



XR76205-Q

NEW PRODUCT OVERVIEW

AEC-Q100 Qualified 40V PowerBlox™ 5A Synchronous Step Down COT Regulator

FEATURES

- Automotive AEC-Q100 Qualified
 - Temperature Grade1: -40°C to 125°C
 - HBM ESD Class Level 2
 - CDM ESD Class Level C4B
- Controller, drivers, bootstrap diode and MOSFETs integrated in one package
- 5A step-down regulator
 - Wide 5.5V to 40V input voltage range
 - $\geq 0.6V$ adjustable output voltage
- Proprietary constant on-time control
 - No loop compensation required
 - Stable ceramic output capacitor operation
 - Programmable 200ns to 2 μ s on-time
 - Constant 100kHz to 800kHz frequency
- Selectable CCM or CCM/DCM
 - CCM/DCM for high efficiency at light load
 - CCM for constant frequency at light load
- Programmable hiccup current limit with thermal compensation
- Precision enable and power-good flag
- Programmable soft-start
- 30-pin 5mm x 5mm QFN package with wettable flanks
- Coming soon:
 - Pin compatible 3A regulator, XR76203-Q
 - Pin compatible 8A regulator, XR76208-Q

TARGET APPLICATIONS

- Automotive systems
- Infotainment head units
- Advanced Driver Assistance Systems (ADAS)
- Distributed power architecture
- Point-of-Load (POL) converters
- Power supply modules
- FPGA, DSP and processor supplies
- Industrial and military applications



AEC-Q100 Compliant, 40V, 5A synchronous step down regulator in a small 5x5mm QFN package with wettable flanks meets optical inspection standards for automotive applications. Uses Exar's proprietary constant on-time architecture to provide superior line/load regulation, fast transient response and stability with ceramic output capacitors.

Competition:	Solutions from MPS, Linear Technology and TI including: MPQ4470, LMR14050-Q1, LT3690	
Suggested Resale Price (1k - 4,999):	XR76205-Q	\$3.45
Part Numbers/ Packages:	XR76205EL-Q	QFN-30 (tray)
	XR76205ELTR-Q	QFN-30 (tape & reel)
Evaluation Board:	XR76205EVB-Q	
Lead Time:	customersupport@exar.com	

Debbie Brandenburg
Sr Manager, Marketing Communications
Tel. 510-668-7481
Email: debbie.brandenburg@exar.com

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48720 Kato Road
Fremont, CA 94538
USA

Tel.: +1 (510) 668-7000
Fax: +1 (510) 668-7001
Email: powertechsupport@exar.com

www.exar.com