Connectivity, Timing & Signal Integrity

Pericom is dedicated to providing solutions that enable better, faster and more reliable connectivity. This focus produces a portfolio of silicon-based ICs and SaRonix-eCera quartz crystals and crystal oscillators, fully integrated and compatible, for maximizing the potential of high-speed signals. Pericom offers elegant one-chip solutions and unique signal integrity products that replace expensive multiple-chip designs, eliminate expensive cable and allow for extended flexibility – and this in turn results in increased system reliability, shortened development time and reduced development costs for the end application or platform.

Why Choose Pericom?

- ➔ Broad portfolio of vertically integrated connectivity, signal integrity and timing solutions
- ➔ Products provide standards compliance, increased system reliability, and lowered system costs
- ➔ Unique signal conditioning solutions enable the full potential of the latest high-speed serial protocols

Products

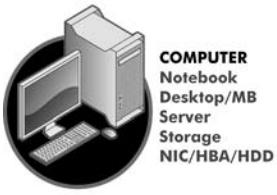
Pericom's high-speed timing, connectivity and signal integrity ICs, crystals and crystal oscillators are available in a variety of Pb-free and Green packages, including many ultra-small space-saving and low-power options. Product families include signal switches, packet switches, bridges, ReDriver™ signal conditioners, LVDS, level-shifters, clock generator/buffer families, and SaRonix-eCera™ frequency control crystals and crystal oscillators.

Applications

Pericom's solutions enable serial connectivity in virtually any market, including, but not limited to:

- ➔ Notebook/PC
- ➔ Digital Video, LCD, TV
- ➔ Ultra mobility, cell phone, PDA
- ➔ Enterprise networks, servers, and storage

Enabling Serial Connectivity in These 3 Main Markets:



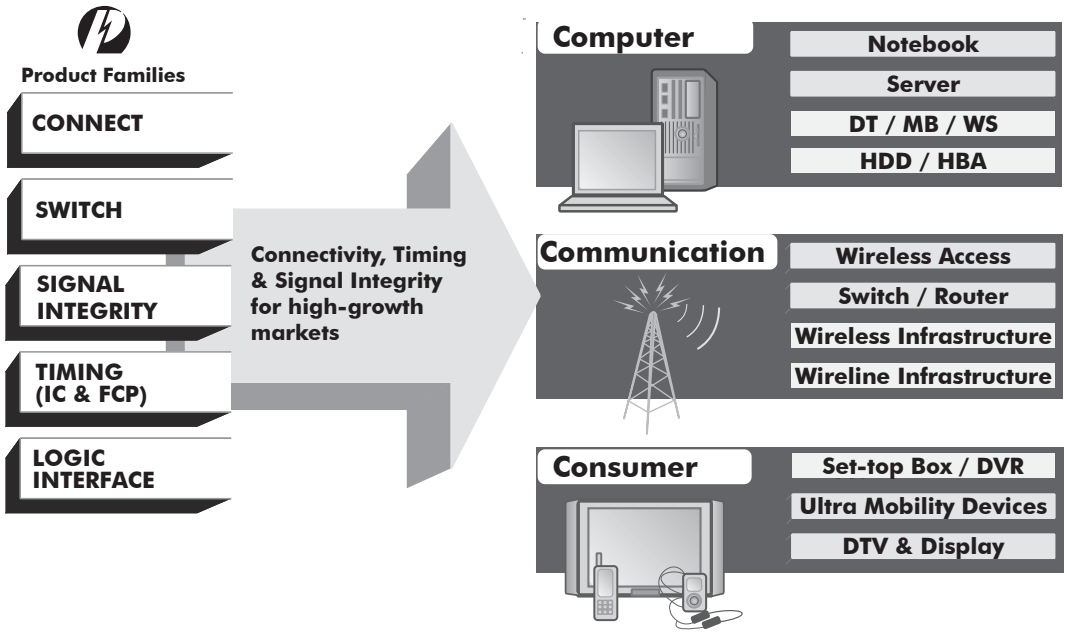
COMPUTER
Notebook
Desktop/MB
Server
Storage
NIC/HBA/HDD

COMMUNICATION
Access
Switch/Router
Wireless Infrastructure
Wireline Infrastructure

CONSUMER
Set-top Box/DVR
Mobile Phone
DTV & Display

APPLICATION SOLUTIONS FROM PERICOM

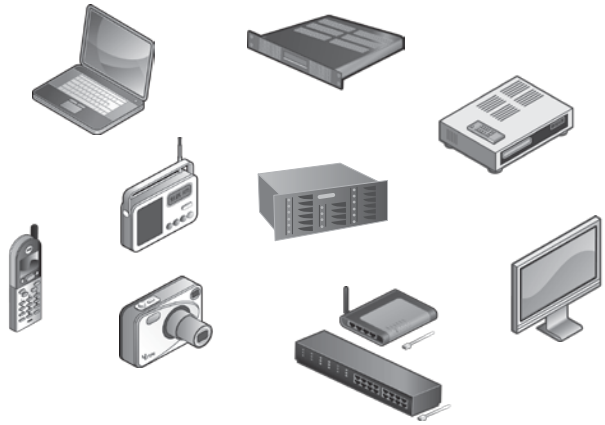
Solutions for High-growth Markets



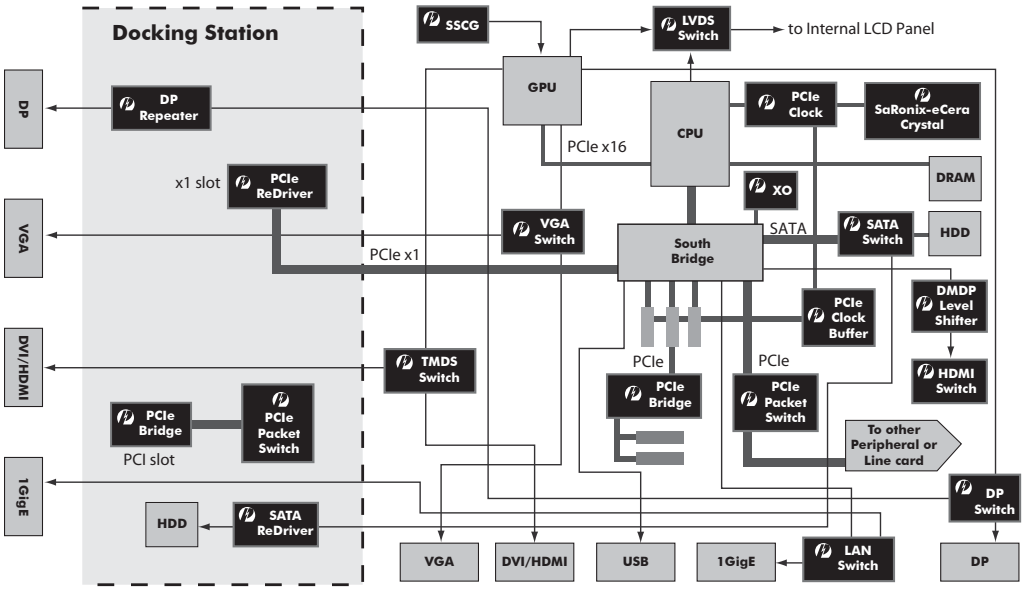
Pericom is committed to providing innovative product solutions to meet your application needs. We deliver the expertise vital to today's designs for major markets such as consumer, communications, computing, core storage, connectivity and display technologies. The following pages contain examples of how Pericom's technology enables connectivity, timing and signal conditioning in today's prevalent market applications.

IN THIS SECTION:

- Notebook/Laptop/Desktop
- Ultra Mobility
- Digital Video
- Server
- Embedded
- Video Surveillance
- Router/Switch
- Storage



Pericom Notebook Solutions



Pericom products are found in nearly every notebook in the world. Our broad selections of high-speed next-generation devices are excellent match for this continually growing market. These solutions are essential in managing signal integrity, timing, and routing within the desktop PC, notebook PC, docking station, and various other peripherals.

Timing & Frequency Control

- ➔ Crystals, Oscillators, Clock Generators & Buffers

Signal Routing Control

- ➔ Application Specific Switches
  - + LAN, USB 2.0, Video, Audio, PCIe Signal Switch, SATA 3Gbps, SAS
- ➔ Bus Switches
- ➔ Analog Switches
- ➔ Function Expansion & Signal Integrity
- ➔ PCI Bridges, PCIe-PCI Bridges, PCIe Packet Switch
- ➔ Signal Conditioning for PCI Express, SATA 3Gbps, SAS, and DVI/HDMI

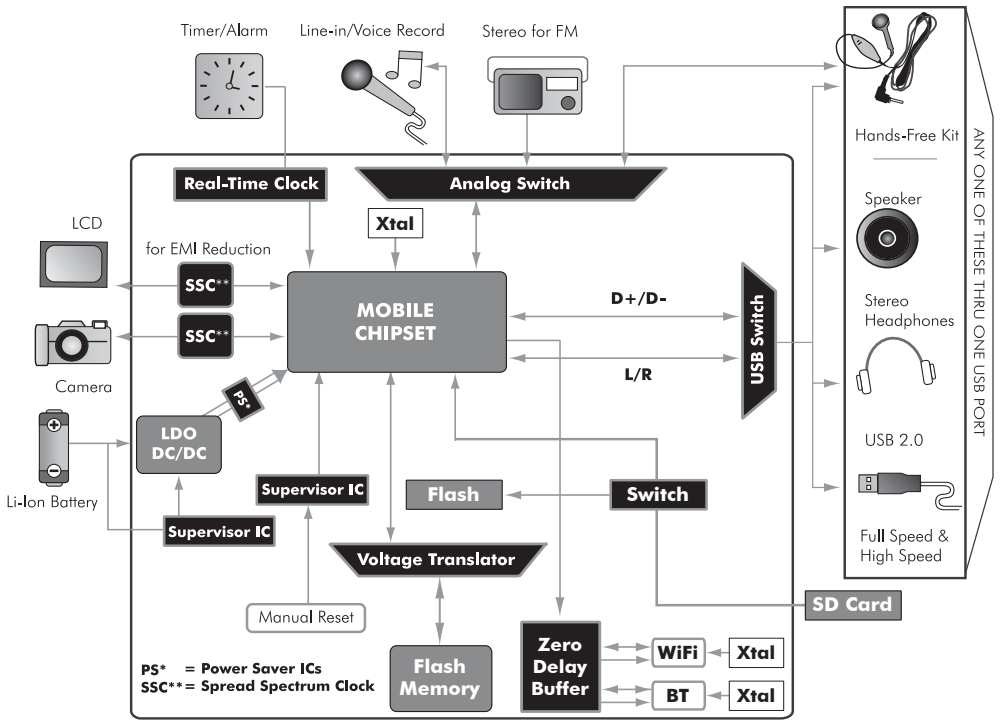
Docking Station Switches

- ➔ LAN, USB 2.0, Video (VGA, DVI, HDMI, Display Port), Audio, PCIe Switching

Multimedia

- ➔ Extended Memory: DRAM, External Drives
- ➔ PCI Application: PCI Express® Signal Switches, Packet Switches and ReDrivers
- ➔ Voltage & Signal Translation/Level Translators

Pericom Ultra Mobility Application Solutions



In the ultra mobility market, smart cell phones, PDA's, and portable media players require video, flash memory products, and hard disk utilities like MP3. Pericom has the right signal switches, supervisor circuits, level shifters, and real-time clock products for these powerful and portable applications.

High-Fidelity Audio Switching/External Headset

- ➔ Switches between internal and external speakers, while eliminating noise.
  - ✦ Dual SPDT Analog Switches, and Dual SPDT with Shunt Analog Switches
  - ✦ Dual SPDT Mux/DeMux Switches and Dual SP3T Analog Switches

Power Saver Switches Conserve Battery Life

- ➔ Low-voltage, single-supply SPST switches

Multi-processor Interconnects

- ➔ With high-speed, automatic voltage translation. Interface Logic Transceivers & Voltage Translators are available.

Enhanced Mini USB (all-in-one) Support

- ➔ For switch between audio, battery charging, and data transfer from one USB port.
- ➔ Wide bandwidth USB 2.0 & Dual SPDT analog switches.

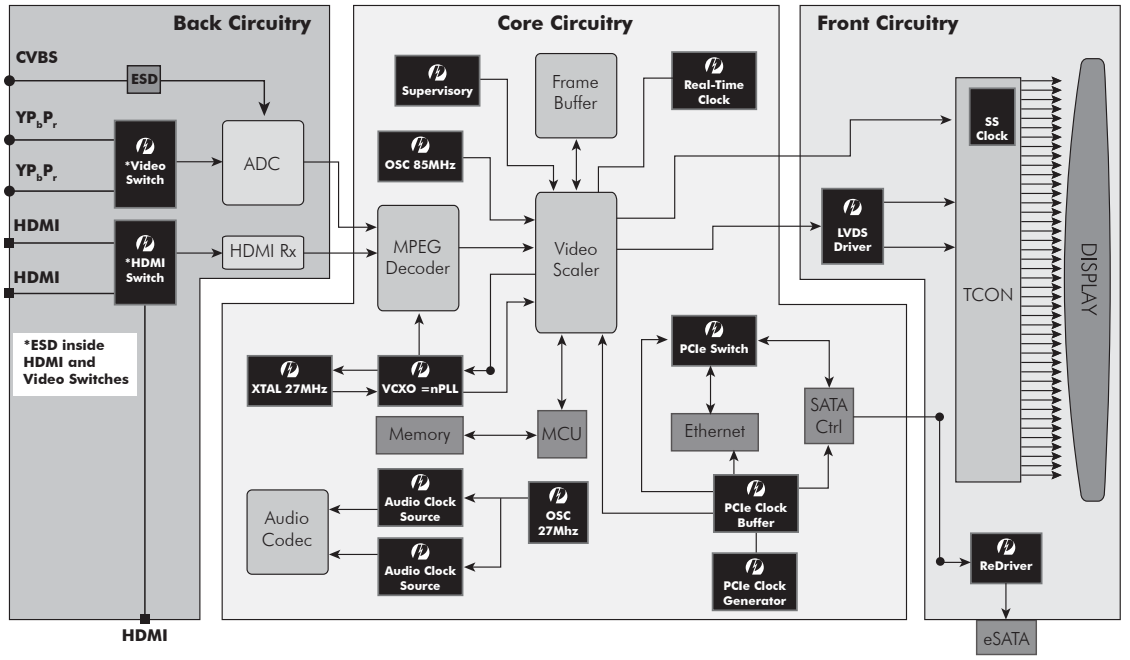
USB Voltage Protection

- ➔ 3.3V, High-bandwidth, 2-Bit, bus switch with individual low enables

System Timing

- ➔ Real-Time Clocks & Spread-Spectrum Clocks

Digital TV and Display Application Solutions



To meet the demand of the fast-growing market of television and its related products, Pericom offers complete interface and timing solutions: video switch, analog switch, USB switch, bus switch, universal voltage translators, frequency control, supervisory, real-time clocks, and media clocks.

Generic Architecture

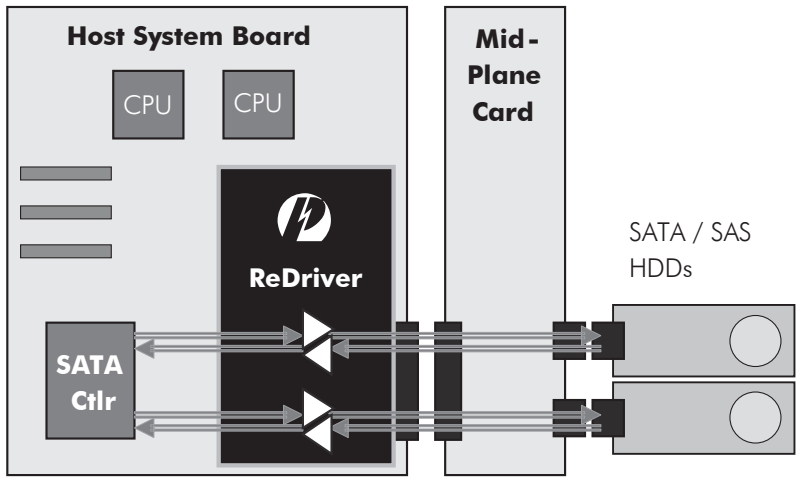
- Video Switch
- VCXO
- Multimedia Clock

Product Offering:

- Video Switch
- Analog Switch
- USB Switch
- Bus Switch
- Voltage Translators/ Level Shifters
- Frequency Control Products
- Supervisory Circuits
- Real Time Clock
- Media Clock

Server

Pericom PCI Express® Solutions in Dual Processor Servers



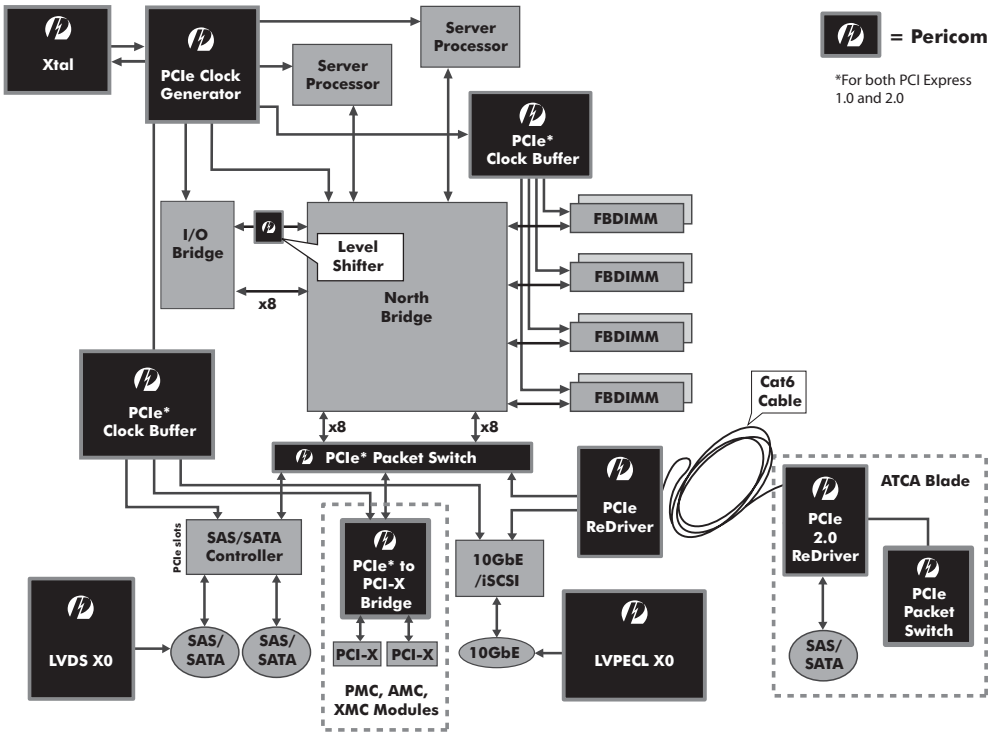
SATA 3Gbps/SAS ReDriver insures good signal integrity across a long PCB trace to the disk drives

Pericom devices fill the roles of interface and expansion within server systems. From consumer-focused boxes to high-end multi-processors, Pericom provides solutions for a variety of interface issues faced by system designers.

- Timing
- Crystals & Oscillators
- Clock Generators & Buffers
- Switch
  - LAN. USB
  - SATA2, SAS, XAUI
  - PCI Express
  - DVI
  - Hot-plug switches
- Bridge Solutions
  - PCI Express® to PCI Reversible Bridge
  - PCI Express® to PCI-X Bridge
  - PCI-X to PCI-X Bridge
- Signal Interfaces
  - Auto Sensing / Programmable Voltage conversion solutions
- Signal Conditioning
  - PCI Express® 1.0 & 2.0 ReDrivers
  - SATA 3Gbps/SAS ReDrivers
  - XAUI ReDrivers
- Extended Memory
  - DRAM
  - External Drives
- PCI-X Add-in Cards
  - PCI-X Bridge for multiple PCI-X devices
  - PCI to PCI-X bridge for legacy devices such as RS-232.

Note: For PCIe 2.0 PCIe Bridge, please contact marketing for further information.

Pericom PCI Express® Embedded System Solutions



Pericom delivers an array of interface and expansion solutions targeting Embedded systems. From consumer-focused blades to high-end multi-processors, Pericom provides solutions for a variety of interface issues faced by embedded system designers.

Bridge Switch Solutions

- PCI Express 2.0 to PCI-X Bridge
- PCI Express to PCI Reversible Bridge
- PCI Express to PCI-X Bridge
- PCI-X to PCI-X Bridge

Timing

- Crystals & Oscillators
- Clock Generators & Buffers

Switch

- LAN
- PCI Express
- DVI
- Hot-plug switches

Signal Interfaces

- Auto Sensing / Programmable Voltage conversion solutions

Signal Conditioning

- PCI Express® ReDrivers
- SATA/SAS/XAUI ReDrivers

Extended Memory

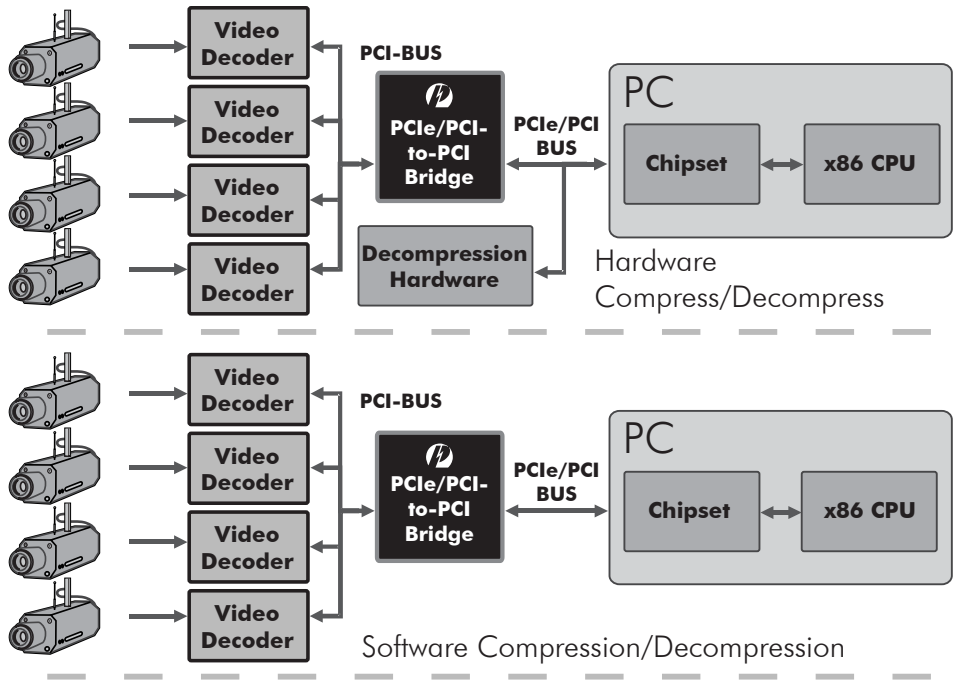
- DRAM
- External Drives

PCI-X Add-in Cards

- PCI-X Bridge for multiple PCI-X devices
- PCI to PCI-X bridge for legacy devices such as RS-232.

Note: For PCIe 2.0 PCIe Bridge, please contact marketing for further information.

PC Based Applications



Pericom continually expands its broad array of PCI bridge, PCIe bridges, PCIe packet switches, Video Switches, clock IC's, and frequency control solutions for emerging surveillance applications.

Timing & Frequency Control

- Crystals and Oscillators
- Clock Generators
- Clock Buffers

Switching

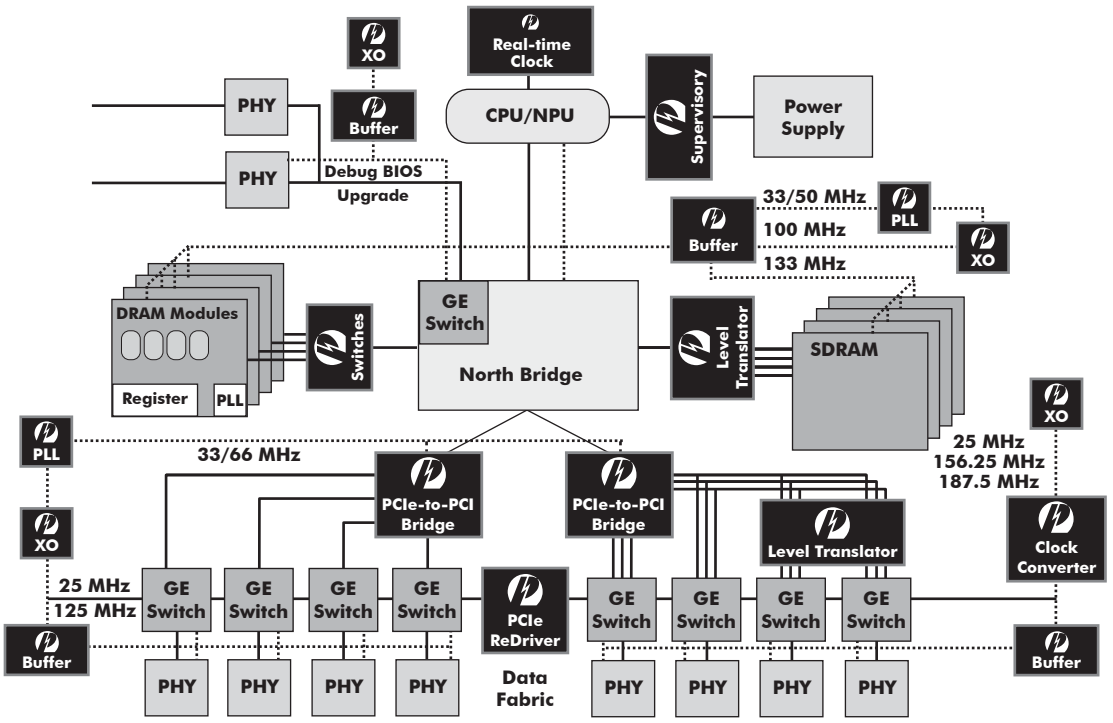
- Video source to video decoders
- RGB, S-Video, or composite video signals
- Single-ended 3V or 5V devices

Bridge and Packet Switch Solutions

- PCIe to PCI Reversible Bridge
- PCI-X to PCI-X Bridges
- PCI to PCI Bridges
- PCIe Packet Switches

Pericom Solutions for Clock & Timing Planes in Gigabit Ethernet Switch

Pericom Solutions for Clock & Timing Planes



The high-speed networking market accelerates again as ever increasing numbers of users and high-bandwidth applications require infrastructure upgrades. Pericom offers an expanding array of interface and timing solutions for networking applications.

Quartz-based Clock Products

- SaRonix-eCera Crystals
- SaRonix-eCera Crystal Oscillators

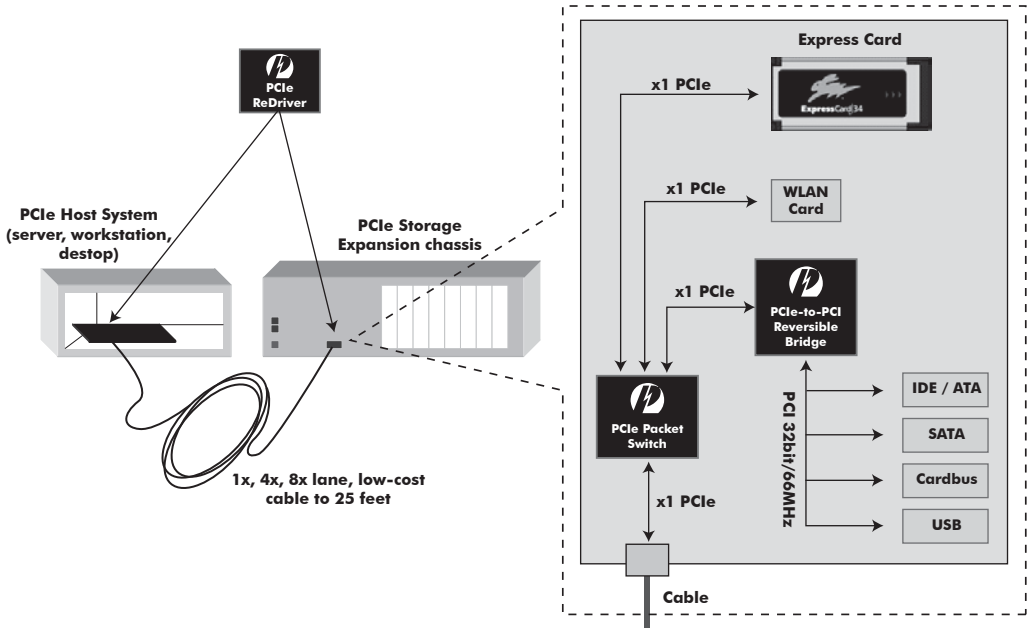
Silicon-based Pericom Products

- Bridges
- Registers
- Switches
- PLL Clock Generator
- Supervisory
- Level Shifters
- Clock Buffers
- Clock Converters (Differential)

GB Ethernet Solutions

- Pericom has solutions for this level of timing needs (see block diagram above).

Pericom Solutions for High-end Storage Array



The storage market includes a wide range of applications and product segments, from enterprise storage servers, through network and disk drive interfaces, to consumer storage products. Pericom sells a wide range of products to multiple storage market segments. Products include those which are specific to an application like Fibre channel, SATA clocks and ReDrivers, and more general purpose devices like packet and signal switches.

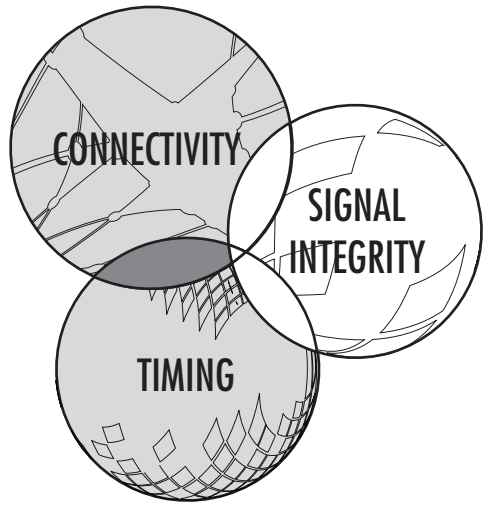
Products Available for Storage Applications

- ➔ Clock and Timing Solutions -Quartz & IC
- ➔ PCI and PCI Express Bridges
- ➔ PCI Express Packet Switches
- ➔ SATA 3Gbps, SAS, PCIe and USB Signal Switches
- ➔ PCI Express, SAS and SATA 3Gbps ReDriver and Signal Conditioners

Application Segments

- ➔ HDD & ODD
- ➔ HBA – FC
- ➔ Storage Server
- ➔ RAID Array
- ➔ Consumer & Peripherals

Notes



PERICOM®

SIGNAL INTEGRITY

Signal Integrity Solutions from Pericom

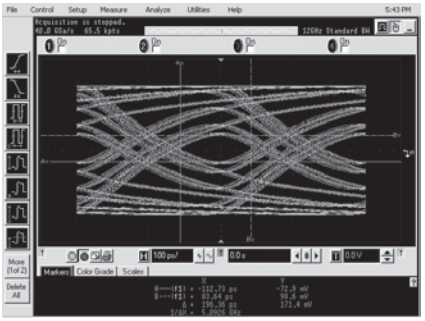
Poor signal quality can significantly impact system performance and reliability. Maintaining eye-pattern signal integrity at the receiver end-points in high-speed, serial-differential protocols, like PCI Express or SATA, is a big challenge for system designers today. At high transmission rates, signal integrity issues become increasingly restrictive on the length of PCB trace (or cable length), reducing flexibility and feature implementation. Pericom's ReDriver™ signal conditioning products* correct for signal level attenuation and noise (jitter) using equalization, pre-emphasis/de-emphasis techniques for low bit error rates with high-speed signal protocols including PCI Express®, and SATA/SAS standards.

*See the video on how Pericom ReDriver provides system stability at www.pericom.com/redriver

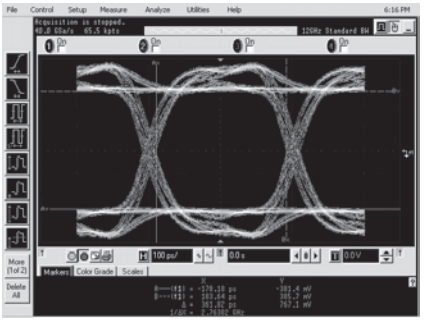
ReDriver™ Product Features:

- Protocol support for PCI Express®, SATA 3Gbps, SAS
- Data rates of 2.5Gbps (PCIe) and 3.0Gbps (SATA 3Gbps, SAS)
- Pin configured receiver equalization for each lane
- Pin configured transmitter de-emphasis & amplitude for each lane
- Input signal level detect & output squelch on all channels
- Electrical idle and OOB support
- Spread spectrum reference clock buffers available
- 100-Ω differential CML I/O's
- Low Power (100mW per channel)
- Standby mode – power down state
- Wide variety of package/feature options

High-speed Differential Signal Degradation

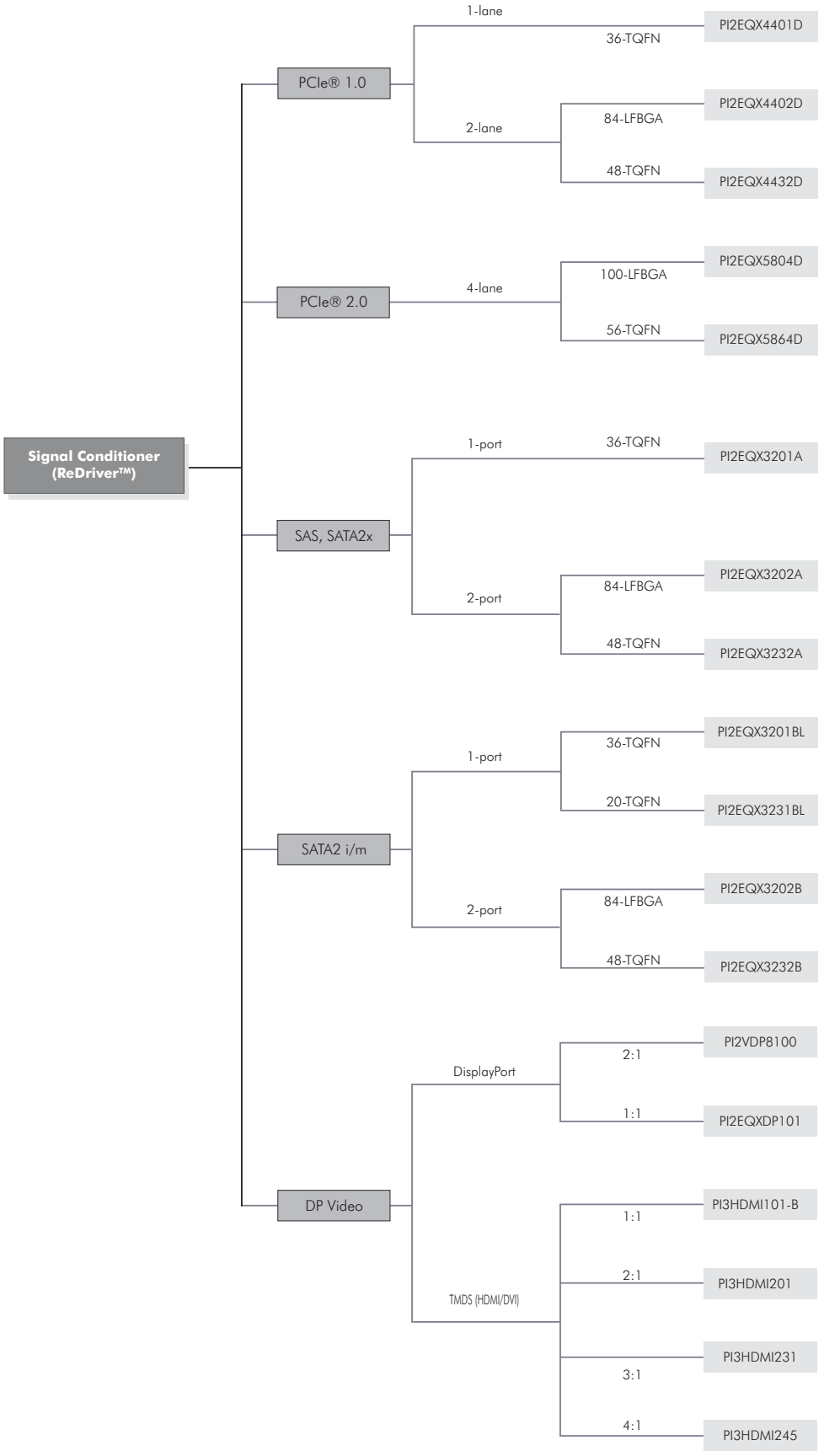


Receiver Input Before ReDriver



ReDriver Output

Signal Integrity Decision Tree



PCI Express ReDriver Products

PCI Express® ReDriver™

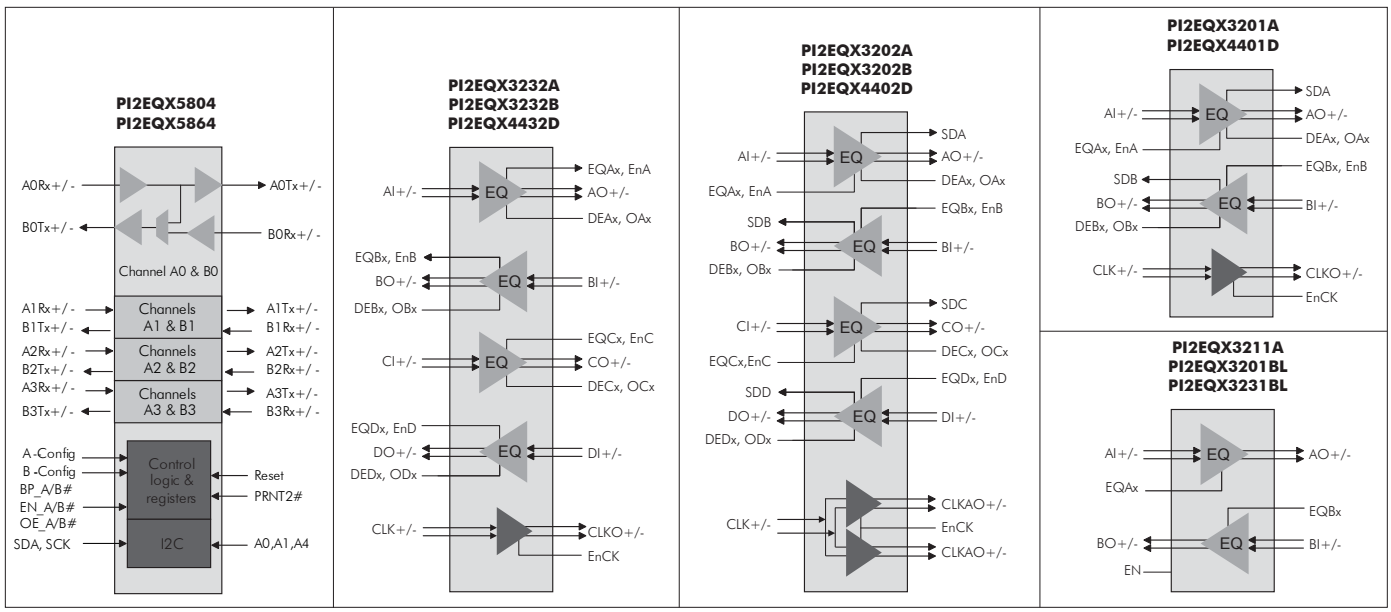
Part No.	Description	Protocol	Data Rate Gbps	Input Equalization Options, dB	Output level Options	Output swing, mV max	Output Emphasis, dB	Package
PI2EQX4401D	1-lane 2-channel redriving equalizer with de-emphasis	PCIe 1.0	2.5	0, 2.5, 4.5, 6.5	1.0x, 1.2x	1300	0, -3.5	36-TQFN (ZF36)
PI2EQX4402D	2-lane 4-channel redriving equalizer with de-emphasis	PCIe 1.0	2.5	0,1.5,2.5,3.5,4.5, 5.5,6.5,7.5	0.8x, 1.0x, 1.2x, 1.4x	1600	0,-2.5,-3.5,-4.5	84-LFBGA (NB84)
PI2EQX4432D	2-lane 4-channel redriving equalizer with flow-through pinout	PCIe 1.0	2.5	2.5, 6.5	1.0x, 1.2x	1300	0, -3.5	48-TQFN (ZD48)
PI2EQX5804**	5.0 Gbps, 4-lane 8-channel redriving equalizer	PCIe 2.0	5.0	1.2, 1.5, 2.6, 4.3, 5.8, 7.1, 9.0, 12.3	0.5, 0.7, 0.9, 1.0	1000	0, -2.5, -3.5, -4.5, -5.5, -6.5, -7.5, -8.5	100-LFBGA (NJ100)
PI2EQX5864**	5.0 Gbps, 4-lane redriving equalizer with I2C control	PCIe 2.0	5.0	1.2, 1.5, 2.6, 4.3, 5.8, 7.1, 9.0, 12.3	0.5, 0.7, 0.9, 1.0	1000	0, -2.5, -3.5, -4.5, -5.5, -6.5, -7.5, -8.5	56-TQFN (ZF56)

Note
V_{DD}=1.8V for most ReDriver parts listed except for ** (V_{DD}=1.2V)

PCI Express® ReDriver Evaluation Boards

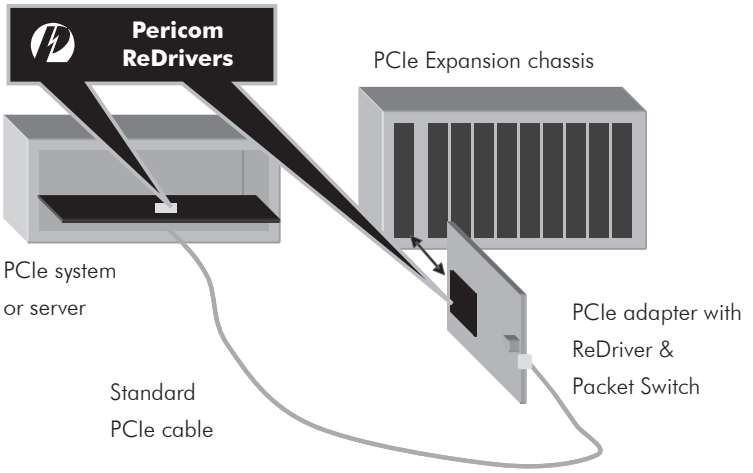
Part No.[1]	Description	Lanes	Data Rate Gbps	Configuration	Voltage[2]
PI2EQX4401D-EVBx	PCI Express ReDriver Eval Board	1	2.5	1:1 PCIe pass-through, plugs into 1-lane PCIe slot, and accepts 1-lane PCIe adapter card (Ethernet, SATA, etc.)	1.8

Notes
1. Contact Pericom sales for the exact evaluation board part number, and for the correct product for your application since multiple versions may exist
2. Power is supplied via the host connector



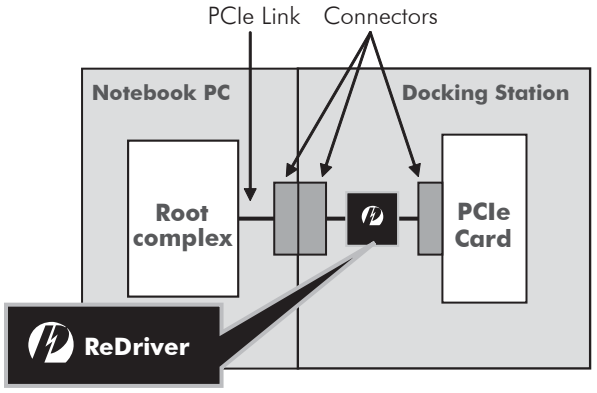
PCI Express® ReDriver Applications

PCIe Cable Extension:



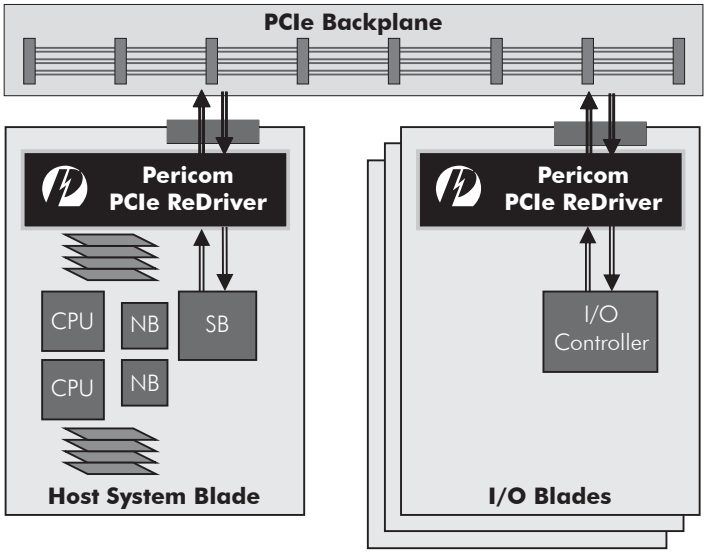
Cabled PCI Express® is widely used in servers for both internal and chassis-to-chassis connections, in consumer PCs and media systems, for instrumentation, medical equipment, video systems, industrial equipment, etc. Because of the PCIe Cable specification, PCIe direct-attached peripherals are certain to become a high-growth market segment.

Notebook Docking:



Signal conditioner assures signal integrity across multiple connectors and varying generations of hardware

Blade Server System:



PCIe ReDriver insures signal integrity across multiple connectors and varying trace lengths

ReDriver SAS/SATA2/XAUI Products

SAS/SATA2/XAUI ReDriver™

Part No.	Description	Protocol	Data Rate Gbps	Input Eqx Options, dB	Output Level Options	Output Swing, mV max	Output Emphasis, dB	Package
PI2EQX3201A	2-channel redriving equalizer with OOB	SATA2x, SAS, XAUI	3.0	0, 2.5, 4.5, 6.5	1.0x, 1.2x	1300	0, -3.5	36-TQFN (ZF36)
PI2EQX3202A	4-channel redriving equalizer with OOB	SATA2x, SAS, XAUI	3.0	0, 1.5, 2.5, 3.5, 4.5, 5.5 ,6.5, 7.5	0.8x, .0x, 1.2x, 1.4x	1600	0, -2.5, -3.5, -4.5	84-LFBGA (NB84)
PI2EQX3232A	4-channel redriving equalizer with flow-through pinout	SATA2x, SAS, XAUI	3.0	3.5, 7.5	1.0x, 1.2x	1300	0, -3.5	48-TQFN (ZD48)
PI2EQX3201BL	2-channel redriving equalizer with OOB	SATA2 i/m	3.0	0, 2.5, 4.5, 6.5	1.0x, 1.2x	800	0, -3.5	36-TQFN (ZF36)
PI2EQX3202B	4-channel redriving equalizer with OOB	SATA2 i/m	3.0	0, 1.5, 2.5, 3.5, 4.5, 5.5, 6.5, 7.5	0.8x, .0x, 1.2x, 1.4x	1000	0, -2.5, -3.5, -4.5	84-LFBGA (NB84)
PI2EQX3231BL	2-channel redriving equalizer with flow-through pinout	SATA2 i/m	3.0	1.5, 5.5	1x	700	0, -3.5	20-TQFN (ZH20)
PI2EQX3232B	4-channel redriving equalizer with flow-through pinout	SATA2 i/m	3.0	3.5, 7.5	1.0x, 1.2x	800	0, -3.5	48-TQFN (ZD48)
PI2EQX3421	2-channel redriving equalizer port switch	SATA2, SAS, XAUI	3.2	1.5, 5.5	dual mode	750/ 1300	0	28-TQFN (ZH28)
PI2EQX6804**	4-lane redriving equalizer	SAS2, SATA, XAUI	6.5	1.2, 1.5, 2.6, 4.3, 5.8, 7.1, 9.0, 12.3	0.5, 0.7, 0.9, 1.0	1000	0, 2.5, 3.5, 4.5, 5.5, 6.5, 7.5, 8.5	100-LFBGA (NJ100)

Notes:
V_{DD}=1.8V for most ReDriver parts listed except for ** (V_{DD}=1.2V)
SATA2 = SATA 3Gbps

SATA/SAS ReDriver Evaluation Boards

Part Number (1)	Description	Ports	Data Rate Gbps	Configuration (2)	Voltage (3)
PI2EQX3202A-EVBx	SAS / SATAx ReDriver Evaluation Board	2	3	2:2 pass-through via cable, 2-channels with minimum trace, 2-channels with 48" trace (total)	1.8
PI2EQX3202B-EVBx	SATA i/m ReDriver Evaluation Board	2	3	2:2 pass-through via cable, 2-channels with minimum trace, 2-channels with 24" trace (total)	1.8

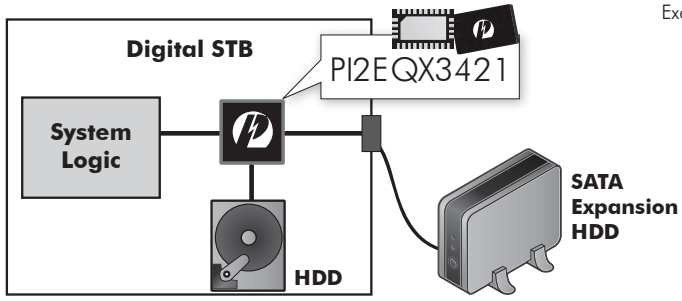
Notes
1. Contact Pericom Sales for the exact Evaluation Board part number, and for the correct product for your application since multiple versions may exist
2. Cables not supplied
3. Power must be provided to on board regulator

HDMI/DVI Video Switches

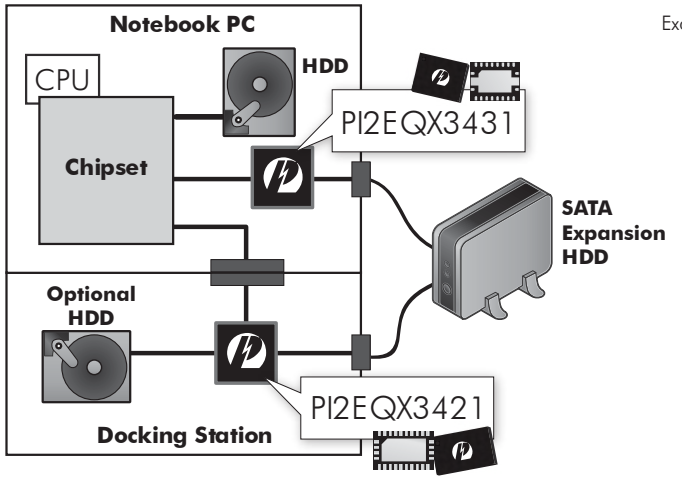
For More HDMI Solutions see page 34

Part Number	Description	Configuration	Package
PI3HDMI101	HDMI/DVI buffer + I2C buffer for source applications	4-differential channel 1:1 with DDC 1:1 path	TQFN (ZH42)
PI3HDMI101-A	HDMI/DVI buffer + I2C buffer w/ Rx Term support for receiver applications	4-differential channel 1:1 with DDC 1:1 path	TQFN (ZH42)
PI3HDMI101-B	HDMI/DVI buffer + I2C buffer w/ auto-Rx Term support for receiver applications	4-differential channel 1:1 with DDC 1:1 path	TQFN (ZH42)
PI3HDMI201	2:1 HDMI/DVI switch with ActiveEye™	4-differential channel 2:1 + DDC/HPD 2:1	TQFN (ZF56)
PI3HDMI231-A	3:1 HDMI/DVI switch with ActiveEye™ and squelch	4-differential channel 3:1 + DDC/HPD 3:1	TQFN (ZF56)
PI3HDMI301	3:1 HDMI/DVI switch with ActiveEye™	4-differential channel 3:1 + DDC/HPD 3:1	TQFN (ZL64), LQFP(FF80)
PI3HDMI412-B	4 Differential Channel 2:1, 3.3V DVI/HDMI Mux/DeMux	Mux: 4 Differential Channel, 2:1	TSSOP (A48)
PI3VDP411LS	Dual Mode Display Port to DVI/HDMI Translator	4-differential channel 1:1 with DDC/HPD 1:1 path	TQFN (ZD48)
PI3VDP411LST	Dual Mode Display Port to DVI/HDMI Translator with HPD inverting buffer	4-differential channel 1:1 with DDC/HPD 1:1 path	TQFN (ZD48)
PI3VDP612	DisplayPort Signal Switch (1:2 or 2:1)	2:1/1:2 for Main Link, AUX, and HPD	TQFN (ZF56)

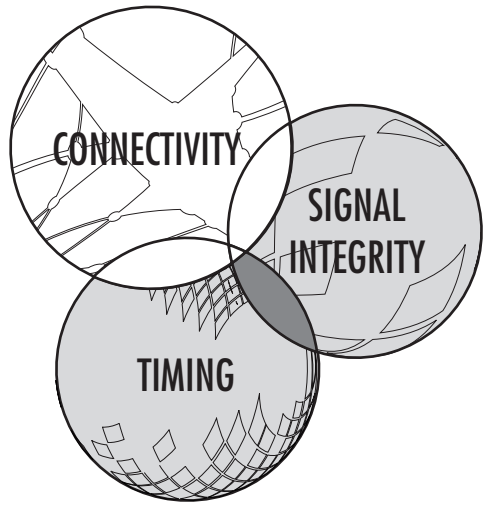
Example of ReDriver Applications:



Example of PI2EQX3421 in STB



Example of PI2EQX3431 in Notebook



PERICOM®

CONNECTIVITY

Connectivity Solutions from Pericom

Electronics today are fast – the signals that drive them run at increasingly higher speeds. Most commonly this is done using a serial bus, or high-speed circuit board, which connects components in computers and consumer devices. The bus uses serial signals, such as PCI Express® or USB, to quickly send data in a single stream from one point to another.

To address the specific design challenges posed by high-speed connectivity in electronic design - like digital video, wireless and ultra-mobility applications - Pericom offers a broad portfolio of ICs, crystals and crystal oscillators for high-speed standards including PCI Express, HDMI/DVI, DisplayPort, USB, Gigabit Ethernet, 10 Gigabit Ethernet, EPON, GPON, SATA/SAS and Fibre Channel. Refer to the following pages to find the right function for your design.

In this section:

PCI Express® (PCIe®) Solutions

- PCIe Signal Switch
- PCIe Bridge
- PCIe Packet Switch
- PCIe Clock
- PCIe ReDriver™
- PCIe Crystal Oscillator & Quartz Crystal

PCI Bridge

- PCI™ & PCI-X™ Bridge Families

Switch

- Analog HDMI/DVI & Video Switch
- Analog LAN, USB Switch & other Analog Switch
- Digital Switch 2-port, Bus Exchanger, Translator & Mux/Demux

SAS I & II, SATA2, and SATA3

- Crystal Oscillator
- Crystal
- ReDriver
- Clock Buffer

Logic & Interface ICs

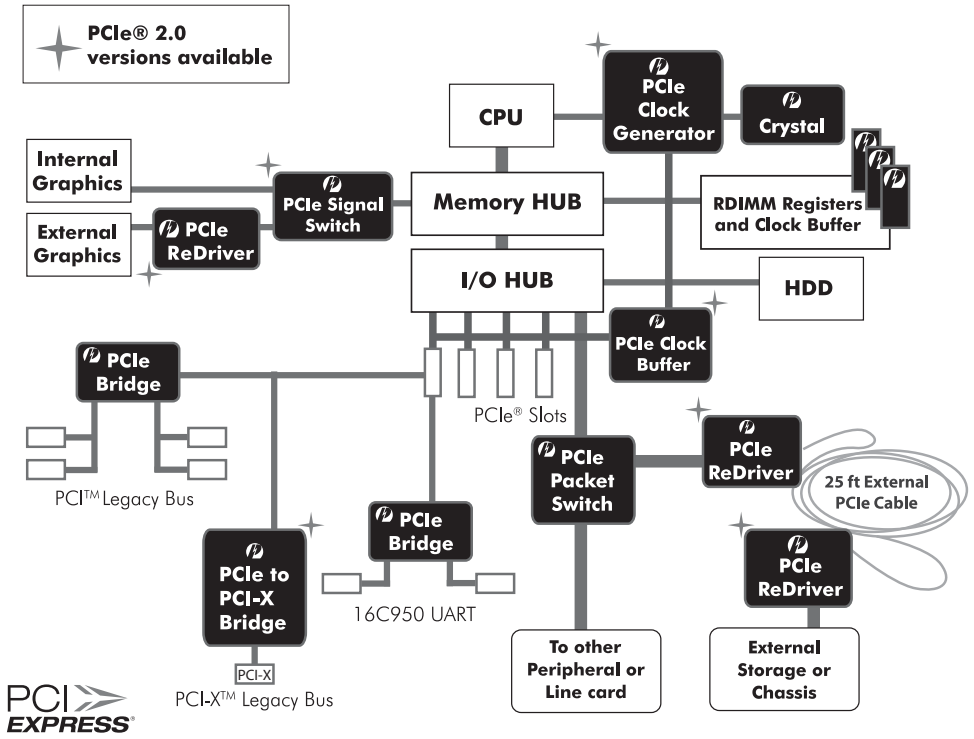
- Buffer/Driver, Flip-flop, Gate, Latch & Register
- Transceiver
- Voltage Translator
- SerDes
- LVDS

PCI Express® Connectivity From Pericom

Pericom's PCI Express products enables for signal quality, system performance, flexibility, reliability, system timing, EMI, express cable, and much more. Uniquely, we offer the industry's broadest portfolio of interface solutions for these high-performance protocols.

These high-performance devices are designed for next generation markets that include switches and routers, servers, HBAs, data storage systems, PCs, mobile electronics like PDA and laptops, telecom equipment, multi-function printers, test equipment, embedded systems, and data acquisition systems.

- PCI Express is a point-to-point serial differential low-voltage interconnect
- Consolidates application requirements for use by multiple market segments
- A highly flexible, scalable, reliable, and stable high-performance protocol
- Cost-effective general purpose I/P Architecture
- Allows for use of new topologies in system and communication design



PCI Express Signal Switch Features

- 1.8V and 3.3V, 2 and 4-differential channel, 2:1 mux/demux signal switches
- Available in PCIe 1.0 (2.5 Gbps) and PCIe 2.0 (5.0 Gbps)
- 3.3V PCIe 2.0/DisplayPort™ signal switches

PCI Express® Signal Switch (PCIe 1.0 & PCIe 2.0)

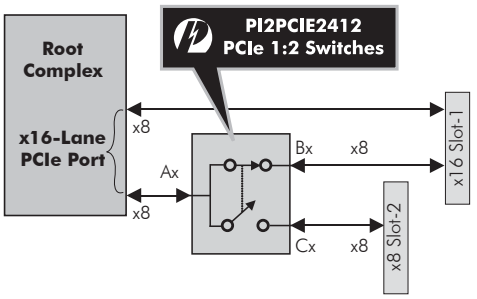
Part No.	Description	Data Rate Gbps	Configuration	Package
PI2PCIE212	2 Differential Channel 2:1, PCIe Mux, 1.8V	2.5	Mux: 2 differential channel, 2:1	TQFN (ZH28)
PI2PCIE412-D	Enhanced mux/demux switch w/ single enable, 1.8V	2.5	Mux: 4 differential channel, 2:1	TQFN (ZH42)
PI2PCIE2212	1-lane, single enable, 1.8V	5.0	Mux: 2 differential channel, 2:1	TQFN (ZH28)
PI2PCIE2214	1-lane (2-channel), single enable, 1.8V	5.0	Mux: 2-differential channel, 4:1	TQFN (ZH42)
PI2PCIE2412	2-lane (4-channel), single enable, 1.8V	5.0	Mux: 4-differential channel, 2:1	TQFN (ZH42)
PI3PCIE2415	Dual graphics mux, 2-lane (4-channel), single enable, 3.3V	5.0	Mux: 4-differential channel, 2:1	TQFN (ZH28)
PI2PCIE2422	2-lane (4-channel) single enable, 1.8V	5.0	Mux: 4-differential channel with bypass, 2:1	TQFN (ZH42)
PI2PCIE2442	2-lane (4-channel) exchange switch, single control, 1.8V	5.0	Exchange: 4-differential channel, 2:2	TQFN (ZH42)
PI2PCIE2452	2-lane (4-channel), matrix switch,1.8V	5.0	Matrix: 4-differential channel, 2:2	TQFN (ZH42)
PI3PCIE2612-A	PCIe 2.0 to DisplayPort (6-channel), 3.3V	5.0/2.7	Mux: 6-differential channels, ATX pinout, 2:1	TQFN (ZF56)
PI3PCIE2612-B	PCIe 2.0 to DisplayPort (6-channel)3.3V	5.0/2.7	Mux: 6-differential channels, BTX pinout, 2:1	TQFN (ZF56)

PCI Express® Signal Switch Evaluation Boards (PCIe 1.0 & PCIe 2.0)

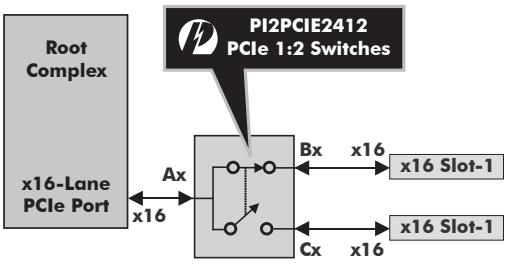
Part Number (1)	Description	Lanes	Data Rate Gbps	Configuration	Voltage (2)
PI3PCIE2612B-EVB1	PCI Express® 2.0 DisplayPort Switch Eval Board	16	5.0	1:2 mux/demux, 16:32-channels with DP connector plugs into PCIe Slot	3.3
PI3PCIE2415-EVB1	PCI Express® 1.0 Signal Switch Eval Board	16	2.5	2:1 mux/demux, 16:32-differential channels plugs into 16-lane PCIe slot	3.3
PI2PCIE2412-EVBx	PCI Express® 2.0 Signal Switch Eval Board	16	5.0	1:2 mux/demux, 16:32-differential channels plugs into 16-lane PCIe slot	1.8
PI2PCIE412-EVBx	PCI Express® 1.0 Signal Switch Eval Board	16	2.5	2:1 mux/demux, 16:32-differential channels plugs into 16-lane PCIe slot	1.8

Notes
1. Contact Pericom Sales for the exact Evaluation Board part number, and for the correct product for your application since multiple versions may exist
2. Power is supplied via the host connector

PCI Express® Signal Switch in Extreme Performance Video Graphics Card

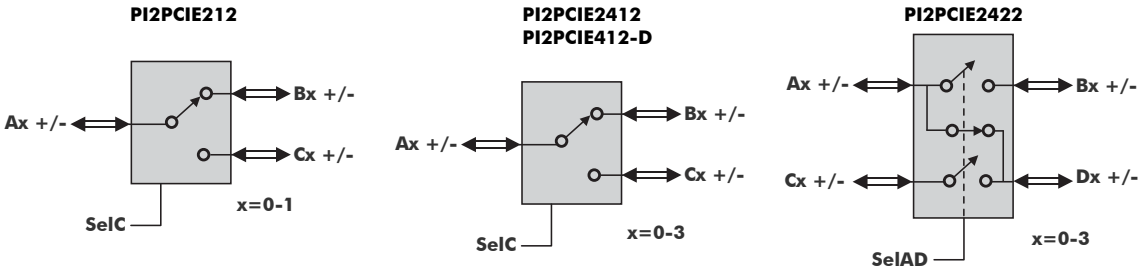


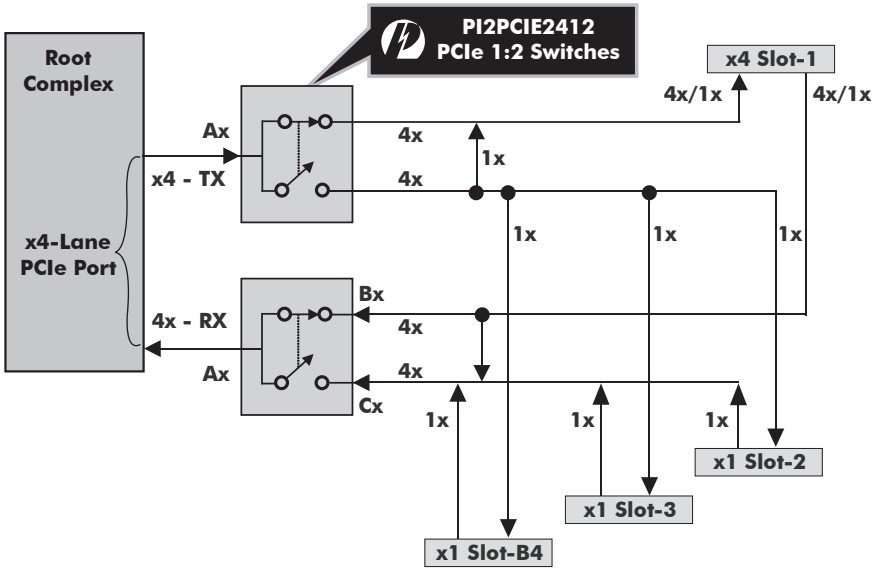
Port Bifurcation: Either one 16-lane slot, or two 8-lane slots



System redundancy: Failover switched PCIe HBA slots

PCI Express® Differential Signal Switches





PCIe slot configuration: One 4-lane slot, or four 1-lane slots

PCI Express Bridges

➔ PCIe to PCI-X™ Bridge

- ✦ Non-transparent mode and fully reversible – high throughput
- ✦ Customer programmable power management features
- ✦ PCIe & PCI-X bus Hot-plug support, supports 128, 256, and 512-byte payloads
- ✦ The only PCI-SIG 1.1 compliant PCIe to PCI-X bridge in the market

➔ PCIe to PCI™ Bridge Family

- ✦ Non-transparent mode reversible PCIe-to-PCI Bridge with dual priority modes
- ✦ Supports isochronous data streaming: real-time/live video
- ✦ Small packages: 12x12 LFBGA 160-pin (9X110) & 14x14 LQFP 128-pin (9X111)
- ✦ Reverse mode option – outstanding performance
- ✦ High-output drivers – 8 PCI devices across connectors – industry unique (9X110)

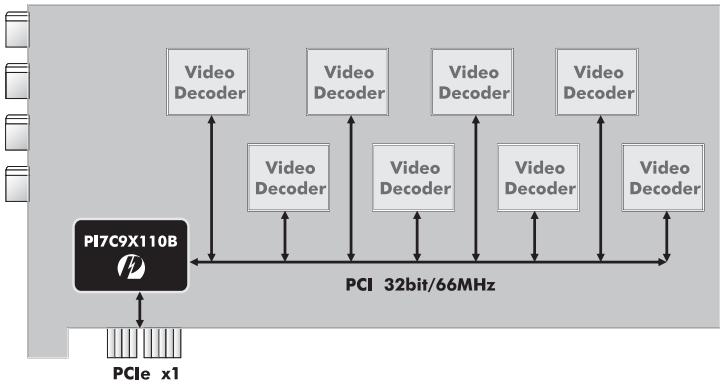
➔ PCIe to UART I/O Bridge

- ✦ Industry first one-chip PCIe to UART Solution
- ✦ 2, 4, or 8 high-performance 16C950 UART ports
- ✦ PCI-SIG 1.1 compliant
- ✦ Perfect for POS, RSxxx applications, embedded industrial controls

PCI Express® Bridges

For other Bridge Solutions see page 27

Part No.	Description	PCI Speed	PCI Bus Width	Ports	Lanes	Package
PI7C9X110	PCIe to PCI Reversible Bridge	66 MHz	32-bit	1 PCI	1	LFBGA (NB160)
PI7C9X130	PCIe to PCI-X Reversible Bridge	133 MHz	64-bit	1 PCI-X	4	PBGA (ND256)
PI7C9X111SL	SlimLine™ PCIe-to-PCI Reversible Bridge	66 MHz	32-bit	1 PCI	1	QFP (MA128)
PI7C9X112SL	SlimLine™ PCIe-to-PCI Reversible Bridge	66 MHz	32-bit	1 PCI	1	LQFP (FD128)
PI7C9X7952	PCI Express Dual UART I/O Bridge	-	-	2 UART	1	FD (FD128)
PI7C9X7954	PCI Express Quad UART I/O Bridge	-	-	4 UART	1	FD (FD128)
PI7C9X7958	PCI Express Octal UART I/O Bridge	-	-	8 UART	1	NB (NB160)



Pericom PCI Express Video Surveillance Application

PCI Express Packet Switch

➔ GreenPacket™

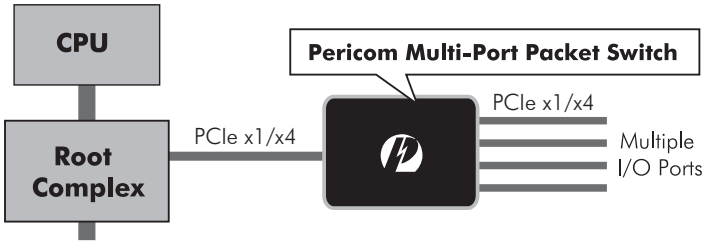
- ✦ Up to 5-ports, 8-lanes; most cost effective switch family in the market
- ✦ Supports isochronous data streaming: real-time/live video
- ✦ 8 traffic classes and 2 virtual channels per port
- ✦ Customer programmable switching and EEPROM configurable
- ✦ Customer programmable PHY and switching parameters (cut through or store/forward mode)
- ✦ Very low-power shut-off features
- ✦ Smallest package in industry (PI7C9X20404GP)

➔ SlimLine™

- ✦ Supports isochronous data streaming: real-time/live video
- ✦ Customer programmable switching and EEPROM configurable
- ✦ Customer programmable PHY and switching parameters
- ✦ Compliant to PCIe specification revision 1.1
- ✦ Advanced design/process for lowest latency/Pd in market
- ✦ Unique packaging features to reduce PCB and overall system cost
- ✦ I2C and SM buses for versatile register access
- ✦ EEPROM configurable, many power management features

PCI Express® Packet Switches (available in Pb-free & Green)

Part Number	Description	Ports	Lanes	Package
PI7C9X20303SL	3-port, 3-lane, SlimLine™ PCIe Packet Switch	3	3	LQFP (FD128)
PI7C9X20303UL	3-port, 3-lane, Ultra-lo™ PCIe Packet Switch	3	3	TQFN (ZP132)
PI7C9X20404SL	4-port, 4-lane, SlimLine™ PCIe Packet Switch	4	4	LQFP (FD128)
PI7C9X20404GP	4-port, 4-lane, PCIe Packet Switch with GreenPacket™ Technology	4	4	LFBGA (NB148)
PI7C9X20505GP	5-port, 5-lane, PCIe Packet Switch with GreenPacket™ Technology	5	5	PBGA (ND256)
PI7C9X20508GP	5-port, 8-lane, PCIe Packet Switch with GreenPacket™ Technology	5	8	PBGA (ND256)



Typical PCIe Port Expansion

PCIe ReDriver™ Signal Integrity Solutions

PCI Express ReDriver

- 2.5 Gbps x1-lane and x2-lane serial PCI Express 1.0 signal conditioners
- 5.0 Gbps x4-lane PCIe 2.0 signal conditioners

PCI Express® ReDriver™

Part No.	Description	Protocol	Data Rate Gbps	Input Equalization Options, dB	Output level Options	Output swing, mV max	Output Emphasis, dB	Package
PI2EQX4401D	1-lane 2-channel redriving equalizer with de-emphasis	PCIe 1.0	2.5	0, 2.5, 4.5, 6.5	1.0x, 1.2x	1300	0, -3.5	36-TQFN (ZF36)
PI2EQX4402D	2-lane 4-channel redriving equalizer with de-emphasis	PCIe 1.0	2.5	0,1.5,2.5,3.5,4.5, 5.5,6.5,7.5	0.8x, 1.0x, 1.2x, 1.4x	1600	0,-2.5,-3.5,-4.5	84-LFBGA (NB84)
PI2EQX4432D	2-lane 4-channel redriving equalizer with flow-through pinout	PCIe 1.0	2.5	2.5, 6.5	1.0x, 1.2x	1300	0, -3.5	48-TQFN (ZD48)
PI2EQX5804C**	5.0 Gbps, 4-lane 8-channel redriving equalizer with pin strap control	PCIe 2.0	5.0	1.2, 1.5, 2.6, 4.3, 5.8, 7.1, 9.0, 12.3	0.5, 0.7, 0.9, 1.0	1000	0, -2.5, -3.5, -4.5, -5.5, -6.5, -7.5, -8.5	100-LBGA (NJ100)
PI2EQX5864C**	5.0 Gbps, 4-lane redriving equalizer with I2C control	PCIe 2.0	5.0	1.2, 1.5, 2.6, 4.3, 5.8, 7.1, 9.0, 12.3	0.5, 0.7, 0.9, 1.0	1000	0, -2.5, -3.5, -4.5, -5.5, -6.5, -7.5, -8.5	56-TQFN (ZF56)

Note
V_{DD}=1.8V for most ReDriver parts listed except for ** (V_{DD}=1.2V)

PCI Express Timing Solutions

- PCIe Clock Generator and Clock Buffer
  - 100-400MHz clock generator/synthesizer for Desktop PC, Mobile PC, and Server Workstation; 100MHz-125MHz PCIe dual output with spread-spectrum control
  - 100-125MHz PCIe Clock Generator for wireless, set-top and networking applications PCIe Clock Buffer
  - 1:4, 1:8 PCIe 100MHz differential HCSL and 1:12, 1:19 PCIe/FBDIMM 100-400MHz differential HCSL Clock Buffer available in PCIe 1.0 and PCIe 2.0
- PCIe Crystal Oscillator & Quartz Crystals
  - SH 3.3V: PCIe 2.0 Clock Oscillator, Ultra-low Jitter
  - 49SMLB 14.3181-20GGC-E & 49SMLB 25.0000-20GGC-E Quartz Crystals

PCI Express® Clock Zero-Delay and Clock Generators

For More Timing Solutions see page 67

Part No.	Function	Jitter	Skew	Speed	I/O	Outputs	Package
PI6C20400S	PCIe 2.0 Zero-Delay Buffer	50ps	50ps	100MHz	HCSL	4	SSOP (H28)
PI6C20800S	PCIe 2.0 Zero-Delay Buffer	50ps	50ps	100MHz	HCSL	8	TSSOP (A48), SSOP (V48)
PI6C20400	Zero-Delay Buffer	50ps	50ps	100MHz	HCSL	4	SSOP (H28), TSSOP (L28)
PI6C20800	Zero-Delay Buffer	50ps	50ps	100MHz	HCSL	8	TSSOP (A48), SSOP (V48)
PI6C21200	Zero-Delay Buffer	50ps	50ps	400MHz	HCSL	12	TSSOP (A56), SSOP (V56)
PI6C21200A*	Zero-Delay Buffer	50ps	100ps	400MHz	HCSL	12	TSSOP (A56)
PI6C410B	Generator	85ps	100ps	400MHz	CMOS/Differential	4+5+7+1+2	SSOP (V56), TSSOP (A56)
PI6C410B-01	Generator	85ps	100ps	400MHz	CMOS/Differential	4+5+7+1+2	TSSOP (A56)
PI6C410BS	Generator	50ps	100ps	400MHz	CMOS/Differential	4+5+7+1+2	TSSOP (A56)
PI6C410M	Generator	85ps	100ps	400MHz	Differential	2+8+1+6+1+1	SSOP (V56), TSSOP (A56)
PI6C500M-03*	Generator	85ps	100ps	400MHz	CMOS/Differential	2+9+4+4+1	TDFN (ZD64)
PI6C557-03	Generator	85ps	100ps	125MHz	CMOS/Differential	2	TSSOP (L16)

* CALL FOR AVAILABILITY

PCI Express® Quartz Crystals

Series	Legacy Part Number	Description	Package	Low Freq.	High Freq.	Features
GC	49S SMD	Metal Can MHz Crystal	HC-49/U Short SMD 4.0mm	3.2	54	Low profile SMD, low cost

PCI Express® Crystal Oscillator

Series	Description	Package	Logic Output	Min Freq (MHz)	Max Freq (MHz)	Features
SH 3.3V	PCIe 2.0 XO, Ultra-low Jitter	7.0 x 5.0mm Ceramic 6 pin	HCSL	100	100	Very low jitter, tight stability

Pericom Bridge Family

Pericom's Bridges are designed into a variety of products including Compact PCI and PCIe systems, PCI add-in cards, network routers, network switches, industrial PC's, and video surveillance systems for a customer base worldwide. Pericom is a member of PCI-SIG®, PICMG®, and ASI SIG. For other PCI Express products, see the PCI Express section in the previous pages.

Pericom offers the following bridge solutions:

- PCI to PCI
- PCI-X to PCI-X
- PCIe to PCI
- PCIe to PCI-X
- PCIe to UART

PCI & PCI-X Bridges allow add-on devices in a system

- Creates a separate secondary bus
- Permits more devices or "loads" to be added to the system
- Allows for more slots for adapter cards in a system
- Allows for multiple devices on a line card or add-in card

Intel Compatible PCI-to-PCI Bridges

- Drop-in replacements for popular Intel 2-port devices
- Extended commercial temperature range (0°C to 85°C)

Enhanced PCI-to-PCI Bridges

- 3-port products feature one primary and two secondary buses
  - Ideal for redundant applications
  - Used for traffic isolation and offer unique peer-to-peer mode.

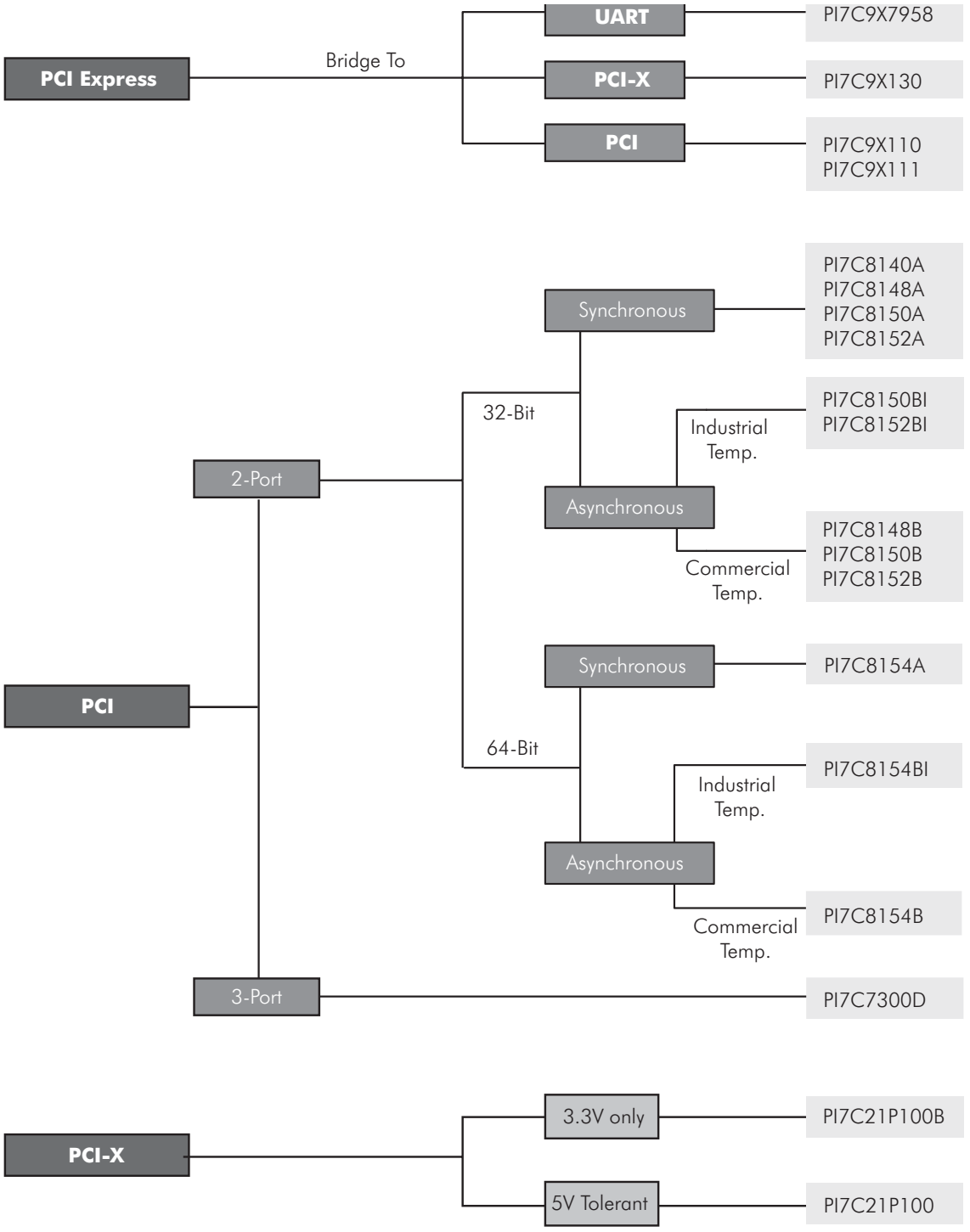
PCI Express® to PCI & PCI-X Reversible Bridge

- Non-transparent mode for both PCI and PCI-X; dual priority modes
  - Supports isochronous data streaming in small footprint, low powerReverse mode option for outstanding reverse mode performance High-output drivers can drive eight PCI devices across connectors or multiple PCI-X loads
- Industrial temperture range (-40°C to 85°C)

PCI Express® to UART

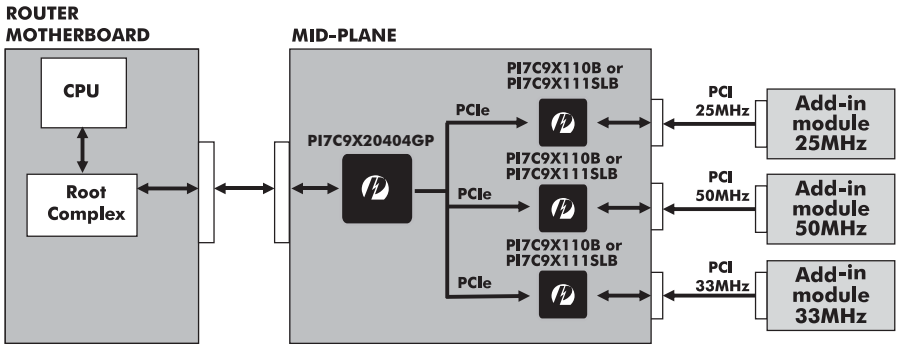
- Industry first for key apps such as POS systems and multiport RS cards
- Supports 2, 4, or 8 high-performance 16C950 UART in a single chip
- Configurable using non-volatile configuration memory (EEPROM)
- PCI Express® Base Specification, Revision 1.1
- Industrial temperture range (-40°C to 85°C)

PCI, PCI-X & PCI Express Decision Tree

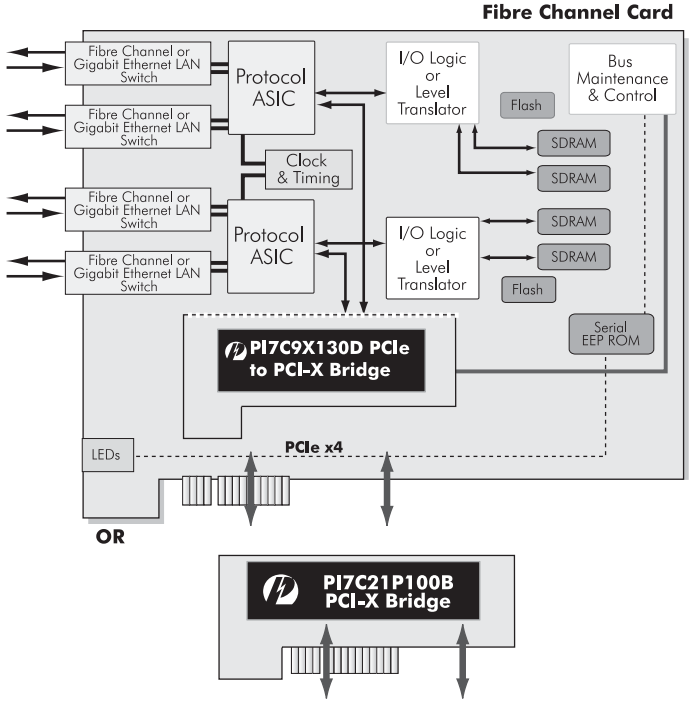


Pericom Bridge Applications

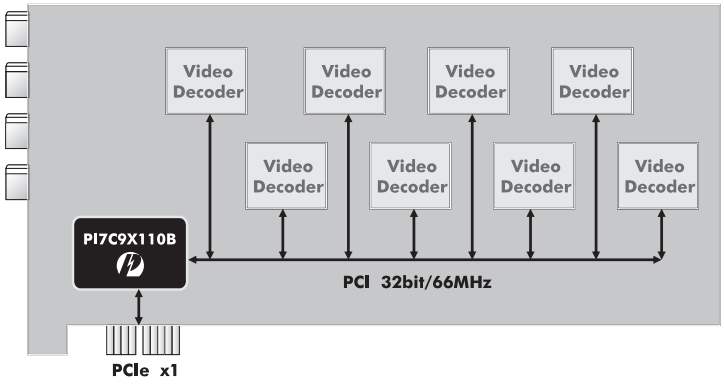
Networking



Storage: Fibre Channel Card



Video



Pericom Bridge Products

PCI™ Bridge Products (available in Pb-free & Green)

Part No.	Description	PCI Speed	PCI Bus Width	Package
PI7C7300A	3-Port PCI to PCI Bridge	66 MHz	32-bit	PBGA (NA272)
PI7C7300D	3-Port PCI to PCI Bridge	66 MHz	32-bit	PBGA (NA272)
PI7C8140A	2-Port PCI to PCI Bridge	66 MHz	32-bit	QFP (MA128)
PI7C8148A	2-Port PCI to PCI Bridge	66 MHz	32-bit	PBGA (NJ160), PBGA (NB160)
PI7C8148B	Asynchronous 2-Port PCI Bridge	66 MHz	32-bit	PBGA (NJ160), PBGA (NB160)
PI7C8150A	2-Port PCI to PCI Bridge	66 MHz	32-bit	PBGA (ND256)
PI7C8150B	Asynchronous 2-Port PCI Bridge	66 MHz	32-bit	FQFP (MA208), PBGA (ND256)
PI7C8150BI	Asynchronous 2-Port PCI Bridge	66 MHz	32-bit	FQFP (MA208), PBGA (ND256)
PI7C8150D*	Asynchronous 2-Port PCI Bridge	66 MHz	32-bit	FQFP (MA208), PBGA (ND256)
PI7C8152A	2-Port PCI to PCI Bridge	66 MHz	32-bit	MQFP (MA160)
PI7C8152B	Asynchronous 2-Port PCI Bridge	66 MHz	32-bit	MQFP (MA160)
PI7C8152BI	Asynchronous 2-Port PCI Bridge	66 MHz	32-bit	MQFP (MA160)
PI7C8154A	2-Port PCI-to-PCI Bridge	66 MHz	64-bit	PBGA (NA304)
PI7C8154B	Asynchronous 2-Port PCI Bridge	66 MHz	64-bit	PBGA (NA304)
PI7C8154BI	Asynchronous 2-Port PCI Bridge	66 MHz	64-bit	PBGA (NA304)

PCI Express® & PCI-X™ Bridges (available in Pb-free & Green)

Part No.	Description	PCI Speed	PCI Bus Width	Ports	Lanes	Package
PI7C9X110	PCIe to PCI Reversible Bridge	66 MHz	32-bit	1 PCI	1	LFBGA (NB160)
PI7C9X130	PCIe to PCI-X Reversible Bridge	133 MHz	64-bit	1 PCI-X	4	PBGA (ND256)
PI7C9X111SL	SlimLine™ PCIe to PCI Reversible Bridge	66 MHz	32-bit	1 PCI	1	QFP (FD128)
PI7C9X112SL	SlimLine™ PCIe-to-PCI Reversible Bridge	66 MHz	32-bit	1 PCI	1	LQFP (FD128)
PI7C9X7952	PCI Express Dual UART I/O Bridge	-	-	2 UART	1	FD (FD128)
PI7C9X7954	PCI Express Quad UART I/O Bridge	-	-	4 UART	1	FD (FD128)
PI7C9X7958	PCI Express Octal UART I/O Bridge	-	-	8 UART	1	NB (NB160)
PI7C21P100	2-Port PCI-X to PCI-X Bridge	133 MHz	64-bit	2	n/a	CSBGA (NH304)
PI7C21P100B	2-Port PCI-X to PCI-X Bridge	133 MHz	64-bit	2	n/a	CSBGA (NH304)

Switch Overview

High-speed signal routing is Pericom's focus within the Silicon Switch™ product family. Our patented Charge Pump technology provides the highest signal integrity and achieves the most efficient and clear signal routing for data rates up to 5.0 Gbps.

Pericom is a member of PCI-SIG®, HDMI™, USB.org, and VESA®. Pericom's PCI-Express® 1.0 & 2.0, HDMI, DVI, DisplayPort™, LVDS, USB 2.0, and SATA2/SAS switches have all been designed with the application clearly in mind. Customers that design for digital television, set-top box, notebook PC and desktop PC applications benefit from our breadth of knowledge and design technology in routing high-speed signals across PCB or cables.

Application Specific Switches

- PCI Express® signal switches to 5.0Gbps
- Video multiplexing for high-speed video systems (HDMI, DVI, DP, VGA, S-Video, CVBS)
- Differential switches for wide-bandwidth USB 2.0 applications (High-speed & Full-speed)
- LAN multiplexing 10/100 and gigabit Ethernet
- Differential Boardband switches for SATA2, SAS, XAUI to 3.2Gbps

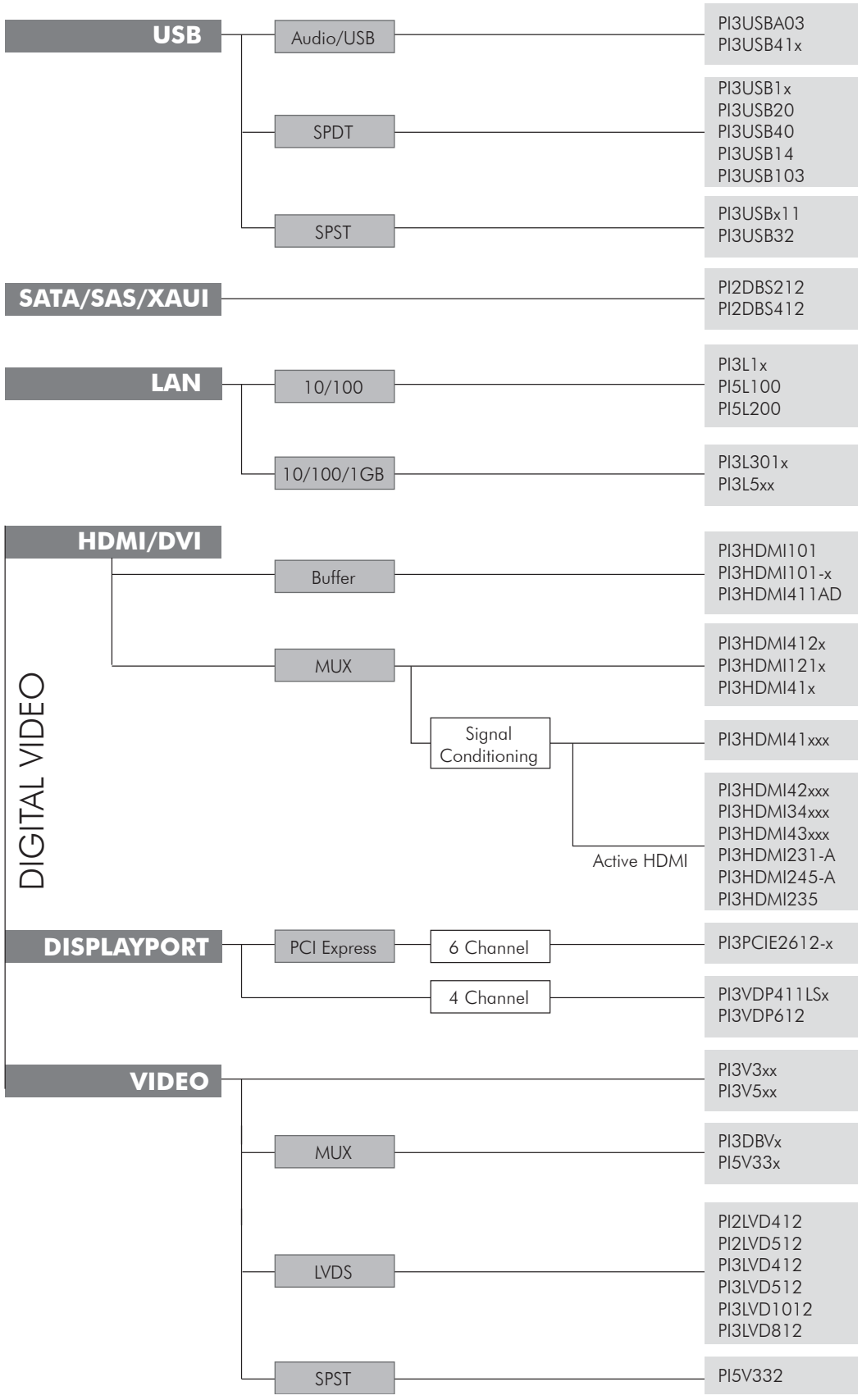
Analog Switch Features

- Low noise in 1.8V - 17V
- 50 functions offered in SPST, SPDT, and Mux
- Low voltage & low on-resistance combinations

Digital Bus Switch Features

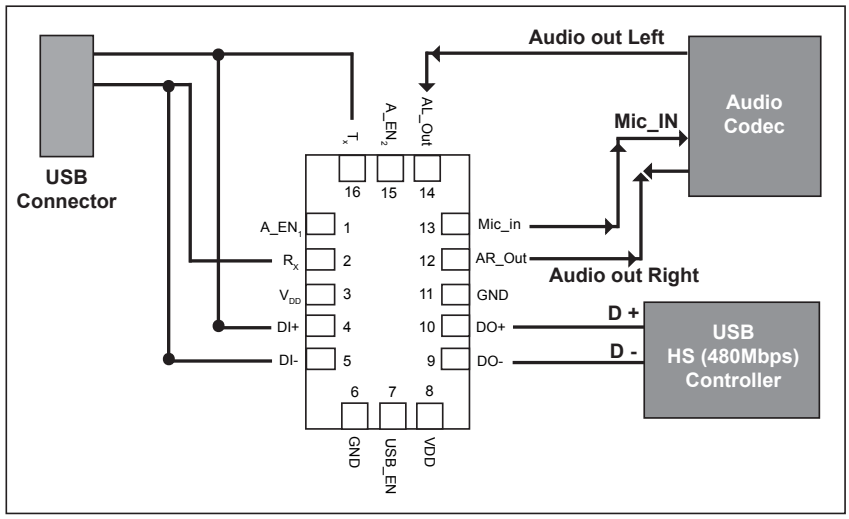
- Offering a combination of mux ratios & wide buses
- 5V/3V or 3V/2.5V translation
- Hot-docking/hot-plugging
- Bus and load isolation
- Resistor termination switches
- Motherboard memory expansion and DDR isolation

Application Specific Switch Decision Tree

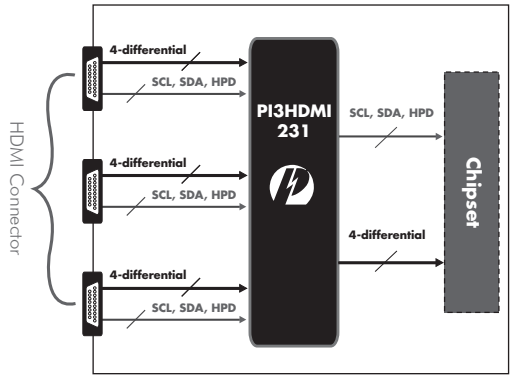


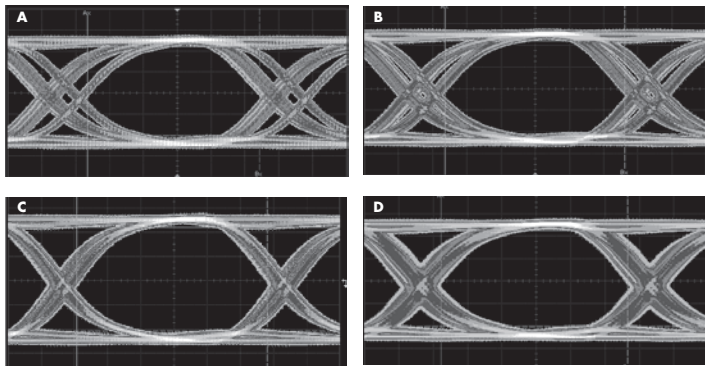
Application Specific Switch Application Examples

USB 2.0 High-speed Signal Routing Solution for Mobile Handset



HDMI Switch 3:1 DTV Application





HDMI rev 1.3 signal with 36-bit color depth measured with TX eye template

- **1 meter input cable shown A, 2 meter input cable shown B**
- **20 meter input cable shown C, and 25 meter input cable shown D**

HDMI/DVI Video Switches

Part No.	Description	Configuration	Package
PI3HDMI101	HDMI/DVI buffer + I2C buffer for source applications	4-differential channel 1:1 with DDC 1:1 path	TQFN (ZH42)
PI3HDMI101-A	HDMI/DVI buffer + I2C buffer w/ Rx Term support for receiver applications	4-differential channel 1:1 with DDC 1:1 path	TQFN (ZH42)
PI3HDMI101-B	HDMI/DVI buffer + I2C buffer w/ auto-Rx Term support for receiver applications	4-differential channel 1:1 with DDC 1:1 path	TQFN (ZH42)
PI3HDMI1210-A	Non-Equalized 2:1 switch w/ advanced technology (5.4Gbps BW) & Rx Term Support	Mux: 4 Differential Channel, 2:1 + 2single channel 2:1 switch	BQSOP (B48)
PI3HDMI1212-A	Non-Equalized 2:1 switch w/ advanced technology (5.4Gbps BW) & Rx Term Support	Mux: 4 Differential Channel, 2:1 + 4single channel 2:1 switch	BQSOP (B80)
PI3HDMI201	2:1 HDMI/DVI switch with ActiveEye™	4-differential channel 2:1 + DDC/HPD 2:1	TQFN (ZF56)
PI3HDMI231-A	3:1 HDMI/DVI switch with ActiveEye™ and squelch	4-differential channel 3:1 + DDC/HPD 3:1	TQFN (ZF56)
PI3HDMI301	3:1 HDMI/DVI switch with ActiveEye™	4-differential channel 3:1 + DDC/HPD 3:1	TQFN (ZL64), LQFP(FF80)
PI3HDMI341ART	3:1 Active HDMI switch with side band signals for sink w/equalization, pre-emphasis, and de-emphasis , 12KV HBM ESD, operating at 2.5Gbps, with deep colorTM support up to 36bits/link	Mux: 4 Differential Channel, 3:1 + switching support for 3 side band signals	LQFP (FF80)
PI3HDMI411AD	HDMI 1:1 ReDriver w/ equalization, pre-emphasis, and de-emphasis & 10kV HBM ESD protection, operating at HDMI Rev. 1.3 spec at 2.5Gbps offering 8-bit, 10-bit & 12-bit deep color resolution.	4-differential channel ReDriver	TQFN (ZB56)
PI3HDMI412AD	1:2 Active HDMI switch for source w/equalization, pre-emphasis, and de-emphasis with 10KV ESD, operating up to 2.5Gbps	Mux: 4 Differential Channel, 1:2	TQFN (ZB56)
PI3HDMI412-B	4 Differential Channel 2:1, 3.3V DVI/HDMI Mux/DeMux	Mux: 4 Differential Channel, 2:1	TSSOP (A48)
PI3HDMI412FT-A	Non-Equalized 2:1 switch w/ advanced technology & integrated 200 Ω pullups + integrated 8kV contact ESD	Mux: 4 Differential Channel, 2:1	TQFN (ZH42), BQSOP (B48)
PI3HDMI412FT-B	1:2 HDMI demux for source applications with 5.4Gbps BW	4-differential 1:2	TQFN (ZH42), BQSOP (B48)
PI3HDMI414	Non-Equalized 4:1 switch w/ advanced technology & integrated 200 Ω pullups + integrated 8kV contact ESD	Mux: 4 Differential Channel, 4:1	BQSOP (B80)
PI3HDMI1310	3:1 non-EQ blocking HDMI switch	4-differential 3:1 + 3 side band	TQFN (ZL72)
PI3HDMI245-A	4:1 HDMI switch with ActiveEye™	4-differential 3:1 + 3 side band	TQFN (ZL72)

Application Specific Switch - Video Switches

DisplayPort Video Switches

For All PCI Express Solutions see page 20

Part No.	Description	Configuration	Package
PI3VDP411LS	Dual Mode DisplayPort to DVI/HDMI Translator	4-differential channel 1:1 with DDC/HPD 1:1 path	TQFN (ZD48)
PI3VDP411LST	Dual Mode DisplayPort to DVI/HDMI Translator with HPD inverting buffer	4-differential channel 1:1 with DDC/HPD 1:1 path	TQFN (ZD48)
PI3PCIE2612-A	3.3V PCI Express 2.0 / DisplayPort	6-Channel Differential 2:1 Mux/Demux, ATX Pinout	TQFN (ZF56)
PI3PCIE2612-B	3.3V PCI Express 2.0 / DisplayPort	6-Channel Differential 2:1 Mux/Demux, BTX Pinout	TQFN (ZF56)
PI3VDP612	DisplayPort Signal Switch (1:2 or 2:1)	2:1/1:2 for Main Link, AUX, and HPD	TQFN (ZF56)
PI3VDP101LS	Dual Mode DisplayPort to HDMI Level Shifter with integrated I2C ID for HDMI detection	4-differential channel 1:1	TQFN (ZH42), TQFN (ZD48)

Other Video Switches

Part No.	Description	Configuration	Package
PI2LVD412	4-Differential Channel for LVDS signals	Mux: 4 Differential Channel, 2:1	TQFN (ZH42)
PI2LVD512	5-Differential Channel 2:1 Mux/DeMux for LVDS signals	Mux: 5 Differential Channel, 2:1	TSSOP (A56)
PI3DBV10	3.3V Wide Bandwidth, 1-Channel w/ Single Enable	Mux: 1-Channel, 2:1	TDFN (ZE12)
PI3DBV40	3.3V Wide Bandwidth, 4-Channel w/ Single Enable	Mux: 4-Channel, 2:1	TSSOP (A48)
PI3V314-A	3-channel w/ high ESD	3-channel 4:1	BQSOP (B40)
PI3V341	3-channel 4:1 Mux/Demux	3-channel 4:1	TSSOP (L) and QSOP (Q)
PI3V341-A	3-channel w/ high ESD	3-channel 4:1	TSSOP (L) and QSOP (Q)
PI3V514-A	5-channel w/ high ESD	5-channel 4:1	BQSOP (B)
PI5V330	Wideband Video Mux/Demux	Mux: Quad 2-Channel	QSOP (Q16)
PI5V330A	Wideband Video Mux/Demux (400 MHz)	Mux: Quad 2-Channel	QSOP (Q16), SOIC (W16)
PI5V330S	Wideband Mux/Demux w/ Enhanced ESD protection	Mux: Quad 2-Channel	QSOP (Q16), SOIC (W16)
PI5V331	Wideband Video Mux/Demux	Mux: Dual 4-Channel	QSOP (Q16), SOIC (W16)
PI3LVD1012	10-Differential Channel 2:1 Mux/DeMux for LVDS signals	Mux: 10 Differential Channel, 2:1	BQSOP (B80)
PI3LVD412	4-Differential Channel 2:1 Mux/DeMux for LVDS signals	Mux: 4 Differential Channel, 2:1	TQFN (ZH42)
PI3LVD512	5-Differential Channel 2:1 Mux/DeMux for LVDS signals	Mux: 5 Differential Channel, 2:1	TQFN (ZF56)
PI3LVD812	8-Differential Channel 2:1 Mux/DeMux for LVDS signals	Mux: 8 Differential Channel, 2:1	DR TQFN
PI3V312	3-Channel, 3.3V Video Switch	4-port 2:1	QSOP (Q16), TSSOP (L16), TQFN (20ZH)
PI3V314	3-Channel, 3.3V Video Switch	3-Channel, 4:1	BQSOP (B40)
PI3V512	5-Channel, 3.3V Video Switch	5-Channel, 2:1	QSOP (Q24)
PI3V514	5-Channel, 3.3V, 4:1 Video Switch	5-Channel, 4:1	BQSOP (B48)
PI3V520	10-channel Analog Video Signal Switch	10-channel 2:1	TQFN (ZF56)
PI5V332	Wideband Video Quad SPST	SPST: Quad	QSOP (Q16), SOIC (W16)

SATA, SAS, XAUI Differential Broadband Switch

Part No.	Description	Channels	Data Rate Gbps	Configuration	Volt.	Package
PI2DBS212	Differential Broadband Switch	2	3.2	2:1 mux/demux	1.8	28-TQFN (ZH28), 20-QSOP (Q20)
PI2DBS412	Differential Broadband Switch	4	3.2	2:1 mux/demux	1.8	TQFN (ZH42)

Application Specific Switch - LAN, USB

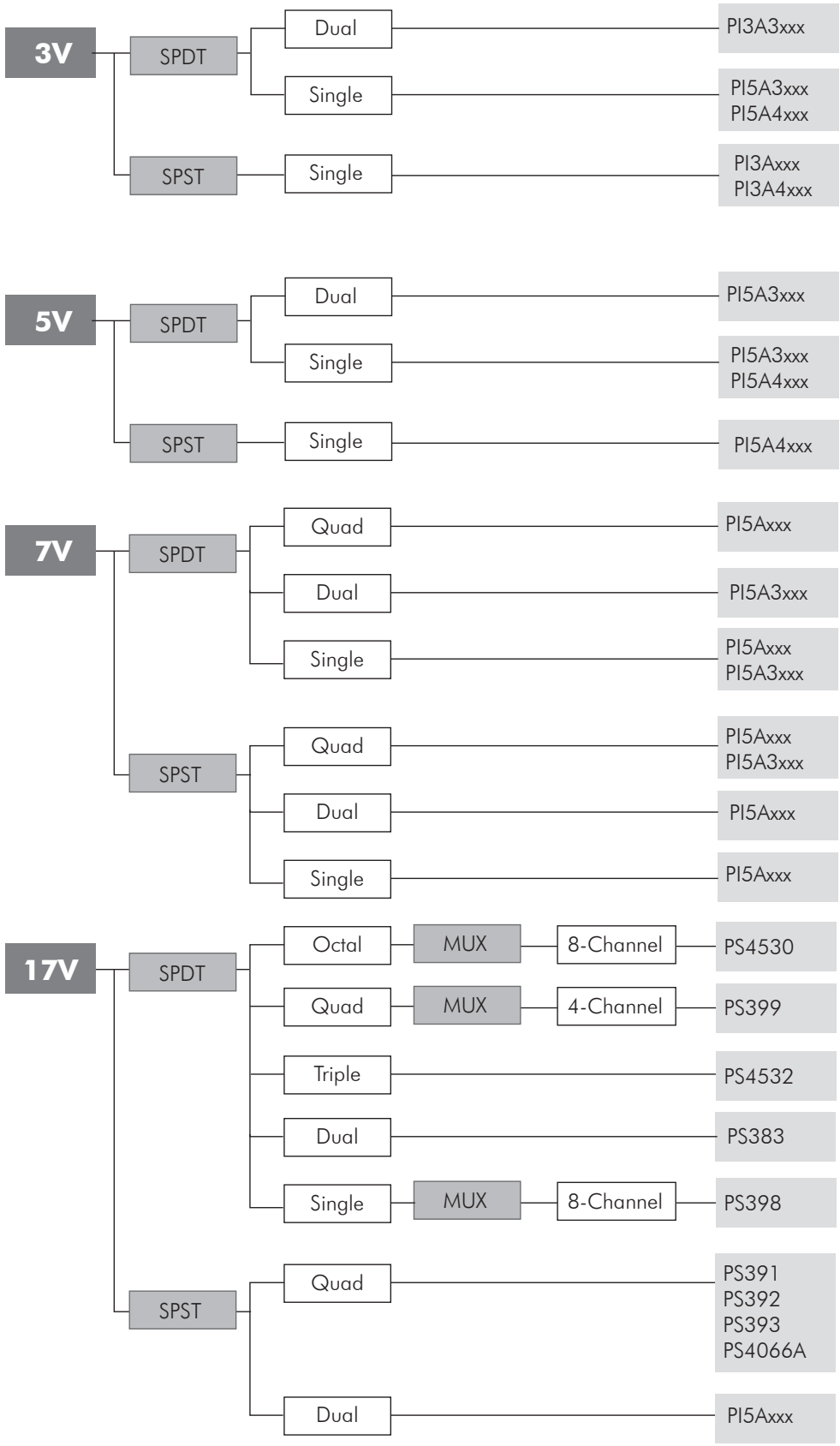
LAN Switch

Part No.	Description	Data Rate	Mux/ demux	LED Switch	Enable	Voltage	ESD	Package
PI3L100	Ethernet LAN switch	10/100	4:8	0	Yes	3.3	2KV	16-QSOP (Q16), 16-TSSOP (L16)
PI3L110	Ethernet LAN switch	10/100	4:8	0	Yes	3.3	2KV	16-QSOP (Q16), 16-TSSOP (L16)
PI3L301D	Gigabit Ethernet LAN switch	10/100/1G	8:16	0	No	3.3	2KV	48-TSSOP (A48), 48-TVSOP (K48)
PI3L301D-A	Gigabit Ethernet LAN switch	10/100/1G	8:16	0	No	3.3	12KV	48-TSSOP (A48)
PI3L500-A	Gigabit Ethernet LAN switch	10/100/1G	8:16	3	No	3.3	12KV	56-TQFN (ZF56)
PI3L510	Gigabit Ethernet LAN switch	10/100	4:8	3	No	3.3	3KV	36-TQFN (ZF36)
PI5L100	Ethernet LAN switch	10/100	4:8	0	Yes	6.2	2KV	16-SOIC (W16), 16-QSOP (Q16), 20-TSSOP (L20)
PI5L200	Ethernet LAN switch	10/100	4:8	0	Yes	3.3-5.0	2KV	16-SOIC (W16), 16-QSOP (Q16), 16-TSSOP (L16)

USB Switch

Part No.	Description	Configuration	Package
PI3USB10	3.3V, Wide Bandwidth, 2-Channel, 2:1 Mux/Demux USB 2.0 Switch	Mux: 2-Channel, 2:1	TDFN (ZE12)
PI3USB102	Dual SPDT for USB 2.0 HS compliance and flow through pinout	1-differential channel 2:1	TQFN (ZL10 and ZM10)
PI3USB10LP-A	Dual SPDT for USB 2.0 HS compliance with 8kV ESD protection	1-differential channel 2:1	TQFN (ZL10 and ZM10)
PI3USB10M	Dual SPDT for USB 2.0 HS compliance with charge-pump	1-differential channel 2:1	TQFN (ZK12 and ZE12)
PI3USB14	3.3V, 4-Channel, 4:1 Mux USB 2.0 Switch	Mux: 4-Channel, 4:1	TSSOP (L16), QSOP (Q16), TQFN (ZH20)
PI3USB20	3.3V, Wide Bandwidth, 4-Channel, 2:1 Mux/Demux USB 2.0 Switch	Mux: 4-Channel, 2:1	TSSOP (L16)
PI3USB2117	Dual SPST for USB High Speed signals NC	Dual SPST	TQFN (ZL10)
PI3USB40	3.3V, Wide Bandwidth, 8-Channel, 2:1 Mux/Demux USB 2.0 Switch	Mux: 8-Channel, 2:1	TSSOP (A48)
PI3USB411	2 channels for high-speed USB, 2 channels for low THD audio	Quad SPST	TDFN (ZJ16)
PI3USB412	Dual SPST for High Speed USB and dual SPDT for low THD audio	Dual SPST + Dual SPDT	TDFN (ZJ16)
PI3USBA03	Audio R, Audio L, mic in, and USB high speed to 2 pin encoder/decoder	EMU configuration	TQFN (ZN16)
PI3USB11	Dual SPST USB 2.0 Switch	2 channel SPST	TQFN (ZL10), UQFN (ZM10)
PI3USB32	Dual SPST USB 2.0 Switch with back drive support	2 channel SPST	TLLGA (XA8)
PI3USB103	Dual SPST USB 2.0 Switch with back drive support and MHL switching support	2 channel SPDT	TQFN (ZL10), UQFN (ZM10)

Analog Switch Decision Tree



Analog Switch - 3V, 5V & 7V

3V Analog Switch

Part No.	Description	Single Supply Op.	Package
PI3A125	SOTiny Low-Voltage, 8-Ω Single Analog / Bus Switch	Yes: 3V	SC70 (C5), SOT23 (T5)
PI3A212	Dual SPDT	Yes: 2.7V to 4.2V+/-10%	TQFN (ZL10)
PI3A212S	Dual SPDT with shunt switch	Yes: 2.7V to 4.2V+/-10%	TQFN (ZL10)
PI3A3159	3.0V, SOTiny, 0.4-Ω SPDT Analog Switch	Yes: 3V	SOT23 (T6), TDFN (ZC6)
PI3A3160	3.0V, SOTiny, 0.4-Ω Dual SPDT Analog Switch	Yes: 3V	TDFN (ZE12), TDFN (ZG12)
PI3A3160C	3.0V, SOTiny, 0.8-Ωs Dual SPDT with -1.0V to 3.3V Op. Range	Yes: 2.25V to 3.6V	TDFN (ZE12)
PI3A412	Quad SPDT	Yes: 2.7V to 4.2V+/-10%	TQFN-16 (ZL16), TQFN-16 (ZH16)
PI3A412E	Quad SPDT w/ global enable	Yes: 2.7V to 4.2V+/-10%	TQFN-16 (ZL16), TQFN-16 (ZH16)
PI3A4626	3.0V, SOTiny, 0.4-Ω, SPST Analog Switch	Yes: 3V	SOT23 (T5), TDFN (ZC6)

5V Analog Switch

Part No.	Description	Single Supply Op.	Package
PI5A3157	SOTiny Single SPDT Mux/DeMux Switch	Yes: 1.65 to 5.5V	SC70 (C6), TDFN (ZA6)
PI5A3158	SOTiny Dual SPDT Mux/DeMux Switch	Yes: 1.65 to 5.5V	TDFN (ZA12)
PI5A3159	SOTiny 1-Ω, Low-Voltage, SPDT Analog Switch (3157 Pinout)	Yes: 1.8 to 5.5V	SOT23 (T6), TDFN (ZC6)
PI5A4594A	SOTiny Low-Voltage, Single-Supply, 8-Ω SPST CMOS Analog Switches	Yes: 1.65 to 5.5V	SC70 (C5)
PI5A4595A	SOTiny Low-Voltage, Single-Supply, 8-Ω SPST CMOS Analog Switches	Yes: 1.65 to 5.5V	SC70 (C5)
PI5A4596A	SOTiny Single 8-Ω SPST Switch (high isolation / flow through pinout)	Yes: 1.65 to 5.5V	SC70 (C5)
PI5A4599A	SOTiny Single SPDT Mux/DeMux Switch	Yes: 2V to 5.5V	SC70 (C6), SOT23 (T6)
PI5A4624	SOTiny 1-Ω, Low-Voltage, Single-Supply SPDT Switch (Break-Before-Make)	Yes: 1.8 to 5.5V	SOT23 (T6)
PI5A4626	SOTiny 1-Ω, Low-Voltage, Single-Supply SPST Switch	Yes: 1.8 to 5.5V	SOT23 (T5)

7V Analog Switch

Part No.	Description	Single Supply Op.	Package
PI5A100	Single Supply, High Speed, Quad SPDT CMOS Analog Switch w/Master Enable	Yes: 2V to 6V	QSOP (Q16), SOIC (W16)
PI5A121	High Speed SPST Analog Switch w/Compact Packages	Yes: 2V to 6V	SC70 (C5), SOT23 (T5)
PI5A122	High Speed SPST Analog Switch w/Compact Packages	Yes: 2V to 6V	SC70 (C5), SOT23 (T5)
PI5A124	High Speed SPDT Analog Switch w/Compact Packages	Yes: 2V to 6V	SOT23 (T6)
PI5A127	High Speed Dual SPST Analog Switch	Yes: 2V to 6V	MSOP (U8), SOIC (W8)
PI5A383A	High Speed, Single Supply Dual SPDT Switch	Yes: 2V to 6V	QSOP (Q16)
PI5A391A	7V Quad SPST	Yes: 2V to 6V	QSOP (Q16), SOIC (W16)
PI5A392A	7V Quad SPST	Yes: 2V to 6V	QSOP (Q16), SOIC (W16)

Analog Switch - 17V

17V Analog Switch

Part No.	Description	Single Supply Op.	Package
PS323	Single Supply, Dual SPST Switch	Yes: 2.5V to 16V	SOIC (W8)
PS383	Single/Dual Supply, Dual SPDT Switch	Yes: 3V to 15V	SOIC (W16)
PS391	Single/Dual Supply, Quad SPST Switch	Yes: 3V to 15V	QSOP (Q16), SOIC (W16)
PS392	Single/Dual Supply, Quad SPST Switch	Yes: 3V to 15V	QSOP (Q16), SOIC (W16)
PS393	Single/Dual Supply, Quad SPST Switch	Yes: 3V to 15V	SOIC (W16)
PS398	8-Channel Mux	Yes: 3V to 15V	SOIC (W16)
PS399	4-Channel Differential Mux	Yes: 3V to 15V	SOIC (W16)
PS4066A	Low Cost, Precision Quad SPST Switch	Yes: 3V to 16V	SOIC (W14)
PS4530	17V Latched 8-Ch., Mux	Yes: 3V to 12V	SOIC (S20)
PS4532	17V Latched Triple SPDT	Yes: 3V to 12V	SOIC (S20)

Digital Bus Switch - Function Index

Family	5C	3B	3C	3CH
Voltage, V	5	3.3	2.5 / 3.3	2.5 / 3.3
Switch technology	NMOS	CMOS	NMOS (1)	NMOS (1)
Hot-swap	Yes	No	Yes	Yes
Full I/O voltage swing, 0V to Vdd	No	Yes	Yes	Yes
Bandwidth-typical, MHz (3)	100	100	400	500
2-Port Bus Switch	**5C**	**3B**	**3C**	**3CH**
1-bit, with active low enable	PI5C3301			
2-bit, with individual active high enables	PI5C3305		PI3C3305	
2-bit, with individual active low enables	PI5C3306		PI3C3306	PI3CH200
4-bit, with individual active low enables	PI5C3125	PI3B3125	PI3C3125	PI3CH400
4-bit, with individual active high enables	PI5C3126	PI3B3126	PI3C3126	PI3CH401
8-bit (8x1)	PI5C3245	PI3B3245		PI3CH800
8-bit (4x2)	PI5C3244	PI5C3244		
10-bit (10x1)	PI5C3861	PI3B3861	PI3C3861-A	PI3CH1010
10-bit (5x2)	PI5C3384	PI3B3384	PI3C3384	PI3CH1000
10-bit, with precharged outputs	PI5C6800			
10-bit, with precharged outputs and undershoot protection	PI5C6800C			
16-bit, (4x4), FCT pinout	PI5C16244	PI3B16244		
16-bit (8x2), FCT pinout	PI5C16245	PI3B16245		
16 Bit (8x2)	PI5C32X245	PI3B32X245		
16 Bit (8x2), with 25-Ω series resistor	PI5C32X2245			
20-bit (10x2)	PI5C16210			
20-bit (10x2) with flow-through pinout	PI5C16861			
20-bit (10x2), with 25-Ω series resistor	PI5C162861			
20-bit (10x2) with -1V undershoot protection	PI5C16862C			
20-bit (5x4)	PI5C32X384	PI3B32X384		
24-bit (12x2)	PI5C16211			
32 Bit (8x4)	PI5C34X245	PI3B34X245		
Exchange and Miscellaneous Bus Switch	**5C**	**3B**	**3C**	**3CH**
5-bit, 4-port exchange switch	PI5C3383			
6-bit, 3-port exchange switch	PI5C3401			
18-bit bus exchange switch		PI3B16209		
24-bit bus exchange switch	PI5C16212			
Multiplexer / Demultiplexer	**5C**	**3B**	**3C**	**3CH**
2:1 mux/demux, single	PI5C3303			
2:1 mux/demux, triple				PI3CH360
2:1 mux/demux, quad	PI5C3257	PI3B3257		PI3CH480
3:1 mux/demux, single	PI5C3309			
4:1 mux/demux, dual	PI5C3253	PI3B3253		PI3CH281
8:1 mux/demux	PI5C3251	PI3B3251		
8:16 mux/demux	PI5C3390			
12:24 mux/demux, low-capacitance and precharged		PI3B16226		
12:24 mux w. 500-Ω pulldown		PI3B16292		
12:24 mux/demux (3x 4:8)	PI5C33X257	PI3B33X257		
16:32 mux/demux, synchronous		PI3B16232		
16:32 mux/demux (2x 8:16)		PI3B16233		
16:32 mux/demux, with pull-down		PI3B16234		
16:32 mux/demux, PCI hot-plug w/ pullups -1.5V undershoot protection	PI5C32160C			
17:34 mux/demux for PCI hot-plug with -2V undershoot protection	PI5C34171C			
24:48 mux/demux (2x 12:24) w. pulldown		PI3B16248		

Digital Bus Switch

2-Port Bus Switch

Part No.	Description	Voltage	Package
PI3B16244	3.3V 16-Bit Bus Switch (FCT16244 pinout)	3.3V	SSOP (V48), TSSOP (A48)
PI3B16245	3.3V 16-Bit Bus Switch (FCT16245 pinout)	3.3V	SSOP (V48), TSSOP (A48)
PI3B3125	3.3V 4-Bit Bus Switch with individual enable (active low)	3.3V	QSOP (Q16), SOIC (W14), TSSOP (L14), TDFN (ZJ16)
PI3B3126	3.3V 4-Bit Bus Switch with individual enable (active high)	3.3V	QSOP (Q16), SOIC (W14), TSSOP (L14)
PI3B3244	3.3V 8-Bit Bus Switch (FCT244 pinout)	3.3V	QSOP (Q20), TSSOP (L20)
PI3B3245	3.3V 8-Bit Bus Switch (FCT245 pinout)	3.3V	QSOP (Q20), SOIC (S20), TSSOP (L20)
PI3B32X245	3.3V 16-Bit Bus Switch	3.3V	BQSOP (B40)
PI3B32X384	3.3V 20-Bit Bus Switch	3.3V	BQSOP (B48)
PI3B3384	3.3V 10-Bit Bus Switch	3.3V	QSOP (Q24),
PI3B34X245	3.3V 32-Bit Bus Switch	3.3V	BQSOP (B80)
PI3B3861	3.3V 10-Bit Bus Switch (FCT861)	3.3V	QSOP (Q24), TSSOP (L24)
PI3C3125	2.5V/3.3V, High-Bandwidth, 4-Bit, w/Individual Enables	2.5V / 3.3V	QSOP (Q16), SOIC (W14), TSSOP (L14), TDFN (ZJ16)
PI3C3126	2.5V/3.3V, High-Bandwidth, 4-Bit, w/High Enables	2.5V / 3.3V	QSOP (Q16), SOIC (W14), TSSOP (L14)
PI3C3305	2.5V/3.3V, High-Bandwidth, 2-Bit, w/ Individual High Enables	2.5V / 3.3V	MSOP (U8), TSSOP (L8)
PI3C3306	2.5V/3.3V, High-Bandwidth, 2-Bit, w/ Individual Low Enables	2.5V / 3.3V	MSOP (U8), TSSOP (L8)
PI3C3861-A	2.5V/3.3V, High-Bandwidth, 10-Bit (FCT861 pinout)	2.5V / 3.3V	QSOP (Q24), TSSOP (L24)
PI3CH1000	Low Voltage, 5-Ω, 10-Channel, 2-Port NanoSwitch	2.5V / 3.3V	QSOP (Q24), TSSOP (L24)
PI3CH1010	Low Voltage, 5-Ω, 2-Channel, 2-Port NanoSwitch	2.5V / 3.3V	QSOP (Q24), TSSOP (L24)
PI3CH200	Low Voltage, 5-Ω, 2-Channel, 2-Port NanoSwitch	2.5V / 3.3V	TSSOP (L8)
PI3CH400	Low Voltage, 5-Ω, 4-Channel, 2-Port NanoSwitch	2.5V / 3.3V	QSOP (Q16), TSSOP (L16)
PI3CH401	Low-voltage, 4-channel, 5-Ω, 2-Port NanoSwitch	2.5V / 3.3V	QSOP (Q16), TSSOP (L16), TQFN (ZH20)
PI3CH800	Low Voltage, 5-Ω, 8-Channel, 2-Port NanoSwitch	2.5V / 3.3V	QSOP (Q20), TSSOP (L20)
PI5C16210	20-Bit Bus Switch	5V	BQSOP (B48), SSOP (V48), TSSOP (A48), TVSOP (K48)
PI5C16211	24-Bit Bus Switch	5V	SSOP (V56), TSSOP (A56), TVSOP (K56)
PI5C16244	16-Bit Bus Switch (FCT16244 pinout)	5V	TSSOP (A48)
PI5C16245	16-Bit Bus Switch (FCT16245 pinout)	5V	BQSOP (B48), SSOP (V48), TSSOP (A48)
PI5C162861	20-Bit Flow-through Bus Switch (2 Enables) w/25 Ω resistor	5V	BQSOP (B48), TSSOP (A48)
PI5C16861	20-Bit Flow-through Bus Switch (2 Enables)	5V	BQSOP (B48), SSOP (V48), TSSOP (A48)
PI5C16862C	20-Bit Flow-through w/undershoot protection (4 Enables)	5V	BQSOP (B48), TSSOP (A48)
PI5C3125	4-Bit Bus Switch w/Individual Low Enables	5V	SOIC (W14), TSSOP (L14), QSOP(Q16)

continued next page →

2-Port Bus Switch (continued)

Part No.	Description	Voltage	Package
PI5C3126	4-Bit Bus Switch w/Individual high enables	5V	QSOP (Q16), SOIC (W14), TSSOP (L14)
PI5C3244	8-Bit Bus Switch Buffers (FCT244 pinout)	5V	QSOP (Q20), SOIC (S20), TSSOP (L20)
PI5C3245	8-Bit, Bus Switch Buffers (FCT245 pinout)	5V	QSOP (Q20), SOIC (S20), TSSOP (L20)
PI5C32X2245	16-Bit Bus Switch w/25 Ω resistor	5V	BQSOP (B40)
PI5C32X245	16-Bit Bus Switch	5V	BQSOP (B40)
PI5C32X384	20-Bit Bus Switch	5V	BQSOP (B48), TSSOP (A48)
PI5C32X384C	20-Bit Bus Switch w/undershoot protection	5V	BQSOP (B48)
PI5C3301	1-Bit Bus Switch	5V	SC70 (C5), SOT23 (T5)
PI5C3305	2-Bit Bus Switch w/individual high enables	5V	MSOP (U8), TSSOP (L8)
PI5C3306	2-Bit Bus Switch w/individual low enables	5V	TSSOP (L8), MSOP (U8)
PI5C3384	10-Bit, Bus Switch	5V	QSOP (Q24), SOIC (S24), TSSOP (L24)
PI5C3384C	10-Bit, Bus Switch w/undershoot protection	5V	QSOP (Q24)
PI5C34X2245	32-Bit Bus Switch w/25 Ω resistor	5V	BQSOP (B80)
PI5C34X245	32-Bit Bus Switch	5V	BQSOP (B80)
PI5C3861	10-Bit Bus Switch	5V	QSOP (Q24)
PI5C6800	10-Bit Bus Switch w/pre-charged o/p (PCI Hot-Plug)	5V	QSOP (Q24), TSSOP (L24)
PI5C6800C	10-Bit Bus Switch w/pre-charged o/p + undershoot protection (PCI Hot-Plug)	5V	QSOP (Q24), TSSOP (L24)

Bus Exchange Switch

Part No.	Description	Voltage	Package
PI3B16209	3.3V 18-Bit Bus Exchange Switch	3.3V	TSSOP (A48)
PI5C16212	24-Bit Bus Exchange Switch	5V	SSOP (V56), TSSOP (A56)
PI5C3383	5-Bit, 4-Port Bus Exchange Switch	5V	QSOP (Q24)
PI5C3401	6-Bit, 3-Port Bus Switch	5V	QSOP (Q24), SOIC (S24)

Low Voltage Translator

Part No.	Description	Voltage	Package
PI3VT3306	2-bit, 3.3V to 2.5V / 2.5V to 1.8V, 2-port, Low Voltage Translator Bus Switch	2.5V / 3.3V	MSOP (U8), TSSOP (L8)
PI3VT3245	8-bit, 3.3V to 2.5V / 2.5V to 1.8V, 2-port, Low Voltage Translator Bus Switch	2.5V / 3.3V	QSOP (Q20), TSSOP (L20)
PI3VT32X245	16-bit, 3.3V to 2.5V / 2.5V to 1.8V, 2-port, Low Voltage Translator Bus Switch	2.5V / 3.3V	BQSOP (B40)
PI3VT34X245	32-bit, 3.3V to 2.5V / 2.5V to 1.8V, 2-port, Low Voltage Translator Bus Switch	2.5V / 3.3V	BQSOP (B80)

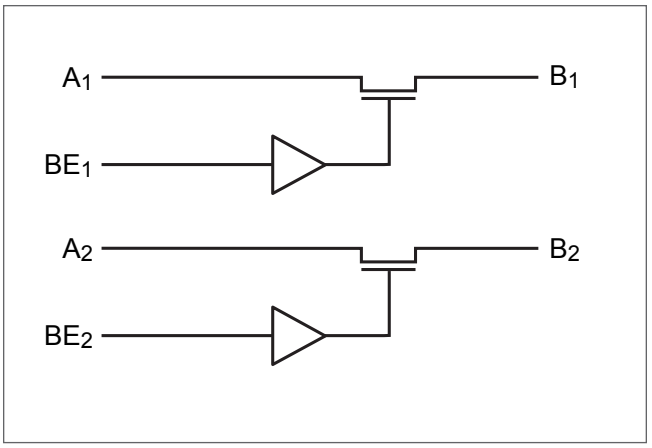
Digital Bus Switch

Mux/DeMux Bus Switch

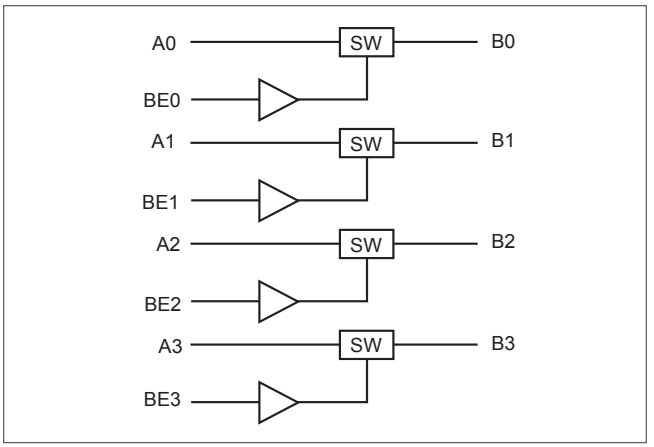
Part No.	Description	Voltage	Package
PI3B16226	3.3V 12:24 Low Capacitance Mux/Demux Bus Switch	3.3V	BQSOP (B40)
PI3B16232	3.3V 16:32 Synch Mux/Demux Bus Switch	3.3V	TSSOP (A56)
PI3B16233	3.3V 16:32 Mux/Demux Bus Switch	3.3V	TSSOP (A56)
PI3B16234	3.3V 32:16 Mux/Demux Low Capacitance Bus Switch	3.3V	TSSOP (A56)
PI3B16248	3.3V 24:48 Mux/Demux Bus Switch	3.3V	BQSOP (B80)
PI3B16292	3.3V 24:12 Mux/Demux Bus Switch	3.3V	TSSOP (A56)
PI3B3251	3.3V 8:1 Multiplexer/Demultiplexer	3.3V	QSOP (Q16), SOIC (W16), TSSOP (L16)
PI3B3253	3.3V Dual 4:1 Multiplexer/Demultiplexer	3.3V	QSOP (Q16), SOIC (W16), TSSOP (L16)
PI3B3257	3.3V Quad 2:1 Multiplexer/Demultiplexer	3.3V	QSOP (Q16), SOIC (W16), TSSOP (L16)
PI3B3257A	3.3V Quad 2:1 Multiplexer/Demultiplexer	3.3V	QSOP (Q16),
PI3B33X257	3.3V 24:12 Mux/Demux Bus Switch	3.3V	BQSOP (B48)
PI3CH281	Low Volt., High-Bandwidth, 2-Channel, 4:1 NanoSwitch w/Single Enable	2.5V / 3.3V	QSOP (Q16), TSSOP (L16)
PI3CH360	Low Voltage, High-Bandwidth, 3-Channel, 2:1 Mux/Demux, NanoSwitch	2.5V / 3.3V	QSOP (Q16), TSSOP (L16)
PI3CH480	Low Voltage, High-Bandwidth, 4-Channel, 2:1 Mux/Demux, NanoSwitch	2.5V / 3.3V	QSOP (Q16), TSSOP (L16)
PI5C32160C	32:16 Mux/Demux Bus Switch (PCI Hot Plug)	5V	TSSOP (A56)
PI5C3251	8:1 Multiplexer/Demultiplexer	5V	QSOP (Q16), SOIC (W16), TSSOP (L16), SOIC (S16)
PI5C3253	Dual 4:1, Multiplexer/Demultiplexer Bus Switch	5V	QSOP (Q16), SOIC (W16), TSSOP (L16), SOIC (S16)
PI5C3253C	Dual 4:1, Mux/Demux Bus Switch w/–2V undershoot protection	5V	TSSOP (L16)
PI5C3257	Quad 2:1, Multiplexer/Demultiplexer Bus Switch	5V	QSOP (Q16), SOIC (W16), TSSOP (L16), SOIC (S16)
PI5C3303	2:1 Mux/Demux Bus Switch	5V	SOT23 (T6)
PI5C3309	3:1 Mux/Demux Bus Switch	5V	MSOP (U8), TSSOP (L8)
PI5C3390	16:8, Multiplexer/Demultiplexer	5V	QSOP (Q28)
PI5C33X257	24:12 Multiplexer/Demultiplexer Bus Switch	5V	BQSOP (B48)
PI5C34171C	34:17 Mux/Demux Bus Switch (PCI Hot Plug) w/Slow enable time	5V	TSSOP (A56)

Digital Bus Switch Block Diagrams

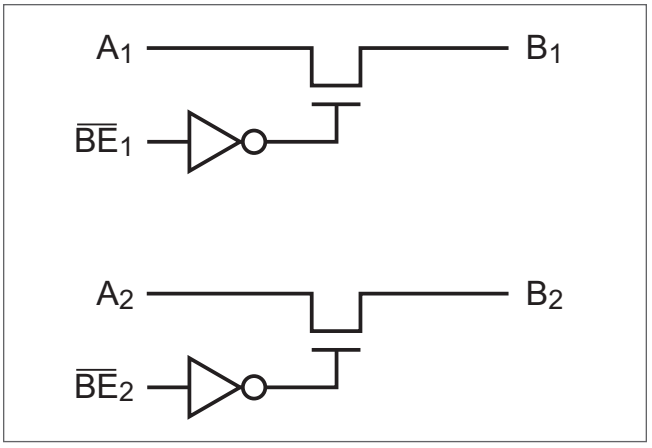
PI5C3305, PI3C3305
2-Bit Bus Switch with Individual Enables



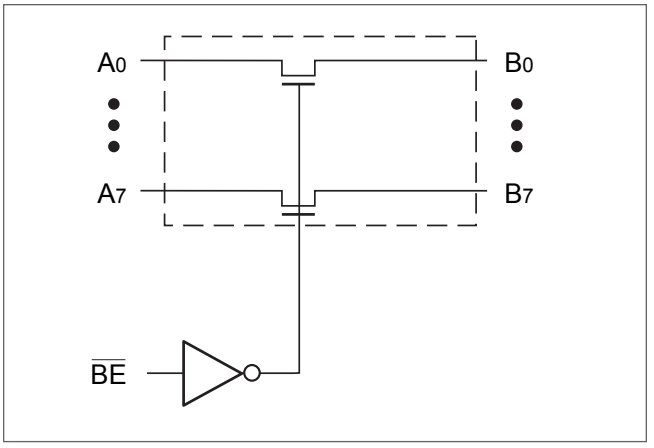
PI5C3126, PI3B3126, PI3C3126
4-Bit Nanoswitch™ w/Individual Enables



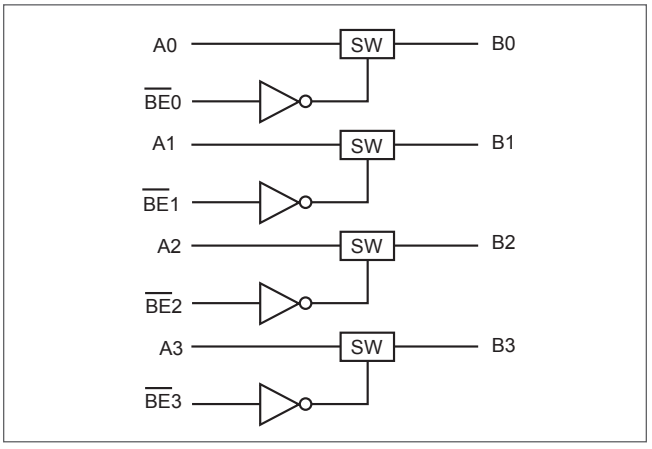
PI5C3306, PI3C3306, PI3CH200
2-Bit Bus Switch with Active Low Enables



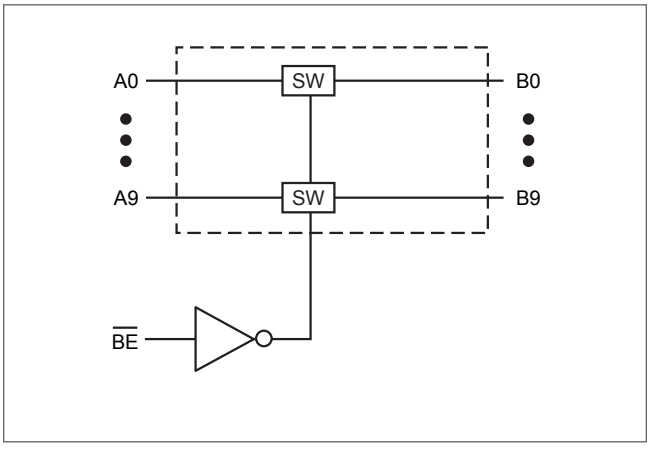
PI5C3245, PI3B3245, PI3CH800
8-Bit 2-Port Bus Switch



PI3B3125, PI3CH400
4-Bit Bus Switch w/Individual Enables

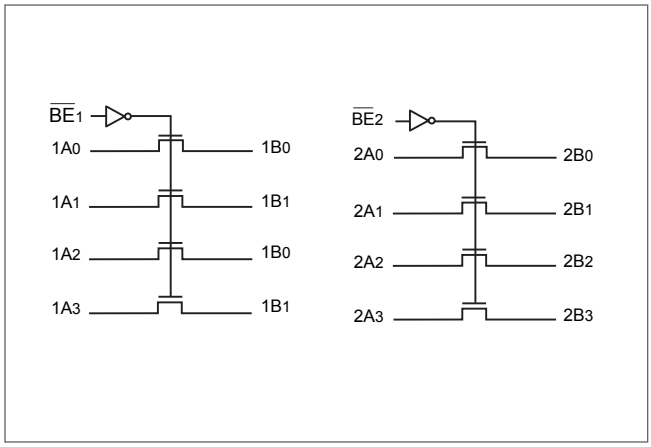


PI5C3861, PI3B3861, PI3C3861-A
10-Bit 2-Port Bus Switch

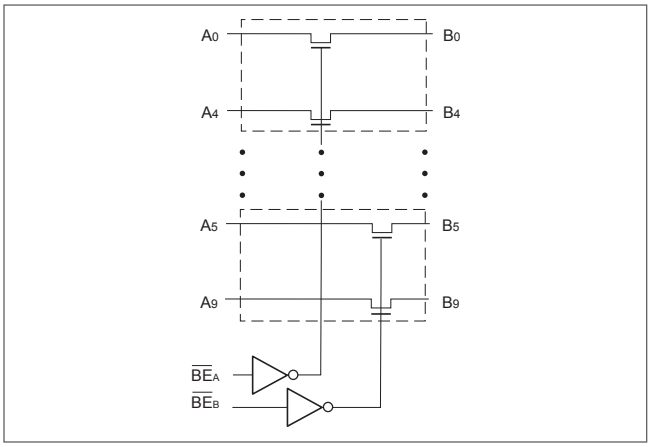


Digital Bus Switch Block Diagrams

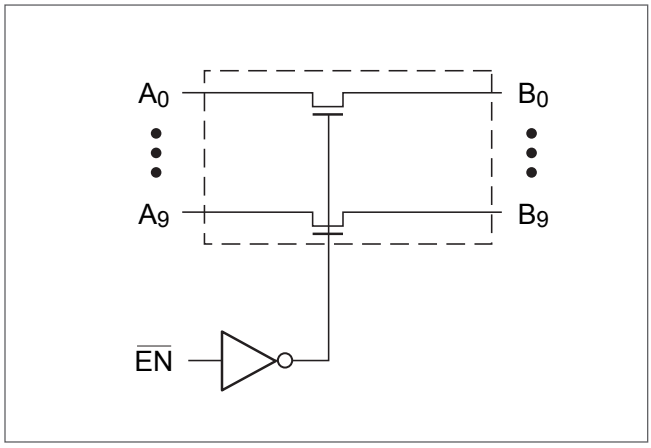
PI5C3244, PI3C3244
2.5V/3.3V 8-Bit 2-Port Bus Switch



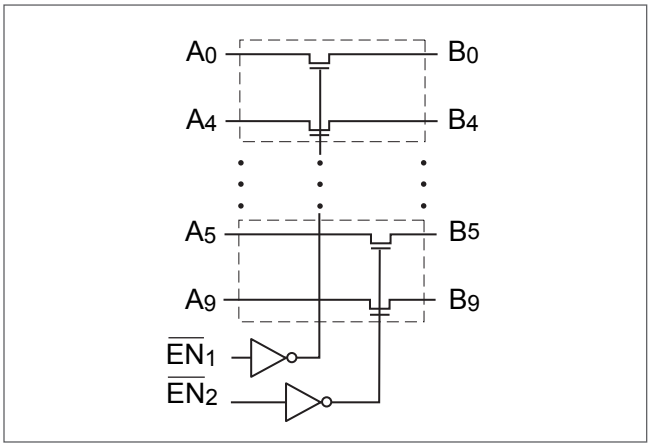
PI5C3384, PI3B3384, PI3C3384
2.5V/3.3V 10-Bit 2-Port Bus Switch



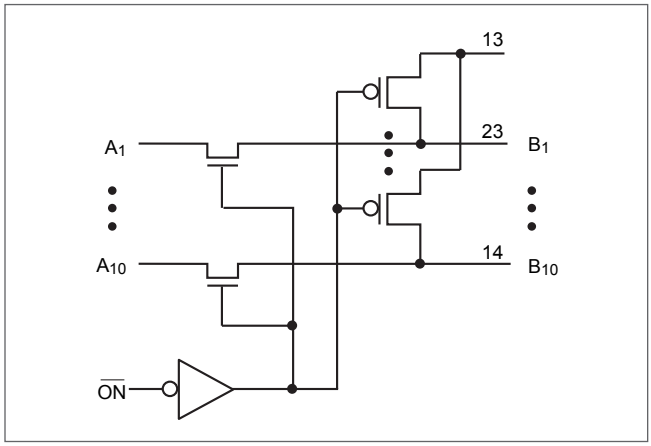
PI3CH1010
Low Volt. 5Ω 10-Channel 2-Port NanoSwitch™



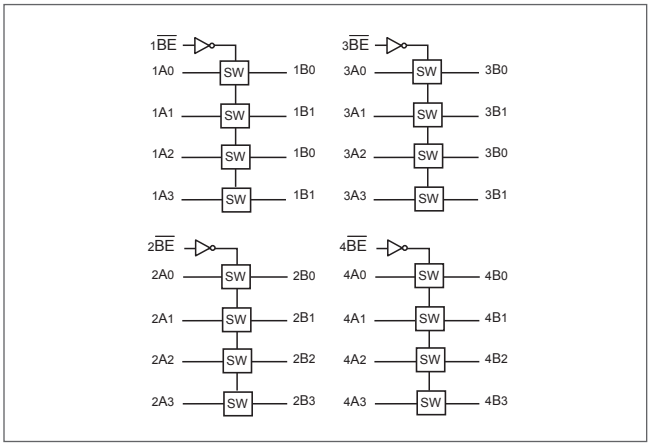
PI3CH1000
Low Volt. 5Ω 10-Channel 2-Port NanoSwitch™



PI5C6800, PI5C6800C
10-Bit Bus Switch with Precharged Outputs

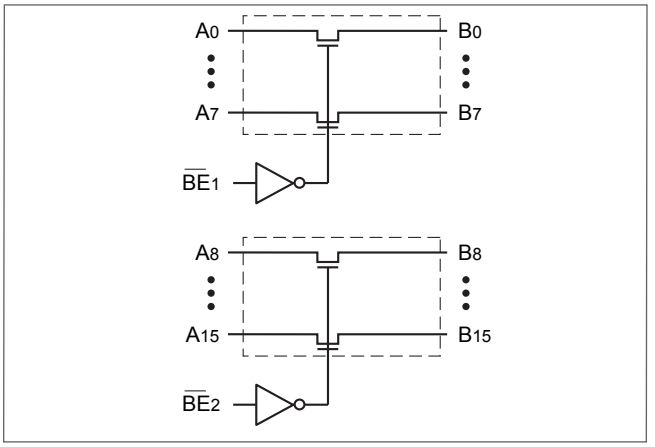


PI5C16244, PI3B16244
16-Bit, 4-Port NanoSwitch™

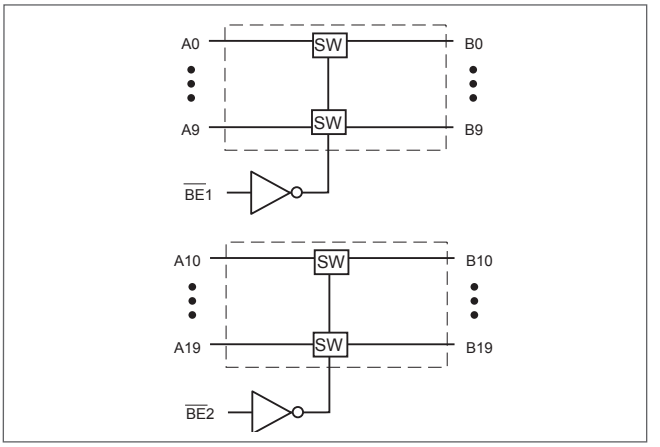


Digital Bus Switch Block Diagrams

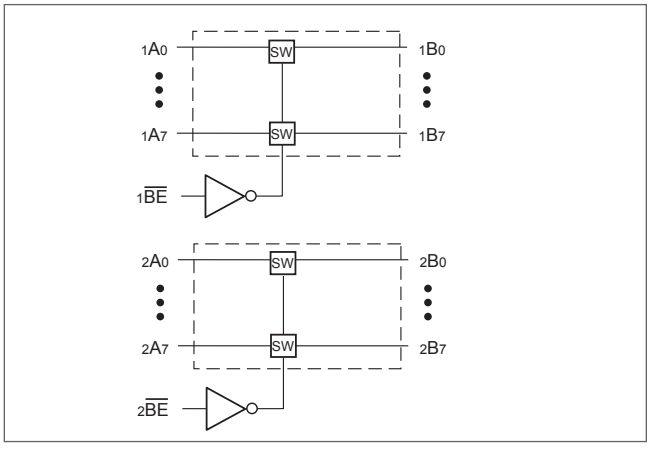
PI5C32X245, PI3B32X245
16-Bit 2-Port Bus Switch



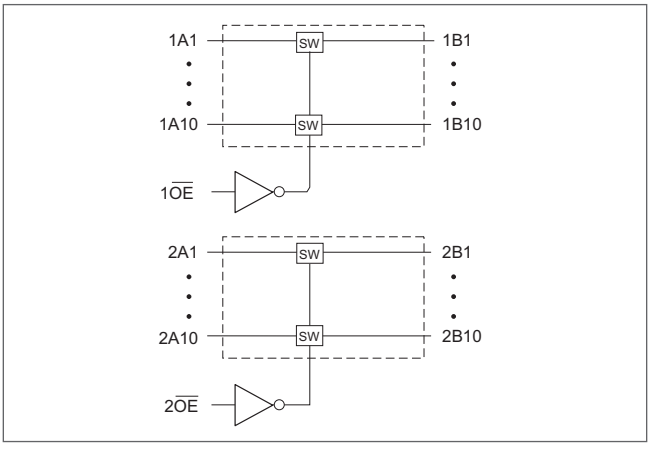
PI5C16861/PI5C162861, PI5C16862C
20-Bit, 2-Port NanoSwitch™



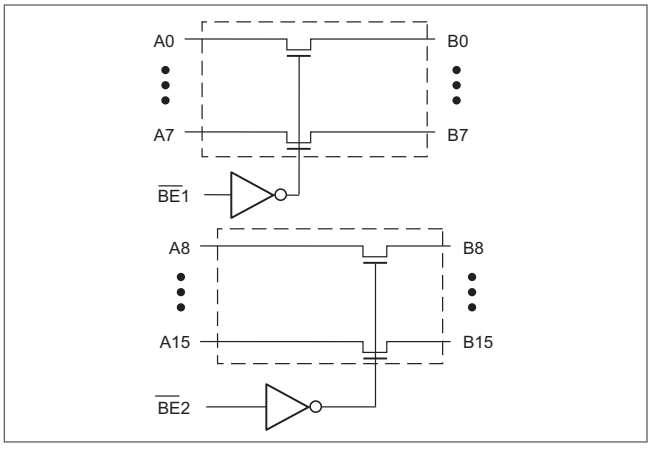
PI5C1625, PI3B16245
16-Bit, 2-Port NanoSwitch™



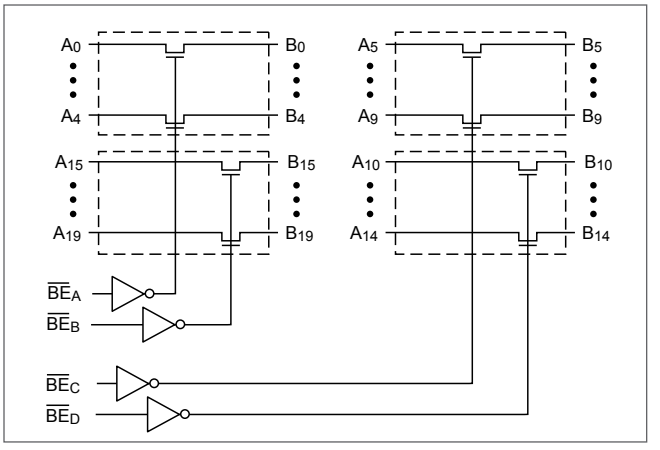
PI5C16210
20-Bit 2-Port NanoSwitch™



PI5C32X2245
16-Bit 2-Port Bus Switch w/ 25Ω Series Resistor

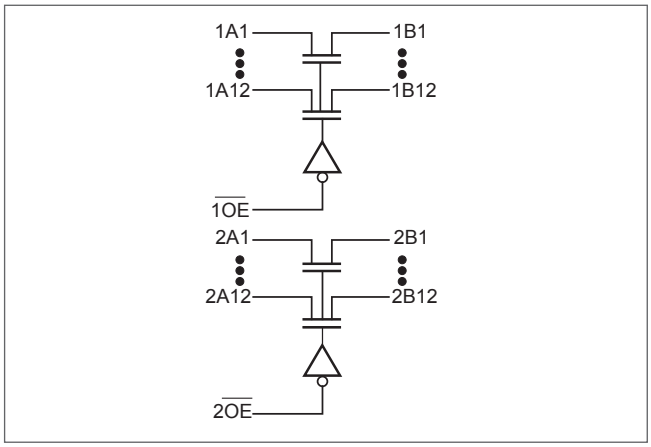


PI5C32X384 / PI3B32X384
20-Bit 2-Port Bus Switch

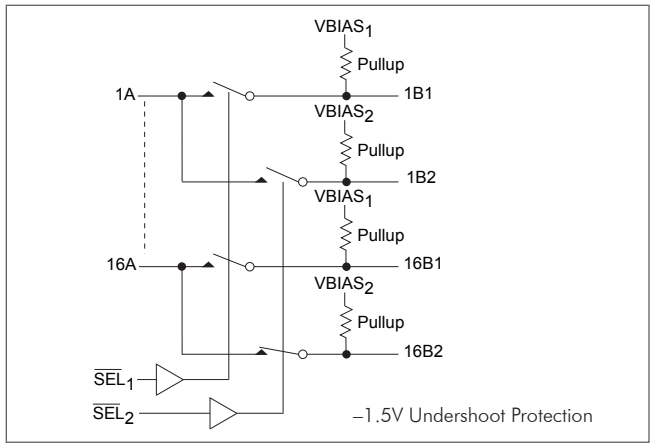


Digital Bus Switch Block Diagrams

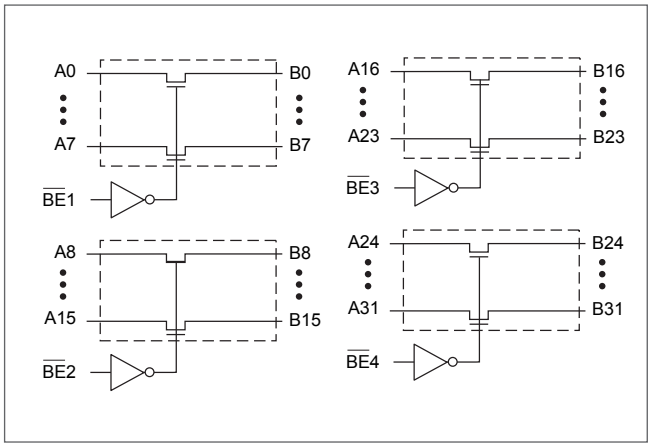
PI5C16211
24-Bit Bus Switch



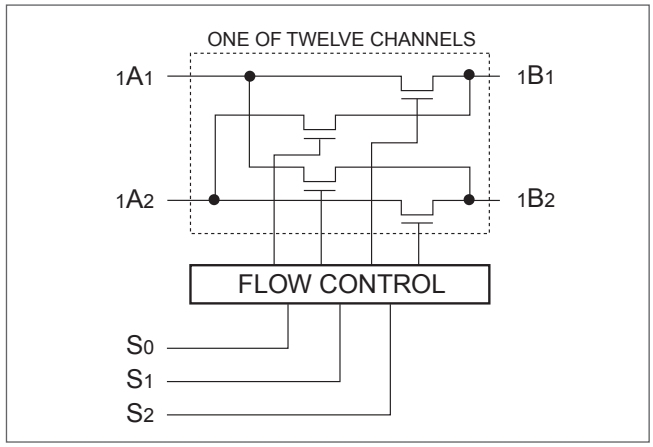
PI5C32160C
16:32 Mux/DeMux PCI Hot-Plug Bus Switch



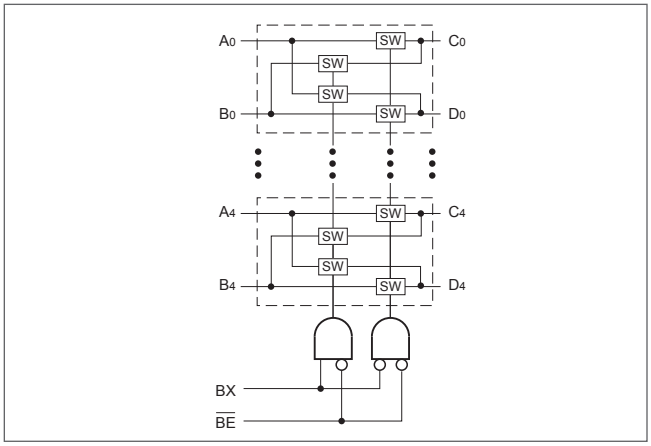
PI3C34X245
32-Bit 2-Port Bus Switch



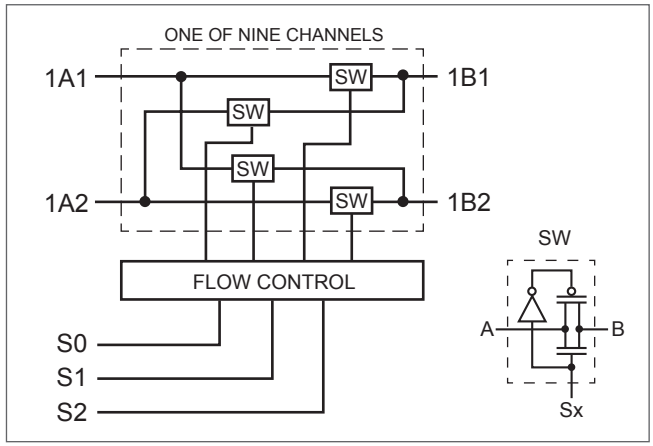
PI5C16212
24-Bit Bus Exchange Switch



PI5C3383
5-Bit 4-Port Bus Exchange Switch

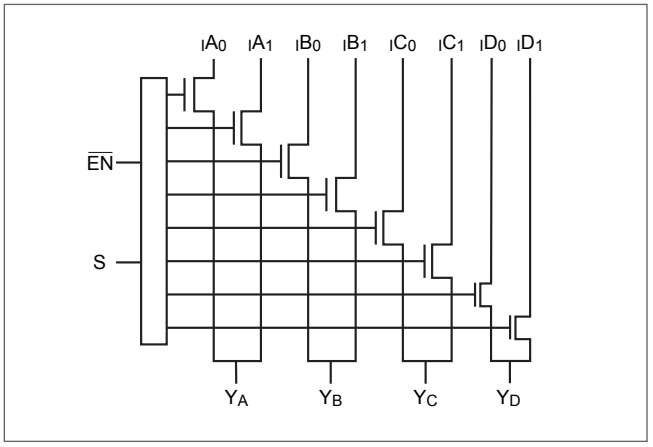


PI3B16209
18-Bit Bus Exchange NanoSwitch™

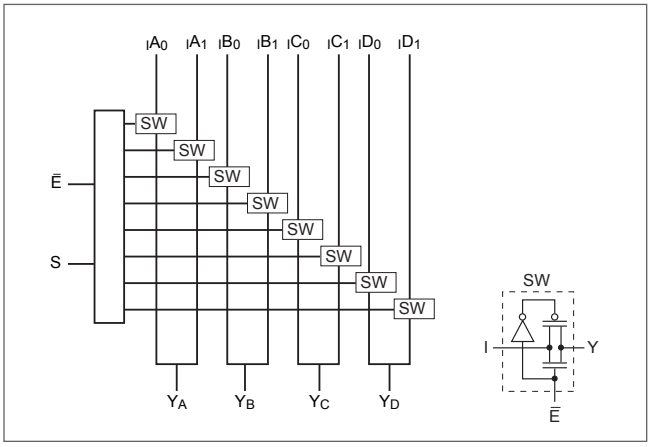


Digital Bus Switch Block Diagrams

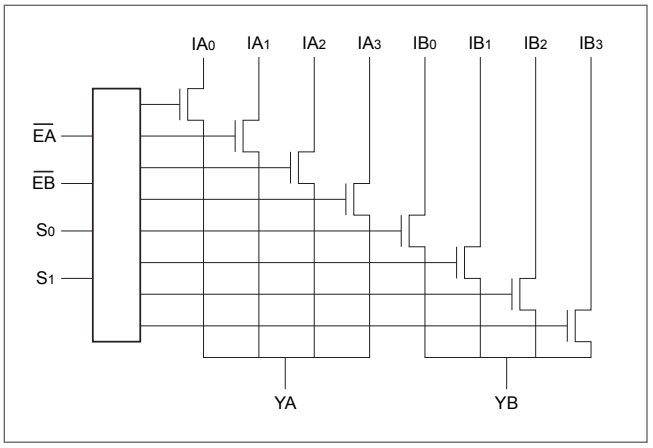
PI3CH480
2.5/3.3V Quad 2:1 Mux/DeMux NanoSwitch™



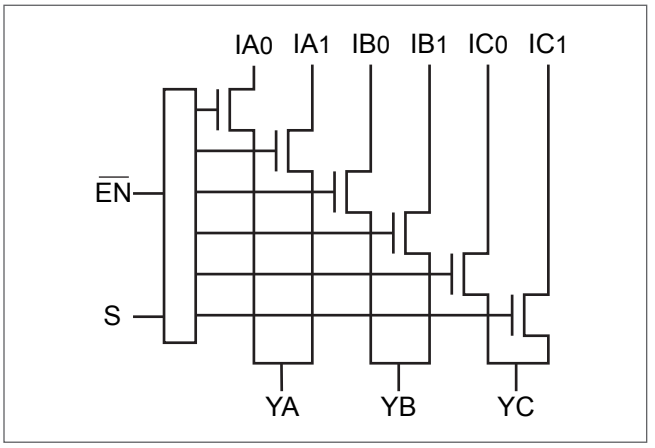
PI5C3257, PI3B3257
3.3V Quad 2:1 Mux/DeMux NanoSwitch™



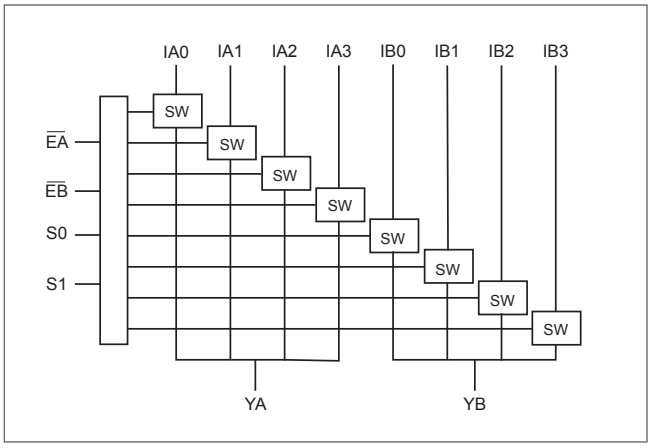
PI5C3309
5V Single 3:1 Mux/DeMux Bus Switch



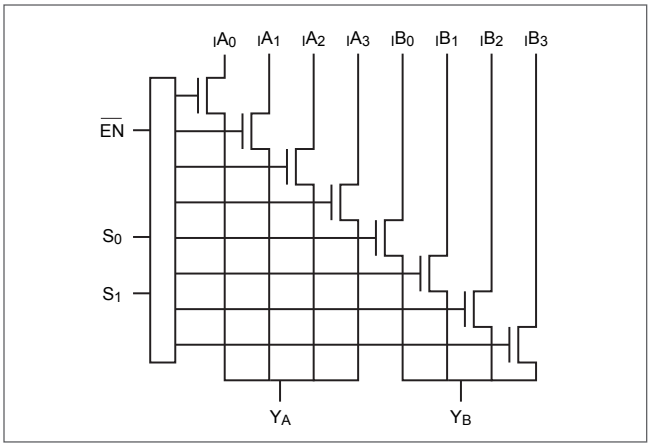
PI3CH360
2.5/3.3V Triple 2:1 Mux/DeMux NanoSwitch™



PI5C3253, PI3B3253
3.3V Dual 4:1 Mux/DeMux NanoSwitch™

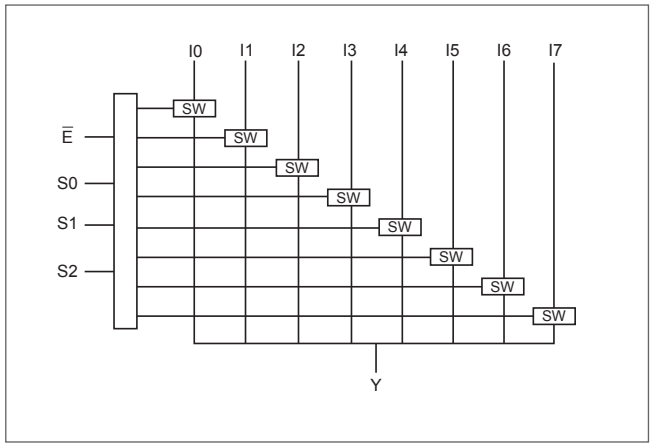


PI3CH281
2.5/3.3V Dual 4:1 Mux/DeMux NanoSwitch™

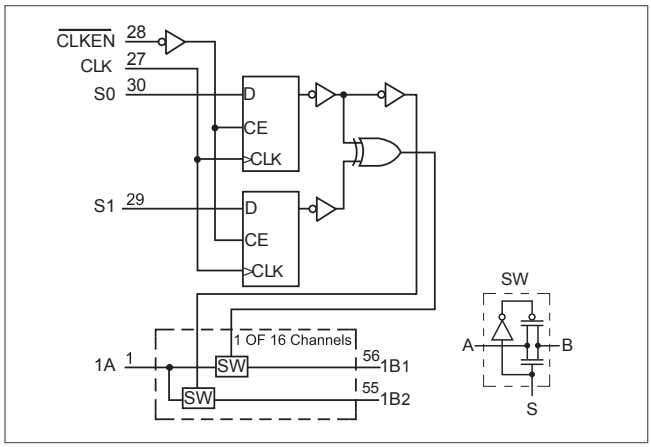


Digital Bus Switch Block Diagrams

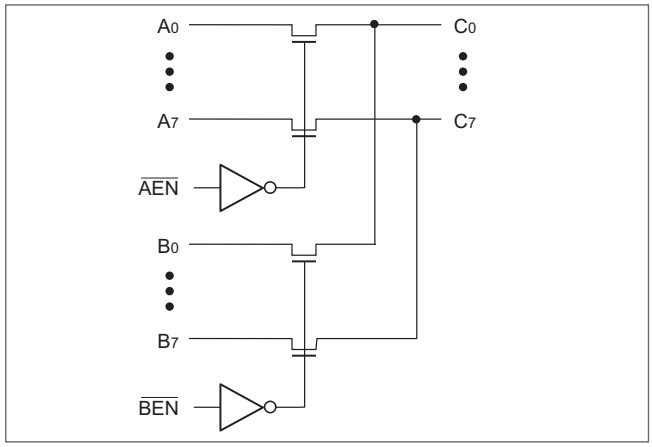
PI5C3251, PI3B3251
8:1 Mux/DeMux Bus Switch



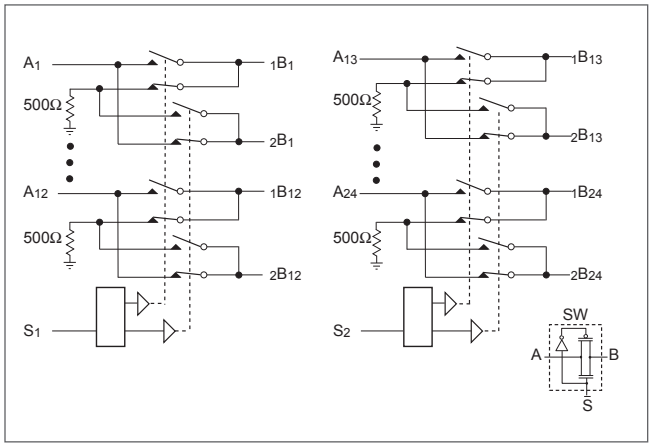
PI3B16232
16:32 FET Mux/DeMux NanoSwitch™



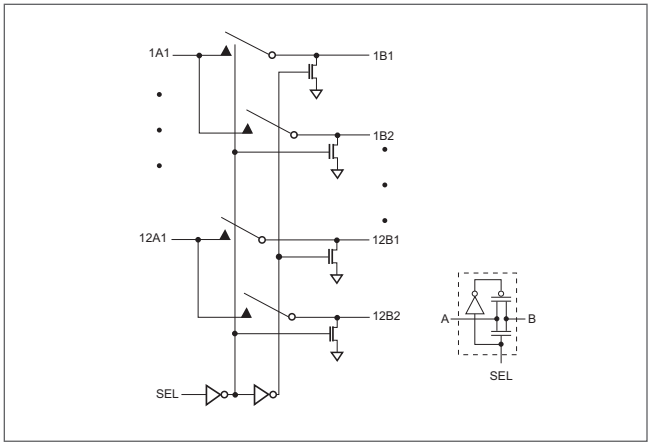
PI5C3390
8:16 Mux/DeMux 5V Bus Switch



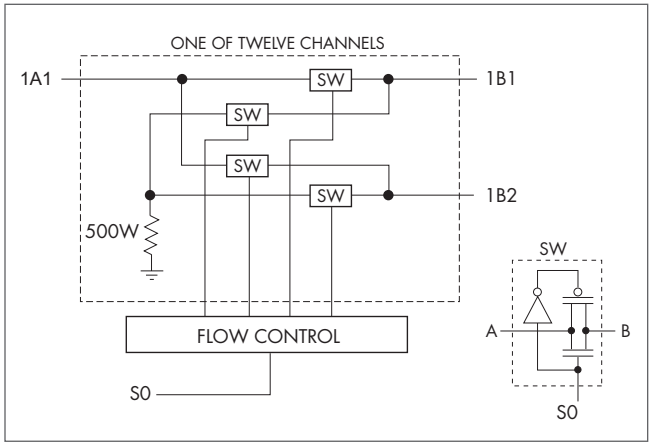
PI3B16248
24:48 Mux/DeMux NanoSwitch™



PI3B16226
12:24 Mux/DeMux 3.3V Bus Switch

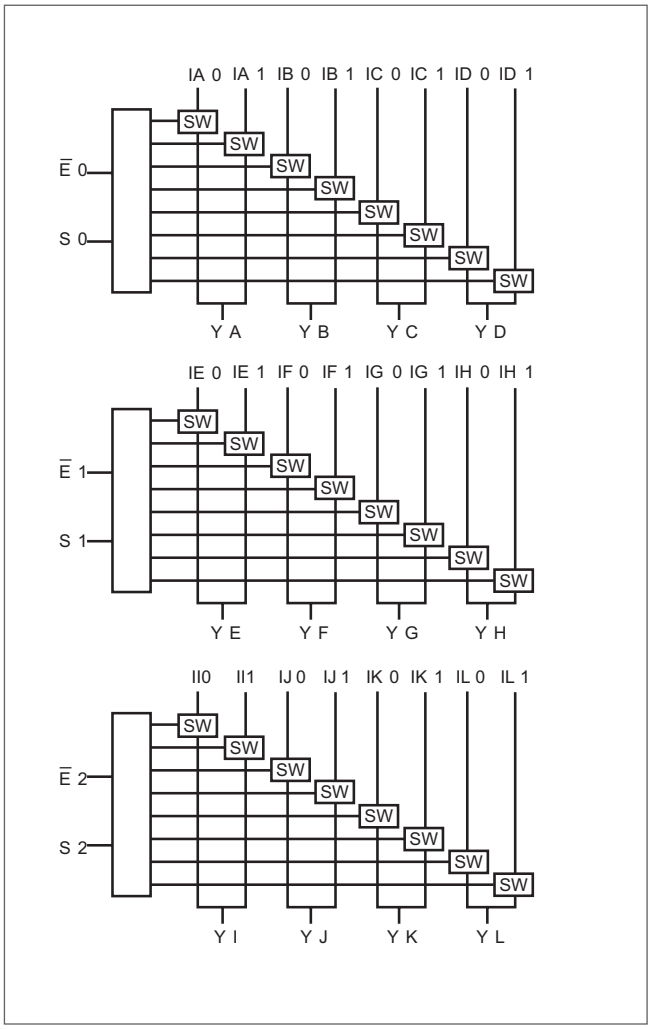


PI3B16292
12:24 Mux 3.3V Bus Switch w/ 500Ω Pulldown

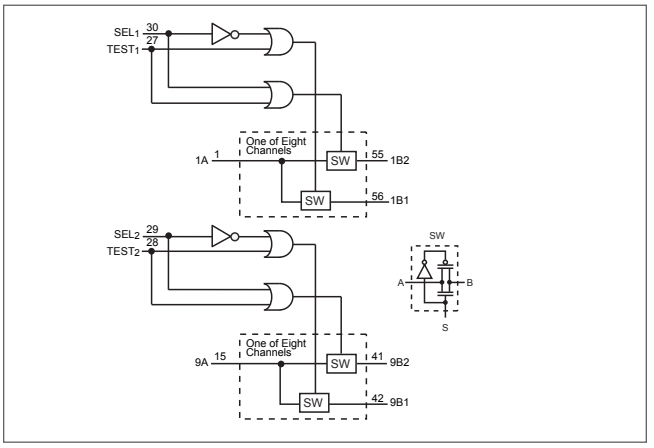


Digital Bus Switch Block Diagrams

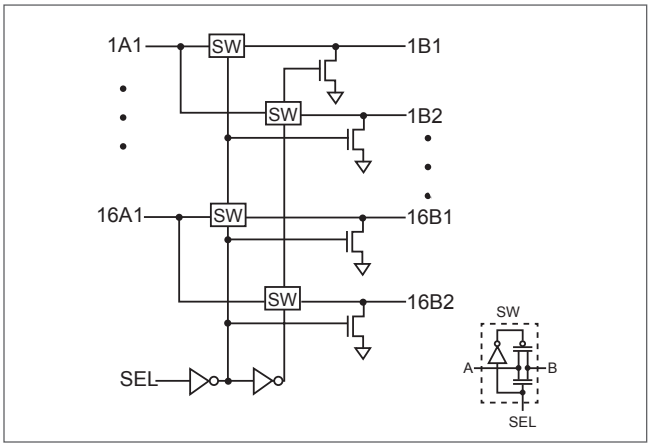
PI5C33X257, PI3B33X257
24:12 Mux/DeMux Bus Switch



PI3B16233
16:32 FET Mux/DeMux NanoSwitch™



PI3B16234
16:32 Mux/DeMux NanoSwitch™



Logic Interface Products

Pericom offers high-speed voltage translators, performance logic and other specialty Interface IC solutions for memory modules (see page 65 for memory module solutions).

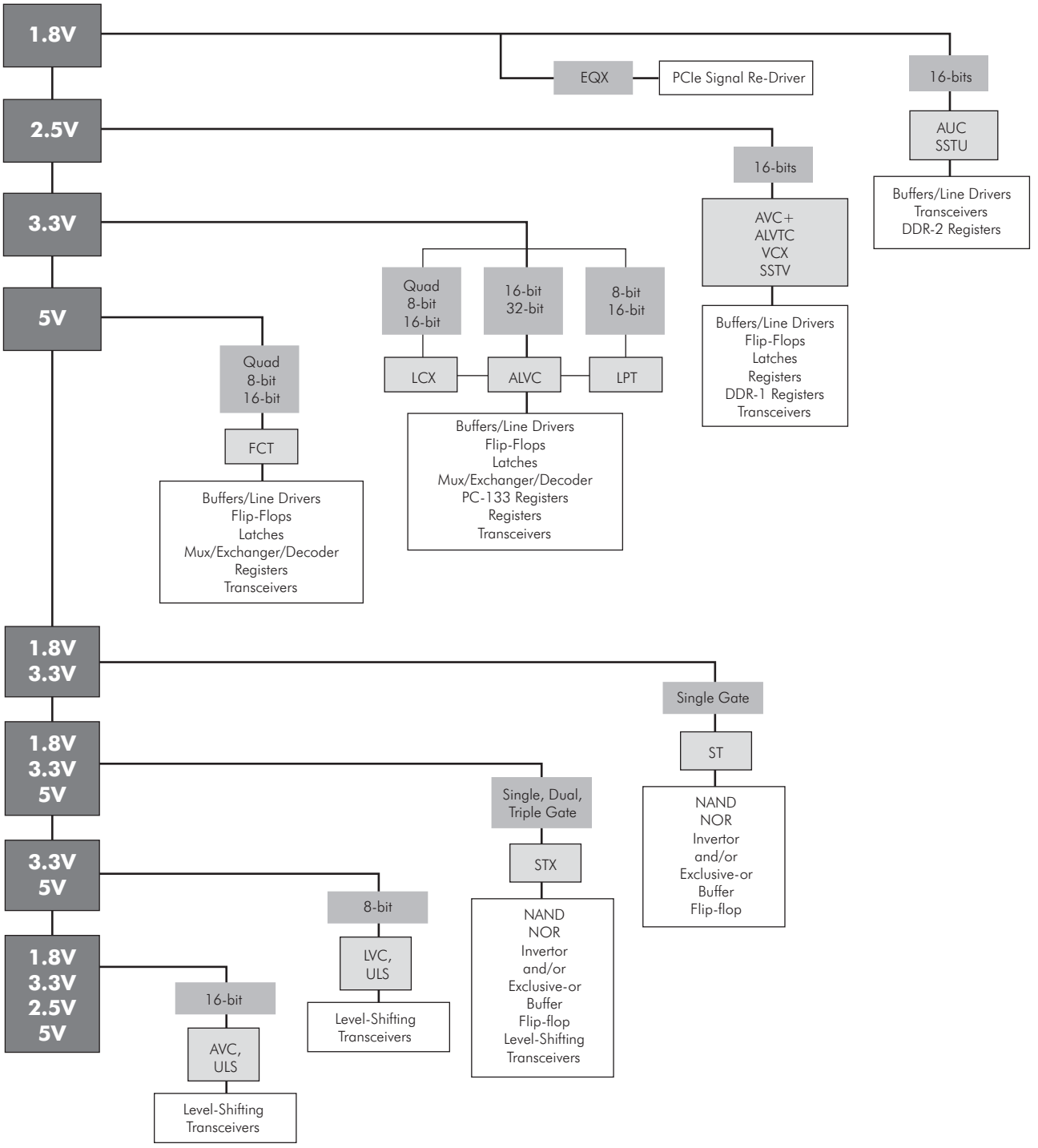
These products offer high performance 5V, 3.3V, 2.5V and 1.8V with propagation delays down to < 2.0ns. They support 8-bit, 16-bit, 18-bit and 32-bit functions.

The Logic interface family gives high-performance at 5V, 3.3V, 2.5V, & 1.8V with propagation delays down to < 2.0ns. The family supports 8-bit, 16-bit, 18-bit, 24-bit, and 32-bit functions with a performance mix of voltage translators (see also page 61 for all translators and level shifters.

High-Performance & Low-Voltage Solutions

- 5V FCT5 logic
- 3.3 volt LCX, LVC, ALVC, LPT, FCT3, LVTC, logic
- 2.5 volt AVC+, SSTV, ALVTC, VCX logic
- SOTiny Gate ST, STX families
- Voltage and Level Translators
- Popular Functions
  - Double density (16 to 32-bit)
  - Gate & Octals (4 to 8-bit)
  - SOTiny Gate (1 to 4-bit) functions
- Competitive industry features
- Input/Output
  - Tolerant I/O's
  - Edge rate control
  - Bus hold speed/noise optimization
  - Live insertion
  - Three state I/O's
- Packaging Technology includes standard to advanced SC70, QFN, LFBGA
- Pericom has a complete interface solution for memory modules including a full line of advanced PLL (Phase-locked loop) Zero-Delay Clock Drivers to supplement the Registers.

Logic Interface Decision Tree



See page 61 for Translator selection chart.

Logic Interface Products

Buffer/Driver

Part No.	Description	Voltage (nom)	Drive	Prop Delay	Bus Hold	Package
PI74FCT162244T	16-Bit Buffer/Line Driver	5V	-24/24mA	4.8	NO	SSOP (V48), TSSOP (A48)
PI74LPT16244	16-Bit Non-Inverting Buffer/Line Driver	3.3V	-24/24mA	4.1	NO	TSSOP (A48), SSOP (V48)
PI74ALVTC16244	16-Bit Buffer/Line Driver, OE Active Low	2.5V	-32/64mA	2.8	YES	TSSOP (A48)
PI74AVC+16244	16-Bit Buffer Driver	2.5V	-24/24mA	1.9	NO	TSSOP (A48)
PI74AVC+16836	20-Bit Universal Bus Driver, LE/, PC133 Compliant	2.5V	-24/24mA	3	NO	TSSOP (A56)
PI74AVC16834	18-Bit Universal Bus Driver, LE/	2.5V	-12/12mA	3	NO	TSSOP (A56)
PI74AVC16835	18-Bit Universal Bus Driver, LE	2.5V	-12/12mA	3	NO	TSSOP (A56)
PI74FCT16244T	16-Bit Non-Inverting Buffer/Line Driver	5V	-32/64mA	4.8	NO	SSOP (V48), TSSOP (A48)
PI74FCT2244T	Octal Buffer/Line Driver, OE Active Low	5V	-15/12mA	6.5	NO	QSOP (Q20), SOIC (S20), TSSOP (L20)
PI74FCT244T	Octal Buffer/Line Driver, OE Active Low	5V	-15/64mA	4.8	NO	QSOP (Q20), SOIC (S20), SSOP (H20), TSSOP (L20)
PI74FCT2541T	Non-Inverting Octal Buffer/Line Driver	5V	-15/12mA	6	NO	QSOP (Q20), SOIC (S20)
PI74FCT3244	Octal Buffer/Line Driver	3.3V	-24/24mA	4.1	NO	QSOP (Q20), SOIC (S20), TSSOP (L20)
PI74FCT541T	Non-Inverting Octal Buffer/Line Driver	5V	-15/64mA	3.8	NO	QSOP (Q20), SOIC (S20), TSSOP (L20)
PI74LCX16244	16-Bit Non-Inverting Buffer/Line Driver	3.3V	-24/24mA	4.5	NO	SSOP (V48), TSSOP (A48)
PI74LPT244	Octal Buffer/Line Driver, OE Active Low	3.3V	-24/24mA	4.1	NO	QSOP (Q20), SOIC (S20), TSSOP (L20)
PI74VCX16244	16-Bit Buffer/Line Driver, OE Active Low	2.5V	-24/24mA	3	NO	TSSOP (A48)

Flip-flop

Part Number	Description	Voltage (nom)	Drive	Prop Delay	Bus Hold	Package
PI74ALVTC16374	16-Bit Transparent D-Type flip-flop	2.5V	-32/64mA	4.2	YES	TSSOP (A48)
PI74FCT273T	Octal D flip-flop with Master Reset	5V	-15/64mA	13	NO	QSOP (Q20), SOIC (S20), TSSOP (L20)

Gate

Part Number	Description	Voltage (nom)	Drive	Prop Delay	Bus Hold	Package
PI74ST1G08	2-Input AND Gate	3.3V	-24/24mA	1.8	NO	SC70 (C5), SOT-23 (T5)
PI74ST1G125	Buffer with 3-State Output	3.3V	-24/24mA	1.8	NO	SC70 (C5), SOT-23 (T5)
PI74ST1G126	Buffer with 3-State Output	3.3V	-24/24mA	1.8	NO	SC70 (C5)
PI74ST1G32	2-Input OR Gate	3.3V	-24/24mA	1.8	NO	SC70 (C5), SOT-23 (T5)
PI74STX1G02	2-Input NOR Gate	3.3V	-24/24mA	2.5	NO	SC70 (C5), SOT-23 (T5)
PI74STX1G08	2-Input AND Gate	3.3V	-24/24mA	2.4	NO	SC70 (C5), SOT-23 (T5)
PI74STX1G126	Buffer with 3-State Output	3.3V	-24/24mA	2.3	NO	SC70 (C5), SOT-23 (T5)
PI74STX1GU04	Unbuffered Inverter	3.3V	-24/24mA	2.6	NO	SOT-23 (T5)

Latch

Part Number	Description	Voltage (nom)	Drive	Prop Delay	Bus Hold	Package
PI74ALVTC16373	16-Bit Transparent D-Type Latch	2.5V	-32/64mA	3.2	YES	TSSOP (A48)
PI74FCT374T	Octal D Register (3-State)	5V	-15/64mA	4.5	NO	QSOP (Q20), SOIC (S20),
PI74FCT573T	Octal Transparent Latch (3-State)	5V	-15/64mA	3.8	NO	QSOP (Q20), SOIC (S20)
PI74LCX16373	16-Bit Transparent Latch	3.3V	-24/24mA	5.4	NO	SSOP (V48), BQSOP (B48)
PI74LPT373	Octal Transparent Latch	3.3V	-24/24mA	4.2	NO	SOIC (S20), TSSOP (L20), QSOP (Q20)
PI74VCX16373	16-Bit Transparent D-Type w/3-State	2.5V	-24/24mA	3.4	NO	TSSOP (A48)

Register

Part No.	Description	Voltage (nom)	Drive	Prop Delay	Bus Hold	Package
PI74LCX16374	16-Bit Octal Register	3.3V	-24/24mA	6.2	NO	TSSOP (A48)
PI74LPT16374	16-Bit Octal Register	3.3V	-24/24mA	5.2	NO	SSOP (V48), TSSOP (A48)
PI74SSTU32864A	DDR2, 25-Bit 1:1 or 14-Bit 1:2	1.8V	8mA	2.15	NO	LFBGA (NB96)
PI74SSTU32866	DDR2, 25-Bit 1:1 or 14-Bit 1:2	1.8V	8mA	2.15	NO	LFBGA (NB96)
PI74SSTUA32864	DDR2, 25-Bit 1:1 or 14-Bit 1:2	1.8V	8mA	1.9	NO	LFBGA (NB96)
PI74SSTV16857	DDR-I, 14-Bit Registered Buffer	2.5V	20mA	2.8	NO	TSSOP (A48)
PI74SSTV16859	DDR-I, 13/26-Bit Registered Buffer	2.5V	20mA	2.8	NO	QFN (ZB56), TSSOP (A64)
PI74SSTV32852	DDR-I, 24/48-Bit Registered Buffer	2.5V	20mA	3.3	NO	LFBGA (NB114)
PI74SSTVF16857	DDR-I, 14-Bit Registered Buffer	2.5V	16mA	2.2	NO	TSSOP (A48)
PI74SSTVF16857A	DDR-I, 14-Bit Registered Buffer	2.5V	16mA	1.8	NO	TSSOP (A48), TVSOP (K48)
PI74SSTVF16859	DDR-I, 13/26-Bit Registered Buffer	2.5V	16mA	2.2	NO	TSSOP (A64)
PI74SSTVF16859A	DDR-I, 13/26-Bit Registered Buffer	2.5V	16mA	1.8	NO	QFN (ZB56)
PI74SSTVF32852	DDR-I, 24/48-Bit Registered Buffer	2.5V	16mA	2.8	NO	LFBGA (NB114)
PI74SSTVF32852A	DDR-I, 24/48-Bit Registered Buffer	2.5V	16mA	2.1	NO	LFBGA (NB114)

Logic Interface Products

Serializer/Deserializer (SerDes)

Part No.	Description	Speed	Bus Width	Power Supply	Package
PI90SD1636C	SerDes Gigabit Ethernet Transceiver, 1 Channel, 5V I/O tolerant	1.25Gbps	10-bits	3.3V	LQFP (FC64), LQFP (FD64)

Transceiver

Part No.	Description	Voltage (nom)	Drive	Prop Delay	Bus Hold	Package
PI74ALVCHR162245	16-Bit Bidirectional Transceiver w/ Dual Resistors	3.3V	-12/12mA	4.2	YES	TSSOP (A48)
PI74ALVTC16245	16-Bit Bi-directional Bus Transceiver	2.5V	-32/64mA	2.8	YES	SSOP (V48), TSSOP (A48), TVSOP (K48)
PI74AVC164245	16-Bit Level Shifting Transceiver	1.8V to 3.3V	-12/12mA	3	NO	SSOP (V48), TSSOP (A48), TVSOP (K48)
PI74AVC164245A	16-Bit Level Shifting Transceiver	1.8V to 3.3V	-12/12mA	3	NO	SSOP (V48), TSSOP (A48)
PI74AVC164245LA	16-Bit Level Shifting Transceiver	1.5V to 3.3V	-6/6mA	3.5	NO	TSSOP (A48), TVSOP (K48)
PI74FCT162245T	16-Bit, Bidirectional Transceiver	5V	-24/24mA	4.6	NO	SSOP (V48), TSSOP (A48), TVSOP (K48)
PI74FCT2245T	Octal Bidirectional Transceiver	5V	-15/12mA	4.6	NO	QSOP (Q20)
PI74FCT16245T	16-Bit Bidirectional Transceiver	5V	-32/64mA	7	NO	SSOP (V48), TSSOP (A48)
PI74FCT245T	Octal Bidirectional Transceiver	5V	-15/64mA	4.6	NO	QSOP (Q20), SOIC (S20),
PI74HSTL1212	24-Bit HSTL Bi-Directional Level Shifting Transceiver	1.8V to 3.3V	-8/8mA	3	NO	TSSOP (A64)
PI74LCX16245	16-Bit Bidirectional Transceiver	3.3V	-24/24mA	4.5	NO	SSOP (V48), TSSOP (A48)
PI74LPT16245	16-Bit Bidirectional Transceiver	3.3V	-24/24mA	4.1	NO	SSOP (V48), TSSOP (A48)
PI74LVC3245A	8-Bit Dual Supply Bidirectional w/3-State Outputs	3.3V to 5V	-24/24mA	6.3	NO	QSOP (Q24), SOIC (S24), TSSOP (L24)
PI74LVCC3245A	8-Bit Dual Supply Bidirectional w/Configurable Output Voltage and 3-State Outputs	3.3V to 5V	-24/24mA	5.6	NO	QSOP (Q24), SOIC (S24), TSSOP (L24)
PI74STX2G4245	2-Bit Level Shifter w/Dual Supply Voltage	1.5V to 5V	-12/12mA	5	NO	MSOP (U8), TDFN (ZE12)
PI74VCX16245	16-Bit Bidirectional Transceiver w/3-State	2.5V	-24/24mA	3.2	NO	TSSOP (A48)

Voltage Translator

For All Translator Solutions see page 61

Part No.	Description	Voltage (nom)	Drive	Prop Delay	Bus Hold	Package
PI4ULS3V08	8-bit Automatic Direction Sensing Voltage Translator	1.5V to 3.3V	12mA	1.0	NO	TQFN (ZF36)
PI4ULS3V08M	8-bit Automatic Direction Sensing Voltage Translator	1.5V to 3.3V	12mA	1.0	NO	TQFN (ZL32)
PI4ULS3V16	16-bit Automatic Direction Sensing Voltage Translator	1.5V to 3.3V	12mA	1.0	NO	TQFN (ZF56)
PI4ULS3V16M	16-bit Automatic Direction Sensing Voltage Translator	1.5V to 3.3V	12mA	1.0	NO	TFBGA (NL45)

OVERVIEW OF LVDS

LVDS is an acronym for Low Voltage Differential Signaling. As the name implies, it is a differential standard using two signal lines to communicate data or clock signals over PCB traces or balanced cables. LVDS is widely used in applications requiring high-speed, low power, or low EMI. Pericom LVDS is commonly found in printers and copiers, OC-3 and OC-12 DSLAM, datacom, base stations, routers, various multi-media, and tester applications.

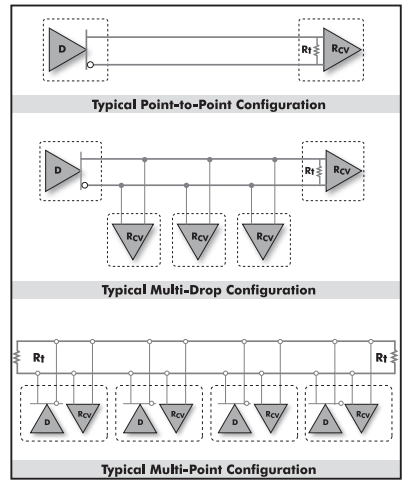
The LVDS product line offers line drivers, receivers, transceivers, crosspoints, clock/data distribution and repeaters that solve today's high speed I/O interface translation requirements.

Low Voltage Differential Signaling Technology

- Differential transmission using two wires with opposite current/voltage swings
  - Low-voltage swing
  - Low-noise generation
  - High-noise rejection
- Supports 100's of Mbps
- Excellent signal quality
- Low power consumption

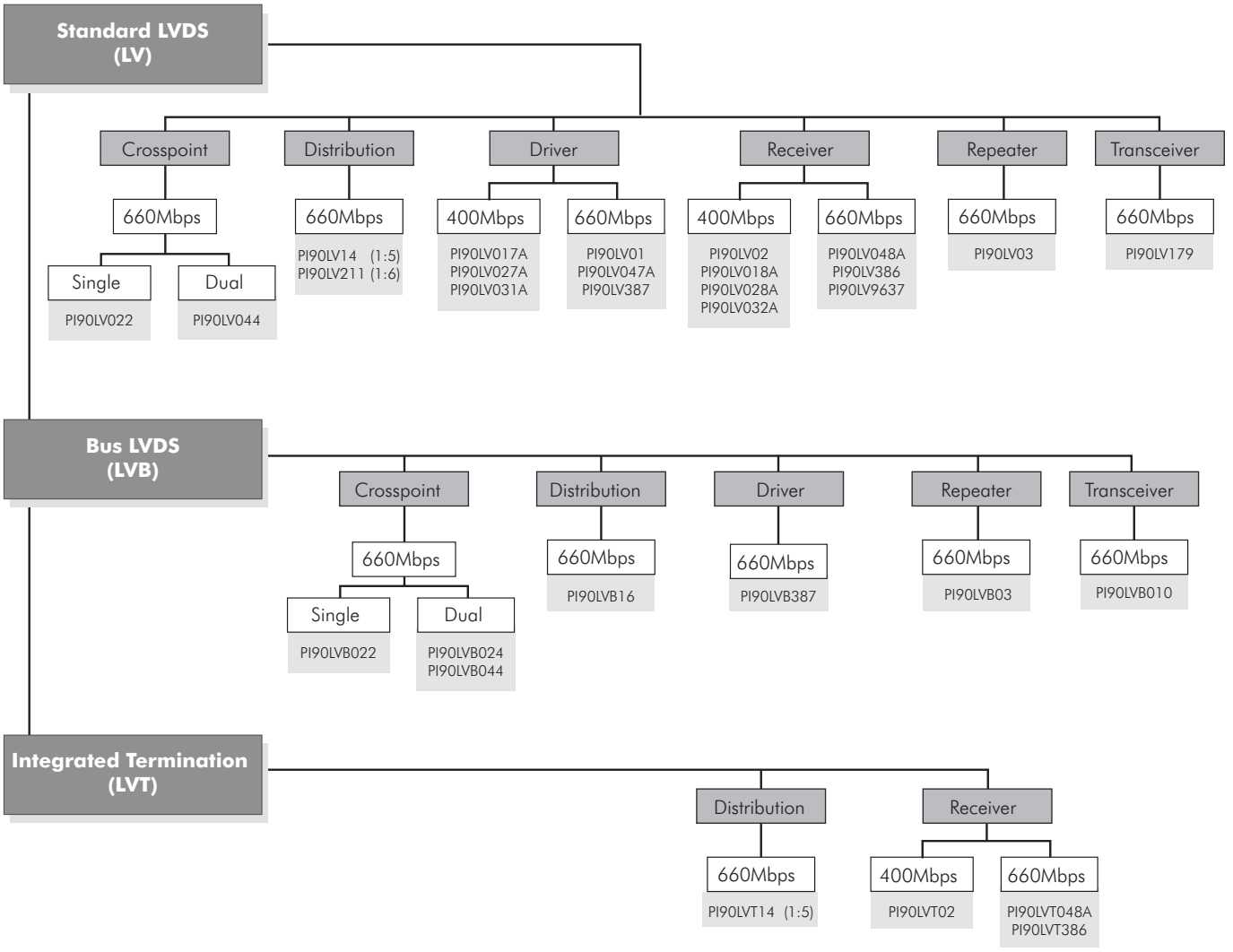
Pericom LVDS Features:

- Distribution High-performance: 660 Mbps
- Supply voltage: 3.3 Volts
- Drive: 4mA-8mA
- Packages: 8 to 64 pins including SOTiny™ small footprint
- Fail-safe circuit
- Standard & bus drive
- Integrated termination



By exploiting the benefits of LVDS in clock distribution, control buses, backplanes, and other areas of high-speed signal distribution, 3G base stations will be able to deliver higher bandwidth wireless services without requiring proportionately greater cost, size, and power.

LVDS Decision Tree



LVDS Products

LVDS

Part No.	Function	Description	Data Rate	Drive Capability	Package
PI90LV022	Crosspoint	LVDS 2x2 Crosspoint/Repeater	660Mbps	4mA	SOIC (W16), TSSOP (L16)
PI90LVB044	Crosspoint	Bus LVDS Dual 2x2 Crosspoint/Repeater	660Mbps	8mA	QSOP (Q28), TSSOP (L28)
PI90LVB16	Distribution	1:6 Differential to LVTTL Clock/Data Distribution**	660Mbps	8mA	TSSOP (L24)
PI90LV01	Driver	SOTiny Single LVDS Driver	660Mbps	4mA	SOT23 (T5)
PI90LV017A	Driver	Single LVDS Driver	400Mbps	4mA	MSOP (U8), SOIC (W8)
PI90LV027A	Driver	Dual LVDS Driver	400Mbps	4mA	MSOP (U8), SOIC (W8)
PI90LV031A	Driver	Quad LVDS Driver (EN)	400Mbps	4mA	SOIC (W16), TSSOP (L16)
PI90LV047A	Driver	Quad Flow through Driver	660Mbps	4mA	SOIC (W16), TSSOP (L16)
PI90LV387	Driver	16-Wide LVDS Driver	660Mbps	4mA	TSSOP (A64)
PI90LV018A	Receiver	Single LVDS Receiver	400Mbps	n/a	MSOP (U8), SOIC (W8)
PI90LV02	Receiver	SOTiny Single LVDS Receiver	400Mbps	n/a	SOT23 (T5)
PI90LV028A	Receiver	Dual LVDS Receiver	400Mbps	n/a	MSOP (U8), SOIC (W8)
PI90LV032A	Receiver	Quad LVDS Receiver (EN)	400Mbps	n/a	SOIC (W16), TSSOP (L16)
PI90LV048A	Receiver	Quad Flow through Receiver	660Mbps	n/a	SOIC (W16), TSSOP (L16)
PI90LV386	Receiver	16-Wide LVDS Receiver	660Mbps	n/a	TSSOP (A64)
PI90LV9637	Receiver	Dual LVDS Receiver	660Mbps	n/a	MSOP (U8), SOIC (W8)
PI90LVT02	Receiver	SOTiny Single LVDS Receiver w/integrated termination	400Mbps	n/a	SOT23 (T5)
PI90LVT386	Receiver	16-Wide LVDS Receiver w/Integrated Termination	660Mbps	n/a	TSSOP (A64)
PI90LV03	Repeater	SOTiny Single LVDS Repeater	660Mbps	4mA	SOT23 (T6)
PI90LV179	Transceiver	Single Transceiver	660Mbps	4mA	MSOP (U8), SOIC (W8)
PI90LVB010	Transceiver	SOTiny Single Bus LVDS Transceiver	100Mbps	8mA	SOIC (W8), MSOP (U8)

Notes

TRANSLATOR PRODUCT FAMILIES:

LVDS solutions include bidirectional I/O signal translators for applications including the interfacing from LVDS to LVTTL, LVPECL or LVDS to LVDS, LVTTL to LVDS and LVTTL to LVPECL and/or LVCMOS to LVPECL.

Switch solutions include bidirectional low voltage translators for applications including the interfacing from 1.8V, 2.5V, 3.3V, and 5V.

Logic Interface solutions focus on voltage level shifters and also provide the ability to translate between different I/O's such as HSTL to LVTTL/LVCMOS, SSTL to TTL, etc. Many products are bidirectional and scalable from 1-bit to +32-bits with support for communicating power from 1.5V to 5V.

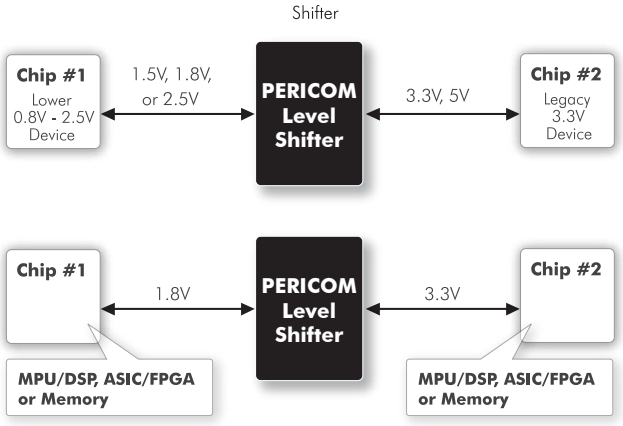
Clock solutions include clock driver products specifically designed to translate Xtal, LVCMOS/LVTTL to LVPECL, or LVDS, and CML, LVDS, LVPECL, LVHSTL, SSTL, HCSL to LVPECL or LVDS.

TRANSLATOR OVERVIEW

New signal standards are constantly emerging, and voltage levels are perpetually dropping. Today's design engineer's regularly find themselves looking for solutions to solve communication issues amongst these mixed applications. We offer solutions for signal and voltage translation from our LVDS, Logic Interface, and Digital Bus families. Use our web tool to find the right devices: www.pericom.com/translators. For frequency translation, see page 79. See page 65 for complete LVDS product information.

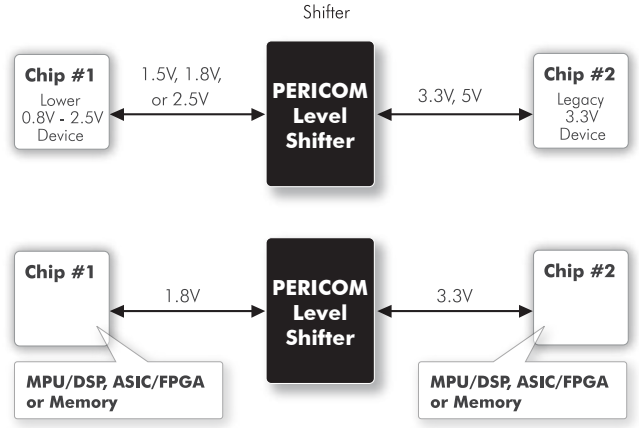
Level Shifting

Pericom offers great chip-to-chip interface between different I/O voltages ranging from 1.5/1.8/2.5/3.3V to 5V, and 0.8V to 2.5V. These translators are scalable from 16-bit to 32-bits and beyond. See following page for product listing.



I/O Signal Translation

These devices provide the ability to convert between different I/O's (HSTL to LVTTL or LVCMOS, SSTL to TTL, etc.) and are scalable from 12-bit to 32-bit and beyond. See LVDS for these products, page 65.



Level Shifters / Voltage Translators

Part No.	Family	Description	Translator description
PI3VT3245	Switch	3.3V to 2.5V / 2.5V to 1.8V, 8-bit, 2-port, Low Voltage Translator Bus Switch	3.3V to 2.5V and/or 2.5V to 1.8V
PI3VT32X245**	Switch	3.3V to 2.5V / 2.5V to 1.8V, 16-bit, 2-port, Low Voltage Translator Bus Switch	3.3V to 2.5V and/or 2.5V to 1.8V
PI3VT3306	Switch	3.3V to 2.5V / 2.5V to 1.8V, 2-bit, 2-port, Low Voltage Translator Bus Switch	3.3V to 2.5V and/or 2.5V to 1.8V
PI3VT34X245	Switch	3.3V to 2.5V / 2.5V to 1.8V, 32-bit, 2-port, Low Voltage Translator Bus Switch	3.3V to 2.5V and/or 2.5V to 1.8V
PI49FCT20802	Clock IC	2.5V, 150MHz, 1:5 Output Low Skew Clock Driver	3.3V to 2.5V
PI49FCT20803	Clock IC	2.5V, 150MHz, 1:7 Output Low Skew Clock Driver	3.3V to 2.5V
PI49FCT20807	Clock IC	2.5V, 150MHz, 1:10 Output Low Skew Clock Driver, Industrial Temp. Operation	3.3V to 2.5V
PI49FCT32802	Clock IC	3.3V, 133MHz, 1:5 Output Low Skew Clock Driver with 20 Ω Output Termination Resistor	5V to 3.3V
PI49FCT32803	Clock IC	3.3V, 133MHz, 1:7 Output Low Skew Clock Driver with 20-Ω Output Termination Resistor	5V to 3.3V
PI49FCT32805	Clock IC	3.3V, 133MHz 1:5 Output Clock Driver with Monitor Output with 20-Ω, Industrial Temp. Operation	5V to 3.3V
PI49FCT32806	Clock IC	133MHz Dual 1:5 Output Inverting Clock Driver with Monitor Output and 20-Ω Output Termination Resistor, Industrial Temp. Operation	5V to 3.3V
PI49FCT32807	Clock IC	3.3V, 133MHz 1:10 Output Clock Driver with 20-Ω Output Termination Resistor, Industrial Temp. Operation	5V to 3.3V
PI49FCT3802	Clock IC	3.3V, 156MHz, 1:5 Output Low Skew Clock Driver	5V to 3.3V
PI49FCT3803	Clock IC	3.3V, 156MHz, 1:7 Output Low Skew Clock Driver	5V to 3.3V
PI49FCT3805D	Clock IC	3.3V, 133MHz Dual 1:5 Output Clock Driver with Monitor Output, Industrial Temp. Op.	5V to 3.3V
PI49FCT3807D	Clock IC	3.3V, 156MHz 1:10 Output Non-Inverting Clock Driver, Industrial Temp. Operation	5V to 3.3V
PI4ULS3V08	Interface	8-bit Automatic Direction Sensing Voltage Translator	1.5V to 3.3V on either port
PI4ULS3V08M	Interface	8-bit Automatic Direction Sensing Voltage Translator	1.5V to 3.3V on either port
PI4ULS3V16	Interface	16-bit Automatic Direction Sensing Voltage Translator	1.5V to 3.3V on either port
PI4ULS3V16M	Interface	16-bit Automatic Direction Sensing Voltage Translator	1.5V to 3.3V on either port
PI6C10804	Clock IC	1.8V/2.5V, 250 MHz, 1:4 Networking Clock Buffer	3.3V to 2.5V/1.8V
PI6C10806	Clock IC	1.8V/2.5V, 250 MHz, 1:6 Xtal to LVCMOS Clock Buffer	3.3V to 2.5V/1.8V
PI6C10807	Clock IC	1.8V/2.5V, 250 MHz, 1:10 Networking Clock Buffer	3.3V to 2.5V/1.8V
PI6C10808	Clock IC	1.8V/2.5V, 250 MHz, 1:8 Networking Clock Buffer	3.3V to 2.5V/1.8V
PI6C487016	Clock IC	1.8V, Low Skew 1:16 LVTTL/LVCMOS Fanout Buffer	3.3V to 2.5 and/or 1.8V
PI6CL10804	Clock IC	1.2V/1.5V, 200 MHz, 1:4 Networking Clock Buffer	1.8V to 1.2V/1.5V
PI6CL10806	Clock IC	1.2V/1.5V, 200 MHz, 1:6 Xtal to LVCMOS Clock Buffer	1.8V to 1.2V/1.5V

** Not available in Pb-free

continued next page →

Level Shifters/Voltage Translators and I/O Signal Translators

Level Shifters / Voltage Translators (continued)

Part No.	Family	Description	Translator description
PI6CL10807	Clock IC	1.2V/1.5V, 200 MHz, 1:10 Networking Clock Buffer	1.8V to 1.2V/1.5V
PI6CL10808	Clock IC	1.2V/1.5V, 200 MHz, 1:8 Networking Clock Buffer	1.8V to 1.2V/1.5V
PI6CV2304	Clock IC	160MHz, 4 Output Low Skew Clock Driver with 30-Ω Output Termination Resistor	5V to 3.3V
PI6CV304	Clock IC	3.3V, 160MHz, 4 Output Low Skew Clock Driver	5V to 3.3V
PI74AVC164245	Interface	16-Bit Level Shifting Transceiver	1.8V to 3.3V; 2.5V to 3.3V - Bidirectional
PI74AVC164245A	Interface	16-Bit Level Shifting Transceiver	1.8V to 3.3V; 2.5V to 3.3V - Bidirectional
PI74AV-C164245LA	Interface	16-Bit Level Shifting Transceiver	1.5V to 3.3V; 2.5V to 3.3V - Bidirectional
PI74HSTL1212	Interface	24-Bit HSTL Bi-Directional Level Shifting Transceiver	1.8V HSTL to 3.3V LVTTL - Bidirectional
PI74LVC3245A	Interface	8-Bit Dual Supply Bidirectional Transceivers w/3-State Outputs	3.3V to 5V - Bidirectional
PI74LVCC3245A	Interface	8-Bit Dual Supply Bidirectional Transceivers w/Configurable Output Voltage & 3-State Outputs	3.3V to 5V - Bidirectional
PI74STX2G4245	Interface	2-Bit Level Shifter Transceiver w/Dual Supply Voltage	1.5V to 3.3V; 2.5V to 5V - Bidirectional

I/O Signal Translators

Part No.	Family	Description	Translator description
PI6C41204	Clock IC	3.3V, 4 O/p, LVTTL/LVCMOS to LVPECL Clock Converter with Selectable Inputs	LVTTL and/or LVCMOS to LVPECL
PI6C41204A	Clock IC	3.3V, 4 O/p, LVTTL/LVCMOS to LVPECL Clock Converter with Enhanced Selectable Inputs	LVTTL and/or LVCMOS to LVPECL
PI6C485311	Clock IC	3.3V, 2 O/p, Differential to LVPECL Clock Buffer, Selectable inputs	CML, LVDS, LVPECL, LVHSTL, SSTL, HCSL to LVPECL
PI6C4853111	Clock IC	2.5V/3.3V 1GHz Low Skew 1 to 10 Differential to LVPECL Fanout Buffer	LVEPCL, LVDS, CML, SSTL to LVPECL
PI6C48533-01	Clock IC	3.3V, 4 O/p, Differential to LVPECL Clock Buffer, Selectable inputs	CML, LVDS, LVPECL, LVHSTL, SSTL, HCSL to LVPECL
PI6C48535-01	Clock IC	3.3V, 4 O/p, LVTTL/LVCMOS to LVPECL Clock Buffer with Selectable inputs	LVTTL/LVCMOS to LVPECL
PI6C48535-11	Clock IC	3.3V, 4 O/p, Crystal/LVCMOS to LVPECL Clock Buffer, Selectable inputs	LVTTL/LVCMOS and/or crystal to LVPECL
PI6C48543	Clock IC	3.3V, Low Skew Diff to LVDS Fanout Buffer	LVDS, LVPECL, LVHSTL, SSTL, HCSL, CML to LVDS
PI6C48545	Clock IC	3.3V, Low Skew LVTTL/LVCMOS to LVDS Fanout Buffer	LVTTL and/or LVCMOS to LVDS
PI6C48545-11	Clock IC	3.3V, Low Skew Xtal/LVTTL/LVCMOS to LVPECL Fanout Buffer	LVTTL/LVCMOS and/or crystal to LVDS
PI6C48535-11A	Clock IC	3.3V, 4 O/p, Crystal/LVCMOS to LVPECL Clock Buffer, Selectable inputs	LVTTL/LVCMOS and/or crystal to LVPECL

continued next page →

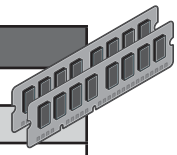
I/O Signal Translators (continued)

Part No.	Family	Description	Translator description
PI74HSTL1212	Interface	24-Bit HSTL Bi-Directional Level Shifting Transceiver	1.8V HSTL to 3.3V LVTTL - Bidirectional
PI90LV01	LVDS	SOTiny Single LVDS Driver	LVTTL to LVDS
PI90LV017A	LVDS	Single LVDS Driver	LVTTL to LVDS
PI90LV018A	LVDS	Single LVDS Receiver	LVDS to LVTTL
PI90LV02	LVDS	SOTiny Single LVDS Receiver	LVDS to LVTTL
PI90LV022	LVDS	LVDS 2x2 Crosspoint/Repeater	LVPECL or LVDS to LVDS
PI90LV027A	LVDS	Dual LVDS Driver	LVTTL to LVDS
PI90LV028A	LVDS	Dual LVDS Receiver	LVDS to LVTTL
PI90LV03	LVDS	SOTiny Single LVDS Repeater	LVPECL or LVDS to LVDS
PI90LV031A	LVDS	Quad LVDS Driver (EN)	LVTTL to LVDS
PI90LV032A	LVDS	Quad LVDS Receiver (EN)	LVDS to LVTTL
PI90LV047A	LVDS	Quad Flow through Driver	LVPECL or LVDS to LVDS
PI90LV048A	LVDS	Quad Flow through Receiver	LVDS to LVTTL
PI90LV179	LVDS	Single Transceiver	LVTTL to LVDS and/or LVDS to LVTTL
PI90LV386	LVDS	16-Wide LVDS Receiver	LVDS to LVTTL
PI90LV387	LVDS	16-Wide LVDS Driver	LVTTL to LVDS
PI90LV9637	LVDS	Dual LVDS Receiver	LVDS to LVTTL
PI90LVB010	LVDS	SOTiny Single Bus LVDS Transceiver	LVTTL to LVDS and/or LVDS to LVTTL
PI90LVB044	LVDS	Bus LVDS Dual 2x2 Crosspoint/Repeater	LVPECL or LVDS to LVDS
PI90LVB16**	LVDS	1:6 Differential to LVTTL Clock/Data Distribution	LVTTL to LVDS and/or LVDS to LVTTL
PI90LVT02	LVDS	SOTiny Single LVDS Receiver w/integrated termination	LVDS to LVTTL
PI90LVT386	LVDS	16-Wide LVDS Receiver w/Integrated Termination	LVDS to LVTTL

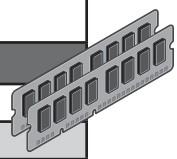
* Check for availability ** Not available in Pb-free

Pericom Semiconductor offers the complete interface solution for all memory module configurations that includes industry leading performance PLL Clock Drivers and Registered Logic Buffers (optional FET Bus Switches are also available).

REGISTERED DIMM SOLUTIONS

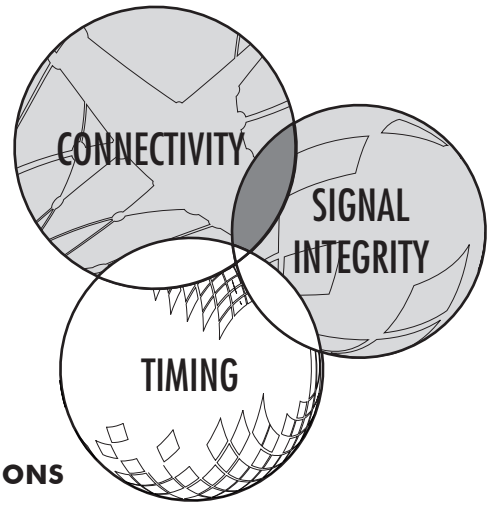


DDR-I			
PC1600/PC2100			
DIMM Configuration		Planar 9 to 18 loads	Stacked 36 loads
Standard 1.7″	PLL	PI6CV857	PI6CV857
	Register	PI74SSTV16857	PI74SSTV16859
1U Low Profile <1.2″	PLL	PI6CV857	PI6CV857
	Register	PI74SSTV16857	PI74SSTV16859 PI74SSTV32852
PC2700			
DIMM Configuration		Planar 9 to 18 loads	Stacked 36 loads
Standard 1.7″	PLL	PI6CV857B, PI6CV847	PI6CV857B, PI6CV847
	Register	PI74SSTVF16857	PI74SSTVF16859
1U Low Profile <1.2″	PLL	PI6CV857B	PI6CV857B
	Register	PI74SSTVF16857	PI74SSTVF16859 PI74SSTVF32852
PC3200			
DIMM Configuration		Planar 9 to 18 loads	
1U Low Profile <1.2″	PLL	PI6CVF857	
	Register	PI74SSTVF16857A PI74SSTVF16859 PI74SSTVF16859A PI74SSTVF32852 PI74SSTVF32852A	



DDR-II		
PC2-3200 (200 MHz) / PC2-4200 (266 MHz)		
DIMM Configuration		Planar 9 to 18 loads
1U Low Profile <1.2″	PLL	PI6CU877 PI6CU878
	Register	PI74SSTU32866
PC2-5300 (333 MHz)		
DIMM Configuration		Planar 9 to 18 loads
1U Low Profile <1.2″	PLL	PI6CUA877 PI6CUA878
	Register	PI74SSTUA32864
PC2-6400 (400 MHz)		
DIMM Configuration		Planar 9 to 18 loads
1U Low Profile <1.2″	PLL	PI6CUA877 PI6CUA878

Notes



PERICOM®

TIMING

SILICON ICS + QUARTZ CRYSTAL TIMING SOLUTIONS

SaRonix-eCera™

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

PCI EXPRESS®

FCIA

dvi digital visual interface

Serial Attached SCSI

SERIAL ATA

ETHERNET

HI-SPEED USB On-The-Go

Part of Pericom's Total Timing Solutions℠, 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, 2.5V/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	Programmable		Alarm Interupt	NV RAM	Clock Calibration	Battery Backup	Control	Charger	Package
		Source Crystal(HZ)	Enable/Disable	Fail Detect	Display(hour)	Square wave Output(HZ)	high/low output					External Clock est Mode		
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° ~ 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

Buffer/Driver (continued)

Part Number	Voltage	Skew	Speed	I/O	Temp	Outputs	Package
PI6C10804	1.8V/2.5V	70ps	250MHz	LVTTL/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	LVTTL/LVCMOS	Ind	10	TSSOP (L20)
PI6C10808	1.8V/2.5V	80ps	250MHz	LVTTL/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	LVTTL/LVCMOS to LVDS	Ind	4	TSSOP (L20)
PI6C48545-11	3.3V	40ps	650MHz	Xtal/LVTTL/LVCMOS to LVPECL	Ind	4	TSSOP (L20)
PI6C487016	1.8V	50ps	250MHz	LVTTL/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 LVCMOS	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	TDFN (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 LVCMOS	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)

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 - 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	LVTTL/LVCMOS	Ind	1	SOIC (W8)
PI6CX100-27	3.3V	50ps	n/a	27MHz	LVTTL/LVCMOS	Ind	1	SOIC (W8)
PI6CX100-272	3.3V	50ps	n/a	40MHz	LVTTL/LVCMOS	Ind	1	SOIC (W8)
PI6CX230C	3.3V	100ps	n/a	240MHz	LVTTL/LVCMOS	Com	1	TSSOP (L16)
PI6CX231B	3.3V	100ps	n/a	240MHz	LVDS	Com	1	TSSOP (L16)
PI6CX233	3.3V	100ps	n/a	60MHz	LVTTL/LVCMOS	Com	1	TSSOP (L16)
PI6CX300	3.3V	300ps	n/a	300MHz	LVTTL/LVCMOS	Com	6	TSOP (L16)
PI6CXP1000	3.3V	250ps	n/a	300MHz	LVTTL/LVCMOS	Com	6	QSOP (Q24)
PI6CX201A	3.3V	350fs	n/a	n/a	LVTTL/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

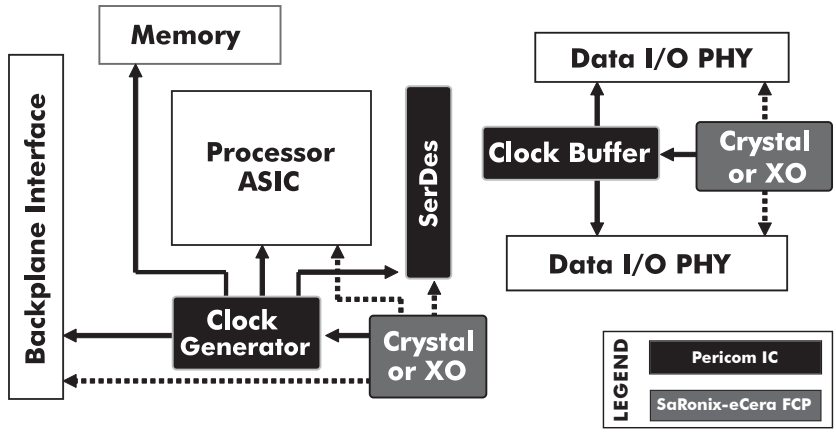
Zero-delay Buffer (continued)

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 Solutions℠. 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.

APPLICATION SELECTION TABLE

Product Series		XTAL														
		GA	GB, GG	GC, GF	F8	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	
Multimeda	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	

SaRonix-eCera™

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			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		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	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
								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	X	X	X	X	X								
	X							X									
	X							X									

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 ouput 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

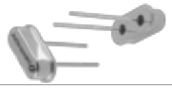
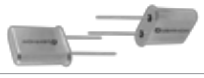
Crystal Oscillator (kHz)

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)

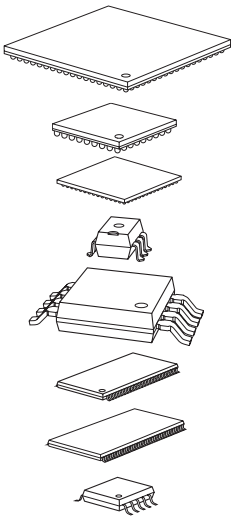
Product Image	Product Series	*SaRonix Reference P/N	Package Size (mm)	Pads/Pins	Description	Frequency Range (MHz)
	FW	N/A	2.0 x 1.6	4	Seam Sealed SMD Ceramic	24~54
	FH	NKS2	2.5 x 2.0	4	Seam Sealed SMD Ceramic	16~66
	FL	NKS3	3.2 x 2.5	4	Seam Sealed SMD Ceramic	12~66
	FF	N/A	4.0 x 2.5	4	Seam Sealed SMD 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)

Notes



PERICOM®

PACKAGING & ORDERING

PACKAGING SOLUTIONS FOR MODERN ELECTRONIC DESIGN

In addition to standard legacy packaging, Pericom leads the industry in smaller, more advanced packaging profiles and footprints for today's designers. Our offerings include very small packages, various thin, ball-grid packages, and Pb-free & Green packaging solutions. Pericom's advanced package solutions support the ever-shrinking circuit board real estate environment.

For full plastic IC packaging mechanicals, visit www.pericom.com/packaging.
For full SaRonix-eCera product packaging, see the relevant datasheet for details.

Abbreviated packaging information for both ICs and FCPs are available on the following pages.

Pericom Pb-Free & Green Policy

Content subject to change. Always check datasheet. Products not listed as Pb-free in this guide may or may not become lead-free in the future.

Please contact your local sales representative for more information go to www.pericom.com/pb-free.

Pericom promotes lead-free manufacturing, which is mandated by legislation and supported by strong market demand with our Pb-free & Green policy:

"Pb-free" Content less than 1000 ppm Pb by weight (E3).

"Green" product complies with both the EU and China RoHS (Restriction of use of Hazardous Substances) Directives, and also contains no halogen-type flame retardants.

Goals:

- Compatibility with both SnPb and Pb-free soldering (with extended temperature range)
- Elimination of Pb in package terminals (leads, balls, bumps).
- Ensuring that lead and certain other elements are not intentionally added during manufacturing.

The potential health hazard posed by lead (Pb) contamination is a major concern to everyone. Our Pb-free and Green program ensures the complete removal of lead from our entire device portfolio, without adversely affecting technical specifications or your own manufacturing processes. Pericom is dedicated to offering safe, non-toxic solutions that satisfy the very highest environmental standards.

IC and device packages, particularly their solder pins, balls or bumps, are the main culprits of lead content, together with the solder paste used to affix them to the board. Most packages still contain traces of lead: small amounts well below legislative requirements. Conventional Sn/Pb soldering contributes significantly to overall lead content of electronic equipment, together with any lead present in the components themselves.

ISO 14001 Environmental Management System Registration was achieved in April 2004 by UL (File number A12583). Our compliance to the standard is proof of our commitment to environmental protection. To achieve ISO 14001 certification, a company must demonstrate:

- Well-defined procedures for handling environmental issues
- Clearly-defined areas of responsibility, with a process for reviewing environmental objectives
- Awareness of environmental factors
- A clear improvement plan prioritizing actions aimed at reducing environmental impact
- A published policy of continuous improvement on environmental issues

Lead-free and Green products can be found throughout the entire Pericom portfolio. For additional information on our Pb-free & Green Plan and product status, please visit www.pericom.com/pb-free.

Plastic IC Tape & Reel

TAPE & REEL										
PKG. CODE	PACKAGE TYPE	REEL DIAMETER (inch)	TAPE WIDTH (mm)	TAPE PITCH (mm)	PIN 1 LOCATION (Reference EIA-481)	TAPE TRAILER LENGTH (Min # Pockets)	QTY PER REEL	TAPE LEADER LENGTH (Min # Pockets)	QTY PER TUBE	QTY PER TRAY
A	TSSOP-48	13″	24	12	Top Left Corner	26 (12″)	1500	43 (20″)	39	N/A
A	TSSOP-56	13″	24	12	Top Left Corner	26 (12″)	1500	43 (20″)	35	N/A
A	TSSOP-64	13″	24	12	Top Left Corner	26 (12″)	1500	43 (20″)	28	N/A
B	BQSOP –40	13″	16	8	Top Left Corner	39 (12″)	3000	64 (20″)	49	N/A
B	BQSOP –48	13″	16	8	Top Left Corner	39 (12″)	3000	64 (20″)	49	N/A
B	BQSOP-80	13″	32	12	Top Left Corner	26 (12″)	2000	43 (20″)	24	N/A
C	SC70-5	7″	8	4	Bottom Left Corner	77 (12″)	3000	127 (20″)	N/A	N/A
C	SC70-6	7″	8	4	Bottom Left Corner	77 (12″)	3000	127 (20″)	N/A	N/A
D	US8-8	7″	8	4	Bottom Left Corner	77 (12″)	3000	127 (20″)	N/A	N/A
FA	TQFP-32	13″	16	12	Top Right Corner	26 (12″)	2000	43 (20″)	N/A	250
FB	LQFP-32	13″	16	12	Top Right Corner	26 (12″)	2000	43 (20″)	N/A	250
FB	LQFP-48	13″	TBD	TBD	Top Right Corner	TBD	TBD	TBD	N/A	250
FC	LQFP-52	13″	24	16	Top Right Corner	20 (12″)	1000	32 (20″)	N/A	160
FC	LQFP-64	13″	24	16	Top Right Corner	20 (12″)	1000	32 (20″)	N/A	160
FD	LQFP-64	13″	24	20	Top Right Corner	16 (12″)	1000	26 (20″)	N/A	160
FF	LQFP-80	13″	24	24	Top Left Corner	13(12″)	1000	22(20″)	N/A	119
GA	CSP-10	7″	8	4	Top Right Corner	77 (12″)	3000	127 (20″)	N/A	N/A
GA	CSP-12	7″	8	4	Top Right Corner	77 (12″)	3000	127 (20″)	N/A	N/A
GB	CSP-10	7″	8	4	Top Right Corner	77 (12″)	3000	127 (20″)	N/A	N/A
GB	CSP-12	7″	8	4	Top Right Corner	77 (12″)	3000	127 (20″)	N/A	N/A
H	SSOP-16	13″	16	12	Top Left Corner	26 (12″)	2000	43 (20″)	78	N/A
H	SSOP-20	13″	16	12	Top Left Corner	26 (12″)	2000	43 (20″)	66	N/A
H	SSOP-24	13″	16	12	Top Left Corner	26 (12″)	2000	43 (20″)	59	N/A
H	SSOP-28	13″	24	12	Top Left Corner	26 (12″)	2000	43 (20″)	47	N/A
J	PLCC-32	13″	24	16	Sprocket Hole Side	20 (12″)	750	32 (20″)	32	N/A
J	PLCC-44	13″	32	24	Sprocket Hole Side	13 (12″)	500	22 (20″)	28	N/A
K	TVSOP –48	13″	16	8	Top Left Corner	39 (12″)	3000	64 (20″)	50	N/A
K	TVSOP –56	13″	24	8	Top Left Corner	39 (12″)	3000	64 (20″)	43	N/A
L	TSSOP-8	13″	12	8	Top Left Corner	39 (12″)	3000	64 (20″)	158	N/A
L	TSSOP-14	13″	12	8	Top Left Corner	39 (12″)	3000	64 (20″)	96	N/A
L	TSSOP-16	13″	12	8	Top Left Corner	39 (12″)	3000	64 (20″)	96	N/A
L	TSSOP-20	13″	16	8	Top Left Corner	39 (12″)	3000	64 (20″)	74	N/A
L	TSSOP-24	13″	16	8	Top Left Corner	39 (12″)	3000	64 (20″)	62	N/A
L	TSSOP-28	13″	16	8	Top Left Corner	39 (12″)	3000	64 (20″)	50	N/A
MA	QFP-128	13″	44	24	Top Left Corner	13 (12″)	500	22 (20″)	N/A	66

Plastic IC Tape & Reel

TAPE & REEL										
PKG. CODE	**PACKAGE TYPE**	**REEL DIAMETER (inch)**	**TAPE WIDTH (mm)**	**TAPE PITCH (mm)**	**PIN 1 LOCATION (Reference EIA-481)**	**TAPE TRAILER LENGTH (Min # Pockets)**	**QTY PER REEL**	**TAPE LEADER LENGTH (Min # Pockets)**	**QTY PER TUBE**	**QTY PER TRAY**
MA	MQFP-160	13″	44	40	Top Left Corner	8 (12″)	250	13(20″)	N/A	24
MA	FQFP-208	13″	44	40	Top Left Corner	8 (12″)	250	13(20″)	N/A	24
NA	PBGA-256	13″	44	32	Top Left Corner	10 (12″)	360	16 (20″)	N/A	40
NA	PBGA-272	13″	44	32	Top Left Corner	10 (12″)	360	16 (20″)	N/A	40
NA	PBGA-304	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	27
NB	LFBGA-84	13″	16	12	Top Left Corner	39 (12″)	2000	64 (20″)	N/A	260
NB	LFBGA-96	13″	24	8	Top Left Corner	39 (12″)	2000	64 (20″)	N/A	285
NB	LFBGA-114	13″	24	8	Top Left Corner	39 (12″)	3000	64 (20″)	N/A	240
NB	LFBGA-160	13″	24	16	Top Left Corner	20(12″)	1000	32(20″)	N/A	189
NC	TFBGA-64	13″	16	12	Top Left Corner	26 (12″)	2000	43 (20″)	N/A	416
ND	PBGA-208	13″	TBD	TBD	TBD	TBD	TBD	TBD	N/A	60
ND	PBGA-256	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	90
NE	TFBGA-72	13″	12	8	Top Left Corner	39 (12″)	3500	64 (20″)	N/A	429
NF	VFBGA-52	13″	16	8	Top Left Corner	39 (12″)	3500	64 (20″)	N/A	364
NH	LBGA-304	13″	N/A	N/A	N/A	N/A	N/A	N/A	N/A	27
NJ	LFBGA-160	13″	N/A	N/A	N/A	N/A	N/A	N/A	N/A	126
NK	LFBGA-72	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N/A	416
NL	VFBGA-45	13″	16	8	Top Left Corner	39 (12″)	3500	64 (20″)	N/A	490
Q	QSOP-16	13″	12	8	Top Left Corner	39 (12″)	3000	64 (20″)	97	N/A
Q	QSOP-20	13″	16	8	Top Left Corner	39 (12″)	3000	64 (20″)	55	N/A
Q	QSOP-24	13″	16	8	Top Left Corner	39 (12″)	3000	64 (20″)	55	N/A
Q	QSOP-28	13″	16	8	Top Left Corner	39 (12″)	3000	64 (20″)	48	N/A
S	SOIC-16	13″	16	12	Top Left Corner	26 (12″)	1000	43 (20″)	47	N/A
S	SOIC-20	13″	24	12	Top Left Corner	26 (12″)	1000	43 (20″)	38	N/A
S	SOIC-24	13″	24	12	Top Left Corner	26 (12″)	1000	43 (20″)	31	N/A
S	SOIC-28	13″	24	12	Top Left Corner	26 (12″)	1000	43 (20″)	27	N/A
T	SOT23-5	7″	8	4	Bottom Left Corner	77 (12″)	3000	127 (20″)	N/A	N/A
T	SOT23-6	7″	8	4	Bottom Left Corner	77 (12″)	3000	127 (20″)	N/A	N/A
TA	SOT66 6	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
U	MSOP-8	13″	12	8	Top Left Corner	39 (12″)	4000	64 (20″)	96	N/A
V	SSOP-48	13″	32	16	Top Left Corner	20 (12″)	1000	32 (20″)	30	N/A
V	SSOP-56	13″	32	16	Top Left Corner	20 (12″)	1000	32 (20″)	26	N/A
W	SOIC- 8	13″	12	8	Top Left Corner	39 (12″)	3000	64 (20″)	97	N/A
W	SOIC-14	13″	16	8	Top Left Corner	39 (12″)	3000	64 (20″)	55	N/A
W	SOIC-16	13″	16	8	Top Left Corner	39 (12″)	3000	64 (20″)	48	N/A

Plastic IC Tape & Reel

TAPE & REEL										
PKG. CODE	**PACKAGE TYPE**	**REEL DIAMETER (inch)**	**TAPE WIDTH (mm)**	**TAPE PITCH (mm)**	**PIN 1 LOCATION (Reference EIA-481)**	**TAPE TRAILER LENGTH (Min # Pockets)**	**QTY PER REEL**	**TAPE LEADER LENGTH (Min # Pockets)**	**QTY PER TUBE**	**QTY PER TRAY**
ZA	TDFN-6	7″	8	4	Top Left Corner	77 (12″)	3500	127 (20″)	TBD	TBD
ZA	TDFN-12	7″	8	4	Top Left Corner	77 (12″)	3500	127 (20″)	TBD	TBD
ZB	QFN-56	13″	16	12	Top Right Corner	26 (12″)	2000	43 (20″)	N/A	348
ZC	TDFN-6	7″	8	4	Top Left Corner	77 (12″)	3500	127 (20″)	TBD	TBD
ZD	TQFN-40	13″	16	12	Top Right Corner	26 (12″)	4000	43 (20″)	N/A	429
ZD	TQFN-48	13″	16	12	Top Left Corner	26 (12″)	3000	43 (20″)	N/A	260
ZD	TQFN-64	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
ZD	TQFN-72	TBD	TBD	TBD	TBD	TBD	TBD	TBD	N/A	240
ZE	TDFN-12	13″	12	8	Top Left Corner	39 (12″)	3500	64 (20″)	105	TBD
ZF	TQFN-36	13″	12	8	Top Left Corner	39 (12″)	3500	64 (20″)	N/A	570
ZF	TQFN-56	13″	24	12	Top Left Corner	26 (12″)	2000	43 (20″)	33	TBD
ZG	TDFN-12	7″	12	4	Top Left Corner	77 (12″)	3500	127 (20″)	TBD	TBD
ZH	TQFN-16	13″	12	8	Top Right Corner	39 (12″)	3500	64 (20″)	120	TBD
ZH	TQFN-20	13″	12	8	Top Left Corner	39 (12″)	3500	64 (20″)	96	N/A
ZH	TQFN-28	13″	12	8	Top Left Corner	39 (12″)	3500	64 (20″)	96	N/A
ZH	TQFN-42	13″	24	8	Top Left Corner	39 (12″)	3500	64 (20″)	41	400
ZI	TQFN-84	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	240
ZJ	TDFN-16	7″	12	4	Top Left Corner	77(12″)	3500	127(20″)	TBD	TBD
ZK	TQFN-12	7″	8	4	Top Left Corner	77 (12″)	3500	127 (20″)	N/A	N/A
ZK	TQFN-24	13″	12	8	Top Left Corner	39 (12″)	3500	64 (20″)	N/A	N/A
ZL	TQFN-10	7″	8	4	Top Left Corner	77 (12″)	3500	127 (20″)	N/A	N/A
ZL	TQFN-12	7″	8	4	Top Left Corner	77 (12″)	3500	127 (20″)	N/A	N/A
ZL	TQFN-16	7″	8	4	Top Left Corner	77 (12″)	3500	127 (20″)	N/A	N/A
ZL	TQFN-32	13″	16	8	Top Left Corner	39 (12″)	3500	64 (20″)	N/A	N/A
ZL	TQFN-64	13″	16	12	Top left Corner	26 (12″)	2000	43 (20″)	N/A	260
ZM	UQFN-10	7″	8	4	Top Left Corner	77 (12″)	3000	127 (20″)	N/A	N/A

Plastic IC Mechaniccals & Thermal Charateristics

Pericom IC Plastic Package Mechanicals and *Thermal Characteristics (for SaRonix-eCera, see datasheet)														
Pericom Code	Pkg. Type	Pin Count	JEDEC PUB 95	Pin Pitch		Length		Width		Height		Theta JA (still air) °C/Watt	Theta JC (°C/Watt)	POD Number
				MILS	MM	MILS	MM	MILS	MM	MILS	MM			
A	TSSOP	48	MO-153F/ED	20	0.5	492	12.5	240	6.1	47	1.2	104	38	PD-1501
A	TSSOP	56	MO-153F/EE	20	0.5	551	14	240	6.1	47	1.2	82	18	PD-1502
A	TSSOP	64	MO-153F/EF	20	0.5	669	17	240	6.1	47	1.2	95	20	PD-1503
B	BQSOP	40	MO-154C/BB	20	0.5	390	9.9	150	3.9	79	2.0	83	20	PD-1209
B	BQSOP	48	MO-154C/AB	16	0.4	390	9.9	150	3.9	79	2.0	82	20	PD-1210
B	BQSOP	80	MO-154C/BC	20	0.5	807	20.5	150	3.9	79	2.0	54	10	PD-1211
C	SC70	5	MO-203B/AA	26	0.65	80	2.0	49	1.25	43	1.1	331	224	PD-1901
C	SC70	6	MO-203B/AB	26	0.65	80	2.0	49	1.25	43	1.1	340	229	PD-1902
D	US8	8	N/A	20	0.5	80	2.0	90	2.3	35	0.9	329	87	PD-2011
FA	TQFP	32	MS-026D/ABA	31.5	0.8	276	7.0	276	7.0	47	1.2	86	12.7	PD-1814
FA	TQFP	48	MO-026D/ABC	20	0.5	276	7.0	276	7.0	47	1.2	56.6	12.8	PD-2056
FA	TQFP	128	MO-229C (Ref)	16	0.4	551	14	551	14	47	1.2	39.6	8.2	PD-2069
FB	LQFP	32	MS-026D/BBA	31.5	0.8	276	7.0	276	7.0	63	1.6	60	14.5	PD-1802
FB	LQFP	48	MS-026D/BBC	20	0.5	276	7.0	276	7.0	63	1.6	59.8	14.4	PD-2027
FC	LQFP	52	MS-026D/BCC	26	0.65	394	10	394	10	63	1.6	31.4	16.7	PD-1803
FC	LQFP	64	MS-026D/BCD	20	0.5	394	10	394	10	63	1.6	46.3	7.2	PD-1804
FD	LQFP	64	MS-026D/BEB	31.5	0.8	551	14	551	14	63	1.6	39.6	8.6	PD-1805
FD	LQFP	100	MS-026/BED	20	0.5	551	14	551	14	63	1.6	35.93	8.72	PD-2065
FD	LQFP	128	MS-026	16	0.4	551	14	551	14	63	1.6	41.8	12	PD-2072
FF	LQFP	80	MS-026/BDD	20	0.5	472	12	472	12	63	1.6	38.8	12.8	PD-2064
FG	LQFP	64	MS-026/MS-022	20	0.5	394	10	394	10	63	1.6	46.3	7.2	PD-2079
GA	CSP	10	N/A	20	0.5	81.5	2.07	61	1.55	28.7	0.73	N/A	N/A	PD-2048
GA	CSP	12	N/A	20	0.5	81.5	2.07	61	1.55	28.7	0.73	N/A	N/A	PD-2049
H	SSOP	20	MO-150B/AE	26	0.65	284	7.2	209	5.3	79	2.0	81.1	32.2	PD-1240
H	SSOP	24	MO-150B/AG	26	0.65	323	8.2	209	5.3	79	2.0	67	24.6	PD-1245
H	SSOP	28	MO-150B/AH	26	0.65	402	10.2	209	5.3	79	2.0	67.1	23.9	PD-1250
J	PLCC	44	MO-047B/AC	50	1.27	690	17.5	690	17.5	180	4.57	41	19	PD-1602
J	PLCC	28	MO-047B/AB	50	1.27	453	11.5	453	11.5	180	4.57	72	33	PD-1603
J	PLCC	32	MS-016A/AE	50	1.27	551	14	453	11.5	140	3.55	52	23	PD-1604
K	TVSOP	48	MO-153/AE	16	0.4	382	9.7	173	4.4	47	1.2	107	48	PD-1324
K	TVSOP	56	MO-153/AE	16	0.4	445	11.3	173	4.4	47	1.2	85	18	PD-1325
L	TSSOP	8	MO-153F/AA	26	0.65	118	3.0	173	4.4	47	1.2	124	37	PD-1308
L	TSSOP	14	MO-153F/AB-1	26	0.65	197	5.0	173	4.4	47	1.2	100	32	PD-1309
L	TSSOP	16	MO-153F/AB	26	0.65	197	5.0	173	4.4	47	1.2	90	24	PD-1310
L	TSSOP	20	MO-153F/AC	26	0.65	256	6.5	173	4.4	47	1.2	84	17	PD-1311
L	TSSOP	24	MO-153F/AD	26	0.65	307	7.8	173	4.4	47	1.2	84	13	PD-1312
L	TSSOP	28	MO-153F/AE	26	0.65	382	9.7	173	4.4	47	1.2	76	31	PD-1313
MA	FQFP	208	MS-029A	20	0.5	1102	28	1102	28	161	4.1	39	16	PD-2012
MA	FQFP	128	MS-029A/KA	20	0.5	787	20	551	14	124	3.4	44.13	22.32	PD-2029
MA	MQFP	160	MS-022B/DD-1	26	0.65	1102	28	1102	28	161	4.1	39.7	19.2	PD-2019
NA	PBGA	256	MS-034B/BAL	50	1.27	1063	27	1063	27	138	3.5	26.2	17.1	PD-2001
NA	PBGA	272	MS-034B/BAL	50	1.27	1063	27	1063	27	138	3.5	27.6	12.1	PD-2006

Plastic IC Mechaniccals & Thermal Charateristics

Pericom IC Plastic Package Mechanicals and *Thermal Characteristics (for SaRonix-eCera, see datasheet)														
Pericom Code	Pkg. Type	Pin Count	JEDEC PUB 95	Pin Pitch		Length		Width		Height		Theta JA (still air) °C/Watt	Theta JC (°C/Watt)	POD Number
				MILS	MM	MILS	MM	MILS	MM	MILS	MM			
NA	PBGA	304	MS-034B/BAN	50	1.27	1220	31	1220	31	100	2.53	29.3	10.6	PD-2018
NA	PBGA	336	MS-304 (Ref.)	50	1.27	1063	27	1063	27	92	2.33	18.2	6.5	PD-2057
NA	PBGA	409	MS-304 (Ref.)	50	1.27	1220	31	1220	31	92	2.33	14.1	5.9	PD-2058
NA	PBGA	516	MS-034 (Ref.)	50	1.27	1378	35	1378	35	93	2.36	–	–	PD-2063
NB	LFBGA	114	MO-205F/DC	31.5	0.8	630	16	217	5.5	57	1.45	60.4	14.1	PD-2002
NB	LFBGA	64	MO-205F/AA	31.5	0.8	315	8.0	315	8.0	59	1.5	51.5	21.1	PD-2003
NB	LFBGA	96	MO-205F/CC	31.5	0.8	531	13.5	217	5.5	58	1.48	49.2	17.6	PD-2004
NB	LFBGA	160	MO-205F/AE	31.5	0.8	472	12	472	12	63	1.6	37.63	12.84	PD-2031
NB	LFBGA	84	MO-205F (Ref.)	31.5	0.8	354	9.0	354	9.0	57	1.46	46.95	21.52	PD-2038
NB	LFBGA	148	MO-205 (Ref)	31.5	0.8	472	12	472	12	62	1.58	–	–	PD-2071
NC	TFBGA	64	MO-195C	20	0.5	276	7.0	276	7.0	47	1.2	86.8	24.6	PD-2005
NC	TFBGA	72	MO-195C	20	0.5	276	7.0	276	7.0	47	1.2	90.7	26.6	PD-2013
ND	PBGA	256	MS-034B/AAF-1	39.4	1.0	669	17	669	17	69.3	1.76	24.2	7.2	PD-2016
ND	PBGA	208	MS-034B/(Ref.)	50	1.27	906	23	906	23	97	2.47	18.63	7.38	PD-2046
NE	TFBGA	72	MO-195C	20	0.5	236	6.0	236	6.0	47	1.2	85.5	29.1	PD-2015
NF	VFBGA	52	MO-225B/BA	26	0.65	276	7.0	177	4.5	39.4	1.0	68.3	28	PD-2017
NH	LBGA	304	MO-192F/BAN	50	1.27	1220	31	1220	31	76	1.73	12.9	0.8	PD-2026
NJ	LBGA	160	MO-192F/DAE	39.4	1.0	591	15	591	15	55	1.4	37.32	13.97	PD-2030
NJ	LBGA	100	MO-192 (Ref.)	39.4	1.0	433	11	433	11	77	1.96	39.6	24.65	PD-2055
NK	LFBGA	72	MO-205F (Ref.)	20	0.5	276	7.0	276	7.0	55	1.4	50.11	22.6	PD-2040
NL	VFBGA	45	MO-225B (Ref.)	20	0.5	236	6.0	118	3.0	39.4	1.0	49.67	24.29	PD-2041
Q	QSOP	16	MO-137B/AB	25	0.635	190	4.8	150	3.9	69	1.75	116	34	PD-1201
Q	QSOP	20	MO-137B/AD	25	0.635	340	8.6	150	3.9	69	1.75	113	36	PD-1202
Q	QSOP	24	MO-137B/AE	25	0.635	340	8.6	150	3.9	69	1.75	98	24	PD-1203
Q	QSOP	28	MO-137B/AF	25	0.635	390	9.9	150	3.9	69	1.75	90	22	PD-1204
S	SOIC	16	MS-013D/AA	50	1.27	406	10.3	295	7.5	104	2.65	89	26	PD-1005
S	SOIC	20	MS-013D/AC	50	1.27	500	12.7	295	7.5	104	2.65	84	25	PD-1006
S	SOIC	24	MS-013D/AD	50	1.27	602	15.3	295	7.5	104	2.65	79	24	PD-1007
S	SOIC	28	MS-013D/AE	50	1.27	701	17.8	295	7.5	104	2.65	74	19	PD-1008
T	SOT23	5	EIAJ SC-74A	37	0.95	114	2.9	64	1.6	57	1.45	99	86	PD-1911
T	SOT23	6	EIAJ SC-74A	37	0.95	114	2.9	64	1.6	57	1.45	96	65	PD-1912
TA	SOT666	6	N/A	20	0.5	65	1.66	47	1.2	23.6	0.6	191	108	PD-2053
U	MSOP	8	MO-187E/AA	26	0.65	118	3.0	118	3.0	43	1.1	206.3	39.1	PD-1261
U	MSOP	10	MO-187E/BA	20	0.5	118	3.0	118	3.0	43	1.1	206	39	PD-1262
V	SSOP	48	MO-118B/AA	25	0.635	625	15.875	300	7.62	110	2.79	94	26	PD-1401
V	SSOP	56	MO-118B/AB	25	0.635	725	18.4	300	7.62	110	2.79	88	26	PD-1402
W	SOIC	8	MS-012D/AA	50	1.27	193	4.9	150	3.9	69	1.75	157	42	PD-1001
W	SOIC	14	MS-012D/AB	50	1.27	340	8.6	150	3.9	69	1.75	113	25	PD-1002
W	SOIC	16	MS-012D/AC	50	1.27	390	9.9	150	3.9	69	1.75	111	24	PD-1004
ZA	TDFN	12	MO-229C/ WEAD	20	0.5	118	3.0	39.4	1.0	31.5	0.8	–	–	PD-2009
ZA	TDFN	6	MO-229C/ WBAD	20	0.5	59	1.5	39.4	1.0	31.5	0.8	–	–	PD-2010

Plastic IC Mechaniccals & Thermal Charateristics

Pericom IC Plastic Package Mechanicals and *Thermal Characteristics (for SaRonix-eCera, see datasheet)														
Pericom Code	Pkg. Type	Pin Count	JEDEC PUB 95	Pin Pitch		Length		Width		Height		Theta JA (still air) °C/Watt	Theta JC (°C/Watt)	POD Number
				MILS	MM	MILS	MM	MILS	MM	MILS	MM			
ZA	TDFN	8	MO-229C (Ref)	20	0.5	80	2.0	80	2.0	31.5	0.8	–	–	PD-2068
ZB	TQFN	56	MO-220I/VLLD	20	0.5	315	8.0	315	8.0	39.4	1.0	24	5.0	PD-2008
ZB	TQFN	48	MO-220/VKKD	20	0.5	276	7.0	276	7.0	39.4	1.0	23.65	9.1	PD-2080
ZC	TDFN	6	MO-229C (Ref)	26	0.65	80	2.0	90	2.3	31.5	0.8	–	–	PD-2020
ZD	TQFN	20	MO-220	20	0.5	157	4.0	157	4.0	31.5	0.8	–	–	PD-2084
ZD	TQFN	40	MO-220I/VJJD	20	0.5	236	6.0	236	6.0	39.4	1.0	–	–	PD-2021
ZD	TQFN	64	MO-220I/VMMD	20	0.5	354	9.0	354	9.0	31.5	0.8	24.83	7.34	PD-2036
ZD	TQFN	72	MO-220I/VNND	20	0.5	394	10	394	10	31.5	0.8	24.69	7.25	PD-2037
ZD	TQFN	48	MO-220/VKKD	20	0.5	276	7.0	276	7.0	39.4	1.0	23.65	9.1	PD-2045
ZE	TDFN	12	MO-229C/ WFED-2	20	0.5	138	3.5	118	3.0	31.5	0.8	–	–	PD-2022
ZF	TQFN	36	MO-220I/WJHD	20	0.5	197	5.0	236	6.0	31.5	0.8	36.26	15.27	PD-2023
ZF	TQFN	56	MO-220I/WPHD	20	0.5	197	5.0	433	11	31.5	0.8	33.23	12.95	PD-2024
ZG	TDFN	12	MO-229C/ WFBD	20	0.5	138	3.5	59	1.5	31.5	0.8	–	–	PD-2028
ZH	TQFN	20	MO-241	20	0.5	138	3.5	177	4.5	31.5	0.8	58.37	–	PD-2032
ZH	TQFN	28	MO-220I/WMFD	20	0.5	138	3.5	217	5.5	31.5	0.8	41.68	23.78	PD-2034
ZH	TQFN	42	MO-220I/WTFD	20	0.5	138	3.5	354	9.0	31.5	0.8	35.34	15.17	PD-2035
ZH	TQFN	12	MO-220	20	0.5	118	3.0	118	3.0	31.5	0.8	–	–	PD-2077
ZH	TQFN	16	MO-220J (WEED)	20	0.5	118	3.0	118	3.0	31.5	0.8	–	–	PD-2047
ZL	TQFN	42	MO-220 (Ref.)	16	0.4	138	3.5	276	7.0	31.5	0.8	–	–	PD-2082
ZI	TQFN	84	MO-220I (Ref.)	16	0.4	394	10	394	10	31.5	0.8	23.3	8.32	PD-2039
ZJ	TDFN	16	MO-229 (Ref.)	16	0.4	130	3.3	59	1.5	31.5	0.8	–	–	PD-2042
ZK	TQFN	24	MO-241 (Ref.)	16	0.4	138	3.5	157	4.0	31.5	0.8	–	–	PD-2043
ZK	TQFN	12	MO-241 (Ref.)	16	0.4	64	1.6	86.6	2.2	31.5	0.8	–	–	PD-2059
ZL	TQFN	32	MO-220 (Ref.)	16	0.4	118	3.0	236	6.0	31.5	0.8	–	–	PD-2044
ZL	TQFN	10	MO-220 (Ref.)	16	0.4	51	1.3	63	1.6	31.5	0.8	–	–	PD-2052
ZL	TQFN	12	MO-220 (Ref.)	16	0.4	86.6	2.2	55	1.4	31.5	0.8	113.83	11.02	PD-2054
ZL	TQFN	16	MO-220 (Ref.)	16	0.4	98	2.5	98	2.5	31.5	0.8	–	–	PD-2061
ZL	TQFN	20	MO-220 (Ref.)	16	0.4	118	3.0	118	3.0	31.5	0.8	–	–	PD-2083
ZL	TQFN	42	MO-220 (Ref.)	16	0.4	138	3.5	276	7.0	31.5	0.8	–	–	PD-2082
ZL	TQFN	64	MO-220 (Ref.)	16	0.4	295	7.5	295	7.5	31.5	0.8	–	–	PD-2067
ZL	TQFN	72	MO-220 (Ref.)	16	0.4	197	5.0	433	11	31.5	0.8	–	–	PD-2075
ZL	TQFN	80	MO-220 (Ref.)	16	0.4	138	3.5	571	14.5	31.5	0.8	–	–	PD-2078
ZM	UQFN	16	MO-220 (Ref.)	16	0.4	98	2.5	98	2.5	21.7	0.55	–	–	PD-2060
ZM	UQFN	10	MO-220 (Ref.)	16	0.4	55.1	1.4	70.9	1.8	21.7	0.55	–	–	PD-2066
ZN	TQFN	16	MO-220 (Ref.)	16	0.4	51	1.3	110	2.8	31.5	0.8	–	–	PD-2062
ZP	TQFN	132	MO-267 (Ref.)	20	0.5	394	10	394	10	39.4	1.0	25.8	8	PD-2073
ZR	UDFN	6	MO-236/MO-252 (Ref.)	16	0.4	47	1.2	394	1.0	21.7	0.55	–	–	PD-2074
ZT	UQFN	10	MO-220 (Ref.)	16	0.4	51	1.3	63	1.6	21.7	0.55	–	–	PD-2076
XA	TLLGA	8	MO-288	20	0.5	59	1.5	59	1.5	23.6	0.6	–	–	PD-2081

Plastic IC Package - Reference Gallery

PERICOM IC PACKAGING

Pericom offers a wide range of advanced packaging solutions to fit any application including PBGA, TSSOP, PLCC, TDFN, LFBGA, and SOTiny®. Additional information can be obtained from individual data sheets, or by contacting your Pericom representative. Not all available packages are represented here.

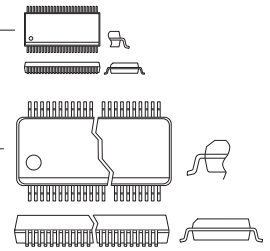
Note: Packages shown approximate actual size. See datasheet for package mechanicals and options available for individual parts.

SARONIX-ECERA FCP PACKAGING

Please see page 96 for the reference gallery on crystal and crystal oscillator product packaging.

BQSOP

B40
B48
B80

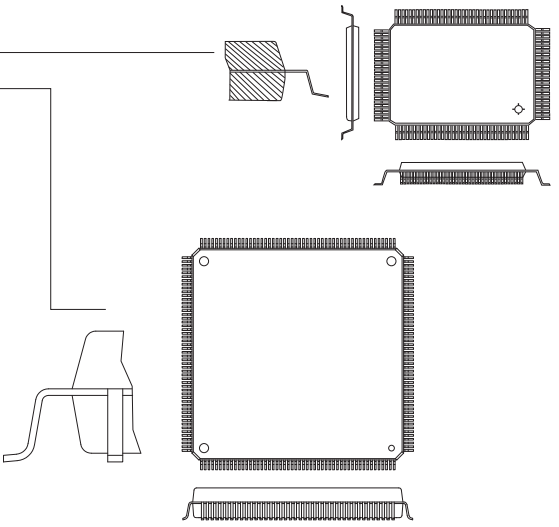


CSP

GA10/GB10
GA12/GB12

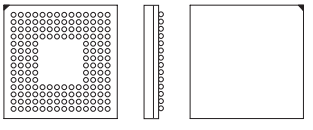
FQFP

MA128
MA208

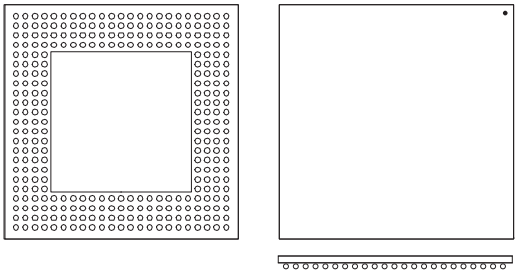


LBGA

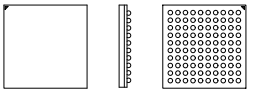
NJ160



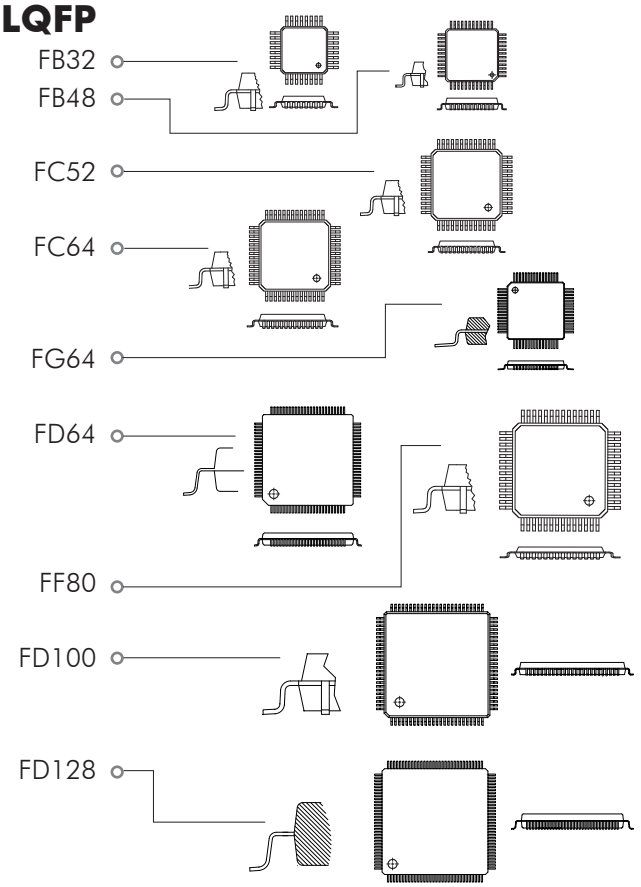
NH304



NJ100



LQFP



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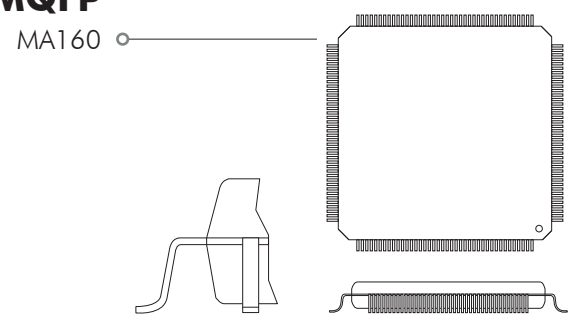
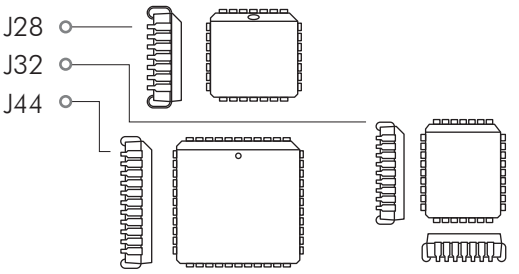
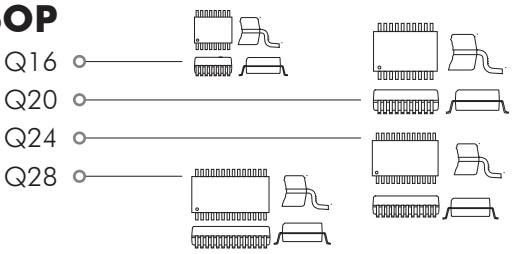


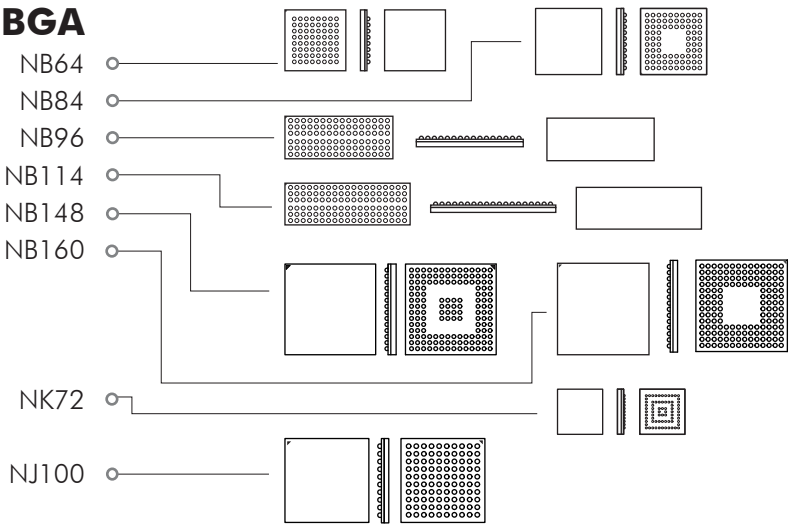
PLCC



QSOP



LFBGA



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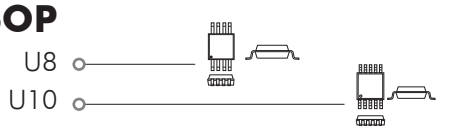

Plastic IC Package - Reference Gallery

PBGA

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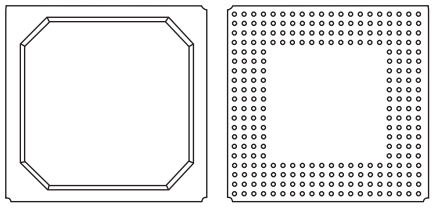

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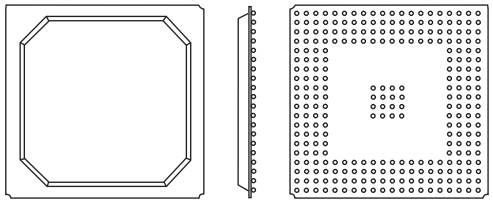

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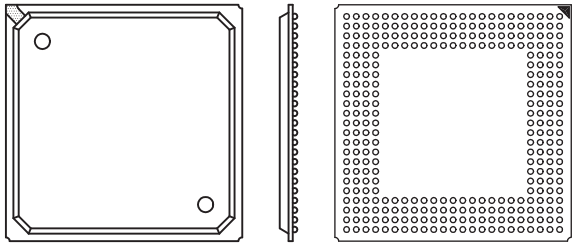
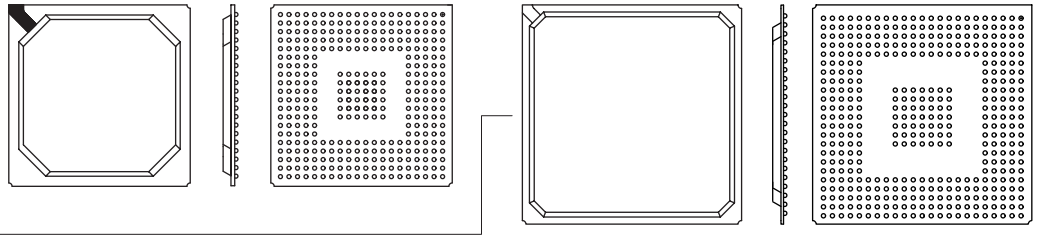


NA336

NA409



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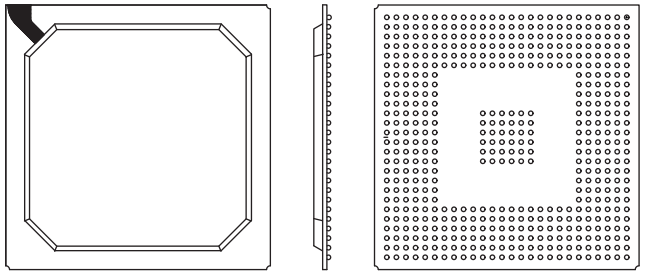
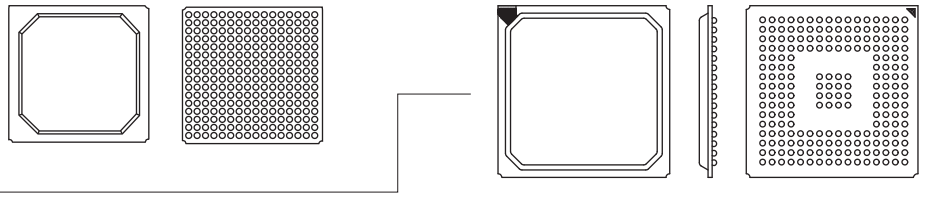
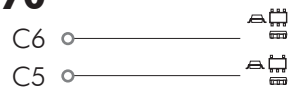


ND208

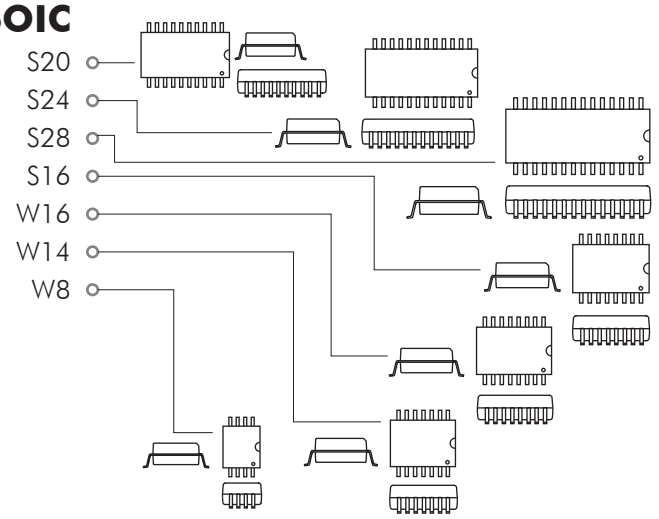
ND256



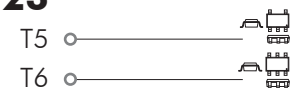
SC70



SOIC

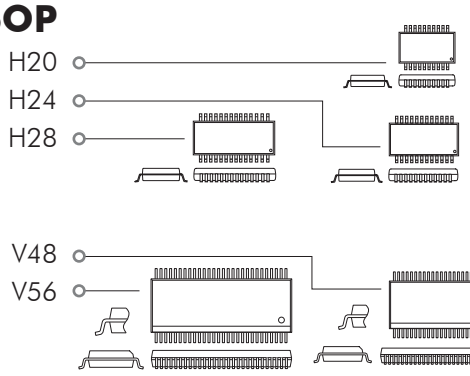


SOT23

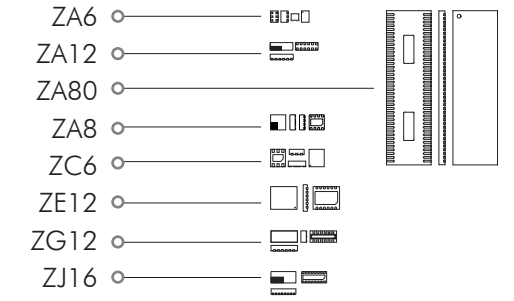


SOT666

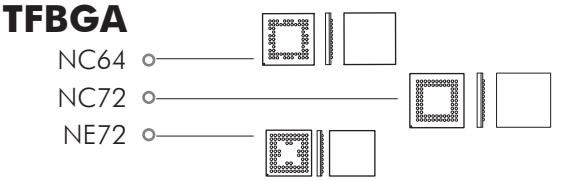
SSOP



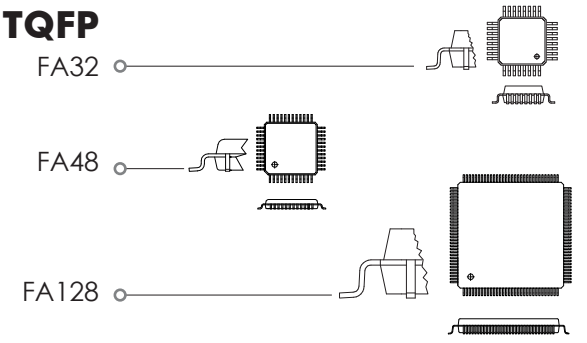
TDFN



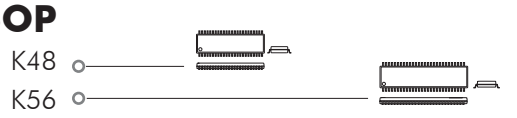
TFBGA



TQFP



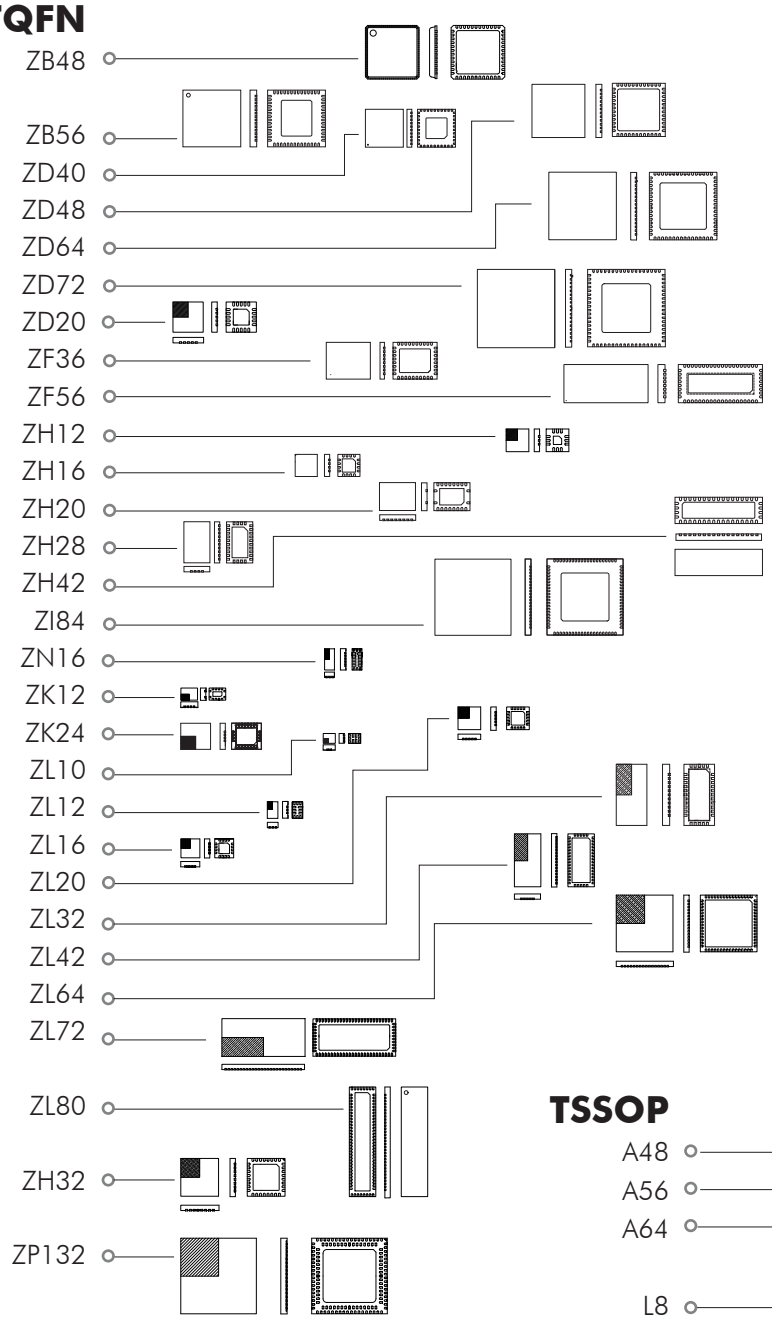
TVSOP



TLLGA

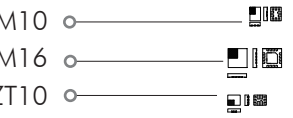
Plastic IC Package - Reference Gallery

TQFN



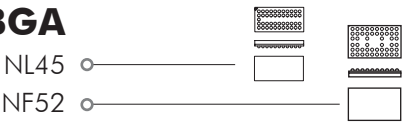
UDFN

UQFN

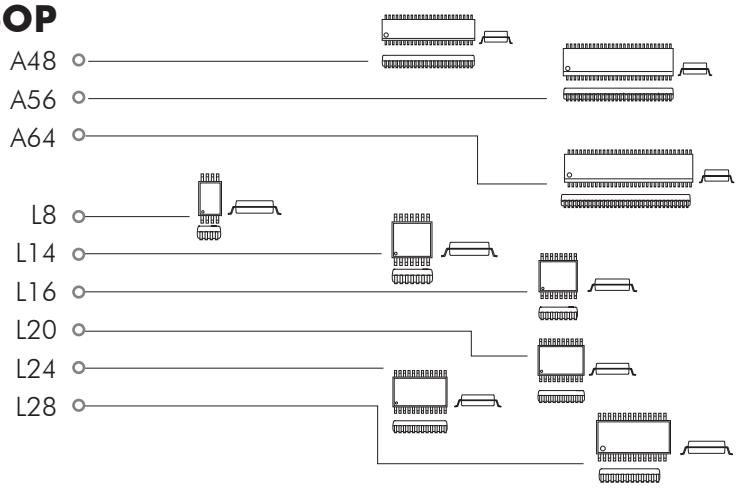


US8

VFBGA

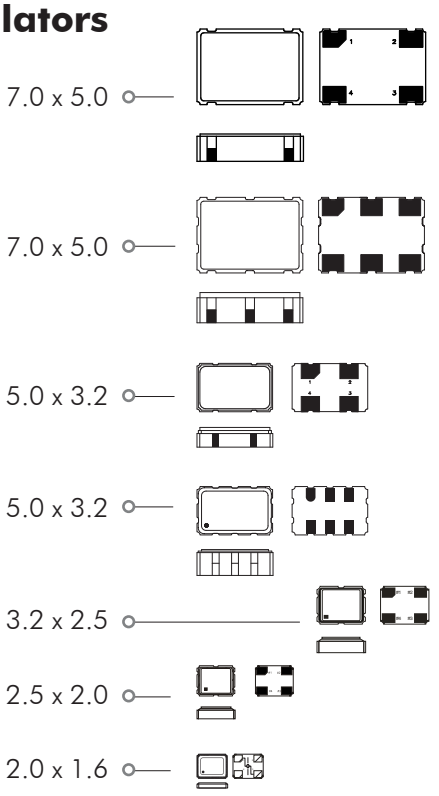


TSSOP

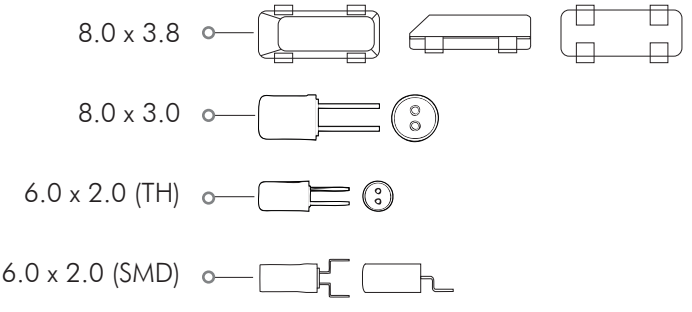


Packages are not in actual size.
All sizes are referenced in millimeters

Crystal Oscillators



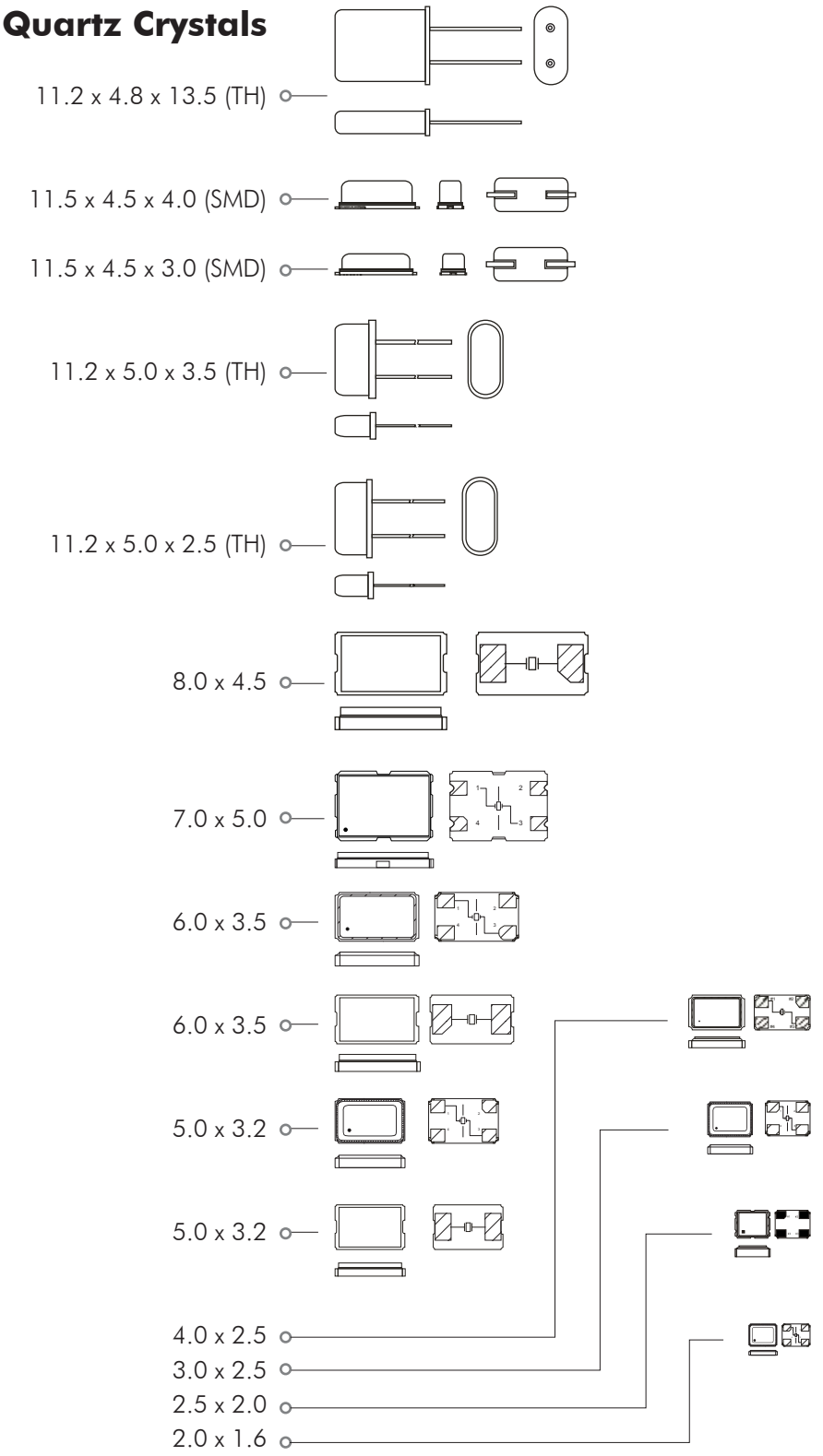
Tuning Forks



SaRonix-eCera FCP Packaging - Reference Gallery

Packages are not in actual size.
All sizes are referenced in millimeters

Quartz Crystals



Notes

Plastic IC Package - Ordering Information

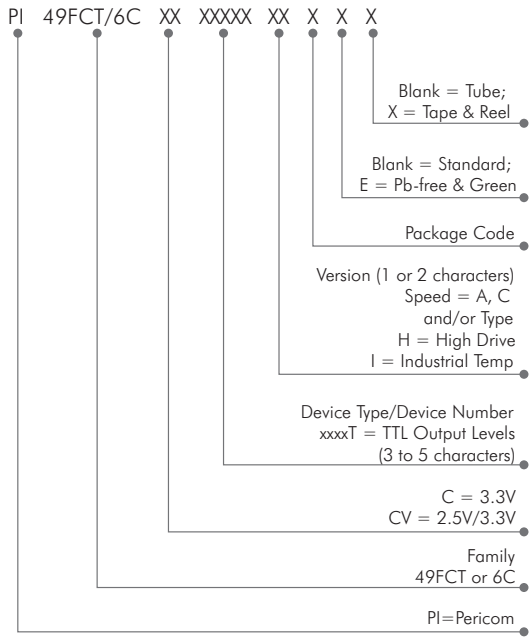
PERICOM IC ORDERING INFORMATION

Pericom offers a wide range of advanced packaging solutions to fit any application including TSSOP, QFN, DFN, LFBGA, and SOTiny®. Use these marking guides to order the correct device for your design. Additional information can be obtained from individual data sheets, or by contacting your Pericom representative.

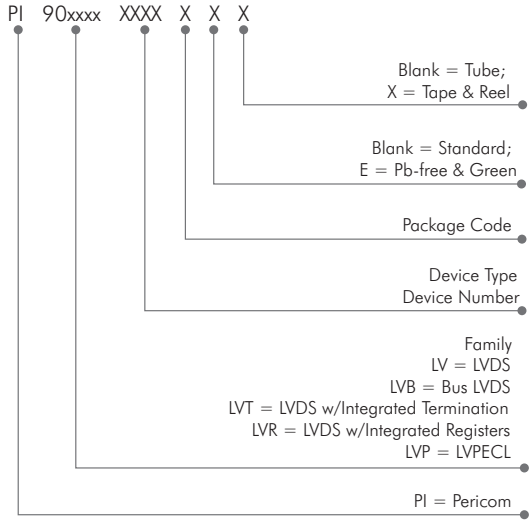
LEAD-FREE ORDERING INFORMATION

Pericom marks all its products (where space on the package surface permits) with an "E" or "-E" letter code to designate Pb-free and/or Green product. This letter will be marked after the complete part number. Where package space does not permit, we may place a "dash" above the first character of the device type to signify Pb-free product. Other possible Pb-free/Green marking identification can also be covered on the device's datasheet.

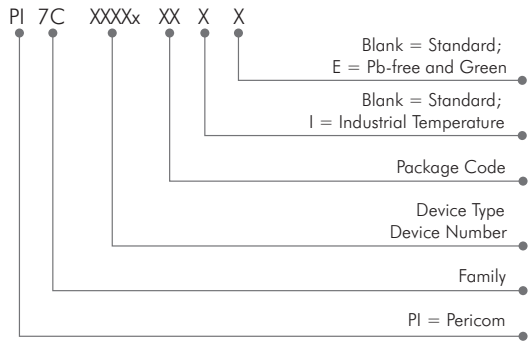
CLOCK IC



LVDS

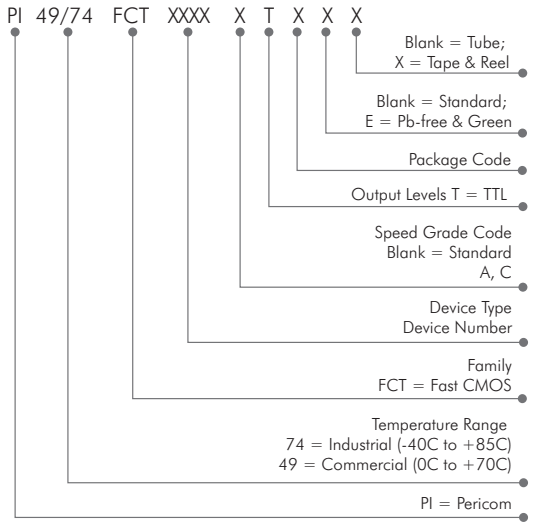


BRIDGE

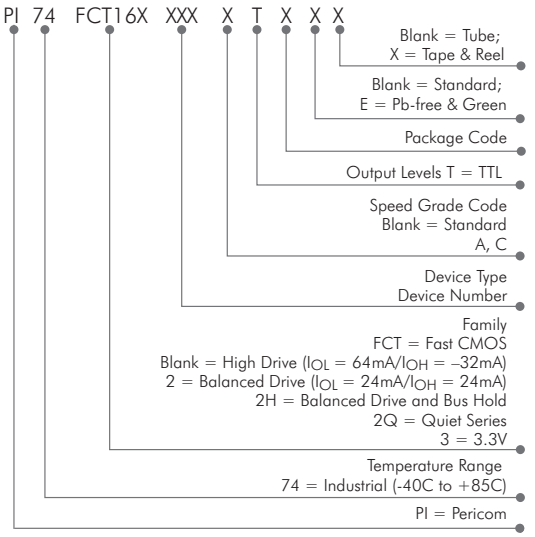


Plastic IC Package - Ordering Information

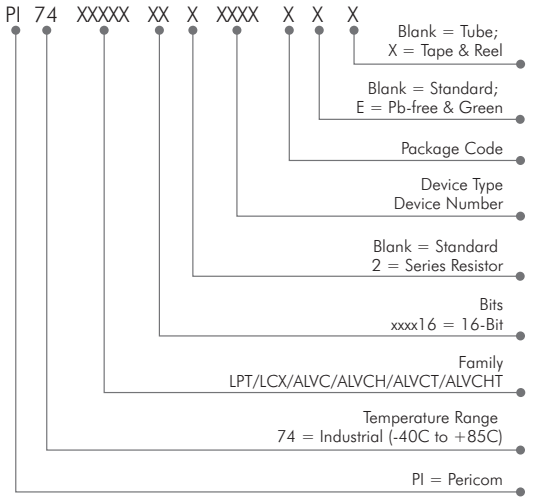
FCTXXXXT



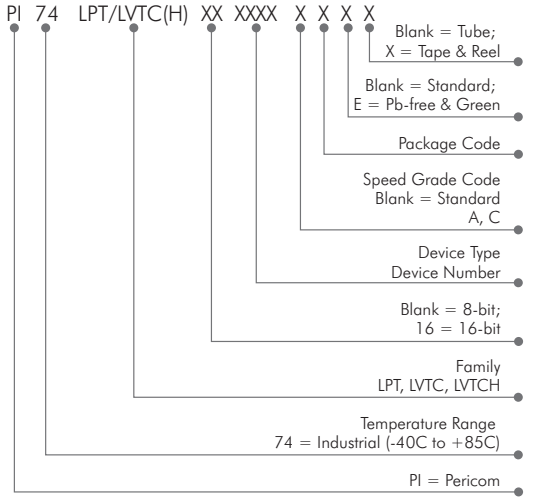
FCT16XXXXT



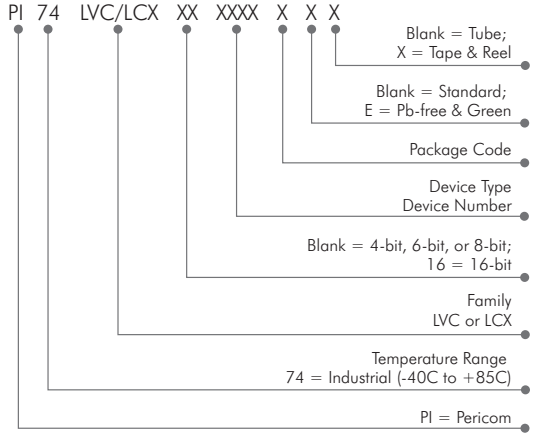
ALVC/ALVCH/ALVCT/ALVCHT/ALVTC AVC/AVC+/SSTU/SSTUA/SSTV/VCX



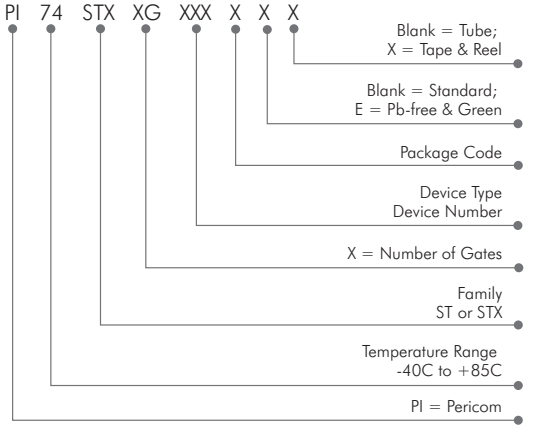
LPT/ LPT16 / LVTC(H) / LVTC(H)16



LVCXXXX / LCXXXXX / LCX16XXXX

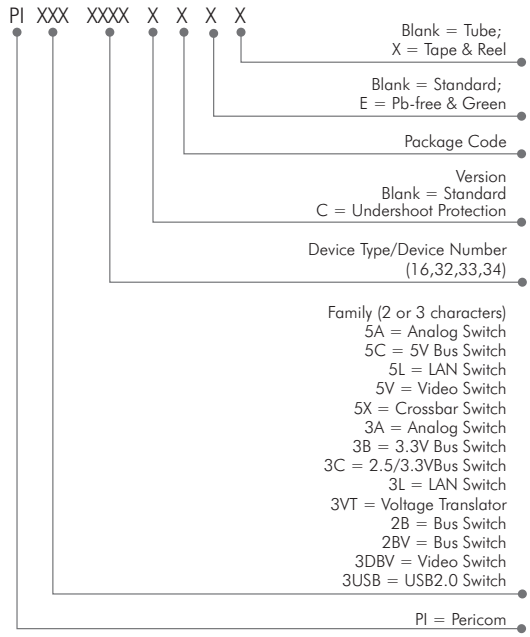


GATE LOGIC

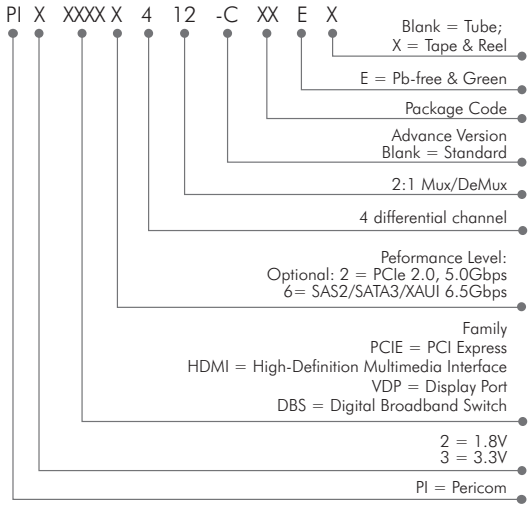


Plastic IC Package - Ordering Information

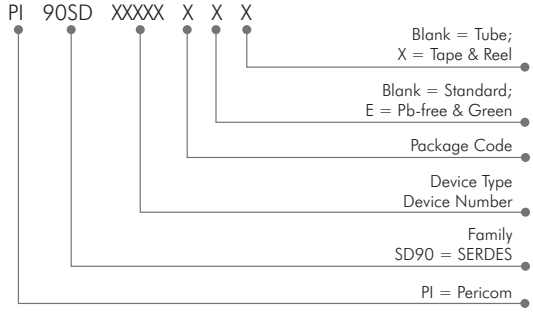
DIGITAL / ANALOG SWITCHES



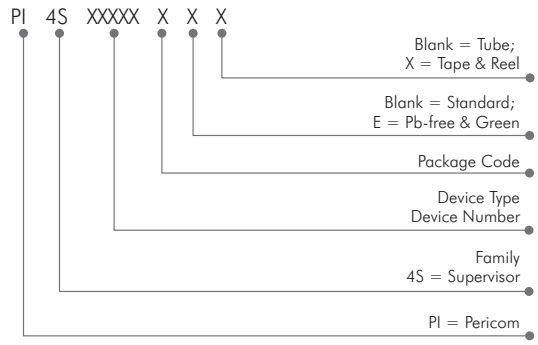
PCIE, HDMI, DBS and VDP SWITCHES



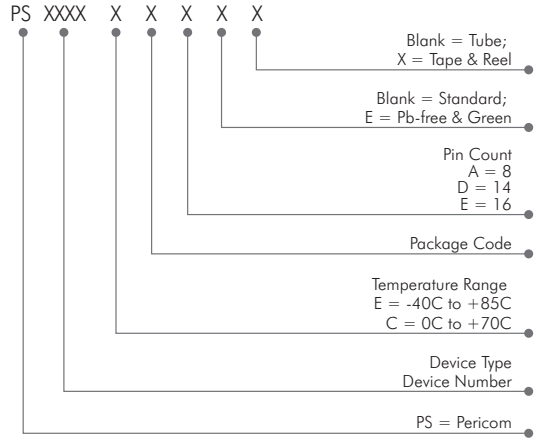
SERDES



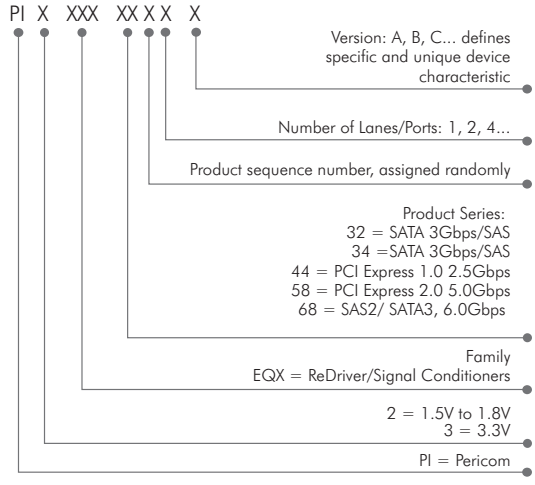
SUPERVISORY



PSXXXX ANALOG SWITCHES



REDRIVER/SIGNAL CONDITIONERS

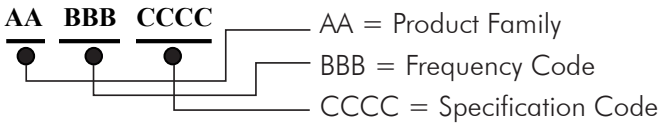


CRYSTALS & OSCILLATORS (FCP)

See SaRonix-eCera Ordering Information in the following section

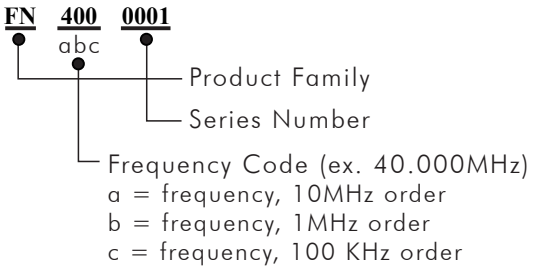
SaRonix-eCera Part Ordering

For ordering of new SaRonix-eCera Crystals and Crystal Oscillators, the following part number format will be used to assign part numbers once exact customer requirements are confirmed.

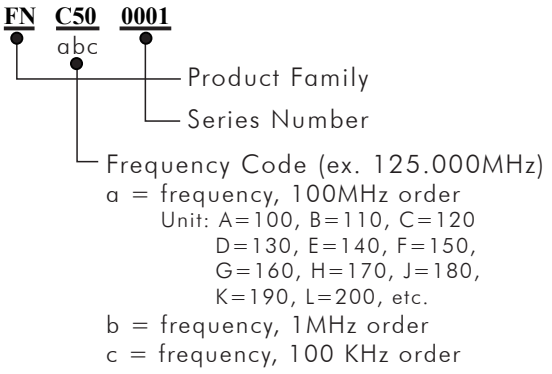


So that:

Under 100MHz:



100MHz and above:



Plastic IC Package - Top Mark Information

Part Number	Pins	Package Code	Top Mark
PI3A121	6	TA	B/D
PI3A121	6	ZA	RA
PI3A121	6	ZC	RA
PI3A125	5	T, C	ZW
PI3A211-A	12	ZP	1A
PI3A223	10	ZL, ZM	GD
PI3A223C	10	ZL, ZM	FB
PI3A223SC	10	ZL, ZM	FC
PI3A268C	10	ZL, ZM	FP
PI3A268SC	10	ZL, ZM	FR
PI3A3159	6	T, ZC	ZG
PI3A3160	12	ZE	YI
PI3A3160C	12	ZE	YH
PI3A404	16	ZN	MU
PI3A404E	16	ZN	MV
PI3A4116	16	ZN	MW
PI3A4117	16	ZN	MX
PI3A412	16	ZL, ZH	A4
PI3A412-A	16	ZN	MA
PI3A412E	16	ZL, ZH	AU
PI3A412E-A	16	ZN	MB
PI3A420	16	ZN	MT
PI3A4624	6	T, ZC	ZF
PI3A4625	6	T, ZC	ZE
PI3A4626	5, 6	T, ZC	ZD
PI3A4627	5, 6	T, ZC	ZC
PI3A4628	5, 6	T, ZC	ZB
PI3A4629	5, 6	T, ZC	ZA
PI3C3125	16	ZJ	TA
PI3C3306	16	ZG	LB
PI3DBV10	12	ZE	YK
PI3USB10	12	ZE	YJ
PI3USB102	10	ZL	XA
PI3USB10LP-A	12	ZL	AP
PI3USB10M	12	ZK	UM
PI3USB10M	12	ZE	YK
PI3USB411	16	ZJ	U1
PI3USB412	16	ZJ	U2
PI3USBA03	16	ZN	ME
PI3USBA201	10	ZL	FD
PI5A121	5	T, C	ZV
PI5A122	5	T, C	ZU
PI5A124	6	T	ZT
PI5A125	5	T	ZS
PI5A3157	6	C	ZM
PI5A3157	06	ZA	ZM

Part Number	Pins	Package Code	Top Mark
PI5A3158	12	ZA	A0
PI5A3159	6	T, ZC	ZL
PI5A4594A	6	C	ZR
PI5A4595A	6	C	ZQ
PI5A4596A	6	C	ZP
PI5A4597A	6	C	ZO
PI5A4599A	6	T, C	ZN
PI5A4624	6	T	ZK
PI5A4625	6	T	ZJ
PI5A4626	5	T	ZI
PI5A4629	5	T	ZH
PI5C3301	5	T, C	ZZ
PI5C3303	5	T	ZX
PI6C3421-1	6	T	SV
PI6C3421A	6	T	SU
PI6C3421AI	6	T	SW
PI6C3450	6	T	SP
PI74ST1G00	5	T, C	A0
PI74ST1G02	5	T, C	A2
PI74ST1G04	5	T, C	A4
PI74ST1G08	5	T, C	A8
PI74ST1G125	5	T, C	AA
PI74ST1G126	5	T, C	AB
PI74ST1G32	5	T, C	AD
PI74ST1G79	5	T, C	AE
PI74STX1G00	5	T, C	B0
PI74STX1G02	5	T, C	B2
PI74STX1G04	5	T, C	B4
PI74STX1G08	5	T, C	B8
PI74STX1G125	5	T, C	BA
PI74STX1G126	5	T, C	BB
PI74STX1G14	5	T, C	BC
PI74STX1G32	5	T, C	BD
PI74STX1G79	5	T, C	BE
PI74STX1G86	5	T, C	BG
PI74STX1GT126	5	T, C	CB
PI74STX1GU04	5	T, C	BH
PI74STX1GU04A	5	T, C	BI
PI74STX2G04	6	C	D4
PI74STX2G14	6	C	DC
PI74STX2G4245	8	TA	DE
PI74STX2G4245	12	ZE	DE
PI74STX4G4245	16	ZJ	4G
PI74XLP34	6	TA	G
PI74XLP34	6	ZA	GE
PI7AT04	6	C	Z9

Part Number	Pins	Package Code	Top Mark
PI90LV01	5	T	L1
PI90LV02	5	T	L5
PI90LV03	6	T	L9
PI90LVT02	5	T	L6

More part marking information is available on the following page.
If the device is not listed here, please consult the device's datasheet for top mark or packaging information. All datasheets are available from www.pericom.com.

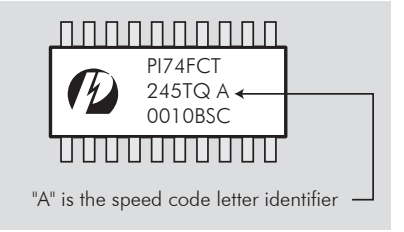
TOP MARKING INFORMATION

Pericom's standard product mark follows our standard part number ordering information, except for those products with a speed letter code. For marking purposes, the speed letter code mark is placed after the package code letter, rather than after the device number as it is ordered.

Although all products are marked immediately after assembly to assure material traceability, Pericom does not usually mark the speed code at that time. After electrical test screening and speed binning has been completed, we then perform an "add mark" operation which places the speed code letter at the end of the complete part number.

Please refer to the example shown here:

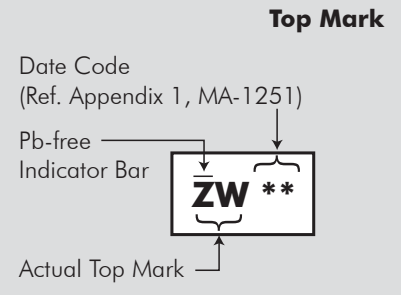
- Part number as ordered: PI74FCT245ATQ
- Example of Part Number as marked:



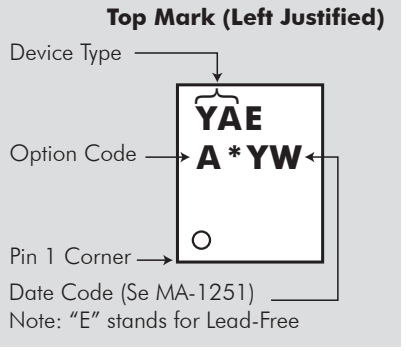
NOTES:
The 8-pin DIP, 8-pin SOIC, 8-pin TSSOP, 14-pin SOIC, 16-pin QSOP, SC70, MSOP, TDFN, and SOT-23 packages are not marked with the Pericom logo due to space limitations on the package.

Pb-Free & Green Top Mark

For T and C pkgs, a BAR (‾) over 1st character is used to indicate Pb-free & Green.



For ZC, ZE, ZA & ZJ the letter "E" after the two-letter part number will indicate Pb-Free & Green.



Sales and Corporate Contact Information for Pericom Worldwide
Pericom offeres sales support worldwide - with Representatives, Distributors and International Sales Partners. The following pages list our global sales contact information.

Corporate contact info
U.S. Corporate Headquarters
3545 North First St.
San Jose, CA 95134
USA
www.pericom.com

Tel: 800-435-2336
Tel: 408-435-0800
Fax: 408-435-1100

For Investor Relations Inquiries:
Ashton Partners
201 Mission Street Suite 500
San Francisco, CA 94105
or email kramirez@pericom.com

For Marketing Communications and PR inquiries send an email to events@pericom.com:

For Customer & Technical Support visit our website or call or toll free number (within the US).

Pericom Sales Managers

Territory	Contact Name	Telephone	Email
USA: North Central and Canada	David Brassfield	(847) 566-5655	dbrassfield@pericom.com
USA: North East and Colorado	Kory Stone	(717) 249-7377	kstone@pericom.com
USA: South Central, Southeast, and Latin America	Mike Morse	(972) 509-7096	mmorse@pericom.com
USA: Western	Tommy Tran	(408) 435-0800	ttran@pericom.com
China, North	Alfred Zhang	+86 (21) 6119-5705	azhang@pericom.com
China, South	Bassie Chan	+86 (755) 2518-2195	bchan@pericom.com
Europe, Israel, and S. Africa	David Rashbrook, David Falp	+44 1256 345551 +44 1376 568048	drashbrook@pericom.com dfalp@pericom.com
Hong Kong	Bassie Chan	+86 (755) 2518-2195	bchan@pericom.com
Japan	TBA	+81 (3) 5350-3113	japan@pericom.com
Singapore, Malaysia, India, Australia, Thailand, Philippines	TC Tee	+65 6559-6115	singapore@pericom.com
South Korea	Harry Park	+82 (31) 203-2338	korea@pericom.com
Taiwan, R.O.C.	Eric Lee	+886 (2) 6615-1361	elee@pericom.com

North America Distribution Sales

Company	Website
Arrow	www.arrow.com
Avnet	www.avnet.com
Digi-Key	www.digikey.com
Dove (SaRonix-eCera devices only)	www.dove-electronic.com
Future Electronics	www.FutureElectronics.com
Mouser Electronics	www.mouser.com
Nu Horizons	www.nuhorizons.com

Europe Distribution Sales

Company Name	Web Site
Adelco Electronics	www.adelco.nl
Avnet Memec	www.emea.avnet-memec.com
Boran Technologies Ltd. (Israel only)	www.boran.co.il
El-Gev Electronics Ltd. (Israel only)	www.elgev.co.il
Future Electronics	www.FutureElectronics.com
Hy-Line (Pericom IC only)	www.hy-line.de
Nu Horizons	www.nuhorizons.com
TD Elektronics S.R.L.	www.tecnikadue.com

Asia Distribution Sales

City	Company	Telephone	Email	Website
Beijing	RTI Holdings Ltd	86-10-82607460	herb@rti.com.hk	www.rti.com.hk/about.html
Chengdu	RTI Holdings Ltd	86-2885124048	nick@rti.com.hk	www.rti.com.hk/about.html
Fuzhou	RTI Holdings Ltd	86-592-83751791	rick@rti.com.hk	www.rti.com.hk
Hong Kong	Chinatronics Technology	852-2176-5241	James.Kwan@Avnet.com	www.chinatronic.avnet.com
Hong Kong	RTI Industries	852-27957421	gary.ng@rti.com.hk	www.rti.com.hk/about.html
Shanghai	Avnet	86-21-5206 2294	zhiguo.gao@Avnet.com	www.avnet.com
Shanghai	QCE	86-21-68867223	haihe@qce.com.cn	www.qce.com.hk
Shanghai	RTI Holdings Ltd	86-21-63546919	thomas@rti.com.hk	www.rti.com.hk
Shenzhen	RTI Holdings Ltd	86-755-8236-6450	gary.ng@rti.com.hk	www.rti.com.hk/about.html
Shenzhen/Hong Kong	QCE	852-24371053	ellislo@qce.com.hk	www.qce.com.hk
Shenzhen/Hong Kong	Avnet	852-2176-5241	James.Kwan@Avnet.com	www.chinatronic.avnet.com/
Wuhan	RTI Holdings Ltd	86-27-59835308	flora@rti.com.hk	www.rti.com.hk
Xiamen	RTI Holdings Ltd	86-592-5161607	paul@rti.com.hk	www.rti.com.hk

United States: Sales Representatives

State	Company	Telephone	Email	Web
AL	BITS, Inc.	256-534-4020	pericom@bits1.com	www.bits1.com
AR	IntelliMark Associates, Inc.	972-503-9300	pericomsales@intellimark.com	www.intellimark.com
AZ	Summit Sales	480-998-4850	aimee@summitsales.com	www.summitsales.com
CA	DynaRep (Los Angeles & Orange County)	714-573-1223	trish.sayavong@dynarep.com	www.dynarep.com
CA	Electec NorCal (Northern CA)	408-496-0706	isr@electec.com	www.electec.com
CA	Innovation Sales (San Diego)	858-535-9300	scampa@innovationsales.com	www.innovationsc.com
CO	Wescom Marketing, Inc.	303-432-6809	lauraa@wescom-mkt.com	www.wescom-mkt.com
CT	Advanced Technical Sales	978-664-0888	strob@advtechsales.com	www.advtechsales.com
DC	QoS, Inc.	410-453-0027	sales@qosrep.com	www.qosrep.com
FL	Alliance Group One	813-386-9000	myami@alliancefla.com	www.alliancefla.com
GA	BITS, Inc.	770-513-8610	pericom@bits1.com	www.bits1.com
IA	Dy-Tronix, Inc.	319-294-9400	cedar.rapids@dy-tronix.com	www.dy-tronix.com
ID	Wescom Marketing, Inc.	208-288-0052	jakeh@wescom-mkt.com	www.wescom-mkt.com
IL	Core Sales, Inc.	847-843-8888	kirk.redman@coresales.com	www.coresales.com
IN	MaxTech Marketing	317-408-3349	johnm@mtmark.com	www.mtmark.com
KS	Dy-Tronix, Inc.	913-339-6333	jcarpenter@dy-tronix.com	www.dy-tronix.com
KY	MaxTech Marketing	937-902-7284	lisab@mtmark.com	www.skylinesalesassoc.com
LA	IntelliMark Associates, Inc.	281-751-7500	pericomsales@intellimark.com	www.intellimark.com
MA	Advanced Technical Sales	978-664-0888	strob@advtechsales.com	www.advtechsales.com
MD	QoS, Inc.	410-453-0027	sales@qosrep.com	www.qosrep.com
ME	Advanced Technical Sales	978-664-0888	strob@advtechsales.com	www.advtechsales.com
MI	MaxTech Marketing	937-902-7284	lisab@mtmark.com	www.skylinesalesassoc.com
MN	Professional Sales for Industry	952-893-1000	jpgosh@psicompany.net	www.psicompany.net
MO	Dy-Tronix, Inc.	314-291-4777	st.louis@dy-tronix.com	www.dy-tronix.com
MS	BITS, Inc.	256-534-4020	pericom@bits1.com	www.bits1.com
MT	Wescom Marketing, Inc.	208-288-0052	jakeh@wescom-mkt.com	www.wescom-mkt.com
NC	BITS, Inc. (Raleigh)	919-807-1000	pericom@bits1.com	www.bits1.com
ND	Professional Sales for Industry	952-893-1000	jpgosh@psicompany.net	www.psicompany.net
NE	Dy-Tronix, Inc.	319-294-9400	jcarpenter@dy-tronix.com	www.dy-tronix.com
NH	Advanced Technical Sales	978-664-0888	strob@advtechsales.com	www.advtechsales.com
NJ	Tech Marketing (Northern NJ)	973-226-3300	lszuhany@techmktgrp.com	www.techmktgrp.com
NJ	QoS, Inc. (Southern NJ)	410-453-0027	sales@qosrep.com	www.qosrep.com
NM	Summit Sales	480-998-4850	aimee@summitsales.com	www.summitsales.com
NV	Electec NorCal (Reno)	408-496-0706	info@electec.com	www.electec.com
NV	Summit Sales (Las Vegas)	480-998-4850	aimee@summitsales.com	www.summitsales.com
NY	NYCOM, Inc. (Northern NY)	315-437-8343	MAllen@nycom-inc.com	www.nycom-inc.com
NY	Tech Marketing (Southern NY)	973-226-3300	lszuhany@techmktgrp.com	www.techmktgrp.com
OH	MaxTech Marketing	937-902-7284	lisab@mtmark.com	www.mtmark.com
OK	IntelliMark Associates, Inc.	972-503-9300	pericomsales@intellimark.com	www.intellimark.com

United States: Sales Representatives (continued)

State	Company	Telephone	Email	Web
OR	Electra	503-643-5074	melissa.turner@electratech.com	www.electratech.com
PA	QoS, Inc. (Eastern PA)	410-453-0027	sales@qosrep.com	www.qosrep.com
PA	MaxTech Marketing (Western PA)	937-902-7284	lisab@mtmark.com	www.mtmark.com
RI	Advanced Technical Sales	978-664-0888	strob@advtechsales.com	www.advtechsales.com
SC	BITS, Inc.	919-807-1000	pericom@bits1.com	www.bits1.com
SD	Professional Sales for Industry	952-893-1000	jpgosh@psicompany.net	www.psicompany.net
TN	BITS, Inc.	256-534-4020	pericom@bits1.com	www.bits1.com
TX	IntelliMark Associates, Inc. (Austin)	512-302-9300	pericomsales@intellimark.com	www.intellimark.com
TX	IntelliMark Associates, Inc. (Dallas)	972-503-9300	pericomsales@intellimark.com	www.intellimark.com
TX	IntelliMark Associates, Inc. (Houston)	281-251-7500	pericomsales@intellimark.com	www.intellimark.com
UT	Wescom Marketing, Inc.	801-269-0419	jeffs@wescom-mkt.com	www.wescom-mkt.com
VA	QoS, Inc.	410-453-0027	sales@qosrep.com	www.qosrep.com
VT	Advanced Technical Sales	978-664-0888	strob@advtechsales.com	www.advtechsales.com
WA	Electra	425-821-7442	melissa.turner@electratech.com	www.electratech.com
WI	Core Sales, Inc. (Lisle)	847-843-8888	kirk.redman@coresales.com	www.coresales.com
WI	Professional Sales for Industry (Bloomington)	952-893-1000	jpgosh@psicompany.net	www.psicompany.net
WV	MaxTech Marketing	937-902-7284	lisab@mtmark.com	www.mtmark.com
WY	Wescom Marketing, Inc.	303-432-6809	lauraa@wescom-mkt.com	www.wescom-mkt.com

International Sales Partners

City	Country	Company	Telephone	Email	Web
Buenos Aires	Argentina/Chile	Phoenix	54-11-4251-3732	santiago.morrison@phoenixrep.com	www.phoenixrep.com
Alexandria NSW	Australia	Braemac	612 9550 6600	j.bullivant@braemac.com.au	www.braemac.com.au
Gladesville	Australia	Avnet Asia	61 1300 784 222	shaun.lee@avnet.com	www.avnet.com
Victoria	Australia	Soanar	1300 889 883	cbayliss@soanar.com	www.soanar.com.au
N/A	Austria	AlphaRep	49 8151 16044	tiefenthaler@alpharep.de	www.alpharep.de
N/A	Belgium	Adelco	+32 (0)15 305 690	denis.vlaeminck@adelco.be	www.adelco.be
Sao Paulo	Brazil	Phoenix	55-11-3842-8911	rogerio.moreira@phoenixrep.com	www.phoenixrep.com
All Provinces	Canada	Canadian Source Corporation	1-800-665-6013	info@csc-intl.com	www.csc-intl.com
N/A	China	Continue Technology	86-021-6456-9480	garry.shen@continue.com.cn	www.continue.com.cn
N/A	China	Chinatronics Technology	852-2176-5241	James.Kwan@Avnet.com	www.chinatronic.avnet.com
N/A	China	Phyung Electronics	86-21-64518755	abram_tsao@phyung.com	www.phyung.com
N/A	China	Array Microelectronics Ltd	852-2381-4928	Sweetmo@arraymicro.com	www.arraymicro.com
N/A	China	RTI Holdings Ltd	86-755-8236-6450	gary.ng@rti.com.hk	www.rti.com.hk/about.html
Beijing	China	RTI Holdings Ltd	86-10-8260-7460	herb@rti.com.hk	www.rti.com.hk/about.html
Beijing	China	Kada Technical Innovation	86-010-8288-4830	flybird@kada.com.cn	www.kada.com.cn
Beijing	China	Array Microelectronics Ltd	86-10-6436-9021	Yoyoxi@arraymicro.com	www.arraymicro.com
Chengdu	China	RTI Holdings Ltd	86-288512-4048	nick@rti.com.hk	www.rti.com.hk/about.html
Fuzhou	China	RTI Holdings Ltd	86-592-8375-1791	rick@rti.com.hk	www.rti.com.hk
Shanghai	China	Array Microelectronics Ltd	86-21-6465-6993	sweetmo@arraymicro.com	www.arraymicro.com
Shanghai	China	Kada Technical Innovation	86-21-5407-0147	charles.yin@kada.com.cn	www.kada.com.cn
Shanghai	China	RTI Holdings Ltd	86-21-6354-6919	thomas@rti.com.hk	www.rti.com.hk
Shanghai	China	Evergrow Industrial Co.Ltd.	86-21-6247-1028	hangzhou@szevergrow.com	www.szevergrow.com
Shanghai	China	Avnet	86-21-5206-2294	zhiguo.gao@Avnet.com	www.avnet.com
Shanghai	China	QCE	86-21-6886-7223	haihe@qce.com.cn	www.qce.com.hk
Shenzhen	China	Kada Technical Innovation	86-755-8332-9340	kevinrao@kada.com.cn	www.kada.com.cn
Shenzhen	China	RTI Holdings Ltd	86-755-8236-6450	gary.ng@rti.com.hk	www.rti.com.hk/about.html
Shenzhen	China	Evergrow Industrial	86-755-8302-1021	william@szevergrow.com	www.szevergrow.com

International Sales Partners (continued)

City	Country	Company	Telephone	Email	Web
Shenzhen	China	MM Synergy	86-755-8379-5485	david@mmsynergy.com	www.mmsynergy.com.cn
Shenzhen	China	MM Synergy	86-755-8328-7996	mmsynergy@mmsynergy.com	www.mmsynergy.com.cn
Shenzhen	China	Array Microelectronics Ltd	86-755-8611-0382	janezhou@arraymicro.com	www.arraymicro.com
Shenzhen/ Hong Kong	China	QCE	852-2437-1053	ellislo@qce.com.hk	www.qce.com.hk
Shenzhen/ Hong Kong	China	Avnet	852-2176-5241	James.Kwan@Avnet.com	www.chinatronic.avnet.com/
Wuhan	China	RTI Holdings Ltd	86-27-5983-5308	flora@rti.com.hk	www.rti.com.hk
Xiamen	China	RTI Holdings Ltd	86-592-5161607	paul@rti.com.hk	www.rti.com.hk
Xiamen	China	Evergrow Industrial Co.Ltd.	86-592-532-7211	zoeyxia@szevergrow.com	www.szevergrow.com
N/A	Denmark	Spectrum Nordic	46 (0) 8 6210 104	sales@spectrum-nordic.com	www.spectrum-nordic.com
N/A	Finland	Spectrum Nordic	46 (0) 8 6210 104	sales@spectrum-nordic.com	www.spectrum-nordic.com
Toulouse	France	Adelco	33 (0) 5 67 31 02 06	richard.foster@adelcofrance.com	www.adelcofrance.com
Starnberg	Germany	AlphaRep	49 8151 16044	tiefenthaler@alpharep.de	www.alpharep.de
Hong Kong	Hong Kong	Array Microelectronics Ltd	852-2381-4928	LiviaLee@arraymicro.com	www.arraymicro.com
Hong Kong	Hong Kong	RTI Holdings Ltd	852-2795-7421	gilbert@rti.com.hk	www.rti.com.hk/about.html
Bangalore	India	Spectra India	91-80-558-8323	jitendra@spectraind.com	www.spectraus.com
Raanana	Israel	SOTAL technologies Ltd	972-9-7447705	avidan.perry@sotaltech.com	www.sotaltech.com
Milan	Italy	Overtek S.R.L	+39-335-6050254	camilucci@overtek.com	www.overtek.com
Tokyo	Japan	MCM	81-3-3487-8502	ushigome@mcm.co.jp	www.mcmjapan.com
Tokyo	Japan	Kanematsu Corporation Devices Company	81-3-3544-6534	compo@kdc.kanematsu.co.jp	www.kdc.kanematsu.co.jp
Tokyo	Japan	Internix	81-3-5322-1702	aishikawa@internix.co.jp	www.internix.co.jp
N/A	Luxembourg	Adelco	+31 (0)10 2 580 580	info@adelco.nl	www.adelco.nl
Kuala Lumpur	Malaysia	Desner Electronics	603-7877 6211	charles.ting@desner.com	www.desner.com
Pulau Pinang	Malaysia	Desner Electronics	604-641-1288	edward.chai@desner.com	www.desner.com
Pulau Pinang	Malaysia	Maxmega Electronics	604-642-3918	khlim@maxmega.com	www.maxmega.com
Chihuahua	Mexico	Phoenix	+52 (614) 493-9130	luis.mata@phoenixrep.com	www.phoenixrep.com
Guadalajara	Mexico	Phoenix	+52 (33) 3123-9199	arturo.andrade@phoenixrep.com	www.phoenixrep.com

International Sales Partners (continued)

City	Country	Company	Telephone	Email	Web
Mexico City	Mexico	Phoenix	+52 (33) 3123-9199	rolando.gutierrez@phoenixrep.com	www.phoenixrep.com
Monterrey	Mexico	Phoenix	+52 (81) 8335-4968	adriana.aguilar @phoenixrep.com	www.phoenixrep.com
Tijuana	Mexico	Phoenix	619-955-6717	ramon.manriquez@phoenixrep.com	www.phoenixrep.com
N/A	Netherlands	Adelco	+31 (0)10 2 580 580	info@adelco.nl	www.adelco.nl
N/A	Norway	Spectrum Nordic	46 (0) 8 6210 104	sales@spectrum-nordic.com	www.spectrum-nordic.com
Muntinlupa City	Philippines	Pangaea International	632 807 8429	chris@pangaea.com.ph	www.pangaea.com.ph
Pasig City	Philippines	Desner Electronics	632-636-7610	jegs.dabalos@desner.com	www.desner.com
N/A	Portugal	Spectrum Electronica	34 91 5477618	rblanco@spectrum-electronica.com	www.spectrum-electronica.com
N/A	Puerto Rico	Alliance Group One	813-386-9000	myami@alliancefla.com	www.alliancefla.com
Singapore	Singapore	Desner Electronics	65-6-2851566	adeline.goh@desner.com	www.desner.com
Singapore	Singapore	Avnet Asia	82-31-738-1616	sophie.kim@avnet.com	www.avnet.com
Singapore	Singapore	Maxmega Electronics	65-6769 1118	edwin@maxmega.com	www.maxmega.com
Edenvale	South Africa	Tempe Tech	+27 (11) 452 0530	doug.mccusker@tempetech.co.za	www.tempetech.co.za
Anyang	South Korea	Avnet Asia	82-2-6277-6300	korea@avnet.com	www.avnet.com
Seoul	South Korea	Hadaru Corporation	82-31-457-1144	cyha@hadaru.co.kr	www.hadaru.co.kr
Seoul	South Korea	Acetronix	82-2-364-6080	ace@ace-tronix.co.kr	www.ace-tronix.co.kr
Seoul	South Korea	Barun Electronics	82-2-3463-0040	pericom@gencore.co.kr	www.gencore.co.kr
Madrid	Spain	Spectrum Electronica	34 91 5477618	rblanco@spectrum-electronica.com	www.spectrum-electronica.com
N/A	Sweden	Spectrum Nordic	46 (0) 8 6210 104	sales@spectrum-nordic.com	www.spectrum-nordic.com
N/A	Switzerland	AlphaRep	+49 8151 16044	tiefenthaler@alpharep.de	www.alpharep.de
Chung Li	Taiwan	SaRonix - eCera	886-3-451-8888 ext 200	hank@saronix-ecera.com.tw	www.ecera.com.tw
Taipei	Taiwan	Techmosa International	886-2-8226-7698	gary@techmosa.com.tw	www.techmosa.com
Taipei	Taiwan	Avnet Asia	886-2-2655-8688	well.lee@avnet.com	www.avnet.com
Taipei	Taiwan	AIT	886-2-87976866	mark.yang01@aitinc.com.tw	www.aitinc.com.tw
Bangkok	Thailand	Desner Electronics	662-576 1500-1	chaiwat@desner.com	www.desner.com
Istanbul	Turkey	Spectrum DesTEK	+90 216 5450025	ttekman@destekelektronik.com	www.destekelektronik.com
N/A	UK	Sigma Marketing Ltd	+44 (0) 7966 264905	jzarvou@sigmamarketingltd.co.uk	www.sigmamarketingltd.co.uk