

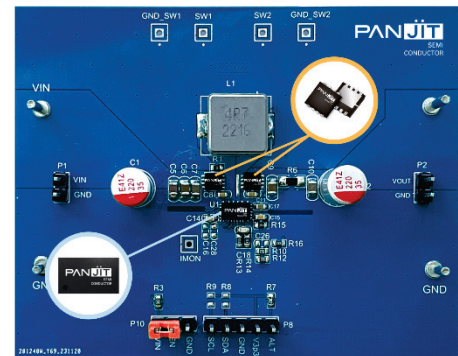
36V/100W Buck-Boost Regulators

Integrated Low-Side MOSFET - Total Solution for Thermal, SMT, and PCB

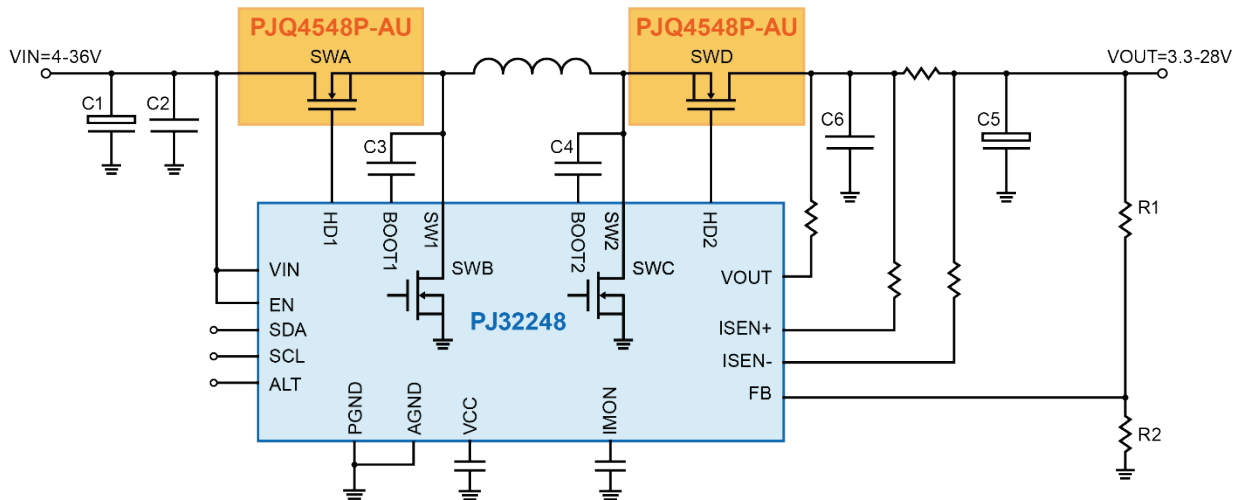


► Features

- Low-side MOSFET integrated with gate driver for high-side power switches
- Programmable Power Supply (PPS) support for USB power delivery
- Integrated IMON pin to indicate output current information
- Support 36V / up to 100W PD power
- Available Package : VQFN3x5-20



► Block Diagram



► Target Applications



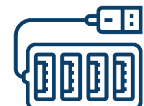
Digital TV



Monitor



Car Charger

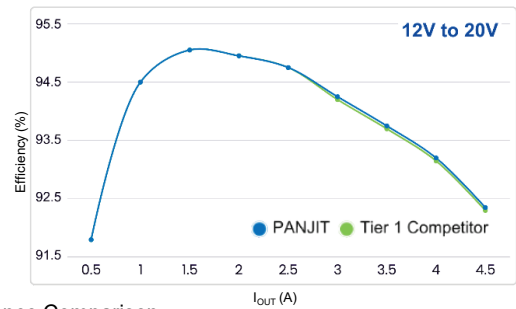
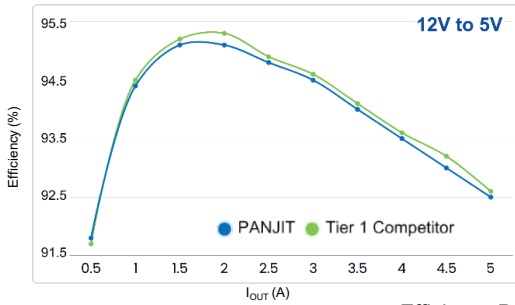


USB PD Hub / Docking



▶ Thermal Performance Comparison

Test Case	12V to 20V		12V to 28V		20V to 28V	
	@3A	@5A	@3A	@5A	@3A	@5A
Unit	°C	°C	°C	-	°C	°C
PJ32248	58.6	128	116	TSD	74.6	99.2
Tier 1 Competitor	59	131	113	TSD	74	97.5



Efficiency Performance Comparison

PANJIT Total IC Solutions

* Under Development

Category	V _{CC} V	I _{OUT} A	Released	Q3.2024	Package	
Power Management IC	Buck Regulators	5.5	3.5		PJ10135*	DFN3x3-10
		18	2	PJ11027		SOT23-6
		18	3	PJ11036		SOT23-6
	Boost Regulators	5.5	0.75	PJ30072		SOT23-6
			1		PJ30099*	DFN2x2-6 / SOT23-6
	Buck-Boost Regulators	36	5	PJ32247		VQFN3x5-20
				PJ32248*	VQFN3x5-20	
		60		PJ35175*	QFN4x5-28	
	Low Noise LDOs	5.5	0.3	PJ20030		DFN1x1-4 / SOT23-5
			0.5	PJ20050		DFN2x2-6 / DFN1.2x1.2-6
3			PJ20301		DFN3x3-10L / PSOP-8P	
Low I _q LDOs	5.5	0.15	PJ20705		DFN1x1-4 / SOT23-5	
		0.3		PJ20703*	DFN1x1-4 / SOT23-5	
High PSRR LDOs	5.5	0.45	PJ20950		DFN1x1-4 / SOT23-5 / WLCSP-4	
		0.3		PJ20938*	DFN1x1-4 / SOT23-5	
Load Switches	5.5	2.57	PJ57026		DFN2x2-6 / SOT23-6	
		6	PJ52916		DFN2x2-8	
		6+6	PJ52926		DFN3x2-14	
Signal Chain IC	Category	V _{CC} V	Resolution Bit.	Released	Q3.2024	Package
	Temperature Sensors	5.5	11	PJ85718		MSOP-8P
				PJ85753		SOT23-5
				PJ85775		SOP-8P / MSOP-8P
					PJ85411*	MSOP-8P / DFN3x3-8
	Category	V _{CM} V	Gain Error %	Released	Q3.2024	Package
	Current Sense Amplifiers	36	1	PJ75233		DFN3x3-10 / MSOP-10P
					PJ75210*	SC70-6
Category	V _{CM} V	A _{VD} V/mV	Released	Q3.2024	Package	
Operational Amplifiers	18	500		PJ76007*	SOP-8P	
			PJ76324		SOP-14P / TSSOP-14P	
			PJ76358		SOP-8P / TSSOP-8P	
			PJ76393		SOP-8P	
			PJ76339		SOP-14P / TSSOP-14P	