STB0899
Multistandard advance demodulator STB0899
Digital TV satellite set-top boxes

DESCRIPTION
The STB0899 advanced demodulator from STMicroelectronics enables digital set-top boxes to process base-band DVB-S2 signals into digital video transport stream data. This data is then ready to be fed directly to the STB decoder.

By incorporating the DVB-S standard, the STB0899 supports seamless migration to DVB-S2 services.

The STB0899 and STB6100 silicon tuner may be coupled with a decoder from ST’s OMEGA range, thus forming a complete silicon solution for DVB-S / DVB-S2 set-top boxes.

The interface between these devices has been designed to ensure simple layouts and the lowest possible bill of materials cost.

Figure 1. STB0899 DVB-S2 set-top box

Package (208 pin PQFP package)
STB0899

FEATURES

■ DVB-Q2 demodulator and decoder
  – QPSK, 8PSK, 4 + 12 APSK
  – Hierarchical 8PSK enhanced processor
  – DVB-S2 pilot processing
  – LDPC and BCH decoding
  – Supports all DVB-S2 bit rates
  – DVB-S2 framing
■ Legacy support for DVB-S and DIRECTV® QPSK modes
■ Digital carrier and timing recovery loops
■ Compatible with direct conversion tuners
  – Dual 8-bit analogue conversion
  – Dual ΣΔ digital split AGC RF/BB
  – Wide range carrier tracking loop
  – Flexible clock generation
■ Transport decoder
  – Compliant with DVB common interface
  – 12-bit parallel and 7-bit serial interface
■ DiSEqC 2.0 22 kHz to 100 kHz interface
■ TQFP 100 exposed pad package

PART NUMBERING

Table 1. Order codes

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>STB0899</td>
<td>DVB-S2 demodulator</td>
</tr>
<tr>
<td>EVALDVBS2</td>
<td>Evaluation board</td>
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</tbody>
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REVISION HISTORY

Table 2. Revision history

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Description of changes</th>
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<tbody>
<tr>
<td>December-2004</td>
<td>1</td>
<td>First issue</td>
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