

High-Performance Semiconductors

- » Magnetic Sensor Integrated Circuits
- » Power Integrated Circuits



A4915

**Cost Effective BLDC System Controller
Simplifies Consumer and Industrial Designs**

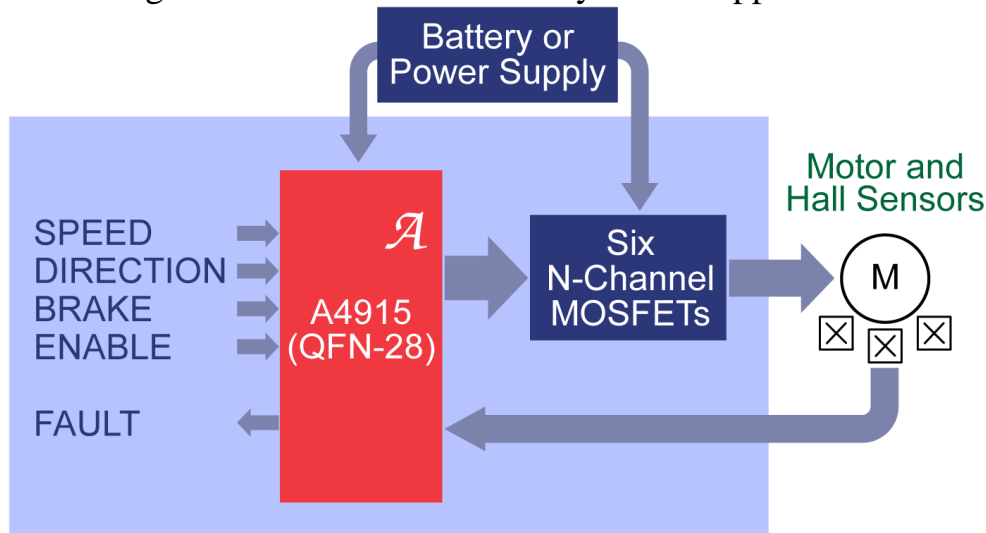


April 2013



What Is It?

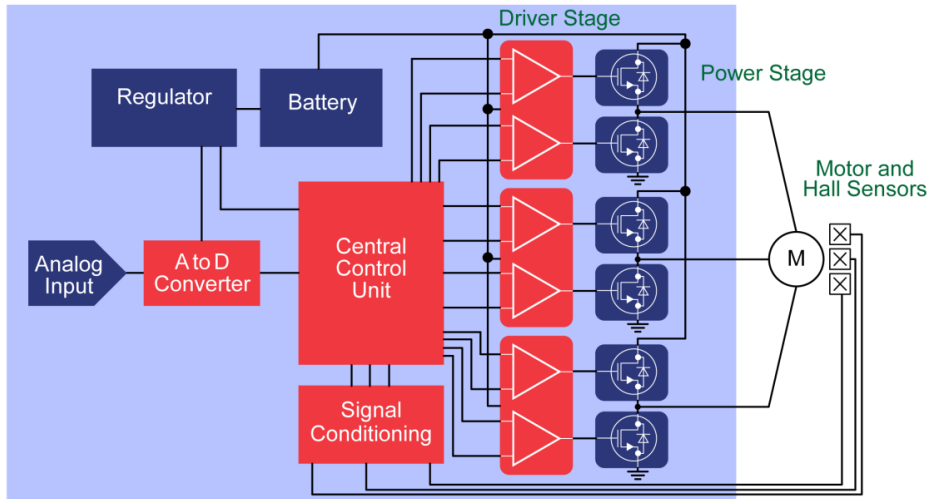
- The A4915 drives a BLDC motor without a microprocessor or DSP
 - Improves time to market by eliminating complicated software development
- Its powerful gate drive can support up to 150 A load current over a wide operating voltage range
 - Capable of driving wide range of motors
 - 50 V maximum rating for operation with wide range of input voltages.
- 5 V minimum supply rating is ideal for battery operated applications
 - SLEEP function provides 10uA standby current
- Center Aligned PWM improved thermal management and noise reduction
- Integrated brake feature for safety critical applications



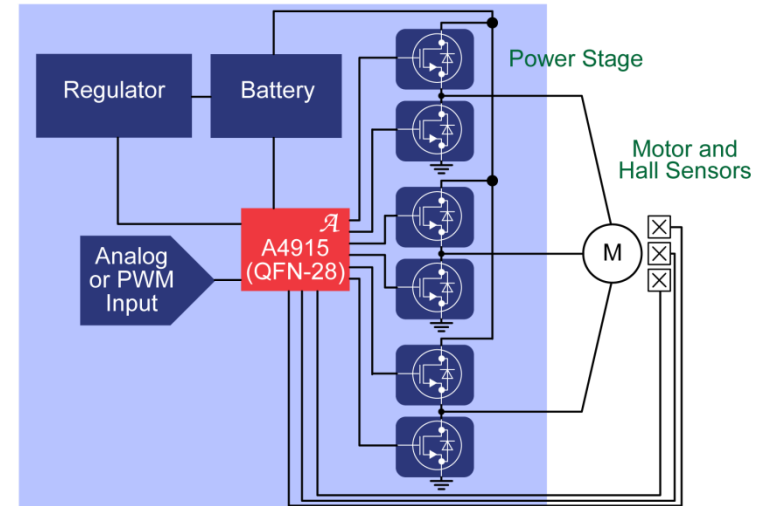


The A4915 Simplifies Designs

Existing Solution

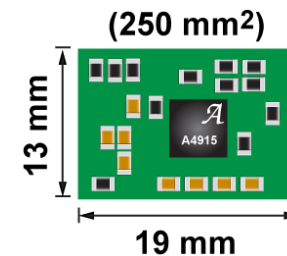
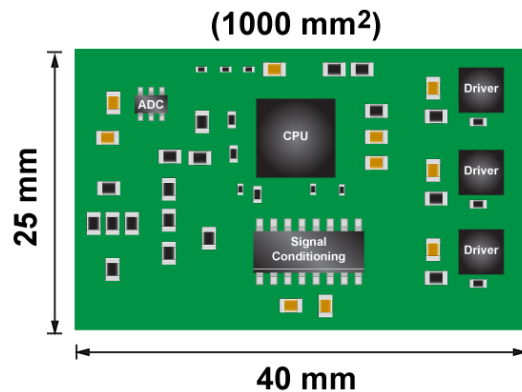


Allegro Solution



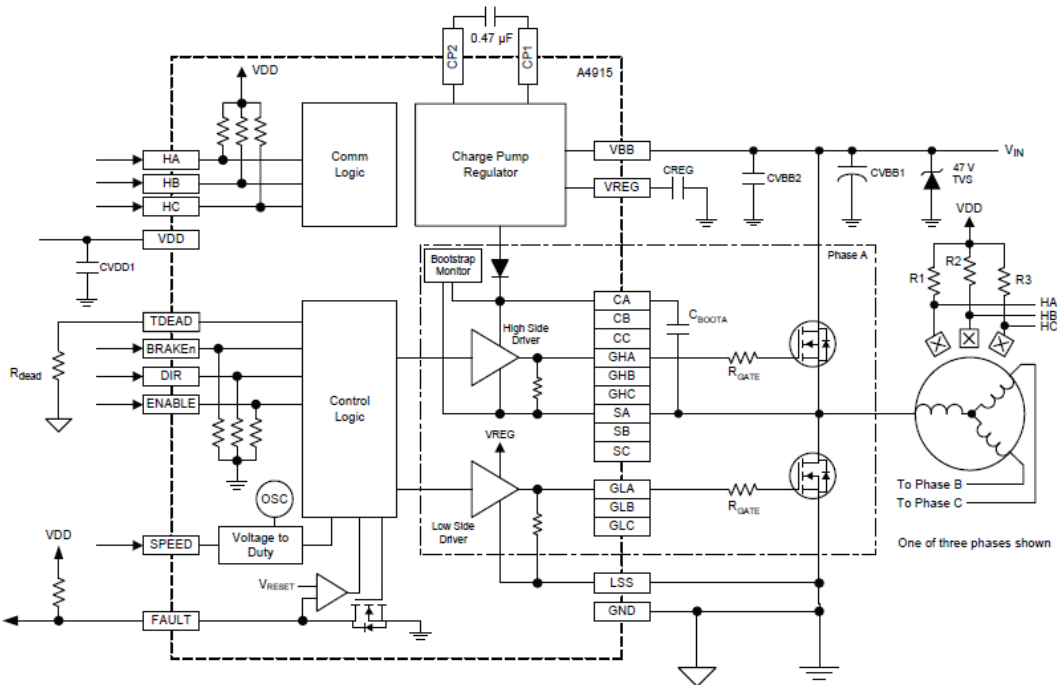
And Saves Space

Save 75% 750 mm²

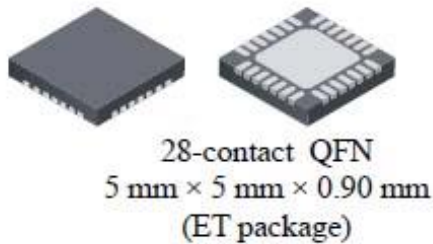




A4915 Features



- Wide Supply Voltage Range
 - 5.0 V to 50 V
- Extended Battery life
 - 1uA Standby Current
 - Center aligned PWM reduces power losses
- Designed For Safety
 - Fault Output
 - Latched Thermal Shutdown
 - Active Low Brake (normally active)
- Easy to Control and Flexible
 - Single Wire SPEED Input Converts Voltage to PWM Duty
 - Direct PWM via ENABLE Pin
 - Hall Commutation Table On-Chip
 - Optional DIRECTION and BRAKE Inputs
 - Dead-time adjustment allows operation with various MOSFETs



- Small Thermally Efficient Packaging
 - Offered in Leadless and Leaded Options with Exposed Pad

Product Webpage Datasheet Download

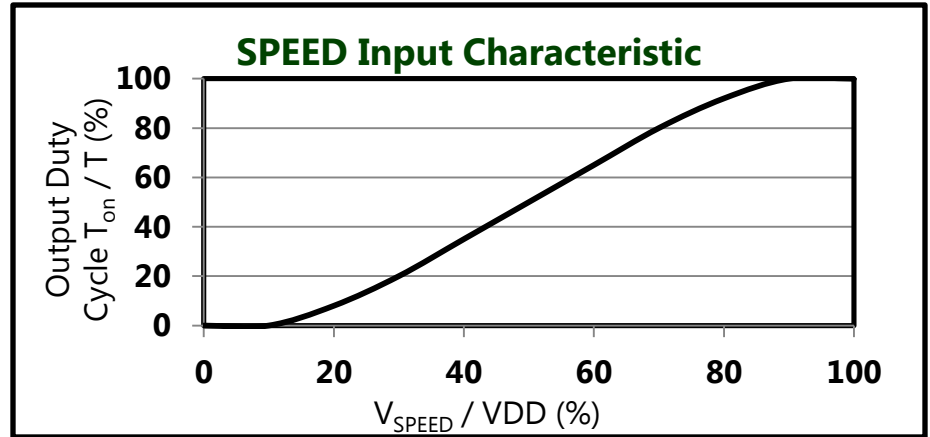
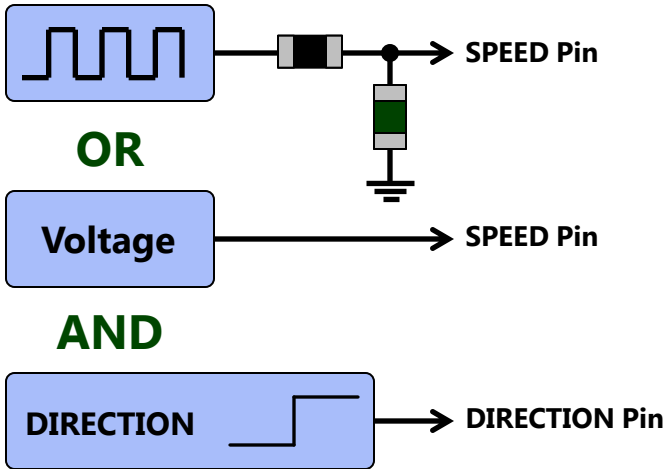




Easy to Control with SPEED or ENABLE Pins

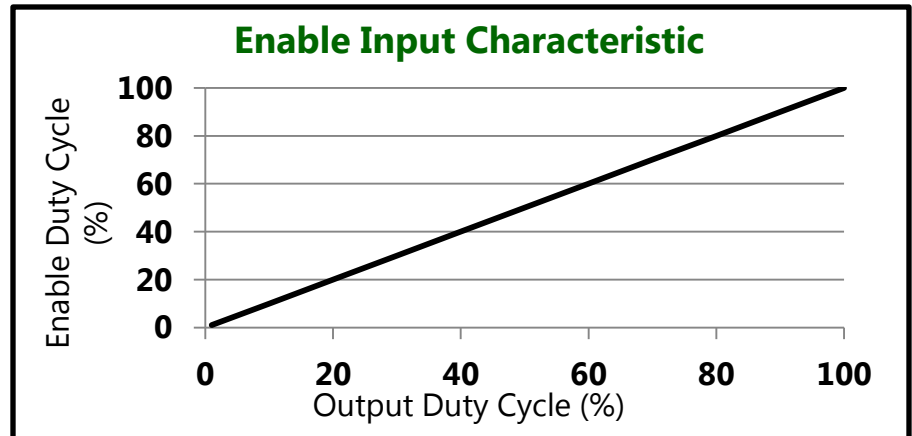
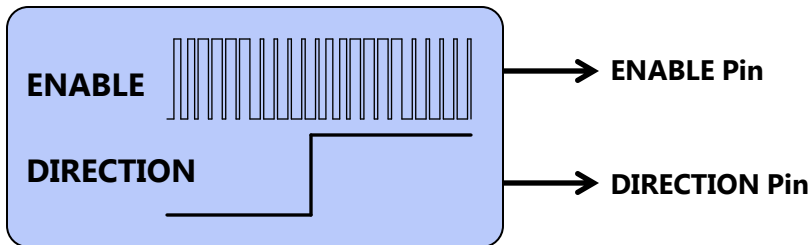
Option 1

■ Speed Input - Analog voltage on speed input is converted to output duty cycle



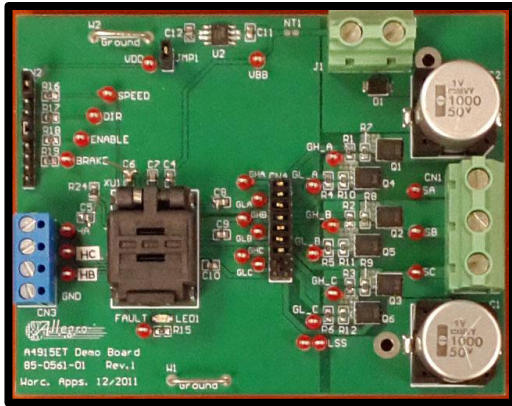
Option 2

■ Enable Input – Traditional PWM input





Design Tools and Application Support



Evaluation Kit PNs:

- 28L QFN [APEK4915EET-01-T](#)
- 28L TSSOP [APEK4915ELP-01-T](#)

A4915METTR-T



28-contact QFN
5 mm × 5 mm × 0.90 mm
(ET package)

A4915MLPTR-T



28-pin TSSOP
with exposed thermal pad
(LP package)

**Spin a motor in minutes with evaluation kits
available for purchase on [Allegro's Storefront](#)**

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