

# Data Sheet

<b>Module Type</b>	<b>DDR4 4GB/8GB/16GB SODIMM</b>
<b>Module speed</b>	<b>PC4-17000</b>
<b>Pin</b>	<b>260 pin</b>
<b>Cl-tRCD-tRP</b>	<b>15-15-15</b>
<b>SDRAM Operating Temp</b>	<b>0°C ~85°C</b>

**The Total Solution For  
Industrial Flash Storage**

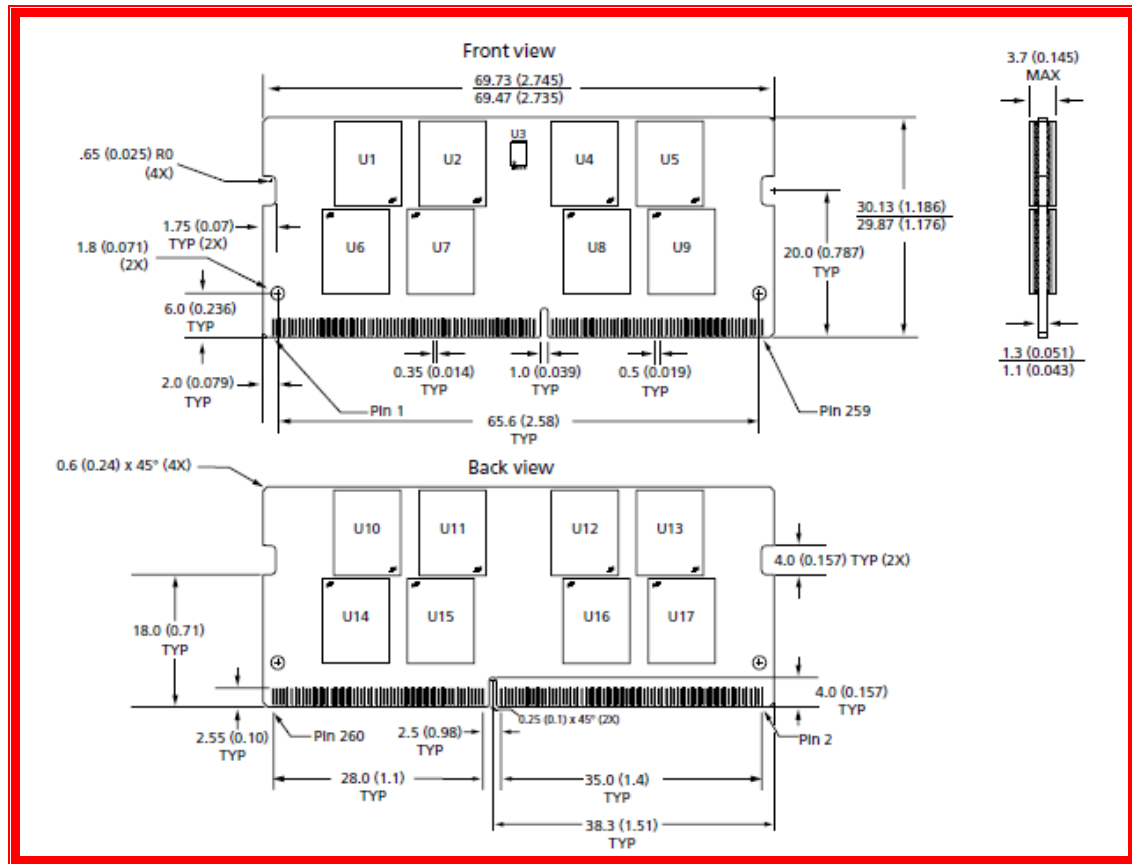
Rev 1.0

## 1. Features

Industry Nomenclature	Speed Grade	Data Rate MT/s			tRCD (ns)	tRP (ns)	tRC (ns)
		CL=11	CL=13	CL=15			
<b>PC4-17000</b>	<b>R</b>	1600	1866	2133	14.06	14.06	47.06

- JEDEC Standard 260-pin Small-Outline Dual In-Line Memory Module
- Intend for PC4-17000 applications
- Inputs and Outputs are SSTL-12 compatible
- VDD=VDDQ= 1.2 Volt (TYP)
- VPP=2.5 Volt (TYP)
- VDDSPD=2.2-3.6V
- Low-Power auto self-refresh (LPASR)
- SDRAMs have 16 internal banks for concurrent operation (4 Bank Group of 4 banks each)
- Normal and Dynamic On-Die Termination for data, strobe and mask signals.
- Data bus inversion (DBI) for data bus
- Fixed burst chop (BC) of 4 and burst length (BL) of 8 via the MRS
- Selectable BC4 or BL8 on-the fly (OTF)
- Golden Connector
- Fly-By topology
- Golden Connector
- Terminated control, command and address bus
- Programmable /CAS Latency: 11, 13, 15
- Operation temperature – (0°C ~85°C)
- On-die VREFDQ generation and Calibration
- On-Board EEPROM
- RoHs and Halogen free (*Section 13*)

## 2. PACKAGE DIMENSION



Note:

1. All dimensions are in millimeters (inches); MAX/MIN or typical (TYP) where noted.
2. The dimensional diagram is for reference only.

### 3. Ordering Information

Type & Speed	Density	Height	Innodisk Memory P/N
DDR4-2133 SODIMM	16GB	1.18"	M4S0-AGS10CRG
	8GB	1.18"	M4S0-8GSSOCRG
	4GB	1.18"	M4S0-4GSSNCRG