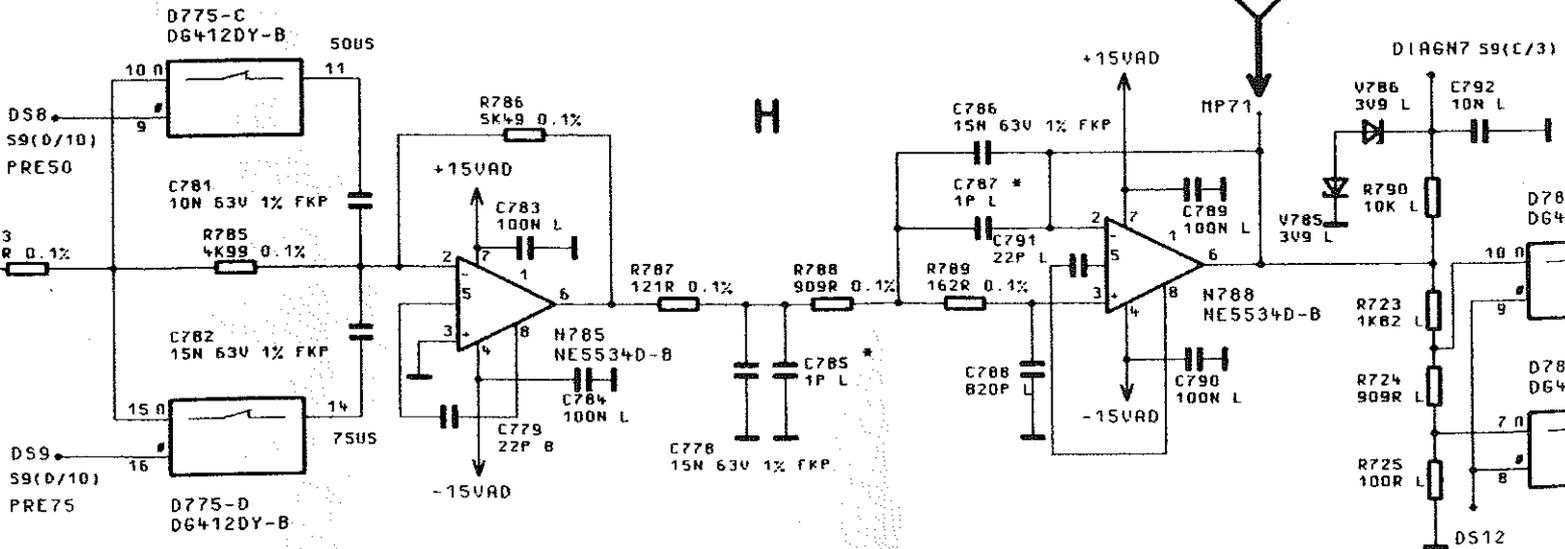
REFERENCE

SCALE

ADC2 FULL SCALE ADJ



BESTUECKT LITTED



STROMLAUF GILT FUER VAR.02,04,20

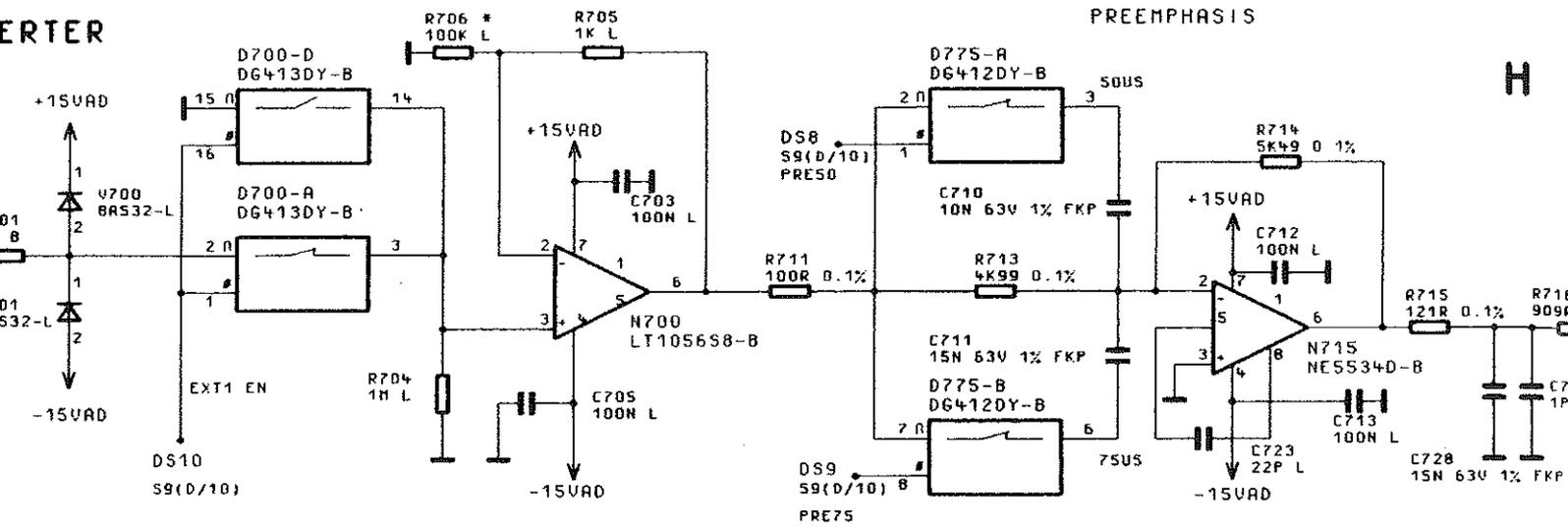
CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,20



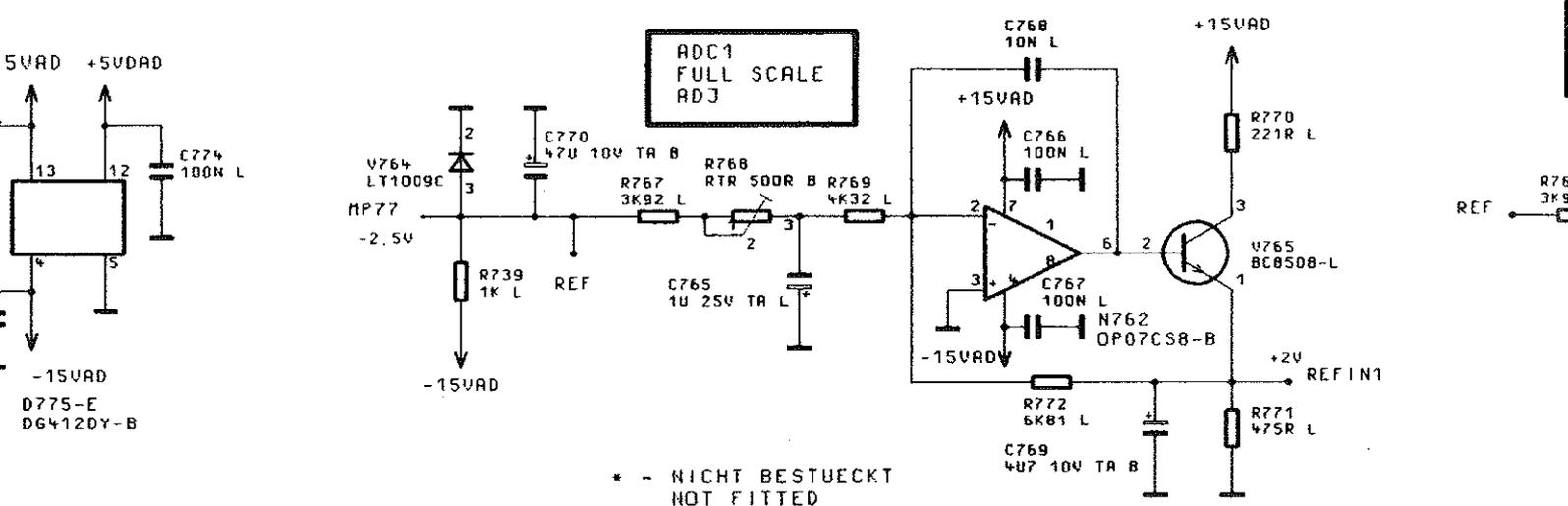
ACHTUNG: EGB!
ELEKTROSTATISCH GEFÄHRDETE
BAUELEMENTE ERFORDERN EINE
BESONDERE HANDLUNG.
ATTENTION ESD!
ELECTROSTATIC SENSITIVE DEVICES
REQUIRE A SPECIAL HANDLING

VERTER

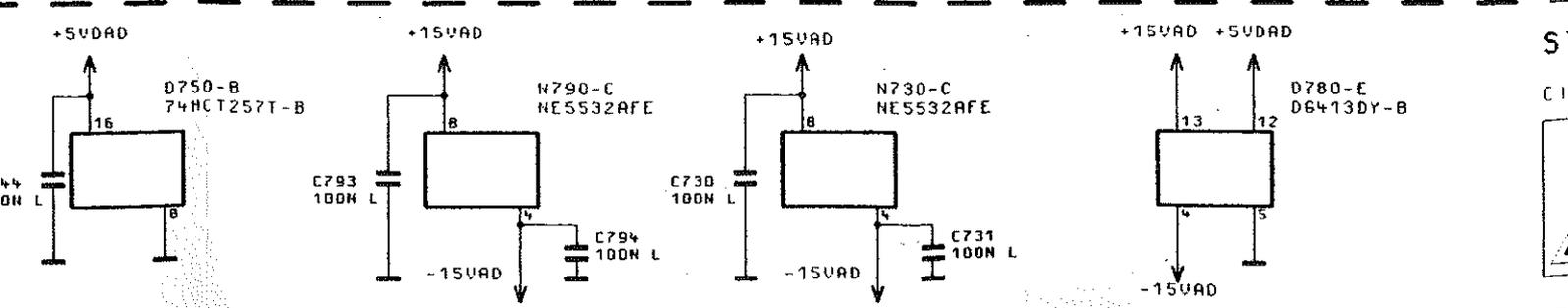
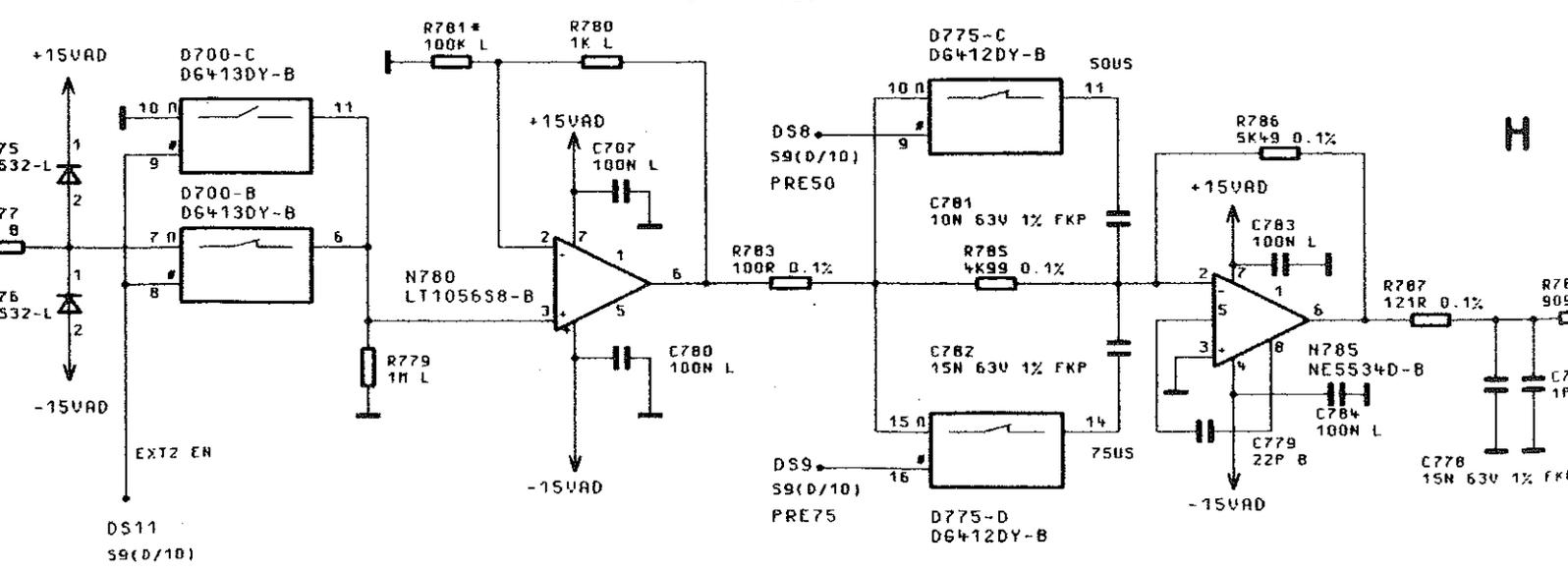
PREEMPHASIS



VOLTAGE REFERENCE

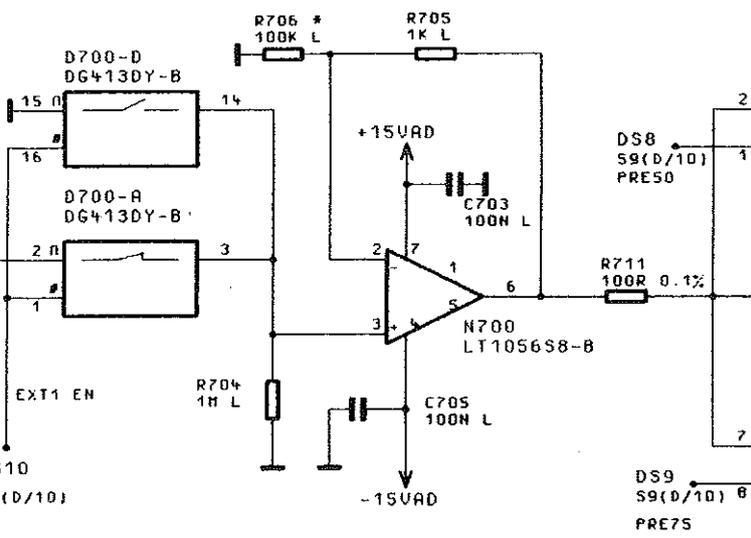
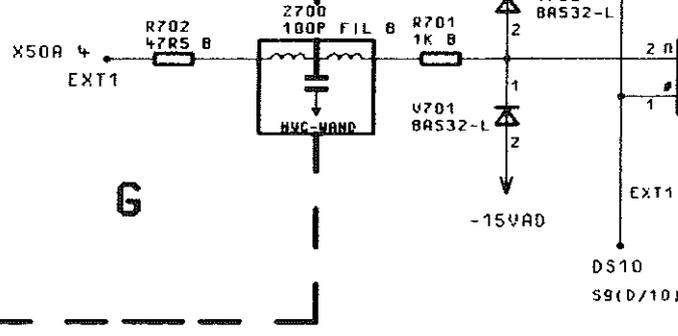


* - NICHT BESTUECKT
HOT FITTED

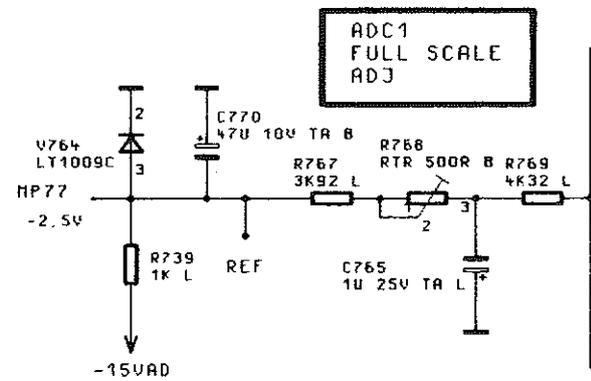
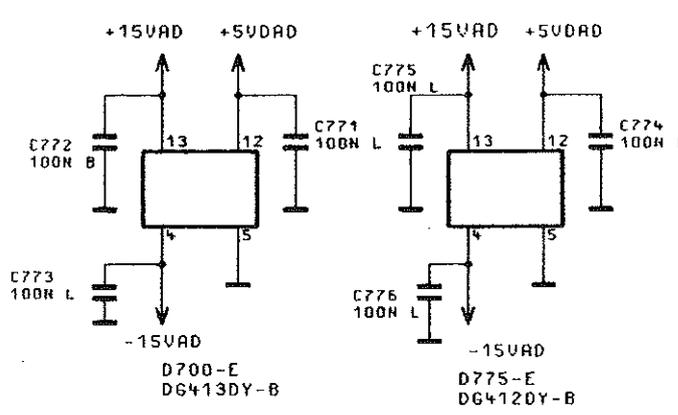


A/D CONVERTER

EXT1 INPUT

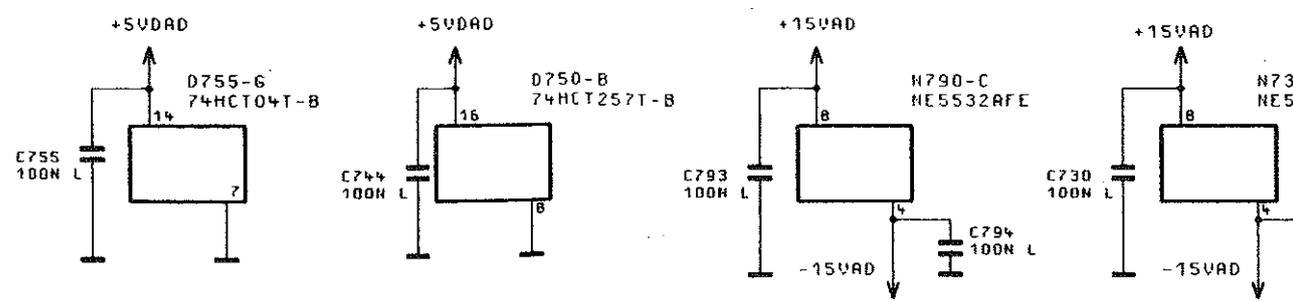
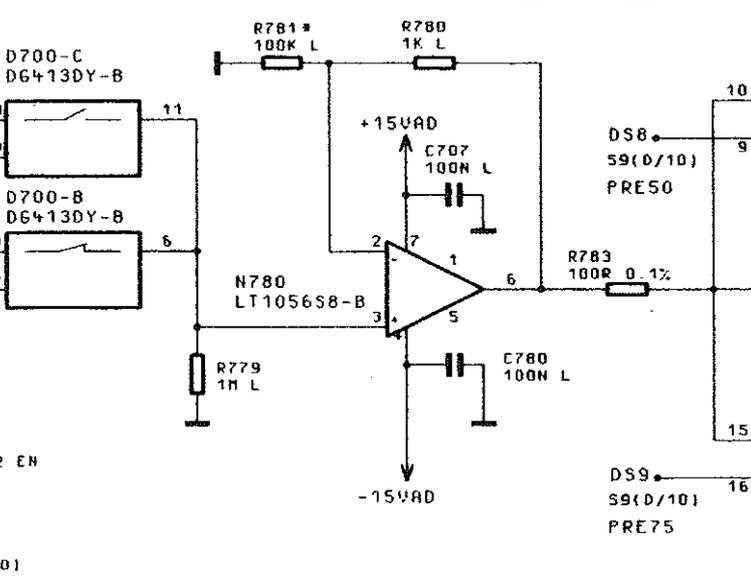
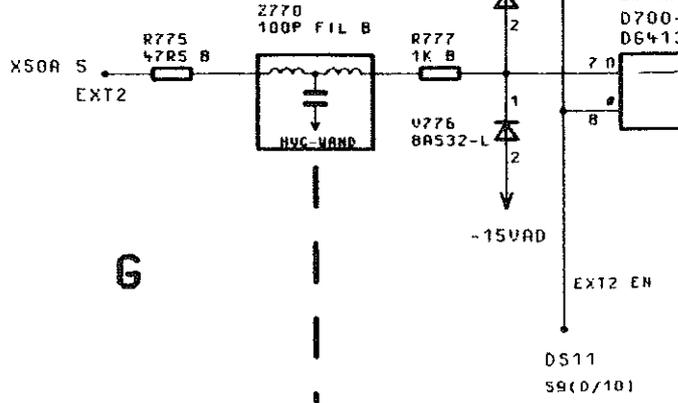


VOLTAGE REFERENCE



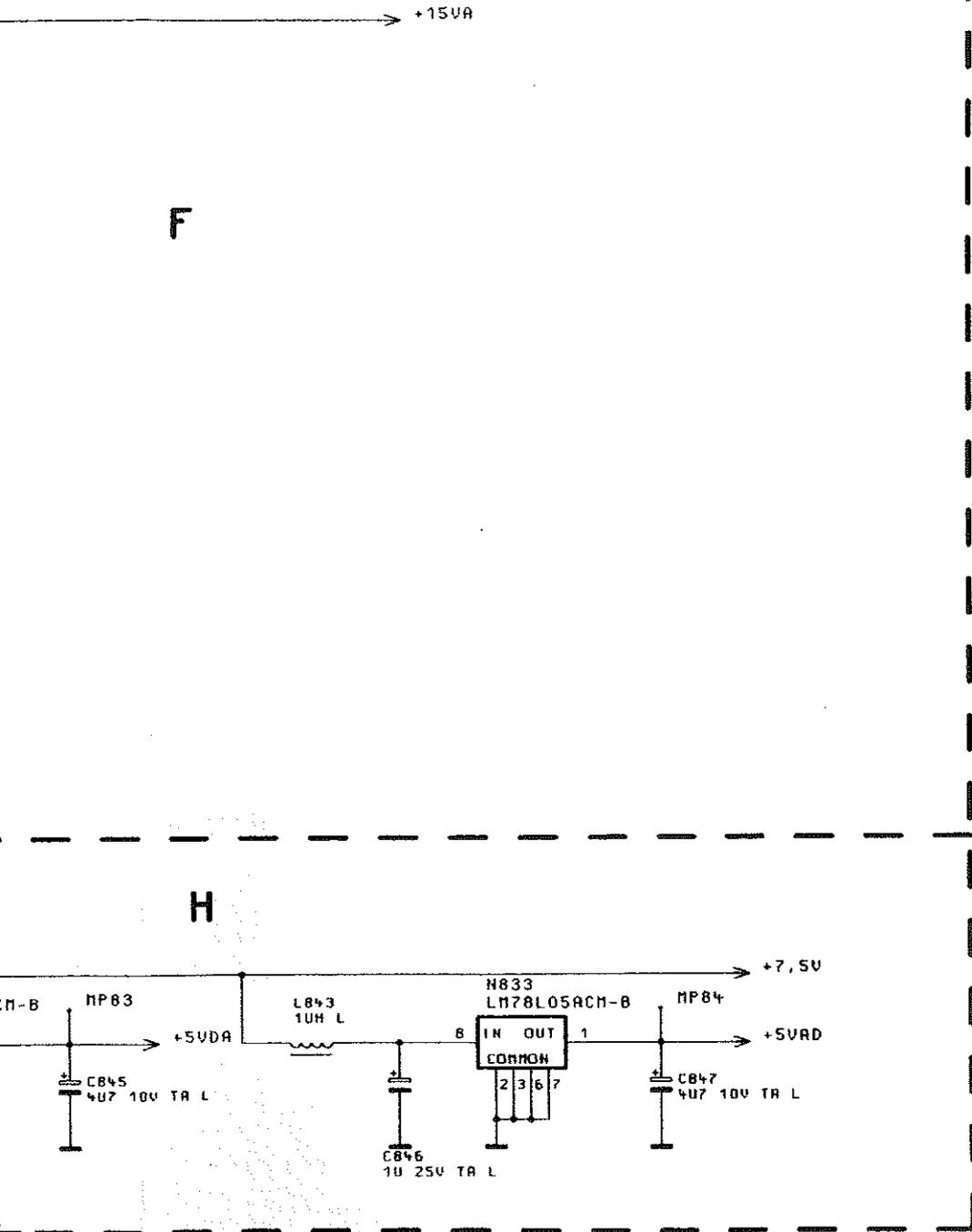
* - NICHT BESTUECKT
NOT FITTED

EXT2 INPUT



FUER DIESE UNTERLAGE
BEHALTEN WIR UNS ALLE RECHTE VOR

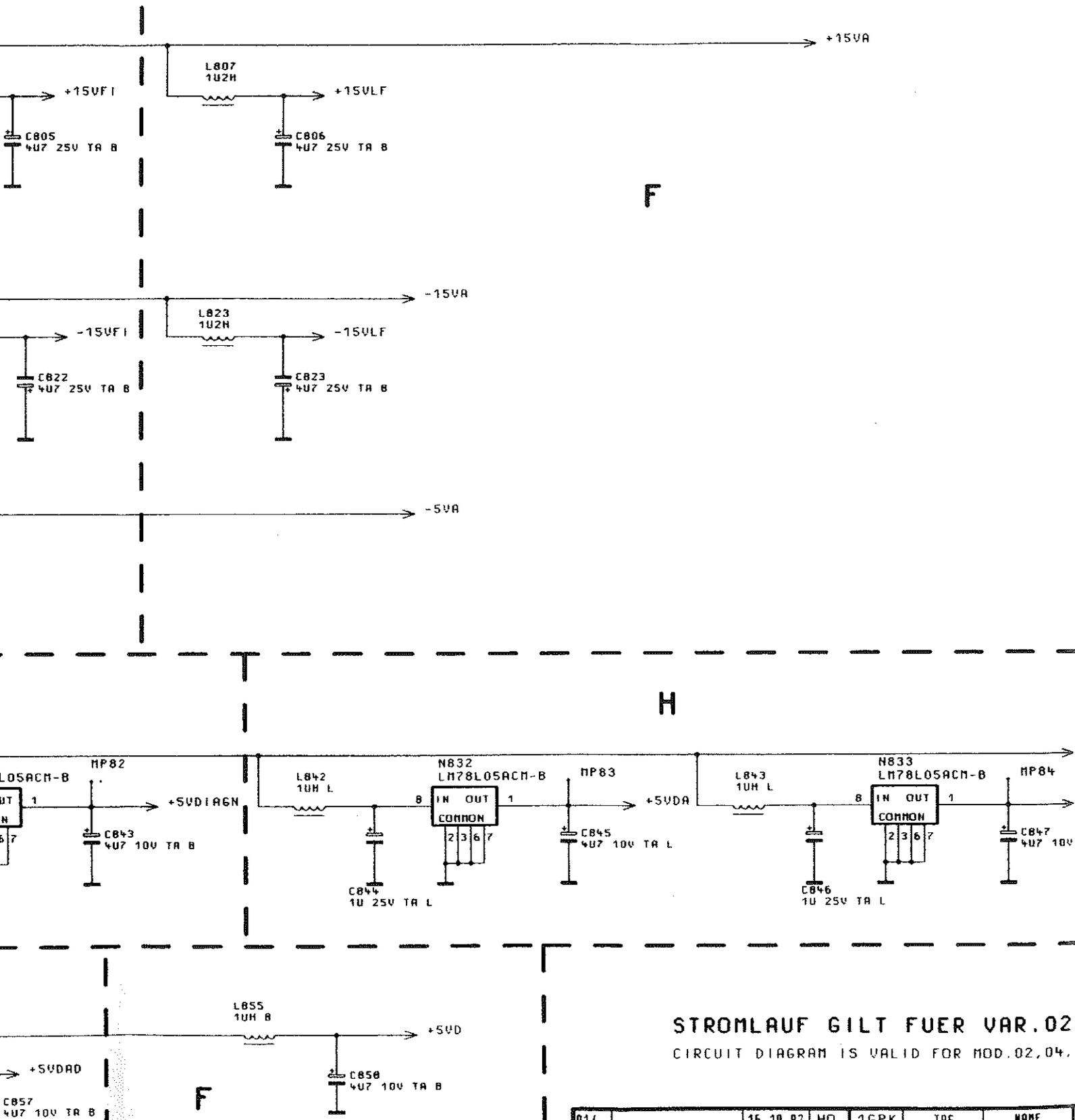
ZEICHN.-NR.



STROMLAUF GILT FUER VAR.02,04,20
CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,20

01/		16.10.92	HO	1GPK	TAG	NAME	BENENNUNG		
				BEARB.		HO	MODULATIONSGENERATOR MOD.GEN		
				GEPP.					
				NORN					
				PLOTT	28.07.94				
02/	48742 00	27.07.94	HO	 ROHDE & SCHWARZ		ZEICHN.-NR.		BLATT-NR.	
REND. IND.	RENDERUNGS- MITTEILUNG	DATUM	NAME			1036.8272.01S		11	
				ZU GEPART	SMP	REG.-I.V.	1036.8250	ERSTE Z.	1036.8250

RAUM



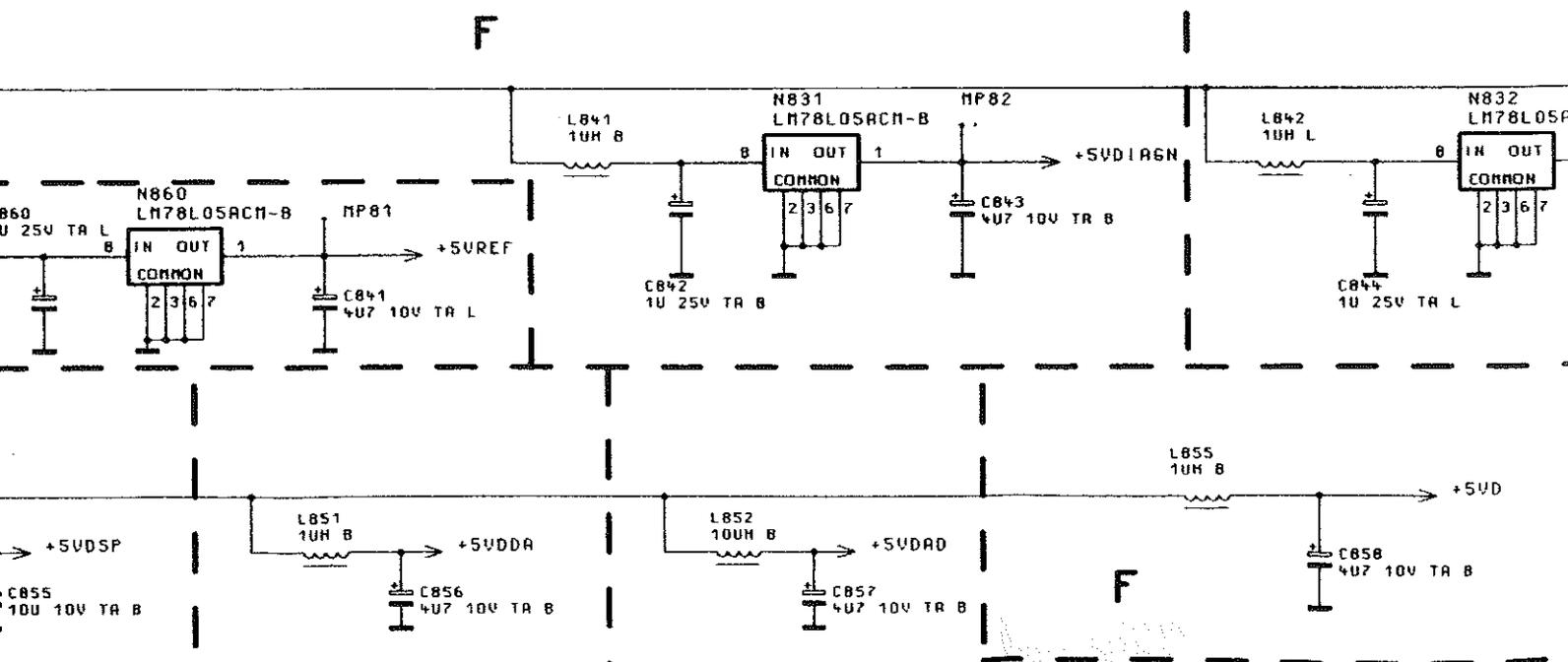
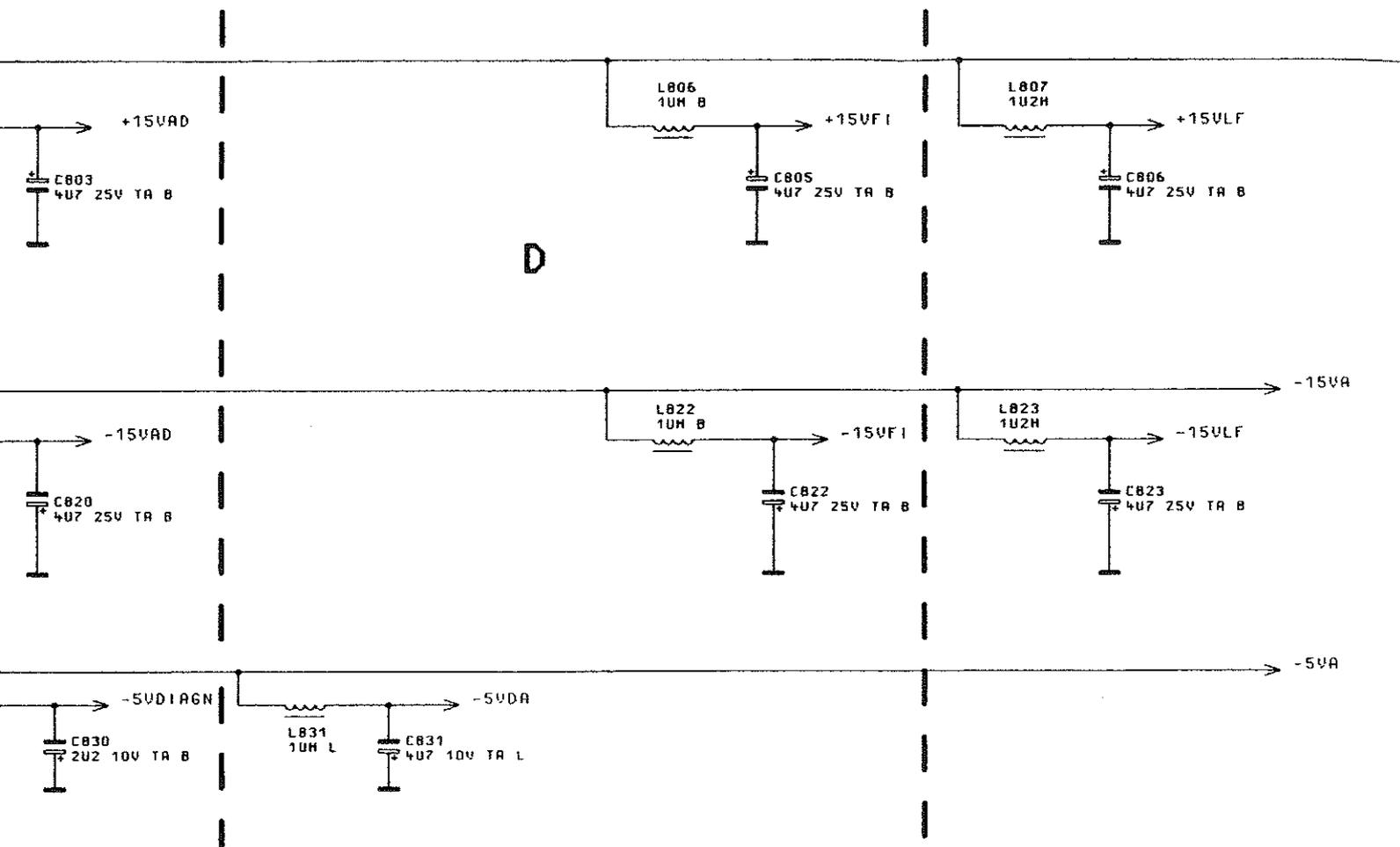
STROMLAUF GILT FUER VAR.02
CIRCUIT DIAGRAM IS VALID FOR MOD.02,04,...

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

01/		16.10.92	HO	16PK	TAG	NAME
				BEARB.		HO
				GEPR.		
				NORN		
				PLOT1	28.07.94	
02/	48742 00	27.07.94	HO	 ROHDE&SCHWARZ ZU GEPR. SMP		
REND. IND.	RENDPUNGS- MITTEILUNG	DATUM	NAME			

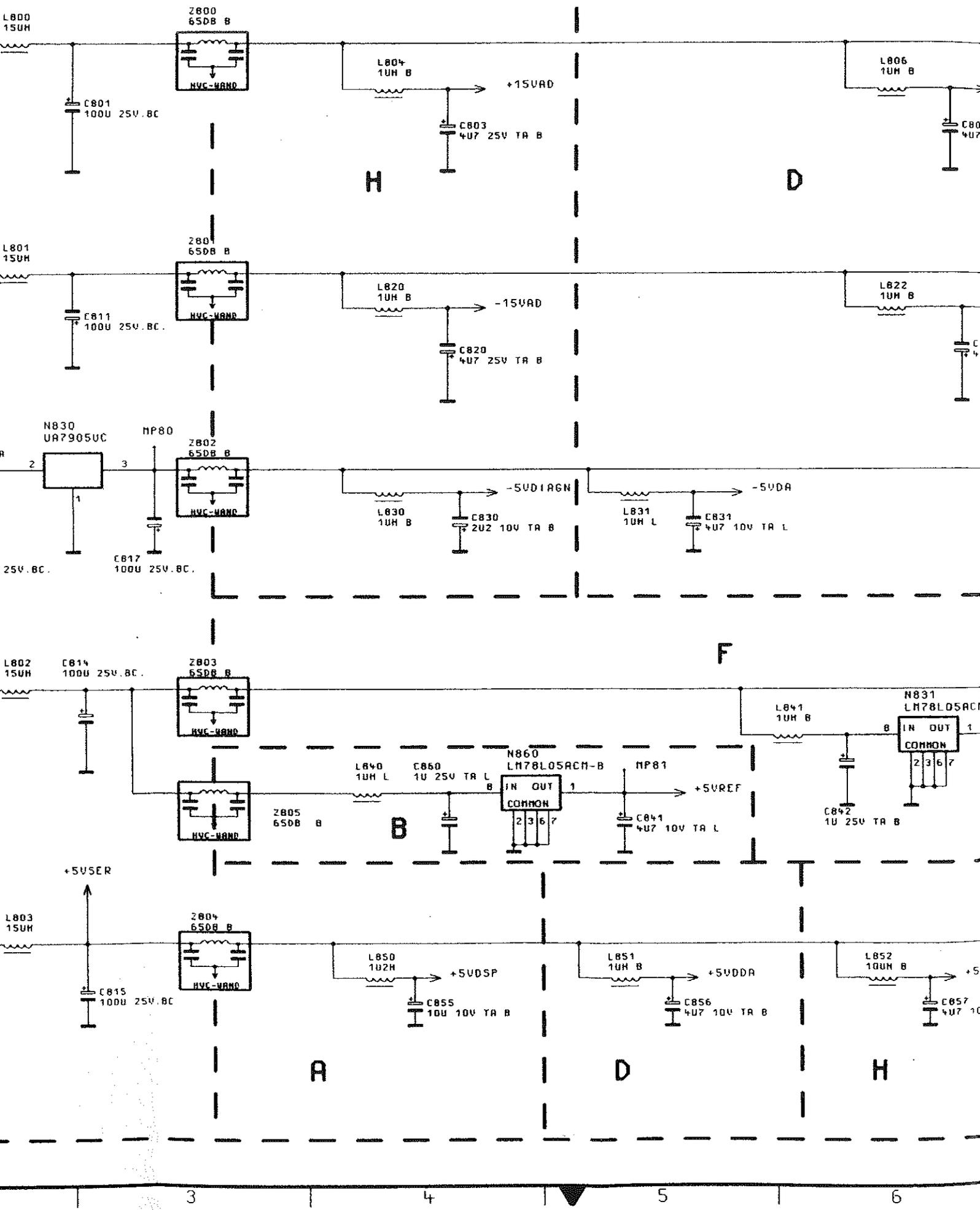
STROMVERSORGUNGSBAUM

POWER-SUPPLY-TREE





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



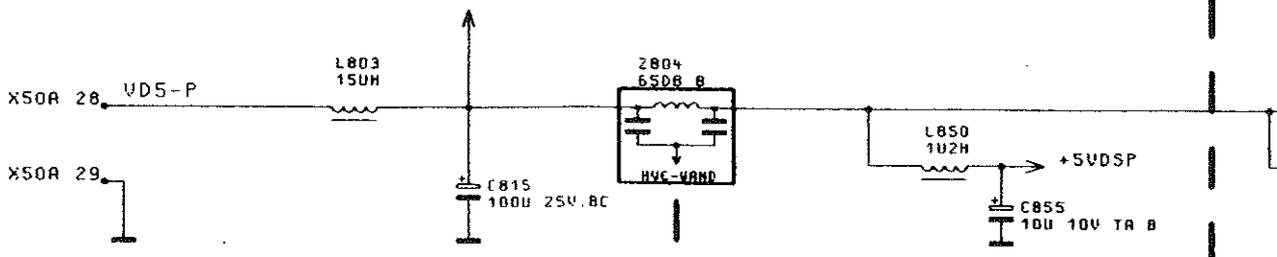
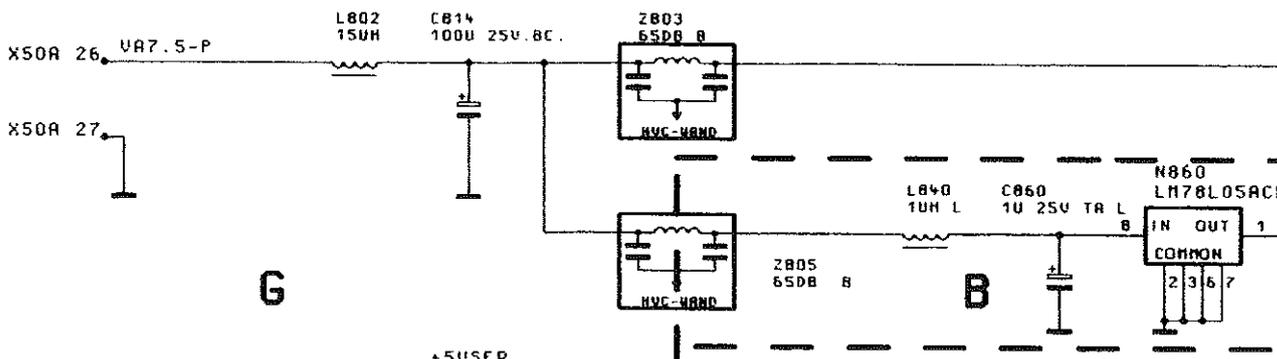
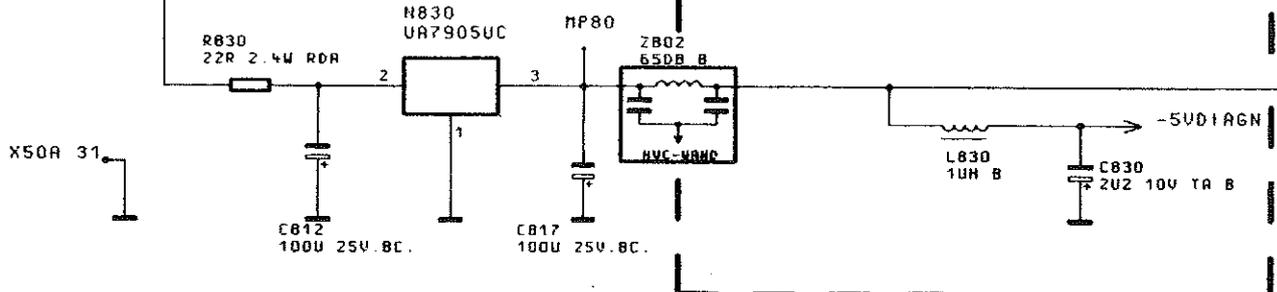
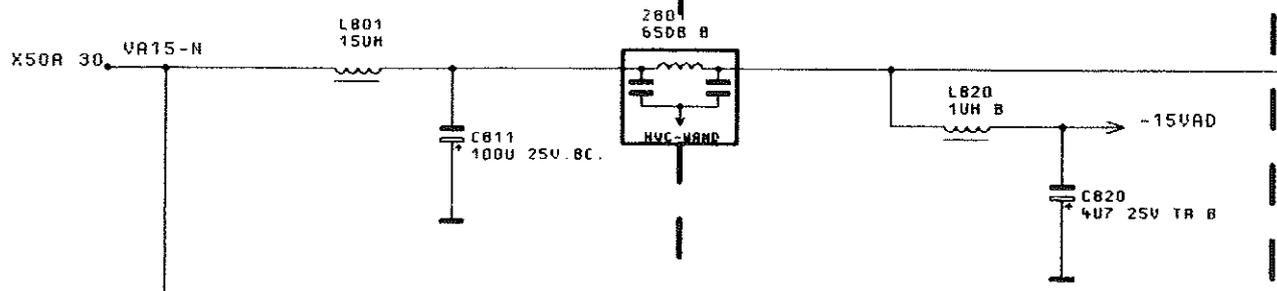
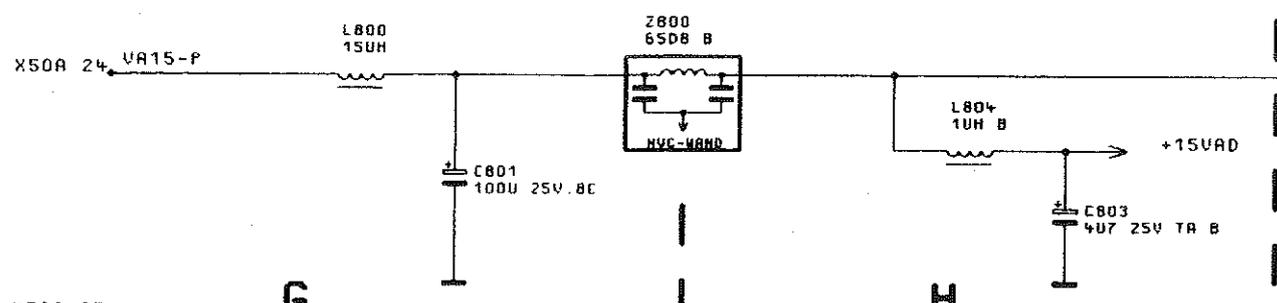
1 2 3 4

E

D

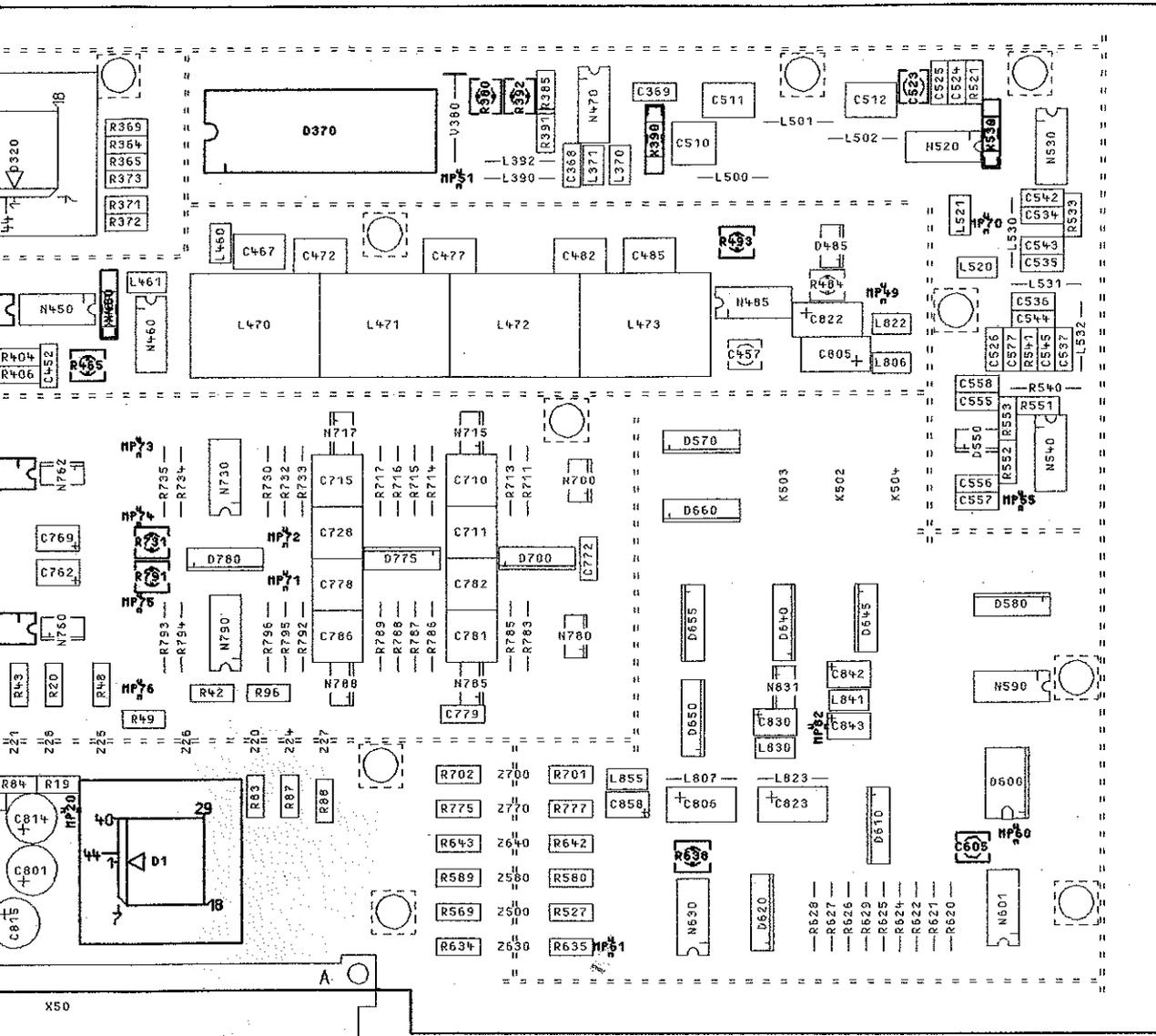
C

B



1 2 3 4

CHARACTER STRINGS ARE ALL RELATIVE TO



CD1	10.92	HO	16PK	TAG	NAME	BENENNUNG	
			ACARB.		HO	MODULATIONSGENERATOR MOD. GEN	Z
			SEPR.		HO		
			NORN				
			PLOTT	13.10.92			
						ZEICHN.-NR.	
						1036.8272.01	ED
REND IND.	RECHNERUNGS- MITTEILUNG	DATUM	NAME	ROHDE & SCHWARZ		REC. I.V.	1036.8250
				ZU GERÄT	SMP	ERSTE Z.	

FUER DIESE ZEICHNUNG BEHALTEN SICH DAS ALLE RECHTE VOR.
 DIESE ZEICHNUNG IST EIN RECHNERDRUCK, AENDERUNGEN KUNNEN NUR DURCH AENDEREN DES DATENSATZES ERFOLGEN

H

G

U

F

E

D

C

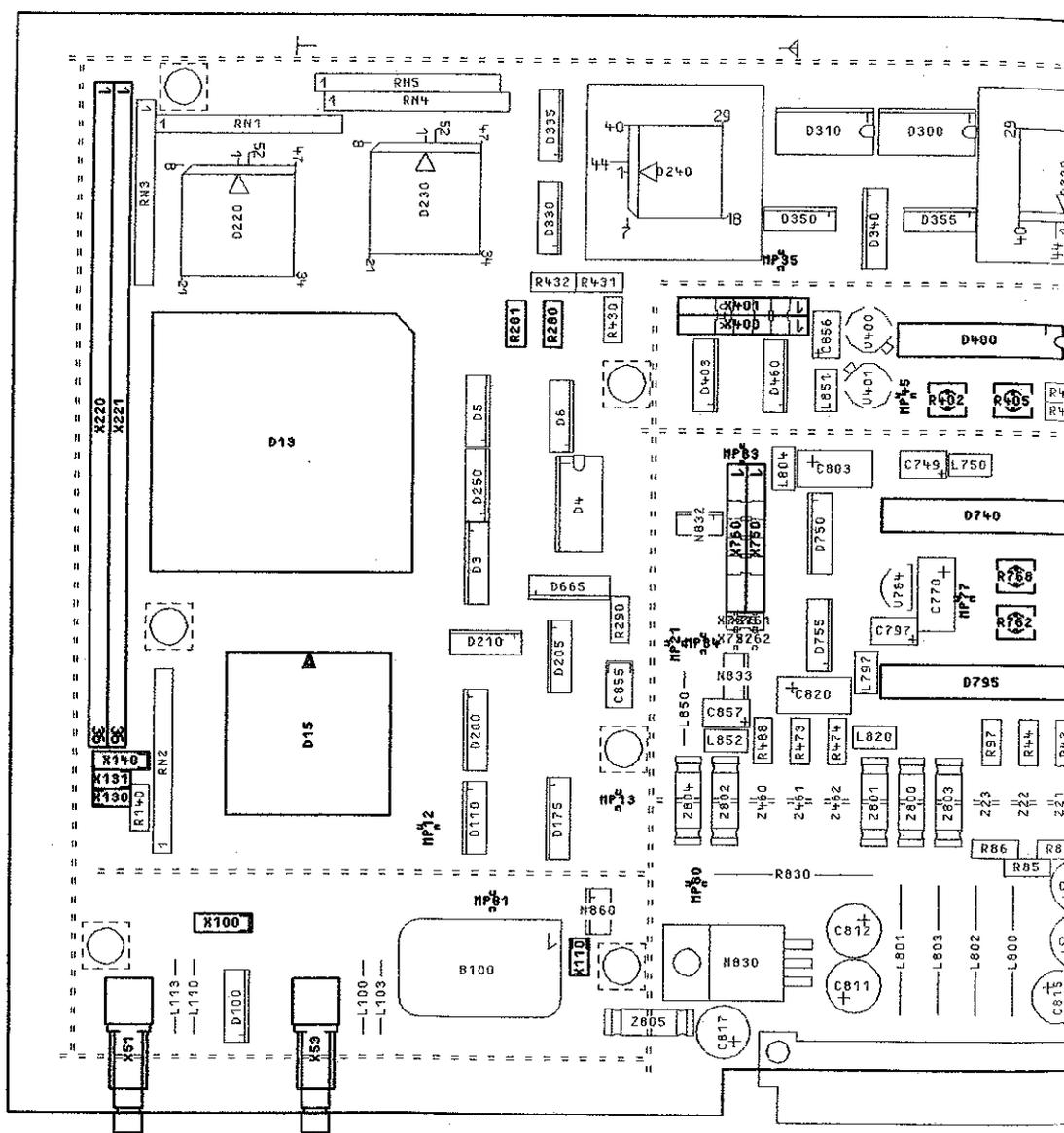
B

A

150

100

50

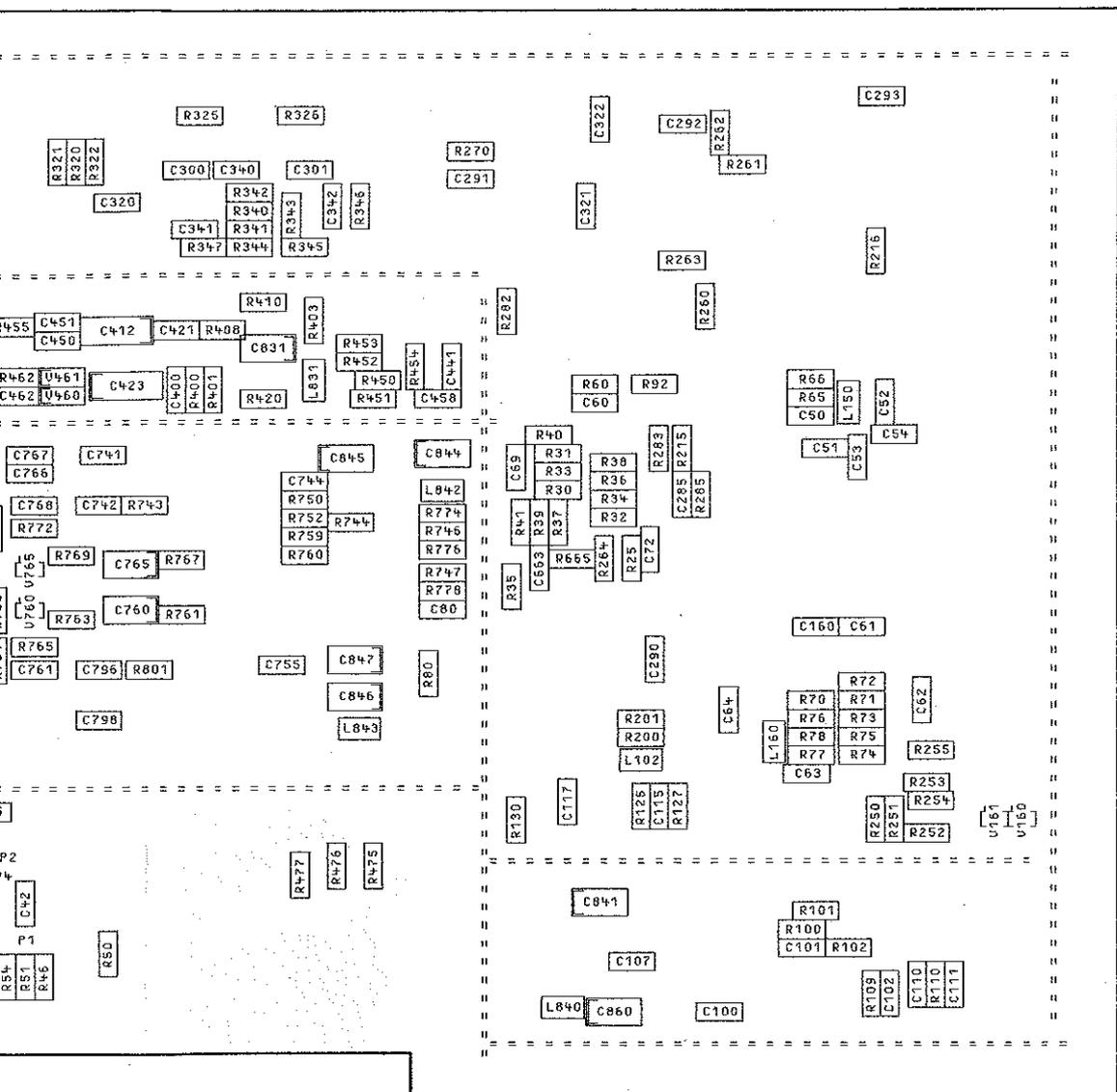


DARSTELLUNG SEITE B
 VIEW ON SIDE B

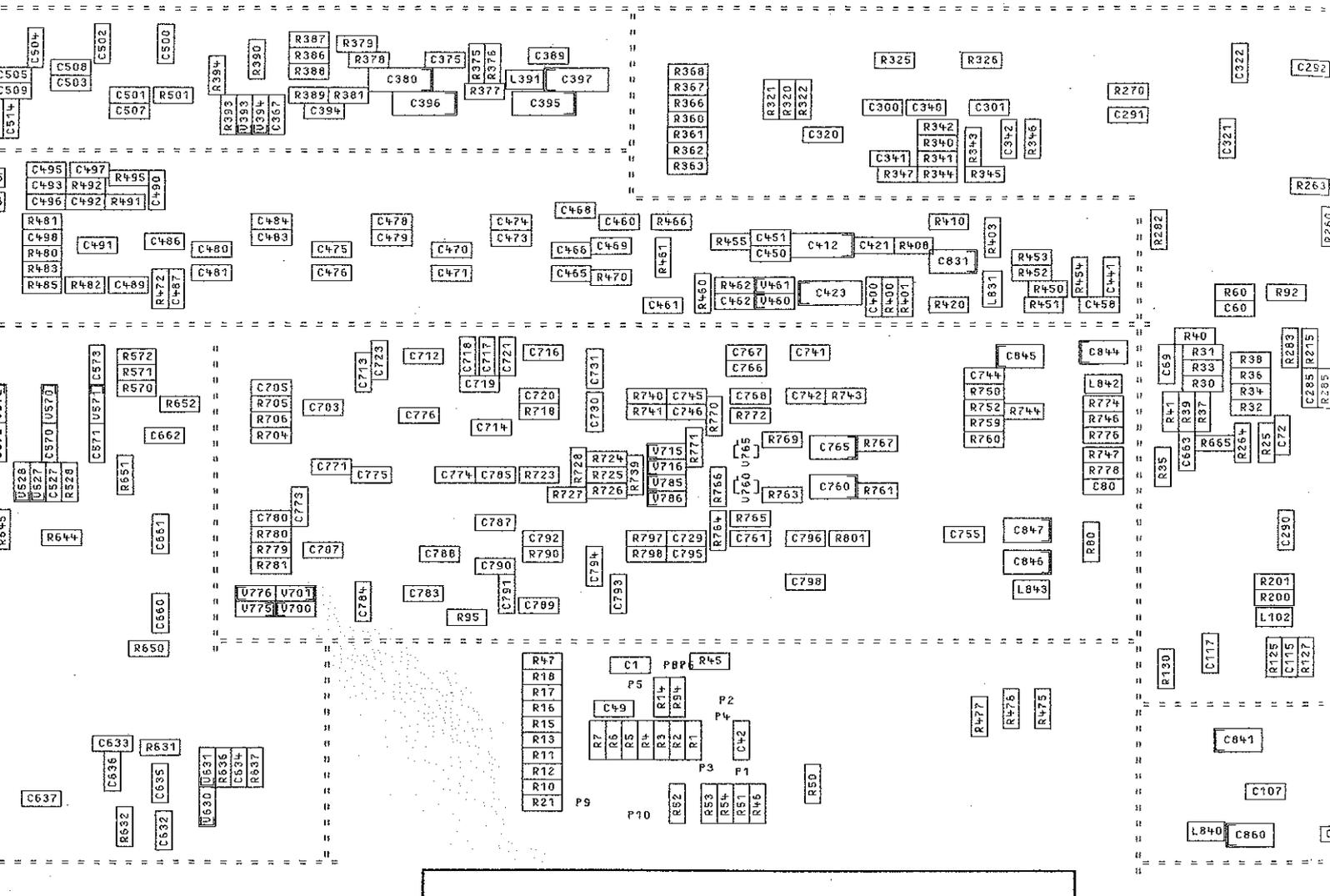


ACHTUNG: ESB!
 ELEKTROSTATISCH GEFAHRDETE
 BAUELEMENTE ERFORDERN EINE
 BESONDERE HANDHABUNG.
ATTENTION ESD!
 ELECTROSTATIC SENSITIVE DEVICES
 REQUIRE A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN,
 TRIMMWERTE, BAUTEILWERTE UND
 NICHT BESTUECKTE BAUTEILE SIENE SA.
 FOR BINDING INFORMATION ON MODELS,
 TRIMMING AND COMPONENTS VALUES AND
 NONFITTED COMPONENTS SEE PARTS LIST.



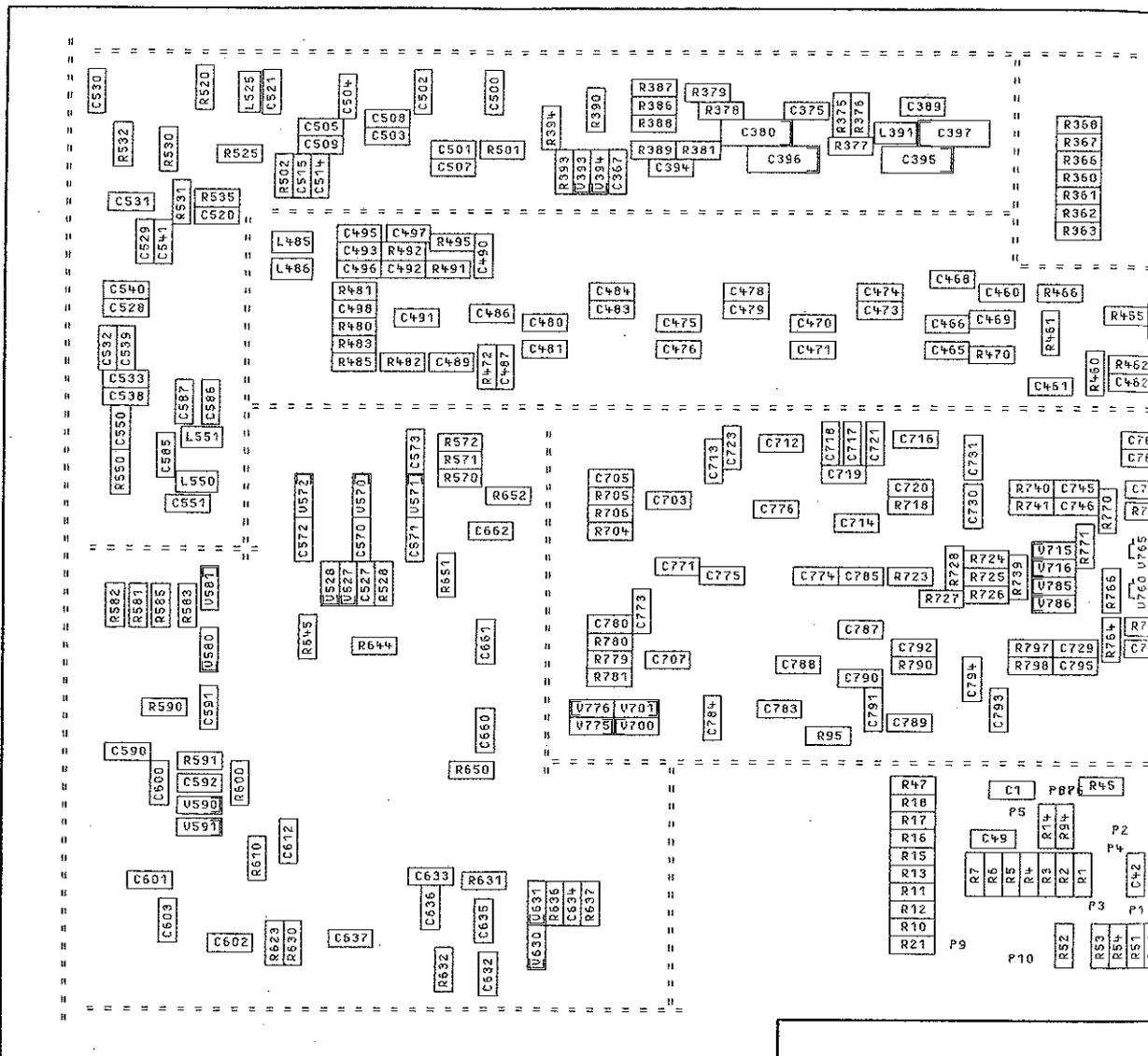
01	10.92	HO	1GPK	TAG	NRHE	BENENNUNG MODULATIONSGENERATOR MOD. GEN	Z
			BEARB.		HO		
			GEPR.		HO		
			NORN				
			PLOTT	13.10.92			
ROHDE & SCHWARZ ZU GERÄT SMP						ZEICHN.-NR.	BLATT-NR.
						1036.8272.01	ED
REND. NO.	RENDERUNGS- MITTEILUNG	DATUM	NRHE	REG. I. V.	1036.8250	ERSTE Z.	



UNG: EGG!
 STATISCH GEFAHREBETE
 ENTE ERFORDERN EINE
 NDERE HANDHABUNG.
 TION ESD!
 TIC SENSITIVE DEVICES
 A SPECIAL HANDLING

BINDENDE ANGABEN UEBER VARIANTEN,
 TRIMMWERTE, BAUTEILWERTE UND
 NICHT BESTUECKTE BAUTEILE SIEHE SA.
 FOR BINDING INFORMATION ON MODELS,
 TRIMMING AND COMPONENTS VALUES AND
 NONFITTED COMPONENTS SEE PARTS LIST.

01	
REND. NO.	RENDERUNGS- RITZEILUNG



DIESE ZEICHNUNG IST EIN RECHNERAUSDRUCK. VERÄNDERUNGEN KÖNNEN NUR DURCH ÄNDEREN DES DATENSATZES ENTSTEHEN.

FUER DIESE ZEICHNUNG BEHALTEN WIR UNS ALLE RECHTE VOR.

DARSTELLUNG SEITE A
VIEW ON SIDE A

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

BINDENDE ANGABEN UEBER VARIANTEN,
TRIMMWERTE, BAUTEILWERTE UND
NICHT BESTUECKTE BAUTEILE SIEHE SA.

FOR BINDING INFORMATION ON MODELS,
TRIMMING AND COMPONENTS VALUES AND
NONFITTED COMPONENTS SEE PARTS LIST.

300 250 200 150