DESCRIPTION

The PT5111 is a semiconductor integrated circuit that incorporates driver circuits suitable for the motors of digital cameras. The current consumption can be hold at quite low level during standby or operation. And the active power supply voltage range for VM is from 2.7~5.5V. So the device is ideal for portable and battery powered applications.

The PT5111 is available in QFN40 (5mm × 5mm) package. Performance is specified for -40℃ to +85℃ temperature range.

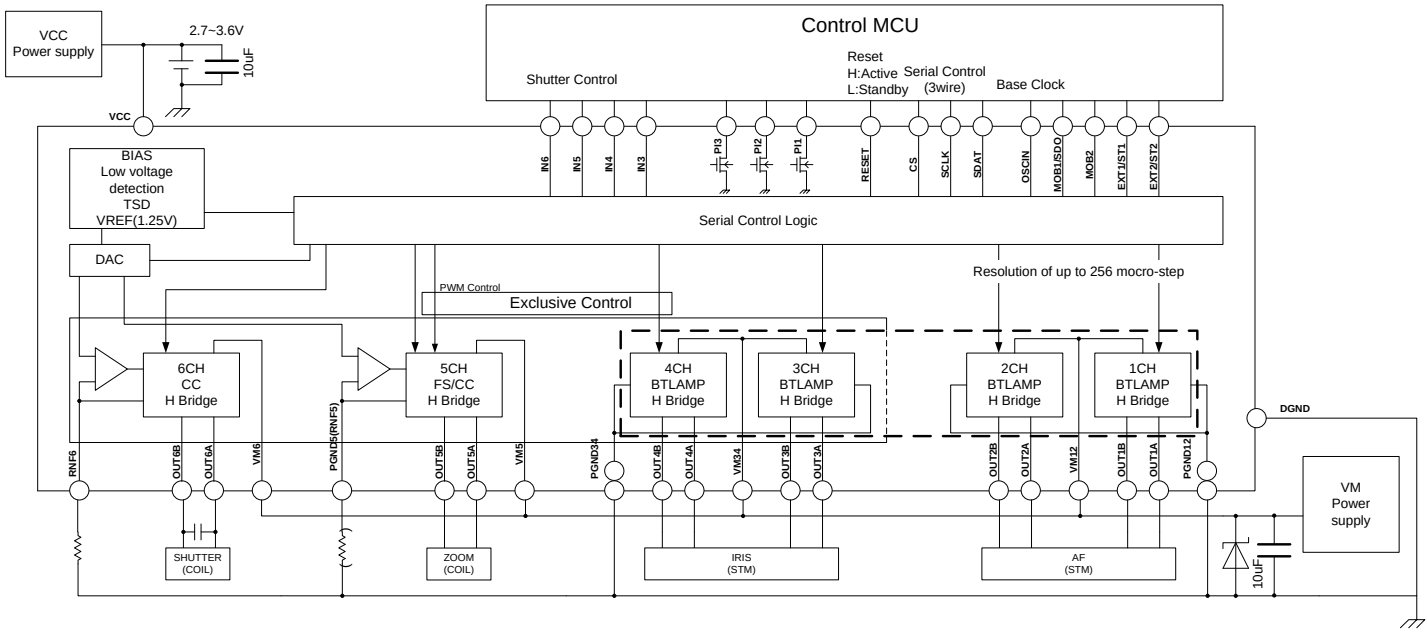
APPLICATION

- DSC/DV

FEATURES

- An ultra-fine CMOS process has been adopted for low power consumption in a design.
- A small 40-pin QFN package(5mm×5mm, lead pitch is 0.4 mm)has been adopted.
- 1ch/2ch and 3ch/4ch are capable of micro-steps mode. Possible modes are from 2-2 phase stepper drive to maximum 256 resolution micro-steps.
- Built-in autonomous drive circuit under the control of serial settings.
- Built-in 3-ch PI driver
- Under voltage lockout circuit
  - Shut down the internal circuit at VCC=1.8V (Typ.)
- Thermal shut down circuit
  - Shut down the internal circuit at 150℃ Hysteresis 30℃
- Power supply systems are all internally isolated and include a function to prevent reverse current between power supplies.
- Built-in exclusive control mode from channel 3 to channel 6.(resemblance 7 channel motor drive application)

BLOCK DIAGRAM

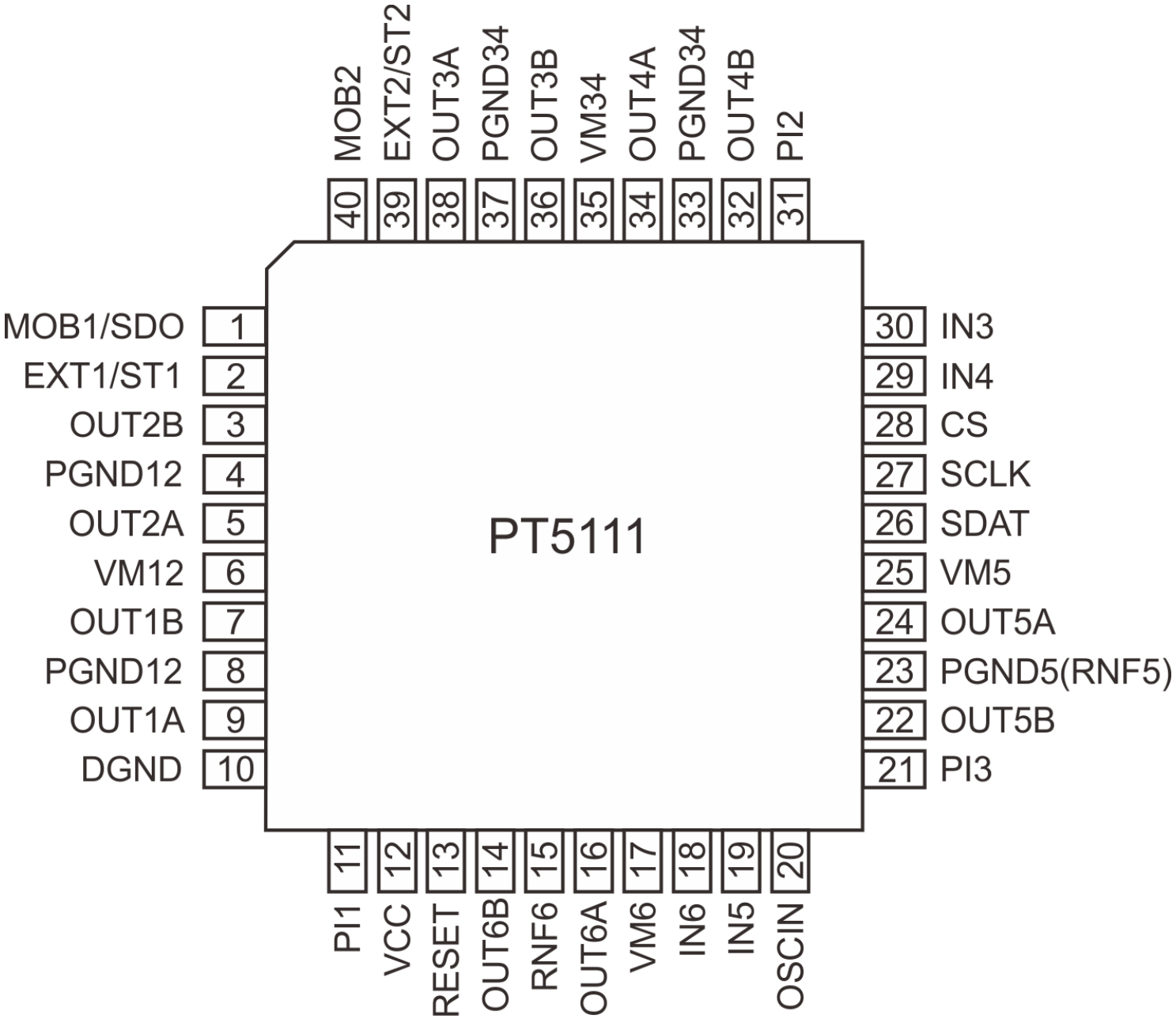


CONTENTS

1. ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT5111	40 Pins, QFN	PT5111

2. PIN CONFIGURATION



3. PIN DESCRIPTION

Pin Name	I/O	Description	Pin No.
MOB1/SDO	O	MOB (SDO) output	1
EXT1/ST1	O	EXT (ST) output	2
OUT2B	O	CH2 output B	3
PGND12	GND	CH1/2 power GND	4
OUT2A	O	CH2 output A	5
VM12	Power Supply	CH1/2 Power supply	6
OUT1B	O	CH1 output B	7
PGND12	GND	CH1/2 power GND	8
OUT1A	O	CH1 output A	9
DGND	GND	Control GND	10
PI1	O	PI1 output	11
VCC	Power Supply	Small signal power supply	12
RESET	I	Logic reset	13
OUT6B	O	CH6 output B	14
RNF6	GND	CH6 current sense input or power GND	15
OUT6A	O	CH6 output A	16
VM6	Power Supply	CH6 power supply	17
IN6	I	Channel 5 and 6 control	18
IN5	I	Channel 5 and 6 control	19
OSCIN	I	Clock	20
PI3	O	PI3 output	21
OUT5B	O	CH5 output B	22
PGND5(RNF5)	GND	CH5 current sense input or power GND	23
OUT5A	O	CH5 output A	24
VM5	Power Supply	CH5 Power supply	25
SDAT	I	Serial data input	26
SCLK	I	Serial clock input	27
CS	I	Serial data latch control	28
IN4	I	Channel 4, 5 and 7 control	29
IN3	I	Channel 3, 4, 5 and 7 control	30
PI2	O	PI2 output	31
OUT4B	O	CH4 output B	32
PGND34	GND	CH3/4 power GND	33
OUT4A	O	CH4 output A	34
VM34	Power Supply	CH3/4 power supply	35
OUT3B	O	CH3 output B	36
PGND34	GND	CH3/4 power GND	37
OUT3A	O	CH3 output A	38
EXT2/ST2	O	EXT (ST) output	39
MOB2	O	MOB output	40

IMPORTANT NOTICE

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