

## VSSA - BILL OF MATERIALS

### RESISTORS:

R1	680 $\Omega$	0,5 W	1%, SMD 1206 (3216)	1 pcs
R2	10 k $\Omega$	0,5 W	1%, SMD 1206 (3216)	1 pcs
R3, R4	47 $\Omega$	0,5 W	1%, SMD 1206 (3216)	2 pcs
R5, R6	1 k $\Omega$	0,75 W	1%, SMD 2010 (5025)	2 pcs
R7, R8, R18	1 k $\Omega$	0,5 W	1%, SMD 1206 (3216)	3 pcs
R9, R10	3,3 k $\Omega$	0,5 W	1%, SMD 1206 (3216)	2 pcs
R11, R12	6,8 k $\Omega$	0,5 W	1%, SMD 1206 (3216)	2 pcs
R13, R14, R17	470 $\Omega$	0,5 W	1%, SMD 1206 (3216)	3 pcs
R15, R16, R23	10 $\Omega$	0,5 W	1%, SMD 1206 (3216)	3 pcs
R19, R20	10 $\Omega$	0,75 W	1%, SMD 2010 (5025)	2 pcs
R21, R22	20 $\Omega$	0,75 W	1%, SMD 2010 (5025)	2 pcs
R24	4,7 $\Omega$	3,0 W	5%, metal film, axial	1 pcs
R17a, R18a	notes below	0,5 W	1%, SMD 1206 (3216)	2 pcs

4,7 $\Omega$	3,0 W	5%, metal film, axial	R24	1 pcs
10 $\Omega$	0,5 W	1%, SMD 1206 (3216)	R15, R16, R23	3 pcs
10 $\Omega$	0,75 W	1%, SMD 2010 (5025)	R19, R20	2 pcs
20 $\Omega$	0,75 W	1%, SMD 2010 (5025)	R21, R22	2 pcs
47 $\Omega$	0,5 W	1%, SMD 1206 (3216)	R3, R4	2 pcs
470 $\Omega$	0,5 W	1%, SMD 1206 (3216)	R13, R14, R17	3 pcs
680 $\Omega$	0,5 W	1%, SMD 1206 (3216)	R1	1 pcs
1 k $\Omega$	0,5 W	1%, SMD 1206 (3216)	R7, R8, R18	3 pcs
1 k $\Omega$	0,75 W	1%, SMD 2010 (5025)	R5, R6	2 pcs
3,3 k $\Omega$	0,5 W	1%, SMD 1206 (3216)	R9, R10	2 pcs
6,8 k $\Omega$	0,5 W	1%, SMD 1206 (3216)	R11, R12	2 pcs
10 k $\Omega$	0,5 W	1%, SMD 1206 (3216)	R2	1 pcs

### CAPACITORS:

C1, C10, C11	100 pF	50 V, SMD 1206 (3216)	3 pcs
C2, C3	2,2 mF	6,3 V, FG, R=5,0 mm, Nichicon	2 pcs
C4, C5	10 $\mu$ F	63 V, MKT, R=15 mm, Vishay	2 pcs
C6, C7, C12, C13, C16, C17, C18, C19, C22	1 $\mu$ F	50 V, SMD 1206 (3216)	9 pcs
C8, C9	5,6 pF	100 V, SMD 1206 (3216)	2 pcs
C14, C15, C20, C21	1 mF	50 V, FG, R=7,5 mm, Nichicon	4 pcs
C23, C24	47 nF	50 V, SMD 1206 (3216)	2 pcs

5,6 pF	100 V, SMD 1206 (3216)	C8, C9	2 pcs
100 pF	50 V, SMD 1206 (3216)	C1, C10, C11	3 pcs
47 nF	50 V, SMD 1206 (3216)	C23, C24	2 pcs
1 $\mu$ F	50 V, SMD 1206 (3216)	C6, C7, C12, C13, C16, C17, C18, C19, C22	9 pcs
10 $\mu$ F	63 V, MKT, R=15 mm, Vishay	C4, C5	2 pcs
1 mF	50 V, FG, R=7,5 mm, Nichicon	C14, C15, C20, C21	4 pcs
2,2 mF	6,3 V, FG, R=5,0 mm, Nichicon	C2, C3	2 pcs

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### DIODES:

D1, D2, D3, D4	TZMC 15 V, 0,5 W, MiniMELF SOD-80, Vishay	4 pcs
D5, D6	MUR160, axial lead, case 59-10, ON Semiconductor	2 pcs

### TRANSISTORS:

T1	BC560C	TO-92, Fairchild Semiconductor	1 pcs
T2	BC550C	TO-92, Fairchild Semiconductor	1 pcs
T3, T4	BF545B	SOT-23-3, NXP Semiconductor	2 pcs
T5	KSA1381	TO-126, Fairchild Semiconductor	1 pcs
T6	KSC3503	TO-126, Fairchild Semiconductor	1 pcs
T7	ALF08NP16V5	TO-247-5L, TT electronics Semelab	1 pcs

### IC:

IC1	TLVH431DQ	SOT-23-3, Texas Instruments	1 pcs
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### INDUCTOR:

L1	0,5 $\mu$ H, $\Phi$ 1,5 mm enamelled Copper wire, 18 turns on R24	1 pcs
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### JUMPERS:

J1, J2	0 $\Omega$ 0,5 W SMD 1206 (3216)	2 pcs
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### PCB & ACCESSORIES:

VSSA PCB, ESL Copyright ©	1 pcs
FastOn tab terminal, vertical, 6,3 x 0,8 mm, TE Connectivity	4 pcs
Allen socket head cap screw, M3 x 16	3 pcs
Spring washer, M3	3 pcs
Flat washer, M3	3 pcs
DR 072 V0 Polyamide spacer, $\Phi$ 7 mm, H=2 mm, Fischer elektronik	2 pcs
KAP 220 G Kapton insulator washer, Fischer elektronik	1 pcs
SK-157 Heatsink 0,4 K/W, H=70 mm, Fischer elektronik	1 pcs

### NOTES:

R9, R10	output DC offset and VAS bias current trimming resistors, exact value gained from calibration measurement
R17a	optional resistor for decreasing output bias current level
R18a	optional resistor for increasing output bias current level
R24, L1	outboard RL parallel filter in series with output wire, located at +SPEAKER output terminal