



# SET-TOP BOX SERIES SINGLE LNB CONTROLLER AND POWER SUPPLY IC

## Summary

The ZLPM8011 is a power management and control solution for satellite set-top boxes (STBs). Based on an efficient boost converter the ZLPM8011 provides the power supply and all the control signals required by a single port satellite Low Noise Block (LNB). The ZLPM8011 includes an accurate 22kHz tone generator to provide DiSEqC<sup>TM</sup> control words or continuous tone for band switching control. To provide a reliable DiSEqC 2.0 solution the IC includes a DiSEqC detector with unwanted signal rejection. Controlled by an  $I^2C^{TM}$  compatible interface or logic inputs and with the minimal external components the ZLPM8011 provides a high performing, efficient cost efficient solution.

## Features

- High system efficiency with standby mode
- Efficient boost converter and LDO providing an accurate adjustable power supply for LNBs
- Provides a protected output of up to 550mA
  - Programmable current limit for system flexibility
- Designed for stability with low power LNBs
- Provides standard voltage / tone and DiSEqC control signals and allows for regional variations such as Japan.
  - Internal tone generator for DiSEqC control and traditional band switching
  - Tone maintains shape across all load conditions
- Internal reliable tone detector for DiSEqC 2.0 systems
- Controlled by I<sup>2</sup>C interface or independent logic control
- Built in multiple diagnostics and protection for IC and LNB protection
- Minimal external components for a simple, reliable and cost effective solution
- Totally Lead-Free & Fully RoHS Compliant (Notes 1 & 2)
- Halogen and Antimony Free. "Green" Device (Note 3)

### ------13V 17V DiSEqC 22kHz Vdd 12V LNB out Boost LDO Converter Tone System Monitor Generator and Control Tone Controller Detector 12C Logic

- Notes: 1. No purposely added lead. Fully EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant.
  - See http://www.diodes.com for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
    Halogen- and Antimony-free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.</li>

DiSEqC is a trademark of Eutlesat.  $l^2C$  is a trademark of Philips Corp.

# System Diagram

**Applications** 

Single tuner Satellite Set-top boxes

TV's with integrated satellite tuners

Stability with minimal current LNBs

Suitable for Digital and Analog satellite systems

High current LNBs

Satellite PC Cards

Hybrid Set-top boxes





**ZLPM8011** 

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DBS@diodes.com



# ZLPM8011

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