

Product brief

TLF4477-3LA

Active antenna supply. Linear voltage regulator with integrated current sense.

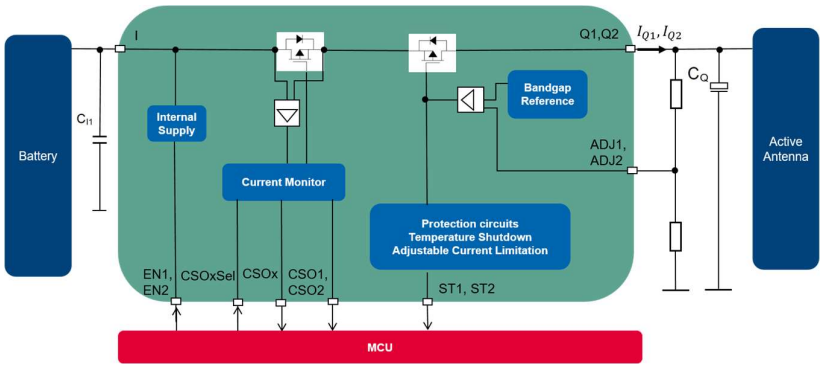
The OPTIREG™ linear TLF4477-3LA is a monolithic integrated dual channel low drop out voltage regulator capable of supplying loads up to 300 mA.

The adjustable output voltage makes the TLF4477-3LA capable of supplying the majority of standard active antennas such as FM/AM, DAB, XM and SIRIUS.

For an input voltage up to 40 V the TLF4477-3LA provides an adjustable output voltage in the range from 3 V up to 20 V in a thermally enhanced PG-TSON-14 package.
The channel specific current monitors of the TLF4477-3LA provide access to unique diagnostic and protection features. They measure the output currents and translate them to a proportional voltage at the current sense output CSOx.

The output current limits for each channel can be manually set by via an external resistor. Overtemperature, overcurrent and output overvoltage fault conditions can be detected as an analogue voltage level at the current sense output CSOx above the current sensing range.
Separate digital status pins ST1 and ST2 for each channel can indicate the presence of one or multiple of the aforementioned faults.
The outputs of the device can be disabled independently via the enable signals on EN1 and EN2 to reduce power consumption. The CSOxSel selects the channel monitored at the CSOx pin. CSOxSel can also set the monitor pin CSOx into a high impedance state. This allows the CSOx signals of multiple devices to be monitored by a single ADC connected.

Block Diagram



Key features

- Integrated current monitor
- Overvoltage, overtemperature and overcurrent detection
- Adjustable output voltage
- Output current up to 300 mA
- Adjustable output current limitation
- Very low current consumption
- Very low dropout voltage
- Stable with ceramic output capacitor of 1 µF
- Wide input voltage range up to 40 V
- Reverse current protection
- Reverse polarity protection
- Short circuit protection
- Overtemperature shutdown
- Automotive temperature range - 40°C ≤ Tj ≤ 150°C
- Green Product (RoHS compliant)

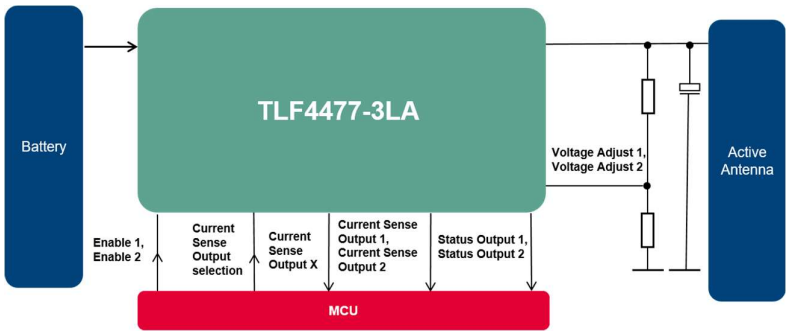
Key benefits

- Robust protection features
- Wide input operation and temperature range
- Integrated current monitor

Application specific
RoHS
AEC Qualified

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Key applications

- Infotainment active antenna power supply
- Surround view camera power supply
- Automotive applications that are permanently connected to the battery

Product summary

Sales name	OPN	Package
TLF4477-3LA	TLF44773LAXUMA1	PG-TSON-14

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