

12. Type of image

The image types we will consider are:

- 1) Binary
- 2) grayscale
- 3) color
- 4) multispectral.

Example: find image size with 640*480 pixels

Total no. of bits = $640 \times 480 \times 8 \text{ bit} = 2457600 \text{ bit}$ Or $640 \times 480 \times 1 \text{ Byte} = 307200 \text{ Bytes}$

Convert to Byte: $2457600 / 8 = 307200 \text{ Byte}$

Convert to KByte: $307200 \text{ Byte} / 1024 = 300 \text{ KB}$

Examples: Color Image uses 32 bits with high = 200 and width = 200 pixels?
Size = $200 \times 200 \times 4 \text{ Bytes} = 160000 \text{ B} / 1024 = 156.25 \text{ KB}$.

13. Image file formats

Some popular file formats are listed in the table below with their respective extensions:

Format Name	Description	Recognized Extensions
GIF	Graphics Interchange Format	.gif
JPEG	Joint Photographic Experts Group	.jpg, .jpeg
TIFF	Tagged Image File Format	.tif, .tiff
BMP	Windows Bitmap	.bmp
PNG	Portable Network Graphics	.png

5- PNG

PNG meant to supersede GIF standard

Features of PNG:

- ✚ Support up to 48 bits per pixel - more accurate colors
- ✚ Support description of gamma-correction and
- ✚ alpha-channel for controls such as transparency
- ✚ Support progress display through 8×8 blocks.

✚ Compress

✚ Can only be used online,

✚ Not for all application