



EPM7128S MultiVolt I/O Interface  
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MAX 7000 devices – except 44-pin devices – support the MultiVolt I/O interface feature, which allows MAX 7000 devices to interface with systems that have differing supply voltages. The 5.0V devices in all packages can be set for 3.3V or 5.0V I/O pin operation. These devices have one set of VCC pins for internal operation and input buffers (VCCINT), and another set for I/O output drivers (VCCIO).

The VCCINT pins must always be connected to a 5.0V power supply. With a 5.0V VCCINT level, input voltage thresholds are at TTL levels, and are therefore compatible with both 3.3V and 5.0V inputs.

The VCCIO pins can be connected to either a 3.3V or a 5.0V power supply, depending on the output requirements. When the VCCIO pins are connected to a 5.0V supply, the output levels are compatible with 5.0V systems. When VCCIO is connected to a 3.3V supply, the output high is 3.3V and is therefore compatible with 3.3V or 5.0V systems. Devices operating with VCCIO levels lower than 4.75V incur a nominally greater timing delay of tOD2 instead of tOD1.

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