



SNS COLLEGE OF ENGINEERING

(Autonomous)

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



190E107 – CONSUMER ELECTRONICS



CD Player

190E107 – CONSUMER ELECTRONICS / V.Manohari, AP/ECE / Unit 2/ CD Player

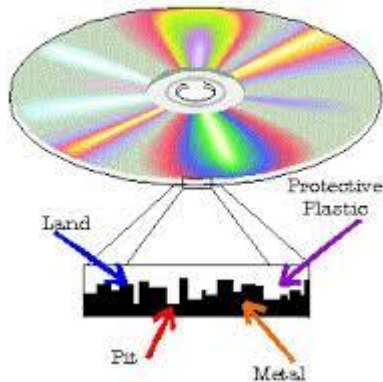




Compact disc

Anatomy of a compact disc

The solid part of a compact disc is metal and the lighter, top half is a clear plastic that protects the metal.



- A CD player uses a laser to read the pits on a CD, which are converted into electrical signals that reproduce sound
- A CD player is an electronic device that plays audio compact discs, which are a digital optical disc data storage format.
- CD players were first sold to consumers in 1982.
- CDs typically contain recordings of audio material such as music or audiobooks.
- CD players may be part of home stereo systems, car audio systems, personal computers





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How it works

- The CD is inserted into a compatible player.
- A laser beam shines on the disc's surface.
- The laser measures how light reflects off the disc's polycarbonate layer.
- The reflected light is converted into an electrical signal.
- The electrical signal is processed and converted into an analog audio signal
- The analog audio signal is sent to the speakers.





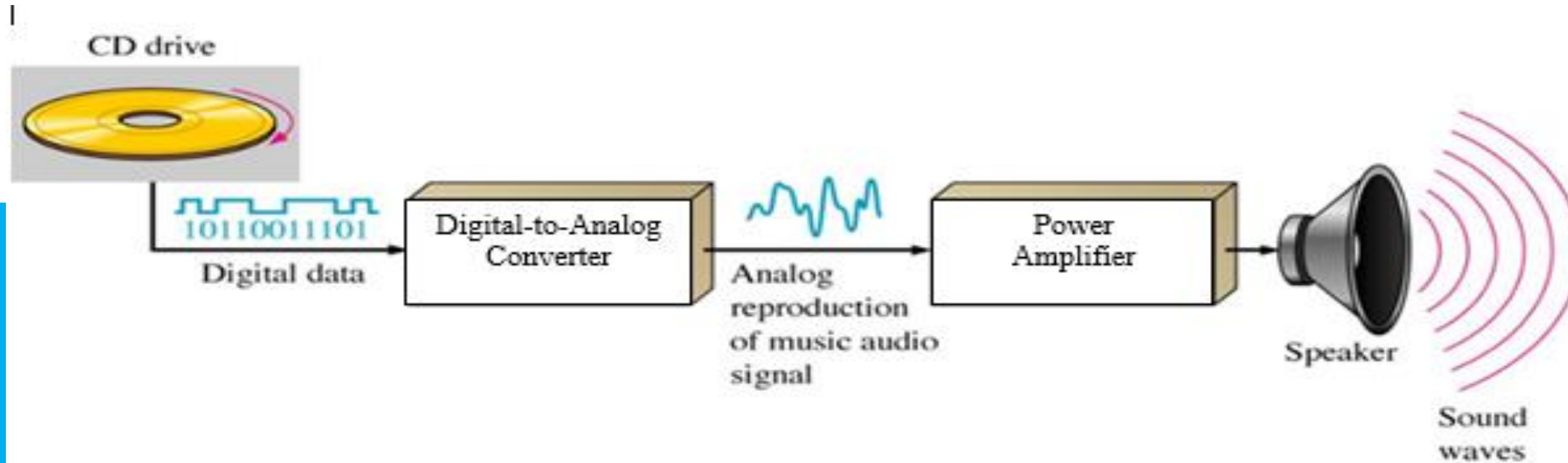
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How it works





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Features

- The CD's surface is made up of a thin track of raised bumps on a reflective surface.
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- The pits and lands on the disc encode zeros and ones.
- The transition from pit to land, or land to pit, encodes a one.
- The player uses error-correcting codes to handle single-bit errors.





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Other considerations

- CDs are fragile and prone to scratches.
- The technology was key to the development of computing and many other use cases for the last few decades.





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Thank
you

