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Ecodesign of electronic devices

UNIT 11: Computer-aided design of electronic devices

Author : Simon Pevec

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1.1 Quiz

■ PLEASE, CHOOSE THE CORRECT ANSWER:

1. Can CAD design benefit ecodesign of electronic devices? (YES)
2. Does CAD tool enable visualization of the finished product? (YES)
3. Does CAD tool speed up device development? (YES)
4. Is design of electrical schemes not a CAD process? (NO)
5. When ecodesigning electrical scheme, do we choose elements with smaller dimensions? (YES)
6. Can multilayer circuit be an ecodesign principle of electronic device? (YES)
7. Does width of copper connection influence transferred electrical current? (YES)
8. Is electrical breakthrough strength given as the ratio between distance and voltage among two potentials? (NO)
9. Does air have higher breakthrough strength than paper? (NO)
10. Are characteristics of printed matter determined by NEAM association? (YES)



1.2 Assignment

Design audio amplifier in image 1. For this, use program package Altium-Designer. Design the first amplifier version with »through hole« elements. The second amplifier version needs to be designed considering ecodeign guidelines. When choosing elements, consider element housing, printed matter weight and final sizing of the printed circuit.

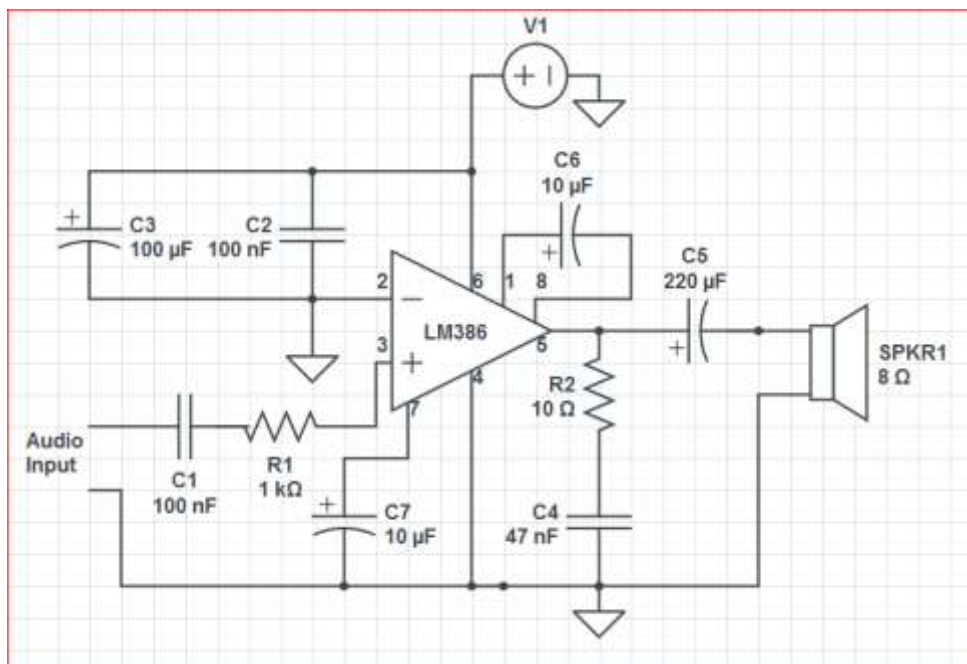


IMAGE 1: AUDIO AMPLIFIER.

Write a report and describe which ecodeign guidelines you have used when designing. Create a table of used elements and price of both versions.

