# FAQs and other Product Information

Check here for your questions about our wireless products and accessories. If you don't find the answer to your question then <u>contact us</u> with your question. Thank you!

#### Do you have a glossary of definitions for DPI, CCTV, CCD and other words?

Yes. You can view a <u>Glossary of Terms</u> which will give give you definitions for words you'll see on this website, in the user's guides and other places. Let us know if we're missing a definition! You'll need Adobe Reader to view the glossary document. If you don't have Adobe Reader you can <u>download</u> it and get it for free.

# How far will a wireless camera system transmit?

You should expect to be able to transmit 300 feet with the LD system for barns. Under perfect conditions our LD long systems will reach well over a mile. Your specific situation will determine transmission distance.

### My barn is metal. Will that affect a wireless camera system?

Yes. Radio frequency signals will not pass through metal. In order to transmit from or to a metal building you will need to transmit through a window or doorway. You can also use an antenna on the exterior of the building to avoid the blockage. This needs to be decided before ordering a system as most systems are not set up for additional antennas. The LD long system includes antennas that are placed outside the barn. We have a number of antenna choices for all situations.

#### What will affect the distance over which the system will transmit?

Transmission distances are estimated for line of sight (LOS) situations. That means that the signals will transmit in the same way that you see. If you can see it, the signals can transmit. While the signals are not blocked by trees, sheetrock, wood siding etc., heavy tree growth will inhibit the transmission. In the spring, new leaves can also affect the transmission distance due to the higher absorption of young moist leaves. Often, setting the receiver so that the signal can pass through glass (a window or glass door) instead of passing through an outside wall will resolve the problem.

#### What is LOS and how does it affect my system?

LOS refers to line of sight. RF transmissions travel in much the same way as your sight. If your sight is blocked, the signals may be blocked. In actual practice, RF signals are reflected or absorbed by objects that they encounter. Hence signals are often reflected off obstructions and "bounce" until they reach the receiver. That is why we say that signals may be blocked. Often signals will travel to the receiver even though you do not have a clear line of sight

#### How can I increase the distance that my system will transmit?

The best way to increase distance is through the use of an antenna. Antennas can be used at the transmitter, receiver or both. Use of a separate antenna also allows it to be installed outside of a building that may be causing an obstruction. Transmission range can be increased to as much as 6,000 feet through the use of exterior antennas. Power can also be increased but that is not as effective as the use of an antenna and may require an FCC license.

#### Can I increase the power output of my system?

Yes. This can be done through the use of a more powerful transmitter or with a power amplifier. However, both of these options will place the power of the unit outside of the limit allowed under FCC part 15 requirements. The FCC requires a license for systems at higher power levels.

#### What are the advantages of color versus black and white systems?

Black and white systems are less expensive to purchase. Black and white systems also operate at lower lux values - meaning they will produce pictures in lower light conditions than color systems. The advantages of color systems are the enhanced viewing of details that are apparent in color. There has been so much progress in the area of CCD sensors that color competes directly with black & white for low light clarity.

## How difficult is the system to install?

The systems are very easy to install. Installation is a matter of plugging in color coded plugs. Trailer systems require the running of a cable from the cameras to the front of the trailer. This is generally done at the upper interior corner of the trailer wall or under the trailer. For wireless trailer systems the cable is for the antenna while for wired systems the cable is the complete video and power cable. Both cables are around 1/4" thick

#### Can I use the cameras outdoors?

Cameras that are designated as weatherproof or outdoor cameras can be installed and used outside. Cameras not designated in this way must be operated indoors. Our wireless cameras are rated at IP67 while our wired trailer cameras are rated at IP69K.

### Can the system be expanded at a later time?

The wireless systems for barns and trailers are expandable to a maximum of 4 cameras. Wired trailer systems can expand to 3 cameras in or on the trailer and a 4th camera on the truck as a hitch or rear view camera.

# What frequencies will operate wireless camera systems?

Wireless cameras are available in 900 Mhz, 1.2Ghz and 2.4Ghz frequencies. While all such frequencies are available the 900 MHz and 1.2 GHz are limited and we recommend against using them in the U.S. While these frequencies are in use around the world the U.S. FCC reserves the 1.2 GHz and much of 900 MHz frequency for specific uses and you can be fined for using these frequencies. As more wireless products have come on the market additional frequencies have been added. Systems that operate at 5.8 Ghz are now becoming available.

## What are the advantages and disadvantages of the different frequencies?

As the frequencies increase quality of transmission increases. However, as frequencies increase accuracy of delivery becomes more critical. While the higher frequencies offer higher quality, reliable delivery of the signal may be compromised.

# Are all cameras, transmitters and receivers in a given frequency (such as 2.4Ghz) compatible?

No. Within each frequency there are channels or sub-frequencies. For instance, in the 2.4Ghz frequency the 4 channels may be 2410, 2430, 2450, and 2470 Mhz. Equipment from another system or from another manufacturer may operate at 2413, 2432, 2468, and 2490 Mhz. For this reason, equipment must be coordinated for matching frequencies. If in doubt, ask the supplier for the exact frequencies.

#### Can I use more than one receiver on a system?

Yes. The signals sent by the wireless transmitter can be received by any number of receivers as long as one is not blocking the signal of another. You can operate receivers in your bedroom, living room and kitchen without problems.

#### Can I record to a VCR from a wireless system?

Yes. The RCA plugs go into your television set are the same type used in VCRs and DVD players and recorders. You can connect directly to a VCR or DVD recorder to record transmissions. Similarly you can record from the monitor in our trailer systems.

### What is IR and why would I want it?

IR is infrared and allows the camera to operate in total darkness. Infrared light is invisible to people and animals but is "seen" by the special infrared camera sensor. Infrared pictures are always in black and white even if the camera shows color during daylight conditions.

## How many cameras can I run on one system?

The wireless barn and trailer systems can operate up to 4 cameras. All that is necessary is that each camera be switched to a different channel. Each camera can be viewed by switching the receiver to each channel with the receiver channel button. Channels can also be changed with the remote control or the receiver can be set to sequence so that the receiver will automatically switch channels. The receiver can be set to sequence to 2, 3, or 4 channels in rotation depending on how many cameras you wish to view. These same systems can also be set for manual channel changing.

#### Do I need a license to operate a wireless camera system?

No. Our systems are approved under FCC part 15 regulations and no license is required. If a special high power transmitter is ordered or a power amplifier is used, the FCC requires licensing under part 90 of their regulations. It is the responsibility of the wireless equipment operator to obtain the necessary licensing.