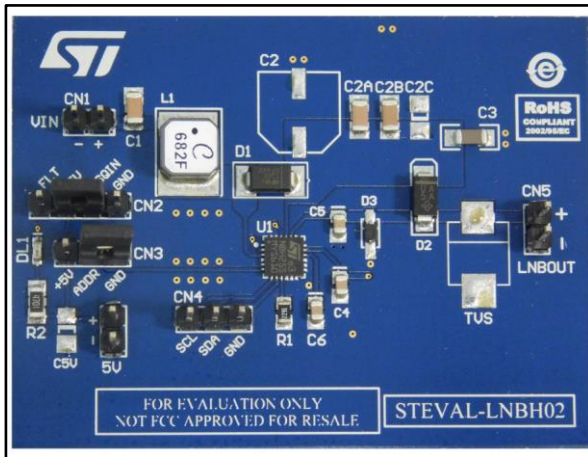


Power supply evaluation board for LNB based on the LNBH25S

Data brief



Description

This evaluation board implements a DC-DC converter based on the LNBH25S device. It is used to power LNBs inside dish antennas to receive satellite TV signals.

The LNBH25S is an integrated solution for supplying / interfacing satellite LNB modules in accordance with international standards. It is a simple and complete solution for dual tuner satellite receivers and provides high performance at low cost with a low external component count.

The LNBH25S evaluation board includes an I²C bus interface and an internal 22 kHz tone generator which is factory trimmed and can be controlled by the DSQIN pin (TTL compatible), allowing immediate DiSEqC™ data encoding.

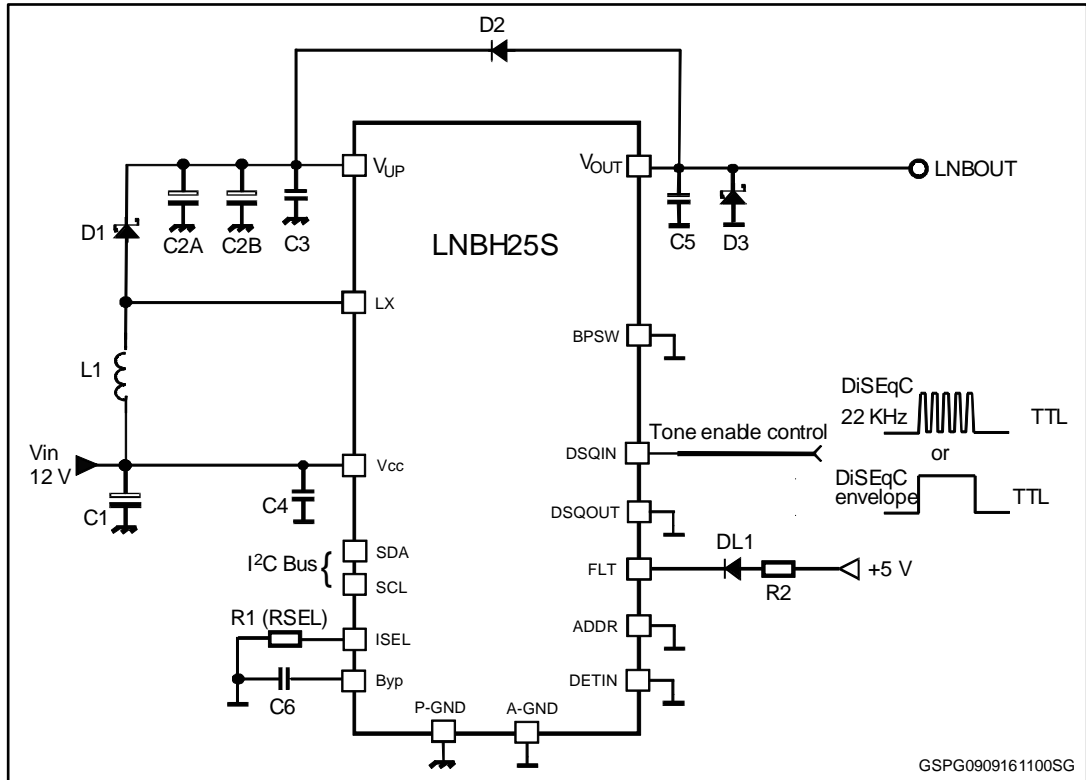
Thanks to a fully integrated step-up DC-DC converter, it functions with a single input voltage supply source ranging from 8 V to 16 V.

Features

- Complete interface between LNB and I²C bus
- Built-in DC-DC converter for single 12 V supply operation and high efficiency (typ. 93% at 0.5 A)
- Selectable output current limit by external resistor
- Compliant with main satellite receivers output voltage specification (15 programmable levels)
- Accurate built-in 22 kHz tone generator suits widely accepted standards
- 22 kHz tone waveform integrity guaranteed also at no load condition
- Low drop post regulator and high efficiency step-up PWM with integrated power N-MOS for low power losses
- LPM function (low power mode) to reduce dissipation
- Overload and overtemperature internal protection with I²C diagnostic bits
- LNB short-circuit dynamic protection
- +/- 4 kV ESD tolerant on output power pins
- RoHS compliant

1 Schematic diagram

Figure 1: STEVAL-LNBH02 circuit schematic



2 Revision history

Table 1: Document revision history

Date	Version	Changes
15-Sep-2016	1	Initial release.

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