Solid State Latching Power Switch (SSLPS)

Robust FTS power switching solution designed to RCC319-19.

INVOCON, INC. **0923**

Invocon's Solid State Latching Power Switch (SSLPS) provides switching control over an external DC power source such as a Flight Termination System (FTS) battery with single power input, four power outputs, and an UMBI/TM connector for Ground Support Equipment (GSE) on/off control & status as well as flight on/off status via telemetry (TM). The SSLPS was designed to the RCC 319-19 standard.

Key SSLPS Features:

- Single 20 to 45 Vdc input supporting up to 10.4 A.
- (4x) voltage outputs each supporting up to 4.8 A where output can be latched on or off.
- Nominal 28 Vdc on/off control signals with latching action.
  - On and Off signals each require an input >15 Vdc and >10mA to change the latching state. Once control signal is removed it remains in that state.
  - Once on, it will remain latched in the On state through power dropouts of up to 50 ms duration.
- UMBI Status
  - UMBI feeback status includes an internal inline 10kΩ current limiting resistor allowing GSE to complete a voltage divider for monitoring "power on" state.
  - Ground support personnel situational awareness via internal inline 2kΩ current limiting resistor that can be used to light a "power on" indicator LED in the UMBI pocket.
- TM Status
  - TM status output is scaled to 0-5 Vdc for monitoring power on/off state in telemetry.

Key Interface Specifications			
Input Voltage	20 – 45 Vdc		
Input Current	10.4 A continuous		
Output Current (per output)	4.8 A continuous (total of 4 outputs not to exceed input current)		
Connectors	SSPLS		Mating Connector
	[P1]	D38999/20FC4PN	D38999/26FC4SN
	[J1 – J4]	MS3112E8-4S	MS3116E8-4P
	[J5]	D38999/20FC98SN	D38999/26FC98PN
Size	6.5 x 4.0 x 2.0 inches (not including connectors)		
Weight	Nominal 2.5 lbs		
Case Material	Alodine coated 7075-T6 Aluminum		
Operating Temperature	• -24° to +61°C (Acceptance Levels) • -34° to +71°C (Qualification Levels)		

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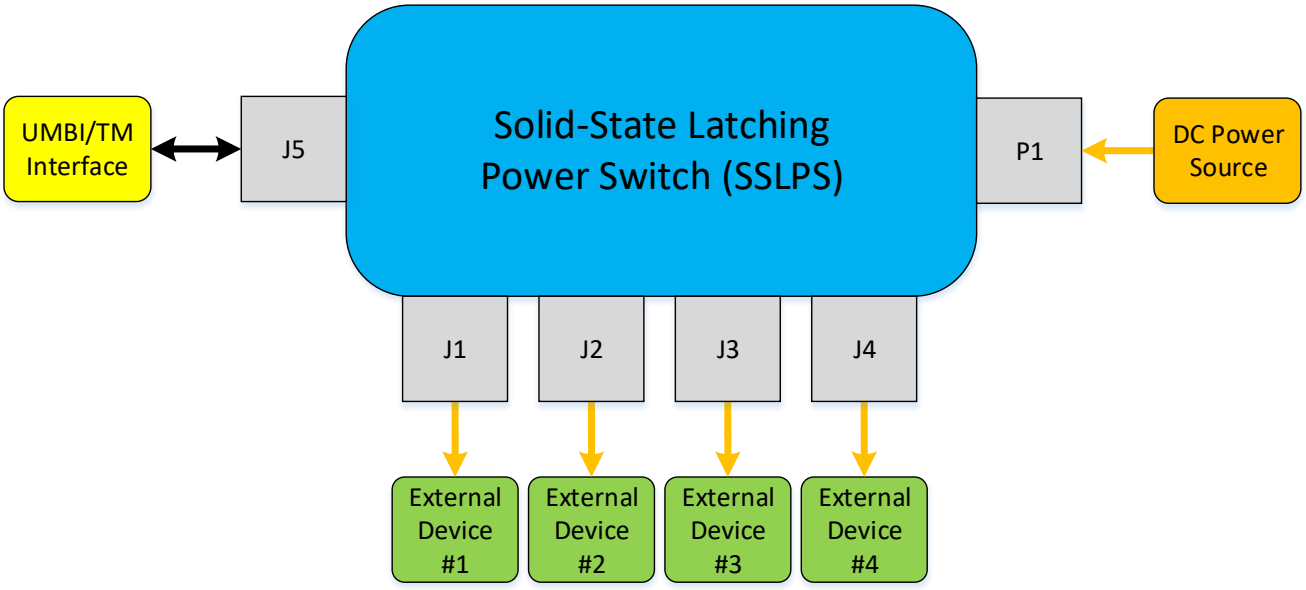

Figure 1: SSLPS Connection Block Diagram

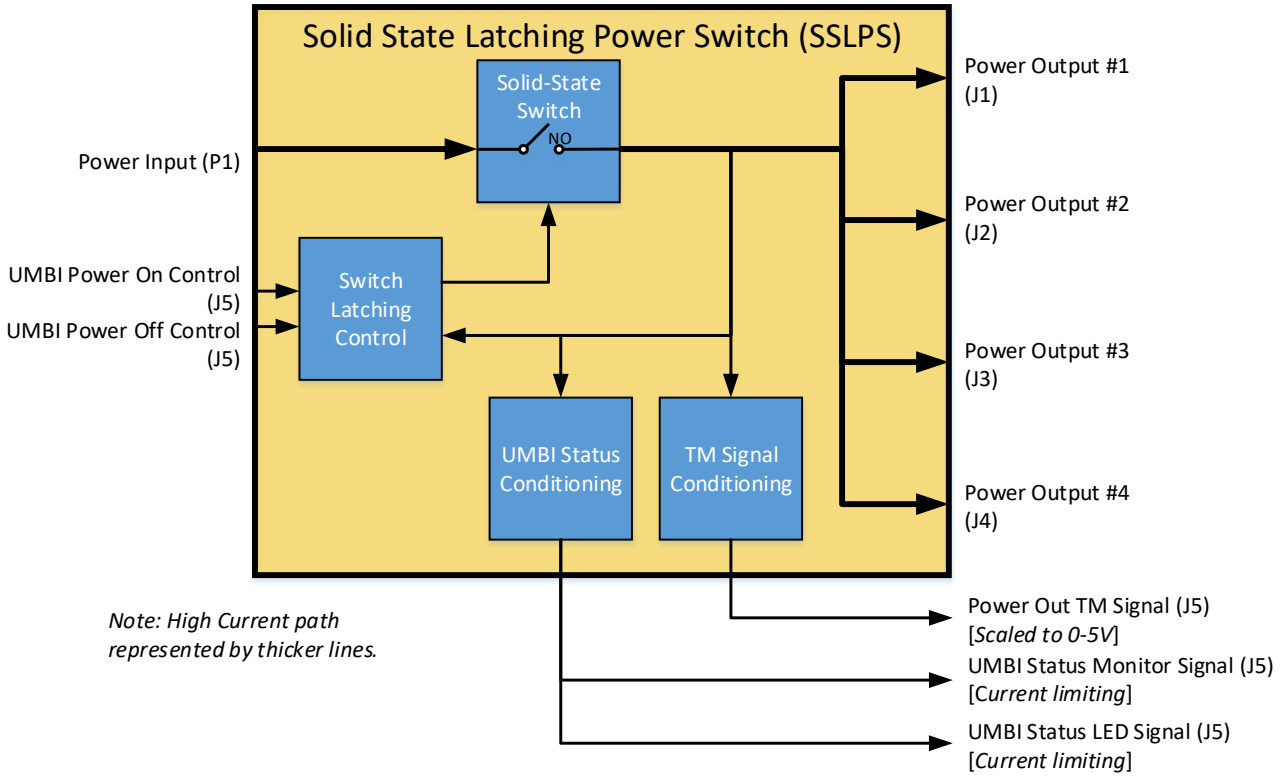

Figure 2: SSLPS Functional Block Diagram

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