

Ceiling Access Point

On many installations you will often find that the CCTV has to cover areas that are hard to cable, typically where the main CCTV system is in one building but other satellite buildings also need to be covered by CCTV.

So how do you connect IP CCTV systems in a separate building together?

One option is simply to cable them, but this could involve digging trenches or running overhead catenary wires. This can be both costly and disruptive which is where a wireless IP link is by far the most attractive solution.

The IPmitter wireless links are far more cost effective than running cables and much faster to deploy so they are more often than not the preferred choice for most installers where cabling is just too difficult.

Clearly a proper "cabled" IP connection will always be faster in data transfer and also more reliable than a wireless one but where this is not practical or the cost is too high, a wireless "bridge" is a great solution.

As most fellow CCTV professionals want a simple and reliable solution to transmitting IP signals from building to building we have designed and launched the IPmitter.

The IPmitter range currently has 3 models for linking one building/location to another.

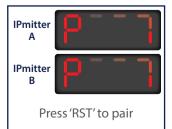
All 3 IPmitter models boast a superb easy pairing method which means you can set up the IPmitter without needing a laptop or PC to set up its IP address, perfect for getting the job done more efficiently and without needing a dedicated IP technician to do the install.

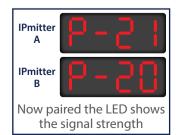
Built-in LED displays help installation and shows signal strength!



IPmitter with cover removed









Wireless Transmission - IPmitter ™



IPmitter Wireless IP Bridges

48V models

The 3 models consisting of a budget, standard and professional model so there is a solution to suit most installation needs.

The Budget model has a data transfer rate of 300Mbs using the 2.4 GHz frequency and is aimed at smaller cost-conscious installations.

The **Standard** model has a faster data transfer rate of 450Mbs and uses the less crowded 5.8 GHz frequency so is less likely to be fighting for airspace in locations with a lot of Wi-Fi equipment. Its faster data transfer rate means it can link bigger IP CCTV systems together more effectively than the budget one.

The **Pro** model IPmitter is a top of the range IP bridge and boasts an ultra-fast 900Mbs data transfer rate, the uncrowded 5.8Ghz band and also a 48V PoE connection for easy and rapid deployment in PoE systems. The Budget and Standard IPmitter use "Passive PoE" which is 24V not 48V so these are supplied with their own PSU.



IP mitter Comparison			
Frequency	2.4Ghz	5.8Ghz	5.8Ghz
Wireless Data speed	300Mbps	450Mbps	900Mbps
12V input option	Yes	Yes	Yes
LAN port 1 Speed	10/100Mbs	10/100Mbs	10/100Mbs
LAN port 2 Speed	10/100Mbs	10/100Mbs	10/100/1000Mbs
Max Transmission Distance	700m (recommend 350m)	700m (recommend 350m)	2km (recommend 1Km)
Standards	IEEE802.11b/g/n	IEEE802.11ac/a	IEEE802.11ac/a
Easy Pair Technology	Yes	Yes	Yes
Support 1 - 1	Yes	Yes	Yes
Support 1 - many	Yes	Yes	Yes
Mounting	Wall (flat) or adjustable pole (not supplied)	Wall (flat) or adjustable pole (not supplied)	Wall (flat) or adjustable pole (not supplied)
Size	165mm x 88mm x 56mm	165mm x 88mm x 56mm	260mm x 88mm x 56mm
Modes	Access Point / Bridge / Repeater	Access Point / Bridge /Repeater	Access Point / Bridge /Repeater

Each of the IPmitter bridges has a maximum and recommended transmission range. The maximum range is a distance we have tested the IPmitter at and it functions correctly. This is with direct line of sight with no obstacles and in good weather conditions. Because rain, snow and mist will all attenuate the signals between the IPmitters we include a "recommended" distance where we take into account "typical" UK weather. Clearly in severe weather conditions that may for example block out your SKY reception, the IPmitter would also suffer. If you have an obstacle in the way of the IPmitter the distance again will be reduced depending on how much signal the obstacle blocks.



Wireless Transmission - IPmitter™

IPmitter 4 Ways to transmit your IP CCTV wirelessly

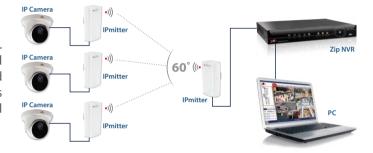
Method 1 - Standard Outdoor WiFi Bridge or link

In this mode the IPmitters are used to connect two separate IP devices or networks together for example linking one main building to another. The IPmitters would be installed outside the buildings and need to be visible to each other, this is called "direct line of sight". Any obstacles that block the visible line of sight would attenuate and reduce the transmission range. It is possible to get around buildings that block the signal by using multiple IPmitters to relay the signal and transit around the obstacles.



Method 2 - "One to Many" Wi-Fi Link

In this scenario one IPmitter is linking to three other IPmitters. The IPmitters have an internal antenna that transmits around a 50-60 degree spread so that is the maximum angle it would work at as in the diagram. If you need more flexibility than this you simply need to install multiple pairs of IPmitters that are all individually paired with each other.



Method 3 - Multiple Pairs

Although for the sake of simplicity the IPmitters in this diagram are shown together they would usually be in different locations around a building linking other buildings together for one local area network, LAN. As with all radio equipment you need to keep WiFi devices a sensible distance from each other and we would always recommend at least 1-2m apart from each other.



Method 4 - Indoor Wi-Fi Access Point

In this application the indoor ceiling/wall access point IPMIT100 is used at a central point to communicate with multiple Wi-Fi devices in a building. This could be the Wi-Fi on a mobile phone, laptop or other IPmitters located in the building. It is possible to use more than one ceiling access point so that large buildings have coverage of Wi-Fi in all areas. Each ceiling/wall point can have up to 50 clients.





Wireless Transmission - IPmitter ™



IPMIT100 - Dual Band Ceiling or Wall Mount PoE Access Point



- ✓ Supports 2.4Ghz & 5.8Ghz
- ✓ 48V PoE for Easy Installation
- ✓ Rapid 750Mbs Great for Streaming Video
- ✓ Wall or Ceiling Mount

SPECIFICATION

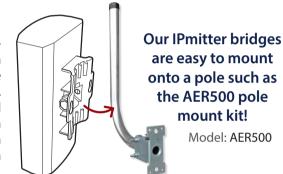
LAN Ports: Dual Port 100Mbs Frequency: 2.4GHz + 5.8Ghz Wireless Standards: IEEE802.11AC/N/G PoE: 48V W185 x H185 x D30mm The IPmitter ceiling and wall access point (IPMIT100) boasts dual band technology and can simultaneously connect equipment to your LAN on both the 5.8 GHz and 2.4 GHz channels. A fast data rate of 750Mbs means it's a great Access Point for heavy Wi-Fi uses, streaming media and video files or linking CCTV equipment to a network. With a maximum of 90 connected concurrent devices it's aimed at professional, domestic or commercial installations. Using the common UK PoE voltage of 48V the access point can plug straight in to a standard 48V PoE switch or LAN for power and connectivity for a neat easy connection. The low profile and attractive case can be installed on a ceiling or wall for a nice tidy installation. The cables can come down to the IPMIT100 to help hide and disguise cables going in to it when installed high up on a wall near the ceiling.

Mounting An IPmitter

The IPmitter range has been designed with the installer in mind. To make installation as quick as possible every model features an easy fit bracket.

The IPMIT100 access point can be mounted on the ceiling or a wall with ease. Just screw the fixing plate to your mounting surface then slot the IPmitter on to it, simple!

The IPmitter bridges have a built-in wall/pole mount bracket. When wall mounting the two lugs can be hung onto two screws in seconds. The versatile bracket is also shaped perfectly for pole mounting with teeth for extra grip. Just cable tie through the bracket and around a pole for an easy pole mount installation.



Product Codes



IPMIT350

NEW 48V

Models!

IPMIT304B 48V - Blk **IPMIT304W** 48V - Wht **IPMIT354B** 48V - Blk Pair

IPMIT354W 48V - Wht Pair

24V - Wht Pair





Code	Description
IPMIT200	24V - Wht
IPMIT250	24V - Wht Pair
IPMIT204B	48V - Blk
IPMIT204W	48V - Wht
IPMIT254B	48V - Blk Pair
IPMIT254W	48V - Wht Pair



Pro IP Bridges 5.8GHz / 900MB

Code	Description	
IPMIT400B	48V - Blk	
IPMIT400	48V - Wht	
IPMIT450B	48V - Blk Pair	
IPMIT450	48V - Wht Pair	

