

## Question: Is a wired or a wireless video transmission better for my CCTV system?

**Answer:** Wireless video transmission is great where you can't get cables installed but it's not as good as a cabled system.

# Wireless vs Wired

**Microwave video transmission is great where you absolutely can't get the cables installed but in the end it's not as good as the old fashioned cabled system.**

This is because microwave signals are absorbed by moisture (such as fog, rain and even the human body!) and this can greatly attenuate the signal and reduce the quality of the received wireless signal. The principle of how microwaves lose their energy to water is, of course, how the humble microwave oven works.

Similarly metallic (static and moving) objects between the transmitter and receiver can all adversely effect performance by "reflecting" the signal. Often these factors are beyond the control of the system installer or user.

**X So don't** - Decide you want to use microwave wireless transmission technology on all jobs to speed up installation when it would be "reasonably possible" to install a cable between two points as you will be using the technology for the wrong reasons. When you get the odd signal loss due to the nature of the transmission the customer would end up disappointed.

**✓ But do** - Keep microwave transmission as your "get out of jail" tool to send a video signal between two points where a wired connection is truly not possible or totally uneconomic.



When calculating likely TX distance, don't forget that rain, fog and snow are all water droplets that will absorb microwave signals and reduce the range. So allow for this in your install.

If a wired solution is not possible and you are looking for a transmission solution, we recommend our VideoMitter Digital Transceivers which boast:

- ✓ Digital Data Transmission**  
*for cleaner, sharper images over longer distances*
- ✓ Privacy Pairing Function**  
*for private video transmission, helping comply with the DPA*
- ✓ Reverse IR Transmission**  
*sends IR signals from receiver to transmitter for remote control*
- ✓ Handshake Routine**  
*2 way reporting for maximum security*
- ✓ Whisper Mode**  
*low power for energy efficiency*



**VideoMitter**  
Product Code: MITKIT

This CCTV installation tip is aimed at helping you to install CCTV equipment. If you are looking for answers on "how to fit CCTV" or perhaps "how to network a DVR or NVR" or even "how to get CCTV on your mobile phone" why not check out our full range of CCTV installation tips at: [www.systemq.com](http://www.systemq.com)

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