

GLF4020

High Efficiency Power Multiplexer Switch with Manual Input Selection

DESCRIPTION

The GLF4020 is an integrated power multiplexer switch with dual independent power switches connected to a single output pin to enable seamless transition between two input sources.

The GLF4020 provides a manual selection mode by the combination of the logic input pins of EN and SEL. The GLF4020 features an ultra-efficient I_Q Smart™ technology that offers quiescent current (I_Q) and shutdown current (I_{SD}) in the industry. Low R_{ON} reduces conduction losses while low I_Q and I_{SD} solutions help designers to reduce parasitic leakage current, improve system efficiency, and increase battery lifetime.

The GLF4020 blocks any cross-conduction current between two input power sources. When the switch is disabled, the GLF4020 prevents the reverse current to the input source from the output at any higher V_{out} than V_{in} condition.

FEATURES

- Two-Input and Single-Output Power Multiplexer Switch
- Manual Input Selection Mode
- Supply Voltage Range:
2.5 V to 6.5 V
7 V_{abs} Max
- R_{ON} : 92 mΩ Typ. at 6.5 V_{IN1} or V_{IN2}
105 mΩ Typ. at 4.5 V_{IN1} or V_{IN2}
- 2 A Continuous Output Current Capability Per Channel
- Ultra-Low Supply Current at Operation
 I_Q : 4 μA Typ at 6.5 V_{IN}
- Ultra-Low Stand-by Current
 I_{SD} : 6 nA Typ at 6.5 V_{IN}
- Smart Control Pins
 I_{EN} and I_{SEL} : 3 nA Typ at V_{EN} or V_{SEL} > V_{IH}
 R_{EN} and R_{SEL} : 500 kΩ Typ
- No Cross Conduction Between Two Inputs
- Reverse Current Blocking when Disabled
- Operating Temperature Range:
-40 to 85 °C
- HBM: 6 kV, CDM: 2 kV

PRODUCT TABLE

Eval Board Ordering Info	Part Number	Top Mark	RON at 6.5 V _{IN}	Output Current, I _{OUT}	Ultra-low IQ at 6.5V _{IN}
EV019-GLF4020	GLF4020-T2G7	DP	92 mΩ	2 A	4 μA