



FPGA IO Standards Reference

Summary

This FPGA IO Standards Reference provides an overview for the different IO Standards supported by various FPGA device families.

IO Standards Reference
TR0132 (v1.0) August 22, 2005

Introduction

FPGA IO Standards Reference covers all the IO standards supported in Altium Designer. The device support tables given with individual IO standard provide information about the value for the standard when used as a constraints attribute.

IO Standards

The available IO Standards are listed as follows:

| | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|
| <i>AGP1x</i> | <i>AGP2x</i> | <i>BLVDS25</i> | <i>COMPACTPCI_3</i> |
| <i>CTT</i> | <i>DHSTL18I</i> | <i>DHSTL18II</i> | <i>DHSTL18II_DCI</i> |
| <i>DHSTL18III</i> | <i>DHSTLI</i> | <i>DHSTLII</i> | <i>DHSTLII_DCI</i> |
| <i>DHSTLIII</i> | <i>DSSTL2I</i> | <i>DSSTL2II</i> | <i>DSSTL2II_DCI</i> |
| <i>DSSTL3I</i> | <i>DSSTL3II</i> | <i>DSSTL18I</i> | <i>DSSTL18II</i> |
| <i>DSSTL18II_DCI</i> | <i>FPGA_DRIVE</i> | <i>FPGA_SLEW</i> | <i>GTL</i> |
| <i>GTL_DCI</i> | <i>GTLP</i> | <i>GTLP_DCI</i> | <i>HSTL_12</i> |
| <i>HSTLI</i> | <i>HSTLI_18</i> | <i>HSTLI_18_DCI</i> | <i>HSTLI_DCI</i> |
| <i>HSTLII</i> | <i>HSTLII_18</i> | <i>HSTLII_18_DCI</i> | <i>HSTLII_DCI</i> |
| <i>HSTLIII</i> | <i>HSTLIII_18</i> | <i>HSTLIII_18_DCI</i> | <i>HSTLIII_DCI</i> |
| <i>HSTLIV</i> | <i>HSTLIV_18</i> | <i>HSTLIV_18_DCI</i> | <i>HSTLIV_DCI</i> |
| <i>HTT</i> | <i>LDT</i> | <i>LDT_DT</i> | <i>LVC MOS5</i> |
| <i>LVC MOS12</i> | <i>LVC MOS15</i> | <i>LVC MOS15_DCI</i> | <i>LVC MOS15_DCI_DV2</i> |
| <i>LVC MOS18</i> | <i>LVC MOS18_DCI</i> | <i>LVC MOS18_DCI_DV2</i> | <i>LVC MOS25</i> |
| <i>LVC MOS25_DCI</i> | <i>LVC MOS25_DCI_DV2</i> | <i>LVC MOS33</i> | <i>LVC MOS33_DCI</i> |
| <i>LVC MOS33_DCI_DV2</i> | <i>LVDS</i> | <i>LVDS25_DCI</i> | <i>LVDS33</i> |
| <i>LVDS33_DCI</i> | <i>LVDS_DT</i> | <i>LVDS EXT25</i> | <i>LVDS EXT25_DCI</i> |
| <i>LVDS EXT25_DT</i> | <i>LVDS EXT33</i> | <i>LVDS EXT33_DCI</i> | <i>LVPECL</i> |
| <i>LVPECL25</i> | <i>LV TTL15</i> | <i>LV TTL18</i> | <i>LV TTL25</i> |
| <i>LV TTL33</i> | <i>MiniLVDS25</i> | <i>PCI33_3</i> | <i>PCI33_5</i> |
| <i>PCI66</i> | <i>PCIX_3</i> | <i>PCML</i> | <i>PCML15</i> |

FPGA IO Standards Reference

| | | | |
|---------------------|----------------|--------------------|-------------------|
| <i>RSDS25</i> | <i>SSTL2I</i> | <i>SSTL2I_DCI</i> | <i>SSTL2II</i> |
| <i>SSTL2II_DCI</i> | <i>SSTL3I</i> | <i>SSTL3I_DCI</i> | <i>SSTL3II</i> |
| <i>SSTL3II_DCI</i> | <i>SSTL18I</i> | <i>SSTL18I_DCI</i> | <i>SSTL18II</i> |
| <i>SSTL18II_DCI</i> | <i>TTL</i> | <i>ULVDS25</i> | <i>ULVDS25_DT</i> |

AGP1X**Accelerated Graphics Port 1x**

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | AGP 1X |
| Stratix2 | - |
| StratixGX | AGP 1X |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

AGP2X**Accelerated Graphics Port 2x**

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | AGP 2X |
| Stratix2 | - |
| StratixGX | AGP 2X |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | AGP |
| Spartan2E | AGP |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | AGP |
| Virtex2 | AGP |
| Virtex2p | - |
| VirtexE | AGP |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

BLVDS25**Bus Low Voltage Differential Signaling (2.5 Volts)**

| Device | Value |
|-----------------|----------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | BLVDS_25 |
| Spartan3E | BLVDS_25 |
| Virtex | - |
| Virtex2 | BLVDS_25 |
| Virtex2p | BLVDS_25 |
| VirtexE | - |
| Virtex4 | BLVDS_25 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | BLVDS25 |
| ECP | BLVDS25 |

COMPACTPCI_3**Compact Peripheral Component Interconnect (3.3 Volts)**

| Device | Value |
|-----------------|-------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | Compact PCI |
| Stratix2 | - |
| StratixGX | Compact PCI |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

CTT**Center Tap Terminated**

| Device | Value |
|-----------------|-------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | CTT |
| Stratix2 | - |
| StratixGX | CTT |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | CTT |
| Spartan2E | CTT |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | CTT |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | CTT |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

DHSTL18I**Differential High-Speed Transceiver Logic (1.8 Volts) Class I**

| Device | Value |
|-----------------|--------------------------------------|
| Cyclone | - |
| Cyclone2 | Differential HSTL 1.8-V HSTL Class I |
| Stratix | - |
| Stratix2 | Differential HSTL 1.8-V HSTL Class I |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | HSTL18D_I |
| ECP | HSTL18D_I |

DHSTL18II**Differential High-Speed Transceiver Logic (1.8 Volts) Class II**

| Device | Value |
|-----------------|---------------------------------------|
| Cyclone | - |
| Cyclone2 | Differential HSTL 1.8-V HSTL Class II |
| Stratix | - |
| Stratix2 | Differential HSTL 1.8-V HSTL Class II |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | DIFF_HSTL_II_18 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | HSTL18D_II |
| ECP | HSTL18D_II |

DHSTL18II_DCI**Differential High-Speed Transceiver Logic (1.8 Volts) Class II with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|---------------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | DIFF_HSTL_II_DCI_18 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

DHSTL18III**Differential High-Speed Transceiver Logic (1.8 Volts) Class III**

| Device | Value |
|-----------------|-------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | HSTL18D_III |
| ECP | HSTL18D_III |

DHSTLI**Differential High-Speed Transceiver Logic Class I**

| Device | Value |
|-----------------|------------------------------|
| Cyclone | - |
| Cyclone2 | Differential HSTL 1.5-V HSTL |
| Stratix | Differential HSTL 1.5-V HSTL |
| Stratix2 | Differential HSTL 1.5-V HSTL |
| StratixGX | Differential HSTL 1.5-V HSTL |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | HSTL15D_I |
| ECP | HSTL15D_I |

DHSTLII**Differential High-Speed Transceiver Logic Class II**

| Device | Value |
|-----------------|---------------------------------------|
| Cyclone | - |
| Cyclone2 | Differential HSTL 1.5-V HSTL Class II |
| Stratix | - |
| Stratix2 | Differential HSTL 1.5-V HSTL Class II |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | DIFF_HSTL_II |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

DHSTLII_DCI**Differential High-Speed Transceiver Logic Class II with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|------------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | DIFF_HSTL_II_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

DHSTLIII**Differential High-Speed Transceiver Logic Class III**

| Device | Value |
|-----------------|-------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | HSTL15D_III |
| ECP | HSTL15D_III |

DSSTL2I**Differential Stub Series Terminated Logic (2.5 Volts) Class I**

| Device | Value |
|-----------------|---------------------|
| Cyclone | - |
| Cyclone2 | Differential SSTL-2 |
| Stratix | - |
| Stratix2 | Differential SSTL-2 |
| StratixGX | Differential SSTL-2 |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | SSTL25D_I |
| ECP | SSTL25D_I |

DSSTL2II**Differential Stub Series Terminated Logic (2.5 Volts) Class II**

| Device | Value |
|-----------------|------------------------------|
| Cyclone | - |
| Cyclone2 | Differential SSTL-2 Class II |
| Stratix | Differential SSTL-2 Class II |
| Stratix2 | Differential SSTL-2 Class II |
| StratixGX | Differential SSTL-2 Class II |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | DIFF_SSTL2_II |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | SSTL25D_II |
| ECP | SSTL25D_II |

DSSTL2II_DCI

Differential Stub Series Terminated Logic (2.5 Volts) Class II with Digitally Controlled Impedance technology

| Device | Value |
|-----------------|-------------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | DIFF_SSTL2_II_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

DSSTL3I**Differential Stub Series Terminated Logic (3.3 Volts) Class I**

| Device | Value |
|-----------------|-----------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | SSTL33D_I |
| ECP | SSTL33D_I |

DSSTL3II**Differential Stub Series Terminated Logic (3.3 Volts) Class II**

| Device | Value |
|-----------------|------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | SSTL33D_II |
| ECP | SSTL33D_II |

DSSTL18I**Differential Stub Series Terminated Logic (1.8 Volts) Class I**

| Device | Value |
|-----------------|---------------------------------|
| Cyclone | - |
| Cyclone2 | Differential 1.8-V SSTL Class I |
| Stratix | - |
| Stratix2 | Differential 1.8-V SSTL Class I |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | SSTL18D_I |
| ECP | SSTL18D_I |

DSSTL18II**Differential Stub Series Terminated Logic (1.8 Volts) Class II**

| Device | Value |
|-----------------|----------------------------------|
| Cyclone | - |
| Cyclone2 | Differential 1.8-V SSTL Class II |
| Stratix | - |
| Stratix2 | Differential 1.8-V SSTL Class II |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | DIFF_SSTL18_II |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

DSSTL18II_DCI**Differential Stub Series Terminated Logic (1.8 Volts) Class II with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|--------------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | DIFF_SSTL18_II_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

FPGA_DRIVE**FPGA Drive Strength**

| Device | Value |
|-----------------|--|
| Cyclone | 2mA / 4mA / 8mA / 12mA / 16mA / 24mA |
| Cyclone2 | 2mA / 4mA / 6mA / 8mA / 10mA / 12mA / 16mA / 20mA / 24mA |
| Stratix | 2mA / 4mA / 8mA / 12mA / 16mA / 24mA |
| Stratix2 | 2mA / 4mA / 6mA / 8mA / 10mA / 12mA / 16mA / 20mA / 24mA |
| StratixGX | 2mA / 4mA / 8mA / 12mA / 16mA / 24mA |
| Max2 | 2mA / 3mA / 4mA / 6mA / 7mA / 8mA / 14mA / 16mA |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | 2 / 4 / 6 / 8 / 12 / 16 / 24 |
| Spartan2E | 2 / 4 / 6 / 8 / 12 / 16 / 24 |
| Spartan3 | 2 / 4 / 6 / 8 / 12 / 16 / 24 |
| Spartan3E | 2 / 4 / 6 / 8 / 12 / 16 / 24 |
| Virtex | 2 / 4 / 6 / 8 / 12 / 16 / 24 |
| Virtex2 | 2 / 4 / 6 / 8 / 12 / 16 / 24 |
| Virtex2p | 2 / 4 / 6 / 8 / 12 / 16 / 24 |
| VirtexE | 2 / 4 / 6 / 8 / 12 / 16 / 24 |
| Virtex4 | 2 / 4 / 6 / 8 / 12 / 16 / 24 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | 2 / 4 / 6 / 8 / 12 / 16 / 20 |
| ECP | 2 / 4 / 6 / 8 / 12 / 16 / 20 |

FPGA_SLEW**FPGA Slew Rate**

| Device | Value |
|-----------------|-------------|
| Cyclone | OFF / ON |
| Cyclone2 | - |
| Stratix | OFF / ON |
| Stratix2 | - |
| StratixGX | OFF / ON |
| Max2 | OFF / ON |
| Max3000a | OFF / ON |
| Max7000b | OFF / ON |
| Max7000ae | OFF / ON |
| Max7000s | OFF / ON |
| Spartan2 | FAST / SLOW |
| Spartan2E | FAST / SLOW |
| Spartan3 | FAST / SLOW |
| Spartan3E | FAST / SLOW |
| Virtex | FAST / SLOW |
| Virtex2 | FAST / SLOW |
| Virtex2p | FAST / SLOW |
| VirtexE | FAST / SLOW |
| Virtex4 | FAST / SLOW |
| CoolRunner2 | FAST / SLOW |
| CoolRunnerXpla3 | FAST / SLOW |
| Xc9500 | FAST / SLOW |
| Xc9500XL | FAST / SLOW |
| Xc9500XV | FAST / SLOW |
| ProAsicPlus | - |
| EC | FAST / SLOW |
| ECP | FAST / SLOW |

GTL**Gunning Transceiver Logic**

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | GTL |
| Stratix2 | - |
| StratixGX | GTL |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | GTL |
| Spartan2E | GTL |
| Spartan3 | GTL |
| Spartan3E | - |
| Virtex | GTL |
| Virtex2 | GTL |
| Virtex2p | GTL |
| VirtexE | GTL |
| Virtex4 | GTL |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

GTL_DCI**Gunning Transceiver Logic with Digitally Controlled Impedance**

| Device | Value |
|-----------------|---------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | GTL_DCI |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | GTL_DCI |
| Virtex2p | GTL_DCI |
| VirtexE | - |
| Virtex4 | GTL_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

GTLP**Gunning Transceiver Logic Plus**

| Device | Value |
|-----------------|-------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | GTLP+ |
| Stratix2 | - |
| StratixGX | GTLP+ |
| Max2 | - |
| Max3000a | - |
| Max7000b | GTLP+ |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | GTLP |
| Spartan2E | GTLP |
| Spartan3 | GTLP |
| Spartan3E | - |
| Virtex | GTLP |
| Virtex2 | GTLP |
| Virtex2p | GTLP |
| VirtexE | GTLP |
| Virtex4 | GTLP |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

GTLP_DCI**Gunning Transceiver Logic Plus with Digitally Controlled Impedance**

| Device | Value |
|-----------------|----------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | GTLP_DCI |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | GTLP_DCI |
| Virtex2p | GTLP_DCI |
| VirtexE | - |
| Virtex4 | GTLP_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HSTL_12**High-Speed Transceiver Logic (1.2 Volts)**

| Device | Value |
|-----------------|-----------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | 1.2-VHSTL |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HSTLI**High-Speed Transceiver Logic Class I**

| Device | Value |
|-----------------|--------------------|
| Cyclone | - |
| Cyclone2 | 1.5-V HSTL CLASS I |
| Stratix | 1.5-V HSTL CLASS I |
| Stratix2 | 1.5-V HSTL CLASS I |
| StratixGX | 1.5-V HSTL CLASS I |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | HSTL_I |
| Spartan2E | HSTL_I |
| Spartan3 | HSTL_I |
| Spartan3E | - |
| Virtex | HSTL_I |
| Virtex2 | HSTL_I |
| Virtex2p | HSTL_I |
| VirtexE | HSTL_I |
| Virtex4 | HSTL_I |
| CoolRunner2 | HSTL_I |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | HSTL15_I |
| ECP | HSTL15_I |

HSTL_18**High-Speed Transceiver Logic (1.8 Volts) Class I**

| Device | Value |
|-----------------|--------------------|
| Cyclone | - |
| Cyclone2 | 1.8-V HSTL CLASS I |
| Stratix | 1.8-V HSTL CLASS I |
| Stratix2 | 1.8-V HSTL CLASS I |
| StratixGX | 1.8-V HSTL CLASS I |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | HSTL_I_18 |
| Spartan3E | HSTL_I_18 |
| Virtex | - |
| Virtex2 | HSTL_I_18 |
| Virtex2p | HSTL_I_18 |
| VirtexE | - |
| Virtex4 | HSTL_I_18 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | HSTL18_I |
| ECP | HSTL18_I |

HSTL_18_DCI**High-Speed Transceiver Logic (1.8 Volts) Class I with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|---------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | HSTL_I_DCI_18 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | HSTL_I_DCI_18 |
| Virtex2p | HSTL_I_DCI_18 |
| VirtexE | - |
| Virtex4 | HSTL_I_DCI_18 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HSTL_I_DCI**High-Speed Transceiver Logic Class I with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | HSTL_I_DCI |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | HSTL_I_DCI |
| Virtex2p | HSTL_I_DCI |
| VirtexE | - |
| Virtex4 | HSTL_I_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HSTLII**High-Speed Transceiver Logic Class II**

| Device | Value |
|-----------------|---------------------|
| Cyclone | - |
| Cyclone2 | 1.5-V HSTL CLASS II |
| Stratix | 1.5-V HSTL CLASS II |
| Stratix2 | 1.5-V HSTL CLASS II |
| StratixGX | 1.5-V HSTL CLASS II |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | HSTL_II |
| Virtex2p | HSTL_II |
| VirtexE | - |
| Virtex4 | HSTL_II |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HSTLII_18**High-Speed Transceiver Logic (1.8 Volts) Class II**

| Device | Value |
|-----------------|---------------------|
| Cyclone | - |
| Cyclone2 | 1.8-V HSTL CLASS II |
| Stratix | 1.8-V HSTL CLASS II |
| Stratix2 | 1.8-V HSTL CLASS II |
| StratixGX | 1.8-V HSTL CLASS II |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | HSTL_II_18 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | HSTL_II_18 |
| Virtex2p | HSTL_II_19 |
| VirtexE | - |
| Virtex4 | HSTL_II_18 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | HSTL18_II |
| ECP | HSTL18_II |

HSTLII_18_DCI**High-Speed Transceiver Logic (1.8 Volts) Class II with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|----------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | HSTL_II_DCI_18 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | HSTL_II_DCI_18 |
| Virtex2p | HSTL_II_DCI_18 |
| VirtexE | - |
| Virtex4 | HSTL_II_DCI_18 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HSTLII_DCI**High-Speed Transceiver Logic Class II with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|-------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | HSTL_II_DCI |
| Virtex2p | HSTL_II_DCI |
| VirtexE | - |
| Virtex4 | HSTL_II_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HSTLIII**High-Speed Transceiver Logic Class III**

| Device | Value |
|-----------------|------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | HSTL_III |
| Spartan2E | HSTL_III |
| Spartan3 | HSTL_III |
| Spartan3E | - |
| Virtex | HSTL_III |
| Virtex2 | HSTL_III |
| Virtex2p | HSTL_III |
| VirtexE | HSTL_III |
| Virtex4 | HSTL_III |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | HSTL15_III |
| ECP | HSTL15_III |

HSTLIII_18**High-Speed Transceiver Logic (1.8 Volts) Class III**

| Device | Value |
|-----------------|-------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | HSTL_III_18 |
| Spartan3E | HSTL_III_18 |
| Virtex | - |
| Virtex2 | HSTL_III_18 |
| Virtex2p | HSTL_III_18 |
| VirtexE | - |
| Virtex4 | HSTL_III_18 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | HSTL18_III |
| ECP | HSTL18_III |

HSTLIII_18_DCI**High-Speed Transceiver Logic (1.8 Volts) Class III with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|-----------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | HSTL_III_DCI_18 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | HSTL_III_DCI_18 |
| Virtex2p | HSTL_III_DCI_18 |
| VirtexE | - |
| Virtex4 | HSTL_III_DCI_18 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HSTLIII_DCI**High-Speed Transceiver Logic Class III with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | HSTL_III_DCI |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | HSTL_III_DCI |
| Virtex2p | HSTL_III_DCI |
| VirtexE | - |
| Virtex4 | HSTL_III_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HSTLIV**High-Speed Transceiver Logic Class IV**

| Device | Value |
|-----------------|---------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | HSTL_IV |
| Spartan2E | HSTL_IV |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | HSTL_IV |
| Virtex2 | HSTL_IV |
| Virtex2p | HSTL_IV |
| VirtexE | HSTL_IV |
| Virtex4 | HSTL_IV |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HSTLIV_18**High-Speed Transceiver Logic (1.8 Volts) Class IV**

| Device | Value |
|-----------------|------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | HSTL_IV_18 |
| Virtex2p | HSTL_IV_18 |
| VirtexE | - |
| Virtex4 | HSTL_IV_18 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HSTLIV_18_DCI**High-Speed Transceiver Logic (1.8 Volts) Class IV with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|----------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | HSTL_IV_DCI_18 |
| Virtex2p | HSTL_IV_DCI_18 |
| VirtexE | - |
| Virtex4 | HSTL_IV_DCI_18 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HSTLIV_DCI**High-Speed Transceiver Logic Class IV with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|-------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | HSTL_IV_DCI |
| Virtex2p | HSTL_IV_DCI |
| VirtexE | - |
| Virtex4 | HSTL_IV_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

HTT**HyperTransport Technology**

| Device | Value |
|-----------------|----------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | HyperTransport |
| Stratix2 | HyperTransport |
| StratixGX | HyperTransport |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LDT**Lightning Data Transport**

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LDT_25 |
| Spartan3E | LDT_25 |
| Virtex | - |
| Virtex2 | LDT_25 |
| Virtex2p | LDT_25 |
| VirtexE | - |
| Virtex4 | LDT_25 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LDT_DT**Lightning Data Transport with Differential Termination**

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | LDT_25_DT |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVC MOS5**Low-Voltage Complementary Metal-Oxide Semiconductor (5 Volts)**

| Device | Value |
|-----------------|-------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVC MOS12**Low-Voltage Complementary Metal-Oxide Semiconductor (1.2 Volts)**

| Device | Value |
|-----------------|-----------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVC MOS12 |
| Spartan3E | LVC MOS12 |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | LVC MOS12 |
| ECP | LVC MOS12 |

LVC MOS15**Low-Voltage Complementary Metal-Oxide Semiconductor (1.5 Volts)**

| Device | Value |
|-----------------|-----------|
| Cyclone | 1.5 V |
| Cyclone2 | 1.5 V |
| Stratix | 1.5 V |
| Stratix2 | 1.5 V |
| StratixGX | 1.5 V |
| Max2 | 1.5 V |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVC MOS15 |
| Spartan3E | LVC MOS15 |
| Virtex | - |
| Virtex2 | LVC MOS15 |
| Virtex2p | LVC MOS15 |
| VirtexE | - |
| Virtex4 | LVC MOS15 |
| CoolRunner2 | LVC MOS15 |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | LVC MOS15 |
| EC | LVC MOS15 |
| ECP | LVC MOS15 |

LVCMOS15_DCI

Low-Voltage Complementary Metal-Oxide Semiconductor (1.5 Volts) with Digitally Controlled Impedance technology

| Device | Value |
|-----------------|----------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVDCI_15 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDCI_15 |
| Virtex2p | LVDCI_15 |
| VirtexE | - |
| Virtex4 | LVDCI_15 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVC MOS15_DCI_DV2

Low-Voltage Complementary Metal-Oxide Semiconductor (1.5 Volts) with Digitally Controlled Impedance technology supporting controlled impedance drivers with half-impedance

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVDCI_DV2_15 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDCI_DV2_15 |
| Virtex2p | LVDCI_DV2_15 |
| VirtexE | - |
| Virtex4 | LVDCI_DV2_15 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVC MOS18**Low-Voltage Complementary Metal-Oxide Semiconductor (1.8 Volts)**

| Device | Value |
|-----------------|-----------|
| Cyclone | 1.8 V |
| Cyclone2 | 1.8 V |
| Stratix | 1.8 V |
| Stratix2 | 1.8 V |
| StratixGX | 1.8 V |
| Max2 | 1.8 V |
| Max3000a | - |
| Max7000b | 1.8 V |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | LVC MOS18 |
| Spartan3 | LVC MOS18 |
| Spartan3E | LVC MOS18 |
| Virtex | - |
| Virtex2 | LVC MOS18 |
| Virtex2p | LVC MOS18 |
| VirtexE | LVC MOS18 |
| Virtex4 | LVC MOS18 |
| CoolRunner2 | LVC MOS18 |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | LVC MOS18 |
| ECP | LVC MOS18 |

LVCMOS18_DCI

Low-Voltage Complementary Metal-Oxide Semiconductor (1.8 Volts) with Digitally Controlled Impedance technology

| Device | Value |
|-----------------|----------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVDCI_18 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDCI_18 |
| Virtex2p | LVDCI_18 |
| VirtexE | - |
| Virtex4 | LVDCI_18 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVC MOS18_DCI_DV2

Low-Voltage Complementary Metal-Oxide Semiconductor (1.8 Volts) with Digitally Controlled Impedance technology supporting controlled impedance drivers with half-impedance

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVDCI_DV2_18 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDCI_DV2_18 |
| Virtex2p | LVDCI_DV2_18 |
| VirtexE | - |
| Virtex4 | LVDCI_DV2_18 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVC MOS25**Low-Voltage Complementary Metal-Oxide Semiconductor (2.5 Volts)**

| Device | Value |
|-----------------|-----------|
| Cyclone | 2.5 V |
| Cyclone2 | 2.5 V |
| Stratix | 2.5 V |
| Stratix2 | 2.5 V |
| StratixGX | 2.5 V |
| Max2 | 2.5 V |
| Max3000a | 2.5 V |
| Max7000b | 2.5 V |
| Max7000ae | 2.5 V |
| Max7000s | - |
| Spartan2 | LVC MOS2 |
| Spartan2E | LVC MOS2 |
| Spartan3 | LVC MOS25 |
| Spartan3E | LVC MOS25 |
| Virtex | LVC MOS2 |
| Virtex2 | LVC MOS25 |
| Virtex2p | LVC MOS25 |
| VirtexE | LVC MOS2 |
| Virtex4 | LVC MOS25 |
| CoolRunner2 | LVC MOS25 |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | LVC MOS25 |
| Xc9500XV | LVC MOS2 |
| ProAsicPlus | LVC MOS25 |
| EC | LVC MOS25 |
| ECP | LVC MOS25 |

LVC MOS25_DCI

Low-Voltage Complementary Metal-Oxide Semiconductor (2.5 Volts) with Digitally Controlled Impedance technology

| Device | Value |
|-----------------|----------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVDCI_25 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDCI_25 |
| Virtex2p | LVDCI_25 |
| VirtexE | - |
| Virtex4 | LVDCI_25 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVC MOS25_DCI_DV2

Low-Voltage Complementary Metal-Oxide Semiconductor (2.5 Volts) with Digitally Controlled Impedance technology supporting controlled impedance drivers with half-impedance

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVDCI_DV2_25 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDCI_DV2_25 |
| Virtex2p | LVDCI_DV2_25 |
| VirtexE | - |
| Virtex4 | LVDCI_DV2_25 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVC MOS33**Low-Voltage Complementary Metal-Oxide Semiconductor (3.3 Volts)**

| Device | Value |
|-----------------|-----------|
| Cyclone | LVC MOS |
| Cyclone2 | LVC MOS |
| Stratix | LVC MOS |
| Stratix2 | LVC MOS |
| StratixGX | LVC MOS |
| Max2 | LVC MOS |
| Max3000a | LVC MOS |
| Max7000b | LVC MOS |
| Max7000ae | LVC MOS |
| Max7000s | LVC MOS |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVC MOS33 |
| Spartan3E | LVC MOS33 |
| Virtex | - |
| Virtex2 | LVC MOS33 |
| Virtex2p | LVC MOS33 |
| VirtexE | - |
| Virtex4 | LVC MOS33 |
| CoolRunner2 | LVC MOS33 |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | LVC MOS33 |
| ECP | LVC MOS33 |

LVCMOS33_DCI

Low-Voltage Complementary Metal-Oxide Semiconductor (3.3 Volts) with Digitally Controlled Impedance technology

| Device | Value |
|-----------------|----------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVDCI_33 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDCI_33 |
| Virtex2p | LVDCI_33 |
| VirtexE | - |
| Virtex4 | LVDCI_33 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVC MOS33_DCI_DV2

Low-Voltage Complementary Metal-Oxide Semiconductor (3.3 Volts) with Digitally Controlled Impedance technology supporting controlled impedance drivers with half-impedance

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVDCI_DV2_33 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDCI_DV2_33 |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVDS

Low Voltage Differential Signaling

| Device | Value |
|-----------------|--------|
| Cyclone | LVDS |
| Cyclone2 | LVDS |
| Stratix | LVDS |
| Stratix2 | LVDS |
| StratixGX | LVDS |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | LVDS |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | LVDS |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | LVDS25 |
| ECP | LVDS25 |

LVDS25_DCI**Low Voltage Differential Signaling (2.5 Volts) with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|-------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVDS_25_DCI |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDS_25_DCI |
| Virtex2p | LVDS_25_DCI |
| VirtexE | - |
| Virtex4 | LVDS_25_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVDS33**Low Voltage Differential Signaling (3.3 Volts)**

| Device | Value |
|-----------------|---------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDS_33 |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVDS33_DCI**Low Voltage Differential Signaling (3.3 Volts) with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|-------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDS_33_DCI |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVDS_DT**Low Voltage Differential Signaling with Differential Termination**

| Device | Value |
|-----------------|------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | LVDS_25_DT |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVDSEXT25**Extended Low Voltage Differential Signaling (2.5 Volts)**

| Device | Value |
|-----------------|------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVDSEXT_25 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDSEXT_25 |
| Virtex2p | LVDSEXT_25 |
| VirtexE | - |
| Virtex4 | LVDSEXT_25 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVDSEXT25_DCI

Extended Low Voltage Differential Signaling (2.5 Volts) with Digitally Controlled Impedance technology

| Device | Value |
|-----------------|----------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVDSEXT_25_DCI |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDSEXT_25_DCI |
| Virtex2p | LVDSEXT_25_DCI |
| VirtexE | - |
| Virtex4 | LVDSEXT_25_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVDSEXT25_DT**Extended Low Voltage Differential Signaling (2.5 Volts) with Differential Termination**

| Device | Value |
|-----------------|---------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | LVDSEXT_25_DT |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVDSEXT33**Extended Low Voltage Differential Signaling (3.3 Volts)**

| Device | Value |
|-----------------|------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDSEXT_33 |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVDSEXT33_DCI

Extended Low Voltage Differential Signaling (3.3 Volts) with Digitally Controlled Impedance technology

| Device | Value |
|-----------------|----------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVDSEXT_33_DCI |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVPECL**Low-Voltage Positive Emitter-Coupled Logic**

| Device | Value |
|-----------------|---------------------|
| Cyclone | - |
| Cyclone2 | Differential LVPECL |
| Stratix | Differential LVPECL |
| Stratix2 | Differential LVPECL |
| StratixGX | Differential LVPECL |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | LVPECL |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | LVPECL_33 |
| Virtex2p | - |
| VirtexE | LVPECL |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | LVPECL |
| EC | LVPECL33 |
| ECP | LVPECL33 |

LVPECL25**Low-Voltage Positive Emitter-Coupled Logic (2.5 Volts)**

| Device | Value |
|-----------------|-----------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | LVPECL_25 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | LVPECL_25 |
| VirtexE | - |
| Virtex4 | LVPECL_25 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVTTL15**Low-Voltage Transistor-Transistor Logic (1.5 Volts)**

| Device | Value |
|-----------------|-------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | 1.5 V |
| StratixGX | 1.5 V |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVTTL18**Low-Voltage Transistor-Transistor Logic (1.8 Volts)**

| Device | Value |
|-----------------|-------|
| Cyclone | 1.8 V |
| Cyclone2 | 1.8 V |
| Stratix | 1.8 V |
| Stratix2 | 1.8 V |
| StratixGX | 1.8 V |
| Max2 | 1.8 V |
| Max3000a | - |
| Max7000b | 1.8 V |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVTTL25**Low-Voltage Transistor-Transistor Logic (2.5 Volts)**

| Device | Value |
|-----------------|--------------|
| Cyclone | 2.5 V |
| Cyclone2 | 2.5 V |
| Stratix | 2.5 V |
| Stratix2 | 2.5 V |
| StratixGX | 2.5 V |
| Max2 | 2.5 V |
| Max3000a | 2.5 V |
| Max7000b | 2.5 V |
| Max7000ae | 2.5 V |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

LVTTL33**Low-Voltage Transistor-Transistor Logic (3.3 Volts)**

| Device | Value |
|-----------------|--------------|
| Cyclone | LVTTL |
| Cyclone2 | LVTTL |
| Stratix | LVTTL |
| Stratix2 | LVTTL |
| StratixGX | LVTTL |
| Max2 | LVTTL |
| Max3000a | LVTTL |
| Max7000b | LVTTL |
| Max7000ae | LVTTL |
| Max7000s | LVTTL |
| Spartan2 | LVTTL |
| Spartan2E | LVTTL |
| Spartan3 | LVTTL |
| Spartan3E | LVTTL |
| Virtex | LVTTL |
| Virtex2 | LVTTL |
| Virtex2p | LVTTL |
| VirtexE | LVTTL |
| Virtex4 | LVTTL |
| CoolRunner2 | LVTTL |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | LVTTL |
| ProAsicPlus | LVTTL |
| EC | LVTTL33 |
| ECP | LVTTL33 |

MINILVDS25**Mini Low Voltage Differential Signaling with Differential Termination (2.5 Volts)**

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | mini-LVDS |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | MINI_LVDS_25 |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

PCI33_3**Peripheral Component Interconnect (33 MHz, 3.3 Volts)**

| Device | Value |
|-----------------|-----------|
| Cyclone | 3.3-V PCI |
| Cyclone2 | 3.3-V PCI |
| Stratix | 3.3-V PCI |
| Stratix2 | 3.3-V PCI |
| StratixGX | 3.3-V PCI |
| Max2 | 3.3-V PCI |
| Max3000a | 3.3-V PCI |
| Max7000b | 3.3-V PCI |
| Max7000ae | 3.3-V PCI |
| Max7000s | - |
| Spartan2 | PCI33_3 |
| Spartan2E | PCI33_3 |
| Spartan3 | PCI33_3 |
| Spartan3E | PCI33_3 |
| Virtex | PCI33_3 |
| Virtex2 | PCI33_3 |
| Virtex2p | PCI33_3 |
| VirtexE | PCI33_3 |
| Virtex4 | PCI33_3 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | PCI |
| EC | PCI33 |
| ECP | PCI33 |

PCI33_5**Peripheral Component Interconnect (33 MHz, 5 Volts)**

| Device | Value |
|-----------------|---------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | PCI33_5 |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | PCI33_5 |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | PCI |
| EC | - |
| ECP | - |

PCI66**Peripheral Component Interconnect (66 MHz, 3.3 Volts)**

| Device | Value |
|-----------------|-----------|
| Cyclone | 3.3-V PCI |
| Cyclone2 | 3.3-V PCI |
| Stratix | 3.3-V PCI |
| Stratix2 | 3.3-V PCI |
| StratixGX | 3.3-V PCI |
| Max2 | 3.3-V PCI |
| Max3000a | 3.3-V PCI |
| Max7000b | 3.3-V PCI |
| Max7000ae | 3.3-V PCI |
| Max7000s | - |
| Spartan2 | PCI66_3 |
| Spartan2E | PCI66_3 |
| Spartan3 | PCI66_3 |
| Spartan3E | PCI66_3 |
| Virtex | PCI66_3 |
| Virtex2 | PCI66_3 |
| Virtex2p | PCI66_3 |
| VirtexE | PCI66_3 |
| Virtex4 | PCI66_3 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | PCI |
| EC | PCI33 |
| ECP | PCI33 |

PCIX_3**Peripheral Component Interconnect - X (3.3 Volts)**

| Device | Value |
|-----------------|-------------|
| Cyclone | - |
| Cyclone2 | 3.3-V PCI-X |
| Stratix | 3.3-V PCI-X |
| Stratix2 | 3.3-V PCI-X |
| StratixGX | 3.3-V PCI-X |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | PCIX66_3 |
| Spartan3 | - |
| Spartan3E | PCIX |
| Virtex | - |
| Virtex2 | PCIX |
| Virtex2p | PCIX |
| VirtexE | PCIX66_3 |
| Virtex4 | PCIX |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

PCML**Pseudo Current Mode Logic**

| Device | Value |
|-----------------|------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | 3.3-V PCML |
| Stratix2 | - |
| StratixGX | 3.3-V PCML |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

PCML15**Pseudo Current Mode Logic (1.5 Volts)**

| Device | Value |
|-----------------|------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | 1.5-V PCML |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

RS25**Reduced Swing Differential Signaling (2.5 Volts)**

| Device | Value |
|-----------------|---------|
| Cyclone | RS25 |
| Cyclone2 | RS25 |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | RS25_25 |
| Spartan3E | RS25_25 |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | RS25_25 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | RS25 |
| ECP | RS25 |

SSTL2I**Stub Series Terminated Logic (2.5 Volts) Class I**

| Device | Value |
|-----------------|----------------|
| Cyclone | SSTL-2 CLASS I |
| Cyclone2 | SSTL-2 CLASS I |
| Stratix | SSTL-2 CLASS I |
| Stratix2 | SSTL-2 CLASS I |
| StratixGX | SSTL-2 CLASS I |
| Max2 | - |
| Max3000a | - |
| Max7000b | SSTL-2 CLASS I |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | SSTL2_I |
| Spartan2E | SSTL2_I |
| Spartan3 | SSTL2_I |
| Spartan3E | SSTL2_I |
| Virtex | SSTL2_I |
| Virtex2 | SSTL2_I |
| Virtex2p | SSTL2_I |
| VirtexE | SSTL2_I |
| Virtex4 | SSTL2_I |
| CoolRunner2 | SSTL2_I |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | SSTL25_I |
| ECP | SSTL25_I |

SSTL2I_DCI**Stub Series Terminated Logic (2.5 Volts) Class I with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|-------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | SSTL2_I_DCI |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | SSTL2_I_DCI |
| Virtex2p | SSTL2_I_DCI |
| VirtexE | - |
| Virtex4 | SSTL2_I_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

SSTL2II**Stub Series Terminated Logic (2.5 Volts) Class II**

| Device | Value |
|-----------------|-----------------|
| Cyclone | SSTL-2 CLASS II |
| Cyclone2 | SSTL-2 CLASS II |
| Stratix | SSTL-2 CLASS II |
| Stratix2 | SSTL-2 CLASS II |
| StratixGX | SSTL-2 CLASS II |
| Max2 | - |
| Max3000a | - |
| Max7000b | SSTL-2 CLASS II |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | SSTL2_II |
| Spartan2E | SSTL2_II |
| Spartan3 | SSTL2_II |
| Spartan3E | - |
| Virtex | SSTL2_II |
| Virtex2 | SSTL2_II |
| Virtex2p | SSTL2_II |
| VirtexE | SSTL2_II |
| Virtex4 | SSTL2_II |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | SSTL25_II |
| ECP | SSTL25_II |

SSTL2II_DCI**Stub Series Terminated Logic (2.5 Volts) Class II with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | SSTL2_II_DCI |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | SSTL2_II_DCI |
| Virtex2p | SSTL2_II_DCI |
| VirtexE | - |
| Virtex4 | SSTL2_II_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

SSTL3I**Stub Series Terminated Logic (3.3 Volts) Class I**

| Device | Value |
|-----------------|----------------|
| Cyclone | SSTL-3 Class I |
| Cyclone2 | - |
| Stratix | SSTL-3 Class I |
| Stratix2 | - |
| StratixGX | SSTL-3 Class I |
| Max2 | - |
| Max3000a | - |
| Max7000b | SSTL-3 Class I |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | SSTL3_I |
| Spartan2E | SSTL3_I |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | SSTL3_I |
| Virtex2 | SSTL3_I |
| Virtex2p | - |
| VirtexE | SSTL3_I |
| Virtex4 | - |
| CoolRunner2 | SSTL3_I |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | SSTL33_I |
| ECP | SSTL33_I |

SSTL3I_DCI**Stub Series Terminated Logic (3.3 Volts) Class I with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|-------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | SSTL3_I_DCI |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

SSTL3II**Stub Series Terminated Logic (3.3 Volts) Class II**

| Device | Value |
|-----------------|-----------------|
| Cyclone | SSTL-3 Class II |
| Cyclone2 | - |
| Stratix | SSTL-3 Class II |
| Stratix2 | - |
| StratixGX | SSTL-3 Class II |
| Max2 | - |
| Max3000a | - |
| Max7000b | SSTL-3 Class II |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | SSTL3_II |
| Spartan2E | SSTL3_II |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | SSTL3_II |
| Virtex2 | SSTL3_II |
| Virtex2p | - |
| VirtexE | SSTL3_II |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | SSTL33_II |
| ECP | SSTL33_II |

SSTL3II_DCI**Stub Series Terminated Logic (3.3 Volts) Class II with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | SSTL3_II_DCI |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

SSTL18I**Stub Series Terminated Logic (1.8 Volts) Class I**

| Device | Value |
|-----------------|-----------------|
| Cyclone | - |
| Cyclone2 | SSTL-18 Class I |
| Stratix | SSTL-18 Class I |
| Stratix2 | SSTL-18 Class I |
| StratixGX | SSTL-18 Class I |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | SSTL18_I |
| Spartan3E | SSTL18_I |
| Virtex | - |
| Virtex2 | SSTL18_I |
| Virtex2p | SSTL18_I |
| VirtexE | - |
| Virtex4 | SSTL18_I |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | SSTL18_I |
| ECP | SSTL18_I |

SSTL18I_DCI**Stub Series Terminated Logic (1.8 Volts) Class I with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|--------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | SSTL18_I_DCI |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | SSTL18_I_DCI |
| Virtex2p | SSTL18_I_DCI |
| VirtexE | - |
| Virtex4 | SSTL18_I_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

SSTL18II**Stub Series Terminated Logic (1.8 Volts) Class II**

| Device | Value |
|-----------------|------------------|
| Cyclone | - |
| Cyclone2 | SSTL-18 Class II |
| Stratix | SSTL-18 Class II |
| Stratix2 | SSTL-18 Class II |
| StratixGX | SSTL-18 Class II |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | SSTL18_II |
| Virtex2p | SSTL18_II |
| VirtexE | - |
| Virtex4 | SSTL18_II |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

SSTL18II_DCI**Stub Series Terminated Logic (1.8 Volts) Class II with Digitally Controlled Impedance technology**

| Device | Value |
|-----------------|---------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | SSTL18_II_DCI |
| Virtex2p | SSTL18_II_DCI |
| VirtexE | - |
| Virtex4 | SSTL18_II_DCI |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

TTL**Transistor-Transistor Logic**

| Device | Value |
|-----------------|-------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | TTL |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | - |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

ULVDS25**Ultra Low Voltage Differential Signaling with Differential Termination (2.5 Volts)**

| Device | Value |
|-----------------|----------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | ULVDS_25 |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | ULVDS_25 |
| Virtex2p | ULVDS_25 |
| VirtexE | - |
| Virtex4 | ULVDS_25 |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

ULVDS25_DT**Ultra Low Voltage Differential Signaling with Differential Termination (2.5 Volts)
with Differential Termination**

| Device | Value |
|-----------------|-------------|
| Cyclone | - |
| Cyclone2 | - |
| Stratix | - |
| Stratix2 | - |
| StratixGX | - |
| Max2 | - |
| Max3000a | - |
| Max7000b | - |
| Max7000ae | - |
| Max7000s | - |
| Spartan2 | - |
| Spartan2E | - |
| Spartan3 | - |
| Spartan3E | - |
| Virtex | - |
| Virtex2 | - |
| Virtex2p | ULVDS_25_DT |
| VirtexE | - |
| Virtex4 | - |
| CoolRunner2 | - |
| CoolRunnerXpla3 | - |
| Xc9500 | - |
| Xc9500XL | - |
| Xc9500XV | - |
| ProAsicPlus | - |
| EC | - |
| ECP | - |

Revision History

| Date | Version No. | Revision |
|-------------|-------------|----------------------|
| 22-Aug-2005 | 1.0 | New document release |

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