# electromagnetic (and other esoteric means of) eavesdropping

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## electromagnetic

many devices emit <u>electromagnetic radiation</u> during normal use

the produced <u>electromagnetic radiation</u> can be used to reconstruct information



#### Van Eck Phreaking

#### Van Eck Phreaking Demo

http://www.youtube.com/watch?v=Xm\_j9al13Wg

#### **Keyboard Sniffing**

#### Keyboard EM Sniffing I

#### <u>http://vimeo.com/2007855</u>

### Keyboard EM Sniffing II <u>http://vimeo.com/2008343</u>

#### TEMPEST

## acoustic

#### many devices emit <u>sound</u> during normal use

# the produced <u>sound</u> can be used to reconstruct information

Key Click Sniffing:

- use a laser mic to pick up sound reflections from the keyboard lid
- trained sets (unhelpful, need one for every type of keyboard)
- untrained sets, use HMM/neural nets to identify likely words (in English)

Printer Sniffing:

 similar approach, based on listening in on the sound made by the dots and inferring the corresponding characters

