

VIRTEX7\_PCIE\_DMA\_DRIVER diagnostic utility.  
Application accesses hardware using WinDriver.

Found 1 matching device [ Vendor ID 0x10EE, Device ID 0x7038 ]:

- 1. Vendor ID: 0x10EE, Device ID: 0x7038
  - Location: Bus [0x2], Slot [0x0], Function [0x0]
  - Interrupt: IRQ 0
  - Interrupt Options (supported interrupts):
    - Extended Message-Signaled Interrupt (MSI-X)
  - Memory range [BAR 0]: base 0xF7300000, size 0x100000
  - Memory range [BAR 1]: base 0xF7200000, size 0x100000
  - Memory range [BAR 2]: base 0xF7100000, size 0x100000

dmaTX\_buffer: Base address physical=de22e000, virtual=2160000, size=1048576  
dmaRX\_buffer: Base address physical=ddbca000, virtual=2260000, size=1048576

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D0_Start	=	00000000a300a400
D0_End	=	00000000b300b400
D0_TLP_READ_WRAP	=	0000000000000505 (write,no_wrap)
D0_Read_Ptr	=	00000000d300d400
D0_current_ptr	=	00000000a300a400

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D1_Start	=	00000000a300a401
D1_End	=	00000000b300b401
D1_TLP_READ_WRAP	=	0000000000000505 (write,no_wrap)
D1_Read_Ptr	=	00000000d300d401
D1_current_ptr	=	00000000a300a401

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REGISTER\_RESET

DMA\_RESET

SOFT\_RESET

FIFO\_FLUSH

D0 Status = 00000000a300a400-0000000000000004 - DescriptorEnable =  
00000000 - read\_ptr = 00000000d300d401

D1 Status = 00000000a300a401-0000000000000004 - DescriptorEnable =  
00000000 - read\_ptr = 00000000d300d401

CARD\_TYPE: 709

Board ID: fe71ce

Core temperature: 2582

APP\_MUX = 0

APP\_ENABLE = 0

DescriptorEnable = 00000000

DescriptorEnable = 00000000

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Application to PCIe

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APP_MUX = 1
TX buffer[ 0] = 0100beef - RX buffer[ 0] = 00000000
TX buffer[ 1] = 0101beef - RX buffer[ 1] = 00000000
TX buffer[ 2] = 0102beef - RX buffer[ 2] = 00000000
TX buffer[ 3] = 0103beef - RX buffer[ 3] = 00000000
TX buffer[ 4] = 0104beef - RX buffer[ 4] = 00000000
TX buffer[ 5] = 0105beef - RX buffer[ 5] = 00000000
TX buffer[ 6] = 0106beef - RX buffer[ 6] = 00000000
TX buffer[ 7] = 0107beef - RX buffer[ 7] = 00000000
TX buffer[ 8] = 0208beef - RX buffer[ 8] = 00000000
TX buffer[ 9] = 0209beef - RX buffer[ 9] = 00000000
TX buffer[10] = 020abeef - RX buffer[10] = 00000000
TX buffer[11] = 020bbeef - RX buffer[11] = 00000000
TX buffer[12] = 020cbeef - RX buffer[12] = 00000000
TX buffer[13] = 020dbeef - RX buffer[13] = 00000000
TX buffer[14] = 020ebeef - RX buffer[14] = 00000000
TX buffer[15] = 020fbeef - RX buffer[15] = 00000000
TX buffer[16] = 0310beef - RX buffer[16] = 00000000
TX buffer[17] = 0311beef - RX buffer[17] = 00000000
TX buffer[18] = 0312beef - RX buffer[18] = 00000000
TX buffer[19] = 0313beef - RX buffer[19] = 00000000
TX buffer[20] = 0314beef - RX buffer[20] = 00000000
TX buffer[21] = 0315beef - RX buffer[21] = 00000000
TX buffer[22] = 0316beef - RX buffer[22] = 00000000
TX buffer[23] = 0317beef - RX buffer[23] = 00000000
TX buffer[24] = 0418beef - RX buffer[24] = 00000000
TX buffer[25] = 0419beef - RX buffer[25] = 00000000
TX buffer[26] = 041abeef - RX buffer[26] = 00000000
TX buffer[27] = 041bbeef - RX buffer[27] = 00000000
TX buffer[28] = 041cbeef - RX buffer[28] = 00000000
TX buffer[29] = 041dbeef - RX buffer[29] = 00000000
TX buffer[30] = 041ebeef - RX buffer[30] = 00000000
TX buffer[31] = 041fbeef - RX buffer[31] = 00000000
TX buffer[32] = 0520beef - RX buffer[32] = 00000000
TX buffer[33] = 0521beef - RX buffer[33] = 00000000
TX buffer[34] = 0522beef - RX buffer[34] = 00000000
TX buffer[35] = 0523beef - RX buffer[35] = 00000000
TX buffer[36] = 0524beef - RX buffer[36] = 00000000
TX buffer[37] = 0525beef - RX buffer[37] = 00000000
TX buffer[38] = 0526beef - RX buffer[38] = 00000000
TX buffer[39] = 0527beef - RX buffer[39] = 00000000
TX buffer[40] = 0628beef - RX buffer[40] = 00000000
TX buffer[41] = 0629beef - RX buffer[41] = 00000000
TX buffer[42] = 062abeef - RX buffer[42] = 00000000
TX buffer[43] = 062bbeef - RX buffer[43] = 00000000
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TX buffer[44] = 062cbeef - RX buffer[44] = 00000000
TX buffer[45] = 062dbeef - RX buffer[45] = 00000000
TX buffer[46] = 062ebeef - RX buffer[46] = 00000000
TX buffer[47] = 062fbeef - RX buffer[47] = 00000000
TX buffer[48] = 0730beef - RX buffer[48] = 00000000
TX buffer[49] = 0731beef - RX buffer[49] = 00000000
TX buffer[50] = 0732beef - RX buffer[50] = 00000000
TX buffer[51] = 0733beef - RX buffer[51] = 00000000
TX buffer[52] = 0734beef - RX buffer[52] = 00000000
TX buffer[53] = 0735beef - RX buffer[53] = 00000000
TX buffer[54] = 0736beef - RX buffer[54] = 00000000
TX buffer[55] = 0737beef - RX buffer[55] = 00000000
TX buffer[56] = 0838beef - RX buffer[56] = 00000000
TX buffer[57] = 0839beef - RX buffer[57] = 00000000
TX buffer[58] = 083abeef - RX buffer[58] = 00000000
TX buffer[59] = 083bbeef - RX buffer[59] = 00000000
TX buffer[60] = 083cbeef - RX buffer[60] = 00000000
TX buffer[61] = 083dbeef - RX buffer[61] = 00000000
TX buffer[62] = 083ebeef - RX buffer[62] = 00000000
TX buffer[63] = 083fbeef - RX buffer[63] = 00000000
D0_Start          = 00000000de22e000
D0_End            = 00000000de32e000
D0_TLP_READ_WRAP = 00000000000000820 (read,no_wrap)
D0_Read_Ptr       = 00000000de22e000
D1_Start          = 00000000ddbca000
D1_End            = 00000000ddcca000
D1_TLP_READ_WRAP = 00000000000000020 (write,no_wrap)
D1_Read_Ptr       = 00000000ddbca000
APP_ENABLE = 2
DescriptorEnable : 00000003
D0 Status = 00000000de265300-00000000000000002 - DescriptorEnable =
00000003 - read_ptr = 00000000de22e000
D0 Done
D1 Status = 00000000ddbca000-00000000000000000 - DescriptorEnable =
00000000 - read_ptr = 00000000ddbca000
D1 Done
TX buffer[ 0] = 0100beef - RX buffer[ 0] = 0100beef
TX buffer[ 1] = 0101beef - RX buffer[ 1] = 0101beef
TX buffer[ 2] = 0102beef - RX buffer[ 2] = 0102beef
TX buffer[ 3] = 0103beef - RX buffer[ 3] = 0103beef
TX buffer[ 4] = 0104beef - RX buffer[ 4] = 0104beef
TX buffer[ 5] = 0105beef - RX buffer[ 5] = 0105beef
TX buffer[ 6] = 0106beef - RX buffer[ 6] = 0106beef
TX buffer[ 7] = 0107beef - RX buffer[ 7] = 0107beef
TX buffer[ 8] = 0208beef - RX buffer[ 8] = 0100beef
TX buffer[ 9] = 0209beef - RX buffer[ 9] = 0101beef
TX buffer[10] = 020abeef - RX buffer[10] = 0102beef
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TX buffer[11] = 020bbeef	-	RX buffer[11] = 0103beef	
TX buffer[12] = 020cbeef	-	RX buffer[12] = 0104beef	
TX buffer[13] = 020dbeef	-	RX buffer[13] = 0105beef	
TX buffer[14] = 020ebeef	-	RX buffer[14] = 0106beef	
TX buffer[15] = 020fbeef	-	RX buffer[15] = 0107beef	
TX buffer[16] = 0310beef	-	RX buffer[16] = 0208beef	
TX buffer[17] = 0311beef	-	RX buffer[17] = 0209beef	
TX buffer[18] = 0312beef	-	RX buffer[18] = 020abeef	
TX buffer[19] = 0313beef	-	RX buffer[19] = 020bbeef	
TX buffer[20] = 0314beef	-	RX buffer[20] = 020cbeef	
TX buffer[21] = 0315beef	-	RX buffer[21] = 020dbeef	
TX buffer[22] = 0316beef	-	RX buffer[22] = 020ebeef	
TX buffer[23] = 0317beef	-	RX buffer[23] = 020fbeef	
<b>TX buffer[24] = 0418beef</b>	-	<b>RX buffer[24] = 0524beef</b>	>> Words
<b>are swapped?</b>			
<b>TX buffer[25] = 0419beef</b>	-	<b>RX buffer[25] = 0525beef</b>	
<b>TX buffer[26] = 041abeef</b>	-	<b>RX buffer[26] = 0526beef</b>	
<b>TX buffer[27] = 041bbeef</b>	-	<b>RX buffer[27] = 0527beef</b>	
TX buffer[28] = 041cbeef	-	RX buffer[28] = 0628beef	
TX buffer[29] = 041dbeef	-	RX buffer[29] = 0629beef	
TX buffer[30] = 041ebeef	-	RX buffer[30] = 062abeef	
TX buffer[31] = 041fbeef	-	RX buffer[31] = 062bbeef	
TX buffer[32] = 0520beef	-	RX buffer[32] = 062cbeef	
TX buffer[33] = 0521beef	-	RX buffer[33] = 062dbeef	
TX buffer[34] = 0522beef	-	RX buffer[34] = 062ebeef	
TX buffer[35] = 0523beef	-	RX buffer[35] = 062fbeef	
<b>TX buffer[36] = 0524beef</b>	-	<b>RX buffer[36] = 0000000</b>	>> Control
<b>information is passed on?</b>			
<b>TX buffer[37] = 0525beef</b>	-	<b>RX buffer[37] = 40400040</b>	
<b>TX buffer[38] = 0526beef</b>	-	<b>RX buffer[38] = 02000010</b>	
<b>TX buffer[39] = 0527beef</b>	-	<b>RX buffer[39] = 00000000</b>	
TX buffer[40] = 0628beef	-	RX buffer[40] = 0310beef	
TX buffer[41] = 0629beef	-	RX buffer[41] = 0311beef	
TX buffer[42] = 062abeef	-	RX buffer[42] = 0312beef	
TX buffer[43] = 062bbeef	-	RX buffer[43] = 0313beef	
TX buffer[44] = 062cbeef	-	RX buffer[44] = 0314beef	
TX buffer[45] = 062dbeef	-	RX buffer[45] = 0315beef	
TX buffer[46] = 062ebeef	-	RX buffer[46] = 0316beef	
TX buffer[47] = 062fbeef	-	RX buffer[47] = 0317beef	
TX buffer[48] = 0730beef	-	RX buffer[48] = 0418beef	
TX buffer[49] = 0731beef	-	RX buffer[49] = 0419beef	
TX buffer[50] = 0732beef	-	RX buffer[50] = 041abeef	
TX buffer[51] = 0733beef	-	RX buffer[51] = 041bbeef	
TX buffer[52] = 0734beef	-	RX buffer[52] = 041cbeef	
TX buffer[53] = 0735beef	-	RX buffer[53] = 041dbeef	
TX buffer[54] = 0736beef	-	RX buffer[54] = 041ebeef	
TX buffer[55] = 0737beef	-	RX buffer[55] = 041fbeef	

