ATP aMLC (advancedMLC) SDHC/microSDHC
Targeted Product Portfolio, Engineered Specifically for Your Mission Critical Applications

ATP aMLC SDHC/microSDHC cards are designed for most up-to-date industrial applications, such as surveillance, medical imaging, transportation, drive recorder and automation where customers require higher reliability, endurance and performance but also seek for cost-effective solution to meet their budget.

ATP aMLC SD/microSD cards are considered as escalation of MLC memory cards. With advanced firmware algorithm, ATP aMLC technology manipulates MLC flash 2 bits each cell into 1 bit to improve aMLC product spec in all respects. ATP aMLC memory cards with overall upgrades, 13X endurance, 1.5X write performance, 5X data retention improvement compared with traditional MLC cards. aMLC is suitable for intensive write applications due to increasing endurance (40K P/E cycles) and enhanced write speed. Nonetheless, it’s also a reliable solution for read applications owing to the faster read performance and Read Disturb Protector – AutoRefresh technology to assure the data integrity at the same time.

Moreover, with SIP (System-In-Package) manufacturing process, the operating/storage temperature of ATP aMLC SD/microSD cards is -25 to 85 degrees Celsius. ATP aMLC memory cards passed a series of power cycling test and thorough evaluation process. Each aMLC card will conduct 100% production level burn-in test before delivering to customers.

Key Features
- aMLC (advancedMLC technology /1-bit per Cell) NAND Flash
- Advanced Wear Leveling algorithm
- Bad Block Management
- Read Disturb Protector - AutoRefresh to ensure data integrity during read operation
- Enhanced F/W algorithm to minimize the risk of a sudden power-off
- Water proof, Dust proof and ESD resistant
- Highly reliable and pass environmental test (Bend/Torque/Salt Spray/Solar radiation)
- Life Monitor (Note : The compatibility and support of Life Monitor may vary on different platform/operation system)

Applications
- Industrial PCs
- Medical devices
- Automotive IVI systems
- Drive recorders
- Surveillance systems
- Navigations
- Test and Measurement
- Mobile/Handheld computers
- Automation

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### Specifications

<table>
<thead>
<tr>
<th></th>
<th>SDHC</th>
<th>microSDHC</th>
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<tbody>
<tr>
<td><strong>Product Name</strong></td>
<td>SDHC</td>
<td>microSDHC</td>
</tr>
<tr>
<td><strong>Flash Type</strong></td>
<td>aMLC</td>
<td></td>
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<tr>
<td><strong>Density</strong></td>
<td>4GB to 8GB</td>
<td>4GB to 16GB</td>
</tr>
<tr>
<td><strong>Performance</strong></td>
<td>Sequential Read up to 74.5MB/s</td>
<td>Sequential Write up to 36.2MB/s</td>
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<tr>
<td><strong>Interface</strong></td>
<td>SD3.0 UHS-I Mode</td>
<td></td>
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<tr>
<td><strong>Operation Temperature</strong></td>
<td>-25°C to +85°C</td>
<td>-25°C to +85°C</td>
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<tr>
<td><strong>Reliability</strong></td>
<td>Advanced Static/Dynamic Wear-Leveling</td>
<td>TBW**(max.): 128TB</td>
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<tr>
<td></td>
<td>MTBF@25°C&gt;3,000,000 hours</td>
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</tr>
<tr>
<td></td>
<td>Number of Insertions: 10,000 minimum</td>
<td></td>
</tr>
<tr>
<td><strong>Dimensions: LxWxH (mm)</strong></td>
<td>32.0 x 24.0 x 2.1</td>
<td>15.0 x 11.0 x 1.0</td>
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</tbody>
</table>

** All TBW data listed are under highest random write value in each product line. The TBW data are subject to change by density, configuration and customers’ applications.

### Ordering Information

<table>
<thead>
<tr>
<th>Density</th>
<th>SDHC</th>
<th>microSDHC</th>
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</thead>
<tbody>
<tr>
<td>4GB</td>
<td>AF4GSD3A-OEM</td>
<td>AF4GUD3A-OEM</td>
</tr>
<tr>
<td>8GB</td>
<td>AF8GSD3A-OEM</td>
<td>AF8GUD3A-OEM</td>
</tr>
<tr>
<td>16GB</td>
<td>-</td>
<td>AF16GUD3A-OEM</td>
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</tbody>
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