

SPOT LIGHT ON High Definition CCTV

High Definition (HD) is a term commonly associated with TV broadcasting and home cinema but has started to appear in the CCTV world

Commonly Used Terms

HD	HD refers to a picture resolution higher than a standard TV resolution of 640 (horizontal) x 480 (vertical) pixels.
HD ready	A confusing term that refers to a minimum resolution of 1280 x 720 pixels.
Full HD	Full HD refers to a minimum resolution of 1920 x 1080 and offers nearly 700% more pixels compared to standard definition.
Megapixel	HD cameras are a form of megapixel cameras. Full HD equates to approximately 2 million pixels (2 megapixel).
Aspect Ratio	Aspect ratio refers to the ratio of the horizontal compared to vertical dimensions of an image. HD pictures are always 16:9 whilst traditional images (including megapixel) are 4:3.
Frame Rate	The frame rate for HD cameras is 25 to 30 frames per second compared to a rate of 3 to 15 for megapixel cameras.

Advantages of HD CCTV

Image Quality	A minimum of 2 megapixel ensures higher quality images for facial recognition etc compared to analogue images. Taking this further, some manufacturers have developed 5.0MP cameras which can offer even further resolution to cover large areas.
Live Viewing	A frame rate of 25-30 frames per second reflects the natural 'frame rate' of the eye and allows images to be accurately viewed in real time. This is useful for environments such as casino's where images are proactively viewed. Images can not however be recorded at this frame rate due to storage limitations (see below).
More relevant Image	A 16:9 aspect ratio allows more relevant images to be captured compared to 4:3 and are also compatible with wide screen monitors.
Familiarity	The end user has an understanding of what HD relates to making them comfortable with the product.

Disadvantages of HD CCTV

Storage	Higher resolution and increased frame rates result in increased storage demands. Larger servers are required and images often have to be recorded at lower frame rates.
Cost	As a new technology, costs are currently relatively high compared to megapixel cameras and traditional analogue systems.

Seeing is believing – ask us for a DEMO of an HD camera.

Alarm and Communication Systems are always happy to help with the design of any of the systems we install. If you need any information or advice please contact our Sales Engineer Matthew Jefferson -

0191 4178882 or sales@alarmcommsys.co.uk

Alarm & Communication SYSTEMS • LIMITED • • • • •

27 Sedling Road, Wear East Industrial Estate, Washington, NE38 9BZ

Tel: 0191 4178882 - Fax: 0191 4157264

Web: www.alarmcommsys.co.uk - Email: sales@alarmcommsys.co.uk

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