

IP Release Notes Guide

XTP025 (v4.3) October 21, 2013

Note: As of Vivado Design Suite 2013.1, all new Vivado release notes for IP will be handled by answer records. See http://www.xilinx.com/support/index.html/content/xilinx/en/supportNav/design_tools.html. XTP025 will continue to document IP updates for ISE Design Suite only.

Xilinx Intellectual Property (IP) cores, including LogiCORE™ IP for the Connectivity, DSP and Embedded application spaces, are provided in the Xilinx Vivado™ Design Suite and ISE® Design Suite software. The Design Suite software enables you to generate these IP on your desktop.

New IP and IP versions are provided in each Design Suite release. Detailed listings of these new IP and IP versions can be accessed on release-specific IP Update information pages linked from the Xilinx.com Intellectual Property area (www.xilinx.com/ipcenter/coregen/updates.htm). The latest Design Suite releases are available from the Xilinx Download Center.

This document contains a listing of release note tables, one for each IP core. Within each release note table you will find a list of links to multiple answer records. Release note information for a particular version of a core is provided in an IP-specific answer record.

A given version of an IP core is intended to be used with a specific version of Design Suite software. The release note tables in xtp025 display the version of Design Suite software which can be used with a particular IP core version.

Please note that this hypertext document is intended for online use only.

"List of IP Cores"

ISE® CORE Generator™ IP Updates - Installation Instructions

Archived IP Downloads

"CORE Generator Software Known Issues"

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List of IP Cores

Automotive

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- "MOST® NIC"

AXI Infrastructure

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- "AXI Direct Memory Access (DMA)"
- "AXI Interconnect"
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DSP Digital Communications

- "3GPP Downlink Chip Rate"
- "3GPP LTE Channel Estimator"
- "3GPP LTE MIMO Decoder"
- "3GPP LTE MIMO Encoder"
- "3GPP LTE Turbo Decoder"
- "3GPP LTE Turbo Encoder"
- "3GPP RACH Preamble Detector"
- "3GPP Searcher"
- "3GPP Turbo Convolutional Code Decoder"
- "3GPP Turbo Convolutional Code Encoder"
- "3GPP2 Turbo Convolutional Code Decoder"
- "3GPP2 Turbo Convolutional Code Encoder"
- "802.16E Convolutional Turbo Code (CTC) Decoder"
- "802.16E Convolutional Turbo Code (CTC) Encoder""Additive White Gaussian Noise Generator (AWGN)"
- "Convolutional Encoder"

- "Digital Pre-Distortion (DPD) (AXI)"
- "DVB-S.2 FEC Encoder"
- "G.975.1 EFEC I.7 Encoder/Decoder"
- "JESD204"
- "Interleaver/De-interleaver"
- "LDPC 802.16 Encoder"
- "LTE Fast Fourier Transform (FFT)"
- "LTE DL Channel Encoder"
- "LTE UL Channel Decoder"
- "LTE UL PUCCH Receiver"
- "LTE RACH Detector"
- "Mixed Mode Turbo Decoder (AXI)"
- "Peak Cancellation Crest Factor Reduction"
- "Reed-Solomon Decoder"
- "Reed-Solomon Encoder"
- "Turbo Product Code (TPC) Decoder"
- "Viterbi Decoder"

DSP Horizontal

- "Accumulator"
- "Adder/Subtracter"
- "Binary Counter"
- "Cascaded Integrator Comb Compiler (CIC Compiler)"
- "Complex Multiplier"
- "CORDIC"
- "Direct Digital Synthesizer Compiler (DDS Compiler)"
- "Divider"
- "Discrete Fourier Transform (DFT)"
- "DSP48 Macro"
- "DUC/DDC Compiler"
- "Fast Fourier Transform (FFT)"
- "FIR Compiler"
- "Floating-Point Operator"
- "Multiplier"
- "Multiply Accumulator (MACC)"
- "Multiply Adder"
- "RAM-based Shift Register"
- "Sine Cosine Look-Up Table (Sin Cos LUT)"
- "VLYNQ™"

DSP MVI

- "Asynchronous Sample Rate Converter"
- "AXI4-Stream to Video Out"
- "Chroma Resampler"
- "Color Correction Matrix"
- "Color Filter Array Interpolation"
- "Defective Pixel Correction"
- "DisplayPort"
- "Gamma Correction"
- "H.264 Deblocking Filter"
- "H.264 CABAC Encoder"
- "H.264 Motion Estimation Engine"
- "Image Characterization"
- "Image Edge Enhancement"
- "Image Noise Reduction"

"Image Processing Pipeline"

• "Image Statistics Engine"



.List of IP Cores (continued)

- "Motion Adaptive Noise Reduction"
- "MPEG-4 Part 2 Simple Profile Decoder (MPEG-4 Part 2 SP)"
- "MPEG-4 Part 2 Simple Profile Encoder (MPEG-4 Part 2 SP)"
- "Object Segmentation"
- "RGB to YCrCb Color-Space Converter (RGB2YCrCb)"
- "SMPTE SD/HD/3G-SDI"
- "SMPTE2022-5/6 Video Over IP Receiver"
- "SMPTE2022-5/6 Video Over IP Transmitter"
- "Spartan-6 FPGA Triple-Rate SDI"
- "Virtex-6 FPGA Triple-Rate SDI"
- "Video Deinterlacer (AXI)"
- "Video Deinterlacer"
- "Video Into AXI4-Stream"
- "Video Scaler"
- "Video Timing Controller"
- "Video Direct Memory Access"
- "Video On-Screen Display"
- "YCrCb to RGB Color-Space Converter (YCrCb2RGB)"

Embedded

- "Embedded IP"
- "MicroBlaze Microprocessor Control System"

FPGA Features and Design

- "7 Series FPGA Transceiver Wizard"
- "Clocking Wizard"
- "RocketIO™ GT11 Transceiver Wizard (Virtex-4 FX Family)"
- "RocketIO GTP Transceiver Wizard (Virtex-5 LXT or SXT Platform)"
- "RocketIO GTX Transceiver Wizard (Virtex-5 FXT Platform)"
- "Soft Error Mitigation"
- "Virtex-6 FPGA GTX Transceiver Wizard"
- "Virtex-6 FPGA GTH Transceiver Wizard"
- "SelectIO Interface Wizard"

- "Spartan-6 FPGA GTP Transceiver Wizard"
- "System Monitor Wizard"
- "XADC Wizard"

Memories and Storage Elements

- "Block Memory Generator"
- "Content Addressable Memory (CAM)"
- "Distributed Memory Generator"
- "FIFO Generator"
- "Packet Queue"
- "Memory Interface Generator (MIG) 7 Series"
- "Memory Interface Generator (MIG) Virtex-6 and Spartan-6"
- "Memory Interface Generator (MIG)"

Standard Bus Interfaces

- "7 Series Integrated Block for PCI Express"
- "AXI Bridge for PCI Express"
- "Virtex-7 FPGA Gen3 Integrated Block for PCI Express"
- "Virtex-6 FPGA Integrated Block for PCI Express"
- "Spartan-6 FPGA Integrated Block for PCI Express"
- "Endpoint Block Plus Wrapper for PCI Express"
- "Endpoint Block Wrapper for PCI Express"
- "Endpoint for PCI Express (Soft IP Implementation)"
- "Endpoint PIPE for PCI Express (Soft IP Implementation)"
- "Initiator/Target for PCI[™] v3"
- "Initiator/Target for PCI v4"
- "Initiator/Target for PCI-X™ v5"
- "Initiator/Target for PCI-X v6 (Virtex-5 FPGA)"
- "UCF Generator for PCI/PCI-X"
- "Serial RapidIO"
- "Serial RapidIO Gen2"

Wireless

- "CPRI™"
- "OBSAI"



CORE Generator Software Known Issues

Release Version	Release Note
13.x	40493
12.1	<u>35214</u>
11.3	32288
11.2	32288
11.1	32288
10.1	30291
9.2i	29193
9.1i	24408
8.2i	23396
8.1i	22609
7.1i	20491



Automotive IP

CAN

Product Page

Version	Release Note	Initial Release	Date
v5.0	<u>54449</u>	Vivado 2013.1	April 3, 2013
v4.1	37994	12.3	October 5, 2010
v3.2	<u>35176</u>	12.1	May 3, 2010
v2.1	32262	11.1	April 27, 2009
v1.5	<u>25451</u>	9.2i IP Update 1	August 15, 2007
v1.4	23876	8.2i IP Update 2	October 3, 2006
v1.3	22342	8.1i IP Update 1	January 18, 2006
v1.2*	22412	7.1i IP Update 3	August 31, 2005
v1.1	21937	7.1i IP Update 3	August 31, 2005
*v1.2 was an asynchronous update also released for 7.1i IP Update 3.			

FlexRay™

Note: This core has been discontinued.

Product Page

Version	Release Note	Initial Release	Date
v1.1	<u>25142</u>	9.1i IP Update 3	May 2007

MOST® NIC

Note: This core has been discontinued. Use the XPS version available in EDK.

Version	Release Note	Initial Release	Date
v1.4	<u>31555</u>	10.1 IP Update 3	September 19, 2008
v1.2	<u>25452</u>	9.2i IP Update 1	August 2007
v1.1	<u>25141</u>	9.1i IP Update 3	May 2007



AXI Infrastructure

AXI4-Stream Interconnect

Product Page

Version	Release Note	Initial Release	Date
v1.1	<u>54813</u>	Vivado 2013.1	April 3, 2013
v1.1	47407	14.2	July 25, 2012
v1.0	47407	14.1	May 8, 2012

AXI Bus Function Model (BFM)

Product Page

Version	Release Note	Initial Release	Date
v4.0	<u>54678</u>	Vivado 2013.1	April 3, 2013
v2.1	<u>47649</u>	14.1/Vivado 2012.1	May 8, 2012

AXI Central Direct Memory Access (CDMA)

Product Page

Version	Release Note	Initial Release	Date
v4.0	<u>54685</u>	Vivado 2013.1	April 3, 2013
v3.03.a	47650	14.1	May 8, 2012

AXI DataMover

Product Page

Version	Release Note	Initial Release	Date
v5.0	<u>54684</u>	Vivado 2013.1	April 3, 2013
v4.02.a	<u>47651</u>	14.3/Vivado 2012.3	October 23, 2012
v4.01.a	<u>47651</u>	14.2	July 25, 2012
v3.0.a	<u>47651</u>	14.1	May 8, 2012

AXI Direct Memory Access (DMA)

Product Page

Version	Release Note	Initial Release	Date
v7.0	<u>54682</u>	Vivado 2013.1	April 3, 2013
v.6.02.a	47652	14.3/Vivado 2012.3	October 23, 2012
v6.01.a	<u>47652</u>	14.2	July 25, 2012
v6.0.a	47652	14.1	May 8, 2012

AXI Interconnect

Version	Release Note	Initial Release	Date
v1.06.a	<u>54453</u>	Vivado 2013.1	April 3, 2013
v1.06.a	<u>47653</u>	14.1/Vivado 2012.1	May 8, 2012



AXI Video Direct Memory Access (VDMA)

Product Page

Version	Release Note	Initial Release	Date
v6.0	<u>54448</u>	Vivado 2013.1	April 3, 2013
v5.03.a	<u>47654</u>	14.3/Vivado 2012.3	October 23, 2012
v5.02.a	<u>47654</u>	14.2	July 25, 2012
v5.01.a	<u>47654</u>	14.1	May 8, 2012

AXI Virtual FIFO Controller

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>54809</u>	Vivado 2013.1	April 3, 2013
v1.1	47655	14.2/Vivado 2012.2	June 25, 2012

ChipScope AXI Monitor

Version	Release Note	Initial Release	Date
v3.05.a	<u>47656</u>	14.2	July 25, 2012
v5.01.a	47656	14.1	May 8, 2012



Communications and Networking

Aurora 8B10B for Virtex®-4 FPGA

Product Page

Version	Release Note	Initial Release	Date
v3.1	<u>32234</u>	11.1	April 27, 2009
v3.0	<u>31521</u>	10.1 IP Update 3	September 19, 2008
v2.9	<u>31396</u>	10.1 Initial IP Update	March 24, 2008
v2.8	<u>29367</u>	9.2i IP Update 2	October 17, 2007
v2.7	<u>25067</u>	9.1i IP Update 3	May 17, 2007
v2.6	<u>24596</u>	9.1i IP Update 1	March 5, 2007

Aurora 8B10B (AXI)

Product Page

Version	Release Note	Initial Release	Date
v9.0	<u>54368</u>	Vivado 2013.1	April 3, 2013
v8.3	<u>52311</u>	14.3/Vivado 2012.3	October 23, 2012
v8.2	44596	Vivado 2012.2	July 25, 2012
v8.1	47702	14.1/Vivado 2012.1	May 8, 2012
v7.1	44596	13.3	October 26, 2011
v6.2	<u>42586</u>	13.1	March 1, 2011
v6.1	38409	12.3	October 5, 2010

Aurora 8B10B

Product Page

Version	Release Note	Initial Release	Date
v5.3	<u>45672</u>	13.4	January 18, 2012
v5.2	42585	12.2	July 23, 2010
v5.1	35372	12.1	May 3, 2010
v4.2	32745	11.2	June 24, 2009
v4.1	32235	11.1	April 27, 2009
v3.0	31084	10.1 IP Update 2	June 27, 2008
v2.9	30781	10.1 Initial IP Update	March 24, 2008
v2.8	<u>29368</u>	9.2i IP Update 2	October 17, 2007
v2.7	<u>25068</u>	9.1i IP Update 3	May 17, 2007
v2.6	24595	9.1i IP Update 1	March 5, 2007

Aurora 64B/66B

Version	Release Note	Initial Release	Date
v8.0	<u>54367</u>	Vivado 2013.1	April 3, 2013
v7.3	<u>52313</u>	14.3/Vivado 2012.3	October 23, 2012



Version	Release Note	Initial Release	Date
v7.2	<u>50615</u>	Vivado 2012.2	July 25, 2012
v7.1	47704	14.1/Vivado 2012.1	May 8, 2012
v6.2	<u>45671</u>	13.4	January 18, 2012
v6.1	<u>42804</u>	13.2	July 6, 2011
v4.2	42624	13.1	March 1, 2011
v4.1	<u>35371</u>	12.1	May 3, 2010
v3.1	33248	11.3	September 16, 2009
v2.1	32233	11.1	April 27, 2009
v1.3	<u>31520</u>	10.1 IP Update 3	September 19, 2008
v1.2	<u>31085</u>	10.1 IP Update 2	June 27, 2008
v1.1	30670	10.1 Initial IP Update	March 25, 2008

General Framing Procedure (GFP)

Product Page

Version	Release Note	Initial Release	Date
v2.1.1	<u>30640</u>	10.1 IP Update 3	September 19, 2008
v2.1	30640	10.1 IP Update 1	April 25, 2008

Soft Error Mitigation

Product Page

Version	Release Note	Initial Release	Date
v4.0	<u>54642</u>	Vivado 2013.1	April 3, 2013
v3.5	<u>44541</u>	14.5	April 3, 2013
v3.4	<u>44541</u>	14.4	December 18, 2012
v3.3	44541	14.2	October 23, 2012
v3.2	<u>44541</u>	14.1	May 8, 2012
v3.1	<u>44541</u>	13.3	October 26, 2011
v2.1	<u>42519</u>	13.2	July 6, 2011
v1.3	40444	13.1	March 1, 2011
v1.2	<u>39372</u>	12.4	December 20, 2010
v1.1	<u>37934</u>	12.3	October 5, 2010

Tri-Mode Ethernet MAC

Version	Release Note	Initial Release	Date
v6.0	<u>54251</u>	Vivado 2013.1	April 3, 2013
v5.5	<u>47695</u>	14.4/Vivado 2012.4	December 18, 2012
v5.4	47695	14.2/Vivado 2012.2	July 25, 2012
v5.3	47695	14.1	May 8, 2012
v5.2	45707	13.4	January 18, 2012
v5.1	40624	13.1	March 1, 2011



Version	Release Note	Initial Release	Date
v4.6	47694	14.1	May 8, 2012
v4.5	40623	13.1	March 1, 2011
v4.4	35279	12.1	April 23, 2010
v4.3	33307	11.3	September 16, 2009
v4.2	32762	11.2	June 24, 2009
v4.1	32204	11.1	April 27, 2009
v3.5	<u>30146</u>	10.1 Initial IP Update	March 24, 2008
v3.4	25488	9.2i IP Update 1	August 15, 2007
v3.31	<u>24591</u>	9.1i IP Update 2	April 2, 2007
v3.3	24591	9.1i IP Update 1	March 5, 2007
v3.2	23921	8.2i IP Update 2	October 3, 2006
v3.1	23500	8.2i IP Update 1	July 19, 2006
v2.2	22328	8.1i IP Update 1	January 18, 2006
v2.1	21044	7.1i IP Update 1	May 12, 2005
v1.2	<u>19882</u>	6.3i IP Update 3	September 30, 2004

Gigabit Ethernet MAC

Note: This core has been discontinued.

Product Page

Version	Release Note	Initial Release	Date
v8.5	<u>32205</u>	11.1	April 27, 2009
v8.4	<u>30145</u>	10.1 Initial IP Update	March 24, 2008
v8.3	<u>25487</u>	9.2i IP Update 1	August 15, 2007
v8.2.1	23919	9.1i IP Update 2	April 2, 2007
v8.2	23919	9.1i IP Update 1	March 5, 2007
v8.1	23919	8.2i IP Update 2	October 3, 2006
v8.0	23498	8.2i IP Update 1	July 19, 2006
v7.0	22326	8.1i IP Update 1	January 18, 2006
v6.0	21043	7.1i IP Update 1	May 12, 2005
v5.0	19878	6.3i IP Update 3	September 30, 2004

Ethernet 1000BASE-X PCS/PMA or SGMII

Version	Release Note	Initial Release	Date
v12.0	<u>54667</u>	Vivado 2013.1	April 3, 2013
v11.5	<u>47524</u>	14.4/Vivado 2012.4	December 18, 2012
v11.4	47524	14.2/Vivado 2012.2	July 25, 2012
v11.3	<u>47524</u>	14.1	May 8, 2012
v11.2	<u>45677</u>	13.4	January 18, 2012
v11.1	40625	13.1	March 1, 2011
v10.5	<u>36674</u>	12.2	July 23, 2010



Version	Release Note	Initial Release	Date
v10.4	<u>35280</u>	12.1	April 23, 2010
v10.3	33306	11.3	September 16, 2009
v10.2	<u>32761</u>	11.2	June 24, 2009
v10.1	32206	11.1	April 27, 2009
v9.1	30144	10.1 Initial IP Update	March 24, 2008
v9.0	<u>25486</u>	9.2i IP Update 1	August 15, 2007
v8.1.1	24590	9.1i IP Update 2	April 2, 2007
v8.1	24590	9.1i IP Update 1	March 5, 2007
v8.0	24041	8.2i IP Update 2 Virtex-5 LXT Supplement	October 26, 2006
v7.1	23502	8.2i IP Update 1	July 19, 2006
v7.0	22327	8.1i IP Update 1	January 18, 2006
v6.0	21045	7.1i IP Update 1	May 12, 2005
v5.0	<u>19880</u>	6.3i IP Update 3	September 30, 2004

QSGMII

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>54668</u>	Vivado 2013.1	April 3, 2013
v1.4	<u>45711</u>	14.3/2012.3	October 23, 2012
v1.3	<u>45711</u>	14.2/Vivado 2012.2	July 25, 2012
v1.2	<u>45711</u>	14.1	May 8, 2012
v1.1	<u>45711</u>	13.4	January 18, 2012

10-Gigabit Ethernet MAC

Version	Release Note	Initial Release	Date
v12.0	<u>54252</u>	Vivado 2013.1	April 3, 2013
v11.6	47697	14.5	April 3, 2013
v11.5	<u>47697</u>	2012.4	December 18, 2012
v11.4	47697	14.2/Vivado 2012.2	July 25, 2012
v11.3	47697	14.1	May 8, 2012
v11.2	44476	13.3	October 26, 2011
v11.1	40628	13.1	March 1, 2011
v10.3	47696	14.1	May 8, 2012
v10.2	40627	13.1	March 1, 2011
v10.1	35244	12.1	April 23, 2010
v9.3	33304	11.3	September 16, 2009
v9.2	<u>32764</u>	11.2	June 24, 2009
v9.1	32207	11.1	April 27, 2009
v8.6	<u>31513</u>	10.1 IP Update 3	September 19, 2008



Version	Release Note	Initial Release	Date
v8.5	<u>30965</u>	10.1 IP Update 2	June 27, 2008
v8.4	30142	10.1 Initial IP Update	March 24, 2008
v8.3	<u>25456</u>	9.2i IP Update 1	August 15, 2007
v8.2	24588	9.1i IP Update 1	March 5, 2007
v8.1	23920	8.2i IP Update 2	October 3, 2006
v8.0	<u>23501</u>	8.2i IP Update 1	July 19, 2006
v7.0	22330	8.1i IP Update 1	January 18, 2006
v6.0	21046	7.1i IP Update 1	May 12, 2005
v5.0	<u>19879</u>	6.3i IP Update 3	September 30, 2004

10-Gigabit Ethernet PCS/PMA (10GBASE-R/10GBASE-KR))

Product Page

Version	Release Note	Initial Release	Date
v3.0	<u>54669</u>	Vivado 2013.1	April 3, 2013
v2.6	47698	14.4/2012.4	December 18, 2012
v2.5	47698	14.3/Vivado 2012.3	October 23, 2012
v2.4	47698	14.2/Vivado 2012.2	July 25, 2012
v2.3	47698	14.1	May 8, 2012
v2.2	44477	13.3	October 26, 2011
v2.1	40629	13.1	March 1, 2011
v1.2	<u>35267</u>	12.1	April 23, 2010
v1.1	33738	11.4	December 2, 2009

RXAUI

Product Page

Version	Release Note	Initial Release	Date
v3.0	54249	Vivado 2013.1	April 3, 2013
v2.4	47692	14.3/Vivado 2012.3	October 23, 2012
v2.3	47692	14.1	May 8, 2012
v2.2	<u>45706</u>	13.4	January 18, 2012
v2.1	40630	13.1	March 1, 2011
v1.2	35243	12.1	April 23, 2010
v1.1	33311	11.3	September 16, 2009

XAUI

Version	Release Note	Initial Release	Date
v11.0	<u>54666</u>	Vivado 2013.1	April 3, 2013
v10.4	47684	14.2/Vivado 2012.2	July 25, 2012
v10.3	47684	14.1	May 8, 2012
v10.2	45705	13.4	January 18, 2012



Version	Release Note	Initial Release	Date
v10.1	<u>40631</u>	13.1	March 1, 2011
v9.2	35239	12.1	April 23, 2010
v9.1	33302	11.3	September 16, 2009
v8.2	<u>32759</u>	11.2	June 24, 2009
v8.1	32208	11.1	April 27, 2009
v7.4	<u>31514</u>	10.1 IP Update 3	September 19, 2008
v7.3	<u>30143</u>	10.1 Initial IP Update	March 24, 2008
v7.2	<u>25484</u>	9.2i IP Update 1	August 15, 2007
v7.1	24589	9.1i IP Update 1	March 5, 2007
v7.0	24043	8.2i IP Update 2 Virtex-5 LXT Supplement	October 26, 2006
v6.2	23497	8.2i IP Update 1	July 19, 2006
v6.1	22331	8.1i IP Update 1	January 18, 2006
v6.0	21047	7.1i IP Update 1	May 12, 2005
v5.0	<u>19881</u>	6.3i IP Update 3	September 30, 2004

Embedded Tri-Mode Ethernet MAC Wrapper (Virtex-4 FX Family)

Product Page

Version	Release Note	Initial Release	Date
v4.8	34940	12.1	April 23, 2010
v4.7	32209	11.1	April 27, 2009
v4.6	30148	10.1 Initial IP Update	March 24, 2008
v4.5	<u>25439</u>	9.2i IP Update 1	August 15, 2007
v4.4	24587	9.1i IP Update 1	March 5, 2007
v4.3	23922	8.2i IP Update 2	October 26, 2006
v4.2	23503	8.2i IP Update 1	July 19, 2006
v4.1	22332	8.1i IP Update 1	January 18, 2006
v3.1	21903	7.1i IP Update 3	August 31, 2005
v2.1	21049	7.1i IP Update 1	May 12, 2005
v1.0	20193	6.3i IP Update 4	November 11, 2004

Virtex-5 FPGA Embedded Tri-Mode Ethernet MAC Wrapper

Version	Release Note	Initial Release	Date
v1.8	<u>40632</u>	13.1	March 1, 2011
v1.7	34968	12.1	April 23, 2010
v1.6	<u>32210</u>	11.1	April 27, 2009
v1.5	<u>31511</u>	10.1 IP Update 3	September 19, 2008
v1.4	30149	10.1 Initial IP Update	March 24, 2008
v1.3	<u>25441</u>	9.2i IP Update 1	August 15, 2007
v1.2	24593	9.1i IP Update 1	March 5, 2007



Version	Release Note	Initial Release	Date
v1.1	<u>24042</u>	8.2i IP Update 2 Virtex-5 LXT Supplement	October 26, 2006

Virtex-6 FPGA Embedded Tri-Mode Ethernet MAC Wrapper

Product Page

Version	Release Note	Initial Release	Date
v2.3	<u>47365</u>	14.1	May 8, 2012
v2.2	44428	13.3	October 26, 2011
v2.1	<u>40634</u>	13.1	March 1, 2011
v1.6	<u>47362</u>	14.1	May 8, 2012
v1.5	40633	13.1	March 1, 2011
v1.4	<u>34972</u>	12.1	April 23, 2010
v1.3	33309	11.3	September 16, 2009
v1.2	<u>32755</u>	11.2	June 24, 2009

Ethernet Statistics

Product Page

Version	Release Note	Initial Release	Date
v3.5	<u>40635</u>	13.1	March 1, 2011
v3.4	<u>35271</u>	12.1	April 23, 2010
v3.3	33303	11.3	September 16, 2009
v3.2	<u>32763</u>	11.2	June 24, 2009
v3.1	<u>32211</u>	11.1	April 27, 2009
v2.5	30147	10.1 Initial IP Update	March 24, 2008
v2.4	<u>25489</u>	9.2i IP Update 1	August 15, 2007
v2.3.1	24592	9.1i IP Update 2	April 2, 2007
v2.3	24592	9.1i IP Update 1	March 5, 2007
v2.2	24040	8.2i IP Update 2 Virtex-5 LXT Supplement	October 26, 2006
v2.1	23499	8.2i IP Update 1	July 19, 2006
v1.2	<u>22325</u>	8.1i IP Update 1	January 18, 2006
v1.1	<u>21055</u>	7.1i IP Update 1	May 12, 2005

Ethernet AVB Endpoint

Version	Release Note	Initial Release	Date
v3.1	<u>40636</u>	13.1	March 1, 2011
v2.4	<u>36676</u>	12.2	July 23, 2010
v2.3	<u>35203</u>	12.1	April 23, 2010
v2.2	33305	11.3	September 16, 2009
v2.1	<u>32760</u>	11.2	June 24, 2009
v1.2	32212	11.1	April 27, 2009



Version	Release Note	Initial Release	Date
v1.1	<u>31512</u>	10.1 IP Update 3	September 19, 2008

Fibre Channel Pt. to Pt.

Note: This core has been discontinued.

Version	Release Note	Initial Release	Date
v3.5	<u>35263</u>	12.1	April 23, 2010
v3.4	<u>32213</u>	11.1	April 27, 2009
v3.3	<u>30150</u>	10.1 Initial IP Update	March 24, 2008
v3.2	<u>25454</u>	9.2i IP Update 1	August 15, 2007
v3.1	24584	9.1i IP Update 1	March 5, 2007
v2.1	22323	8.1i IP Update 1	January 18, 2006
v2.0	21048	7.1i IP Update 1	May 12, 2005
v1.0	<u>19527</u>	6.3i IP Update 4	November 11, 2004

Fibre Channel Arbitrated Loop

Note: This core has been discontinued.

Version	Release Note	Initial Release	Date
v2.3	<u>30151</u>	10.1 Initial IP Update	March 24, 2008
v2.2	<u>25455</u>	9.2i IP Update 1	August 15, 2007
v2.1	<u>24585</u>	9.1i IP Update 1	March 5, 2007
v1.1	22324	8.1i IP Update 1	January 18, 2006

SPI-4.2

Version	Release Note	Initial Release	Date
v13.0	<u>54616</u>	Vivado 2013.1	April 3, 2013
v12.2	50942	Vivado 2012.2	July 25, 2012
v11.2	<u>42612</u>	13.2	July 6, 2011
v10.5	42572	13.2	July 6, 2011
v11.1	40640	13.1	March 1, 2011
v10.4	40638	13.1	March 1, 2011
v10.3	39376	12.4	December 20, 2010
v10.2	38211	12.3	October 5, 2010
v10.1	<u>35109</u>	12.1	May 3, 2010
v9.3	33313	11.3	September 16, 2009
v9.2	32766	11.2	June 24, 2009
v9.1	<u>32197</u>	11.1	April 27, 2009
v8.6	31506	10.1 IP Update 3	September 19, 2008
v8.5	30058	10.1 Initial IP Update	March 24, 2008
v8.4	25427	9.2i IP Update 1	August 15, 2007
v8.3	<u>24557</u>	9.1i IP Update 1	March5, 2007



Version	Release Note	Initial Release	Date
v8.2	<u>23846</u>	8.2i IP Update 3	December 7, 2007
v8.1	23487	8.2i IP Update 1	July 19, 2006
v7.4	22300	8.1i IP Update 1	January 18, 2006
v7.3	21918	7.1i IP Update 3	August 31, 2005
v7.2	21032	7.1i IP Update 1	May 12, 2005

SPI-4.2 (Virtex-II Pro Devices Only)

Product Page

Version	Release Note	Initial Release	Date
v6.3	<u>22301</u>	8.1i IP Update 1	July 19, 2006

SPI-4.2 Lite

Note: This core has been discontinued.

Product Page

Version	Release Note	Initial Release	Date
v5.2	<u>35138</u>	12.1	May 3, 2010
v5.1	32767	11.2	June 24, 2009
v4.4	<u>32198</u>	11.1	April 27, 2009
v4.3	30970	10.1 IP Update 2	June 27, 2008
v4.2.1	24556	9.1i IP Update 3	May 17, 2007
v4.2	<u>24556</u>	9.1i IP Update 1	March5, 2007
v4.1	23488	8.2i IP Update 1	July 19, 2006
v3.1	22390	8.1i IP Update 1	January 18, 2006
v3	<u>21919</u>	7.1i IP Update 1	August 31, 2005

SPI-3 Link Layer Interface, Multi-channel

Note: This core has been discontinued.

Version	Release Note	Initial Release	Date
v7.3	<u>39377</u>	12.4	December 10, 2010
v7.2	<u>35141</u>	12.1	May 3, 2010
v7.1	33779	11.4	December 2, 2009
v6.1	33314	11.3	September 16, 2009
v5.2	<u>32199</u>	11.1	April 27, 2009
v5.1	<u>25461</u>	9.1i IP Update 1	March 5, 2007
v4.1	22382	8.2i IP Update 1	July 19, 2006
v4	21921	7.1i IP Update 3	August 31, 2005



SPI-3 PHY

Note: This core has been discontinued.

Version	Release Note	Initial Release	Date
v5.2	<u>32200</u>	11.1	April 27, 2009
v5.1	<u>25460</u>	9.1i IP Update 1	March 5, 2007
v4.1	22381	8.2i IP Update 1	July 19, 2006
v4	<u>21920</u>	7.1i IP Update 3	August 31, 2005



Wireless

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Product Page

Version	Release Note	Initial Release	Date
v7.0	<u>54473</u>	Vivado 2013.1	April 3, 2013
v5.1	36969	14.1	May 8, 2012
v4.1	36969	13.1	March 1, 2011
v3.2	36969	12.2	July 23, 2010
v3.1	36968	12.1	April 19, 2010
v2.3	33310	11.3	September 16, 2009
v2.2	32757	11.2	June 24, 2009
v2.1	32214	11.1	April 27, 2009
v1.2	30060	10.1 Initial IP Update	March 24, 2008
v1.1	29162	9.1i IP Update 1	March 5, 2007

OBSAI

Version	Release Note	Initial Release	Date
v6.0	<u>54485</u>	Vivado 2013.1	April 3, 2013
v5.1	<u>36971</u>	13.1	March 1, 2011
v4.2	<u>36971</u>	12.2	July 23, 2010
v4.1	36970	12.1	April 19, 2010
v3.3	33308	11.3	September 16, 2009
v3.2	<u>32758</u>	11.2	June 24, 2009
v3.1	<u>32215</u>	11.1	April 27, 2009
v2.1	<u>30969</u>	10.1 IP Update 2	June 27, 2008
v1.2	<u>30061</u>	10.1 Initial IP Update	March 24, 2008
v1.1	<u>29165</u>	9.1i IP Update 1	March 5, 2007



DSP Horizontal

Accumulator

Product Page

Version	Release Note	Initial Release	Date
v12.0	<u>54492</u>	Vivado 2013.1	April 3, 2013
v11.0	<u>32138</u>	11.1	April 27, 2009

Adder/Subtracter

Product Page

Version	Release Note	Initial Release	Date
v12.0	<u>54491</u>	Vivado 2013.1	April 3, 2013
v11.0	32139	11.1	April 27, 2009

Binary Counter

Product Page

Version	Release Note	Initial Release	Date
v12.0	<u>54493</u>	Vivado 2013.1	April 3, 2013
v11.0	<u>32140</u>	11.1	April 27, 2009

Cascaded Integrator Comb Compiler (CIC Compiler)

Product Page

Version	Release Note	Initial Release	Date
v4.0	<u>54494</u>	Vivado 2013.1	April 3, 2013
v3.0	<u>29297</u>	13.2	July 6, 2011
v2.0	29297	12.1	April 23, 2010
v1.3	<u>29297</u>	11.3	September 16, 2009
v1.2	<u>29297</u>	10.1 IP Update 1	April 25, 2008
v1.1	29297	10.1 Initial IP Update	March 24, 2008

Complex Multiplier

Version	Release Note	Initial Release	Date
v6.0	<u>54495</u>	Vivado 2013.1	April 3, 2013
v5.0	<u>21591</u>	13.1	March 1, 2011
v4.0	<u>21591</u>	12.3	October 5, 2010
v3.1	<u>21591</u>	11.4	December 2, 2009
v3.0	<u>21591</u>	11.1	April 27, 2009
v2.1	<u>21591</u>	7.1i IP Update 0	April 28, 2005



CORDIC

Product Page

Version	Release Note	Initial Release	Date
v6.0	<u>54497</u>	Vivado 2013.1	April 3, 2013
v5.0	<u>29570</u>	13.3	October 26, 2011
v4.0	<u>29570</u>	11.1	April 27, 2009
v3.0	<u>29570</u>	6.3i IP Update 1	May 21, 2004

Direct Digital Synthesizer Compiler (DDS Compiler)

Product Page

Version	Release Note	Initial Release	Date
v6.0	<u>54498</u>	Vivado 2013.1	April 3, 2013
v5.0	<u>29976</u>	12.3	October 5, 2010
v4.0	<u>29976</u>	11.3	September 16, 2009
v3.0	<u>29976</u>	11.2	June 24, 2009
v2.1	<u>29976</u>	10.1 Initial IP Update	March 24, 2008

Divider

Product Page

Version	Release Note	Initial Release	Date
v5.0	<u>54499</u>	Vivado 2013.1	April 3, 2013
v4.0	<u>29120</u>	13.2	July 6, 2011
v3.0	<u>29120</u>	11.2	June 24, 2009
v2.0	<u>29120</u>	10.1 IP Update 2	June 27, 2008
v1.0	<u>29120</u>	8.1i IP Update 1	January 18, 2006

Discrete Fourier Transform (DFT)

Product Page

Version	Release Note	Initial Release	Date
v4.0	<u>54475</u>	Vivado 2013.1	April 3, 2013
v3.1	<u>29978</u>	11.4	December 2, 2009
v3.0	29978	10.1 IP Update 2	June 27, 2008
v2.1	<u>29978</u>	10.1 Initial IP Update	March 24, 2008

DSP48 Macro

Version	Release Note	Initial Release	Date
v3.0	<u>54500</u>	Vivado 2013.1	April 3, 2013
v2.1	33537	13.1	March 1, 2011
v2.0	33537	11.4	December 2, 2009



DUC/DDC Compiler

Product Page

Version	Release Note	Initial Release	Date
v3.0	<u>54476</u>	Vivado 2013.1	April 3, 2013
v2.0	<u>36823</u>	13.2	July 6, 2011
v1.1	<u>36823</u>	12.3	October 5, 2010
v1.0	<u>36823</u>	12.2	July 23, 2010

Fast Fourier Transform (FFT)

Product Page

Version	Release Note	Initial Release	Date
v9.0	<u>54501</u>	Vivado 2013.1	April 3, 2013
v8.0	29209	12.3	October 5, 2010
v7.1	29209	12.1	April 23, 2010
v7.0	29209	11.2	June 24, 2009
v6.0	29209	10.1 IP Update 3	September 19, 2008
v5.0	29209	9.2i IP Update 2	October 17, 2007

FIR Compiler

Product Page

Version	Release Note	Initial Release	Date
v7.0	<u>54502</u>	Vivado 2013.1	April 3, 2013
v6.3	29138	13.3	October 26, 2011
v6.2	29138	13.1	March 1, 2011
v6.1	29138	12.4	December 10, 2010
v6.0	29138	12.3	October 5, 2010
v5.0	29138	11.2	June 24, 2009
v4.0	29138	10.1 IP Update 2	June 27, 2008
v3.2	<u>29138</u>	9.2i IP Update 2	October 17, 2007

Floating-Point Operator

Version	Release Note	Initial Release	Date
v7.0	<u>54504</u>	Vivado 2013.1	April 3, 2013
v6.1	29598	14.2/Vivado 2012.2	July 25, 2012
v6.0	29598	13.2	July 6, 2011
v5.0	29598	11.2	June 24, 2009
v4.0	29598	10.1 IP Update 1	April 25, 2008
v3.0	<u>29598</u>	8.1i IP Update 2	October 3, 2006



LTE Fast Fourier Transform (FFT)

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>54882</u>	Vivado 2013.1	April 3, 2013
v1.0	<u>36977</u>	12.2	July 23, 2010

Multiplier

Product Page

Version	Release Note	Initial Release	Date
v12.0	<u>54506</u>	Vivado 2013.1	April 3, 2013
v11.2	<u>30160</u>	11.3	September 16, 2009
v11.0	<u>30160</u>	11.1	April 27, 2009
v10.1	<u>30160</u>	10.1 IP Update 1	April 25, 2008
v10.0	<u>30160</u>	9.1i IP Update 2	April 2, 2007

Multiply Accumulator (MACC)

Product Page

Version	Release Note	Initial Release	Date
v3.0	<u>54509</u>	Vivado 2013.1	April 3, 2013
v2.0	<u>30161</u>	11.1	April 27, 2009

Multiply Adder

Product Page

Version	Release Note	Initial Release	Date
v3.0	<u>54507</u>	Vivado 2013.1	April 3, 2013
v2.0	32141	11.1	April 27, 2009

RAM-based Shift Register

Product Page

Version	Release Note	Initial Release	Date
v12.0	<u>54508</u>	Vivado 2013.1	April 3, 2013
v11.0	<u>32142</u>	11.1	April 27, 2009

Sine Cosine Look-Up Table (Sin Cos LUT)

Version	Release Note	Initial Release	Date
v5.0	30162	6.3i IP Update 1	May 21, 2004



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Version	Release Note	Initial Release	Date
v1.4	<u>23509</u>	11.1	April 27, 2009
v1.3	<u>23509</u>	10.1 Initial IP Update	March 24, 2008



DSP Digital Communications

3GPP Downlink Chip Rate

Product Page

Version	Release Note	Initial Release	Date	
v1.0	<u>30163</u>	9.2i IP Update 1	August 15, 2007	

3GPP LTE Channel Estimator

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>54467</u>	Vivado 2013.1	April 3, 2013
v1.1	<u>38011</u>	13.3	October 26, 2011
v1.0	<u>38011</u>	12.3	October 5, 2010

3GPP LTE MIMO Decoder

Product Page

Version	Release Note	Initial Release	Date
v3.0	<u>54468</u>	Vivado 2013.1	April 3, 2013
v2.1	33758	13.2	July 6, 2011
v2.0	33758	12.4	December 20, 2010
v1.0	33758	11.4	December 2, 2009

3GPP LTE MIMO Encoder

Product Page

Version	Release Note	Initial Release	Date
v4.0	<u>54469</u>	Vivado 2013.1	April 3, 2013
v3.0	33266	13.4	January 18, 2012
v2.0	33266	11.3	September 16, 2009

3GPP LTE Turbo Decoder

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>54470</u>	Vivado 2013.1	April 3, 2013
v2.0	<u>30630</u>	11.2	June 24, 2009
v1.0	<u>30630</u>	10.1 IP Update 1	April 25, 2008

3GPP LTE Turbo Encoder

Version	Release Note	Initial Release	Date
v5.0	<u>54472</u>	Vivado 2013.1	April 3, 2013
v3.1	<u>30631</u>	12.1	April 23, 2010
v3.0	<u>30631</u>	11.1	April 27, 2009



Version	Release Note	Initial Release	Date
v2.0	<u>30631</u>	10.1 IP Update 3	September 19, 2008
v1.0	30631	10.1 IP Update 1	April 25, 2008

3GPP RACH Preamble Detector

Product Page

Version	Release Note	Initial Release	Date
v1.0	<u>30164</u>	9.2i IP Update 1	August 15, 2007

3GPP Searcher

Product Page

Version	Release Note	Initial Release	Date
v1.0	<u>30165</u>	9.2i IP Update 1	August 15, 2007

3GPP Turbo Convolutional Code Decoder

Product Page

Version	Release Note	Initial Release	Date
v4.1	<u>30166</u>	Vivado 2012.2	July 25, 2012
v4.0	<u>30166</u>	11.2	June 24, 2009
v3.1	30166	9.1i IP Update 3	May 17, 2007

3GPP Turbo Convolutional Code Encoder

Product Page

Version	Release Note	Initial Release	Date
v4.0	<u>30167</u>	11.2	June 24, 2009
v3.1	<u>30167</u>	10.1 Initial IP Update	March 24, 2008

3GPP2 Turbo Convolutional Code Decoder

Product Page

Version	Release Note	Initial Release	Date
v2.1	<u>30168</u>	9.1i IP Update 1	March 5, 2007

3GPP2 Turbo Convolutional Code Encoder

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>30169</u>	9.1i IP Update 2	April 2, 2007

802.16E Convolutional Turbo Code (CTC) Decoder

Version	Release Note	Initial Release	Date
v4.0	<u>29447</u>	11.2	June 24, 2009
v3.1	29447	10.1 IP Update 3	September 19, 2008



Version	Release Note	Initial Release	Date
v3.0	<u>29447</u>	9.2i IP Update 2	October 17, 2007

802.16E Convolutional Turbo Code (CTC) Encoder

Product Page

Version	Release Note	Initial Release	Date
v3.0	<u>30170</u>	11.1	April 27, 2009
v2.1	<u>30170</u>	9.1i IP Update 2	April 2, 2007

Additive White Gaussian Noise Generator (AWGN)

Product Page

Version	Release Note	Initial Release	Date
v1.0	<u>30171</u>	Stand Alone	October 30, 2002

Convolutional Encoder

Product Page

Version	Release Note	Initial Release	Date
v9.0	<u>54496</u>	Vivado 2013.1	April 3, 2013
v8.0	30172	13.4	January 18, 2012
v7.0	30172	11.2	June 24, 2009
v6.1	30172	9.1i IP Update 3	May 17, 2007

Digital Pre-Distortion (DPD) (AXI)

Product Page

Version	Release Note	Initial Release	Date
v6.0	<u>33521</u>	14.3	10/16/2012
v5.0	<u>33521</u>	13.2	July 6, 2011
v4.0	<u>33521</u>	12.3	October 25, 2010
v3.1	<u>33521</u>	12.1	April 23, 2010

DVB-S.2 FEC Encoder

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>30173</u>	11.4	December 2, 2009
v1.4	<u>30173</u>	10.1 IP Update 2	June 27, 2008
v1.3	<u>30173</u>	9.1i IP Update 3	May 17, 2007

G.975.1 EFEC I.7 Encoder/Decoder

Version	Release Note	Initial Release	Date
v2.0	<u>54479</u>	Vivado 2013.1	April 3, 2013



Version	Release Note	Initial Release	Date
v1.0	<u>52189</u>	14.3/Vivado 2012.3	October 23, 2012

JESD204

Product Page

Version	Release Note	Initial Release	Date
v4.0	<u>54480</u>	Vivado 2013.1	April 3, 2013
v2.1	44405	14.1	May 8, 2012
v1.1	44405	13.3	October 26, 2011

Interleaver/De-interleaver

Product Page

Version	Release Note	Initial Release	Date
v8.0	<u>54503</u>	Vivado 2013.1	April 3, 2013
v7.1	<u>30174</u>	2012.2	July 25, 2012
v7.0	30174	13.4	January 18, 2012
v6.0	<u>30174</u>	12.1	April 23, 2010
v5.1	<u>30174</u>	10.1 Initial IP Update	March 24, 2008

Linear Algebra Toolkit

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>54505</u>	Vivado 2013.1	April 3, 2013
v1.0	40040	13.1	March 1, 2011

LDPC 802.16 Encoder

Product Page

Version	Release Note	Initial Release	Date
v1.0	<u>30175</u>	8.2i IP Update 1	July 19, 2006

LTE DL Channel Encoder

Version	Release Note	Initial Release	Date
v3.0	<u>54481</u>	Vivado 2013.1	April 3, 2013
v2.2	31421	Vivado 2012.2	July 25, 2012
v2.1	31421	12.1	April 23, 2010
v2.0	31421	11.1	April 27, 2009
v1.0	31421	10.1 IP Update 3	September 19, 2008



LTE UL Channel Decoder

Product Page

Version	Release Note	Initial Release	Date
v4.0	<u>54484</u>	Vivado 2013.1	April 3, 2013
v3.0	<u>31422</u>	13.2	July 6, 2011
v2.0	<u>31422</u>	11.2	June 24, 2009
v1.0	31422	10.1 IP Update 3	September 19, 2008

LTE UL PUCCH Receiver

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>54483</u>	Vivado 2013.1	April 3, 2013
v1.0	39974	13,1	March 1, 2011

LTE RACH Detector

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>54487</u>	Vivado 2013.1	April 3, 2013
v1.0	<u>35106</u>	12.1	April 23, 2010

Mixed Mode Turbo Decoder (AXI)

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>55471</u>	Vivado 2013.1	April 3, 2013
v1.0	<u>45594</u>	13.4	January 18, 2012

Peak Cancellation Crest Factor Reduction

Product Page

Version	Release Note	Initial Release	Date
v4.0	<u>54486</u>	Vivado 2013.1	April 3, 2013
v3.0	33760	13.2	July 6, 2011
v2.0	33760	11.4	December 2, 2009

Reed-Solomon Decoder

Version	Release Note	Initial Release	Date
v9.0	<u>54510</u>	Vivado 2013.1	April 3, 2013
v8.0	<u>30176</u>	13.3	October 26, 2011
v7.1	<u>30176</u>	12.2	July 23, 2010
v7.0	<u>30176</u>	11.2	June 24, 2009
v6.1	<u>30176</u>	9.1i IP Update 3	May 17, 2007



Reed-Solomon Encoder

Product Page

Version	Release Note	Initial Release	Date
v9.0	<u>54511</u>	Vivado 2013.1	April 3, 2013
v8.0	30177	13.4	January 18,2012
v7.1	30177	12.2	July 23, 2010
v7.0	30177	11.2	June 24, 2009
v6.1	30177	9.1i IP Update 3	May 17, 2007

Turbo Product Code (TPC) Decoder

Product Page

Version	Release Note	Initial Release	Date
v1.1	<u>30178</u>	Stand Alone	January 21, 2003

Turbo Product Code (TPC) Encoder

Product Page

Version	Release Note	Initial Release	Date
v1.0	<u>30179</u>	Stand Alone	October 30, 2002

Viterbi Decoder

Product Page

Version	Release Note	Initial Release	Date
v9.0	<u>54512</u>	Vivado 2013.1	April 3, 2013
v8.0	29448	13.4	January 18, 2012
v7.0	29448	11.2	June 24, 2009
v6.2	29448	9.2i IP Update 2	October 17, 2007

DSP MVI

Asynchronous Sample Rate Converter

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>54516</u>	Vivado 2013.1	April 3, 2013
v1.0	<u>47209</u>	14.1	May 8, 2012

AXI4-Stream to Video Out

Version	Release Note	Initial Release	Date
v3.0	<u>54517</u>	Vivado 2013.1	April 3, 2013.1
v2.01.a	<u>47211</u>	14.3/Vivado 2012.3	October 23, 2012
v2.00.a	<u>47211</u>	14.2/Vivado 2012.2	July 25, 2012
v1.0	<u>47211</u>	14.1	May 8, 2012



Chroma Resampler

Product Page

Version	Release Note	Initial Release	Date
v4.0	<u>54518</u>	Vivado 2013.1	April 3, 2013
v3.01.a	<u>44487</u>	14.3/Vivado 2012.3	October 23, 2012
v3.00.a	44487	14.2/Vivado 2012.2	July 25, 2012
v2.00.a	<u>44487</u>	14.1	May 8, 2012
v1.0	<u>44487</u>	13.3	October 26, 2011

Color Correction Matrix

Product Page

Version	Release Note	Initial Release	Date
v6.0	<u>54519</u>	Vivado 2013.1	April 3, 2013
v5.01.a	<u>32132</u>	14.3/Vivado 2012.3	October 23, 2012
v5.00.a	32132	14.2/Vivado 2012.2	July 25, 2012
v4.00.a	32132	14.1	May 8, 2012
v3.0	<u>32132</u>	13.3	October 26, 2011
v2.0	<u>32132</u>	12.2	July 23, 2010
v1.0	<u>32132</u>	11.1	April 27, 2009

Color Filter Array Interpolation

Product Page

Version	Release Note	Initial Release	Date
v7.0	<u>54520</u>	Vivado 2013.1	April 3, 2013
v6.01.a	<u>32133</u>	14.3/Vivado 2012.3	October 23, 2012
v6.00.a	<u>32133</u>	14.2/Vivado 2012.2	July 25, 2012
v5.00.a	<u>32133</u>	14.1	May 8, 2012
v4.0	<u>32133</u>	13.3	October 26, 2011
v3.0	<u>32133</u>	12.4	December 20, 2010
v2.0	<u>32133</u>	12.2	July 23, 2010
v1.0	<u>32133</u>	11.1	April 27, 2009

Defective Pixel Correction

Version	Release Note	Initial Release	Date
v7.0	<u>54521</u>	Vivado 2013.1	April 3, 2013
v6.01.a	<u>32134</u>	14.3/Vivado 2012.3	October 23, 2012
v6.00.a	<u>32134</u>	14.2/Vivado 2012.2	July 25, 2012
v5.00.a	32134	14.1	May 8, 2012
v4.0	<u>32134</u>	13.3	October 26, 2011
v3.0	<u>32134</u>	13.1	March 1, 2011
v2.0	32134	12.2	July 23, 2010



Version	Release Note	Initial Release	Date
v1.0	<u>32134</u>	11.1	April 27, 2009

DisplayPort

Product Page

Version	Release Note	Initial Release	Date
v4.0	<u>54522</u>	Vivado 2013.1	April 3, 2013
v3.2	33258	14.2/Vivado 2012.2	July 25, 2012
v3.1	33258	14.1	May 8, 2012
v2.3	33258	13.2	July 6, 2011
v2.2	33258	13.1	March 1, 2011
v2.1	33258	12.3	October 5, 2010
v1.3	33258	12.2	July 23, 2010
v1.2	33258	12.1	May 3, 2010
v1.1	33258	11.4	December 2, 2009

Gamma Correction

Product Page

Version	Release Note	Initial Release	Date
v7.0	<u>54523</u>	Vivado 2013.1	April 3, 2013
v6.01.a	<u>32135</u>	14.3/Vivado 2012.3	October 23, 2012
v6.00.a	<u>32135</u>	14.2/Vivado 2012.2	July 25, 2012
v5.00.a	<u>32135</u>	14.1	May 8, 2012
v4.0	<u>32135</u>	13.3	October 26, 2011
v3.0	<u>32135</u>	12.3	October 5, 2010
v2.0	<u>32135</u>	12.2	July 23, 2010
v1.0	<u>32135</u>	11.1	April 27, 2009

H.264 Deblocking Filter

Note: This core has been discontinued.

Version	Release Note	Initial Release	Date
v1.0	<u>25253</u>	Stand Alone	May 31, 2007

H.264 CABAC Encoder

Note: This core has been discontinued.

Version	Release Note	Initial Release	Date
v1.0	<u>25254</u>	Stand Alone	May 31, 2007

H.264 Motion Estimation Engine

Note: This core has been discontinued.

Version	Release Note	Initial Release	Date
v1.0	<u>29129</u>	Stand Alone	October 24, 2007



Image Characterization

Product Page.

Version	Release Note	Initial Release	Date
v3.0	<u>54524</u>	Vivado 2013.1	April 3, 2013
v2.0	<u>34574</u>	13.3	October 26, 2011
v1.1	<u>34574</u>	12.3	October 5, 2010
v1.0	<u>34574</u>	12.1	May 3, 2010

Image Edge Enhancement

Product Page

Version	Release Note	Initial Release	Date
v7.0	<u>54525</u>	Vivado 2013.1	April 3, 2013
v5.01.a	33749	14.3/Vivado 2012.3	October 23, 2012
v5.00.a	33749	14.2/Vivado 2012.2	July 25, 2012
v4.00.a	33749	14.1	May 8, 2012
v3.0	33749	13.3	October 26, 2011
v2.0	33749	12.4	December 20, 2010
v1.0	33749	11.4	December 2, 2009

Image Noise Reduction

Product Page

Version	Release Note	Initial Release	Date
v6.0	<u>54526</u>	Vivado 2013.1	April 3, 2013
v5.01.a	33750	14.3/Vivado 2012.3	October 23, 2012
v5.00.a	33750	14.2/Vivado 2012.2	July 25, 2012
v4.00.a	33750	14.1	May 8, 2012
v3.0	33750	13.3	October 26, 2011
V2.0	33750	12.4	December 20, 2010
v1.0	<u>33750</u>	11.4	December 2, 2009

Image Processing Pipeline

Note: This core has been discontinued.

Product Page

Version	Release Note	Initial Release	Date
v1.0	<u>32136</u>	11.1	April 27, 2009

Image Statistics Engine

Version	Release Note	Initial Release	Date
v6.0	<u>54527</u>	Vivado 2013.1	April 3, 2013
v5.01.a	33748	14.3/Vivado 2012.3	October 23, 2012
v5.00.a	33748	14.2/Vivado 2012.2	July 25, 2012



Version	Release Note	Initial Release	Date
v4.00.a	<u>33748</u>	14.1	May 8, 2012
v3.0	33748	14.1	May 8, 2012
v3.0	33748	13.3	October 26, 2011
v2.0	33748	13.1	March 1, 2011
v1.0	33748	11.4	December 2, 2009

Motion Adaptive Noise Reduction

Product Page

Version	Release Note	Initial Release	Date
v6.0	<u>54528</u>	Vivado 2013.1	April 3, 2013
v5.00.a	<u>33751</u>	14.2/Vivado 2012	July 25, 2012
v4.00.a	<u>33751</u>	14.1	May 8, 2012
v3.0	<u>33751</u>	13.3	October 26, 2011
v2.0	<u>33751</u>	13.1	March 1, 2011
v1.1	<u>33751</u>	12.3	October 5, 2010
v1.0	<u>33751</u>	11.4	December 2, 2009

MPEG-4 Part 2 Simple Profile Decoder (MPEG-4 Part 2 SP)

Note: This core has been discontinued.

Version	Release Note	Initial Release	Date
v1.1	<u>30157</u>	Stand Alone	April 4, 2006

MPEG-4 Part 2 Simple Profile Encoder (MPEG-4 Part 2 SP)

Note: This core has been discontinued.

Version	Release Note	Initial Release	Date
v1.1	<u>30158</u>	Stand Alone	December 15, 2006

Object Segmentation

Product Page

Version	Release Note	Initial Release	Date
v3.0	54529	Vivado 2013.1	April 3, 2013
v2.0	38992	13.3	October 26, 2011
v1.0	38992	13.1	March 1, 2011

RGB to YCrCb Color-Space Converter (RGB2YCrCb)

Version	Release Note	Initial Release	Date
v7.0	<u>54530</u>	Vivado 2013.1	April 3, 2013
v6.01.a	29982	14.3/Vivado 2012.3	October 23, 2012
v6.00.a	29982	14.2/Vivado 2012.2	July 25, 2012
v5.00.a	29982	14.1	May 8, 2012



Version	Release Note	Initial Release	Date
v4.0	<u>29982</u>	13.3	October 26, 2011
v3.0	29982	12.2	July 23, 2010
v2.0	<u>29982</u>	11.1	April 27, 2009
v1.0	29982	10.1 Initial IP Update	March 24, 2008

SMPTE SD/HD/3G-SDI

Product Page

٧	ersion	Release Note	Initial Release	Date
	v2.0	<u>54531</u>	Vivado 2013.1	April 3, 2013
	v1.0	50905	14.2/Vivado 2012.2	July 25, 2012

SMPTE2022-5/6 Video Over IP Receiver

Product Page

Version	Release Note	Initial Release	Date
v3.0	<u>54534</u>	Vivado 2013.1	April 3, 2013
v2.0	<u>47208</u>	14.2/Vivado 2012.2	July 25, 2012
v1.0	47208	14.1	May 8, 2012

SMPTE2022-5/6 Video Over IP Transmitter

Product Page

Version	Release Note	Initial Release	Date
v3.0	<u>54535</u>	Vivado 2013.1	April 3, 2013
v2.0	<u>47207</u>	14.2/Vivado 2012.2	July 25, 2012
v1.0	47207	14.1	May 8, 2012

Spartan-6 FPGA Triple-Rate SDI

Product Page

Version	Release Note	Initial Release	Date
v1.0	<u>42805</u>	13.2	July 6, 2011

Virtex-6 FPGA Triple-Rate SDI

Product Page

Version	Release Note	Initial Release	Date
v1.0	40473	13.1	March 1, 2011

Video Deinterlacer

Version	Release Note	Initial Release	Date
v4.0	<u>54537</u>	Vivado 2013.1	April 3, 2013
v3.00.a	41969	14.3/Vivado 2012.3	October 23, 2012
v2.00.a	41969	14.1	May 8, 2012



Version	Release Note	Initial Release	Date
v1.0	<u>41969</u>	13.3	October 26, 2011

Video Into AXI4-Stream

Product Page

Version	Release Note	Initial Release	Date
v3.0	<u>54538</u>	Vivado 2013.1	April 3, 2013
v2.01.a	<u>47210</u>	14.3/Vivado 2012.3	October 23, 2012
v2.00.a	<u>47210</u>	14.2/Vivado 2012.2	July 25, 2012
v1.0	<u>47210</u>	14.1	May 8, 2012

Video Scaler

Product Page

Version	Release Note	Initial Release	Date
v8.0	<u>54540</u>	Vivado 2013.1	April 3, 2013
v7.01.a	<u>31958</u>	14.3/Vivado 2012.3	October 23, 2012
v7.00.a	<u>31958</u>	14.2/Vivado 2012.2	July 25, 2012
v6.00.a	<u>31958</u>	14.1	May 8, 2012
v5.0	<u>31958</u>	13.3	October 26, 2011
v4.0	<u>31958</u>	13.1	March 1, 2011
v3.0	<u>31958</u>	12.3	October 5, 2010
v2.1	<u>31958</u>	12.1	May 3, 2010
v2.0	<u>31958</u>	11.3	September 16, 2009
v1.0	<u>31958</u>	11.1	April 27, 2009

Video Timing Controller

Product Page

Version	Release Note	Initial Release	Date
v6.0	<u>54541</u>	Vivado 2013.1	April 3, 2013
v5.01.a	<u>32754</u>	14.3/Vivado 2012.3	October 23, 2012
v5.00.a	<u>32754</u>	14.2/Vivado 2012.2	July 25, 2012
v4.00.a	<u>32754</u>	14.1	May 8, 2012
v3.0	<u>32754</u>	13.2	July 6, 2011
v2.1	<u>32754</u>	12.3	October 5, 2010
v2.0	<u>32754</u>	11.4	December 2, 2009
v1.0	<u>32754</u>	11.2	June 24, 2009

Video Direct Memory Access

Version	Release Note	Initial Release	Date
v1.1	<u>33256</u>	12.3	October 5, 2010
v1.0	<u>33256</u>	11.3	September 16, 2009



Video On-Screen Display

Product Page

Version	Release Note	Initial Release	Date
v6.0	<u>54539</u>	Vivado 2013.1	April 3, 2013
v5.00.a	33257	14.2/Vivado 2012.2	July 25, 2012
v4.00.a	33257	14.1	May 8, 2012
v3.0	33257	13.3	October 26, 2011
v2.0	33257	13.1	March 7, 2011
v1.0	33257	11.3	September 16, 2009

YCrCb to RGB Color-Space Converter (YCrCb2RGB)

Version	Release Note	Initial Release	Date
v7.0	<u>54542</u>	Vivado 2013.1	April 3, 2013
v6.01.a	29980	14.3/Vivado 2012.3	October 23, 2012
v6.00.a	29980	14.2/Vivado 2012.2	July 25, 2012
v5.00.a	29980	14.1	May 8, 2012
v4.0	29980	13.3	October 26, 2011
v3.0	29980	12.2	July 23, 2010
v2.0	29980	11.1	April 27, 2009
v1.0	29980	10.1 Initial IP Update	March 24, 2008



Embedded IP

Embedded IP Master Answer Records

Release Note	Initial Release	Date
<u>47392</u>	14.3	October 23, 2012
47392	14.2	July 25, 2012
47392	14.1	May 8, 2012
39843	13.4	January 18, 2012
39843	13.3	October 26, 2011
39843	13.2	July 7, 2011
39843	13.1	March 1, 2011
34609	12.4	December 10, 2010
34609	12.3	October 5, 2010
34609	12.2	July 23, 2010
<u>34609</u>	12.1	April 23, 2010
<u>32168</u>	11.4	December 2, 2009
<u>32168</u>	11.3	September 16, 2009
<u>32168</u>	11.2	June 24, 2009
<u>32168</u>	11.1	April 27, 2009
30704	10.1 EDK SP3	September 19, 2008
30704	10.1 EDK SP2	June 27, 2008
30704	10.1 EDK SP1	April 25, 2008
<u>29760</u>	9.2i EDK SP2	December 17, 2007
29760	9.2i EDK SP1	November 1, 2007
29254	9.2i EDK	October 22, 2007
<u>25239</u>	9.1i EDK SP2	May 14, 2007
24309	8.2i EDK SP2	October 30, 2006
23313	8.1i EDK SP2	April 21, 2006
<u>25091</u>	7.1i EDK SP2	July 12, 2005

For information on which devices are supported by Embedded IP, see:

Derivative Family Support

MicroBlaze Microprocessor Control System

Version	Release Note	Initial Release	Date
v2.0	<u>54414</u>	Vivado 2013.1	April 3, 2013
v1.2	<u>46420</u>	14.2	July 25, 2012
v1.0	<u>46420</u>	13.4	January 18, 2012



FPGA Features and Design

7 Series FPGA Transceiver Wizard

Product Page

Version	Release Note	Initial Release	Date
v2.6	<u>56454</u>	14.6	June 19, 2013
v2.5	55163	14.5	April 3, 2013
v2.5	54691	Vivado 2013.1	April 3, 2013
v2.4	53396	14.4/Vivado 2012.4	December 18, 2012
v2.3	52263	14.3/Vivado 2012.3	October 23, 2012
v2.2	50827	14.2/Vivado 2012.2	July 25, 2012
v2.1	47477	14.1/Vivado 2012.1	May 8, 2012
v1.6	45685	13.4	January 18, 2012
v1.5	44463	13.3	October 26, 2011
v1.4	42809	13.2	July 6, 2011
v1.3	40748	13.1	March 1, 2011

Clocking Wizard

Product Page

Version	Release Note	Initial Release	Date
v4.5	<u>54102</u>	Vivado 2013.1	April 3, 2013
v4.4	<u>53157</u>	Vivado 2012.4	December 18, 2012
v4.3	52090	Vivado 2012.3	October 23, 2012
v3.6/v4.2	<u>50719</u>	14.2/Vivado 2012.2	July 25, 2012
v3.5	<u>47620</u>	14.1	May 8, 2012
v3.3	44517	13.4	January 18, 2012
v3.2	44517	13.3	October 26, 2011
v1.4	<u>33910</u>	11.4	December 8, 2009

RocketIO[™] GT11 Transceiver Wizard (Virtex-4 FX Family)

Product Page

Version	Release Note	Initial Release	Date
v1.7	<u>31519</u>	10.1 IP Update 3	September 19, 2008
v1.6	30576	10.1 Initial IP Update	March 24, 2008
v1.5	<u>25437</u>	9.2i IP Update 1	August 15, 2007

RocketIO GTP Transceiver Wizard (Virtex-5 LXT or SXT Platform)

Version	Release Note	Initial Release	Date
v1.10	<u>31517</u>	11.2	June 24, 2009
v1.9	30955	10.1 Initial IP Update 2	June 27, 2008
v1.8	30575	10.1 Initial IP Update	March 24, 2008



Version	Release Note	Initial Release	Date
v1.7	<u>29368</u>	9.2i IP Update 2	October 17, 2007
v1.6	<u>25475</u>	9.1i IP Update 1	March 5, 2007

RocketIO GTX Transceiver Wizard (Virtex-5 FXT Platform)

Product Page

Version	Release Note	Initial Release	Date
v1.6	<u>32748</u>	11.2	June 24, 2009
v1.5	<u>31518</u>	10.1 IP Update 3	September 19, 2008
v1.4	<u>30954</u>	10.1 IP Update 2	June 27, 2008
v1.3	<u>30636</u>	10.1 IP Update 1	April 25, 2008
v1.2	30577	10.1 Initial IP Update	March 24, 2008

SelectIO Interface Wizard

Product Page

Version	Release Note	Initial Release	Date
v5.0	<u>54649</u>	Vivado 2013.1	April 3, 2013
v4.2/v4.1	<u>47635</u>	14.2/Vivado 2012.2	July 25, 2012
v4.1	<u>47635</u>	14.1	May 8, 2012
v3.3	44514	13.4	January 18, 2012
v3.2	<u>41644</u>	13.3	October 26, 2011
v1.2	<u>33911</u>	11.4	December 8, 2009

Virtex-6 FPGA GTX Transceiver Wizard

Product Page

Version	Release Note	Initial Release	Date
v1.12	<u>45686</u>	13.4	January 18, 2012
v1.11	44489	13.3	October 26, 2011
v1.10	<u>42806</u>	13.2	July 6, 2011
v1.9	40739	13.1	March 1, 2011
v1.8	<u>39757</u>	12.4	December 20, 2010
v1.7	<u>38396</u>	12.3	October 5, 2010
v1.4	33864	11.4	December 2, 2009
v1.3	<u>33469</u>	11.3	September 16, 2009
v1.2	<u>32746</u>	11.2	June 24, 2009

Virtex-6 FPGA GTH Transceiver Wizard

Product Page

Version	Release Note	Initial Release	Date
v1.11	<u>47478</u>	14.1	May 8, 2012
v1.7 Rev 3	<u>47479</u>	14.1	May 8, 2012
v.1.10	<u>45660</u>	13.4	January 18, 2012

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Version	Release Note	Initial Release	Date
v1.9	44488	13.3	October 26, 2011
v1.8	<u>41518</u>	13.2	July 6, 2011
v1.7	40746	13.1	March 1, 2011
v1.6	<u>39758</u>	12.4	December 20, 2010
v1.5	<u>38397</u>	12.3	October 5, 2010
v1.2	<u>33866</u>	11.4	December 2, 2009
v1.1	<u>33470</u>	11.3	September 16, 2009

Spartan-6 FPGA GTP Transceiver Wizard

Product Page

Version	Release Note	Initial Release	Date
v1.11	<u>44490</u>	13.3	October 26, 2011
v1.10	<u>42807</u>	13.2	July 7, 2011
v1.9	40745	13.1	March 1, 2011
v1.8	<u>39755</u>	12.4	December 20, 2010
v1.7	38398	12.3	October 5, 2010
v1.4	33865	11.4	December 2, 2009
v1.3	33468	11.3	September 16, 2009
v1.2	32747	11.2	June 24, 2009

System Monitor Wizard

Product Page

Version	Release Note	Initial Release	Date
v2.1	40949	13.1	March 1, 2011
v1.0	24512	9.1i	March 5, 2007

XADC Wizard

Version	Release Note	Initial Release	Date
v3.0	<u>54260</u>	Vivado 2013.1	April 3, 2013
v2.4	<u>53158</u>	Vivado 2012.4	December 18, 2012
v2.3	<u>52088</u>	Vivado 2012.3	October 23, 2012
v4.1/v2.1	<u>50720</u>	14.2/Vivado 2012.2	July 25, 2012
v1.4	40906	13.4	January 18, 2012
v1.3	<u>40906</u>	13.3	October 26, 2011
v1.0	<u>40906</u>	13.1	March 1, 2011



Memories and Storage Elements

Block Memory Generator

Product Page

Version	Release Note	Initial Release	Date
v8.0	<u>54662</u>	Vivado 2013.1	April 3, 2013
v7.3	50918	14.3/Vivado 2012.3	October 23, 2012
v7.2	50960	14.2/Vivado 2012.2	July 25, 2012
v7.1	<u>47736</u>	14.1	May 8, 2012
v6.3	<u>45701</u>	13.4	August 18, 2012
v6.2	42712	13.2	July 6, 2011
v6.1	40591	13.1	March 1, 2011
v4.3	38076	12.3	October 5, 2010
v4.2	<u>36456</u>	12.2	July 23, 2010
v4.1	35523	12.1	April 23, 2010
v3.3	33298	11.3	September 16, 2009
v3.2	32770	11.2	June 24, 2009
v3.1	32202	11.1	April 27, 2009
v2.8	31556	10.1 IP Update 3	September 19, 2008
v2.7	30055	10.1 Initial IP Update	March 24, 2008
v2.6	29247	9.2i IP Update 2	October 17, 2007
v2.5	25459	9.2i IP Update 1	August 15, 2007
v2.4.1	24555	9.1i IP Update 2	April 2, 2007
v2.4	24555	9.1i IP Update 1	March 5, 2007
v2.3	24229	8.2i IP Update 3	December 7, 2006
v2.2	23849	8.2i IP Update 2	October 3, 2006
v2.1	23849	8.2i IP Update 1	July 19, 2006

Content Addressable Memory (CAM)

Note: This Core has been discontinued.

Product Page

Version	Release Note	Initial Release	Date
v6.1	<u>31558</u>	10.1 IP Update 3	September 19, 2008

Distributed Memory Generator

Version	Release Note	Initial Release	Date
v8.0	<u>54661</u>	Vivado 2013.1	April 3, 2013
v7.2	<u>50961</u>	14.2/Vivado 2012.2	July 25, 2012
v7.1	47737	14.1	May 8, 2012
v6.3	<u>45703</u>	13.4	January 18, 2012
v6.2	<u>42716</u>	13.2	July 6, 2011
v4.2	33299	11.3	September 16, 2009



Version	Release Note	Initial Release	Date
v4.1.1	<u>32771</u>	11.2	June 24, 2009
v4.1	<u>32203</u>	11.1	April 27, 2009
v3.4	<u>30057</u>	10.1 Initial IP Update	March 24, 2008
v3.3.1	<u>24553</u>	9.1i IP Update 2	April 2, 2007
v3.3	<u>24553</u>	9.1i IP Update 1	March 5, 2007
v3.2	23848	8.2i IP Update 2	October 3, 2006
v3.1	<u>23491</u>	8.2i IP Update 1	July 19, 2006

FIFO Generator

Product Page

Version	Release Note	Initial Release	Date
v10.0	<u>54663</u>	Vivado 2013.1	April 3, 2013
v9.3	50917	14.3/Vivado 2012.3	October 23, 2012
v9.2	50959	14.2/Vivado 2012.2	July 25, 2012
v9.1	<u>47735</u>	14.1	May 8, 2012
v8.4	<u>45700</u>	13.4	January 18, 2012
v8.3	44594	13.3	October 26, 2011
v8.2	<u>42715</u>	13.2	July 6, 2011
v8.1	40592	13.1	March 1, 2011
v7.2	37976	12.3	October 5, 2010
v6.2	36426	12.2	July 23, 2010
v6.1	35524	12.1	April 23, 2010
v5.3	33297	11.3	September 16, 2009
v5.2	32769	11.2	June 24, 2009
v5.1	32201	11.1	April 27, 2009
v4.4	31557	10.1 IP Update 3	September 19, 2008
v4.3	30056	10.1 Initial IP Update	March 24, 2008
v4.2	29246	9.2i IP Update 2	October 17, 2007
v4.1	25458	9.2i IP Update 1	August 15, 2007
v3.3.1	24552	9.1i IP Update 2	April 2, 2007
v3.3	24552	9.1i IP Update 1	March 5, 2007
v3.2	23847	8.2i IP Update 2	October 3, 2006
v3.1	23490	8.2i IP Update 1	July 19, 2006
v2.2	21848	7.1i IP Update 3	August 31, 2006

Packet Queue

Note: This core has been discontinued.

Version	Release Note	Initial Release	Date
v2.2	<u>25463</u>	9.2i IP Update 1	August 15, 2007
v2.1	<u>24562</u>	9.1i IP Update 1	March 5, 2007
v1.2	22842	8.2i IP Update 1	July 19, 2006



Memory Interface Generator (MIG) 7 Series

Product Page

Version	Release Note	Initial Release	Date
V1.9	<u>54025</u>	Vivado 2013.1	April 3, 2013
V1.9	<u>45195</u>	14.5	April 3, 2013
v1.8	<u>45195</u>	14.4/Vivado 2012,4	December 18, 2012
v1.7	<u>45195</u>	14.3/Vivado 2012.3	October 23, 2012
v1.6	<u>45195</u>	14.2	July 25, 2012
v1.5	<u>45195</u>	14.1	May 8, 2012
v1.4	<u>45195</u>	13.4	January 18, 2012
v1.3	<u>45195</u>	13.3	October 26, 2011
v1.2	<u>45195</u>	13.2	July 6, 2011
v1.1	<u>45195</u>	13.1	March 1, 2011

Memory Interface Generator (MIG) Virtex-6 and Spartan-6

Product Page

Version	Release Note	Initial Release	Date
v3.92	<u>50642</u>	14.1	May 8, 2012
v3.91	<u>45194</u>	13.4	January 18, 2012
v3.9	<u>43130</u>	13.3	October 26, 2011
v3.8	41347	13.2	July 6, 2011
v3.7	<u>39128</u>	13.1	March 1, 2011
v3.61	<u>38951</u>	12.4	December 20, 2010
v3.6	<u>37173</u>	12.3	October 5, 2010
v3.5	<u>36211</u>	12.2	July 23, 2010
v3.4	<u>34587</u>	12.1	April 23, 2010
v3.3	<u>33706</u>	11.4	December 2, 2009
v3.2	<u>33249</u>	11.3	September 16, 2009
v3.1	<u>32641</u>	11.2	June 24, 2009

Memory Interface Generator (MIG)

Product Page

Version	Release Note	Initial Release	Date
v3.61	<u>38951</u>	12.4	December 20, 2010
v3.6	<u>37173</u>	12.3	October 5, 2010
v3.5	<u>36211</u>	12.2	July 23, 2010
v3.4	34587	12.1	April 23, 2010
v3.3	33706	11.4	December 2, 2009
v3.2	33249	11.3	September 16, 2009
v3.1	32641	11.2	June 24, 2009
v3.0	32090	11.1	April 27, 2009
v2.3	31402	10.1 IP Update 3	September 19, 2008

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Version	Release Note	Initial Release	Date
v2.2	<u>30411</u>	10.1 IP Update 1	April 25, 2008
v2.1	<u>29911</u>	10.1 Initial IP Update	March 24, 2008
v2.0	<u>29312</u>	9.2i IP Update 2	October 17, 2007
v1.73	<u>25406</u>	9.1i IP Update 3	May 17, 2007
v1.72	25056	9.1i IP Update 1	March 5, 2007
v1.7	<u>24541</u>	NA	March 21, 2007
v1.6	23787	NA	July 28, 2006
v1.5	22937	NA	February 15, 2006
v1.4	<u>21971</u>	NA	November 4, 2005



Standard Bus Interfaces

7 Series Integrated Block for PCI Express

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>54643</u>	Vivado 2013.1	April 3, 2013
v1.9	40469	14.5	April 3, 2013
v1.8	40469	14.4/Vivado 2012.4	December 18, 2012
v1.7	40469	14.3/Vivado 2012.3	October 23, 2012
v1.6	40469	14.2/Vivado 2012.2	July 25, 2012
v1.4	40469	14.1	May 8, 2012
v1.3	40469	13.4	January 18, 2012
v1.2	40469	13.3	October 26, 2011
v1.1 Rev 1	40469	13.2	July 6, 2011
v1.1	40469	13.1	March 1, 2011

AXI Bridge for PCI Express

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>54646</u>	Vivado 2013.1	April 3, 2013
v1.07.a	44969	14,5	April 3, 2013
v1.06.a	44969	14.4/Vivado 2012.4	December 18, 2012
v1.05.a	44969	14.3/Vivado 2012.3	October 23, 2012
v1.04.a	44969	14.2	July 25, 2012
v1.03.a	44969	14.1	May 8, 2012
v1.02.a	44969	13.4	January 18, 2012

Virtex-6 FPGA Integrated Block for PCI Express

Version	Release Note	Initial Release	Date
v2.5	<u>45723</u>	13.4	January 18, 2012
v2.4	42756	13.2	July 7, 2011
v2.3	40445	13.1	March 1, 2011
v1.7	40446	13.1	March 1, 2011
v2.2	39353	12.4	December 20, 2010
v2.1	<u>37937</u>	12.3	October 5, 2010
v1.6	<u>37936</u>	12.3	October 5, 2010
v1.5	35322	12.1	April 23, 2010
v1.4	<u>33763</u>	11.4	December 2, 2009
v1.3	33276	11.3	September 16, 2009
v1.2	32742	11.2	June 24, 2009



Virtex-7 FPGA Gen3 Integrated Block for PCI Express

Product Page

Version	Release Note	Initial Release	Date
v2.0	<u>54645</u>	Vivado 2013.1	April 3, 2013
v1.5	<u>47441</u>	14.5	April 3, 2013
v1.4	<u>47441</u>	14.4/Vivado 2012.4	December 18, 2012
v1.3	<u>47441</u>	14.3/Vivado 2012.3	October 23, 2012
v1.2	<u>47441</u>	14.2/Vivado 2012.2	July 25, 2012
v1.1	<u>47441</u>	14.1	May 8, 2012

Spartan-6 FPGA Integrated Block for PCI Express

Product Page

Version	Release Note	Initial Release	Date
v2.5	<u>45702</u>	13.4	January 18, 2012
v2.3	<u>42569</u>	13.2	July 6, 2011
v2.2	<u>39371</u>	12.4	December 20, 2010
v2.1	<u>37939</u>	12.3	October 5, 2010
v1.4	<u>37938</u>	12.3	October 5, 2010
v1.3	<u>35323</u>	12.1	April 23, 2010
v1.2	33277	11.3	September 16, 2009
v1.1	32743	11.2	June 24, 2009

Endpoint Block Plus Wrapper for PCI Express

Product Page

Version	Release Note	Initial Release	Date
v1.15	42760	13.2	July 6, 2011
v1.14	35321	12.1	April 23, 2010
v1.13	33762	11.4	December 2, 2009
v1.12	33278	11.3	September 16, 2009
v1.11	32741	11.2	June 24, 2009
v1.10	32274	11.1	April 27, 2009
v1.9	31572	10.1 IP Update 3	September 19, 2008
v1.8	30980	10.1 IP Update 2	June 27, 2008
v1.7	30632	10.1 IP Update 1	April 25, 2008
v1.6	30120	10.1 Initial IP Update	March 24, 2008
v1.5	29468	9.2i IP Update 2	October 17, 2007
v1.4	25493	9.2i IP Update 1	August 15, 2007
v1.3	25162	9.1i IP Update 3	May 17, 2007
v1.2	24603	9.1i IP Update 1	March 5, 2007
v1.1	23985	8.2i IP Update 2 (Virtex-5 LXT)	October 26, 2006

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Endpoint Block Wrapper for PCI Express

Note: This core has been discontinued.

Version	Release Note	Initial Release	Date
v1.7	<u>30121</u>	10.1 Initial IP Update	March 24, 2008
v1.6	<u>29470</u>	9.2i IP Update 2	October 17, 2007
v1.5	<u>25494</u>	9.2i IP Update 1	August 15, 2007
v1.4	<u>25163</u>	9.1i IP Update 3	May 17, 2007
v1.3	<u>24604</u>	9.1i IP Update 2	April 2, 2007
v1.2	<u>24046</u>	9.1i IP Update 1	March 5, 2007

Endpoint for PCI Express (Soft IP Implementation)

Product Page

Version	Release Note	Initial Release	Date
v3.7	<u>35324</u>	12.1	April 23, 2010
v3.6	29469	9.2i IP Update 2	October 17, 2007
v3.5	<u>25160</u>	9.1i IP Update 3	May 17, 2007
v3.4	<u>24601</u>	9.1i IP Update 1	March 5, 2007
v3.3	22320	8.2i IP Update 2	October 3, 2006
v3.2	22320	8.1i IP Update 1	July 19, 2006
v3.1	22320	8.1i IP Update 1	January 18, 2006

Endpoint PIPE for PCI Express (Soft IP Implementation)

Product Page

Version	Release Note	Initial Release	Date
v1.8	<u>36645</u>	12.2	July 23, 2010
v1.7	<u>25161</u>	9.2i IP Update 2	October 17, 2007
v1.6	24602	9.1i IP Update 3	May 17, 2007
v1.5	22232	9.1i IP Update 1	March 5, 2007
v1.4	22322	8.2i IP Update 2	October 3, 2006
v1.3	22322	8.1i IP Update 1	July 19, 2006
v1.2	<u>21847</u>	7.1i IP Update 3	August 31, 2005

Initiator/Target for PCI[™] v3

Version	Release Note	Initial Release	Date
v3.167	<u>32324</u>	11.1	April 27, 2009
v3.166	<u>31567</u>	10.1 IP Update 3	September 19, 2008
v3.165	<u>30116</u>	10.1 Initial IP Update	March 24, 2008
v3.164	<u>29471</u>	9.2i IP Update 2	October 17, 2007
v3.163	<u>25495</u>	9.1i IP Update 1	August 15, 2007
v3.162	<u>25164</u>	9.1i IP Update 3	May 17, 2007



Version	Release Note	Initial Release	Date
v3.161	<u>24605</u>	9.1i IP Update 1	March 5, 2007
v3.160	22321	8.2i IP Update 2	October 3, 2006

Initiator/Target for PCI v4

Product Page

Version	Release Note	Initial Release	Date
v5.0	<u>54651</u>	Vivado 2013.1	April 3, 2013
v4.18	<u>52452</u>	14.3/Vivado 2012.3	October 23, 2012
v4.17	50888	14.2/Vivado 2012.2	July 25, 2012
v4.16	<u>45583</u>	13.4	January 18, 2012
4.15	44584	13.3	October 26, 2011
4.14	42761	13.2	July 6, 2011
4.13	<u>36646</u>	12.2	July 23, 2010
4.12	<u>35334</u>	12.1	April 23, 2010
4.11	33764	11.4	December 2, 2009
4.10	33279	11.3	September 16, 2009
v4.9	32744	11.2	June 24, 2009
v4.8	31568	10.1 IP Update 3	September 19, 2008
v4.7	30633	10.1 IP Update 1	April 25, 2008
v4.6	<u>30117</u>	10.1 Initial IP Update	March 24, 2008
v4.5	29472	9.2i IP Update 2	October 17, 2007
v4.4	25496	9.2i IP Update 1	August 15, 2007
v4.3	<u>25165</u>	9.1i IP Update 3	May 17, 2007
v4.2	24606	9.1i IP Update 1	March 5, 2007
v4.1	22321	8.2i IP Update 2	October 3, 2006

Initiator/Target for PCI-X[™] v5

Version	Release Note	Initial Release	Date
v5.166	<u>31569</u>	10.1 IP Update 3	September 19, 2008
v5.165	<u>30118</u>	10.1 Initial IP Update	March 24, 2008
v5.164	29473	9.2i IP Update 2	October 17, 2007
v5.163	<u>25497</u>	9.2i IP Update 1	August 15, 2007
v5.162	<u>25166</u>	9.1i IP Update 3	May 17, 2007
v5.161	24607	9.1i IP Update 1	March 5, 2007
v5.160	22321	8.2i IP Update 2	October 3, 2006



Initiator/Target for PCI-X v6 (Virtex-5 FPGA)

Product Page

Version	Release Note	Initial Release	Date
v6.8	<u>31570</u>	10.1 IP Update 3	September 19, 2008
v6.7	<u>30634</u>	10.1 IP Update 1	April 25, 2008
v6.6	<u>30119</u>	10.1 Initial IP Update	March 24, 2008
v6.5	29474	9.2i IP Update 2	October 17, 2007
v6.4	<u>25498</u>	9.2i IP Update 1	August 15, 2007
v6.3	<u>25167</u>	9.1i IP Update 3	May 17, 2007
v6.2	24608	9.1i IP Update 1	March 5, 2007
v6.1	<u>22321</u>	8.2i IP Update 2	October 3, 2006

UCF Generator for PCI/PCI-X

Version	Release Note	Initial Release	Date
v2.8	<u>31571</u>	10.1 IP Update 3	September 19, 2008
v2.7	30635	10.1 IP Update 1	April 25, 2008
v2.6	30122	10.1 Initial IP Update	March 24, 2008
v2.5	<u>29475</u>	9.2i IP Update 2	October 17, 2007
v2.4	25499	9.2i IP Update 1	August 15, 2007
v2.3	<u>25168</u>	9.1i IP Update 3	May 17, 2007
v2.2	<u>24609</u>	9.1i IP Update 1	March 5, 2007
v2.1	<u>22321</u>	8.2i IP Update 2	October 3, 2006

Serial RapidIO

Product Page

Version	Release Note	Initial Release	Date
v5.6	<u>40519</u>	13.1	March 1, 2011
v5.5	<u>35157</u>	12.1	May 5, 2010
v5.4	<u>33312</u>	11.3	September 16, 2009
v5.3	<u>32768</u>	11.2	June 24, 2009
v5.2	<u>32196</u>	11.1	April 27, 2009
v5.1	<u>31573</u>	10.1 IP Update 3	September 19, 2008
v4.4	<u>30941</u>	10.1 IP Update 2	June 27, 2008
v4.3	30059	10.1 Initial IP Update	March 24, 2008
v4.2	<u>25462</u>	9.2i IP Update 2	October 17, 2007
v4.1	<u>23850</u>	9.1i IP Update 1	March 5, 2007

Serial RapidIO Gen2

Version	Release Note	Initial Release	Date
v2.0	<u>54648</u>	Vivado 2013.1	April 3, 2013
v1.7	<u>55339</u>	14.5	April 3, 2013



Version	Release Note	Initial Release	Date
v1.6	<u>52797</u>	14.4/Vivado 2012.4	December 18, 2012
v1.5	50829	14.2/Vivado 2012.2	July 25, 2012
v1.4	<u>47190</u>	14.1	May 8, 2012
v1.3	<u>45708</u>	13.4	January 18, 2012
v1.2	44605	13.3	October 26, 2011

Revision History

The following table shows the revision history for this document.

Date	Version	Revision
11/21/07	1.0	Initial Xilinx release.
03/24/08	1.1	Added Wireless category, which includes CPRI and OBSAI. Updated for 10.1 Initial IP Update. Added revision summary to first page. Corrected FlexRay table. Added individual DSP core entries.
04/25/08	1.2	Added ARs for 10.1 IP Update 1 cores. Added new Turbo Decoder and 3GPP LTE Turbo Encoder cores. Updated Multiplier core naming. Updated FPGA reference naming and trademark information.
06/27/08	1.3	Added CORE Generator Software Known Issues, updated for 10.1 IP Update 2, and corrected typographical errors.
09/19/08	1.4	Updated for 10.1 IP Update 3.
04/27/09	1.5	Updated for 11.1.
06/24/09	1.6	Updated for 11.2.
06/30/09	1.6.1	Minor updates; added link to "Ethernet Statistics" on page 1, and added discontinued notice to "SPI-3 PHY" per CR# 525998.
09/16/09	1.7	Updated for 11.3.
12/02/09	1.8	Updated for 11.4.
05/03/10	1.9	Updated for 12.1
05/04/10	1.9.1	Fixed broken link
05/06/10	2.0	Updated FIFO Generator and Block Memory Generator. Updated links
07/23/10	2.1	Updated for 12.2
08/05/10	2.2	Added DUC/DDC Compiler and LTE Fast Fourier Transform (FFT). Other Minor Edits
10/05/10	2.3	Updated for 12.3
12/20/10	2.4	Updated for 12.4
03/01/11	2.5	Updated for 13.1
03/02/11	2.6	Updated links to System Monitor Wizard and XADC Wizard
05/02/11	2.7	Added LogiCORE Video Deinterlacer, v1.0
07/06/11	2.8	Updated for 13.2
10/26/11	2.9	Updated for ISE 13.3 software release
01/18/12	3.0	Updated for ISE 13.4 software release
02/23/12	3.1	Added MicroBlaze Microprocessor Control System core
05/08/12	3.2	Updated for ISE 14.1 software release
05/17/12	3.3	Updated Soft Error Mitigation



Date	Version	Revision
07/25/12	3.4	Updated for ISE 14.2 and Vivado 2012.2 Design Suite releases
07/31/12	3.5	Minor updates to ISE 14.2 and Vivado 2012.2 IP release notes
10/23/12	3.6	Updated for ISE 14.3 and Vivado 2012.3 Design Suite releases
10/26/12	3.7	Minor update to Digital Pre-Distortion (DPD) (AXI)
12/18/12	3.8	Updated for ISE 14.4 and Vivado 2012.4 Design Suite releases
04/03/13	3.9	Updated for Vivado 2013.1 Design Suite release
04/04/13	4.0	Minor update to version 3.9
05/07/13	4.1	Fix to two broken links
6/19/13	4.2	Updated for ISE Design Suite 14.6
10/21/13	4.3	Updated DPD table on page 26