

NCV896530

Dual Output Buck Converter, Low Voltage, 2.1 MHz



Product Overview

For complete documentation, see the data sheet.

The NCV896530 dual step-down dc-dc converter is a monolithic integrated circuit dedicated to automotive driver information systems from a downstream voltage rail. Both channels are externally adjustable from 0.9 V to 3.3 V and can source totally up to 1600 mA. Converters are running at 2.1 MHz switching frequency above the sensitive AM band and operate 180° out of phase to reduce large amounts of current demand on the rail. Synchronous rectification offers improved system efficiency.

The NCV896530 provides additional features expected in automotive power systems such as integrated soft-start, cycle-by-cycle current limit and thermal shutdown protection. The device can also be synchronized to an external clock signal in the range of 2.1 MHz. The NCV896530 is available in a space saving, 3 x 3 mm 10-pin DFN package.

Features

- Synchronous Rectification
- 2.1 MHz Switching Frequency
- Thermal Limit and Short Circuit Protection
- 2 Outputs are 180° Out-of-Phase
- Internal MOSFETs

Benefits

- Higher Efficiency
- Smaller inductor, no AM band emissions
- Fault Protection
- Lower Input Ripple
- Decreased cost and solution size

Applications

- Audio
- Infotainment
- Instrumentation

| Part Electrical Specifications | | | | | | | | | | | | |
|--------------------------------|-------------------|---|--------|----------|--------------|-------------------------|-------------------------|------------------------|------------------------|----------------|---------------------------|--------------|
| Product | Pricing (\$/Unit) | Compliance | Status | Topology | Control Mode | V _{CC} Min (V) | V _{CC} Max (V) | V _O Typ (V) | I _O Typ (A) | Efficiency (%) | f _{SW} Typ (kHz) | Package Type |
| NCV896530MW ATXG | 1.012 | A P Pb H | Active | | | | | | | | | DFN-10 |