

# **7.68 Tbyte, 2.5-inch, Read Intensive Solid State Drive, 12Gb/sec SAS-3 Interface Specification**

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This document provides the specification for the 7.68 Tbyte, 2.5-inch, Read Intensive Solid State Drive, 12Gb/sec SAS-3 Interface.

## Drive Installation

For information on how to install a storage drive, refer to your system or drive enclosure documentation. Refer to product documentation at <https://docs.oracle.com>.

The Drive Bracket Assembly consists of the solid state drive assembled within the bracket assembly. The Drive Bracket Assembly should not be disassembled for any reason by the user.

## Drive Specification

**TABLE 1** Power Requirements

Condition	+5 VDC (+/-5%, +/-10%)	+12 VDC (+/-5%, +/-10%)
Startup Current Peak	0.762 A	1.017 A
Read/Write Peak	0.942 A	0.940 A
Read/Write Typical (rms)	0.497 A	0.729 A
Maximum power	3.775 W	14.496 W

**Note** - Maximum power is measured as the average power in a 1ms interval.

**TABLE 2** Physical Characteristics

Height	Width	Depth	Weight
0.591 in.	2.75 +/-0.006 in.	3.955 +/-0.006 in.	4.9 +/-0.035 oz
15 mm +0.0 mm/-0.5 mm	69.85 +/-0.25 mm	100.45 mm	175 +/-0.001 g

**TABLE 3** Usage Information

Usage	Description
Useful life	5 years
Expected AFR (Annualized Failure Rate)	0.4335% for normal 24x7 operating conditions
Operating temperature (Case)	0 to 65 degrees Celsius
Maximum temperature (SMART trip)	70 degrees Celsius <b>Note</b> - Drive voids warranty above 85 degrees Celsius
Other environmental factors	Conforms to IEC standards

**TABLE 4** Drive Capacity and Performance

Attribute	Value
Capacity, formatted	7,681,501,126,656 bytes (512 bytes per sector)
Random 4 KB read (QD 32)	478K IOPS
Random 4 KB write (QD 32)	234K IOPS
Sequential read (128 KB, QD 32)	2150 MB/s
Sequential write (128 KB, QD 32)	1980 MB/s

Attribute	Value
Interface data transfer rate	12 Gbps/6 Gbps/3 Gbps/1.5 Gbps (Gigabits per second), auto negotiation, dual port, full duplex
Power On to Ready (no rebuild)	< 10 seconds
Power On to Ready (full rebuild)	30 seconds
End-to-End Protection	T10DIF Type 1 no performance impact

**TABLE 5** Solid State Drive Characteristics

Attribute	Value
NAND Geometry	Intel 110 series 3D 64-tier eTLC, 256Gb/die and 512Gb/die
Number of NAND Channels	24
NAND Transfer Rate per Channel	667 MT/s
Rated PE Cycles	7000
Over Provisioning	15%
Page Size	16,384 bytes
Erase Block Size	37,748,736 bytes

## Product Documentation Library

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