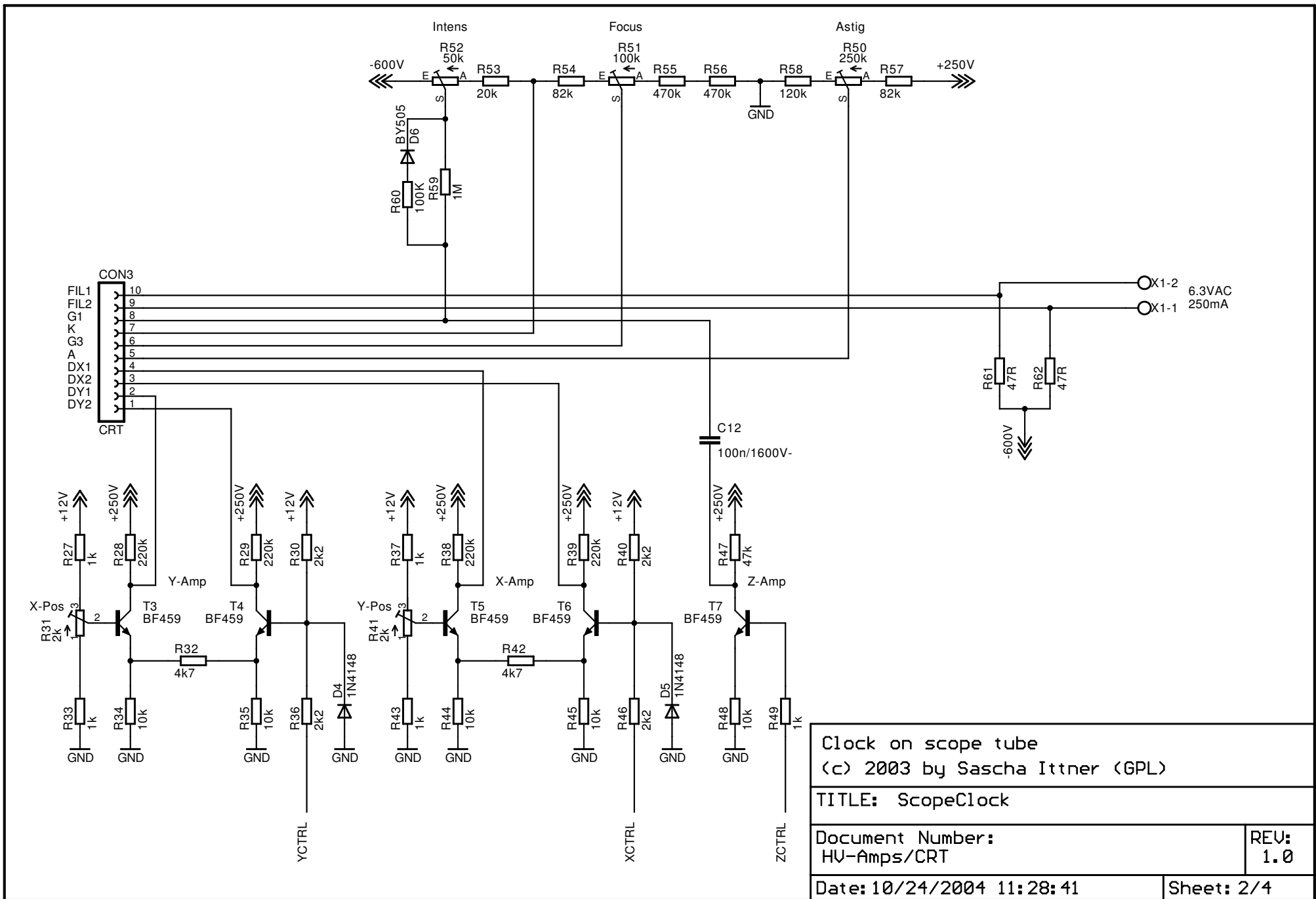


Clock on scope tube  
 (c) 2003 by Sascha Ittner (GPL)  
 TITLE: ScopeClock  
 Document Number: Control  
 Date: 10/24/2004 11:28:41  
 REV: 1.0  
 Sheet: 1/4

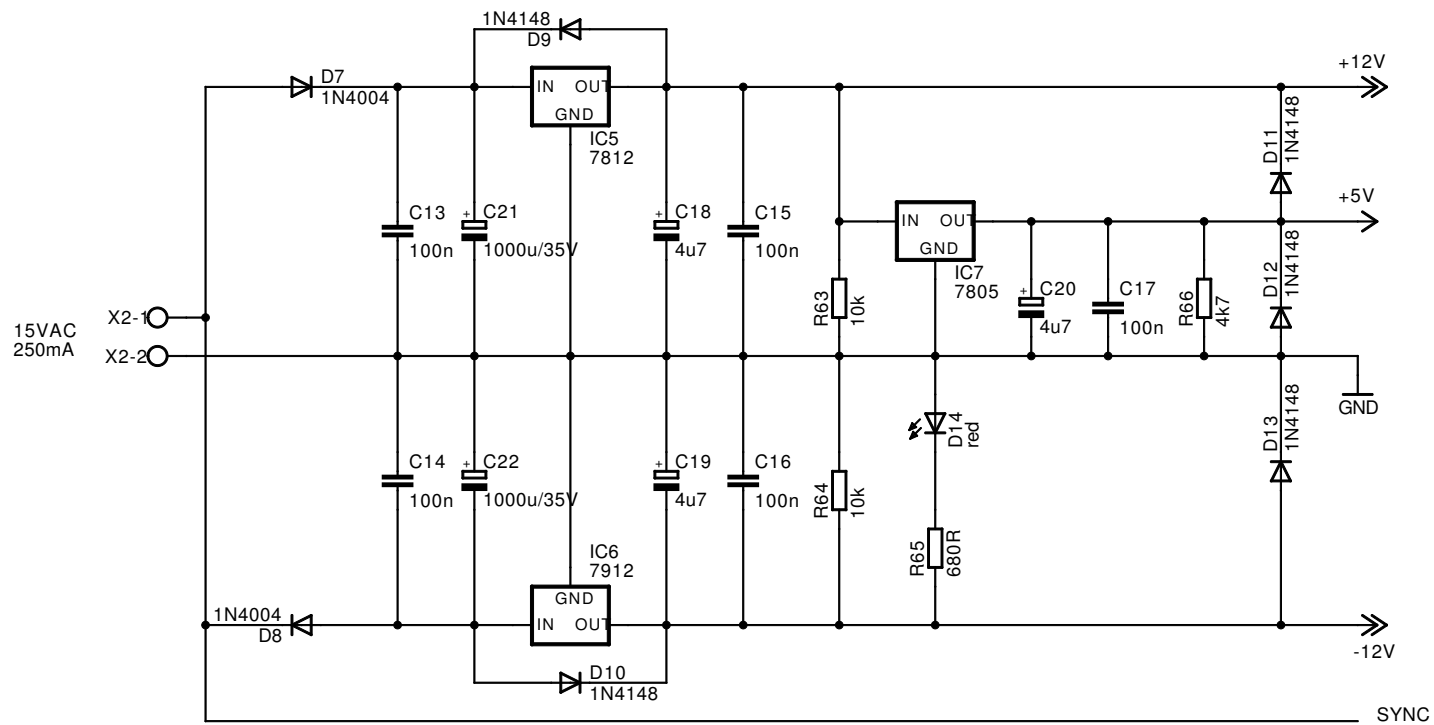


Clock on scope tube  
 (c) 2003 by Sascha Ittner (GPL)

TITLE: ScopeClock

Document Number: HU-Amps/CRT	REV: 1.0
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Date: 10/24/2004 11:28:41	Sheet: 2/4
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Clock on scope tube  
 (c) 2003 by Sascha Ittner (GPL)

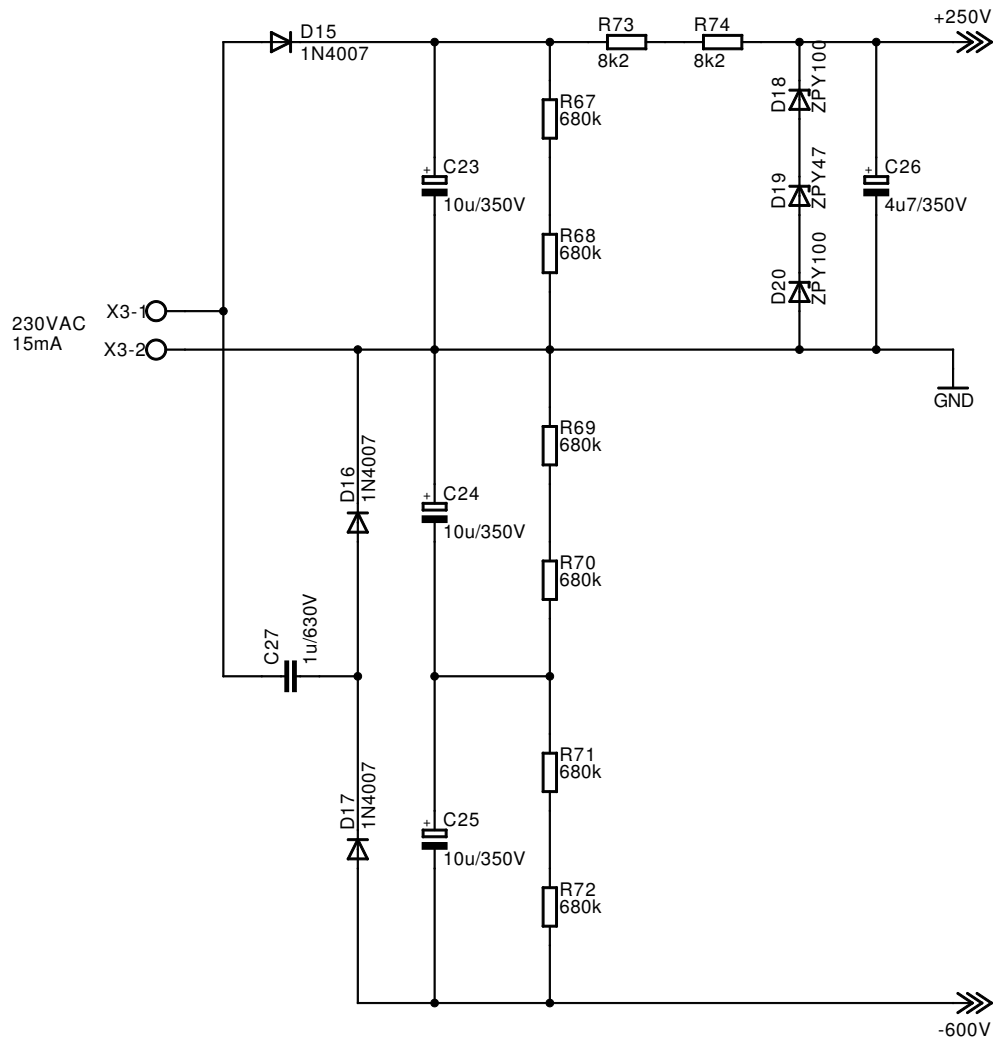
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Document Number:  
 LV-Supply

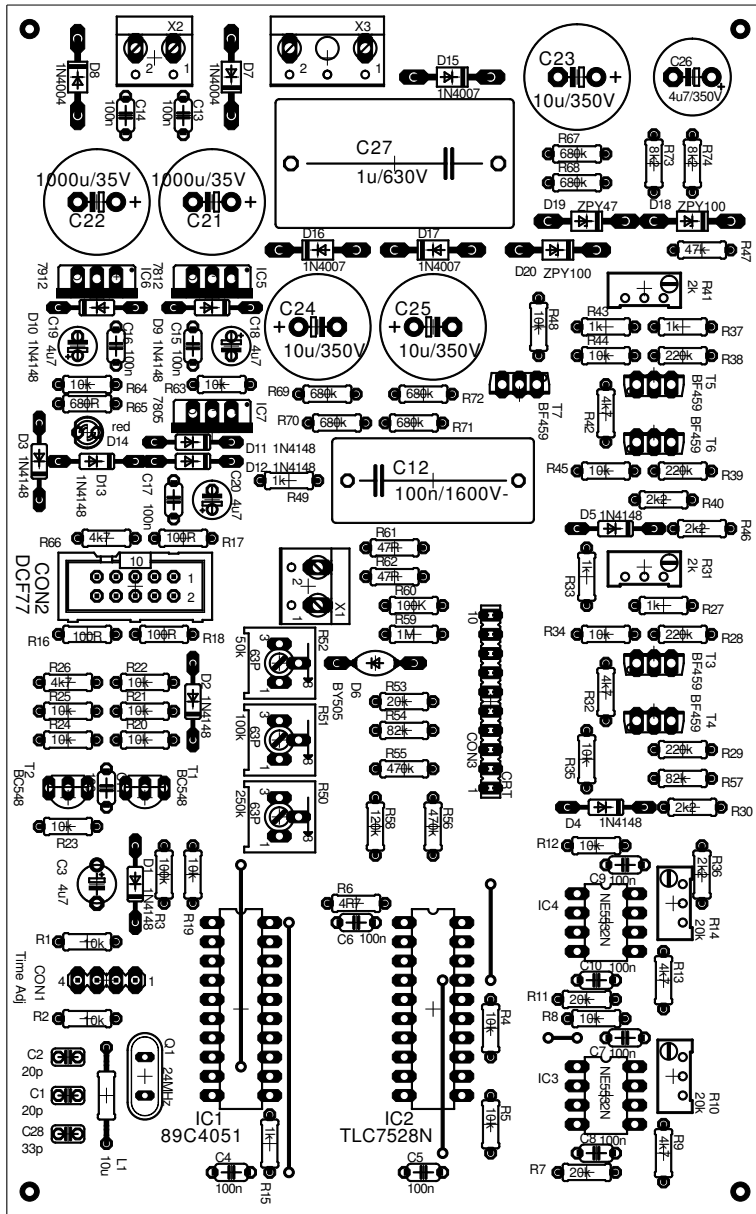
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Date: 10/24/2004 11:28:41

Sheet: 3/4



Clock on scope tube (c) 2003 by Sascha Ittner (GPL)	
TITLE: ScopeClock	
Document Number: HV-Supply	REV: 1.0
Date: 10/24/2004 11:28:41	Sheet: 4/4



# Stückliste

## Widerstände

R1	10k	Metall 0,25 W
R2	10k	Metall 0,25 W
R3	100k	Metall 0,25 W
R4	10k	Metall 0,25 W
R5	10k	Metall 0,25 W
R6	4R7	Metall 0,25 W
R7	20k	Metall 0,25 W
R8	10k	Metall 0,25 W
R9	4k7	Metall 0,25 W
R10	20k	Spindeltrimmer stehend RM 2,5
R11	20k	Metall 0,25 W
R12	10k	Metall 0,25 W
R13	4k7	Metall 0,25 W
R14	20k	Spindeltrimmer stehend RM 2,5
R15	1k	Metall 0,25 W
R16	100R	Metall 0,25 W
R17	100R	Metall 0,25 W
R18	100R	Metall 0,25 W
R19	10k	Metall 0,25 W
R20	10k	Metall 0,25 W
R21	10k	Metall 0,25 W
R22	10k	Metall 0,25 W
R23	10k	Metall 0,25 W
R24	10k	Metall 0,25 W
R25	10k	Metall 0,25 W
R26	4k7	Metall 0,25 W
R27	1k	Metall 0,25 W
R28	220k	Metall 0,25 W
R29	220k	Metall 0,25 W
R30	2k2	Metall 0,25 W
R31	2k	Spindeltrimmer stehend RM 2,5
R32	4k7	Metall 0,25 W
R33	1k	Metall 0,25 W
R34	10k	Metall 0,25 W
R35	10k	Metall 0,25 W
R36	2k2	Metall 0,25 W
R37	1k	Metall 0,25 W
R38	220k	Metall 0,25 W
R39	220k	Metall 0,25 W
R40	2k2	Metall 0,25 W
R41	2k	Spindeltrimmer stehend RM 2,5
R42	4k7	Metall 0,25 W
R43	1k	Metall 0,25 W
R44	10k	Metall 0,25 W
R45	10k	Metall 0,25 W
R46	2k2	Metall 0,25 W
R47	47k	Metall 0,25 W
R48	10k	Metall 0,25 W
R49	1k	Metall 0,25 W
R50	250k	Cermet-Trimmer liegend 10mm
R51	100k	Cermet-Trimmer liegend 10mm
R52	50k	Cermet-Trimmer liegend 10mm
R53	20k	Metall 0,25 W
R54	82k	Metall 0,25 W
R55	470k	Metall 0,25 W
R56	470k	Metall 0,25 W

R57	82k	Metall 0,25 W
R58	120k	Metall 0,25 W
R59	1M	Metall 0,25 W
R60	100K	Metall 0,25 W
R61	47R	Metall 0,25 W
R62	47R	Metall 0,25 W
R63	10k	Metall 0,25 W
R64	10k	Metall 0,25 W
R65	680R	Metall 0,25 W
R66	4k7	Metall 0,25 W
R67	680k	Metall 0,25 W
R68	680k	Metall 0,25 W
R69	680k	Metall 0,25 W
R70	680k	Metall 0,25 W
R71	680k	Metall 0,25 W
R72	680k	Metall 0,25 W
R73	8k2	Metall 0,25 W
R74	8k2	Metall 0,25 W

### Kondensatoren

C1	20p/63V	Keramik RM 2,5
C2	20p/63V	Keramik RM 2,5
C3	4u7/35V	Elko RM 5
C4	100n/63V	Keramik Vielschicht RM 5
C5	100n/63V	Keramik Vielschicht RM 5
C6	100n/63V	Keramik Vielschicht RM 5
C7	100n/63V	Keramik Vielschicht RM 5
C8	100n/63V	Keramik Vielschicht RM 5
C9	100n/63V	Keramik Vielschicht RM 5
C10	100n/63V	Keramik Vielschicht RM 5
C11	100n/63V	Keramik Vielschicht RM 5
C12	100n/1600V	Folie MKS 4 RM 22,5
C13	100n/63V	Keramik Vielschicht RM 5
C14	100n/63V	Keramik Vielschicht RM 5
C15	100n/63V	Keramik Vielschicht RM 5
C16	100n/63V	Keramik Vielschicht RM 5
C17	100n/63V	Keramik Vielschicht RM 5
C18	4u7/35V	Elko RM 2,5
C19	4u7/35V	Elko RM 2,5
C20	4u7/35V	Elko RM 2,5
C21	1000u/35V	Elko RM 5
C22	1000u/35V	Elko RM 5
C23	10u/350V	Elko RM 5
C24	10u/350V	Elko RM 5
C25	10u/350V	Elko RM 5
C26	4u7/350V	Elko RM 5
C27	1u/630V	Folie MKP 10 RM 27,5
C28	33p/63V	Keramik RM 2,5

wird nur bei Obertonquarz benötigt

### Halbleiter

D1	1N4148	Diode
D2	1N4148	Diode
D3	1N4148	Diode
D4	1N4148	Diode
D5	1N4148	Diode
D6	BY505	Diode
D7	1N4004	Diode
D8	1N4004	Diode
D9	1N4148	Diode
D10	1N4148	Diode

D11	1N4148	Diode
D12	1N4148	Diode
D13	1N4148	Diode
D14	LED 3mm rot	LED
D15	1N4007	Diode
D16	1N4007	Diode
D17	1N4007	Diode
D18	ZPY100	Z-Diode 100V/1.3W
D19	ZPY47	Z-Diode 47V/1.3W
D20	ZPY100	Z-Diode 100V/1.3W
IC1	89C4051	Atmel-Controller
IC2	TLC7528N	D/A-Wandler
IC3	NE5532N	Dual-OpAmp
IC4	NE5532N	Dual-OpAmp
IC5	7812	Spannungsregler
IC6	7912	Spannungsregler
IC7	7805	Spannungsregler
T1	BC548	Transistor
T2	BC548	Transistor
T3	BF459	Transistor
T4	BF459	Transistor
T5	BF459	Transistor
T6	BF459	Transistor
T7	BF459	Transistor

#### Sonstiges

L1	10u	Spule	wird nur bei Obertonquarz benötigt
Q1	24MHz	Quarz	
CON1	Time Adj	Stiftleiste 4-polig einreihig RM 2,5	
CON2	DCF77	Wannenstecker 10-polig	
CON3	CRT	Stiftleiste 10-polig einreihig RM 2,5	
X1		Wago Schraubklemme 2-polig RM 5	
X2		Wago Schraubklemme 2-polig RM 5	
X3		Wago Schraubklemme 2-polig RM 10	



