

## DESCRIPTION

The PT5111 is a semiconductor integrated circuit that incorporates driver circuits suitable for the motors of digital cameras. The current consumption can be held at quite a 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°C to +85°C temperature range.

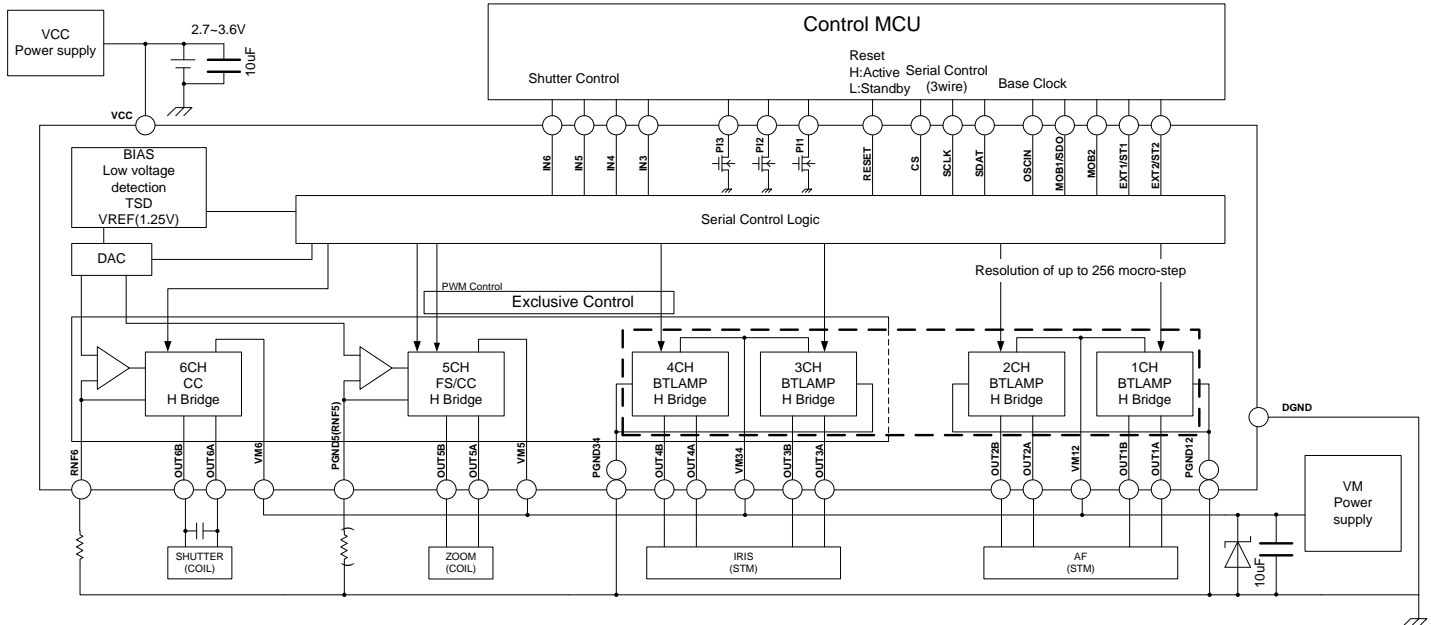
## APPLICATION

- 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°C Hysteresis 30°C
- 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



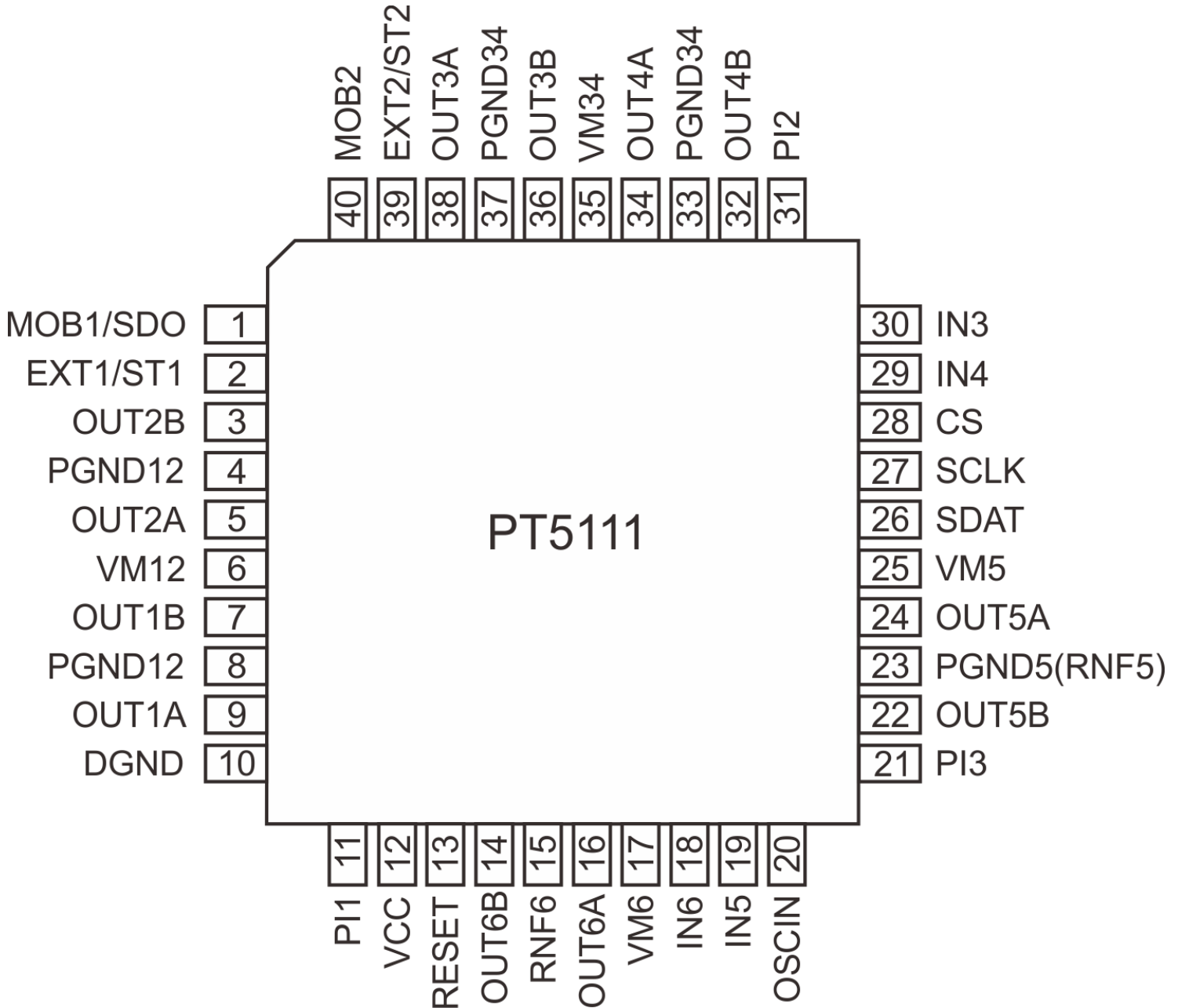
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## 1. ORDER INFORMATION

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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