

Power Over Ethernet PD Controller 0V 57V 25.5W 16-Pin HTSSOP EP

Manufacturer: <u>Texas Instruments, Inc</u>

Package/Case: HTSSOP16

Product Type: Power Management ICs

RoHS: RoHS Compliant/Lead free RoHS

Lifecycle: Active



Images are for reference only



General Description

The TPS23751 is a 16-pin integrated circuit that combines a Power-over-Ethernet (PoE)powered device (PD) interface and a current-mode DC-DC controller optimized specifically forapplications requiring high efficiency over a wide load range.

The PoE interface implements type-2 hardware classification per IEEE 802.3at. It also includes an auxiliary power detect (APD) input and a disable function (DEN). A 0.5- Ω , 100-V passMOSFET minimizes heat dissipation and maximizes power utilization.

The DC-DC controller features internal soft-start, a bootstrap startup current source, current-mode control with slope compensation, blanking, and current limiting. Efficiency isenhanced at light loads by disabling synchronous rectification and entering variable frequency operation (VFO).

The TPS23752 is a 20-pin extended version of the TPS23751 with the addition of a SleepMode feature. Sleep Mode disables the converter to minimize power consumption while stillgenerating the Maintain Power Signature (MPS) required by IEEE802.3at.

Key Features

IEEE 802.3at Classification With Status Flag

High Efficiency Solutions Over Wide Load Range

Powers Up to 25.5 W PDs

Robust 100 V, 0.5 Ω Hotswap MOSFET

Synchronous Rectifier Disable Signal

PowerPAD? TSSOP Packages

Complete PoE Interface Plus DC-DC Controller

Adapter ORing Support

Programmable Frequency

TPS23752 Supports Ultra-Low Power Sleep Modes

-40°C to 125°C Junction Temperature Range

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Recommended For You

TPD3S014DBVR TPS2065CDBVR TPS2557DRBT

Texas Instruments, Inc Texas Instruments, Inc Texas Instruments, Inc

SOT23-6 SOT23-5 SON8

TPS2042BDR TPS2051BDR TPL7407LPWR

Texas Instruments, Inc Texas Instruments, Inc Texas Instruments, Inc

SOP8 SOP8 TSSOP16

TPS23753APWR TPS2116DRLR TPS259460ARPWR

Texas Instruments, Inc Texas Instruments, Inc Texas Instruments, Inc

TSSOP14 SOT5X3-8 VQFN-10

TPS23751PWPR

TPS65150QPWPRQ1

TPS2410PWR

Texas Instruments, Inc

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Texas Instruments, Inc

HTSSOP16

HTSSOP-24

TSSOP-14

TPS22914BYFPR

TPS2115ADRBR

TPS2113ADRBR

Texas Instruments, Inc

Texas Instruments, Inc

Texas Instruments, Inc

DSBGA4

VSON8

SON8