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## Video Displays: Aperture, Pitch, and Dot Pitch (2/93)

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TOPIC -----

What do the terms aperture, pitch, and dot pitch mean?

DISCUSSION -----

The cathode-ray tube (CRT) inside a monitor consists of an electron gun that shoots a beam of electrons through a perforated metal grill to a phosphor coating on the inside of the tube. When the beam strikes the phosphor, the coating emits light in the form of dots, or pixels.

The term "aperture" refers to the perforations or holes in the metal grill through which the electron beams travel before they strike the phosphor coating.

Pitch -- or dot pitch -- is the measurement of the distance between pixels on a monitor. If the pixels are closely spaced, the dot pitch is small; if the pixels are widely spaced, the dot pitch is large. Monitors with smaller dot pitches appear sharper, while monitors with larger dot pitches tend to appear less sharp and may have a "grainy" appearance.

The number of holes or apertures in one horizontal row of the metal grill determines the maximum horizontal resolution available for a particular CRT.

Note that the terms aperture, pitch, and dot pitch are used interchangeably and refer to the distance between pixels.

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