

PCI Express® Timing Solutions

Enable Rapid Data Transfer With Our Broad Portfolio of PCI Express (PCIe®) Timing Solutions

Summary

Through the years, PCI Express (PCIe®) protocol has evolved to accommodate the needs of higher speeds while imposing stringent requirements for a reliable clock source. Microchip offers a comprehensive line of PCIe Gen 6 compliant oscillators, clock generators and buffers to address this need. Microchip's timing parts not only meet the PCIe jitter requirements, but also allow allocation of up to 70% of total jitter margin to the rest of the system. With our highly integrated single-chip solutions, you can reduce component count and board area without sacrificing performance.



Key Features

- PCIe Gen 1/2/3/4/5/6 compliant
- Single and multi-output solutions
- Fully integrated single-chip solution
- Configurable with fast samples
- Smallest PCIe timing solution on the market

Applications

- Servers
- Storage
- Networking
- Data centers
- Instrumentation
- Consumer
- Automotive

Customized PCIe Timing Parts

Use our online tool to customize the PCIe Gen 1/2/3/4/5/6-compliant clock generators and oscillators to easily create components that meet your desired frequency and output format.

Visit clockworks.microchip.com/timing to customize and order samples.

Useful Resources

Check out our entire portfolio of PCIe Timing solutions at microchip.com/pcie-timing

Please email us at clientsuccess@microchip.com for more information about PCIe timing products.



ClockWorks
CONFIGURATOR



Standard PCIe Timing Parts

Microchip offers both ready-to-design standard and customizable PCIe oscillators, clock generators and buffers. Order samples to get started today.

Part Name	PCIe® Gen	# or Outputs	Input	Output Logic	Voltage (V)	PKG Dimensions	Temp. Range
Clock Generators							
ZL30291LDG1	Gen 1-6	19	25 MHz Crystal	LPHCSL	3-5	100-pin UQFN 8 x 8 mm	-40°C+ 85°C
SM802181UMG	Gen 1-6	2	25 MHz Crystal or Ref	HCSL	2.5-3.3	16-pin QFN 3 x 3 mm	-40°C+ 85°C
ZL30281LDG1	Gen 1-6	2	25 MHz Crystal or Ref	CML	2.5-3.3	32-pin QFN 4 x 4 mm	-40°C+ 85°C
SM806033UMG	Gen 1-6	4	50 MHz Crystal	HCSL	2.5-3.3	48-pin QFN 7 x 7 mm	-40°C+ 85°C
MX875BB0022	Gen 1-6	4	Crystal integrated	HCSL	2.5-3.3	48-pin QFN 7 x 7 mm	-40°C+ 85°C
MX875BB0020	Gen 1-6	4	Crystal integrated	LVDS	2.5-3.3	48-pin QFN 7 x 7 mm	-40°C+ 85°C
SM806034UMG	Gen 1-6	6	50 MHz Crystal	HCSL	2.5-3.3	48-pin QFN 7 x 7 mm	-40°C+ 85°C
MX875BB0023	Gen 1-6	6	Crystal integrated	HCSL	2.5-3.3	48-pin QFN 7 x 7 mm	-40°C+ 85°C
DSC557-0344F11	Gen 1-4	2	MEMS Integrated	HCSL	2.5-3.3	14-pin QFN 3.2 x 2.5 mm	-40°C+ 85°C
DSC557-0333F11	Gen 1-4	2	MEMS Integrated	LVDS	2.5-3.3	14-pin QFN 3.2 x 2.5 mm	-40°C+ 85°C
DSC557-05444KI1	Gen 1-4	4	MEMS Integrated	LVDS	2.5-3.3	20-pin QFN 5 x 3.2 mm	-40°C+ 85°C
Clock Generator with Spread Spectrum							
ZL30282LDG1	Gen 1-6	6	50 MHz Crystal	HCSL	2.5-3.3	48-pin QFN 7 x 7 mm	-40°C+ 85°C
ZL30265LDG1	Gen 1-6	6	50 MHz Crystal or Ref	HCSL	2.5-3.3	56-pin QFN 8 x 8 mm	-40°C+ 85°C
ZL30265LDG1Q05N	Gen 1-6	6	50 MHz Crystal or Ref	HCSL	2.5-3.3	56-pin QFN 8 x 8 mm	-40°C+ 85°C
ZL30265LDG1Q033	Gen 1-6	6	50 MHz Crystal or Ref	HCSL	2.5-3.3	56-pin QFN 8 x 8 mm	-40°C+ 85°C
ZL30267LDG1Q03V	Gen 1-6	6	50 MHz Crystal or Ref	HCSL	2.5-3.3	56-pin QFN 8 x 8 mm	-40°C+ 85°C
ZL30267LDG1	Gen 1-6	10	50 MHz Crystal or Ref	HCSL	2.5-3.3	56-pin QFN 8 x 8 mm	-40°C+ 85°C
ZL30267LDG1Q06Y	Gen 1-6	10	50 MHz Crystal or Ref	HCSL	2.5-3.3	56-pin QFN 8 x 8 mm	-40°C+ 85°C
Oscillators							
VC-820-9005-100M000000	Gen 1-6	1	Crystal integrated	CMOS	1.8	4-pin 3.2 x 2.5 mm	-40°C+ 85°C
VC-714-EHE-FAAN-100M0000000	Gen 1-6	1	Crystal integrated	HCSL	2.5-3.3	6-pin 7 x 5 mm	-40°C+ 85°C
VC-830-EHE-FAAN-100M0000000	Gen 1-6	1	Crystal integrated	HCSL	1.8-3.3	6-pin 3.2 x 2.5 mm	-40°C+ 85°C
VC-844-EHE-FAAN-100M0000000	Gen 1-6	1	Crystal integrated	HCSL	1.8-3.3	6-pin 2.5 x 2 mm	-40°C+ 85°C
DSC1124DI1-100.0000	Gen 1-4	1	MEMS Integrated	HCSL	2.5-3.3	6-pin 5 x 3.2 mm	-40°C+ 85°C
DSC1224DI1-100M0000	Gen 1-6	1	MEMS Integrated	HCSL	2.5-3.3	6-pin 5 x 3.2 mm	-40°C+ 85°C
DSC1223DI1-100M0000	Gen 1-6	1	MEMS Integrated	LVDS	2.5-3.3	6-pin 5 x 3.2 mm	-40°C+ 85°C
Buffers							
SY75602ATWL	Gen 1-6	2	HCSL, PECL, LVDS, CMOS	LPHCSL	1.8-3.3	8-pin VDFN 1.4 x 1.6 mm	-40°C+ 105°C
SY75603ATWL	Gen 1-6	2	HCSL, PECL, LVDS, CMOS	LPHCSL	1.8-3.3	16-pin QFN 3 x 3 mm	-40°C+ 105°C
SY75604ATWL	Gen 1-6	4	HCSL, PECL, LVDS, CMOS	LPHCSL	1.8-3.3	16-pin QFN 3 x 3 mm	-40°C+ 105°C
SY75608TWL	Gen 1-6	8	HCSL, PECL, LVDS, CMOS	LPHCSL	1.8-3.3	48-pin QFN 7 x 7 mm	-40°C+ 105°C
SY75612TWL	Gen 1-6	12	HCSL, PECL, LVDS, CMOS	LPHCSL	1.8-3.3	56-pin QFN 8 x 8 mm	-40°C+ 105°C
ZL40292LDF1	Gen 1-6	20	HCSL, PECL, LVDS, CMOS	LPHCSL	3.3	72-pin QFN 10 x 10 mm	-40°C+ 85°C
ZL40294LDF6	Gen 1-6	20	HCSL, PECL, LVDS, CMOS	LPHCSL	3.3	80-pin GQFN 6 x 6 mm	-40°C+ 85°C
SY75572LMG	Gen 1-4	2	LVDS/HCSL	HCSL	3.3	16-pin QFN 3 x 3 mm	-40°C+ 85°C

-40°C 105°C Automotive AEC-Q100 options available