Appendix A
Product Specifications

Kaleidescape 1U+ Movie Server, Model KSERVER-1550

Dimensions

- 17.5 in. × 1.7 in. × 18.8 in. (W × H × D)
  (44.5 cm × 4.3 cm × 47.8 cm)
- 1 rack unit (rack ears included)
- Front panel protrudes 1 in. (2.5 cm)

Weight

- 15.0 lbs (6.8 kg) with no disk cartridges installed
- 24.0 lbs (10.9 kg) with four disk cartridges installed

Disk Cartridges

- KDISK-6000-L: 2.2 lbs (1.0 kg)
- KDISK-10000-L: 2.2 lbs (1.0 kg)
- KDISK-BLANK-L: 0.35 lbs (0.16 kg)

Power

- 100–240 V, 50–60 Hz, universal input
- 50W typical (100W max) consumption with four disk cartridges installed

Environment

- Operating temperature: 41 to 86°F (5 to 30°C)
- Storage temperature: -4 to 140°F (-20 to 60°C)
- Relative humidity: 5 to 90% non-condensing
- Maximum operating altitude: 10,000 ft (3000 m)
- Heat output: 170 BTU/hr (50 W) max with four disk cartridges
- Airflow: 10 CFM (17 m^3/hr) min

Ventilation

- Minimum 1 in. (2.5 cm) ventilation space at the front
- Minimum 2 in. (5 cm) ventilation space at the rear

  Note: Make sure rack or other doors do not reduce the 1 in. (2.5 cm) air space required at the front of the chassis.

Connections

- 100Base-TX/1000Base-T Ethernet (RJ45 connector)
- RS-232 control port (DB-9 male)
- One USB 3.0 (reserved)

Storage

- One disk cartridge for data protection (RAID-K parity)
- Three disk cartridges for content. Storage up to 800 Blu-ray quality movies or 4,500 DVD quality movies when using 10 TB Disk Cartridges.
- More servers can be added to provide thousands of movies and albums in one library.

Bandwidth

- Serves Blu-ray quality movies to up to 15 zones simultaneously
- Servers DVD quality movies or music to up to 50 zones simultaneously
- 4 simultaneous imports

Certifications

- CSA (IEC 60950-1, CSA 60950-1-07)
- FCC Class B
- CE
- RoHS compliant

Limited Warranty

- 3 years (extendable)

Kaleidescape 3U Server, Model KSERVER-5000

Dimensions

- 17.5 in. × 5.2 in. × 19.3 in. (W × H × D) (44.5 cm × 13.2 cm × 49.0 cm)
- 3 rack units (rack ears included)
- Front panel protrudes 1.1 in. (2.8 cm)

Weight

- 29.0 lbs (13.2 kg) with no disk cartridges installed
- 59.0 lbs (26.8 kg) with fourteen disk cartridges installed

Disk Cartridges

- KDISK-6000-L: 2.2 lbs (1.0 kg)
- KDISK-BLANK-L: 0.35 lbs (0.16 kg)

Power

- 100–240 V, 50–60 Hz, universal input
- 133 W typical (161 W max) consumption with fourteen 6 TB Disk Cartridges

Environment

- Operating temperature: 41 to 86°F (5 to 30°C)
- Storage temperature: -4 to 140°F (-20 to 60°C)
- Relative humidity: 5 to 90% non-condensing
- Maximum operating altitude:10,000 ft (3000 m)
- Heat output: 550 BTU/hr (161 W) max with 6 TB Disc Cartridges
- Airflow: 40 CFM (68 m^3/hr) min

Ventilation

- Minimum 1 in. (2.5 cm) ventilation space at the front
- Minimum 2 in. (5 cm) ventilation space at the rear

  Note: Make sure rack or other doors do not reduce the 1 in. (2.5 cm) air space required at the front of the chassis.

Connections

- 100Base-TX/1000Base-T Ethernet (RJ45 connector)
- RS-232 control port (DB-9 male)
- Two USB 2.0 (reserved)
- IEEE 1394 (FireWire) 6-pin (reserved)

Storage

- Two disk cartridges for data protection (RAID-K parity and hot spare)
- Expandable to fourteen 6 TB disk cartridges for a maximum of 72 TB of storage (1,950 Blu-ray quality or 10,800 DVD quality movies)
- More servers can be added to store thousands of movies and albums in one library

Bandwidth

- Serves Blu-ray quality movies to up to 15 zones simultaneously
- Servers DVD quality movies or music to up to 50 zones simultaneously
- 4 simultaneous imports

Certifications

- CSA (IEC 60950-1, CSA 60950-1-07)
- FCC Class B
- CE
- RoHS compliant

Limited Warranty

- 3 years (extendable)

Kaleidescape M500 Player, Model KPLAYER-M500

Dimensions

- 17.5 in. × 1.7 in. × 13.8 in. (W × H × D)
  (44.5 cm × 4.3 cm × 35.0 cm) without side
  panels
- 1 rack unit (rack ears included)
- Front panel protrudes 1 in. (2.5 cm)

Weight

- 10.0 lbs (4.6 kg)

Power

- 100–240 V, 50–60 Hz, universal input
- 36 W typical consumption
  (27 W standby, 42 W max)

Network

- 100Base-TX/1000Base-T Ethernet
  (RJ45 connector)

Control

- Kaleidescape Remote included
- Front panel IR receiver window
- IR input (1/8 in. mini-plug)
- RS-232 control port (DB-9 male)

Environment

- Operating temperature: 41 to 95°F (5 to 35°C)
- Storage temperature: -4 to 140°F (-20 to 60°C)
- Relative humidity: 5 to 90% non-condensing
- Maximum operating altitude:10,000 ft (3000 m)
- Heat output: 143 BTU/hr (42 W) max
- Airflow: 7 CFM (12 m^3/hr) min

Ventilation

- Minimum 1 in. (2.5 cm) ventilation space
  at the front
- Minimum 2 in. (5 cm) ventilation space
  at the rear

  Note: Make sure that the air space required
  at the front of the chassis is maintained.

Video Outputs

- HDMI
- Component YP$_b$P$_r$ (RCA connectors)
- S-Video
- Composite (RCA connector)

Video Modes

- 1080p60/50/24, 1080i60/50, 720p60/50,
  576p, 576i, 480p, 480i

Audio Outputs

- HDMI
- Digital coaxial (RCA connector)
- Digital optical (TosLink connector)
- Analog stereo (RCA connectors)

Audio Formats

- Bitstream pass-through of Dolby$^®$ TrueHD, Dolby
  Atmos$^®$ and DTS-HD Master™
- Dolby Digital
- DTS Digital Surround™
- MPEG Audio
- PCM

Media

- Downloads from the Kaleidescape Store that
  precisely match the quality of movies available on
  Blu-ray disc and DVD
- Blu-ray disc, BD-R, BD-RE
- DVD, DVD-R, DVD-RW, DVD+R, DVD+RW

Blu-ray Disc

- BD-Live
- Profile 2.0

Region Codes

- DVD region code can be changed up to four times
- The Blu-ray disc region code of the M500 Player
  is set at time of purchase and cannot be changed
  by the customer.

Certifications

- CSA (IEC 60950-1, CSA 60950-1-07)
- FCC Class B
- CE
- RoHS compliant

Limited Warranty

- 3 years (extendable)

Kaleidescape M300 Player, Model KPLAYER-M300

Dimensions

- 8.4 in. × 1.7 in. × 10.6 in. (W × H × D)
  (21.3 cm × 4.3 cm × 26.9 cm)
- Optional rack-mount shelf is available to hold two
  M300 Players in one rack unit

Weight

- 3.0 lbs (1.4 kg) includes 1 lb (0.5 kg) power
  supply
- Rack-mount shelf: 0.5 lbs (0.2 kg)

Power

- 100–240 V, 50–60 Hz, universal input
- 28 W typical consumption
  (20 W standby, 28 W max)
- External power supply included

Network

- 100Base-TX/1000Base-T Ethernet
  (RJ45 connector)

Control

- Kaleidescape Remote included
- Front panel IR receiver window
- IR input (1/8 in. mini-plug)

Environment

- Operating temperature: 41 to 95°F (5 to 35°C)
- Storage temperature: -4 to 140°F (-20 to 60°C)
- Relative humidity: 5 to 90% non-condensing
- Maximum operating altitude:10,000 ft (3000 m)
- Heat output: 96 BTU/hr (28 W) max
- Airflow: 6 CFM (10 m^3/hr) min

Ventilation

- Minimum 1 in. (2.5 cm) ventilation space
  at the front
- Minimum 2 in. (5 cm) ventilation space
  at the rear

Video Outputs

- HDMI
- Component YP$_b$P$_r$ (RCA connectors)
- Composite (RCA connector)

Video Modes

- 1080p60/50/24, 1080i60/50, 720p60/50,
  576p, 576i, 480p, 480i

Audio Outputs:

- HDMI
- Digital coaxial (RCA connector)
- Analog stereo (RCA connectors)

Audio Formats

- Bitstream pass-through of Dolby® TrueHD, Dolby
  Atmos® and DTS-HD Master™
- Dolby Digital
- DTS Digital Surround™
- MPEG Audio
- PCM

Blu-ray Disc

- BD-Live
- Profile 2.0

Region Codes

- The Blu-ray disc region code of the M300 Player
  is set at time of purchase and cannot be changed
  by the customer.

Certifications

- CSA (IEC 60950-1, CSA 60950-1-07)
- FCC Class B
- CE
- RoHS compliant

Limited Warranty

- 3 years (extendable)

Kaleidescape M700 Disc Vault, Model KVAULT-M700

Dimensions
- 17.5 in. × 8.8 in. × 21.9 in. (W × H × D)
  (44.5 cm × 4.3 cm × 35.0 cm)
- 5 rack units (rack ears included)

Weight
- 38 lb (17.2 kg) empty
- 49 lb (22.2 kg) fully loaded with discs

Power
- 100–240 V, 50–60 Hz, universal input
- 37 W typical consumption
  (32 W standby, 52 W max)

Network
- 100Base-TX/1000Base-T Ethernet
  (RJ45 connector)

Control
- Kaleidescape Remote included
- Front panel IR receiver window
- IR input (1/8 in. mini-plug)
- RS-232 control port (DB-9 male)

Environment
- Operating temperature: 41 to 95°F (5 to 35°C)
- Storage temperature: -4 to 140°F (-20 to 60°C)
- Relative humidity: 20 to 80% non-condensing
- Maximum operating altitude:10,000 ft (3000 m)
- Heat output: 180 BTU/hour (52 W) max
- Airflow: 7 CFM (12 m^3/hr) min

Ventilation
- Minimum 1 in. (2.5 cm) ventilation space at the front
- Minimum 2 in. (5 cm) ventilation space at the rear

Video Outputs
- HDMI
- Component YP$_b$P$_r$ (RCA connectors)
- S-Video
- Composite (RCA connector)

Video Modes
- 1080p60/50/24, 1080i60/50, 720p60/50, 576p, 576i, 480p, 480i

Audio Outputs
- HDMI
- Digital coaxial (RCA connector)
- Digital optical (TosLink connector)
- Analog stereo (RCA connectors)

Audio Formats
- Bitstream pass-through of Dolby® TrueHD, Dolby Atmos® and DTS-HD Master™
- Dolby Digital
- DTS Digital Surround™
- MPEG Audio
- PCM

Media
- Downloads from the Kaleidescape Store that precisely match the quality of movies available on Blu-ray disc and DVD
- Blu-ray disc, BD-R, BD-RE
- DVD, DVD-R, DVD-RW, DVD+R, DVD+RW
- CD Audio, CD-R, CD-RW
- Standard 12 cm (4.7 in.) diameter discs

Capacity
- 320 discs

Import Speed
- 1 Blu-ray disc per hour or 15 CDs per hour

Regional Playback Control

The DVD region code can be changed up to four times. As long as the DVD matches the region code configured for the M700, any movie player can play a DVD from the vault once it has been cataloged.

The Blu-ray disc region code of the M700 Disc Vault is set at time of purchase and cannot be changed by the customer. Any M700 Disc Vault can import any Blu-ray disc. An imported Blu-ray movie will play if a component of the system matches the region code specified by the disc.

Certifications
- CSA (IEC 60950-1, CSA 60950-1-07)
- FCC Class B
- CE
- RoHS compliant

Limited Warranty
- 3 years (extendable)

Kaleidescape DV700 Disc Vault, Model KVAULT-DV700

Dimensions

- 17.5 in. × 8.8 in. × 21.9 in. (W × H × D)
  (44.5 cm × 4.3 cm × 35.0 cm)
- 5 rack units (rack ears included)

Weight

- 38 lb (17.2 kg) empty
- 49 lb (22.2 kg) fully loaded with discs

Power

- 100–240 V, 50–60 Hz, universal input
- 34 W typical consumption
  (32 W standby, 46 W max)

Network

- 100Base-TX/1000Base-T Ethernet
  (RJ45 connector)

Environment

- Operating temperature: 41 to 95°F (5 to 35°C)
- Storage temperature: -4 to 140°F (-20 to 60°C)
- Relative humidity: 20 to 80% non-condensing
- Maximum operating altitude:10,000 ft (3000 m)
- Heat output: 160 BTU/hour (46 W) max
- Airflow: 7 CFM (12 m^3/hr) min

Ventilation

- Minimum 1 in. (2.5 cm) ventilation space at the front
- Minimum 2 in. (5 cm) ventilation space at the rear

Disc Media

- Blu-ray disc, BD-R, BD-RE
- DVD, DVD-R, DVD-RW, DVD+R, DVD+RW
- CD Audio, CD-R, CD-RW
- Standard 12 cm (4.7 in.) diameter discs

Capacity

- 320 discs

Import Speed

- 1 Blu-ray disc per hour or 15 CDs per hour

Regional Playback Control

The DVD region code can be changed up to four times. As long as the DVD matches the region code configured for the M700, any movie player can play a DVD from the vault once it has been cataloged.

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Certifications

- CSA (IEC 60950-1, CSA 60950-1-07)
- FCC Class B
- CE
- RoHS compliant

Limited Warranty

- 3 years (extendable)