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IBIS AMI DesignGuide

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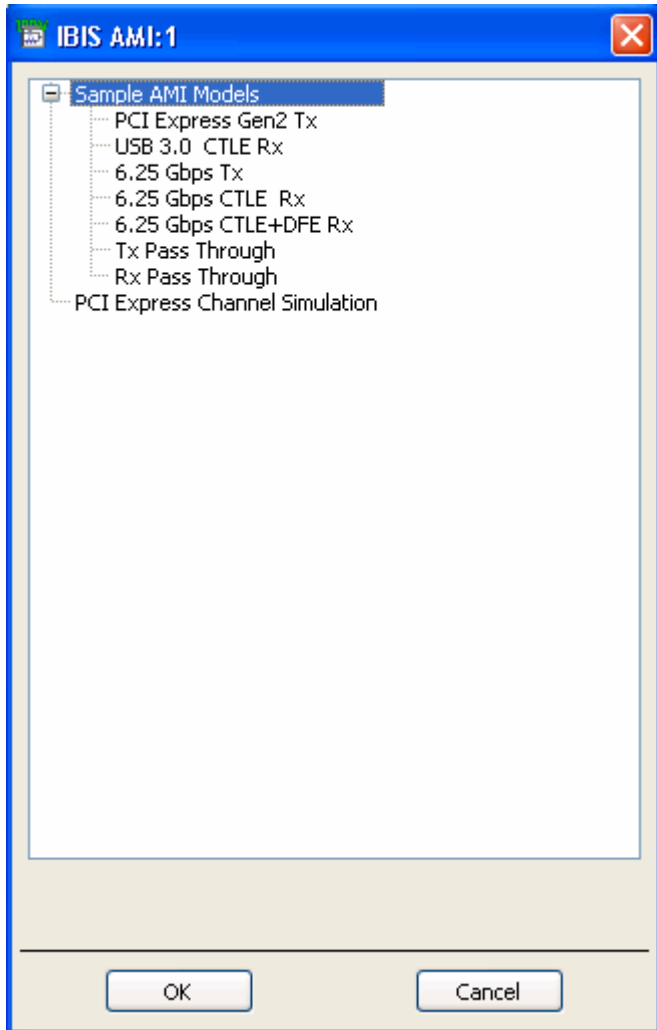
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About IBIS AMI DesignGuide

IBIS AMI standard requires both TX and RX component for a successful simulation. IBIS AMI design guide provides few samples of AMI models for Channel simulation. These models could be used to evaluate AMI simulation functionality within ADS. IBIS AMI model can be copied to the current ADS workspace by selecting **DesignGuide > IBIS AMI > Sample AMI Models > <Model name>** from ADS Schematic window. The ibs file name will get displayed in the information dialog box.



Note

IBIS AMI models provided with this design guide only works for Windows 32 and 64 bit platforms and cannot be used on Linux.

IBIS AMI design guide provides seven IBIS AMI sample models which are:

- **PCI Express Gen2 Tx:** The model can be used for PCI Express or USB applications. It works till 5 Gbps. The model provides user defined two tap de-emphasis and provide ~30 psec rise/fall time.
- **USB 3.0 CTLE Rx:** The model can be used for PCI Express or USB applications. This model is an AMI based CTLE with poles and zero locations defined as part of USB 3.0 specifications.

- **6.25 Gbps Tx:** The model is created for 6.25 Gbps applications and uses TX FFE with transient wave shaping using SPICE simulated step response.
- **6.25 Gbps CTLE Rx:** The model is created for 6.25 Gbps applications and uses RX CTLE equalizer with fixed poles and zero locations.
- **6.25 Gbps CTLE+DFE Rx:** The model is created for 6.25 Gbps receiver applications and uses CTLE, DFE with CDR. The CTLE utilizes fixed poles and zero locations while DFE is adaptive.
- **Tx Pass Through:** The model provides unity gain for TX PRBS source with 50 Ohm single ended termination (100 Ohm differential). The model provides ideal transmitter bit sequence.
- **Rx Pass Through:** The model provides unity gain for RX with 50 Ohm single ended termination (100 Ohm differential). The model provides ideal RX characteristics.

PCI Express Channel Simulation within IBIS AMI design guide provides the complete example to simulate AMI models using channel simulation. Once this option is selected, a sample PCI Express channel with integrated TX/RX AMI models will be copied to ADS workspace.