



# 89HT0816AP

Active Samples Available

## PCIe Gen3 Signal Retimer

The IDT 89HT0816AP 16-channel, PCIe 3.0, 8GTps Retimer offers a blend of top analog performance and the most complete feature set in protocol aware signal conditioner optimized for demanding 2.5Gbps, 5Gbps, and 8Gbps applications in computing, storage, and communications.

### Features

- 16-channel PCIe 3.0 Signal Retimer
- Advanced signal conditioning features
- Full Equalization Procedure including Phase 2 & 3
- Protocol aware with full support of Automatic Equalization Procedure
  
- Advanced diagnostic features
- I2C and JTAG programming interface
- Commercial and Industrial temperature

### Product Options

Orderable Part ID	Part Status	Pkg. Type	Lead Count (#)	Temp. Grade	Pb (Lead) Free	Carrier
89HT0816APZCBLG PACKAGE INFO ENV. DOCUMENTATION	Active	FCBGA	196	C	Yes	Tray
89HT0816APZCBLG8 PACKAGE INFO ENV. DOCUMENTATION	Active	FCBGA	196	C	Yes	Reel

<b>89HT0816APZCBLGI PACKAGE INFO ENV. DOCUMENTATION</b>	<b>Active</b>	<b>FCBGA</b>	<b>196</b>	<b>I</b>	<b>Yes</b>	<b>Tray</b>
<b>89HT0816APZCBLGI8 PACKAGE INFO ENV. DOCUMENTATION</b>	<b>Active</b>	<b>FCBGA</b>	<b>196</b>	<b>I</b>	<b>Yes</b>	<b>Reel</b>

## Documentation & Downloads

Title	Other Languages	Type	Format	File Size	Date
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### Datasheets & Errata

89HT0816AP Device Errata	–	Errata	PDF	111 KB	Dec 21, 2018
89HT0816AP Datasheet	–	Datasheet	PDF	591 KB	Feb 18, 2016

### User Guides & Manuals

89HT0816AP User Manual	–	Manual	PDF	1.75 MB	Oct 12, 2018
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### Application Notes & White Papers

Clock Tree Design for IDT PCIe 3.0 GTps Retimer Applications	–	Application Note	PDF	583 KB	Apr 30, 2014
Using the T0816AP in a PCB Designed for T0816P	–	Application Note	PDF	113 KB	Apr 3, 2014

### PCNs & PDNs

PCN# : A1603-01R1 Add Alternate Lid Adhesive Material	–	Product Change Notice	PDF	513 KB	Jul 26, 2016
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PCN# : A1603-01 Lid Adhesive Material Change	-	Product Change Notice	PDF	24 KB	Apr 10, 2016
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Downloads

RegTech Retimer Configuration Utility (v2.4)	-	Software	ZIP	49.43 MB	Jul 2, 2018
89HT08xxP Four-Point Eye Tool (v1.4.5)	-	Software Tool	ZIP	7.58 MB	Apr 21, 2016
89HT0816AP BSDL	-	Model - BSDL	BSDL	21 KB	Nov 29, 2015
89HT08xxP Eye Contour Tool (v2.14)	-	Software	ZIP	170.85 MB	May 31, 2015
89HT0816AP IBIS-AMI Models (Windows32-64 & Linux32)	-	Model - IBIS	ZIP	19.03 MB	May 27, 2015
IDT Signal Manager Software (Rev. 2.10)	-	Software Tool	ZIP	43.28 MB	Jun 24, 2014

Other

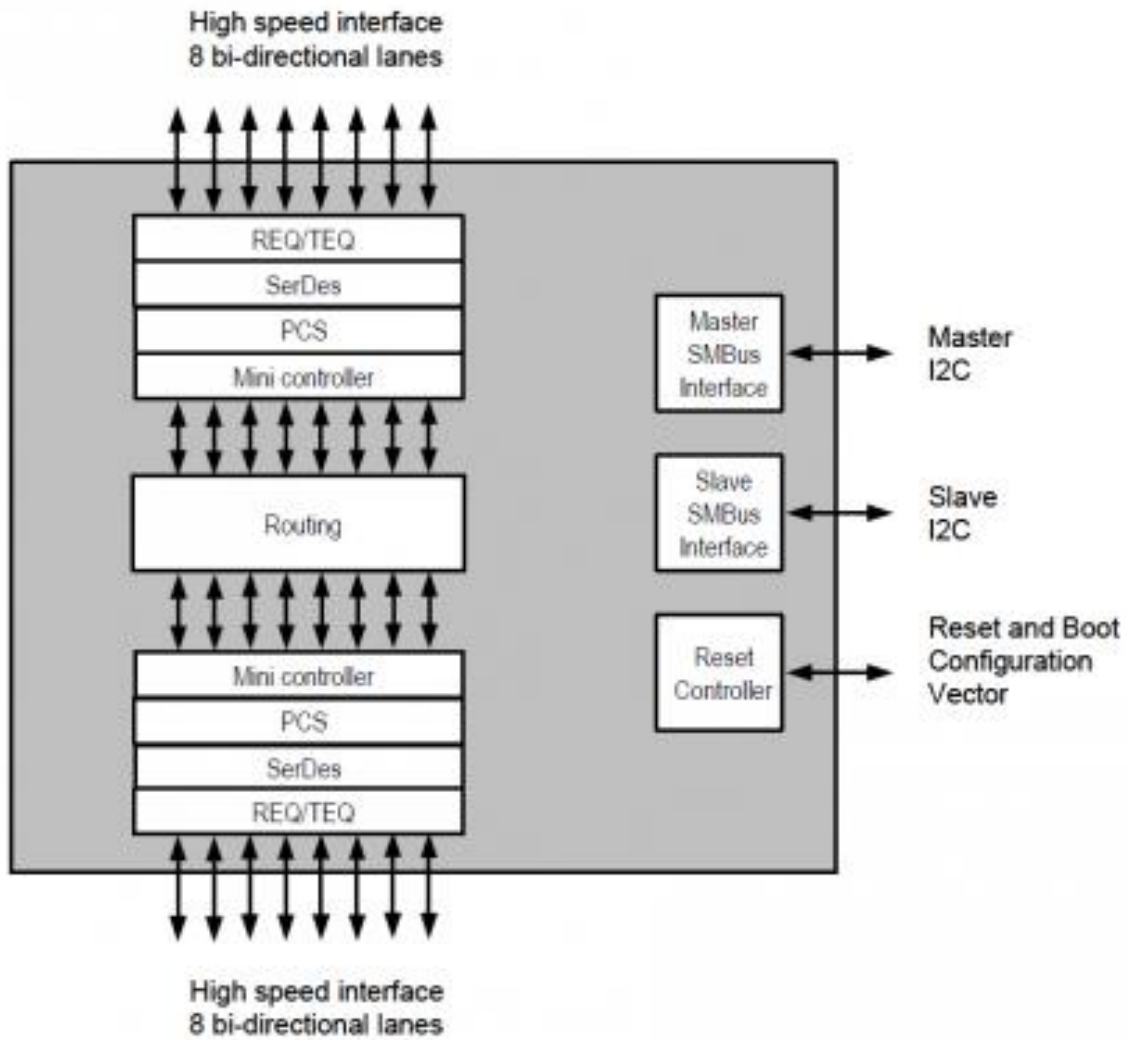
PCI Express® Gen2/Gen3 Signal Integrity, Switching and Bridging Products Overview	-	Overview	PDF	422 KB	Apr 19, 2018
IDT Products for Radio Applications	日本語	Product Brief	PDF	2.34 MB	Nov 29, 2016
89HT0816AP Signal Retimer Product Brief	-	Product Brief	PDF	163 KB	Nov 13, 2014
PCIe Gen3 Retimer Frequently Asked Questions	-	Miscellaneous	PDF	254 KB	Mar 9, 2014
89HT0816AP Pin List	-	Pinlist-Ballmap	XLSX	30 KB	Feb 12, 2014
IDT Signal Integrity Products Family Flyer	-	Product Brief	PDF	217 KB	Nov 9, 2010

## Boards & Kits

Part Number	Title	Type	Company
89KTT0816AP	Evaluation Board for 89HT0816AP Retimer, 8-lane, 8Gbps, PCIe3		

## Images

89HT0816AP - Block Diagram



## Videos

***IDT PCIe 3.0 Retimers for High-Speed 8Gbps Signal Conditioning***

<https://www.idt.com/us/en/show-video/nojs/120911>