



## X-STREAM COMPUTER HARDWARE RECOMMENDATIONS

### Desktop

**CPU:**

To ensure maximum camera FPS, we recommend using an [Intel® Core™ X-Series Processor](#) which has at least 28 PCIe lanes (As of this writing, every Intel® Core™ X-Series Processor in production has 28-44 PCIe lanes). For example, an [i7-9800X](#) or [i7-7800X](#) processor. The camera will generally work with processors that have fewer PCIe lanes (typically 16 for consumer grade processors) but will have a limited FPS depending on the specific processor/motherboard combination used.

**Motherboard:**

Motherboard with a compatible X-Series chipset. For example, an [ASUS TUF X299 Mark 2 LGA2066](#) with the [i7-9800X](#).

**GPU:**

Live playback performance is affected by the GPU installed. Low-resolution cameras will perform fine with a [GTX 1060](#), but higher-resolution cameras will require a [GTX 2080 TI](#) to get full 60 FPS @ 4k with all post-processing enabled.

**RAM:**

We recommend using a minimum of 16GB DDR4 RAM @ 2400MHz, 32GB DDR4 RAM @ 3000MHz for optimal performance.

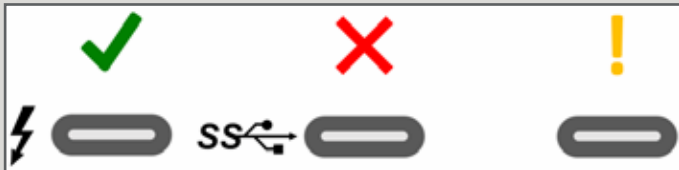
**Storage:**

If the customer plans to use streaming mode, we recommend using an NVMe SSD like the Samsung 970 Pro for optimal performance (RAID0 for even better).

### Laptop

The X-Stream cameras can achieve their theoretical maximum FPS even on laptops, but only if the laptops are equipped with a full Thunderbolt 3 Port.

While Thunderbolt 3 ports share the same form factor as USB-C 3.0, they are completely different when it comes to bandwidth capabilities. USB-C 3.0 only promises a maximum of 5 Gbps vs 40 Gbps on a Thunderbolt 3.



When purchasing a laptop to use with the X-Stream camera, it is vital to make sure the laptop is equipped with at least one full Thunderbolt 3 port.

Thunderbolt 3 ports will usually have a small lightning bolt logo next to them to denote their performance. If there is no logo present, or if there is a USB logo, then the port is probably only a USB-C 3.0.

The spec sheet of the laptop is probably the best place to check for the capabilities of the laptop.