# DESCRIPTION

The PT2475 is a quad DMOS full-bridge driver capable of driving up to two stepper motors or four DC motors. Each full-bridge output is rated up to 1.2A and 36V. The PT2475 includes fixed off-time pulse width modulation (PWM) current regulators, along with 2-bit nonlinear DACs (digital-to-analog converters) that allow stepper motors to be controlled in full, half, and quarter steps, and DC motors in forward, reverse, and coast modes. The PWM current regulator uses mixed decay mode for reduced audible motor noise, increased step accuracy, and reduced power dissipation.

Internal synchronous rectification control circuitry is provided to improve power dissipation during PWM operation.
Protection features include thermal shutdown with hysteresis, under-voltage lockout (UVLO) and crossover current protection. Special power up sequencing is not required.

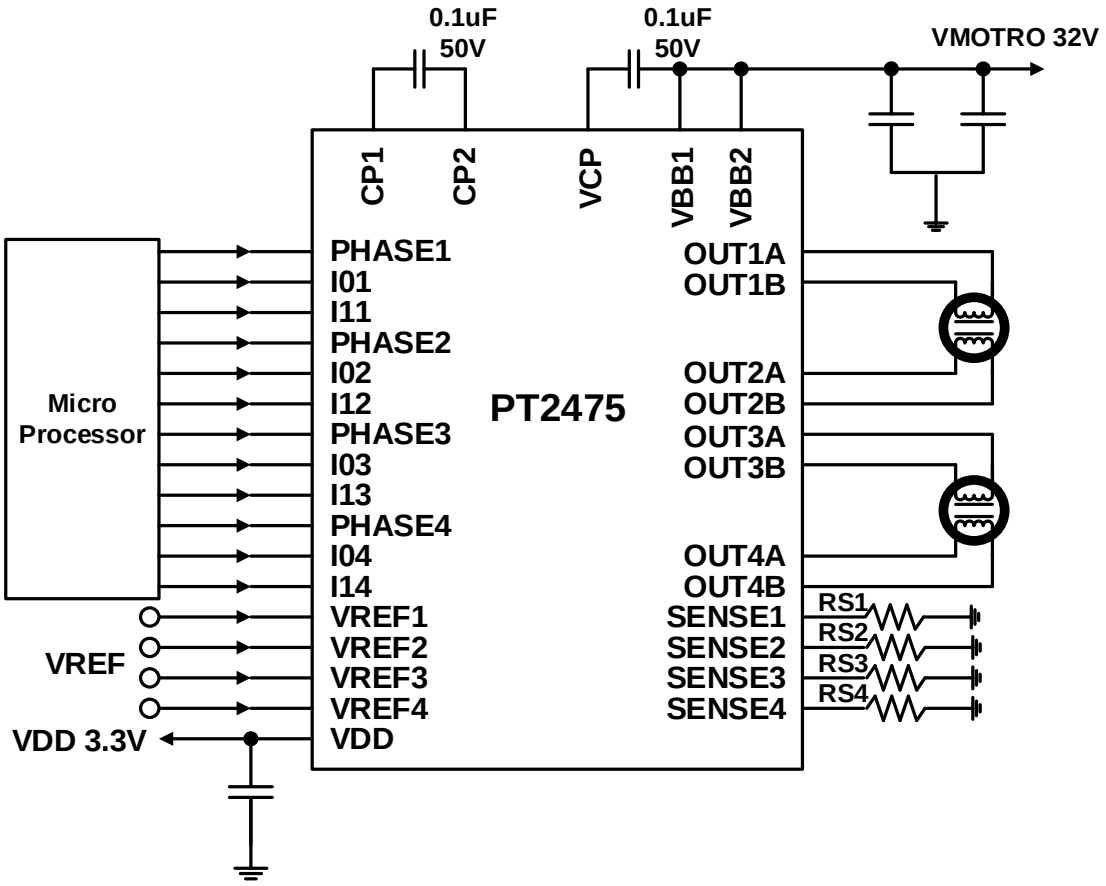
# FEATURE

- 36V output rating
- 4 full bridges
- Dual stepper motor driver
- High current outputs
- 3.3 and 5V compatible logic supply
- Synchronous rectification
- Internal under-voltage lockout (UVLO)
- Thermal shutdown circuitry
- Crossover-current protection
- Low profile QFN package

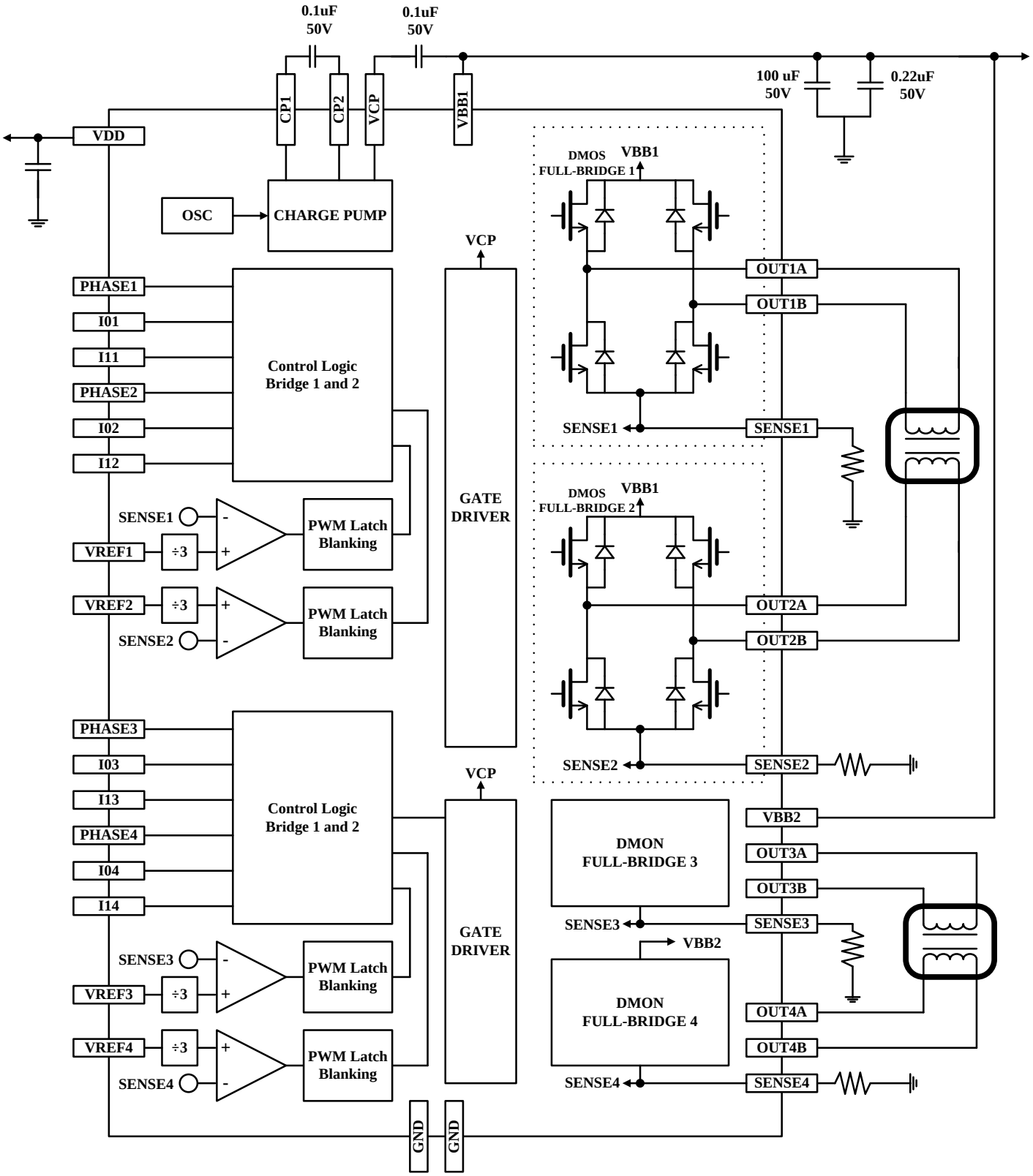
# APPLICATION

- Robotics
- Security monitoring, high-speed ball
- Engraving machine, laser cutting machine
- Scanner, copier

# BLOCK DIAGRAM



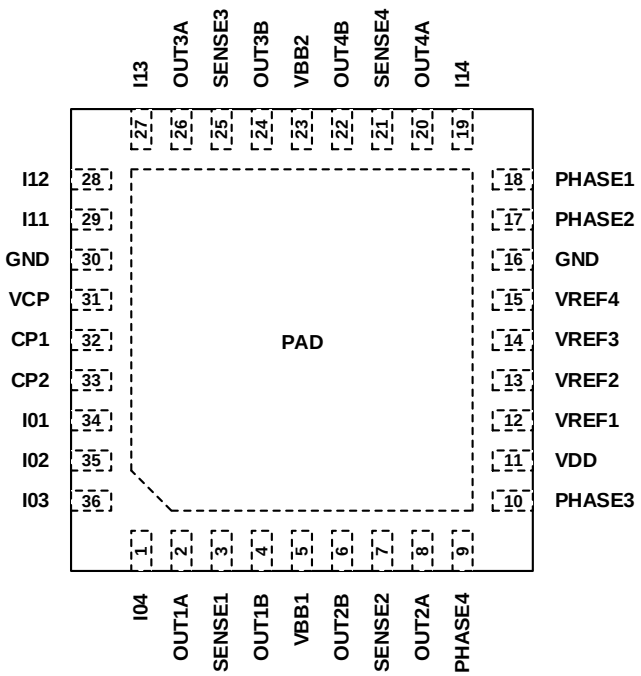
# APPLICATION CIRCUIT



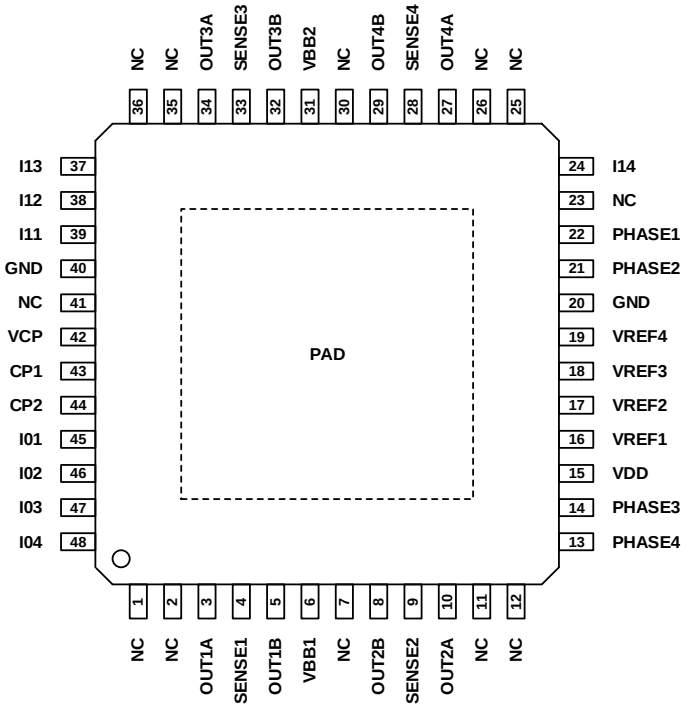
# ORDER INFORMATION

| Valid Part Number | Package Type | Top Code |
|---|---|---|
| PT2475-LQ | 48 Pins, ELQFP | PT2475-LQ |
| PT2475 | 36 Pins, QFN | PT2475 |

# PIN CONFIGURATION




QFN-36




ELQFP-48

# IMPORTANT NOTICE

Princeton Technology Corporation (PTC) reserves the right to make corrections, modifications, enhancements, improvements, and other changes to its products and to discontinue any product without notice at any time.
PTC cannot assume responsibility for use of any circuitry other than circuitry entirely embodied in a PTC product. No circuit patent licenses are implied.

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