

## Single-Die Multimode OFDM Tuner / Demodulator

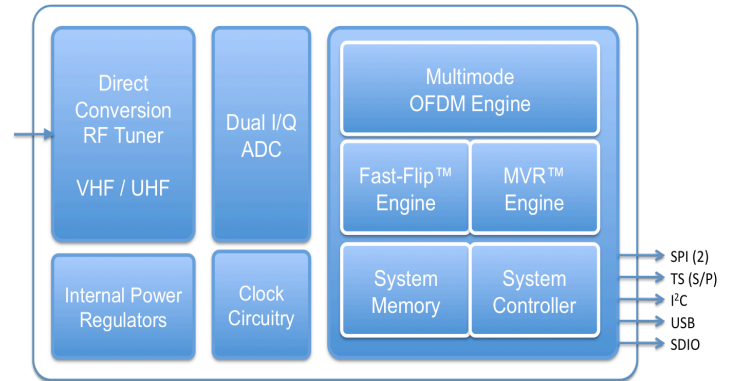
### Overview

The PQ2011 M-Solo™ is a monolithic **single-die CMOS** design that includes all necessary components of a complete worldwide ISDB-T/DVB/DMB tuner / demodulator application.

The device supports **7 OFDM physical layer standards** and its very low power consumption meets stringent battery power restrictions of mobile applications while being able to process full-HD 1080p signals at the same time.

Due to PQ2011's single-die and direct-conversion RF design, most external RF and analog components are "pulled" into the chip, simplifying board and module designs and reducing total cost of ownership for customers.

### Block Diagram



### Features

- ◆ On-the-go configurable multimode chip
  - ISDB-T 1-3-13 segment
  - DVB-T / DVB-H
  - T-DMB/DAB
- ◆ Very low power consumption: 220mW in ISDB-T 13-seg or DVB-T HD modes including tuner and demodulator blocks
- ◆ Direct conversion (Z-IF) radio architecture eliminates the need for IF SAW filters
- ◆ Multiple built-in LNAs with very low noise figure and high system sensitivity. Excellent dynamic range and very high selectivity and linearity
- ◆ Patent-pending Fast-Flip™, MVR™, I-Flip and I-MVR technologies allow a much more pleasant user experience by eliminating channel change time, allowing mobile video recording, picture-in-picture, etc.
- ◆ Next generation OFDM baseband technology with patent-pending configurable hardware engines for data processing and Doppler compensation

### Reference Design Support

The following reference designs are available for various customer applications

- ◆ **Module:** fully independent tuner module (Antenna in, SPI and TS/I<sup>2</sup>C out)
- ◆ **USB Stick:** Complete ISDB-T USB stick including applications processor, PMIC, etc.
- ◆ **PQ2011 EVK:** Complete PQ2011 EVK along with apps processor module and display

### Applications



### Ordering Information

Part Number	Package
MP2011mb – DVB-T/H Tuner / Demodulator	7x7mm WL-CSP
MP2011mc – DVB-T/H Tuner / Demodulator	10x10mm BGA

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