1 MAIN FEATURES

1.1 RF SECTION
- Complete RF for active antenna system
- Easily interfaced to passive antenna
- On-chip low phase noise VCO/PLL
- On-chip integrated loop filter and IF filter
- Integrated Wide Dynamic Range Mixer
- Few external components required
- Voltage supply operation 1.8V typical
- Low power consumption (~15mA)

1.2 BASEBAND SECTION
- ARM7TDMI® Core (up to 64MHz)
- STC8 12 channels correlator
- 256KB ROM
- 64KB RAM (4K backup)
- 3.3V for I/O
- Internal 1.8V core supply
- Low power consumption (~20mA@16MHz)

1.3 PERIPHERALS SECTION
- 4 channel sigma delta A/D
- 2 x UARTs 4 x timers RTC
- GPIO pins multiplexed with alternate functions
- I2C
- SPI
- CAN 2.0 B active
- External Memory Interface (in TQFP176 package, development only)

1.4 Operating Temperature
- -40°C +85°C

1.5 Package
- VFQFPN68 10mm x 10mm

1.6 GPS LIBRARY
- GPS code available in ROM for full GPS functions and related peripherals.
- Possible ROM customization for dedicated applications (i.e. CAN based)

1.7 EVALUATION/DEVELOPMENT KIT
- Evaluation kit for GPS performance test.
- Standard library available with basic commands to enable specific functions (GPIO, A/D converter)
- Development kit for software customization with STA2056 with EMI option (STA2056B)

2 DESCRIPTION
STA2056 is one chip GPS featuring the complete RF for active antenna systems and baseband functionality in a QFN 68pin package. STA2056 System-on-Chip combines GPS performances with low power consumption. Thanks to the few external components STA2056 makes the application simple and smaller.
Figure 2. Block Diagram

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>September 2004</td>
<td>1</td>
<td>First Issue</td>
</tr>
<tr>
<td>January 2005</td>
<td>2</td>
<td>Modified the Operating Temperature range on the page 1.</td>
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