



FIRST ALLIANCE Protection Systems

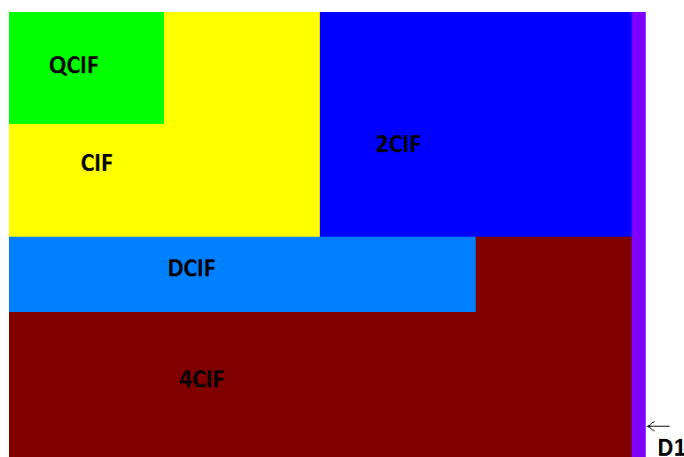
What Is CIF?

CIF stands for Common Intermediate Format, and is used to represent the amount of horizontal and vertical number of pixels in a video image. The more pixels, the sharper the image, especially recognizable when you enlarge or zoom an image.

Typically, a DVR shows live images at a specific level of CIF, while the recordings for each camera may be set to various levels, based on the hardware, software and processing power of the DVR.

Bottom line - the greater the CIF, the clearer the picture and the more hard drive used.

When considering remote viewing, the greater the CIF, the more bandwidth is needed to support it, so if you watch live or playback recordings at a higher CIF level, you may get choppy live feed as it takes more time to stream more pixels.



D1 = 720x480 4CIF = 704x480
DCIF = 528x320 2CIF = 704x240 CIF = 352x240

FAPS DVRs show live preview at D1 at 30 FPS with the option of recording each camera at various resolution levels from CIF to 4CIF and from 1- 30 FPS. Remote live viewing can be set to a secondary preview rate also known as "dual stream". This means that in consideration of bandwidth limitations, you can set remote live viewing to a scaled down level of CIF, as well as a lower frame per second rate (FPS). Since a greater CIF and FPS use more bandwidth, by having the ability to reduce to CIF for remote live viewing, you can achieve a smoother, more fluid remote live view, while your recordings can be set to remain at a higher level.

Remote playback will stream video at the rate each camera is set to record at, so remotely playing back video recorded at a higher CIF will show clearer images, but may take longer to watch, depending on your DVR location's upload bandwidth and remote viewing location's download bandwidth.



The first picture to the left was recorded at CIF, 352 pixels left to right and 240 pixels up and down. The second was recorded at 4CIF, 704 pixels left to right and 480 pixels up and down, 4 times the amount of pixels - as shown in the above diagram (see the yellow vs. red).

If you shrink the larger 4CIF image down to the smaller size, it would look a little sharper, but not much different. But, if you enlarge the smaller one to the size of the larger, or stretch both to full screen, you will see the difference right away. The larger, having more pixels does not have to stretch as much and therefore maintains better clarity.

Once you stretch the smaller one, you will see how the picture becomes less clear and the edges become choppy.



Understanding this, if you take a picture and zoom in or enlarge it, you would appreciate the greater amount of pixels in 4CIF.

You might also consider that if your image was a close-up, for example, an entry door or a cash register, where the camera is positioned right above it, or manually focused in, you may not necessarily need 4CIF, as CIF may be good enough since the camera is already close to the subject, allowing you to save hard drive space.

4 scenarios to consider

Live View at the DVR - FAPS' H.264 DVRs offer the highest quality image at D1 - 30 FPS while using less CPU.

Playback at the DVR - Varies by DVR up to 4CIF - up to 30FPS per camera while using less hard drive space.

Remote Live View - FAPS' H.264 DVRs offer better compression rate and are dual stream capable for more fluid streaming.

Remote Playback - FAPS' H.264 DVRs stream at the recording rate set per camera utilizing the best video compression available.

First Alliance offers DVRs built with the best H.264 video compression technology including live preview at D1, up to 4CIF recording rate, dual stream capabilities and larger hard drives, so you can have the flexibility to customize settings according to your needs. Our H.264 DVRs offer you better images and functionality while using less CPU, hard drive space and bandwidth... ultimately much better than the competition, especially those that still sell older MPEG technology DVRs.

For more information, please contact First Alliance at (800) 258-8028