



DESCRIPTION

The PT5105 is a monolithic 4-Channel CMOS H-bridge motor driver. It can drive one stepper motor, two DCM and two coils. There also are several other flexible system solutions left to be utilized. The current consumption can be hold at quite low level during standby or operation. And the active power supply voltage range is from 2.7~5.5V. So the device is ideal for portable and battery powered applications.

The PT5105 is available in QFN20 (3mm × 3mm) package. Performance is specified for -20°C to +85°C temperature range.

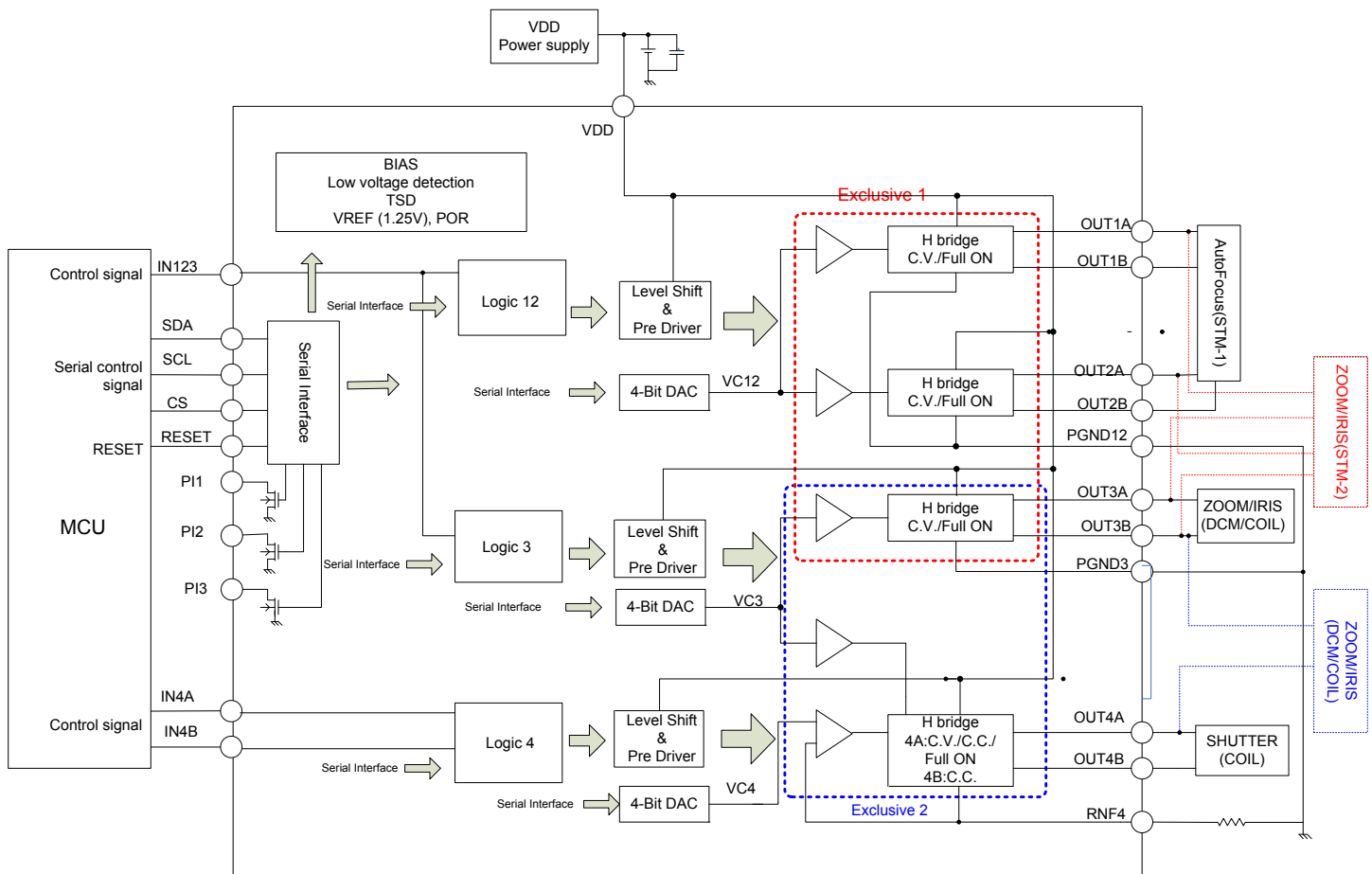
APPLICATIONS

- DSC

FEATURES

- Independent 4channel H-bridge, 3 full-swing drivers and 1 constant-current driver, all of those drivers with brake function.
- Versatile and flexible control mode - DC/stepper motor alternative, Full-swing/ Constant-Voltage/ Constant-Current selected
- Special Exclusive Control mode optional
- Constant-Voltage set by DAC: 1.8V~4.8V 0.2V/Bit Accuracy ± 5%
- Constant current set by DAC: 150mV~300mV 10mV/Bit Accuracy±5%
- Under voltage lockout circuit - Shut down the internal circuit at VDD=1.8V (Typ.)
- Thermal shut down circuit - Shut down the internal circuit at 150°C Hysteresis 30°C
- Available in small package QFN20 (3mm × 3mm)

BLOCK DIAGRAM



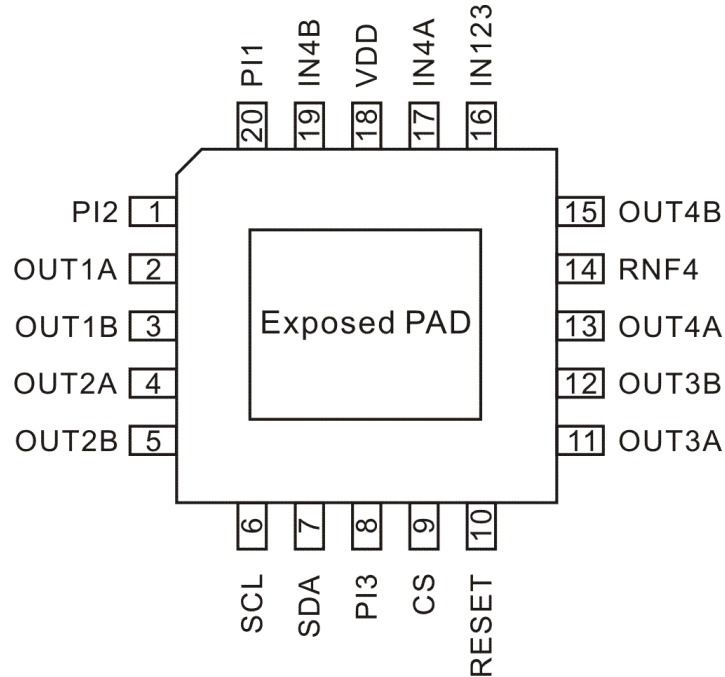
Notes:

1. FS=Full-swing
2. CV= Constant-Voltage
3. CC=Constant-Current

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT5105	20 pins, QFN	PT5105

PIN CONFIGURATION



Note: The Exposed PAD must be connect to GND

PIN DESCRIPTION

Pin Name	I/O	Description	Pin No.
PI2	OUT	PI2 Output	1
OUT1A	O	CH1 output A	2
OUT1B	O	CH1 output B	3
OUT2A	O	CH2 output A	4
OUT2B	O	CH2 output B	5
SCL	I	Serial clock input	6
SDA	I	Serial data input	7
PI3	OUT	PI3 Output	8
CS	I	Serial data latch control	9
RESET	I	Logic reset	10
OUT3A	O	CH3 output A	11
OUT3B	O	CH3 output B	12
OUT4A	O	CH4 output A	13
RNF4	I/O	CH4 current sense input or Power GND	14
OUT4B	O	CH4 output B	15
IN123	I	CH1/CH2/CH3 Input Control Pin	16
IN4A	I	CH4 Input Control Pin	17
VDD	Power Supply	Power supply (All CHs and Logic)	18
IN4B	I	CH4 Input Control Pin	19
PI1	OUT	PI1 Output	20
PGND12/PGND3	GND	CH1/2 Power GND and pre driver GND	Exposed pad