

Controller 8V to 14V 28-Pin QFN EP Tube

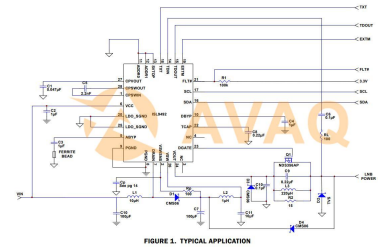
Manufacturer: [Renesas Technology Corp](#)

Package/Case: QFN

Product Type: Power Management ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active



Images are for reference only

[Inquiry](#)

General Description

The ISL9492 is a highly integrated voltage regulator and interface IC specifically designed for supplying power and control signals from advanced satellite set-top box (STB) modules to the low noise blocks (LNB) of a single antenna port. It also supports DiSEqC tone generation and modulation with diagnostic status read-back. Controlling the ISL9492 is simple via the I2C bus by writing 8 bit words onto the System Registers (SR). The device design makes the total LNB supply design simple, efficient and compact with low external component count by integrating Boost power MOSFET, current-mode boost PWM and a low-noise linear regulator. The current-mode boost converters provide the linear regulator with input voltage that is set to the final output voltages, plus typically 0.9V to insure minimum power dissipation across each linear regulator. The LNB output voltage can be controlled in two ways; by full control from I2C using the VTOP and VBOT bits or by setting the I2C to the lower range and switching to higher range with the select VTOP pin. The External modulation input EXT M accepts a modulated DiSEqC command and transfers it symmetrically to the output. The EXT M pin can be used to modulate the continuous internal tone. The fault signal serves as an interrupt for the processor when any condition turns OFF the LNB controller (over-temperature, overcurrent, disable). The states of these flags to the faults can be thoroughly examined through the I2C registers.

Key Features

Single-Chip Power Solution

Operation for 1-Tuner/1-Dish Applications

Integrated DC/DC Converter and I2C Interface

Integrated Boost MOSFET

Switch-Mode Power Converter for Lowest Dissipation

490kHz Boost Switching Frequency

Boost PWMs with > 92% Efficiency

Selectable 13.5V or 18.5V Outputs

I2C and Pin Controllable Output

31V Output Back-Bias Capability

Built-in Tone Oscillator Factory

Facilitates DiSEqC (EUTELSAT) Encoding

Trimmed to 22kHz - External Modulation Input

DiSEqC 2.0 Support and Diagnostics

Internal Overvoltage, Undervoltage, Overcurrent Protection, Over-Temperature Flags Accessible through the I2C Interface and Fault Signal Status Pin

Short-Circuit Protection

Pin Configuration

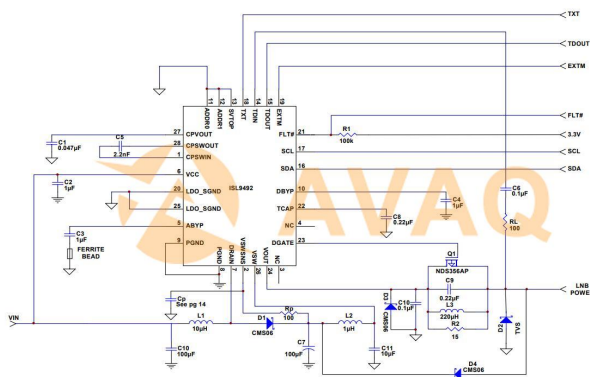
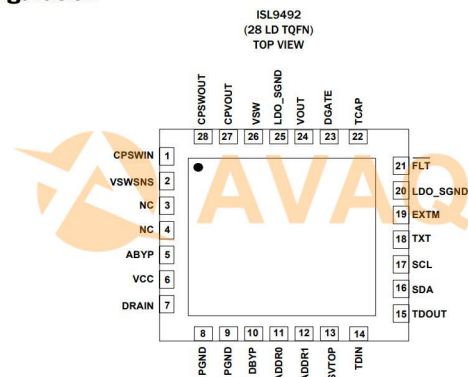


FIGURE 1. TYPICAL APPLICATION



Recommended For You

ISL8320IBZ

Renesas Technology Corp

SOP16

ISL6520ACBZ-T

Renesas Technology Corp

SOP8

ISL62883CHRTZ

Renesas Technology Corp

QFN

ISL95836HRIZ-T

Renesas Technology Corp
QFN40

ISL95837HRZ-T

Renesas Technology Corp
QFN40

ISL95837HRZ

Renesas Technology Corp
QFN40

ISL9301HRZ

Renesas Technology Corp
DFN10

ISL95835HRZ

Renesas Technology Corp
QFN

ISL95812HRZ

Renesas Technology Corp
QFN

ISL95870HRUZ-T

Renesas Technology Corp
QFN16

ISL6521HBZ

Renesas Technology Corp
SOP16

ISL62882CHRTZ

Renesas Technology Corp
QFN

ISL95870BIRZ-T

Renesas Technology Corp
QFN20

ISL78214ARZ

Renesas Technology Corp
QFN

ISL88739HRZ

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