Introducing the ultrafast LTC®2387 18-bit and 16-bit SAR ADC family with industry-leading 15Msps throughput with no cycle latency and no pipeline delay. The LTC2387 digitizes wideband analog signals up to the Nyquist frequency with excellent linearity and wide dynamic range, making it an ideal fit for high speed imaging and instrumentation applications.

Features
- 15Msps Throughput Rate with No Cycle Latency
- 95.7dB SNR and 102dB SFDR at fIN = 1MHz
- Nyquist Sampling Up to 7.5MHz Input
- ±3LSB Maximum INL
- 8.192Vp-p Differential Inputs
- Internal Reference with 20ppm/°C Max Drift
- One- or Two-Lane Serial LVDS Outputs
- 32-Pin 5mm × 5mm QFN Package

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SNR, SINAD vs Input Frequency

<table>
<thead>
<tr>
<th>18-Bit 96dB SNR</th>
<th>2385-18</th>
<th>2386-18</th>
<th>2387-18</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-Bit 94dB SNR</td>
<td>2385-16</td>
<td>2386-16</td>
<td>2387-16</td>
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<tr>
<td>Power</td>
<td>78mW</td>
<td>97mW</td>
<td>125mW</td>
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### High Precision SAR ADCs

16-Bit to 24-Bit Resolution, 100ksp to 15Msps

<table>
<thead>
<tr>
<th>100ksp to 200ksp</th>
<th>250ksp to 400ksp</th>
<th>500ksp to 600ksp</th>
<th>1Msps</th>
<th>1.6Msps</th>
<th>2Msps to 5Msps</th>
<th>10Msps</th>
<th>15Msps</th>
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</thead>
<tbody>
<tr>
<td>24-Bit 1-Ch</td>
<td></td>
<td></td>
<td>2368-24</td>
<td>2380-24</td>
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<tr>
<td>20-Bit 1-Ch</td>
<td></td>
<td></td>
<td>2368-20</td>
<td>2377-20</td>
<td>2378-20</td>
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<tr>
<td>18-Bit 2-Ch</td>
<td></td>
<td></td>
<td>2340-18</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>18-Bit 4-Ch</td>
<td></td>
<td></td>
<td>2348-18</td>
<td>2372-18</td>
<td>2373-18</td>
<td></td>
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</tr>
<tr>
<td>16-Bit 1-Ch</td>
<td></td>
<td></td>
<td>1864L</td>
<td>1609</td>
<td>1864</td>
<td>1864-16</td>
<td>2327-16</td>
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<td>16-Bit 2-Ch</td>
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<td>1605</td>
<td>1606</td>
<td>1605-2</td>
<td>1605-2</td>
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<tr>
<td>16-Bit 4-Ch</td>
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<td>1855L</td>
<td>1865</td>
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<td>1855L</td>
<td>1855L</td>
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<tr>
<td>16-Bit 8-Ch</td>
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<td></td>
<td>1856</td>
<td>1859</td>
<td>1867L</td>
<td>1867</td>
<td>2372-16</td>
</tr>
</tbody>
</table>

#### Key Features:
- **Serial**: Pseudo- or Fully Differential
- **Serial**: ±5V Input ADCs
- **Serial**: ±2.5V True Bipolar Inputs
- **Serial**: ±10V True Bipolar Inputs
- **Parallel**: Wide Input Common Mode ADCs
- **Parallel**: ±10V True Bipolar Inputs
- **Parallel**: 0V to 4V Unipolar/True Bipolar Inputs
- **Parallel**: 24-Bit ADCs with Digital Averaging Filter

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*Future Product*