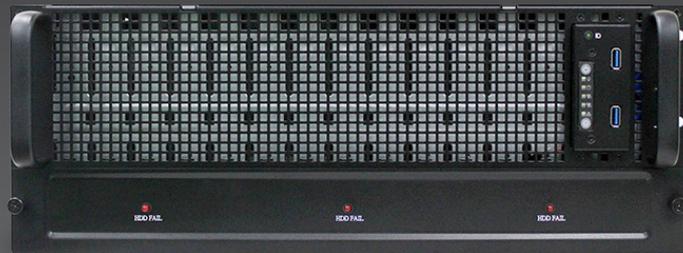


# HD PSN

## High-Density, Enterprise-Class Video Storage Device

**Synectics' High-Density PSN provides over 775TB of storage per unit.**



The High-Density PSN delivers real-time, evidential-quality recording of SD, HD, and 4K video streams from a variety of proprietary and third-party cameras and encoders, including ONVIF-compatible devices.

The HD PSN is engineered with non-proprietary, enterprise-class components for high-speed performance and ease of maintenance, ensuring exceptional data throughput and reliability.

### Flexible Storage Options

Customers can select the 'per unit' storage size to meet their site's needs – from large-scale, multi-site deployments to specific storage demands that require high resilience and redundancy.

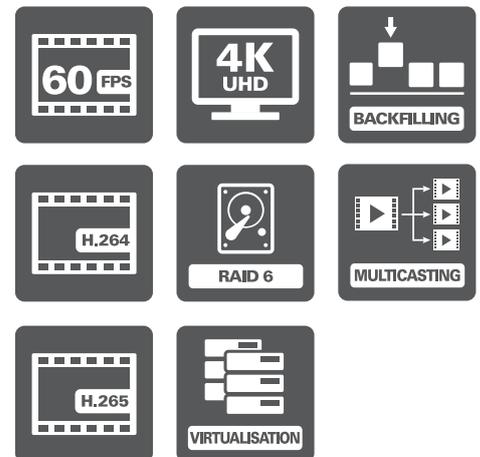
An ultra-high storage density of over 193TB per rack unit (RU) enables economic use of rack space, especially

for deployments with significant camera counts or long-term video retention requirements.

### Enterprise-Class Technology for Redundancy and Resilience

Redundancy is delivered via auto-rebuild storage arrays using 14TB and 16TB drives that can be hot-swapped during live operation to minimize downtime. Meanwhile, dual hot-swap power supplies, error-correcting RAM, and 4 x 10 Gigabit fiber Ethernet and 2 x 10 Gigabit copper connections ensure optimum resilience and uptime.

The High-Density PSN self-monitors server components and data integrity with automated user notification of critical errors. It also manages the auto-restart sequence in the event of a catastrophic failure such as power loss.



Through the Synergy 3 command and control platform, further safeguards can be configured for additional redundancy and resilience. These include camera prioritization to ensure the storage of high-value video footage and many-to-many server failover.

The use of virtualization technology maximizes performance and uptime. Recording management tasks are managed across multiple virtual machines, enhancing the uptime of video recording operations on the hardware.

### Storage Management to Meet Your Needs

Synectics' flexible, user-friendly storage management software allows users to individually configure each video stream's frame rate, resolution, retention, and data rate.

## Specifications

Streams can be configured to record real-time or time-lapse frame rates. Every recorded video stream is authenticated to 256-bit using SHA-2 hashing, applied at the point of recording to ensure video authenticity throughout its evidential life.

### High Data Throughput for Evolved Performance

The large storage capacity available with the HD PSN is complemented by high throughput capability, with up to 2.1 Gbps of continuous data input for each device. Individual streams can be configured as per user preference for complete control – a feature that is particularly useful where network bandwidths are limited and streaming is normally restricted to the camera capability.

### Network Video Protection

As video is increasingly being captured at the edge and transmitted across networks, protection against video loss in the event of network failure is essential. The PSN range is compatible with Synectics Backfilling technology, providing uninterrupted local device recording to protect data in the event of a network failure.

Synectics IP cameras, equipped with local recording storage media, can be configured in Synergy 3 to record constantly or when a network fails. Upon network restoration, Synergy 3 identifies any missing video on the networked storage servers and then automatically copies or 'backfills' the appropriate video from IP cameras or edge-encoded devices back to the storage devices. Video data is seamlessly and continuously restored to ensure there is no video loss.

PORTS	
Ethernet	2 x 10/100/1000/10GbE RJ45 for management and hardware alarms (teamable) 4 x 10GbE SFP+ for video reception / playback (teamed, 802.1q VLANs utilized) Minimum 2 x 10GbE SFP+ connections recommended, for redundancy (See the accessories section for compatible SFP+ modules)
USB	4 x USB 3.0 (2 Front, 2 Rear), 2x USB 2.0 (Rear)
Display	1 x VGA
APPLIANCE FUNCTIONALITY	
Inbound Stream Support <sup>*2/3</sup>	Up to 2.1Gbps (3x VMs with 700Mbps throughput)
Recorded Video Playback <sup>*4</sup>	Up to 40 cameras per VM PSN (120 per HD PSN)
Synectics Advanced Health Monitor	Yes
Advanced Out-of-Band Remote Management Service including IP-KVM	Yes
Synergy Advanced Alarms	Yes
Synergy Alarm Management System	Yes
O/S	Windows Server 2019 (hosting 3 virtual machines)
POWER	
Hot-Swap PSU	Yes (2 x 1600W PSUs in each model)
Power Consumption	Max 1600W, Normal 1000W
BTUs	Max 5460 per Hour, Typical 3412 per Hour

GENERAL	
Size <sup>*1</sup> (W x D x H)	435 mm x 955 mm (1000 mm incl. handles) x 177 mm / 17.1" x 37.6" (39.4" incl. handles) x 7"
Approximate Weight	100 kg / 220 lbs
Operating Temperature	18°C - 35°C (64°F - 95°F) recommended
Storage Temperature	-20°C - 80°C (-4°F - 176°F)
Humidity	5% to 90% non-condensing, 40% recommended
Certifications and Approvals	FCC CE

OPTIONS / ADDITIONAL FEATURES	
Synectics Backfilling technology	
Automatic RAID configuration and advanced monitoring	

PART CODES	
SYPSN4-4U-678TB	Synectics HD PSN 4U- 678TB (3x 226TB RAID 6) 14TB HDD
SYPSN4-4U-775TB	Synectics HD PSN 4U- 775TB (3x 258TB RAID 6) 16TB HDD

NOTE: \*1 1.5m Rack Recommended. \*2 Exclusively multicast video data. RMS-RTP video forwarding not supported. \*3 Where SD card backfilling is used, max recording rate is 1.905Gbps (635Mbps per VM). \*4 Supports up to 5.5Mbps video streams at 1x playback speed.

## Accessories

SYNECTICS PART CODES	DESCRIPTION
85-1180-0000	Intel E10GSFPSRX SFP+ SR Module (Extended Temp)
85-1180-0001	Intel E10GSFPSR SFP+ SR Module
85-1180-0002	Intel E10GSFPLR SFP+ LR Module