



# TDA10048HN DVB-T / DVB-H Channel Decoder

## Breakthrough in Integration and Power Reduction

In February 2010, Trident Microsystems acquired the set-top box and television product lines from NXP Semiconductor's home business unit. This product is now a part of Trident's product offering for the set-top box market.

TDA10048HN provides a breakthrough in integration and power reduction and brings advanced features that both facilitate its integration into final products, and increases end-user satisfaction.



### Key Applications

- Set-top boxes for digital terrestrial television
  - Integrated digital televisions
  - PC applications such as add-on cards or peripherals, or on-main-board TV receivers
  - Recording devices with DVB-T front-end, such as personal video recorders (PVRs), or DVD recorders
  - Battery-powered portable devices such as personal digital assistants (PDAs), or personal media players (PMPs)
- High performance for end-user satisfaction
    - Ultra-fast scanning and TV channel-zapping facilities
    - Consolidated 'Pulse Killer' algorithm for impulsive noise reduction
    - Dedicated filters for reliable reception in presence of inter-symbol interference (ISI), adjacent channel interference (ACI), and co-channel interference (CCI)
    - Exceeds latest Nordig Unified and D-Book specifications
    - Low-power consumption (160 mW) for eco-friendly or battery-powered designs

### Key Features

- Receiver functions
  - 2K and 8K DVB-T demodulator, fully ETSI 300-744-compliant
  - 4K DVB-H demodulator, ETSI 300-744 annex F-compliant (without MPE-FEC)
- Easy to design-in and use
  - Maximized tuner compatibility
  - High integration with Trident silicon tuners
  - Flexible clock reference options
  - Reference designs and software drivers package available
  - 48-pin HVQFN package, 7x7mm wide, compatible with low-cost PCB class 4

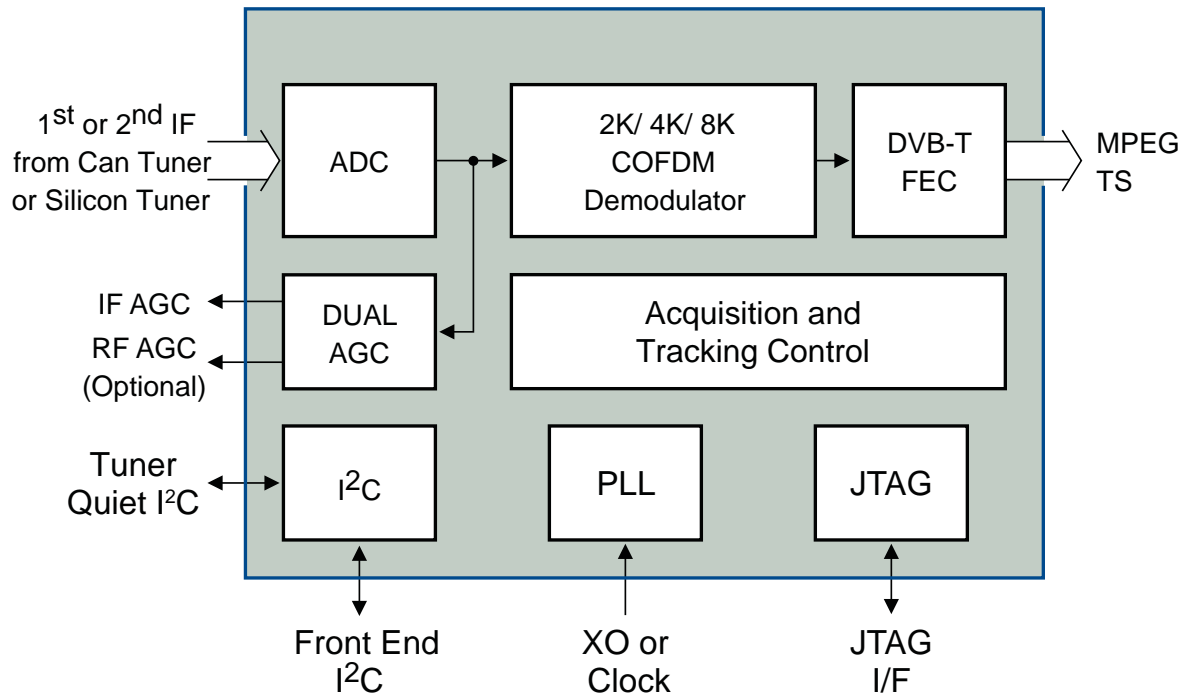
The TDA10048HN is a single-chip channel receiver for coded orthogonal frequency division multiplexing (COFDM) modulated signals. It performs all channel decoding functions, from IF (first or second IF) input to MPEG transport stream output.

The IC applies the most advanced filtering techniques and dynamic echo cancellation systems to ensure high-quality reception under the most demanding conditions, such as indoor reception or single frequency networks

(SFNs). It surpasses the strictest performance specifications, including the latest Nordig Unified. Finally, it integrates the latest 'Pulse Killer' algorithm, which reduces the disturbing effects caused by impulsive noise interference from vehicles, personal computers, phones and other electrical appliances.

Together with Trident's silicon tuners, the TDA10048HN has been optimized to provide the lowest bill of materials and highest integration level. In this system solution, it operates without any RF or SAW filtering, and does not require any dedicated crystal oscillator. Trident can provide complete system solutions for most of the key applications listed, thus offering its customers the fastest time to market.

TDA10048 - Simplified Block Diagram



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