



Digital Satellite Tuner RF IC

CX24118

Supports Advanced Modulation Applications

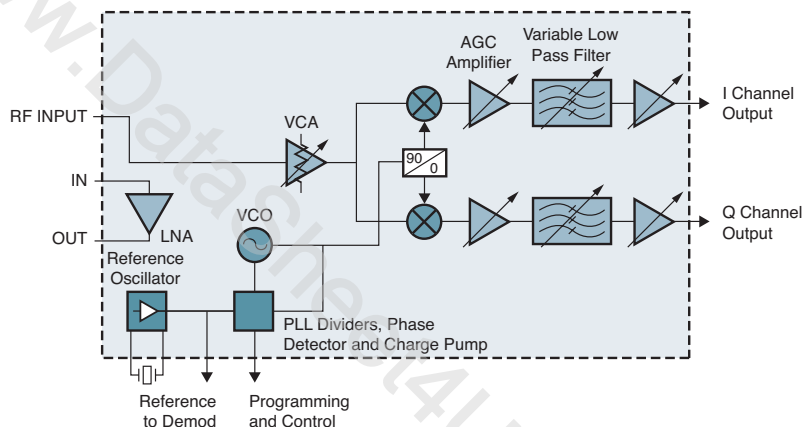
Conexant's portfolio includes a comprehensive suite of semiconductor solutions for broadband communications, enterprise networks and the digital home. The CX24118 is Conexant's third generation direct down-conversion satellite tuner RF IC intended for high-volume digital video, audio, and data receivers. The CX24118 offers excellent phase noise performance and very low implementation loss, required for advanced modulation systems such as 8PSK and DVB-S2.

The CX24118 has a built-in auto-tuning machine that eliminates the need for software calibration routine and accelerates the calibration time. The on-chip fractional synthesizer enables fine frequency step size without adversely affecting lock time. The CX24118 does not require a Balun, thus reducing external BOM cost. Its highly integrated design saves valuable board space and simplifies RF layout.

Conexant has a broad portfolio of semiconductor products, including:

- DSL, dial-up, and cable modem solutions
- Home network processors
- Broadcast video encoders and decoders
- Digital set-top box components and system solutions

Conexant also offers wireless data and networking solutions that includes HomePlug, HomePNA, and WLAN (802.11) components and reference designs.



CX24118 Block Diagram



Distinguishing Features

- Single-chip RF-to-baseband satellite receiver
- Zero-IF architecture eliminates the need for image reject filtering
- Very low phase noise for 8PSK and DVB-S2 applications
- Variable baseband filters for optimal interference rejection
- Auto-tuning machine eliminates need for software calibration
- Very low power consumption
- Small (6 mm x 6 mm) footprint
- Lead-free package

Part Number CX24118

Description Digital Satellite Tuner RF IC



CX24118 Features

- RF input: 925–2175 MHz
- Input power range: -20 to -90 dBm
- Symbol rate: 1–45 MSps
- Noise figure: 10 dB, typical
- Input IP3 at minimum gain: 10 dBm, typical
- Baseband filter bandwidth: 3–40 MHz
- Output voltage: 0.5 Vp-p @ RL > 1 kΩ:
- Operating temperature: 0–85° C
- Package type: 36-pin, Pb-free, QFN

Applications

- Advanced modulation set-top boxes
- DSS/DVB set-top boxes
- Digital VCR (DVR)
- Commercial digital video, audio and data receivers

© 2004, Conexant Systems, Inc. All Rights Reserved. Conexant and the Conexant logo are trademarks of Conexant Systems, Inc. All other trademarks are owned by their respective owners. Although Conexant strives for accuracy in all its publications, this material may contain errors or omissions and is subject to change without notice. **THIS MATERIAL IS PROVIDED AS IS AND WITHOUT ANY EXPRESS OR IMPLIED WARRANTIES, INCLUDING MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON-INFRINGEMENT.** Conexant shall not be liable for any special, indirect, incidental or consequential damages as a result of its use.

www.conexant.com
General Information:
U.S. and Canada: (888) 855-4562
International: (732) 345-7500
Headquarters
100 Schulz Drive
Red Bank, NJ 07701
Order# 102374B

