



STEVAL-CBL004V1

Power supply demonstration board for LNB
based on the LNBH24

Data brief

Features

- Complete interface between LNBs and I²C bus
- Built-in DC-DC converter for single 12 V supply operation (8 - 15 volt V_{in} range) and high efficiency (typ. 93% @ 0.5 A)
- Compliant with main satellite receiver output voltage specifications
- Accurate 22 kHz tone generator supports bidirectional DiSEqC™ 2.0 and meets widely accepted standards (patent pending)
- Fast oscillator startup facilitates DiSEqC™ encoding
- Overload and overtemperature internal protection with I²C diagnostic bits
- Output voltage and output current level diagnostic feedback through I²C bits
- LNB short-circuit dynamic protection
- +/- 4 kV ESD tolerant on output power pins
- RoHS compliant

Description

The STEVAL-CBL004V1 demonstration board implements a DC-DC converter based on the LNBH24 dual LNB supply and control IC with step-up and I²C interface.

This simple, cost-effective design represents an integrated solution for supplying/interfacing two independent LNB down-converters in satellite antenna dishes. It provides good performance with a minimum of external components.

The STEVAL-CBL004V1 includes all the functions needed for the design of dual tuner STBs, with supplying/interfacing functions that are compliant with the international standards.

It features an I²C bus interface and, thanks to the fully integrated step-up DC-DC converter, it works



with a single input voltage supply in the range of 8 V to 15 V.

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Figure 1. STEVAL-CBL004V1 circuit schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
26-Apr-2010	1	Initial release.

Obsolete Product(s) - Obsolete Product(s)

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