**DESCRIPTION**

Kingston's KHX1866C11S3P1K2/4G is a kit of two 256M x 64-bit (2GB) DDR3-1866 CL11 SDRAM (Synchronous DRAM) 1Rx8 memory modules, based on eight 256M x 8-bit DDR3 FBGA components per module. Total kit capacity is 4GB. Each module kit has been tested to run at JEDEC DDR3-1866 at a low latency timing of 11-11-11 at 1.5V. Additional timing parameters are shown in the PnP Timing Parameters section. Each 240-pin DIMM uses gold contact fingers and requires +1.5V. The electrical and mechanical specifications are as follows:

*Note:* PnP implementation is only possible in configurations that include a BIOS that supports the PnP function. Your maximum speed will be determined by your BIOS.

**PnP JEDEC TIMING PARAMETERS:**

- DDR3-1866 CL11-11-11 @1.5V
- DDR3-1600 CL10-10-10 @1.5V
- DDR3-1333 CL8-8-8 @1.5V

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**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL(IDD)</td>
<td>11 cycles</td>
</tr>
<tr>
<td>Row Cycle Time (tRCmin)</td>
<td>47.91ns (min.)</td>
</tr>
<tr>
<td>Refresh to Active/Refresh Command Time (tRFCmin)</td>
<td>160ns (min.)</td>
</tr>
<tr>
<td>Row Active Time (tRASmin)</td>
<td>32ns (min.)</td>
</tr>
<tr>
<td>Power (Operating)</td>
<td>TBD* (per module)</td>
</tr>
<tr>
<td>UL Rating</td>
<td>94 V - 0</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0°C to 85°C</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-55°C to +100°C</td>
</tr>
</tbody>
</table>

*Power will vary depending on the SDRAM used.

**FEATURES**

- JEDEC standard 1.5V (1.425V ~ 1.575V) Power Supply
- VDDQ = 1.5V (1.425V ~ 1.575V)
- 933MHz fCK for 1866Mb/sec/pin
- 8 independent internal bank
- Programmable CAS Latency: 11, 10, 9, 8, 7, 6, 5
- Posted CAS
- Programmable Additive Latency: 0, CL - 2, or CL - 1 clock
- Programmable CAS Write Latency(CWL) = 9 (DDR3-1866)
- 8-bit pre-fetch
- Burst Length: 8 (Interleave without any limit, sequential with starting address "000" only), 4 with ICCD = 4 which does not allow seamless read or write [either on the fly using A12 or MRS]
- Bi-directional Differential Data Strobe
- Internal(self) calibration : Internal self calibration through ZQ pin (RZQ : 240 ohm ± 1%)
- On Die Termination using ODT pin
- Average Refresh Period 7.8us at lower than TCASE 85°C, 3.9us at 85°C < TCASE < 95°C
- Asynchronous Reset
- PCB : Height 1.180” (30.00mm), single sided component
 MODULE DIMENSIONS

 All Kingston products are tested to meet our published specifications. Some motherboards or system configurations may not operate at the published HyperX memory speeds and timing settings. Kingston does not recommend that any user attempt to run their computers faster than the published speed. Overclocking or modifying your system timing may result in damage to computer components.

 FOR MORE INFORMATION, GO TO WWW.KINGSTON.COM