

**External
Oscillator**

V_{IH}

V_{IL}

**Internal
clock**

1024 cycles

The diagram illustrates the relationship between an external oscillator and an internal clock. The top trace, labeled 'External Oscillator', shows a signal that starts as a steady high level, then transitions into a noisy oscillation between two voltage levels, V_{IH} (high) and V_{IL} (low), indicated by dashed horizontal lines. The bottom trace, labeled 'Internal clock', shows a signal that remains at a low level for a significant duration before transitioning into a clean, periodic square wave. A horizontal double-headed arrow labeled '1024 cycles' spans the time interval between two vertical dashed lines, which correspond to the start and end of the clean square wave portion of the internal clock signal.