

CHAPTER OVERVIEW

17: Capacitors, Inductors, and Resistors

Various electronic devices are considered in this chapter. This is useful not only for understanding these devices but also for revealing new aspects of electromagnetism. The capacitor is first discussed and Ampère's law is introduced. The theory of magnetic inductance is then developed. Ohm's law and the resistor are discussed. The energy associated with electric and magnetic fields is calculated and Kirchhoff's laws for electric circuits are briefly discussed.

[17.1: The Capacitor and Ampère's Law](#)

[17.2: Magnetic Induction and Inductors](#)

[17.3: Resistance and Resistors](#)

[17.4: Energy of Electric and Magnetic Fields](#)

[17.5: Kirchhoff's Laws](#)

[17.6: Problems](#)

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