

AM3200D4QR4RN/128G

128GB DDR4-3200MHz Registered Quad Rank x4 1.2V 288-pin CL22 RDIMM

Features:

- Standard Power Supply VDD = 1.2V Typical
- VDDQ = 1.2V Typical
- 288-pin CL22 RDIMM
- Memory Size: 128GB
- Quad rank
- RoHS Compliant and Halogen-Free
- Application: Server

Product Description

This Industry Standard 128GB DDR4-3200MHz quad rank registered ECC 1.2V 288-pin CL22 factory original RDIMM is 100% guaranteed to be compatible with your system and to work right the first time. All of our server memory is built to strict JEDEC standards at one of the tier 1 facilities (Samsung®, Micron®, or Hynix®). Our products are also guaranteed by federal law to not affect or void OEM warranties.

Specifications

Parameter	Specifications
Form Factor	RDIMM
Technology	DDR4
Memory Size	128GB
Speed	3200MHz
Pins	288
Memory Voltage	1.2V
Chip By Value	X4
CAS Latency	CL19
DIMM Type	Registered
Rank	Quad
Error Correction	ECC

Organization	2G x72
Composition	1G x4 *36 Each
Number of Rows in the Module	2 Rows
Number of Banks in the Component	4 Banks 4BG
Feature	31.25mm Height & Double-Sided Component
Refresh	8K/64ms
Bin Sort	YF (DDR4 2933@CL=24)

Byte Function Descriptions

Byte #	Function Described	Function Supported
0	Number of Bytes Used/Number of Bytes in SPD Device/CRC Coverage	512B Total, 384B Used
1	SPD Revision	Ver. 1.2
2	Key Byte/DRAM Device Type	DDR4 SDRAM
3	Key Byte/Module Type	RDIMM
4	SDRAM Density and Banks	16Gb, 4BG & 4 Banks
5	SDRAM Addressing	Row Bits - 18, Column Bits - 10
6	SDRAM Device Type	3DS 2H
7	SDRAM Optional Features	Unlimited MAC
8	SDRAM Thermal and Refresh Option	Reserved
9	Other SDRAM Optional Features	sPPR Supported
10	Secondary SDRAM Package Type	Reserved
11	Module Nominal Voltage, VDD	1.2V
12	Module Organization	2Rx4
13	Module Memory Bus Width	64Bit, ECC
14	Module Thermal Sensor	With TS
15	Extended Module Type	Reserved
16	Reserved	Reserved
17	Timebases	MTB 125ps, FTB 1ps
18	SDRAM Minimum Cycle Time (tckavg min)	0.682ns
19	SDRAM Minimum Cycle Time (tckavg max)	1.6ns
20	Cas Latency Supported, First Byte	11,12,13,14,15,16,17,18,19, 20,21,22,23,24,25
21	Cas Latency Supported, Second Byte	11,12,13,14,15,16,17,18,19, 20,21,22,23,24,25
22	Cas Latency Supported, Third Byte	11,12,13,14,15,16,17,18,19, 20,21,22,23,24,25
23	Cas Latency Supported, Fourth Byte	11,12,13,14,15,16,17,18,19, 20,21,22,23,24,25

24	Minimum Cas Latency Time (tAamin)	15.83ns
25	Minimum RAS to CAS Delay Time (tRCD min)	13.75ns
26	Minimum Row Precharge Delay Time (tRP min)	13.75ns
27	Upper Nibbles for tRASmin and tRCmin	tRAS=32ns, tRC=45.75ns
28	Minimum Active to Precharge Delay Time (tRASmin), Least Significant Byte	tRAS=32ns
29	Minimum Active to Active/Refresh Delay Time (tRCmin), Least Significant Byte	tRC=45.75ns
30	Minimum Refresh Recovery Delay Time (tRFC1min), LSB	350ns
31	Minimum Refresh Recovery Delay Time (tRFC1min), MSB	350ns
32	Minimum Refresh Recovery Delay Time (tRFC2min), LSB	260ns
33	Minimum Refresh Recovery Delay Time (tRFC2min), MSB	260ns
34	Minimum Refresh Recovery Delay Time (tRFC4min), LSB	160ns
35	Minimum Refresh Recovery Delay Time (tRFC4min), MSB	160ns
36	Minimum Four Active Window Time (tFAWmin), Most Significant Nibble	10.875ns
37	Minimum Four Activate Window Time (tFAWmin), Least Significant Byte	10.875ns
38	Minimum Active to Active Delay Time (tRRD_smin), Different Bank Group	2.7ns
39	Minimum Active to Active Delay Time (tRRD_Lmin), Same Bank Group	4.9ns
40	Minimum CAS to CAS Delay Time (tCCD_Lmin), Same Bank Group	5ns
41	Upper Nibble for tWRmin	15ns
42	Minimum Write Recovery Time (tWRmin)	15ns
43	Upper Nibbles for tWTRmin	2.5ns
44	Minimum Write to Read Time (tWTR_smin), Different Bank Group	2.5ns
45	Minimum Write to Read Time (tWTR_Lmin), Same Bank Group	7.5ns
46~59	Reserved	Reserved
60	Connector to SDRAM Bit Mapping	DQ0-3(R/C B2)
61	Connector to SDRAM Bit Mapping	DQ4-7(R/C B2)
62	Connector to SDRAM Bit Mapping	DQ8-11(R/C B2)
63	Connector to SDRAM Bit Mapping	DQ12-15(R/C B2)
64	Connector to SDRAM Bit Mapping	DQ16-19(R/C B2)
65	Connector to SDRAM Bit Mapping	DQ20-23(R/C B2)
66	Connector to SDRAM Bit Mapping	DQ24-27(R/C B2)
67	Connector to SDRAM Bit Mapping	DQ28-31(R/C B2)
68	Connector to SDRAM Bit Mapping	CB0-3 (R/C B2)
69	Connector to SDRAM Bit Mapping	CB4-7 (R/C B2)
70	Connector to SDRAM Bit Mapping	DQ32-35(R/C B2)
71	Connector to SDRAM Bit Mapping	DQ36-39(R/C B2)
72	Connector to SDRAM Bit Mapping	DQ40-43(R/C B2)

73	Connector to SDRAM Bit Mapping	DQ44-47(R/C B2)
74	Connector to SDRAM Bit Mapping	DQ48-51(R/C B2)
75	Connector to SDRAM Bit Mapping	DQ52-55(R/C B2)
76	Connector to SDRAM Bit Mapping	DQ56-59(R/C B2)
77	Connector to SDRAM Bit Mapping	DQ60-63(R/C B2)
78~116	Reserved	Reserved
117	Fine Offset for Minimum CAS to CAS Delay Time (tCCD_Lmin), Same Bank Group	5ns
118	Fine Offset for Minimum Activate to Activate Delay Time (tRRD_L_min), Same Bank Group	4.9ns
119	Fine Offset for Minimum Activate to Activate Delay Time (tRRD_Smin), Different Bank Group	2.7ns
120	Fine Offset for Minimum Activate to Activate/Refresh Delay Time (tRCmin)	45.75ns
121	Fine Offset for Minimum Row Precharge Delay Time (tRPmin)	13.75ns
122	Fine Offset for Minimum RAS to CAS Delay Time (tRCD_min)	13.75ns
123	Fine Offset for Minimum CAS Latency Delay Time (tAA_min)	15.83ns
124	Fine Offset for DRAM Maximum Cycle Time (tCKAVG_max)	1.6ns
125	Fine Offset for DRAM Minimum Cycle Time (tCKAVG_min)	0.682ns
126	Cyclical Redundancy Code	-
127	Cyclical Redundancy Code	-
128	Raw Card Extension, Module Nominal Height	R/C B 2.0,31.25mm
129	Module Maximum Thickness	(Each Side) 2<Thickness& lt;3mm
130	Reference Raw Card Used	R/C B 2.0
131	DIMM Module Attributes	RCD2 2 Row 1 Register
132	RDIMM Thermal Heat Spreader Solution	W H/S
133	Register Manufacturer ID Code, Least Significant Byte	IDT
134	Register Manufacturer ID Code, Most Significant Byte	IDT
135	Register Revision Number	IDT C1
136	Address Mapping from Register to DRAM	Mirrored
137	Register Output Drive Strength for Control	CMD/ADD Strong, CS/CKE/ODT: Moderate
138	Register Output Strength for CK and RCD Output Slew Rate Control	Moderate_RCD Slew Rate
139~253	Reserved	Reserved
254	Cyclical Redundancy Code	-
255	Cyclical Redundancy Code	-
256~319	Reserved	Reserved
320	Module Manufacturer's ID Code, Least Significant Byte	Samsung
321	Module Manufacturer's ID Code, Most Significant Byte	Samsung
322	Module Manufacturing Location	Samsung

323	Module Manufacturing Date	Year
324	Module Manufacturing Date	Week
325	Module Serial Number	-
326	Module Serial Number	-
327	Module Serial Number	-
328	Module Serial Number	-
329	Module Part Number	M
330	Module Part Number	3
331	Module Part Number	9
332	Module Part Number	3
333	Module Part Number	A
334	Module Part Number	A
335	Module Part Number	G
336	Module Part Number	4
337	Module Part Number	0
338	Module Part Number	M-die
339	Module Part Number	3
340	Module Part Number	2
341	Module Part Number	-
342	Module Part Number	C
343	Module Part Number	Y
344	Module Part Number	F
345	Module Part Number	Blank
346	Module Part Number	Blank
347	Module Part Number	Blank
348	Module Part Number	Blank
349	Module Revision Code	0.0
350	DRAM Manufacturer's ID Code, Least Significant Byte	Samsung
351	DRAM Manufacturer's ID Code, Most Significant Byte	Samsung
352	DRAM Stepping	Ver 0.0
353~380	Module Manufacturer's Specific Data	Reserved
381	Module Manufacturer's Specific Data	Reserved
382~383	Reserved	Reserved
384~511	End User Programmable	Reserved

About AddOn Networks

In 1999, AddOn Networks entered the market with a single product. Our founders fulfilled a severe shortage for compatible, cost-effective optical transceivers that compete at the same performance levels as leading OEM manufacturers. Adhering to the idea of redefining service and product quality not previously had in the fiber optic networking industry, AddOn invested resources in solution design, production, fulfillment, and global support.

Combining one of the most extensive and stringent testing processes in the industry, an exceptional free tech support center, and a consistent roll-out of innovative technologies, AddOn has continually set industry standards of quality and reliability throughout its history.

Reliability is the cornerstone of any optical fiber network and is ingrained in AddOn's DNA. It has played a key role in nurturing the long-term relationships developed over the years with customers. AddOn remains committed to exceeding industry standards with certifications from ranging from NEBS Level 3 to ISO 9001:2005 with every new development while maintaining the signature reliability of its products.



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