

XR76203/5/8-Q AEC-Q100 Qualified

40V, 3A/5A/8A Synchronous Step Down Regulators

Sales Guide
Confidential

Key Features

- Automotive AEC-Q100 Qualified
- 3A/5A/8A step down regulators
 - Wide 5.5V to 40V input voltage range
 - $\geq 0.6V$ adjustable output voltage
- Proprietary constant on-time control
 - Programmable 200ns-2 μ s on-time
 - Constant 100kHz-800kHz switching frequency
 - Stable with ceramic output caps
 - No loop compensation required
- Selectable CCM or CCM/DCM modes
 - 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
- 5x5mm QFN package with wettable flanks - common scalable footprint

Value Proposition

- Controller, drivers, bootstrap diode and MOSFETs integrated in one package
- 40V input voltage range supports industrial 24V AC $\pm 15\%$ sources
- Excellent line and load regulation
- High efficiency

Target Applications

- Automotive Systems
- Point of Load Conversion
- Distributed Power Architecture
- FPGA/DSP/Processor Supplies
- Power Supply Modules
- Industrial and Military



Automotive Infotainment



Servers



Switches/Routers



Base Stations

Key Competitive Advantages

Standard COT from MPS, Semtech, IR

- Superior line/load regulation

DCAP/DCAP2/DCAP3 from TI

- Superior line/load regulation
- Faster transient response with ability to work with low ESR capacitors

Availability & Tools

In Production

- XR76205-Q (5A)
- Tiny 5x5mm QFN-30
- Evaluation Boards

In Development

- XR76208-Q (8A)
- XR76203-Q (3A)
- Tiny 5x5mm QFN-30
- Evaluation Boards

