


Active Programmable Delay Line 2-IN 5ns ABS 7ns MAX 24-Pin QFN EP Tube



Images are for reference only

[Inquiry](#)

Manufacturer:	<u>Microchip Technology, Inc</u>
Package/Case:	QFN24
Product Type:	Discrete Semiconductor Modules
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active

General Description

The SY89297U is a DC-3.2Gbps programmable, two-channel delay line. Each channel has a delay range from 2ns to 7ns (5ns delta delay) in programmable increments as small as 5ps. The delay step is extremely linear and monotonic over the entire programming range, with 15ps INL over temperature and voltage. The delay varies in discrete steps based on a serial control word provided by the 3-pin serial control (SDATA, SCLK, and SLOAD). The control word for each channel is 10-bits. Both channels are programmed through a common serial interface. For increased delay, multiple SY89297U delay lines can be cascaded together. The SY89297U provides two independent 3.2Gbps delay lines in an ultra-small 4mm x 4mm, 24-pin QFN package. For other delay line solutions, consider the SY89295U and SY89296U single-channel delay lines. Evaluation boards are available for all these parts.

Key Features

Dual-channel, programmable delay line

Serial programming interface (SDATA, SCLK, SLOAD)

Guaranteed AC performance over temperature and voltage:

Programming Accuracy:

Linearity: -15ps to +15ps INL

Monotonic: -5ps to +25ps

Resolution: 5ps programming increments

Low-jitter design: 1psRMS typical random jitter

Programmable delay range: 5ns delay range

Cascade capability for increased delay

Low voltage operation: 3.3V ±10%

Industrial temperature range: -40°C to +85°C

Available in 24-pin (4mm x 4mm) QFN



Recommended For You

SY87729LHY

Microchip Technology, Inc
QFP32

SY87701ALHG

Microchip Technology, Inc
TQFP32

SY89296UMG

Microchip Technology, Inc
VQFN

SY89295UMG

Microchip Technology, Inc
QFN

SY89874UMG

Microchip Technology, Inc
QFN

SY87700ALHG

Microchip Technology, Inc
QFP32

SY87739LHY

Microchip Technology, Inc
TQFP32

SY100EL34ZG

Microchip Technology, Inc
SOP16

SY89202UMG

Microchip Technology, Inc
QFN

SY89876LMG

Microchip Technology, Inc
QFN

SY100EP196VTG

Microchip Technology, Inc
TQFP32

SY89831UMG

Microchip Technology, Inc
QFN

SY89833ALMG

Microchip Technology, Inc
16-VQFN

SY89297UMH

Microchip Technology, Inc
VQFN

SY87721LHG

Microchip Technology, Inc
64-TQFP