

PARALLAX 32 Bit and 8 Bit Microcontrollers



Products may be RoHS compliant. Check mouser.com for RoHS status.

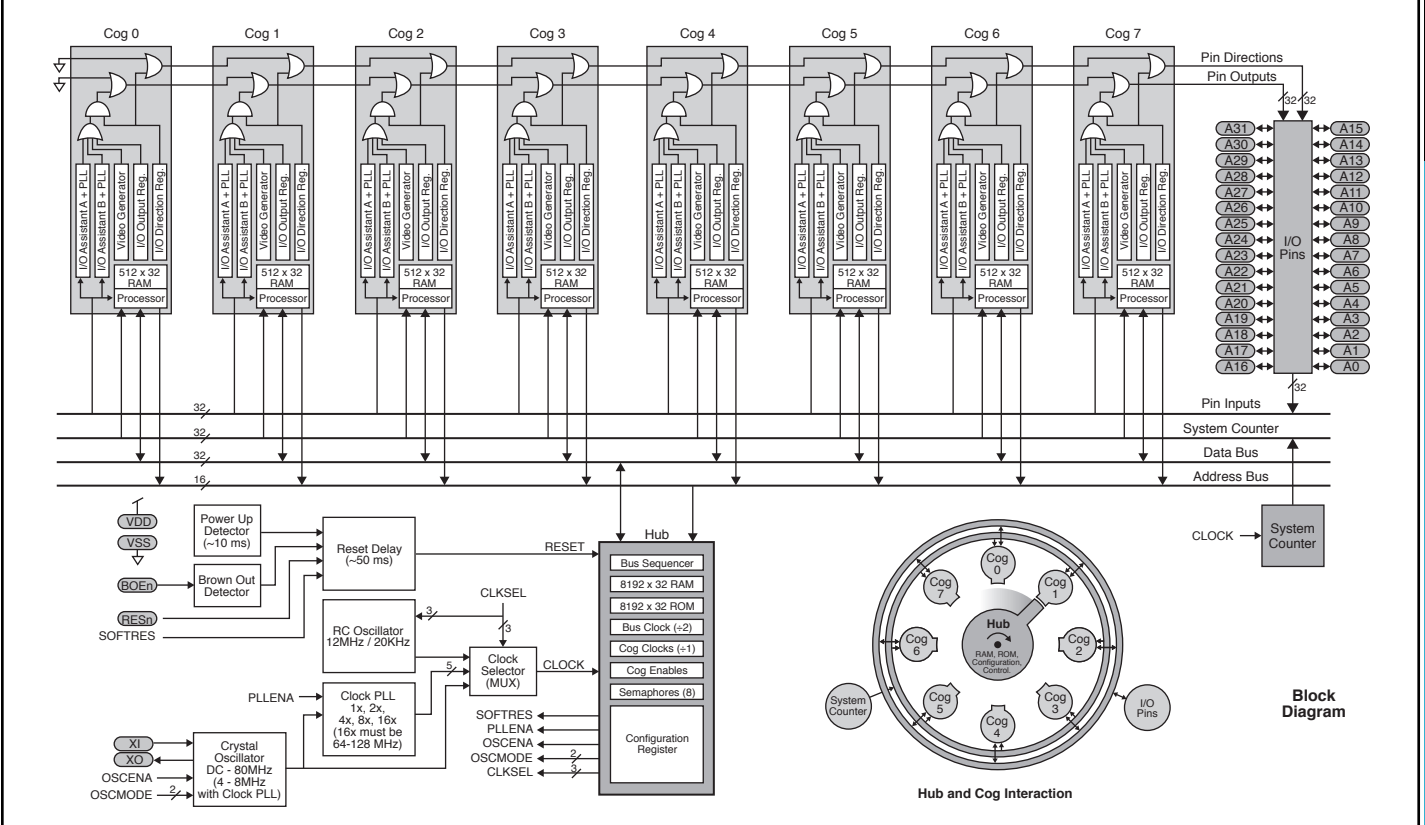


PROPELLER by Parallax, Inc.

32 BIT PROPELLER MULTICORE MICROCONTROLLERS

What can you do with eight 32-bit processors (COGs) in one chip? Real simultaneous multi-processing!

The new Propeller chip is the result of our internal design team working for eight years. The Propeller chip was designed at the transistor level by schematic using our own Altera Stratix tools to prototype the product. The Propeller is programmed in both a high-level language, called Spin™, and low-level (assembly) language. With the set of pre-built Parallax "objects" for video, mice, keyboards, RF, LCDs, stepper motors and sensors your Propeller application is a matter of high-level integration. The Propeller is recommended for those with previous microcontroller experience.



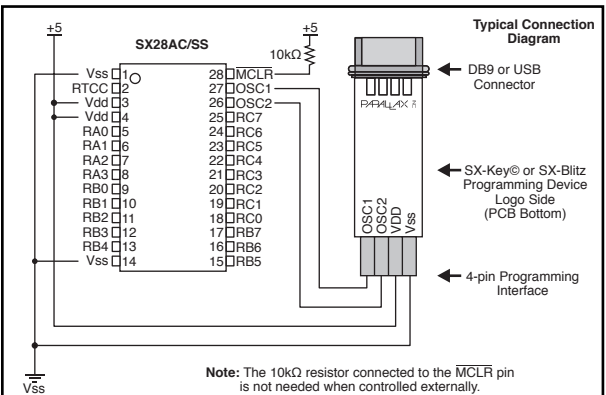
Propeller Specifications	
Model Number	P8X32A
Package Types	40-pin DIP, 44-pin LQFP, 44-pin QFN
Parallax Stock Codes	P8X32A-D40 - DIP package P8X32A-Q44 - LQFP package P8X32A-M44 - QFN package
Power Requirements	3.3 volts DC
External Clock Speed	DC to 80 MHz (4 MHz to 8 MHz with Clock PLL running)
Internal RC Oscillator	12 MHz or 20 KHz
System Clock Speed	DC to 80 MHz
Global RAM/ROM	64 K bytes; 32K RAM / 32K ROM
RAM/ROM Organization	32 bits (4 bytes or 1 long)
I/O Pins	32
Current Source/Sink per I/O	50 mA

Propeller Microcontrollers				For quantities of 1000 and up, call for quote.			
MOUSER STOCK NO.	Parallax Part No.	Package	Size (mm)	Price Each			
				1	10	25	100
619-P8X32A-D40	P8X32A-D40	40 Pin DIP	51 x 12.3	14.50	13.75	12.25	11.75
619-P8X32A-M44	P8X32A-M44	44 Pin QFN	9 x 9	14.50	13.75	12.25	11.75
619-P8X32A-Q44	P8X32A-Q44	44 Pin LQFP	10 x 10	14.50	13.75	12.25	11.75

Propeller Development Tools / Kits			
MOUSER STOCK NO.	Parallax Part No.	Description	Price Each
619-32300	32300	Propeller Starter Kit	149.95
619-32100	32100	Propeller Demo Board	129.95
619-32311	32311	Propeller Accessories Kit - PS/2 Keyboard/Mouse & 2.5" LCD Display	99.00
619-32310	32310	PropSTICK Kit - Self Assemble Development Board	89.95
619-122-32000	122-32000	Propeller Manual	34.95

8 BIT SX SERIES RISC MICROCONTROLLERS

The SX family of configurable communications controllers are fabricated in an advanced CMOS process technology. The advanced process, combined with a RISC-based architecture, allows high-speed computation, flexible I/O control, and efficient data manipulation. Throughput is enhanced by operating the device at frequencies up to 75 MHz and by optimizing the instruction set to include mostly singlecycle instructions. In addition, the SX architecture is deterministic and totally reprogrammable.



Note: The 10kΩ resistor connected to the MCLR pin is not needed when controlled externally.

Microcontrollers

Note: SX chip part numbers ending in "-G" are RoHS Compliant per Parallax documentation.

For quantities of 1000 and up, call for quote.

MOUSER STOCK NO.	Parallax Part No.	Package	I/O	EE/Flash	RAM (Kb)	Price Each		
						1	100	500
619-SX20AC/SS-G	SX20AC/SS-G	SSOP-20	12	2K bytes	137	3.05	2.89	2.79
619-SX28AC/DP-G	SX28AC/DP-G	DIP-28	20	2K bytes	136	3.15	2.99	2.89
619-SX28AC/SS-G	SX28AC/SS-G	SSOP-28	20	2K bytes	136	3.15	2.99	2.89
619-SX48BD-G	SX48BD-G	TQFP-48	36	4k x 12 Words	262	3.15	2.99	2.89

Development Tools / Kits

MOUSER STOCK NO.	Parallax Part No.	Description	Price Each
619-SX-BLITZ	45170	SX Blitz Module - Programmer (No Debugging)	29.00
619-45181	45181	SX Tech Tool Kit PLUS - Complete Development Kit	99.00
619-45182	45182	SX Tech Tool Kit PRO - Professional Development Kit	229.00
619-45205	45205	SX Tech Board - Project Area for SX Chips	39.00
619-552-00007	552-00007	SX Key Alone	49.95
619-45111	45111	SX Key Manual	35.00
619-45300	45300	SX 48 Proto Board	10.50
619-252-00005	252-00005	75 MHz resonator - 8 pin DIP half-size	2.50