



VIPower M0-9

Single, dual, and quad-channel automotive high-side drivers



Smart power switches enable intelligent power management with effective sensing and protection mechanisms for sophisticated diagnostics

Able to handle extra-energy transient events including sudden surges of current and voltage, VIPower M0-9 high-side drivers are ideal for powering automotive ECUs.

Featuring embedded sensors to monitor changes in the vehicle's environment, such as temperature variations and anomalies in current absorption or voltage settlement, these smart switches can operate autonomously without the need for a central controller, which is especially useful in ADAS environments.

These devices simplify system designs and improve safety in car systems such as junction boxes, interior/exterior lighting, and DC motor driving, as well as any application requiring a protected 12 V battery line.

KEY FEATURES

- AEC-Q100 qualified
- Compatibility with 3V / 5V CMOS outputs
- Current sensing with analog feedback
- Protective functions for overload active management, power limitation and overtemperature shutdown

MAIN BENEFITS

- Maximum design flexibility through identical package footprint across the series
- Deep cold cranking at extremely low voltages
- Enhanced efficiency with reduced power consumption

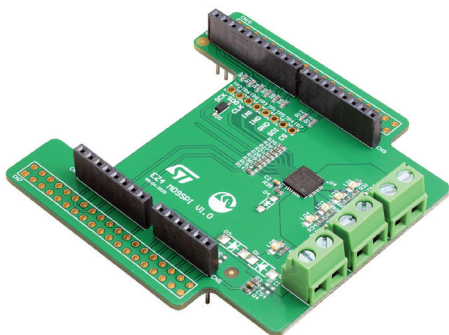
KEY APPLICATIONS

- Protected supply for ADAS systems
- Automotive body control modules and heating systems
- Automotive power distribution

Development tools for reducing design time and cost

With a complete development ecosystem with ready-to-use evaluation boards, these intelligent high-side drivers simplify compliance with safety regulations and ease software development.

A complete set of evaluation boards



Dynamic Electro-Thermal simulator



Product	Channels	Rating	Current limitation (A)	On-resistance per channel (mΩ)	Operating voltage (V)	Undervoltage shutdown (V)	Ready-to-use evaluation boards
VN9004AJ	1	Automotive	108.0	4.2	4 to 28	2.1	EV-VN9004AJ
VN9006AJ	1	Automotive	82.0	6.0	4 to 28	2.1	EV-VN9006AJ
VN9008AJ	1	Automotive	81.6	8.0	4 to 28	2.1	EV-VN9008AJ
VN9012AJ	1	Automotive	63.0	12.0	4 to 28	2.1	EV-VN9012AJ
VN9016AJ	1	Automotive	50.6	16.0	4 to 28	2.1	EV-VN9016AJ
VND9008AJ	2	Automotive	67.0	9.4	4 to 28	2.1	EV-VND9008AJ
VND9012AJ	2	Automotive	63.0	12.0	4 to 28	2.1	EV-VND9012AJ
VND9016AJ	2	Automotive	50.6	16.0	4 to 28	2.1	EV-VND9016AJ
VND9025AJ	2	Automotive	35.0	25.0	4 to 28	2.1	EV-VND9025AJ
VNQ9025AJ	4	Automotive	30.0	25.0	4 to 28	2.1	EV-VNQ9025AJ
VNQ9080AJ	4	Automotive	13.6	86.0	4 to 28	2.1	EV-VNQ9080AJ



© STMicroelectronics - May 2024 - Printed in the United Kingdom - All rights reserved
 ST and the ST logo are registered and/or unregistered trademarks of STMicroelectronics International NV or its affiliates in the EU and/or elsewhere. In particular, ST and the ST logo are Registered in the US Patent and Trademark Office.
 For additional information about ST trademarks, please refer to www.st.com/trademarks.
 All other product or service names are the property of their respective owners.

