**INTRODUCTION**

Dongbu HiTek’s AN180 (0.18-micron Analog CMOS) has dense 1.8V logic and 5V CMOS, and moderate levels of power. Since this is a modular process, and the platform for the BD180LV process, the high-performance power devices associated with that BCD process can be added whenever needed. A rich set of analog components, coupled with up to 30V drain-extended CMOS devices (DECMOS), enable this process to touch voltages above 5V, making it a very versatile technology for mobile applications, sensor products, low-power rocess is for applications that require high-quality analog blocks, portable products, and a variety of other applications.

**KEY FEATURES OF TECHNOLOGIES**

- Foundry Compatible 1.8V CMOS
- Foundry Compatible 5V CMOS
- Implementation of fully isolated devices is available
- Complementary Drain-Extended CMOS (DECMOS) up to 30V operation
- MIM Capacitor and High-rho Poly Resistor available
- Embedded NVM (IP developing)
- Schottky Diode (Planned) and Bipolar devices available
- Standard 1P4M process, with from 2M to 6M available
- Fully Characterized PDK, Statistical Models and Industry Standard CAD Tools Supported
- Thick Metal Layer or Copper Plating (2Q’11) for Power Routing

**COMPONENT INFORMATION**

![24V DENMOS](image1)

![24V DEPMOS](image2)
**AN180 - 0.18μm Analog CMOS**

**I DESIGN SERVICES**

**Library & NVM support**

When you select Dongbu HiTek as your foundry partner, you gain access to rich Standard cell library and NVM Intellectual Property that can accelerate your time to market.

<table>
<thead>
<tr>
<th>Library</th>
<th>1.8 V Core Logic</th>
<th>5.0 V Core Logic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Cell</td>
<td>Available</td>
<td>Available</td>
</tr>
<tr>
<td>I/O</td>
<td>GPIO with 1^2C, 3Q 2010</td>
<td></td>
</tr>
<tr>
<td>NVM</td>
<td>Poly Fuse OTP 3Q 2011</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anti Fuse OTP (Kilopass) 3Q 2011</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EEPROM 3Q 2011</td>
<td></td>
</tr>
</tbody>
</table>

**PDK Tool Support**

The Process Design Kit (PDK) contains technology files that link Dongbu HiTek’s specific foundry manufacturing processes with a variety of Design Automation tools. The PDK contains schematic, simulation, layout, and verification structures needed to support the complete design flow. Below is an example of a Cadence PDK including common tools from other vendors used in a Cadence-based design flow.

**MPW Schedule (2011)**

Dongbu HiTek offers frequent MPW (Multi Project Wafer) service for its customers. This service provides a low-cost method of prototyping new products or high-risk circuit concepts. Tape-Out dates for 2011 are shown below.

<table>
<thead>
<tr>
<th>Tech</th>
<th>Process</th>
<th>FAB</th>
<th>1Q</th>
<th>2Q</th>
<th>3Q</th>
<th>4Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.18um</td>
<td>High Voltage (AN180 &amp; BD180)</td>
<td>FAB1</td>
<td>Jan</td>
<td>Feb</td>
<td>Mar</td>
<td>Apr</td>
</tr>
<tr>
<td>0.18um</td>
<td>High Voltage (AN180 &amp; BD180)</td>
<td>FAB1</td>
<td>12</td>
<td>23</td>
<td>6</td>
<td>25</td>
</tr>
</tbody>
</table>
I WORLD LEADER IN SPECIALTY FOUNDRY, DONGBU HITEK

Armed with cutting-edge wafer processing technologies that it has successfully developed and qualified for high volume production, Dongbu HiTek is dedicated to serving fabless companies, integrated device manufacturers (IDMs) and systems companies worldwide. Focused on adding high value to each customer’s chip design, Dongbu HiTek consistently delivers strong technical support and ample manufacturing capacity as it continually expands its portfolio of processing options. Dongbu HiTek’s outstanding analog processing at both the 0.18um and 0.35um nodes is available to implement a broad range of mixed-signal and power functions. Through close working relationships with its strategic partners, Dongbu HiTek offers a broad range of services including design support and access to intellectual property as well as backend assembly, packaging and testing. These well-established partnerships augment its world-class wafer manufacturing capabilities, and have placed industry leaders’ trust in Dongbu HiTek. Committed to growth and customer satisfaction, Dongbu HiTek has the flexibility to respond to different wafer processing requirements with its first-rate quality management system.

I CERTIFICATES

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