



NXP dual cable silicon tuner TDA18260

Dual silicon tuner in a single package for worldwide cable STBs and gateways

This advanced, single-package solution reduces size and cost by integrating all the functions for receiving two independent RF channels in the cable TV band from 42 to 1002 MHz.

Key features

- ▶ Dual tuner in one small package
 - One single RF input with direct cable connection
 - Internal splitter to drive the two integrated tuners
 - Two low IF outputs, connecting directly to demodulators
- ▶ RF loop-through
- ▶ Easy application for up to six tuners using three TDA18260
 - Dedicated multiple-tuner outputs to drive additional tuners
 - No need for external active splitter
 - Same performance on all streams
- ▶ Extended frequency coverage from 42 up to 1002 MHz
- ▶ Multistandard cable reception
- ▶ Worldwide usage, including SCTE40, DOCSIS, NorDig, SARFT
- ▶ Enhanced filtering scheme with no external components
 - Suppression of third and fifth signal harmonics
 - Optimum adjacent channel rejection
 - MoCA rejection reduces the complexity and the cost of the triplexer
- ▶ Single 3.3 V supply with low power consumption
- ▶ Single crystal application for up to six streams, including demodulators
- ▶ High accuracy Received Signal Strength Indicator (RSSI)

Applications

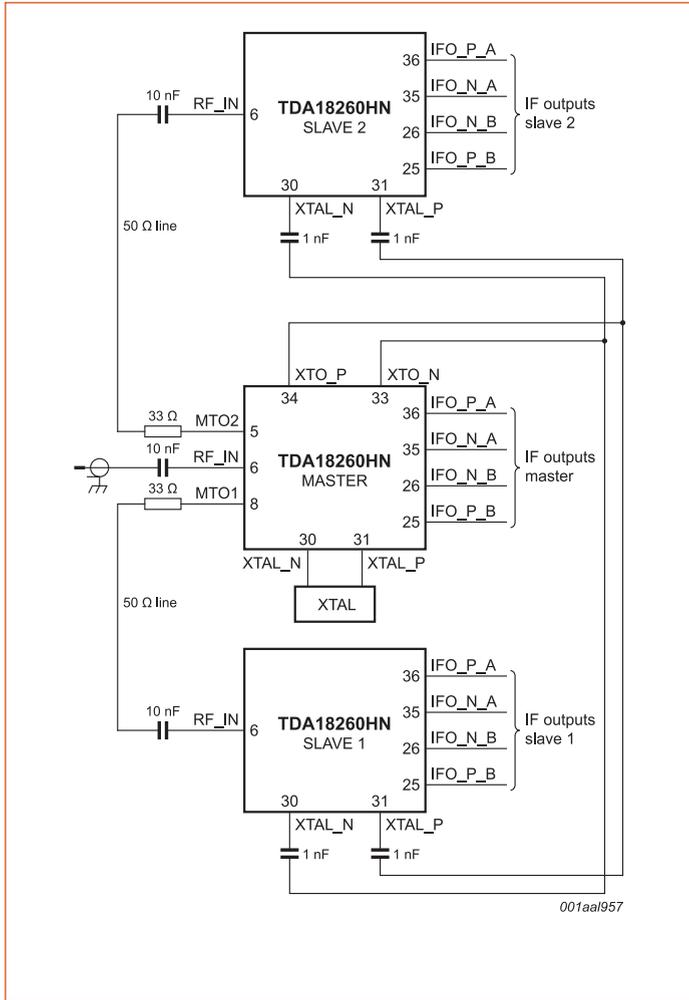
- ▶ PVRs for cable
- ▶ Single-tuner STB with DOCSIS 2 cable modem
- ▶ Multi-tuner cable STB
- ▶ DOCSIS 3 cable modems
- ▶ Cable gateways

The NXP TDA18260 supports the need for multiple tuners in set-top boxes (STBs) and gateways, while also reducing the size and cost of the application. High integration minimizes the number and cost of external components, for a very cost-effective implementation.

Designed for use in the cable TV band from 42 to 1002 MHz, this single-package device builds on market-proven technology to allow easy extension of up to six streams, without the need for an external splitter or amplifier, and without compromising reception performance.



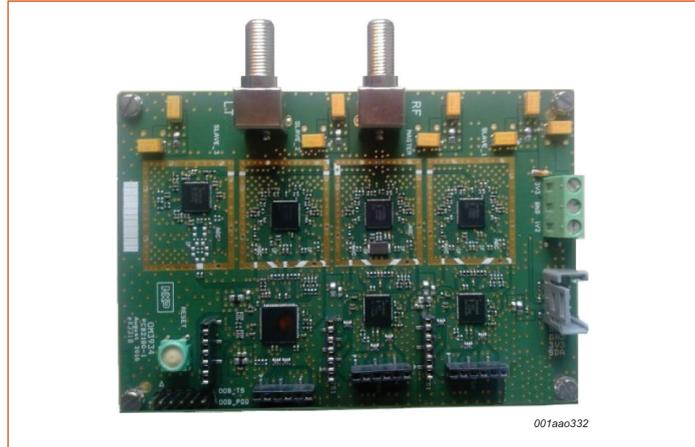
6-tuner application block diagram, using 3 TDA18260



OM3917 board with dual tuner TDA18260 and dual demodulator TDA10025



OM3834 board with six tuners, out-of-band tuner, and demodulators TDA10025 and TDA10027



Key parameters

Parameter	Value (typical)
Max input level	131 ch at 85 dB μ V
CSO	-60 dB
CTB	-60 dB
IF selectivity	6/7/8/9 MHz 5 th order LPF 0.4/0.85/1/1.5 MHz 2 nd order HPF
AGC	Free
NF	6.0 dB
RSSI accuracy (absolute)	\pm 3 dB
RSSI accuracy (relative)	\pm 0.5 dB
MoCA rejection	Enhanced
Power consumption	\sim 1600 mW

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