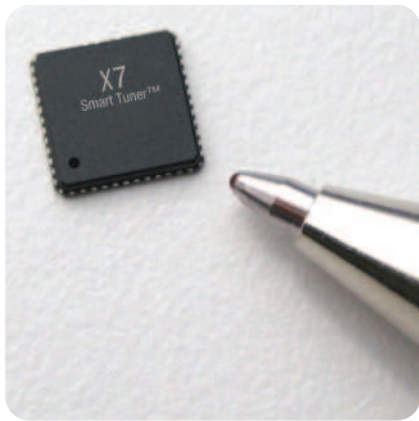


X7 Smart Tuner™ Worldwide Multi-Standard Hybrid Smart TV Tuner



Applications

Flat Panel Televisions

Set Top Boxes

PC Tuner Cards

Overview

The X7 Smart Tuner™ is the 4th generation of Xceive Smart Tuner™ family, now implemented in low cost CMOS process. The unique and patented Smart Tuner™ architecture combines a very high performance RF front-end with a DSP-based IF processor providing field proven performance across diverse real-world television signal conditions. The X7 Smart Tuner™ is designed to handle the worst distortions, interference and noise conditions found anywhere in the world. CrestaTech utilizes an extensive library of captured field signals to verify that a TV using the X7 Smart Tuner™ will always have excellent picture quality.

Features

Full broadband tuning: 42MHz to 1002MHz

Field-proven patented Smart Tuner™ architecture with upgradeable firmware

Supports all worldwide digital & analog standards

Excellent performance across the entire frequency spectrum

Fully integrated for low system cost

Small surface-mount QFN package

No active external components

No balun transformer required

Can be used in any TV design for all global regions

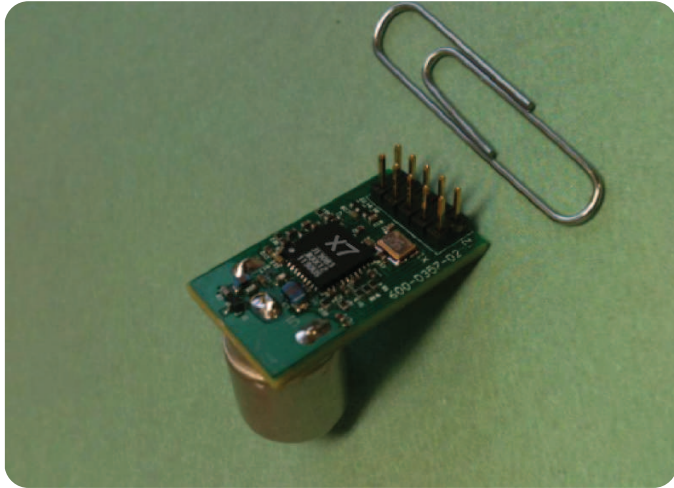
Optimized for chip-on-board applications, No shield required

Excellent immunity to interference from WiFi and LTE signals

Consistent performance, no unit-to-unit variation

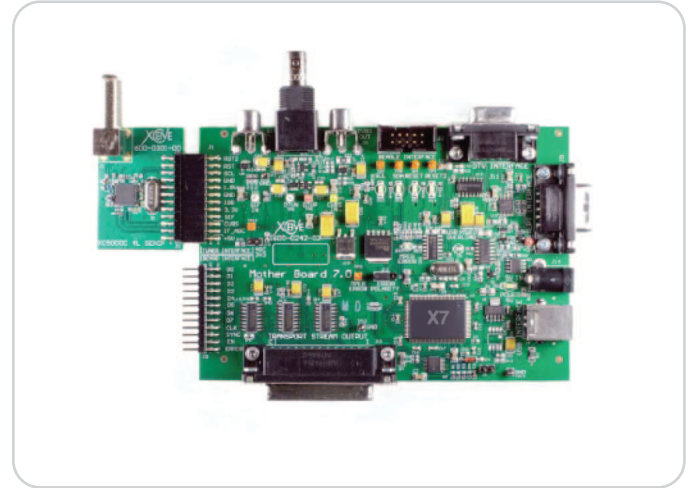
Key Specifications

VSWR	2.5
Noise figure	4 dB
Phase noise	-95 dBc
CTB	-63 dBc
Image rejection	65 dB
AGC Range	90 dB
Video SNR	54 dB
Frequency range	42 – 1002 MHz
Power	950mW



Form Factor

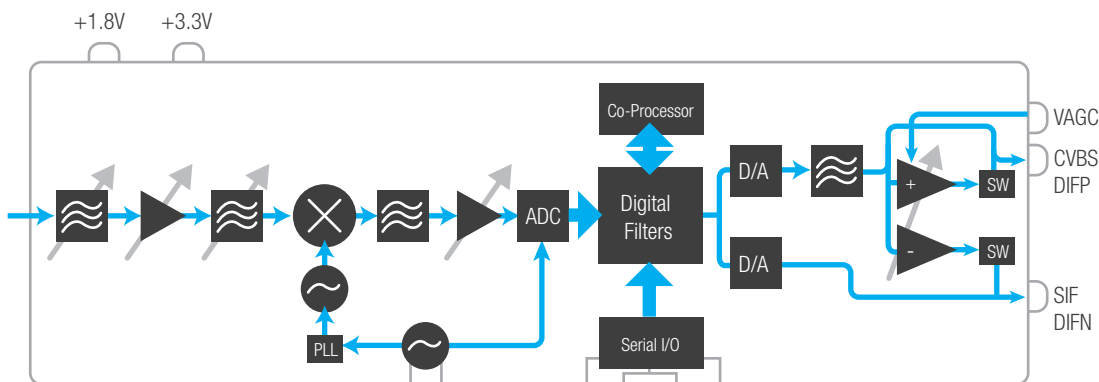
Enables a very small tuner size with few external components required.



Evaluation Boards

A compact evaluation platform provides access to all necessary test points for verifying the performance of the X7 Smart Tuner™.

X7 Smart Tuner™ Block Diagram



Smart Tuner Architecture Benefits

Digital filters are reconfigured to support diverse TV standards requirements.

Gain parameters dynamically adjust to maximize performance regardless of changing environment & signal conditions.

Flat & consistent frequency response from tuner to tuner insures maximum yield and reliability.