STMicroelectronics - ST72F32AJ2T6 Datasheet

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What is "Embedded - Microcontrollers"?

"Embedded - Microcontrollers" refer to small, integrated circuits designed to perform specific tasks within larger systems. These microcontrollers are essentially compact computers on a single chip, containing a processor core, memory, and programmable input/output peripherals. They are called "embedded" because they are embedded within electronic devices to control various functions, rather than serving as standalone computers. Microcontrollers are crucial in modern electronics, providing the intelligence and control needed for a wide range of applications.

Applications of "Embedded - Microcontrollers"

Details	
Product Status	Obsolete
Core Processor	ST7
Core Size	8-Bit
Speed	8MHz
Connectivity	SCI, SPI
Peripherals	POR, PWM, WDT
Number of I/O	32
Program Memory Size	8KB (8K x 8)
Program Memory Type	FLASH
EEPROM Size	-
RAM Size	384 x 8
Voltage - Supply (Vcc/Vdd)	3.8V ~ 5.5V
Data Converters	A/D 12x10b
Oscillator Type	External
Operating Temperature	-40°C ~ 85°C (TA)
Mounting Type	Surface Mount
Package / Case	44-LQFP
Supplier Device Package	-
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24	17	9	12	PC1/OCMP1_B/ AIN13	I/O	C_T		**X**	X		X	X	X	Port C1	Timer B Output Compare 1	ADC Analog Input 13
25	18	10	13	PC2 (HS)/ICAP2_B	I/O	C_T	HS	**X**	X			X	X	Port C2	Timer B Input Capture 2	
26	19	11	14	PC3 (HS)/ICAP1_B	I/O	C_T	HS	**X**	X			X	X	Port C3	Timer B Input Capture 1	
27	20	12	15	PC4/MISO/ICCDATA	I/O	C_T		**X**	X			X	X	Port C4	SPI Master In / Slave Out Data	ICC Data Input
28	21	13	16	PC5/MOSI/AIN14	I/O	C_T		**X**	X		X	X	X	Port C5	SPI Master Out / Slave In Data	ADC Analog Input 14
29	22	14	17	PC6/SCK/ICCCLK	I/O	C_T		**X**	X			X	X	Port C6	SPI Serial Clock	ICC Clock Output
30	23	15	18	PC7/$\overline{SS}$/AIN15	I/O	C_T		**X**	X		X	X	X	Port C7	SPI Slave Select (active low)	ADC Analog Input 15
31	24	16	19	PA3 (HS)	I/O	C_T	HS	**X**		ei0		X	X	Port A3		
32	25			V_{DD_1}	S									Digital Main Supply Voltage		
33	26			V_{SS_1}	S									Digital Ground Voltage		
34	27	17	20	PA4 (HS)	I/O	C_T	HS	**X**	X			X	X	Port A4		
35	28			PA5 (HS)	I/O	C_T	HS	**X**	X			X	X	Port A5		
36	29	18	21	PA6 (HS)	I/O	C_T	HS	**X**				T		Port A6 [1)]		
37	30	19	22	PA7 (HS)	I/O	C_T	HS	**X**				T		Port A7 [1)]		
38	31	20	23	V_{PP} /ICCSEL	I									Must be tied low. In the flash programming mode, this pin acts as the programming voltage input V_{PP}. See Section 12.9.2 for more details. High voltage must not be applied to ROM devices.		
39	32	21	24	$\overline{RESET}$	I/O	C_T								Top priority non maskable interrupt.		
40	33	22	25	V_{SS_2}	S									Digital Ground Voltage		
41	34	23	26	OSC2	O									Resonator oscillator inverter output		
42	35	24	27	OSC1	I									External clock input or Resonator oscillator inverter input		
43	36	25	28	V_{DD_2}	S									Digital Main Supply Voltage		
44	37	26	29	PE0/TDO	I/O	C_T		**X**	X			X	X	Port E0	SCI Transmit Data Out	
1	38	27	30	PE1/RDI	I/O	C_T		**X**	X			X	X	Port E1	SCI Receive Data In	
2	39	28	31	PB0	I/O	C_T		**X**		ei2		X	X	Port B0	**Caution:** Negative current injection not allowed on this pin[5)]	
3	40			PB1	I/O	C_T		**X**		ei2		X	X	Port B1		
4	41			PB2	I/O	C_T		**X**		ei2		X	X	Port B2		