

# Digital TV Demodulator for ATSC

## MN88436



### ■ Overview

MN88436 is demodulator LSI for terrestrial and cable broadcasts. It supports the broadcast specifications of North America, performing demodulation and error correction and outputting a transport stream (TS).

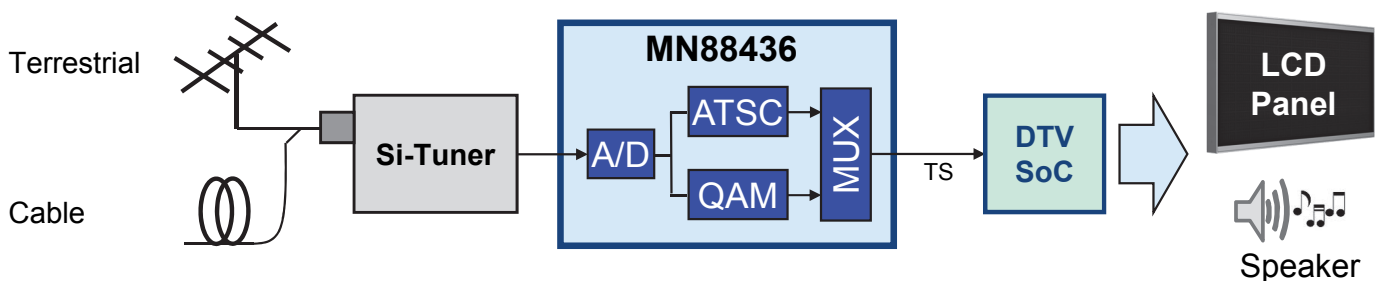
Digital terrestrial broadcasts is compliant with ATSC (Advanced Television Systems Committee) specifications, and digital cable broadcasts is compliant with open cable specifications.

### ■ Features

- Reception of selected digital terrestrial (ATSC)
- Built-in ADC (A/D converter)
- Built-in I<sup>2</sup>C bus-compliant CPU interface circuit and tuner control circuit

### ■ Applications

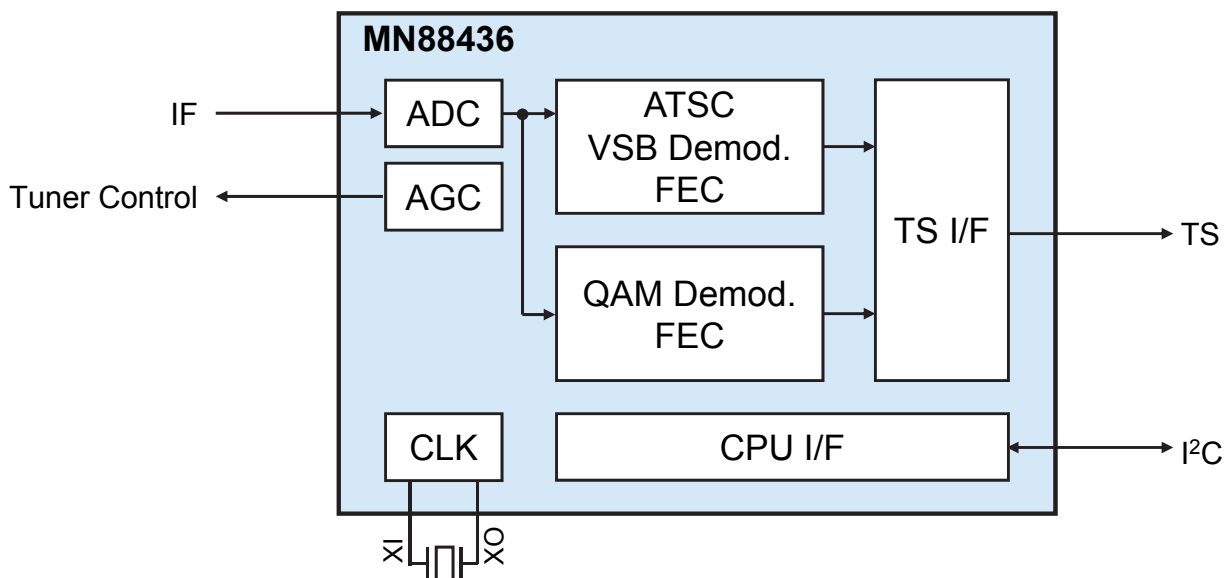
(Digital terrestrial and digital cable reception system in North America)



## ■ Specifications

Function		Specifications
<b>Package</b>		HQFP 48-pin Size: 7 mm x 7 mm Lead pitch: 0.5 mm
<b>Supply Voltage</b>	<b>For external</b>	3.3V
	<b>For Internal</b>	1.2V
<b>Input</b>		Low-IF / High-IF
<b>Output</b>		TS Serial / Parallel
<b>CPU interface</b>		I <sup>2</sup> C bus
<b>ATSC</b>	<b>Modulation scheme</b>	8VSB
	<b>Data rate</b>	19.39 Mbps (8VSB)
	<b>Roll off rate</b>	11.5 %
	<b>Forward error correction</b>	Trellis decoding, Reed-Solomon decoding, De-interleaving, De-randomizer
<b>QAM</b>	<b>Modulation scheme</b>	256QAM, 64QAM
	<b>Data rate</b>	38.81 Mbps / 26.97 Mbps (256QAM / 64QAM)
	<b>Roll off rate</b>	12 % / 18 % (256QAM / 64QAM)
	<b>Forward error correction</b>	Trellis decoding, Sink trailer, De-randomizer, De-interleaving, Reed-Solomon decoding, MPEG framing (ITU-T J.83 Annex B )

## ■ Block Diagram



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