


Digital Receiver 3RX Automotive 100-Pin HTQFP EP T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	HTQFP-100
Product Type:	Discrete Semiconductor Modules
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active

TFP401AIPZPRQ1 Image

Images are for reference only

[Inquiry](#)

General Description

The Texas Instruments TFP401A-Q1 device is a TI Panelbus flat-panel display product, and is part of a comprehensive family of end-to-end DVI 1.0-compliant solutions. Targeted primarily at desktop LCD monitors and digital projectors, the TFP401A-Q1 device finds applications in any design requiring high-speed digital interface.

The TFP401A-Q1 device supports display resolutions up to 1080p and WUXGA in 24-bit true-color pixel format. It also offers design flexibility to drive one or two pixels per clock, supports TFT or DSTN panels, and provides an option for time-staggered pixel outputs for reduced ground bounce.

PowerPAD advanced packaging technology results in best-of-class power dissipation, footprint, and ultralow ground inductance.

The TFP401A-Q1 combines Panelbus circuit innovation with TI's advanced 0.18- μ m EPIC-5 CMOS process technology, along with TI PowerPAD package technology to achieve a reliable, low-powered, low-noise, high-speed digital interface solution.

Key Features

Qualified for automotive applications

AEC-Q100 qualified with the following results:

Device temperature grade 3: -40°C to 85°C ambient operating temperature range

Device HBM ESD classification level H2

Device CDM ESD classification level C3B

Supports pixel rates up to 165 MHz (including 1080p and WUXGA at 60 Hz)

Digital visual interface (DVI) specification compliant

True-Color, 24-bit/pixel, 16.7M colors at 1 or 2 pixels per clock

Laser-trimmed internal termination resistors for optimum fixed impedance matching

Skew tolerant up to one pixel-clock cycle

4× oversampling

Reduced power consumption: 1.8-V core operation with 3.3-V I/Os and supplies

Reduced ground bounce using time-staggered pixel outputs

Low noise and good power dissipation using TI PowerPAD packaging

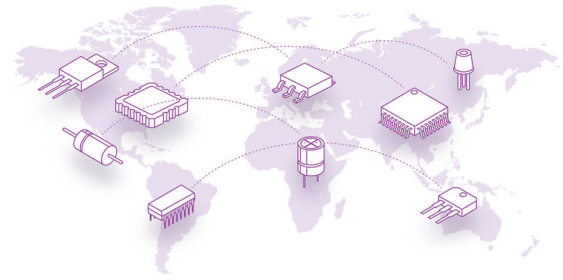
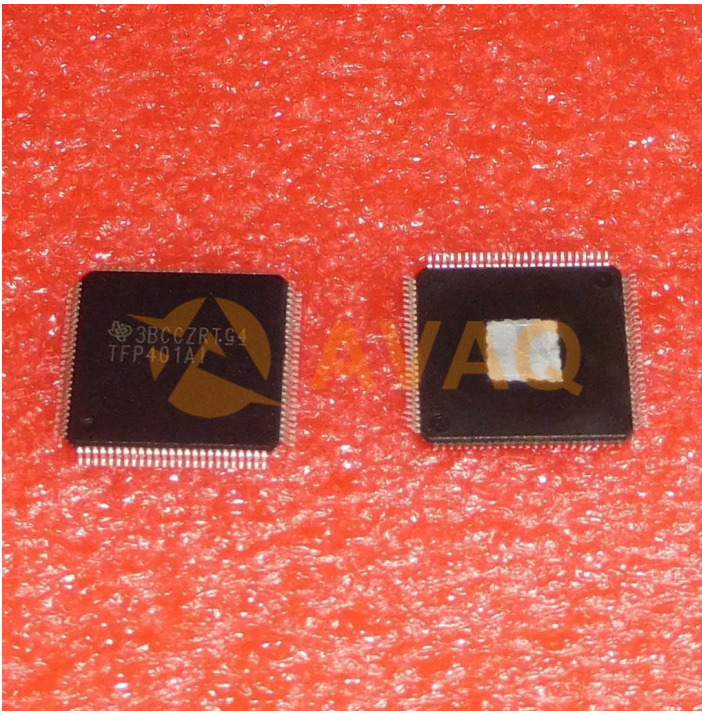
Advanced technology using TI 0.18-μm EPIC-5 CMOS process

TFP401A-Q1 Incorporates HSYNC Jitter Immunity

The TFP401A-Q1 device incorporates additional circuitry to create a stable HSYNC from DVI transmitters that introduce undesirable jitter on the transmitted HSYNC signal.

The TFP401A-Q1 device has an internal voltage regulator that provides the 1.8-V core power supply from the external 3.3-V supplies.

The Digital Visual Interface Specification, DVI, is an industry standard developed by the Digital Display Working Group (DDWG) for high-speed digital connection to digital displays. The TFP401A-Q1 is compliant with the DVI Specification Rev. 1.0.



Recommended For You

TLC5955DCAR

Texas Instruments, Inc
HTSSOP56

CD4054BE

Texas Instruments, Inc
DIP-16

CD4056BE

Texas Instruments, Inc
DIP

TLC5917IN

Texas Instruments, Inc
PDIP-16

TLC5916QDRQ1

Texas Instruments, Inc
SOP-16

CS9211

Texas Instruments, Inc
QFP

LM2438T

Texas Instruments, Inc
TO-220-9

LMB409HVMY/NOPB

Texas Instruments, Inc
MSOP10

TPS61196PWPRQ1

Texas Instruments, Inc
HTSSOP28

TPS92391RHBR

Texas Instruments, Inc
VQFN32

LP8860AQVFPQ1

Texas Instruments, Inc
HLQFP32

TLC591161TPWRQ1

Texas Instruments, Inc
TSSOP28

TPS92692QPWPTQ1

Texas Instruments, Inc
HTSSOP20

TPS92691PWP

Texas Instruments, Inc
HTSSOP-16

TPS92691PWPR

Texas Instruments, Inc
HTSSOP16