



Another EMC resource
from EMC Standards

EMC for interconnections taster

Helping you solve your EMC problems


By Keith Armstrong

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Module 2:

EMC in interconnections

(techniques for cables and connectors)



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(For interconnections in PCBs (traces) see the “basic PCB EMC” module)

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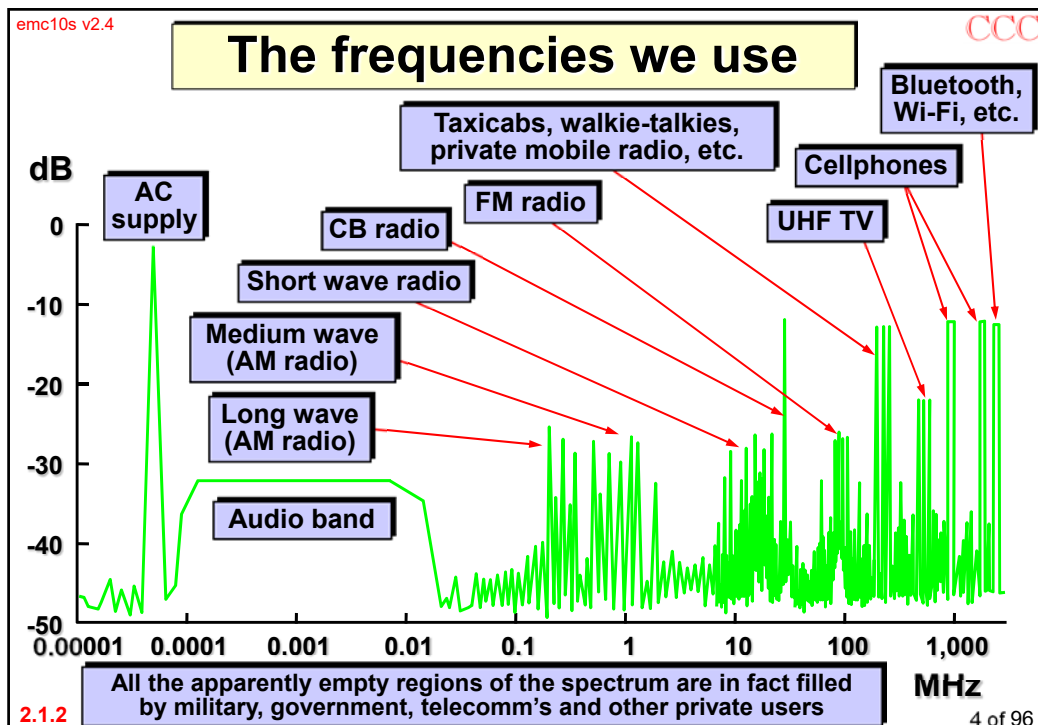
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2. EMC in interconnections (techniques for cables and connectors)

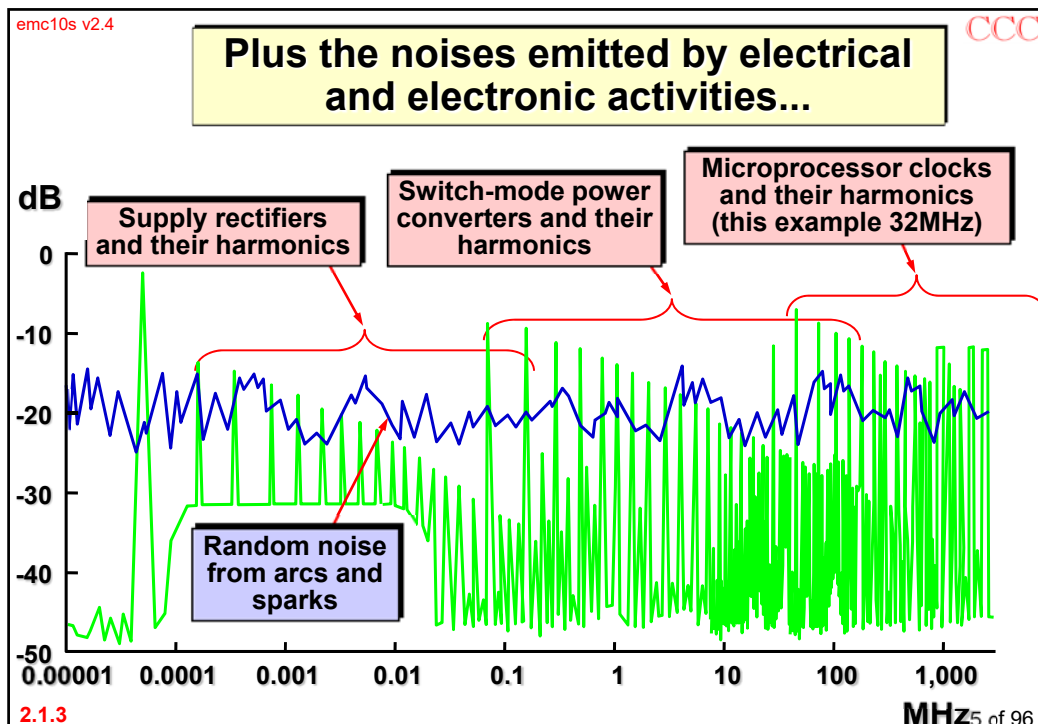
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The antenna effects of conductors

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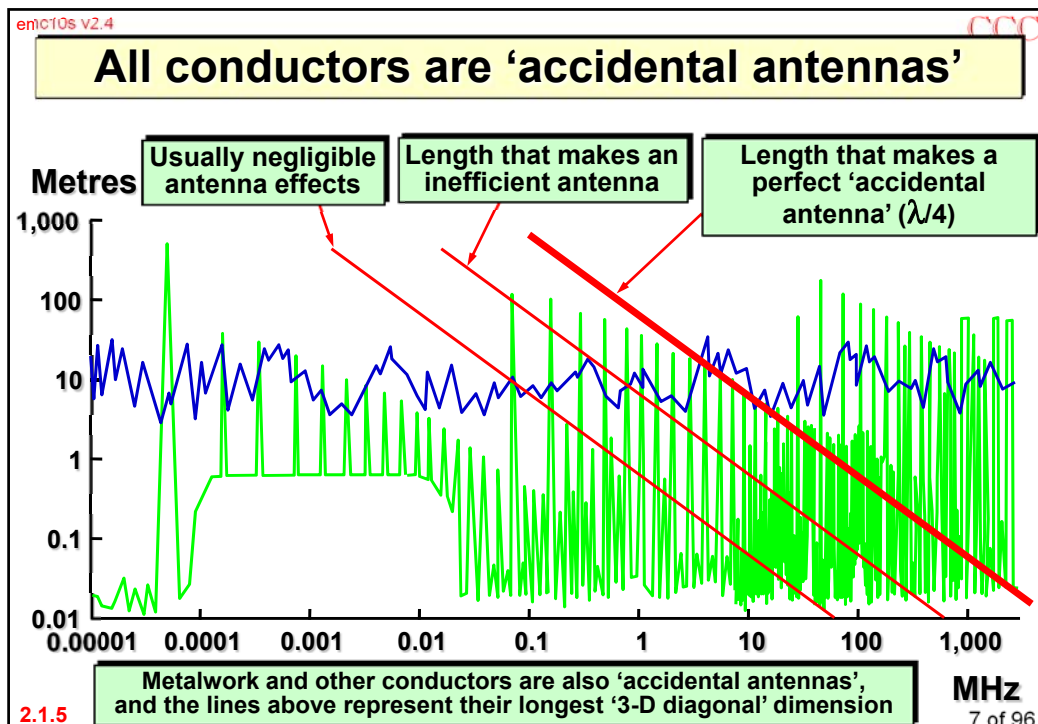
Problem: all conductors are now antennas
(but matched transmission lines are very poor antennas)

- **Wires, cables and other conductors are accidental antennas, so they always leak the signals they carry (emissions problems)**
 - either as electric (E) or magnetic (H) fields
- **They also pick up interference (immunity problems)**
 - either as electric (E) or magnetic (H) or electromagnetic (EM) fields
- **This is not what we want our conductors to do, but it is unavoidable**

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2. EMC in interconnections (techniques for cables and connectors)

2.2

Use fibre optics or alternatives instead of conductors

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