CRT Tube

Basic Design of a CRT Tube

- Heating filament
- Cathode
- Control grid
- Focusing system
- Vertical deflection
- Horizontal deflection
- Interior metallic coating at high positive voltage
- Phosphor coating
- Electron beam
Random Scan
Raster Scan
Interlace Options

Interlaced

Non-Interlaced
Color CRT

Cathode Ray Tube

- Picture tube
- Electron guns
- Electron beams
- Color signals
- Shadow Mask
- Screen
- Phosphor dots
Shadow Mask
Monitor Gamut

CIE xy Diagram

Red
x = 0.67
y = 0.33

Green
x = 0.21
y = 0.71

Blue
x = 0.14
y = 0.08

White
x = 0.313
y = 0.329
Color Options

True Color

Pixel Value

LUT

Final Resulting Color

Pseudo Color

Color Index Value

Pixel Value

LUT

Final Resulting Color
Gamma Correction
Gamma Correction

![Gamma Correction Graph](image)

- Monitor Response
- Correction Curve
- System Response
Inkjet Printer
General Raster Display

Scan Line

Pixel