Input signal model

1. Isolated Input (XOR=0)
The operational logic applied on the 8080 modules is the falling edge trigger (Normal High & active Low).
The external signal is input into an 8080 module through the isolated mechanism, with the signal being
reversed from the external signal.
This internal signal is the suggested waveform, as it doesn't need to execute the XOR operation (XOR=0).

The solution is shown in Figure 1 below.

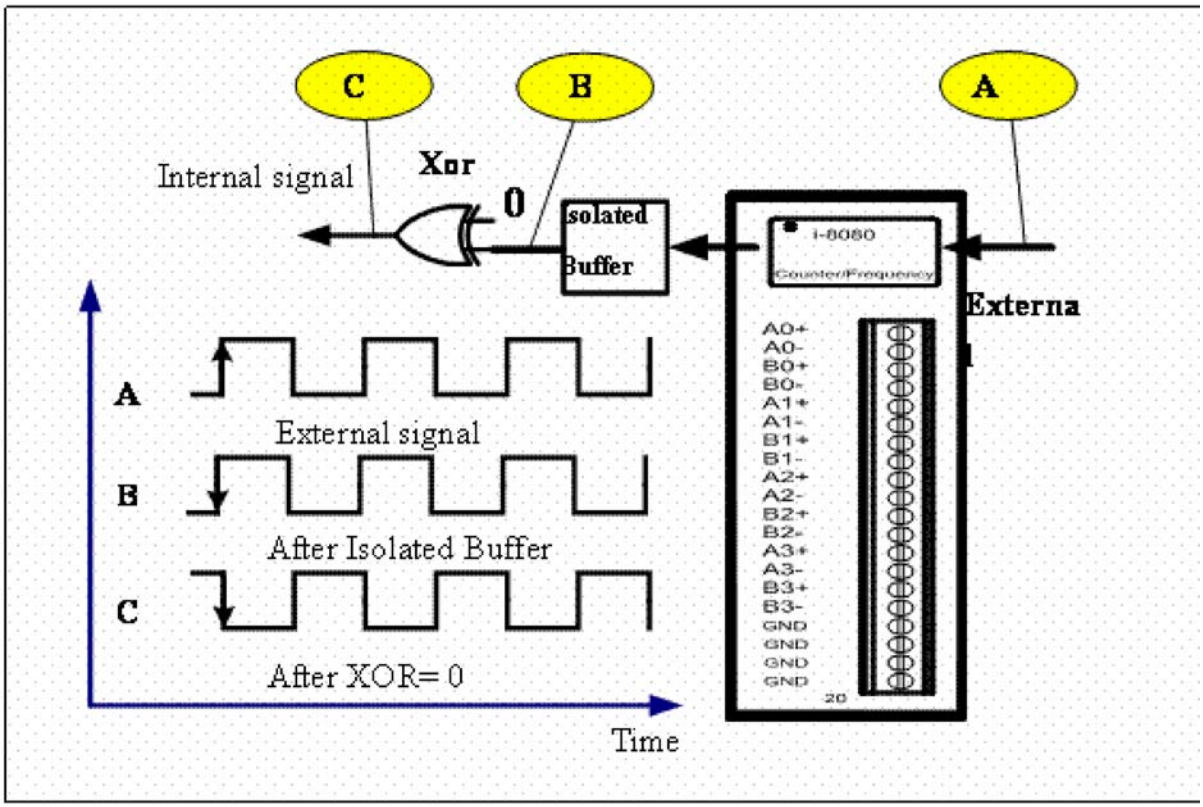

Figure 1 Isolated input

2. TTL Input (XOR=1)
When an external TTL signal is input into an 8080 module through the TTL mechanism, the signal will be the same as
the external signal. This internal signal isn't the recommended waveform as it must execute the exclusive OR (XOR=1)
operation. The solution is shown in Figure 2.

3. Always XOR=0
Regardless of whether the input signal is TTL or isolated, XOR is always set to 0, and the maximum count error can
only be 1. XOR=0 can be used for all cases, if a 1-count error is acceptable.

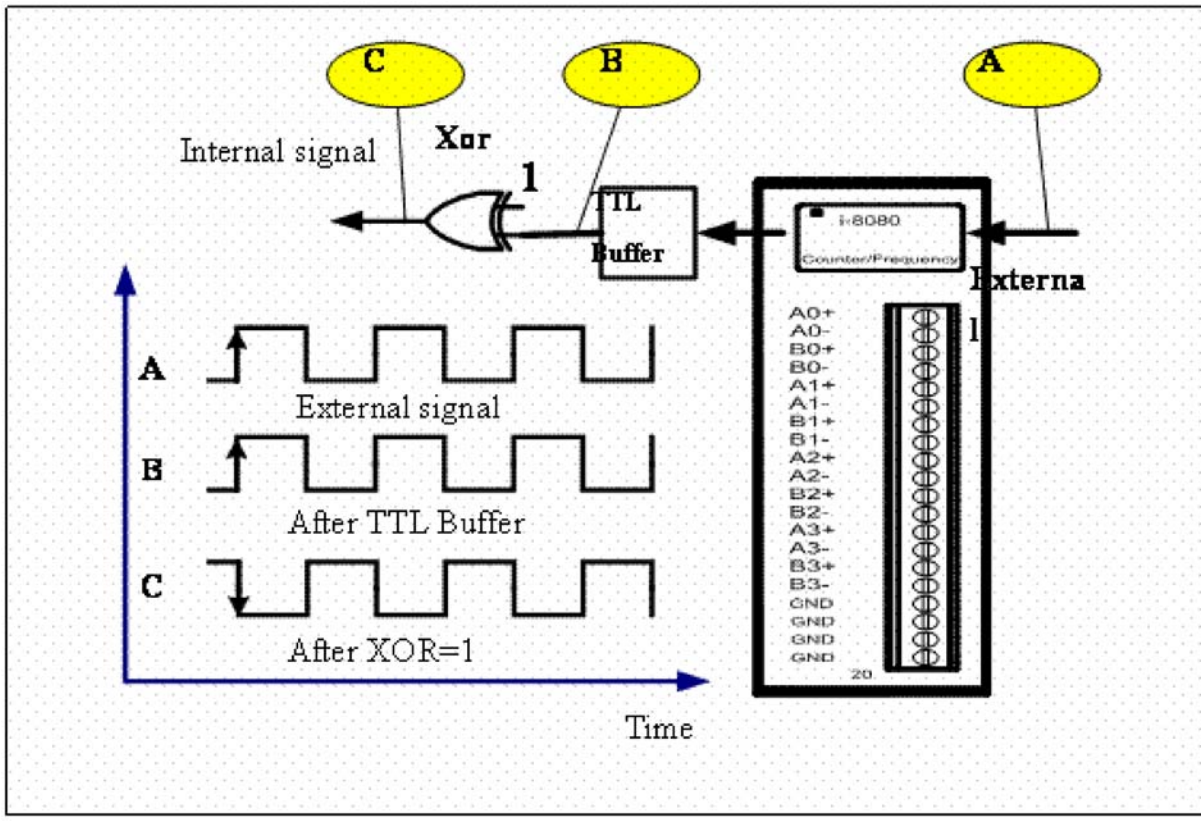

Figure 2 TTL input

Note:

1. When XOR=0 and the 8080 module status is OPEN status (i.e. no signals on the input terminal) ,
   regardless of whether you select the TTL or Isolated mode, the signal at the C point will always be 1.
   Similarly, if XOR=1 and the status is OPEN, then the signal at the C point will always be 0.
2. If the input signal is a pulse rather than a 50/50 duty cycle square waveform, then the 1-count error will
   not occur as the pulse width is shorter..

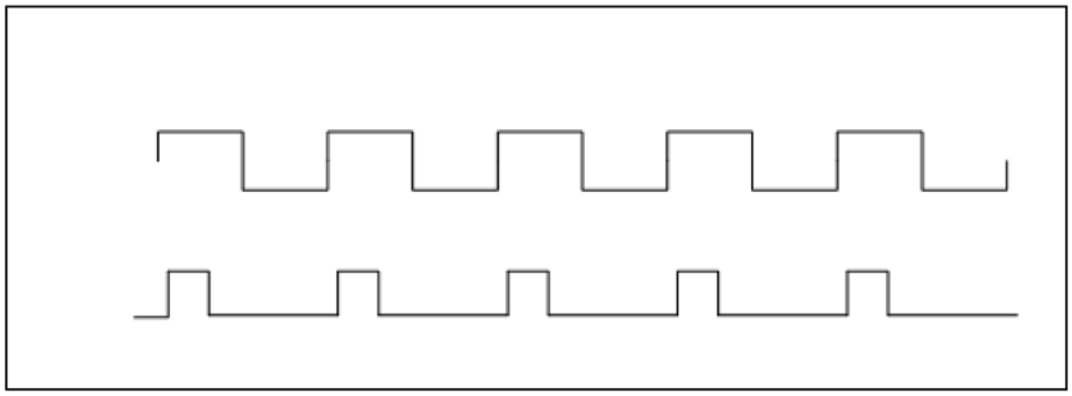

Figure 3 Square and pulse waveforms