

FEATURES

- Non-isolated SIP POL DC/DC power module
- 2.4-5.5Vdc input voltage range
- Programmable output voltage from 0.7525-3.63Vdc
- 10 Amp (T/10) or 16 Amp (T/16) output current models
- Drives 1000 μ F ceramic capacitive loads
- High power conversion efficiency 95% at 3.3 Vout
- Outstanding thermal derating performance
- Over temperature and over current protection
- On/Off control, Sense and optional Sequence/Tracking input
- UL/EN/IEC 60950-1 safety
- Industry-standard (DOSA) SIP format
- RoHS-6 hazardous substance compliance

PRODUCT OVERVIEW

The OKX-T/10 and -T/16 series are miniature SIP non-isolated Point-of-Load (POL) DC/DC power converters for embedded applications. The module is fully compatible with Distributed-power Open Standards Alliance (DOSA) industry-standard specifications (www.dosapower.com). Applications include powering CPU's, datacom/telecom systems, programmable logic and mixed voltage systems.

The wide input range is 2.4 to 5.5 Volts DC. Two maximum output currents are offered, 10 Amps (T/10 models) or 16 Amps (T/16 models). Based on fixed-frequency synchronous buck converter

switching topology, the high power conversion efficient Point of Load (POL) module features programmable output voltage and On/Off control. An optional Sequence/Tracking input allows controlled ramp-up and ramp-down outputs. The Sense input provides load compensation. These converters also include under voltage lock out (UVLO), output short circuit protection, over-current and over temperature protections.

These units are designed to meet all standard UL/EN/IEC 60950-1 safety certifications and RoHS-6 hazardous substance compliance.

Connection Diagram

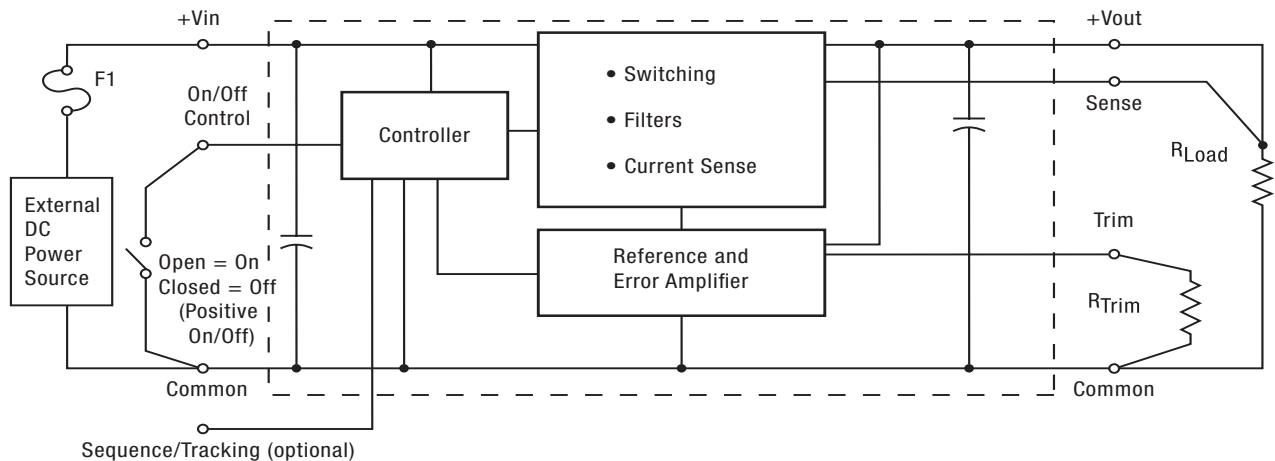


Figure 1. OKX2-T/10, -T/16

Note: Murata Power Solutions strongly recommends an external input fuse, F1. See specifications.



PERFORMANCE SPECIFICATIONS SUMMARY AND ORDERING GUIDE															
Model Number ②	Output					Input				Efficiency		On/Off Logic	Sequence/Tracking	Package C86, Pinout P84	
	V _{out} (Volts)	I _{out} (Amps max)	Power (Watts)	R/N (mVp-p) Max. ④	Regulation (Max.)		Vin Nom. (Volts)	Range (Volts) ①	I _{in} , no load (mA)	I _{in} , full load (Amps)	Min.			Typ.	Case Dimensions are in inches (mm)
					Line	Load									
OKX-T/10-W5P-C	0.7525-3.63	10	33	25	±0.2%	±0.5%	5	2.4-5.5	80	6.91	94.0%	95.5%	Pos.	no	
OKX-T/10-W5N-C	0.7525-3.63	10					5	2.4-5.5					Neg.	no	2.0x0.5x0.37 (50.8x12.7x9.4)
OKX2-T/10-W5P-C	0.7525-3.63	10					5	2.4-5.5					Pos.	yes	2.0x0.5x0.37 (50.8x12.7x9.4)
OKX2-T/10-W5N-C	0.7525-3.63	10					5	2.4-5.5					Neg.	yes	2.0x0.5x0.37 (50.8x12.7x9.4)
OKX-T/16-W5P-C	0.7525-3.63	16	52.8	30	±0.3%	±0.5%	5	2.4-5.5	11.12	93.0%	95.0%	Pos.	no	2.0x0.5x0.37 (50.8x12.7x9.4)	
OKX-T/16-W5N-C	0.7525-3.63	16					5	2.4-5.5				Neg.	no	2.0x0.5x0.37 (50.8x12.7x9.4)	
OKX2-T/16-W5P-C	0.7525-3.63	16					5	2.4-5.5				Pos.	yes	2.0x0.5x0.37 (50.8x12.7x9.4)	
OKX2-T/16-W5N-C	0.7525-3.63	16					5	2.4-5.5				Neg.	yes	2.0x0.5x0.37 (50.8x12.7x9.4)	

① The input voltage range must be 0.5V greater than the output voltage.
 ② All specifications are at nominal line voltage, V_{out}=nominal (3.3V for W5 models) and full load, +25 deg.C. unless otherwise noted.
 Output capacitors are 1 µF ceramic and 10 µF electrolytic in parallel. Input cap is 22 µF. See detailed specifications. I/O caps are necessary for our test equipment and may not be needed for your application.
 ③ Use adequate ground plane and copper thickness adjacent to the converter.
 ④ Ripple and Noise (R/N) is shown at V_{out}=1V. See specs for details.

