

Apple Multiple Scan Displays: X-Ray Level Emitted (7/95)

I have an Apple Multiple Scan 17 Display and an Apple Multiple Scan 20 Display. Do these monitors emit X-Rays?

DISCUSSION -----

All CRTs (cathode ray tubes) in displays emit some level of X-rays. X-rays are emitted as a byproduct of the high (anode) voltage that is needed to develop an image on the face (front) of the tube. X-rays are reduced using a variety of techniques like adding certain metals to the CRT glass to add shielding and reducing or limiting the anode voltage.

In most countries, the level of X-radiation from displays and televisions are legally controlled or regulated. In the United States, acceptable X-ray levels are defined by the FDA (Food and Drug Administration) CFR-21 regulations for consumer safety. The definition usually contains levels or thresholds that define acceptable vs. unacceptable limits to protect consumers.

The FDA CFR-21 dictates that X-ray levels for monitors must be lower or less than 5 milliroentgens per hour. The FDA has also defined another level in CFR-21 that is better than the acceptable limit by a factor of ten (at 0.5 milliroentgens per hour). The Apple Multiple Scan 17 and 20 Displays have X-ray levels below 0.5 milliroentgens per hour.

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