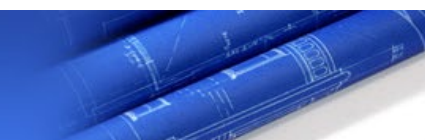


## **Model: CSP-10EXT-48TB**

### Architectural and Engineering Specifications

Version 1.0



## **PART 1: PLEASE REFER TO ATTACHED DOCUMENTS - OVERVIEW & FORMAT SAMPLES**

## **PART 2: PRODUCTS**

### **Division 28 – Electric Safety and Security**

### **Section 28 23 29 – Video Surveillance Remote Devices and Sensors**

#### **2.1.0 Manufacturer**

1. Costar Video Systems  
101 Wrangler Drive, Suite 201  
Coppell, Texas 75019  
Tel: 469-635-6800  
Fax: 469-635-6822

#### **2.2.0 General**

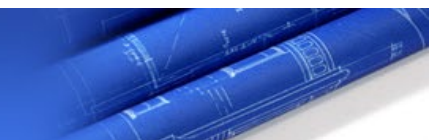
##### **2.2.1 Product Description**

CSP-10EXT is a Storage enclosure provided by Costar Video Systems. This device is a 19-inch, rack-mountable Serial Attached SCSI(SAS) and Near Line Serial Attached SCSI(NL-SAS) storage enclosure. It supports RAID levels 0, 1, 5, 6, 50, and 60 for improved data stability and performance. This product will support up to 12 hot-swappable 3.5" or 2.5" drives (2.5" available with adapter) and supports 12Gbps connectivity via SAS and NL-SAS interface. It provides a cost-effective storage solution while still maintaining performance.

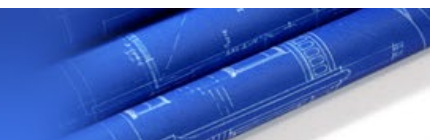
\*Disclaimer: CSP-10SVR256-96TB must have RAID controller to be connected to CSP-10EXT-48TB.

##### **2.2.2 Technical Specification**

1. Storage enclosure shall be equipped the drive which sized as 3.5" (inches) and 2.5" (available with adapter).
2. Storage enclosure shall support Serial Attached SCSI(SAS) and Near Line Serial Attached SCSI(NL-SAS) with 12Gbps
3. Storage enclosure shall support up to 12 drives.
4. Storage enclosure shall support a maximum 168TB of storage capacity. (12 x 14TB NL-SAS 3.5" HDDs)
5. Storage enclosure shall support RAID 0, 1, 5, 6, 50, and 60.
6. Storage enclosure shall support controlling RAID mode on CSP-10SVR256-96TB RAID configuration tool.
7. Storage enclosure shall support hot-swapping feature for drives.
8. Storage enclosure shall be linked to up to 8 enclosures.
  - A. Total 8 enclosures can be attached to CSP-10SVR256-96TB.



- B. Single chain, Multi-chain, and Redundant configurations are supported.
- 9. Storage enclosure shall have 2 Enclosures Management Module (EMM)s with SAS interface.



### 2.2.3 Hardware Specification

1. Interface:
  - A. Drives <--> CSP-10SVR256-96TB: SAS, NL-SAS
  - B. CSP-10EXT <--> CSP-10SVR256-96TB or CSP-10SVR256-96TB: mini SAS HD,
  - C. Enclosures Management Module (EMM): 2 of each, an EMM has 4 mini SAS HD ports.
2. Number of Drive Bays: 12
3. Drive Size: 3.5", 2.5" (available with adapter)
4. Drive Connection Type: SAS 2.5" and 2.5" SDD, NL-SAS 2.5" and 3.5"
5. Maximum storage capacity: 168TB (12 x 14TB NL-SAS 3.5" HDDs)
6. Compatible device: CSP-10SVR256-96TB

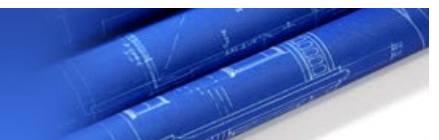
### 2.2.4 Enclosure Expansion

1. Raid Controller on CSP-10SVR256-96TB has 2 mini SAS HD port and 4 of CSP-10EXT can be connected to each port.  
CSP-10EXT has 2 Enclosures Management Modules (EMM) and each EMM has 4 SAS ports (mini SAS-HD)
2. Single-Chain configuration: 4 CSP-10EXT can be linked by connecting them to a single mini SAS HD port of CSP-10SVR256-96TB via Daisy Chain method.
3. Redundant configuration: 4 CSP-10EXT can be linked by connecting them to 2 mini SAS HD port of CSP-10SVR256-96TB via Daisy Chain method.
4. Multi-chain method: The first 4 enclosures can be connected to a single mini SAS HD port of CSP-10EXT, and the second 4 enclosures can be connected to another mini SAS HD port. (2 x Single-chain configuration)

### 2.2.5 Physical Specification

1. Form Factor: 2U Rack Mount Chassis
2. Rack Rail System: Sliding rail system with cable management arm.  
Supported rails:
  - Tool-less mounting in 19"-wide EIA-310-E compliant square hole and unthreaded round-hole 4-post racks
  - Tooled mounting in threaded hole 4-post racks Dimensions (width x depth x height): 482.0mm x 591.8mm X 87.0mm (19.98" x 23.3" x 3.43")
3. Weight 28.4kg (62.6lbs) (maximum configuration) 9.0 kg (19.8 lb) (empty)

### 2.2.6 Electrical Specification



### 1. **Power supplies per PSU**

Wattage - AC and DC power: AC - 600W; DC - 700W

Host heat dissipation: AC - 2047BTU/hr.; DC - 2388BTU/hr.

Input voltage range: 100-240V AC, auto-sensing; 48V DC

Frequency range: 50/60Hz

Amperage: 8.6A at 100V, 4.3A at 240V

CSP-10EXT supports redundant power (2 PSU)

### 2. **Available hard drive power (per slot)**

Supported continuous consumption: Up to 1.2A at +5V, Up to 0.5A at +12V

## **2.2.7 Environmental Specification**

### 1. Temperature:

Operating: 10° to 35°C (50° to 95°F) with maximum temperature gradation of 10°C per hour

Storage: -40° to 65°C (-40° to 149°F) with temperature gradation of 20°C per hour

### 2. Relative humidity:

Operating: 8% to 85% (non-condensing) with maximum humidity gradation of 10% per hour

Storage: 5% to 95% (non-condensing)

### 3. Altitude

Operating: -16 to 3048 m (-50 to 10,000 ft)

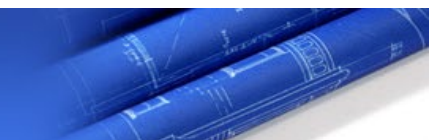
Storage: -16 to 10,600 m (-50 to 35,000 ft)

## **2.2.8 Certifications**

Emissions Classification (EMC): FCC Rating Class A

CISPR 22, EN55022, EN55024, FCC CFR 47, Pt 15, ICES-003,  
CvNS14336-1, CNS13438, GB4943, GB9254, EN 61000-3-2,  
EN61000-3-3

Directives: RoHS, Reach (SVHC), WEEE



## Version History

Version	Writer	Revision Date	Remarks
1.0	TS Suport	Nov. 19. 2020	Initial Release

