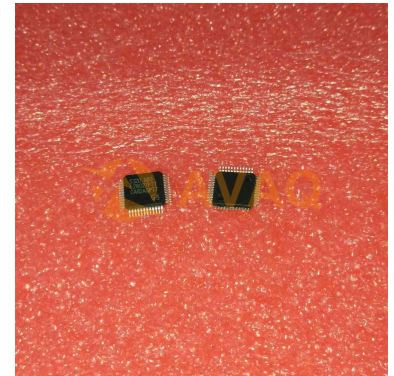



MCU 32-bit C28x RISC 64KB Flash 3.3V Automotive 48-Pin LQFP Tray



Images are for reference only

[Inquiry](#)

Manufacturer:	Texas Instruments, Inc
Package/Case:	LQFP48
Product Type:	Embedded Processors & Controllers
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active

General Description

The LP8733xx-Q1 is designed to meet the power management requirements in automotive applications. The device has two step-down DC/DC converters (which can be configured as a single dual-phase regulator or two single-phase regulators), two linear regulators, and two general-purpose digital-output signals. The device is controlled by an I²C-compatible serial interface and by an enable signal.

The automatic PWM/PFM (AUTO mode) operation together with the automatic phase adding/shedding gives high efficiency over a wide output-current range. The LP8733xx-Q1 supports remote voltage sensing (differential in dual-phase configuration) to compensate IR drop between the regulator output and the point-of-load (POL), thus improving the accuracy of the output voltage. In addition, the switching clock can be forced to PWM mode and also synchronized to an external clock to minimize the disturbances.

The LP8733xx-Q1 device supports programmable start-up and shutdown delays and sequences including GPO signals synchronized to the enable signal. During start-up and voltage change, the device controls the output slew rate to minimize output voltage overshoot and the in-rush current.

Key Features

High-efficiency 32-bit CPU (TMS320C28x™)

16 x 16 and 32 x 32 MAC operations

16 x 16 Dual MAC

Harvard bus architecture

Atomic operations

Fast interrupt response and processing

Unified memory programming model

Code-efficient (in C/C++ and assembly)

Endianness - little endian

No power sequencing requirement

Integrated power-on and brown-out resets

Two internal zero-pin oscillators

On-chip crystal Oscillator/External clock input

Dynamic PLL ratio changes supported

Watchdog timer module

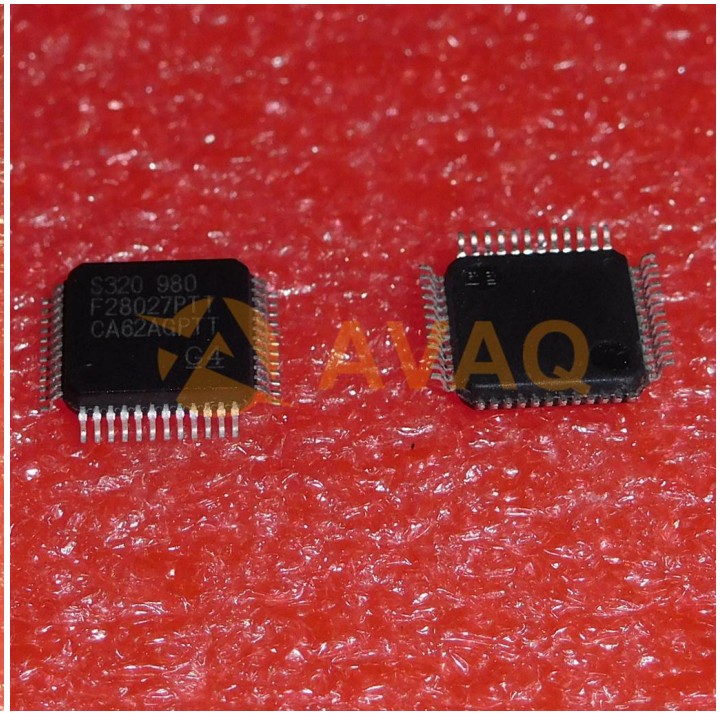
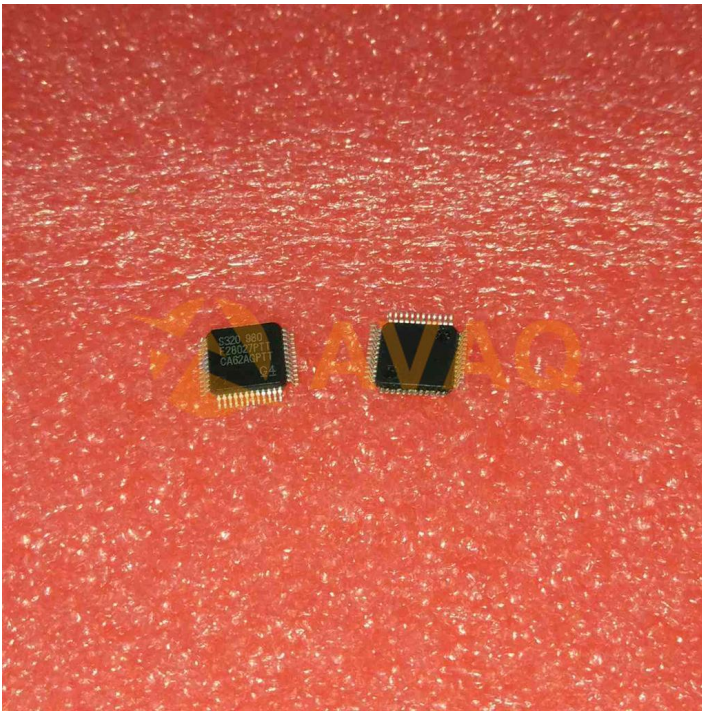
Missing clock detection circuitry

Peripheral interrupt expansion (PIE) block that supports all peripheral interrupts

Three 32-bit CPU timers

Independent 16-bit timer in each ePWM module

Code-security module



Recommended For You

TMS320DM642AZNZ6

Texas Instruments, Inc
BGA

TMS320DM648ZUTD9

Texas Instruments, Inc
BGA

TMS34010FNL-40

Texas Instruments, Inc
PLCC

TMS320DM642AGDKA5

Texas Instruments, Inc
FCCSP(GDK)

TMS320DM642AZNZA6

Texas Instruments, Inc
BGA

TMS320C31PQA40

Texas Instruments, Inc
QFP

TMS320C203PZ80

Texas Instruments, Inc
QFP

TMS320C6670ACYP22

Texas Instruments, Inc
FCBGA84

TMS320C6424ZWT4

Texas Instruments, Inc
BGA

TMS320DM642AZNZA6

Texas Instruments, Inc
BGA

TMS320C6726BRFP266

Texas Instruments, Inc
QFP144

TMS5703137DZWTQQ1

Texas Instruments, Inc
NFBGA-337

TMS320VC5402APGE16

Texas Instruments, Inc
LQFP-144

TMS320C6711DZDP250

Texas Instruments, Inc
BGA

TMS320C50PQ57

Texas Instruments, Inc
QFP132