

## ***TFP501, TFP403 Reference Design***

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*Digital Visual Interface*

### **TEXAS INSTRUMENTS TFP501**

The TFP501 is a DVI 1.0 compliant 165-MHz receiver incorporating HDCP(High-bandwidth Digital Content Protection) that provides a secure digital connection between a DVI transmitter and DVI receiver. For more information on the HDCP specification, please refer to the DDWG specification of HDCP which can be found at <http://www.digital-cp.com/>.

### **TEXAS INSTRUMENTS TFP403**

The TFP403 is DVI 1.0 compliant 165-MHz receiver which is pin to pin compatible with the TFP501, all functions are identical to the TFP501 with the exception of HDCP functionality. The TFP403 can be designed into an existing system to be replaced with a TFP501 when HDCP is required with no board layout changes needed.

When using the TFP403, some board components are not necessary for the functionality of the device, such as the EEPROM. The components highlighted in **RED** on the following page reflect those components.

#### **Optional Components for TFP403:**

- 4 – 10-kOhm pull-up resistors on pins 92, 93, 95, 96 of TFP403.
- 1 – Serial EEPROM (ATMEL AT24C04).
- 1 – 4.7-uF Capacitor on pin 8 of EEPROM.
- 2 – N-channel MOSFET(Philips BSN20)

This document is to be used as a reference guide only. Please refer to the TFP501 and TFP403 data sheets for individual pin functions. Optional Components for TFP403.



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