

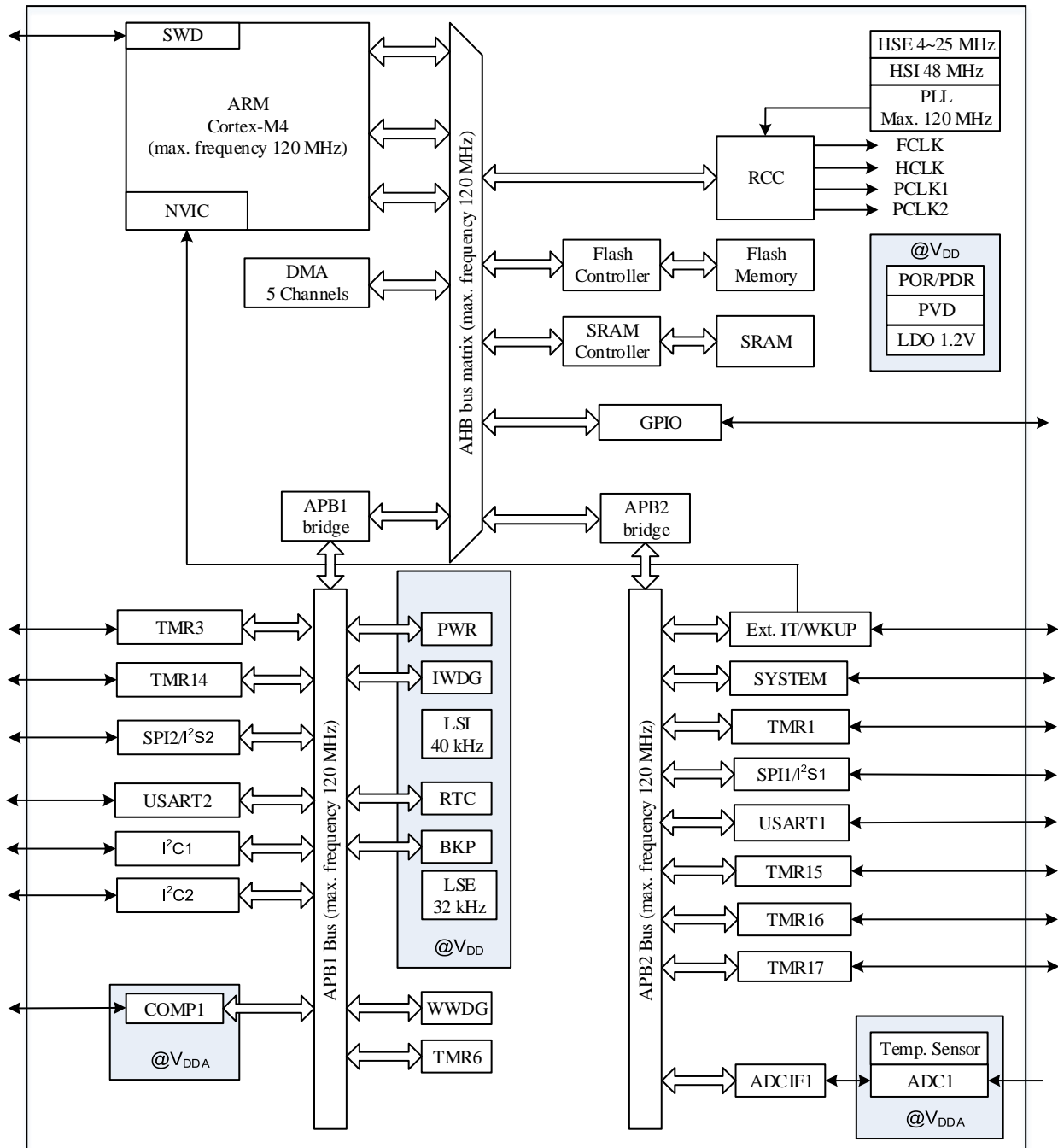
DESCRIPTION

PT32M725 is a Sip (System in Package) with 32-bit MCU processor and a three-phase gate driver (PT5619). PT32M725 microcontroller is serial of low power microcontroller incorporating a high-performance ARM Cortex™-M4 32-bit RISC core. It operates at a maximum 120 MHz frequency and features up to 64k bytes of Flash and up to 16k bytes of SRAM. Built-in single-cycle multiplication and hardware division with DSP instructions. PT5619 is a high-speed 3-phase gate driver for power MOSFET and IGBT device with three independent high and low side referenced output channels. Built-in dead time protection and shoot-through protection prevent damage to the half-bridge.

FEATURES

- ARM Cortex-M4 Processor
 - Performance up to 120 MHz
 - Flash memory 64K-Bytes
 - System SRAM 16K-Bytes
 - Up to 10 timers
 - 6 channel PWM output with dead-time generator and emergency stop
 - One 12-bit 2 MSPS A/D converter, up to 12 external channels
 - One comparator, 5 external channels and 1 internal voltage reference
 - 6 communication interfaces
 - 2 x I²C interfaces
 - 2 x USARTs
 - 2 x SPIs
 - Serial wire debug (SWD) interface
 - 2.4 to 3.6 V application supply and I/Os (VCC3IO / VDDA)
- PT5619
 - 90V half-bridge high side driver
 - Driver up to 3-phase half-bridge gates
 - Built-in dead time control 0.5 μs (typ.)
 - Shoot-through protection
 - Common-mode dV/dt noise cancellation circuit
 - Tolerant of negative transient voltage
 - 5.5 to 18 V Gate driver voltage

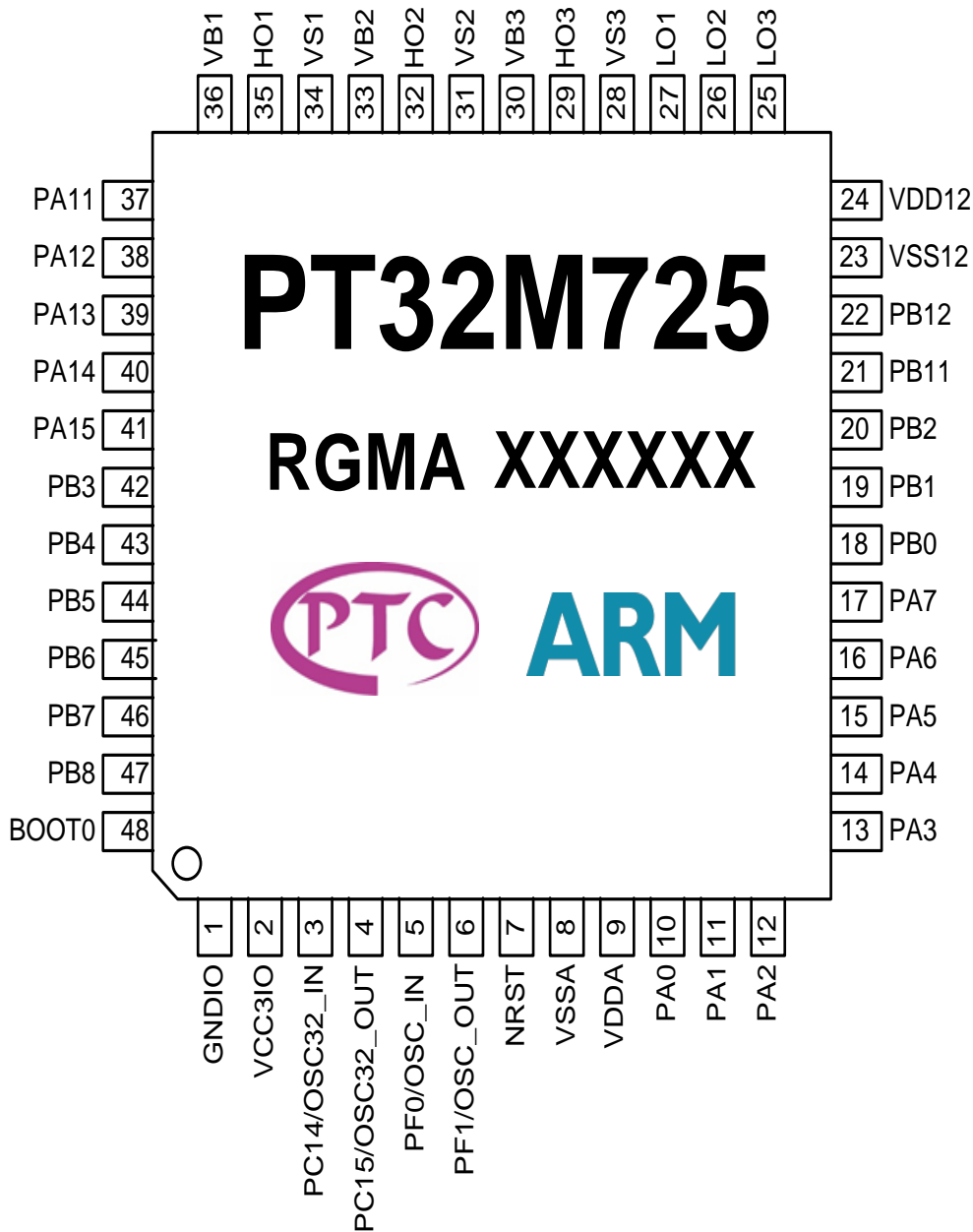
DIAGRAM: ARM CORTEX-M4 MCU



1.ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT32M725	LQFP 48	PT32M725

2.PIN CONFIGURATION



3. PIN DESCRIPTION

PIN Name	I/O	Description	Pin No.
GNDIO	Ground	Digital Ground	1
VCC3IO	Supply	Digital Voltage Supply 3.3V	2
PC14/ OSC32_IN	I/O	General Purpose Digital I/O Pin or External OSC32_IN	3
PC15/ OSC32_OUT	I/O	General Purpose Digital I/O Pin or External OSC32_OUT	4
PF0/ OSC_IN	I/O	General Purpose Digital I/O Pin or External OSC_IN	5
PF1/ OSC_OUT	I/O	General Purpose Digital I/O Pin or External OSC_OUT	6
NRST	I/O	Reset Pin (Low Active)	7
VSSA	Ground	Analog Ground	8
VDDA	Supply	Analog Voltage Supply 3.3V	9
PA0	I/O	General Purpose Digital I/O or Analog Input Pin	10
PA1	I/O	General Purpose Digital I/O or Analog Input Pin	11
PA2	I/O	General Purpose Digital I/O or Analog Input Pin	12
PA3	I/O	General Purpose Digital I/O or Analog Input Pin	13
PA4	I/O	General Purpose Digital I/O or Analog Input Pin	14
PA5	I/O	General Purpose Digital I/O or Analog Input Pin	15
PA6	I/O	General Purpose Digital I/O or Analog Input Pin	16
PA7	I/O	General Purpose Digital I/O or Analog Input Pin	17
PB0	I/O	General Purpose Digital I/O Pin	18
PB1	I/O	General Purpose Digital I/O Pin	19
PB2	I/O	General Purpose Digital I/O Pin	20
PB11	I/O	General Purpose Digital I/O Pin	21
PB12	I/O	General Purpose Digital I/O Pin	22
VSS12	Ground	HV-Driver Ground	23
VDD12	Supply	HV-Driver Voltage Supply	24
LO3	O	Phase-3 Low-Side Gate Driver Output	25
LO2	O	Phase-2 Low-Side Gate Driver Output	26
LO1	O	Phase-1 Low-Side Gate Driver Output	27
VS3	Supply	Phase-3 High-Side Driver Floating Supply Offset Voltage	28
HO3	O	Phase-3 High-Side Driver Output	29
VB3	Supply	Phase-3 High-Side Driver Floating Supply	30
VS2	Supply	Phase-2 High-Side Driver Floating Supply Offset Voltage	31
HO2	O	Phase-2 High-Side Driver Output	32
VB2	Supply	Phase-2 High-Side Driver Floating Supply	33
VS1	Supply	Phase-1 High-Side Driver Floating Supply Offset Voltage	34
HO1	O	Phase-1 High-Side Driver Output	35
VB1	Supply	Phase-1 High-Side Driver Floating Supply	36

IMPORTANT NOTICE

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