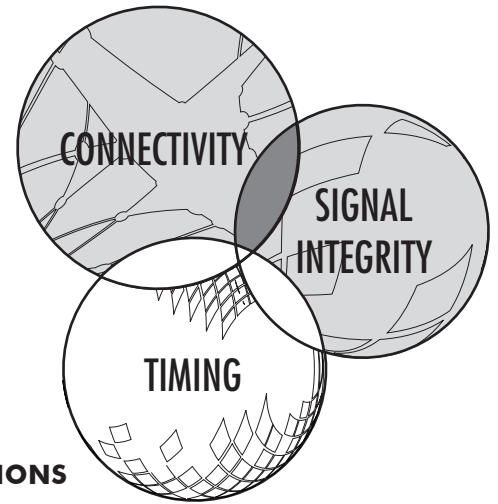





TIMING



SILICON ICS + QUARTZ CRYSTAL TIMING SOLUTIONS

 Go to page 75 for a listing of SaRonix-eCera products.

Pericom offers total timing solutions in a robust clock IC portfolio as well as in the SaRonix-eCera™ frequency control product line. These crystals, crystal oscillators and voltage control crystal oscillators are listed on page 75 of this catalog. For a long form catalog of these parts, please contact your sales representative.

Clock IC Products



Part of Pericom's Total Timing SolutionsSM, the SiliconClock IC family consists of high-performance differential and single ended 1.2V, 1.5V, 1.8V, 2.5V, 3.3V, and 5V clock distribution circuits, clock converters, PLL-based zero-delay clock drivers, programmable skew clock buffers, and clock generators. Clock ICs can be found in notebook and desktop PC's, registered DIMM's, network NIC & hubs, routers & switches, relays, telecom, storage (RAID, SAN, NAS), set-top box, digital television, and imaging such as scanners, printers, and digital cameras.



High-Speed, Low-Power, Low-Skew Clock Buffers

→ Offering families for 1.2V, 1.5V, 1.8V, 2.5V, 3.3V, and 5V operations

PLL-based Clock Distribution Products

→ Featuring Zero-Delay and programmable skew. Available in 2.5V, 3.3V



Clock Synthesizers

→ Used in PC's, servers, networking, set-top box, digital television



PLL based Memory Module Zero-Delay Clock Buffers

→ Networking, telecom, datacom and memory module applications

→ DDR: PC100/PC133

+ DDR1: DDR200, DDR266, DDR333, DDR400

+ DDR2: DDR2-400 (PC2-3200), DDR2-533(PC2-4300), DDR2-677, DDR2-800



Spread Spectrum Clock Generator

→ Electromagnetic interference (EMI) reduction

→ Selectable center and down spread ratios



VCXO Products

→ Wide PLL range, low jitter, low phase noise

→ Multi-loop PLL for DTV applications. Low noise PLL clock multiplication for STB applications

Clock IC - Overview and Real-Time Clock
Clock IC Products Overview

Timing Family	Applications		Protocol Specific	Voltage
	Computing	Networking/Consumer		
Clock Generator (PLL)	Server, Mobile, Desktop	Switch router	PCI Express	2.5V, 3.3V
Spread Spectrum Clock Generator	Peripherals, Printers	DTV, wireless router	PCI Express, SATA	2.5, 3.3V
VCXO IC (with PLL and without PLL)	Wireless	Set-top box, wireless, ultra mobility, broadband access	Ethernet, VDSL	2.5V, 3.3V, 1.8V/3.3V
Zero-Delay Buffer (PLL)	Printers, Servers, Add-in Cards	Switch router	PCI Express	
Fanout Buffer(Non-PLL)		Switch router		1.2V, 1.5V, 1.8V, 2.5V, 3.3V
Real Time Clock	Smart phone, GPS	Ultra Mobility		1.8V - 5.5V
Registered DIMM PLL & Registered Buffer	Server, Storage			1.8V - 5.5V

Real-Time Clock

Part Number	Description	Oscillator			Time Display(hour)	Programmable			Alarm Interrupt	NV RAM	Clock Calibration	Battery Backup	Control		Package
		Source Crystal(HZ)	Enable/Disable	Fail Detect		Square wave Output(HZ)	high/low output	External Clock est Mode					Charger		
PT7C4300	Module (I2C Bus)	32.768K	√		24 hour	512		√			√	√			DIP8 SOIC8
PT7C4302	Module (3-wire)	32.768K	√		12/24 hour	-				31x8		√		√	DIP8 SOIC8
PT7C4307	Module (I2C Bus)	32.768K	√		12/24 hour	1, 4.096k, 8.192k, 32.768k		√		56x8		√			DIP8 SOIC8
PT7C4337	Module (I2C Bus)	32.768K	√	√	12/24 hour	1, 4.096k, 8.192k, 32.768k			√						DIP8 SOIC8 MSOP8
PT7C4363	Module (I2C Bus)	32.768K		√	24 hour	1, 32, 1.024k, 32.768k			√				√		DIP8 SOIC8
PT7C4372A	Module (I2C Bus)	32.768K 32.000K		√	12/24 hour	1, 2, 32.768k, 32.000k			√		√				TSSOP8 SOIC8 MSOP8
PT7C4372B	Module (I2C Bus)	32.768K 32.000K		√	12/24 hour	1, 2, 32.768k, 32.000k			√		√				TSSOP8 SOIC8 MSOP8
PI7C4311	Module (I2C Bus)	32.768K	√		24 hour	1~8192 (2 ⁿ ~ 213), 32.768k		√	√	√			√		SOIC8 TSSOP8
PT7C43190	3-Wire	32.000K*			12/24 hour	1, 2, 4, 8, 16, 32.000K			√		√				TSSOP8 SOIC8 SNT-8
PT7C43390	Module (2-Wire)	32.000K*			12/24 hour	1, 2, 4, 8, 16, 32.000K			√		√				TSSOP8 SOIC8 SNT-8

Clock IC - Buffer/Driver

Buffer/Driver

Part Number	Voltage	Skew	Speed	I/O	Temp	Outputs	Package
PI49FCT20802	2.5V	150ps	150MHz	CMOS	Ind	5	QSOP (Q16), TSSOP (L16)
PI49FCT20803	2.5V	150ps	150MHz	CMOS	Ind	7	QSOP (Q16), TSSOP (L16)
PI49FCT20807	2.5V	150ps	150MHz	CMOS	Ind	10	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT2805AT	5V	500ps	66MHz	CMOS	Ind	5+5	QSOP (Q20)
PI49FCT2805BT	5V	500ps	80MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20)
PI49FCT2805T	5V	500ps	66MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20)
PI49FCT32802	3.3V	200ps	133MHz	CMOS	Ind	5	QSOP (Q16), TSSOP (L16)
PI49FCT32803	3.3V	200ps	133MHz	CMOS	Ind	7	QSOP (Q16), TSSOP (L16)
PI49FCT32805	3.3V	270ps	133MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT32806	3.3V	270ps	133MHz	CMOS	Ind	5+5	QSOP (Q20)
PI49FCT32807	3.3V	200ps	133MHz	CMOS	Ind	10	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT3802	3.3V	250ps	156MHz	CMOS	Ind	5	QSOP (Q16), TSSOP (L16)
PI49FCT3803	3.3V	250ps	156MHz	CMOS	Ind	7	QSOP (Q16), TSSOP (L16)
PI49FCT3805	3.3V	700ps	50MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT3805A	3.3V	700ps	66MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT3805B	3.3V	500ps	80MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT3805C	3.3V	500ps	100MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT3805D	3.3V	270ps	133MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT3806	3.3V	700ps	50MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT3806A	3.3V	700ps	66MHz	CMOS	Ind	5+5	QSOP (Q20), SSOP (H20)
PI49FCT3806B	3.3V	500ps	80MHz	CMOS	Ind	5+5	QSOP (Q20)
PI49FCT3806C	3.3V	500ps	100MHz	CMOS	Ind	5+5	QSOP (Q20), SSOP (H20)
PI49FCT3807	3.3V	500ps	50MHz	CMOS	Ind	10	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT3807A	3.3V	500ps	66MHz	CMOS	Ind	10	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT3807B	3.3V	350ps	80MHz	CMOS	Ind	10	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT3807C	3.3V	350ps	100MHz	CMOS	Ind	10	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT3807D	3.3V	250ps	156MHz	CMOS	Ind	10	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT804AT	5V	700ps	66MHz	CMOS	Com	4+4	SOIC (S16), QSOP (Q16)
PI49FCT804T	5V	800ps	50MHz	CMOS	Com	4+4	SOIC (S16)
PI49FCT805AT	5V	500ps	66MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT805BT	5V	400ps	80MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT805CT ⁽¹⁾	5V	400ps	100MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT805T	5V	700ps	50MHz	CMOS	Ind	5+5	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT807AT ⁽¹⁾	5V	500ps	66MHz	CMOS	Ind	10	SOIC (S20)
PI49FCT807BT	5V	350ps	80MHz	CMOS	Ind	10	QSOP (Q20), SOIC (S20)
PI49FCT807CT ⁽¹⁾	5V	250ps	100MHz	CMOS	Ind	10	QSOP (Q20), SOIC (S20), SSOP (H20)
PI49FCT807T ⁽¹⁾	5V	500ps	50MHz	CMOS	Ind	10	QSOP (Q20), SOIC (S20), SSOP (H20)

continued next page →

(1) Consult datasheet for Pb-Free & Green availability; may be specific to package type or not available at this time

Clock IC - Buffer/Driver
Buffer/Driver (continued)

Part Number	Voltage	Skew	Speed	I/O	Temp	Outputs	Package
PI6C10804	1.8V/2.5V	70ps	250MHz	LVTTTL/LVCMOS	Ind	4	SOIC (W8)
PI6C10806	1.8V/2.5V	80ps	250MHz	Xtal/LVCMOS	Ind	6	TSSOP (L16)
PI6C10807	1.8V/2.5V	60ps	250MHz	LVTTTL/LVCMOS	Ind	10	TSSOP (L20)
PI6C10808	1.8V/2.5V	80ps	250MHz	LVTTTL/LVCMOS/Xtal	Ind	8	TSSOP (L16)
PI6C180	3.3V	250ps	100MHz	TTL	Com	18	SSOP (V48)
PI6C180B	3.3V	250ps	140MHz	TTL	Com	18	SSOP (V48)
PI6C182 ⁽¹⁾	3.3V	200ps	110MHz	TTL	Com	10	SSOP (H28)
PI6C182A (1)	3.3V	200ps	125MHz	TTL	Com	10	SSOP (H28)
PI6C182B	3.3V	200ps	140MHz	TTL	Com	10	SSOP (H28)
PI6C184	3.3V	250ps	100MHz	TTL	Com	13	SSOP (H28)
PI6C185-00	3.3V	250ps	125MHz	TTL	Ind	7	QSOP (Q20)
PI6C185-01	3.3V	250ps	140MHz	TTL	Com	5	QSOP (Q16), TSSOP (L16)
PI6C185-01B (1)	3.3V	250ps	140MHz	TTL	Com	5	TSSOP (L16)
PI6C185-02B (1)	3.3V	250ps	140MHz	TTL	Com	7	QSOP (Q16), TSSOP (L16)
PI6C18551	3.3V/5V	250ps	160MHz	TTL/CMOS	Ind	4	SOIC (W8)
PI6C41204	3.3V	30ps	266MHz	TTL/CMOS/PECL	Com	4	TSSOP (L20)
PI6C41204A	3.3V	30ps	266MHz	TTL/CMOS/PECL	Com	4	TSSOP (L20)
PI6C485311	3.3V	100ps	800MHz	Differential	Ind	2	SSOP (W8), MSOP (U8)
PI6C4853111	2.5V/3.3V	50ps	1GHz	LVPECL	Ind	10	TQFP (FA32)
PI6C48533-01	3.3V	100ps	800MHz	Differential	Ind	4	TSSOP (L20)
PI6C48535-01	3.3V	30ps	500MHz	TTL/CMOS/PECL	Ind	4	TSSOP (L20)
PI6C48535-11	3.3V	30ps	500MHz	Xtal/CMOS/PECL	Ind	4	TSSOP (L20)
PI6C48535-11A	3.3V	30ps	500MHz	Xtal/CMOS/PECL	Ind	4	TSSOP (L20)
PI6C485352	2.5V/3.3V	100ps	500MHz	LVPECL	Ind	12	TQFP (FA48)
PI6C48543	3.3V	40ps	800MHz	Differential to LVDS	Ind	4	TSSOP (L20)
PI6C48545	3.3V	40ps	650MHz	LVTTTL/LVCMOS to LVDS	Ind	4	TSSOP (L20)
PI6C48545-11	3.3V	40ps	650MHz	Xtal/LVTTTL/LVCMOS to LVPECL	Ind	4	TSSOP (L20)
PI6C487016	1.8V	50ps	250MHz	LVTTTL/LVCMOS/Df. to LVCMOS	Ind	4 x 4	LQFP (FB48)
PI6CL10804	1.2V/1.5V	100ps	200MHz	LVCMOS	Ind	4	SOIC (W8)
PI6CL10806	1.2V/1.5V	60ps	200MHz	LVCMOS/Xtal	Ind	6	TSSOP (L16)
PI6CL10807	1.2V/1.5V	120ps	200MHz	LVCMOS	Ind	10	TSSOP (L20)
PI6CL10808	1.2V/1.5V	80ps	200MHz	LVCMOS/Xtal	Ind	8	TSSOP (L20)
PI6CV2304	3.3V	150ps	160MHz	TTL/CMOS	Com	4	SOIC (W8), TSSOP (L8)
PI6CV304	3.3V	150ps	160MHz	TTL/CMOS	Ind	4	SOIC (W8), TSSOP (L8)

(1) Consult datasheet for Pb-free & Green availability; may be specific to package type or not available at this time

Clock IC - Buffer/Driver and Programmable Skew

Generator

Part Number	Voltage	Jitter	Skew	Speed	I/O	Outputs	Package
PI6C103	2.5V/3.3V	250ps	175ps	100MHz	CMOS	12	SSOP (H28)
PI6C22392-03	3.3V	400ps	200ps	100MHz	CMOS	6	TSSOP (L16)
PI6C22392-04	3.3V	400ps	200ps	133MHz	CMOS	4	SOIC (W16)
PI6C22392-1	3.3V	400ps	200ps	18.432MHz	CMOS	2	TSSOP (L16)
PI6C22392-2	3.3V	400ps	200ps	73.728MHz	CMOS	5	TSSOP (L16)
PI6C410B	3.3V	85ps	100ps	400MHz	CMOS/Differential	4+5+7+1+2	TSSOP (A56)
PI6C410B-01	3.3V	85ps	100ps	400MHz	CMOS/Differential	4+5+7+1+2	SSOP (V56)
PI6C410BS	3.3V	50ps	100ps	400MHz	CMOS/Differential	4+5+7+1+2	TSSOP (A56)
PI6C410M ⁽¹⁾	3.3V	85ps	100ps	400MHz	Differential	2+8+1+6+1+1	TSSOP (A56)
PI6C4511	3.3V/5V	100ps	n/a	200MHz	Xtal/LVTTL/LVCMOS to LVC MOS	1+1	SOIC (W8)
PI6C484321	3.3V	5ps	15ps	366.67MHz	LVPECL	2	LQFP (FB32)
PI6C500M-03	3.3V	85ps	100ps	400MHz	CMOS/Differential	2+9+4+4+1	TFDN (ZD64)
PI6C557-03	3.3V	85ps	100ps	125MHz	CMOS/Differential	2	TSSOP (L16)
PI6C557-10	3.3V	86ps	n/a	100MHz	CMOS/Differential	2	TSSOP (L16)
PI6C6612*	5V	175ps	n/a	40MHz	Xtal/LVTTL/LVCMOS to LVC MOS	2	TSSOP (L16)

* Indicates Industrial Temp. All others in this table are Commercial Temp

Programmable Skew

Part Number	Voltage	Jitter	Skew	Speed	I/O	Temp	Outputs	Package
PI6C39911 ⁽¹⁾	3.3V	200ps	750ps	110MHz	TTL	Com	2+2+2+2	PLCC (J32)
PI6C39911-2 ⁽¹⁾	3.3V	200ps	250ps	110MHz	TTL	Com	2+2+2+2	PLCC (J32)
PI6C39911-5 ⁽¹⁾	3.3V	200ps	500ps	110MHz	TTL	Com	2+2+2+2	PLCC (J32)
PI6C3991-2 ⁽¹⁾	3.3V	200ps	250ps	80MHz	TTL	Com	2+2+2+2	PLCC (J32)
PI6C3991-5 ⁽¹⁾	3.3V	200ps	500ps	80MHz	TTL	Com	2+2+2+2	PLCC (J32)
PI6C3991-5I ⁽¹⁾	3.3V	200ps	500ps	80MHz	TTL	Ind	2+2+2+2	PLCC (J32)
PI6C39911 ⁽¹⁾	3.3V	200ps	750ps	80MHz	TTL	Ind	2+2+2+2	PLCC (J32)
PI6C3Q991-2 ⁽¹⁾	3.3V	200ps	250ps	85MHz	CMOS	Com	2+2+2+2	PLCC (J32)

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(1) Consult datasheet for Pb-Free & Green availability; may be specific to package type or not available at this time

Clock IC - Programmable Skew and Spread Spectrum Clock Generator (SSCG)
Programmable Skew (continued)

Part Number	Voltage	Jitter	Skew	Speed	I/O	Temp	Outputs	Package
PI6C3Q991-5 ⁽¹⁾	3.3V	200ps	500ps	85MHz	CMOS	Com	2+2+2+2	PLCC (J32)
PI6C3Q991-5I ⁽¹⁾	3.3V	200ps	500ps	85MHz	CMOS	Ind	2+2+2+2	PLCC (J32)
PI6C3Q993	3.3V	200ps	750ps	85MHz	CMOS	Com	2+2+2+2	QSOP (Q28)
PI6C3Q993-2 ⁽¹⁾	3.3V	200ps	250ps	85MHz	CMOS	Com	2+2+2+2	QSOP (Q28)

Spread Spectrum Clock Generator (SSCG)

Part Number	Voltage	Jitter	Skew	Speed	I/O	Temp	Outputs	Package
PI6C3421A	3.3V	350ps	n/a	27MHz	CMOS	Ind	2	SOT-23 (T6)
PI6C3450	3.3V	350ps	n/a	100MHz	CMOS	Com	2	SOT-23 (T6)
PI6C3451	3.3V	350ps	n/a	100MHz	CMOS	Com	2	SOT-23 (T6)
PI6C3452	3.3V	350ps	n/a	100MHz	CMOS	Com	2	SOT-23 (T6)
PI6C3453	3.3V	350ps	n/a	73MHz	CMOS	Com	6	TSSOP (L16)
PI6C3501	3.3V/2.5V	300ps	n/a	12~30MHz	CMOS	Com	1	SOT-23 (T6)
PI6C3502	3.3V	210ps	n/a	13~30MHz	CMOS	Com	1	SOT-23 (T6), TDFN (ZC6), TSSOP (L8), SOIC (W8)
PI6C3503	3.3V/2.5V	200ps	n/a	13~30MHz	CMOS	Com	1	SOT-23 (T6), TDFN (ZC6)
PI6C3504	3.3V/2.5V	200ps	n/a	30~50MHz	CMOS	Com	1	SOT-23 (T6), TDFN (ZC6), TSSOP (L8), SOIC (W8)
PI6C3611	3.3V/2.5V	350ps	n/a	10~40MHz	CMOS	Com	1	SOIC (W8)
PI6C3611-1	3.3V/2.5V	350ps	n/a	10~40MHz	CMOS	Com	1	SOIC (W8)
PI6C3612	3.3V/2.5V	300ps	n/a	20~80MHz	CMOS	Com	1	SOIC (W8)
PI6C3612-1	3.3V/2.5V	300ps	n/a	20~80MHz	CMOS	Com	1	SOIC (W8)
PI6C3614	3.3V/2.5V	350ps	n/a	40~120MHz	CMOS	Com	1	SOIC (W8)
PI6C3614-1	3.3V/2.5V	350ps	n/a	40~120MHz	CMOS	Com	1	SOIC (W8)
PI6C3622	3.3V/2.5V	300ps	n/a	20~40MHz	CMOS	Com	1	TSSOP (L8)
PI6C3622-1	3.3V/2.5V	300ps	n/a	20~40MHz	CMOS	Com	1	TSSOP (L8)

(1) Consult datasheet for Pb-Free & Green availability; may be specific to package type or not available at this time

Clock IC - VCXO and Zero-delay Buffer

VCXO IC

Part Number	Voltage	Jitter	Skew	Speed	I/O	Temp	Outputs	Package
PI6CX100-00	3.3V	50ps	n/a	40MHz	LVTTTL/LVCMOS	Ind	1	SOIC (W8)
PI6CX100-27	3.3V	50ps	n/a	27MHz	LVTTTL/LVCMOS	Ind	1	SOIC (W8)
PI6CX100-272	3.3V	50ps	n/a	40MHz	LVTTTL/LVCMOS	Ind	1	SOIC (W8)
PI6CX230C	3.3V	100ps	n/a	240MHz	LVTTTL/LVCMOS	Com	1	TSSOP (L16)
PI6CX231B	3.3V	100ps	n/a	240MHz	LVDS	Com	1	TSSOP (L16)
PI6CX233	3.3V	100ps	n/a	60MHz	LVTTTL/LVCMOS	Com	1	TSSOP (L16)
PI6CX300	3.3V	300ps	n/a	300MHz	LVTTTL/LVCMOS	Com	6	TSOP (L16)
PI6CXP1000	3.3V	250ps	n/a	300MHz	LVTTTL/LVCMOS	Com	6	QSOP (Q24)
PI6CX201A	3.3V	350fs	n/a	n/a	LVTTTL/LVCMOS	Ind	1	TSSOP (L20)

Zero-delay Buffer

Part Number	Voltage	Jitter	Skew	Speed	I/O	Temp	Outputs	Package
PI6C20400	3.3V	50ps	50ps	100MHz	HCSL	Com	4	SSOP (H28)
PI6C20400S	3.3V	50ps	50ps	100MHz	HCSL	Com	4	SSOP (H28)
PI6C20800	3.3V	50ps	50ps	100MHz	HCSL	Com	8	TSSOP (A48), SSOP (V48)
PI6C20800S	3.3V	50ps	50ps	100MHz	HCSL	Com	8	TSSOP (A48), SSOP (V48)
PI6C21200	3.3V	50ps	50ps	400MHz	HCSL	Com	12	TSSOP (A56)
PI6C21200A*	3.3V	50ps	100ps	400MHz	HCSL	Com	12	TSSOP (A56)
PI6C2401(3)	3.3V	100ps	n/a	134MHz	TTL	Com	1	SOIC (W8)
PI6C2402	3.3V	100ps	n/a	134MHz	TTL	Com	1	SOIC (W8)
PI6C2404A-1	3.3V	110ps	200ps	133MHz	TTL	Com/Ind	2+2	SOIC (W8)
PI6C2405A-1	3.3V	200ps	250ps	133MHz	TTL	Com/Ind	5	SOIC (W8), TSSOP (L8)
PI6C2405A-1H	3.3V	200ps	250ps	133MHz	TTL	Com/Ind	5	SOIC (W8), TSSOP (L8)
PI6C2408-1	3.3V	200ps	200ps	140MHz	TTL	Com/Ind	4+4	SOIC (W16), TSSOP (L16)
PI6C2408-1H	3.3V	200ps	200ps	140MHz	TTL	Com/Ind	4+4	SOIC (W16), TSSOP (L16)
PI6C2408-2	3.3V	200ps	200ps	140MHz	TTL	Com	4+4	SOIC (W16)
PI6C2408-3 (3)	3.3V	200ps	200ps	140MHz	TTL	Com/Ind	4+4	SOIC (W16)
PI6C2408-4 (6)	3.3V	200ps	200ps	140MHz	TTL	Com	4+4	SOIC (W16), TSSOP (L16)
PI6C2408-4I (3)	3.3V	200ps	200ps	140MHz	TTL	Ind	4+4	SOIC (W16)

continued next page →

(1) Consult datasheet for Pb-Free & Green availability; may be specific to package type or not available at this time

Clock IC - Zero-delay Buffer
Zero-delay Buffer (continued)

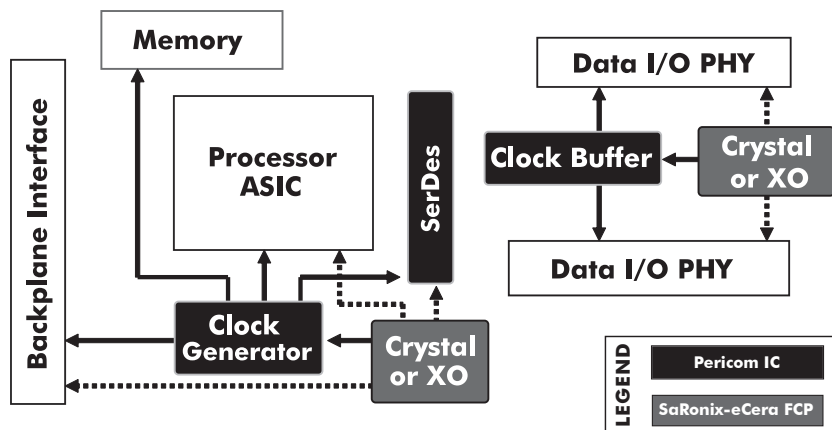
Part Number	Voltage	Jitter	Skew	Speed	I/O	Temp	Outputs	Package
PI6C2409-1	3.3V	200ps	250ps	133MHz	TTL	Com/Ind	5+4	SOIC (W16)
PI6C2409-1H	3.3V	200ps	250ps	133MHz	TTL	Com	5+4	SOIC (W16), TSSOP (L16)
PI6C2410 (7)	3.3V	200ps	200ps	133MHz	TTL	Ind	4	QSOP (Q24), TSSOP (L24)
PI6C2501A	3.3V	75ps	n/a	134MHz	CMOS	Com	1	SOIC (W8)
PI6C2502	3.3V	100ps	n/a	80MHz	CMOS	Com	1	SOIC (W8)
PI6C2504 (3)	3.3V	100ps	200ps	80MHz	CMOS	Com	4	QSOP (Q16)
PI6C2504A	3.3V	75ps	150ps	134MHz	CMOS	Com	4	QSOP (Q16)
PI6C2509-133	3.3V	75ps	150ps	150MHz	CMOS	Ind	9	TSSOP (L24)
PI6C2510-133E	3.3V	75ps	150ps	150MHz	CMOS	Com	10	TSSOP (L24)
PI6C2510A (3)	3.3V	100ps	200ps	125MHz	CMOS	Com	10	TSSOP (L24)
PI6CU877	1.8V	40ps	40ps	270MHz	SSTL18	Com	10	VFBGA (NF52)
PI6CUA877	1.8V	40ps	40ps	410MHz	SSTL18	Com	10+1	VFBGA (NF52)
PI6CUA878	1.8V	40ps	40ps	410MHz	SSTL18	Com	10+1	VFBGA (NF52)
PI6CV847	2.5V	60ps	60ps	200MHz	SSTL_2	Com	5	TSSOP (L24)
PI6CV855	2.5V	75ps	100ps	170MHz	SSTL2	Com	5	TSSOP (L28)
PI6CV855-02	2.5V	75ps	100ps	200MHz	SSTL2	Com	5	TSSOP (L28)
PI6CV857	2.5V	75ps	100ps	170MHz	SSTL2	Com	10	TSSOP (A48)
PI6CV857B	2.5V	75ps	100ps	200MHz	SSTL2	Com	10	TSSOP (A48)
PI6CVF857	2.5V	50ps	75ps	220MHz	SSTL2	Com	10	TSSOP (A48)



SARONIX-ECERA™ FREQUENCY CONTROL

SaRonix-eCera™ Frequency Control Products (FCP) are part of Pericom Total Timing SolutionsSM. Pericom silicon combines with SaRonix-eCera quartz to serve a full range of timing requirements.

- Leading-edge LVCMOS, LVPECL, LVDS, and HCSL Oscillators
- Output frequencies extend to 670MHz
- Voltage options ranging from 3.3V to 1.8V
- Fundamental, 3rd Overtone, XP, Spread Spectrum, and PLL types of devices are all supported
- Unprecedented lowest phase noise, lowest jitter and highest power supply noise rejection capability
- Virtually any timing requirement can be met by combining Pericom Timing IC products
- Oscillators available in packages from 2.0 x 1.6mm to 7.0 x 5.0mm
- Crystals available in packages from 2.0 x 1.6mm SMD to HC49 Metal Can



Please see the following pages for a short list of available SaRonix-eCera frequency control products. Package and ordering information is available on page 98 and 104 of this catalog, or consult the individual datasheets available from www.pericom.com.

Frequency Control Overview

APPLICATION SELECTION TABLE

Product Series		XTAL														
		GA	GB, GG	GC, GF	FB	FP	FX, F6	FY, F9	FF	FL	FH	FW	SX	FN	FD	
Wireless / Access	WiFi, 802.11a/b/g/n						X	X	X	X	X	X		X	X	
	Bluetooth						X	X	X	X	X	X				
	RFID						X	X	X	X	X	X				
	UWB						X	X	X	X	X	X				
	Zigbee						X	X	X	X	X	X				
	DSL, ADSL, XDSL	X	X	X				X			X		X	X	X	
	VoIP, VoDSL		X	X				X			X	X		X	X	
	EPON, GPON		X	X				X					X	X	X	
	Cable Modem	X	X	X												
	T1/E1 (DS-1)	X	X	X				X						X	X	
T3/E3 (DS-3)	X												X	X		
Storage	1Gb Fiber Channel		X	X			X					X	X	X	X	
	2/4 Gb Fiber Channel		X	X			X					X	X	X	X	
	SATA, SAS, iSCSI		X	X			X					X	X	X	X	
Ethernet / LAN	10/100 Ethernet	X	X	X			X					X		X	X	
	1G Ethernet		X	X			X					X	X	X	X	
	10G Ethernet											X	X	X		
	XAUI Backplane											X				
SONET/SDH	OC -1 (STM-0)	X	X	X			X					X		X	X	
	OC -3 (STM-1)	X	X	X			X					X		X	X	
	OC -12 (STM-4)														X	
	OC -48 (STM-16)											X				
	OC -48 (STM-192)															
Portable Devices	Cellular Handset								X	X	X	X				
	GPS, Navigation								X	X	X	X				
	PMP Player, MP3, MP4								X	X	X	X				
	PDA								X	X	X	X				
	Notebook Computer					X	X	X	X			X		X	X	
Multimedia	Set Top Box	X	X	X			X						X	X		
	Video Processing	X	X	X			X						X	X	X	
	Audio Player	X	X	X										X	X	
	HDTV, LCD TV		X	X			X						X	X		
	DLP Projector		X	X			X						X	X		
	Digital Still Camera										X	X				
Computing	Digital Signal Processor	X	X	X			X					X		X	X	
	Micro-controller	X	X	X			X					X		X	X	
	Network processors											X	X	X		
	Intel Platform	X	X	X			X					X		X	X	
	AMD Platform	X	X	X			X					X		X	X	

Frequency Control Overview

XO										VCXO					kHz XO		kHz XTAL		SSXO
FK	FJ	LN	PX	PB	PN	SN	SH	SD	YN, FR	PR, LR	YD	YK	YJ	KN, KD, KK	G1, G2, G3, G4	MN, MD, MK			
X	X						X							X	X				
X	X																		
X	X						X							X	X				
X							X	X	X										
X					X		X	X	X										
X		X	X		X			X	X										
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X											X	X	X	X	X				
X							X		X		X	X							
X											X	X							
X														X	X	X			
X							X									X			
X		X	X	X	X	X	X	X											
X							X												
X							X												

Frequency Control Product Listing

CMOS Crystal Oscillators

Product Image	Product Series	*SaRonix Reference P/N	Package Size (mm)	Output Logic	Supply Voltage	Package Type	Pads/Pins	Frequency Range (MHz)	Jitter
	FN	S1612	7.0 x 5.0	CMOS	1.8V	SMD Ceramic	4	1~166	<1 ps RMS
		S1614	7.0 x 5.0	CMOS	2.5V	SMD Ceramic	4	1~166	<1 ps RMS
		S1613	7.0 x 5.0	CMOS	3.3V	SMD Ceramic	4	1~166	<1 ps RMS
	SX	S1614XP	7.0 x 5.0	CMOS	2.5V	SMD Ceramic	4	100~160	<1 ps RMS
		S1613XP	7.0 x 5.0	CMOS	3.3V	SMD Ceramic	4	100~160	<1 ps RMS
	FD	S1632	5.0 x 3.2	CMOS	1.8V	SMD Ceramic	4	1~133	<1 ps RMS
		S1634	5.0 x 3.2	CMOS	2.5V	SMD Ceramic	4	1~133	<1 ps RMS
		S1633	5.0 x 3.2	CMOS	3.3V	SMD Ceramic	4	1~133	<1 ps RMS
	FK	S1642	3.2 x 2.5	CMOS	1.8V	SMD Ceramic	4	1~106.25	<1 ps RMS
		S1644	3.2 x 2.5	CMOS	2.5V	SMD Ceramic	4	1~106.25	<1 ps RMS
		S1643	3.2 x 2.5	CMOS	3.3V	SMD Ceramic	4	1~106.25	<1 ps RMS
	FJ	N/A	2.5 x 2.0	CMOS	1.8V	SMD Ceramic	4	1~75	<1 ps RMS
		N/A	2.5 x 2.0	CMOS	2.5V	SMD Ceramic	4	1~75	<1 ps RMS
		N/A	2.5 x 2.0	CMOS	3.3V	SMD Ceramic	4	1~75	<1 ps RMS



Spread Spectrum Crystal Oscillators (Down-spread & center-spread options available)

Product Image	Product Series	Package Size (mm)	Output Logic	Supply Voltage	Package Type	Pads/Pins	Frequency Range (MHz)	Jitter
	MN	7.0 x 5.0	CMOS	2.5V	SMD Ceramic	4	16~67	<200 ps cy-cy
		7.0 x 5.0	CMOS	3.3V	SMD Ceramic	4	16~67	<200 ps cy-cy
	MD	5.0 x 3.2	CMOS	2.5V	SMD Ceramic	4	16~67	<200 ps cy-cy
		5.0 x 3.2	CMOS	3.3V	SMD Ceramic	4	16~67	<200 ps cy-cy
	MK	3.2 x 2.5	CMOS	3.3V	SMD Ceramic	4	16~67	<200 ps cy-cy
		3.2 x 2.5	CMOS	3.3V	SMD Ceramic	4	16~67	<200 ps cy-cy

*These are SaRonix part numbers for reference only. Please refer to the Product Series two-letter code for any new orders.
("N/A" = not applicable)

Frequency Control Product Listing

Differential Crystal Oscillators

Product Image	Product Series	*SaRonix Reference P/N	Package Size (mm)	Output Logic	Supply Voltage	Package Type	Pads/Pins	Frequency Range (MHz)	Jitter
	PX	SDS382	7.0 x 5.0	LVDS	2.5V	SMD Ceramic	6	38.88~162	<1 ps RMS
		SDS383	7.0 x 5.0	LVDS	3.3V	SMD Ceramic	6	38.88~162	<1 ps RMS
	LN	N/A	7.0 x 5.0	LVDS	3.3V	SMD Ceramic	6	1~800	<4 ps RMS
	SH	N/A	7.0 x 5.0	HCSL	3.3V	SMD Ceramic	6	100	<2.5 ps RMS ⁽¹⁾
	SN	SEL382	7.0 x 5.0	PECL	2.5V	SMD Ceramic	6	50~220	<1 ps RMS
		SEL383	7.0 x 5.0	PECL	3.3V	SMD Ceramic	6	50~220	<1 ps RMS
	SN RateSelect™ ⁽²⁾	SRS383	7.0 x 5.0	PECL	3.3V	SMD Ceramic	6	50~220	<1 ps RMS
	PN	SEL381	7.0 x 5.0	PECL	3.3V	SMD Ceramic	6	1~800	<4 ps RMS
PB	N/A	7.0 x 5.0	PECL	2.5V	SMD Ceramic	6	38.88~162	<1 ps RMS	
	N/A	7.0 x 5.0	PECL	3.3V	SMD Ceramic	6	38.88~162	<1 ps RMS	
	SD	N/A	5.0 x 3.2	PECL	2.5V	SMD Ceramic	6	50~220	<1 ps RMS
		SEL503	5.0 x 3.2	PECL	3.3V	SMD Ceramic	6	50~220	<1 ps RMS

1. Using PCIe® 2.0 jitter filter

2. RateSelect™ function toggles output frequency between primary and primary/2

*These are SaRonix part numbers for reference only. Please refer to the Product Series two-letter code for any new orders.
("N/A" = not applicable)

Frequency Control Product Listing

VCXO (Voltage Control Crystal Oscillator)

Product Image	Product Series	*SaRonix Reference P/N	Package Size (mm)	Output Logic	Supply Voltage	Package Type	Pads/Pins	Frequency Range (MHz)
	YJ	N/A	2.5 x 2.0	CMOS	3.3V	SMD Ceramic	4	1~32
	YK	N/A	3.2 x 2.5	CMOS	3.3V	SMD Ceramic	4	1~32
	YD	N/A	5.0 x 3.2	CMOS	3.3V	SMD Ceramic	4	1~32
	FR	ST1317	7.0 x 5.0	CMOS	3.3V	SMD Ceramic	6	1~32
	YN	ST1317	7.0 x 5.0	CMOS	3.3V	SMD Ceramic	6	32~125
	LR	N/A	7.0 x 5.0	LVDS	3.3V	SMD Ceramic	6	19.44~800
	PR	S1577	7.0 x 5.0	PECL	3.3V	SMD Ceramic	6	19.44~800













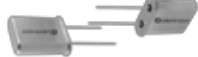
Crystal Oscillator (kHz)

Product Image	Product Series	Package Size (mm)	Output Logic	Supply Voltage	Package Type	Pads/Pins	Frequency Range (kHz)
	KN	7.0 x 5.0	CMOS	2.5V	SMD Ceramic	4	32.768
		7.0 x 5.0	CMOS	3.3V	SMD Ceramic	4	32.768
	KD	5.0 x 3.2	CMOS	2.5V	SMD Ceramic	4	32.768
		5.0 x 3.2	CMOS	3.3V	SMD Ceramic	4	32.768
	KK	3.2 x 2.5	CMOS	2.5V	SMD Ceramic	4	32.768
		3.2 x 2.5	CMOS	3.3V	SMD Ceramic	4	32.768





*These are SaRonix part numbers for reference only. Please refer to the Product Series two-letter code for any new orders.
("N/A" = not applicable)

Frequency Control Product Listing

Quartz Crystals (MHz)

Product Image	Product Series	*SaRonix Reference P/N	Package Size (mm)	Pads/Pins	Description	Frequency Range (MHz)
	FW	N/A	2.0 x 1.6	4	Seam Sealed SMD Ceramic	24~54
	FH	NKS2	2.5 x 2.0	4	Seam Sealed SMD Ceramic	16~66
	FL	NKS3	3.2 x 2.5	4	Seam Sealed SMD Ceramic	12~66
	FF	N/A	4.0 x 2.5	4	Seam Sealed SMD Ceramic	12~66
	F9	NES5	5.0 x 3.2	2	Glass Sealed SMD Ceramic	8~125
	FY	NKS5	5.0 x 3.2	4	Seam Sealed SMD Ceramic	8~125
	F6	NES6	6.0 x 3.5	2	Glass Sealed SMD Ceramic	6~125
	FX	NKS6	6.0 x 3.5	4	Seam Sealed SMD Ceramic	6~125
	FP	NKS7	7.0 x 5.0	4	Seam Sealed SMD Ceramic	6~125
	F8	N/A	8.0 x 4.5	2	Glass Sealed SMD Ceramic	6~125
	GB GG	49S	11.2 x 5.0 x 3.5 11.2 x 5.0 x 2.5	2	Metal Can Through-Hole	3.2~125
	GC GF	49SMLB	11.5 x 4.5 x 4.0 11.5 x 4.5 x 3.0	2	Metal Can SMD	3.2~125
	GA	NYP	11.2 x 4.8 x 13.5	2	Metal Can Through-Hole	1.8432~150

Tuning Fork Quartz Crystals

Product Image	Product Series	*SaRonix Reference P/N	Package Size (mm)	Pads/Pins	Description	Frequency Range (kHz)
	G1	N/A	8.0 x 3.0	2	Tubular Tuning Fork, Through-Hole	32.768 kHz
	G2	N/A	6.0 x 2.0	2	Tubular Tuning Fork, Through-Hole	32.768 kHz
	G3	N/A	6.0 x 2.0	2	Tubular Tuning Fork, SMD	32.768 kHz
	G4	32S12C-F	8.0 x 3.8	4	Plastic Molded Tuning Fork, SMD	32.768 kHz

*These are SaRonix part numbers for reference only. Please refer to the Product Series two-letter code for any new orders.
("N/A" = not applicable)