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89H16NT16G2
16-lane, 16-port PCIe Gen2 System Interconnect Switch

Provides 16 PCIe Gen2 lanes and 16 ports of high-performance, deterministic system interconnect switching. All ports receive full line rate, non-blocking throughput for multiple traffic flows regardless of switch loading.

Features

- 16 PCIe Gen2 Lanes, 16 Switch Ports
- Non-blocking switch architecture optimized for High Performance System Interconnect
- Partionable switch architecture for true mutli-root support
- Multiple Nontransparent Bridging functions supported (NTB)
- Movable upstream support
- On-board DMA support
- Internal buffering and flow control credits optimized for maximum bandwidth and large payloads
- Low latency, Low power

Product Specification

PCIe Lanes (#)	Ports (#)	PCIe Generation	Pkg. Code	Pkg. Type	Length (mm)	Width (mm)	Temp. Grade
16	16	Gen2	HLG324, HL324	FCBGA	19	19	C, I

Product Options

Orderable Part ID	Part Status	Pkg. Code	Pkg. Type	Lead Count (#)	Temp. Grade	Pb (Lead) Free	Carrier Type	Sample & Buy
89H16NT16G2ZBHL	Active	HL324	FCBGA	324	C	No	Tray	Check Availability
89H16NT16G2ZBHL8	Active	HL324	FCBGA	324	C	No	Reel	Check Availability
89H16NT16G2ZBHLG	Active	HLG324	FCBGA	324	C	Yes	Tray	Check Availability
89H16NT16G2ZBHLG8	Active	HLG324	FCBGA	324	C	Yes	Reel	Check Availability
89H16NT16G2ZBHLGI	Active	HLG324	FCBGA	324	I	Yes	Tray	Check Availability
89H16NT16G2ZBHLGI8	Active	HLG324	FCBGA	324	I	Yes	Reel	Check Availability
89H16NT16G2ZBHLI	Active	HL324	FCBGA	324	I	No	Tray	Check Availability
89H16NT16G2ZBHLI8	Active	HL324	FCBGA	324	I	No	Reel	Check Availability
89H16NT16G2ZCHL	Active	HL324	FCBGA	324	C	No	Tray	Check Availability
89H16NT16G2ZCHL8	Active	HL324	FCBGA	324	C	No	Reel	Check Availability
89H16NT16G2ZCHLG	Active	HLG324	FCBGA	324	C	Yes	Tray	Check Availability
89H16NT16G2ZCHLG8	Active	HLG324	FCBGA	324	C	Yes	Reel	Check Availability
89H16NT16G2ZCHLGI	Active	HLG324	FCBGA	324	I	Yes	Tray	Check Availability
89H16NT16G2ZCHLGI8	Active	HLG324	FCBGA	324	I	Yes	Reel	Check Availability
89H16NT16G2ZCHLI	Active	HL324	FCBGA	324	I	No	Tray	Check Availability
89H16NT16G2ZCHLI8	Active	HL324	FCBGA	324	I	No	Reel	Check Availability

Technical Documentation

	Title	Type	Format	File Size	Date
Datasheets & Errata					
	89HPES16NT16G2 Datasheet	Datasheet	PDF	275 KB	12/17/2013
🔒	89HPES16NT16G2 Device Errata (Revision ZC)	Errata	PDF	137 KB	06/24/2011
🔒	89HPES16NT16G2 Device Errata (Revision ZB)	Errata	PDF	142 KB	06/24/2011
	show all (4)				
User Guides & Manuals					
	89HPES16NT16G2 Device User Manual	Manual	PDF	7.44 MB	07/10/2013
	PCI Express Browser Rev 5.0.2 User Manual	Manual	PDF	2.49 MB	12/03/2010
Apps Notes & White Papers					
	AN-821: SerDes Configuration for Industrial Temperature	Application Note	PDF	123 KB	03/06/2014
	AN-727: PES32NT24AG2 Hardware Design Guide	Application Note	PDF	505 KB	05/05/2011
	AN-715, Multi-Port SSC Support in IDT PCIe Gen2 Switches	Application Note	PDF	312 KB	10/26/2009
	show all (13)				
Other					
	IDT PCI Express Solutions Overview	Overview	PDF	2.43 MB	08/14/2013
	89HPES16NT16G2 OrCAD symbol	Misc	Composite Document File V2 Document, No summary info	29 KB	07/09/2010
	89HPES16NT16G2 Product Brief	Product Brief	PDF	350 KB	09/15/2009

Software & Tools

	Title	Type	Format	File Size	Date
	89HPES16NT16G2 BSDL (Revision ZA)	Model - BSDL	TXT	20 KB	02/08/2010
	89HPES16NT16G2 BSDL (Revision ZB)	Model - BSDL	TXT	20 KB	01/04/2011
	89HPES16NT16G2 BSDL (Revision ZC)	Model - BSDL	TXT	20 KB	05/10/2011
	PCI Express Browser Rev 5.0.2 Linux Installation	Software Tool	application/x-gzip	51.33 MB	06/10/2014
	PCI Express Browser Rev 5.0.2 Windows Installation	Software Tool	ZIP	54.45 MB	12/03/2010
	PCI Express Browser Rev 5.0.2 Windows Installation - Digitaly Signed	Software Tool	ZIP	104.57 MB	06/16/2011

Evaluation Boards

Evaluation Board SDK for the 89H16NT16G2

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