

## RealSSD™ C300 Technical Specifications

Designed with high-speed synchronous MLC NAND, advanced controller technology, optimized NAND management, and the new SATA 6Gb/s interface, these drives dramatically improve data transfers for bandwidth-demanding applications like audio and video.

And our expertise in NAND design and development makes us best equipped to optimize NAND components to specifically address the performance needs of solid-state storage. These innovations change the rules of storage and deliver breakthrough speed that transforms your computing experience.

	2.5" RealSSD C300	CTFDDAC064MAG-1G1	CTFDDAC128MAG-1G1	CTFDDAC256MAG-1G1
	1.8" RealSSD C300	CTFDDAA064MAG-1G1	CTFDDAA128MAG-1G1	CTFDDAA256MAG-1G1
<b>Features</b>	Capacity* (Unformatted)	64GB	128GB	256GB
	NAND	Micron® MLC	Micron® MLC	Micron® MLC
	Controller	Marvell	Marvell	Marvell
	Firmware	Field Upgradeable	Field Upgradeable	Field Upgradeable
	RAID Support	Yes	Yes	Yes
	Interface	SATA	SATA	SATA
	Transfer Rate	6Gb/sec (compatible 3Gb/sec)	6Gb/sec (compatible 3Gb/sec)	6Gb/sec (compatible 3Gb/sec)
	2.5-inch SSD Power Supply	5 V	5 V	5 V
	1.8-inch SSD Power Supply	3.3 V	3.3 V	3.3 V
	Certifications	FCC, CE, RoHS, UL	FCC, CE, RoHS, UL	FCC, CE, RoHS, UL
Command Set	ATA-8 w/ TRIM	ATA-8 w/ TRIM	ATA-8 w/ TRIM	
Monitoring	Self-monitoring, analysis, and reporting technology (SMART) command set	Self-monitoring, analysis, and reporting technology (SMART) command set	Self-monitoring, analysis, and reporting technology (SMART) command set	
<b>Performance</b>	Average Access Time	< .1 ms	< .1 ms	< .1 ms
	Sequential Read (up to) <sup>1</sup>	355MB/sec (SATA 6Gb/s) 265MB/sec (SATA 3Gb/s)	355MB/sec (SATA 6Gb/s) 265MB/sec (SATA 3Gb/s)	355MB/sec (SATA 6Gb/s) 265MB/sec (SATA 3Gb/s)
	Sequential Write (up to)	75MB/sec (SATA 6Gb/s) 75MB/sec (SATA 3Gb/s)	140MB/sec (SATA 6Gb/s) 140MB/sec (SATA 3Gb/s)	215MB/sec (SATA 6Gb/s) 215MB/sec (SATA 3Gb/s)
	Random 4k READ <sup>2</sup>	60,000 IOPS	60,000 IOPS	60,000 IOPS
	Random 4k WRITE	15,000 IOPS	30,000 IOPS	45,000 IOPS
<b>Physical</b>	2.5-inch SSD dimensions (L x W x H)	100.45 x 69.85 x 9.50 mm	100.45 x 69.85 x 9.50 mm	100.45 x 69.85 x 9.50 mm
	2.5-inch SSD weight	74g	74g	75g
	1.8-inch SSD dimensions (L x W x H)	78.5 x 54.0 x 5.0 mm	78.5 x 54.0 x 5.0 mm	78.5 x 54.0 x 5.0 mm
	1.8-inch SSD weight	45g	45g	45g
<b>Environmental</b>	2.5-inch Active Power	1.7W Read, 2.4W Write	1.7W Read, 3.1W Write	2.1W Read, 4.3W Write
	1.8-inch Active Power	1.4W Read, 2.2W Write	1.4W Read, 2.8W Write	1.8W Read, 3.9W Write
	Idle Power	0.092W idle	0.092W idle	0.094W idle
	Operating Temperature	0°C to +70°C	0°C to +70°C	0°C to +70°C
	Non-Operating Temperature	-55°C to 95°C	-55°C to 95°C	-55°C to 95°C
	Shock Resistance	1500G / 1.0ms	1500G / 1.0ms	1500G / 1.0ms
<b>Reliability</b>	Vibration Resistance	2-500Hz at 3.1G	2-500Hz at 3.1G	2-500Hz at 3.1G
	MTBF	1.2 Million Hours	1.2 Million Hours	1.2 Million Hours
	Data Reliability	Built-in EDC/ECC	Built-in EDC/ECC	Built-in EDC/ECC
	Warranty	Limited 3 Year Warranty	Limited 3 Year Warranty	Limited 3 Year Warranty
	Read Endurance	Unlimited	Unlimited	Unlimited

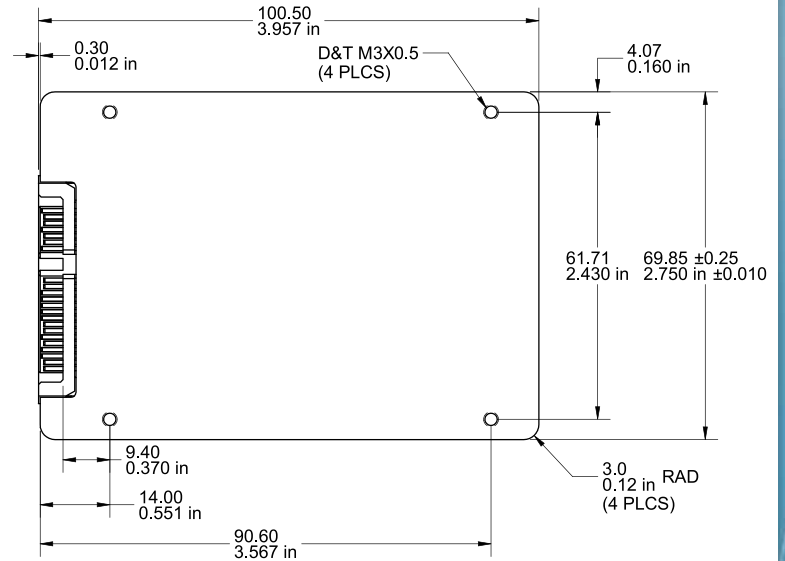
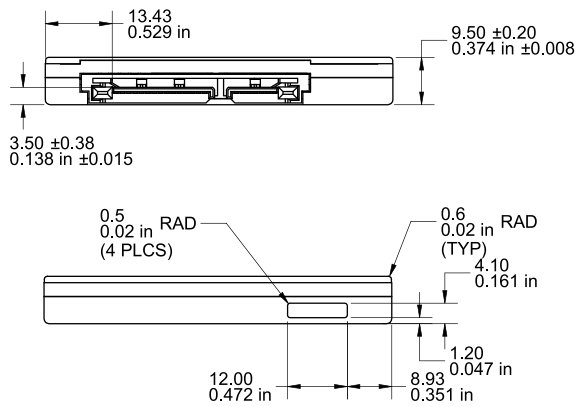
<sup>1</sup>Sequential READ/WRITE speeds are PCMark® Vantage HDD test suite scores.

<sup>2</sup>Typical I/O performance numbers are measured using IOMETER with a queue depth of 32 and write cache enabled.

\*Some of the listed storage capacity is used for formatting and other purposes and is not available for data storage. 1GB equals 1 billion bytes.

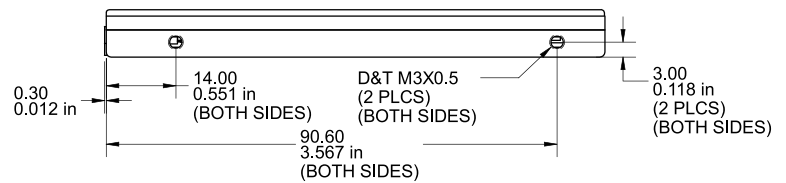
# Crucial RealSSD™ C300 2.5-inch Mechanical Drawings

## Pin Configurations



## Signal Segment Pin Assignments

SIGNAL NAME	TYPE	DESCRIPTION
S1	GND	Ground
S2	A	Differential signal pair A and A#
S3	A#	
S4	GND	Ground
S5	B#	Differential signal pair B and B#
S6	B	
S7	GND	Ground

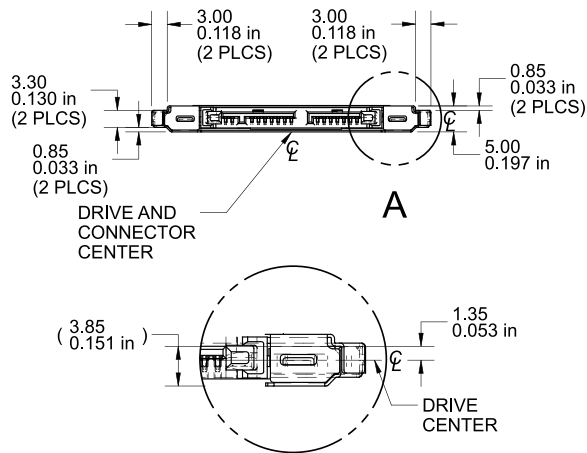


## Power Segment Pin Assignments

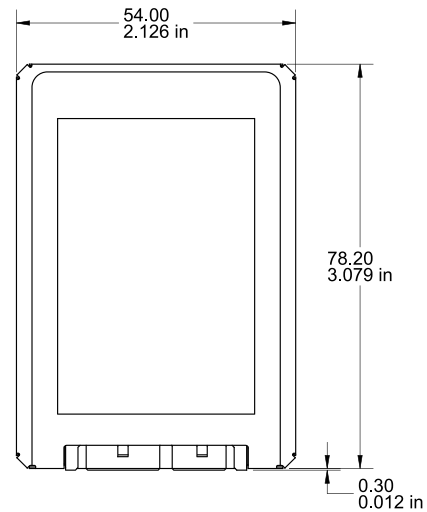
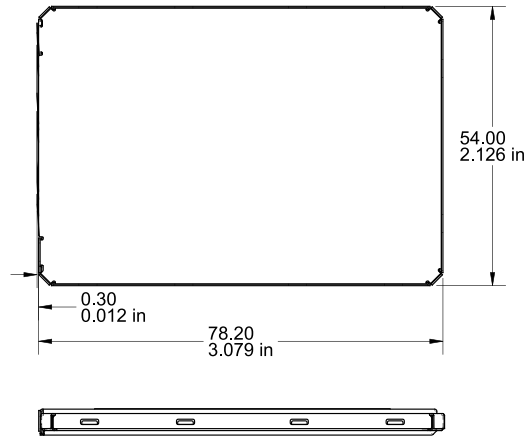
SIGNAL NAME	TYPE	DESCRIPTION
P1	V33	No connect
P2	V33	No connect
P3	V33	No connect
P4	GND	Ground
P5	GND	Ground
P6	GND	Ground
P7	V5	5V power, pre-charge
P8	V5	5V power
P9	V5	5V power
P10	GND	Ground
P11	DAS	Device activity signal
P12	GND	Ground
P13	V12	No connect
P14	V12	No connect
P15	V12	No connect

# Crucial RealSSD™ C300 1.8-inch Mechanical Drawings

## Pin Configurations



DETAIL A



## Signal Segment Pin Assignments

SIGNAL NAME	TYPE	DESCRIPTION
S1	GND	Ground
S2	A	Differential signal pair A and A#
S3	A#	
S4	GND	Ground
S5	B#	Differential signal pair B and B#
S6	B	
S7	GND	Ground

SIGNAL NAME	TYPE	DESCRIPTION
P1	V33	3.3V Power
P2	V33	3.3V Power, precharge
P3	GND	Ground
P4	GND	Ground
P5	GND	Ground
P6	V5	No connect
P7	Reserved	No connect
P8	Optional	No connect
P9	Optional	No connect

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