

## DX HRII Amplifier Bill of Materials

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### Semiconductors

Device	Qty	Value	Notes
Q1, Q2	2	BC556A	PNP Input differential pair
Q3, Q4, Q5	3	BC546B	NPN Input differential pair current mirror
Q6, Q7, Q8, Q10	4	BD139	NPN Voltage bias (Vbe) NPN Voltage Amplification Stage (VAS) NPN Voltage regulator NPN Driver (small heatsink required)
Q9, Q11	2	BD140	PNP Voltage regulator PNP Driver (small heatsink required)
Q12	1	2SC5200	NPN Output
Q13	1	2SA1943	PNP Output
Z1	1	1N4742	12V Zener diode – 200mW or more
Z2, Z3	2	1N4752	33V Zener diode – 200mW or more

### Capacitors

Device	Qty	Value	Notes
C1, C5, C8, C10, C15, C17, C20, C22, C25, C28	10	100nF	MKT Polyester
C2	1	2uF	MKT Polyester
C3	1	220pF	NPO Ceramic
C4, C7, C19, C23	4	220uF	Electrolytic
C6	1	2n2F	
C9	1	4n7F	
C11	1	2u2F	Electrolytic
C12	1	10pF	
(C13)	(1)	(15nF)	OPTIONAL – treble boost
C14	1	1,000uF	Electrolytic
C16	1	47uF	Electrolytic
C18	1	27pF	NPO Ceramic / Silver Mica
C21	1	22uF	Electrolytic
C24	1	220nF	
C26, C29	2	3,300uF	Electrolytic
C27	1	100nF	

## Resistors

Device	Qty	Value	Notes
R1, R20	2	180	
R2	1	10	
R3, R10	2	12k	
R4, R15	2	2k2	
R5	1	4k7	
R6, R7	2	100	
R8, R9	2	47	
R11, R12	2	390	
R13	1	1k6 ?	
R14	1	3k3	
R16	1	270	
R17	1	1k2	
R18, R22	2	1k8	
R19, R21	2	470	
R23, R24	2	4R7	
R25, R26	2	0R22	
R27	1	10	
R28	1	4R7	
Device	Qty	Value	Notes
VR1	1	10k	
VR2	1	500	

## Miscellaneous components

Device	Qty	Value	Notes
L1	1		
Insulators	2		For output transistors.
Heatsink	1		Large heatsink.
Heatsink	2		Small heatsinks for driver transistors.