

RTI Systems (RTIS) opens up new frontiers for improving your property/facility management through our Security/Surveillance and Live Video solution. Our state-of-the-art netOptic Megapixel cameras and internet-based technology translate directly to faster schedules, better quality and lowered costs. RTIS delivers tangible solutions benefits from day one. No other company meets our quality standards.

RTIS is exclusively focused on megapixel (MP) netOptic camera technology and, has become a leader in systems and technology integration.

Our expansive client base of megapixel cameras crosses a broad spectrum of applications and market sectors – a proven testimony to RTIS's leadership in developing innovative imaging solutions. Utilizing the latest in megapixel cameras, RTIS delivers superior HD megapixel image resolution and sensitivity for 24/7 Security/Surveillance and Live Video, applications as well as business solutions.

**EVERY  
DAY, HOUR  
MINUTE  
Don't Miss A SECOND**

RTI's products leverage patented image processing technology, which provides scalable high performance megapixel imaging at a low cost. Image processing technology consists of 1.3, 2, 3, 5 and 10 Megapixel H.264 and MJPEG single and dual sensor netOptic camera solutions.

## IMAGINE SENSOR BACKGROUND

Today there are many kinds of electronic cameras with very different characteristics. At one time Camcorders were the most well-known electronic camera, but cell phones with cameras have supplanted them. Most of us have cell phones with megapixel cameras onboard. Having said that, not all megapixels are the same. What differentiates megapixel cameras is the size quality of the image sensor. An image sensor is a device that converts an optical image into an electronic signal. Today's image sensors are typically a Charge-coupled Device (CCD) or a complementary metal-oxide-semiconductor (CMOS) active pixel sensor.

It can be easy to get caught up into the "Megapixel Myth" that is based on the "more megapixels the better mindset". Another way of saying this is that we need to remember that not all megapixels are created equal! What do we mean by that? It is simply that more megapixels alone do not always mean a better quality camera or result in better quality image. There are other often-overlooked factors that should be taken into consideration in order to buy the camera that is best suited for your specific needs.



Debunking the "Megapixel Myth" syndrome begins with understanding the important relationship that exists between the number of megapixels and the size of the image sensor. This is because the size of the image sensor is absolutely critical to overall picture quality. For example, an 8-megapixel camera with a sensor that is 1/4 the size of 2-megapixel camera sensor will not have the same quality of image even though it has many more of megapixels. A larger image sensor has more surface area exposed to the available light, which will result in a better quality image.



## THE IMPORTANCE OF IMAGE SENSOR SIZE

Back in the days of film cameras, you had 110mm Instamatic cameras and 35mm cameras. Most people understood that the larger film used in the 35mm camera produced better quality prints than the smaller film of the 110 camera. That same principle holds true with today's cameras but instead of having different film sizes, we now have different sizes of image sensors. Just like the larger film of a 35mm camera had a larger area to capture available light, so does a full frame camera. The large image sensor in RTIS netOptic cameras is significantly larger than the smaller sensors commonly found in "point and shoot" cameras or a "cell phone" cameras. The size of the image sensor plays an important part in the overall image quality the camera can capture and is something that should be given careful consideration when choosing any camera.

The size of the image sensor is at least as important as the number of megapixels the camera has, maybe even more so.

GREATER  
DEPTH

The smaller 1/2.5 to 1/1.6 sensors are found in the more compact "point and shoot" cameras. Cell phones typically have even smaller sensors. The huge difference in the size of the image sensor is the reason why a RTIS 2 megapixel netOptic camera will produce much better quality images than an 8 megapixel "point and shoot" camera with a much smaller image sensor or a cell phone with an even much smaller image sensor.

## WHAT DOES IMAGE SENSOR SIZE MEAN TO YOU?

It means that you need to look at both image sensor size and the number of megapixels in order to choose the best camera to suit your needs. You will be better off with a larger image sensor and less megapixels than more megapixels and a smaller sensor.

The "Megapixel Myth" syndrome also fails to recognize that the more megapixels you cram into a tiny image sensor the more noise and less usable ISO range you will generally have. Larger image sensors allow you to capture images with less noise and greater dynamic range than a smaller sensor. That results in better images.

