

**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 $\mu$ 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

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