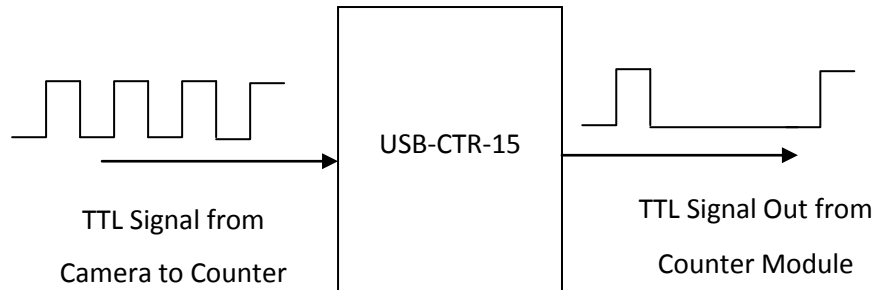


stVisiTech Software Requirements for USB-CTR-15 Module



Description:

The USB counter module receives TTL signals from high speed camera and is required to output trigger signals at predefined counts/timing points.

Counter Mode:

Case 1: Repeat count mode

The counter module is preloaded with number 'x', and the module will output TTL signal on every 'x' number of inputs been counted.

Example: Counter module outputs a TTL on receiving TTL number: 200, 400, 600, 800....

Case 2: preloaded counts mode

The counter module is preloaded with different numbers 'x1', 'x2', 'x3', 'x4'...., the counter module will output TTLs on these numbers has been counted.

Example: Counter module outputs a TTL on receiving TTL number: 10, 50, 150, 500....

Timer Mode:

Case 3: Repeat timer mode:

This requires the counter to ignore external TTL inputs. Counter module will be preloaded with time 't', and the module will output TTL signal on every 't' timing points reached.

Example: Counter module outputs a TTL at: 0.5s, 1s, 1.5s, 2s, 2.5s....

Case 4: Preload timing outputs mode

This requires the counter to ignore external TTL inputs. The counter module will be preloaded with timing points 't1', 't2', 't3', 't4'... , the counter module will output TTLs once these timing points reached.

Example: Counter module outputs a TTL at: 0.1s, 0.5s, 2s, 5s....