

Topology	Basic Circuit Schematic	Key Features
High-Side Buck – Direct Feedback		<ul style="list-style-type: none"> • Output referenced to input • Positive output (V_O) with respect to $-V_{IN}$ • Step down – $V_O < V_{IN}$ • Low cost direct feedback ($\pm 5\%$ typ.)
Low-Side Buck – Constant Current LED Driver; Optocoupler Feedback		<ul style="list-style-type: none"> • Output referenced to input • Negative output (V_O) with respect to $+V_{IN}$ • Step down – $V_O < V_{IN}$ • Optocoupler feedback <ul style="list-style-type: none"> • Low-cost non-safety rated optocoupler • Optional Zener provides disconnected load protection • Accuracy determined by V_F variation of optocoupler LED
High-Side Buck-Boost – Constant Current LED Driver		<ul style="list-style-type: none"> • Output referenced to input • Negative output (V_O) with respect to $+V_{IN}$ • Step up/down – $V_O > V_{IN}$ or $V_O < V_{IN}$ • Low-cost direct feedback ($\pm 5\%$ typ.) • Fail-safe – output is not subjected to input voltage if the internal power MOSFET fails • Ideal for driving LEDs – better accuracy and temperature stability than low-side Buck constant current LED driver
Low-Side Boost – Constant Current LED Driver		<ul style="list-style-type: none"> • Output referenced to input • Positive output (V_O) with respect to $-V_{IN}$ • Step up – $V_O > V_{IN}$ • Low-cost direct feedback ($\pm 5\%$ typ.) • Ideal for driving high-voltage LEDs string – good accuracy and temperature stability
Low-Side Flyback – Constant Current LED Driver		<ul style="list-style-type: none"> • Output referenced to input • Positive output (V_O) with respect to $-V_{IN}$ • Step down – $V_O < V_{IN}$ • Low-cost direct feedback ($\pm 5\%$ typ.) • Fail-safe – output is not subjected to input voltage if the internal power MOSFET fails • Ideal for driving very low voltage LEDs string – good accuracy and temperature stability

Table 2. Common Circuit Configurations Using LYTSwitch-0 for Driving LEDs.