

Spartan-II Family I/V Curves for Various Output Options

XAPP177 (v0.9) December 3, 1999

Advance Information Application Note

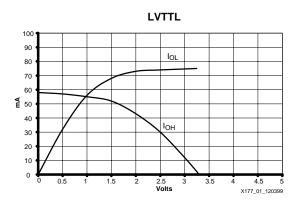
Summary

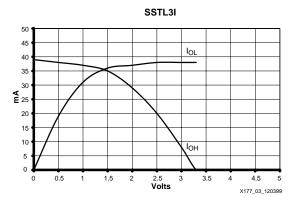
These typical curves describe the output sink and source current for average processing, nominal supply voltage and room temperature for the Spartan[™]-II family of FPGAs. These curves are graphical representations of IBIS models, which are traditionally used for system and board-level simulation. The Xilinx IBIS files can be found at: http://www.support.xilinx.com/support/sw_ibis.htm.

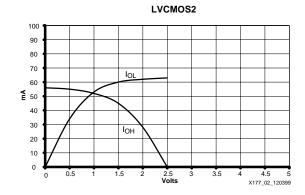
Note: The Xilinx IBIS files also list the extremes of the processing, temperature and voltage conditions as "min" and "max" (delay). Some tools rename these values as "fast-strong" and "slow-weak". This has nothing to do with the FAST or SLOW slew-rate configuration options, invoked as attributes for each output pin (the default is SLOW).

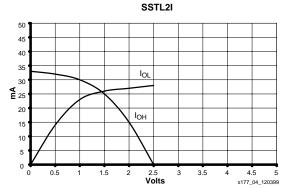
These slew-rate options are covered in separate IBIS files, with a trailing "s" for SLOW slew rate, and "f" for FAST slew rate (nly applies to LVTTL).

Spartan-II Family

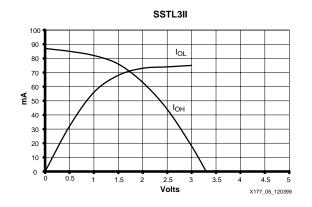


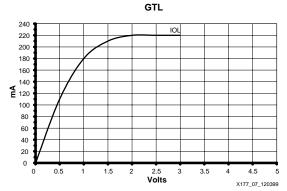


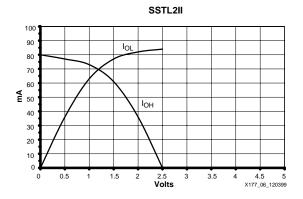


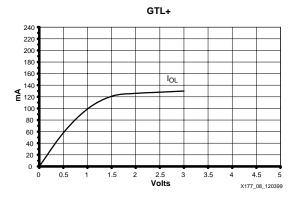












Revision History

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Date	Version #	Revision
12/03/99	0.9	Advance Information Release.

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