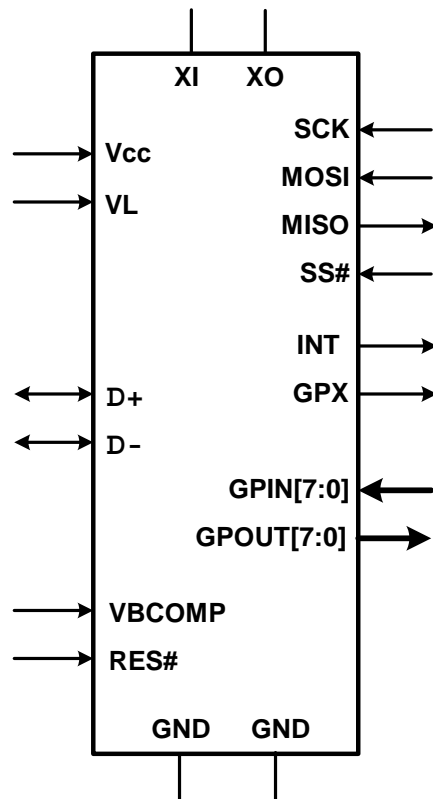


MAX3421E

Programming Guide

USB Peripheral and Host Controller with SPI Interface

Abstract: The MAX3421E adds USB host or peripheral capability to any system with an SPI interface. This Programming Guide describes every register and bit for host operation. For operation of the MAX3421E as a peripheral, consult the MAX3420E Programming Guide.



For more information on the MAX3421E, please visit: www.maxim-ic.com/max3421e
For more information on USB and Maxim's USB products, see: www.maxim-ic.com/usb
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About This Programming Guide

The MAX3421E is a dual-role USB controller, which can be programmed either as a USB peripheral or host. As a peripheral, the MAX3421E's operation is identical to the MAX3420E peripheral-only part. If you plan to use the MAX3421E only as a USB peripheral that runs existing MAX3420E code, keep the HOST bit set to 0 (the default), and consult the *MAX3420E Programming Guide* for programming details.

If you plan to use the MAX3421E only as a USB peripheral but want to take advantage of the new peripheral features, read about the added registers R21 to R24 and the added bits PULSEWID1/0, SEPIRQ, and HOST in this *Programming Guide*. Then consult the *MAX3420E Programming Guide*.

Most MAX3421E users will want programming details for host operation, which is the purpose of this guide. It is, therefore, quite logical to present only the bits and registers that apply to host operation (**Table 1**). For convenient reference, however, **Table 2** shows all the register bits for both host and peripheral operation.

[Table 1](#) serves as a navigation tool if you are viewing this document in electronic form. This table contains links to document pages that describe the linked registers and bits.

