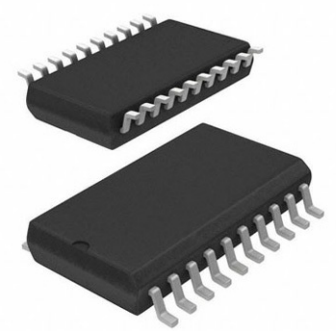


**Op Amp Single Power Amplifier R-R I/O 5.5V 20-Pin HSOIC
EP Tube**

Images are for reference only

[Inquiry](#)**Manufacturer:** [Texas Instruments, Inc](#)**Package/Case:** SOP20**Product Type:** Amplifier ICs**RoHS:** RoHS Compliant/Lead free **Lifecycle:** Active**General Description**

The LM25574-Q1 is an easy to use buck regulator which allows design engineers to design and optimize a robust power supply using a minimum set of components. Operating with an input voltage range of 6 V to 42 V, the LM25574-Q1 delivers 0.5-A of continuous output current with an integrated 750-m N-Channel MOSFET. The regulator utilizes an Emulated Current Mode architecture which provides inherent line regulation, tight load transient response, and ease of loop compensation without the usual limitation of low-duty cycles associated with current mode regulators. The operating frequency is adjustable from 50 kHz to 1-MHz to allow optimization of size and efficiency. To reduce EMI, a frequency synchronization pin allows multiple IC's from the LM(2)557x family to self-synchronize or to synchronize to an external clock. The LM25574-Q1 guarantees robustness with cycle-by-cycle current limit, short-circuit protection, thermal shut-down, and remote shut-down. The device is available in a TSSOP-16 package.

Key Features

Qualified for Automotive Applications

AEC-Q100 Qualified With the Following Results:

Device Temperature Grade 1: -40°C to +125°C Ambient Operating Temperature

Integrated 42-V, 750-m N-Channel MOSFET

Ultra-Wide Input Voltage From 6 V to 42 V

Adjustable Output Voltage as Low as 1.225 V

1.5% Feedback Reference Accuracy

Operating Frequency Adjustable Between 50 kHz and 1 MHz With Single Resistor

Master or Slave Frequency Synchronization

Adjustable Soft-Start

Emulated Current Mode Control Architecture

Wide Bandwidth Error Amplifier

Built-In Protection

TSSOP-16 Package

Create a Custom Design Using the LM25574-Q1 With the WEBENCH Power Designer

Recommended For You

OPA445BM

Texas Instruments, Inc

CAN

OPA1611AIDR

Texas Instruments, Inc

SOP8

OPA388QDBVRQ1

Texas Instruments, Inc

SOT23-5

OPA2365AQDRQ1

Texas Instruments, Inc

SOP8

OPA334AIDBVR

Texas Instruments, Inc

SOT23-6

OPA2835IDGSR

Texas Instruments, Inc

MSOP10

OPA656U

Texas Instruments, Inc

SOP8

OPA360AIDCKR

Texas Instruments, Inc

SC70-6

LMI11H/NOPB

Texas Instruments, Inc

CAN8

OPA353UA

Texas Instruments, Inc

SOP8

LMI3700MX/NOPB

Texas Instruments, Inc

SOP16

OPA633KP

Texas Instruments, Inc

DIP8

OPA453FAKTWT

Texas Instruments, Inc

TO263-7

OPA4251UA

Texas Instruments, Inc

SOP14

LMV321M5X/NOPB

Texas Instruments, Inc

SOT23-5