

# Intel® NUC for Smart DSS: Transforming Digital Security Surveillance



Intel® NUC for digital security and surveillance (DSS) solution combines the power and reliability of Intel® Solid State Drives (Intel® SSD) with advanced computer vision software from Sighthound\* for an affordable video analytics system powerful enough to mimic the human eye. Smart DSS is easy to install and affordable for consumers, as well as small businesses.

The Intel NUC for Smart DSS Package includes:

- Intel NUC NUC6i5SYH mini PC
- Sighthound Video\* 3.0.2 software
- VIVOTEK\* FD8169A cameras (2)

## Capitalizing on the Benefits of Intel® NUC

The emerging mini PC form factor of Intel NUC delivers strong performance for advanced computer analytics in a sub-0.65L size, making it a superior choice for network video recording (NVR) over conventional PC or proprietary solutions. Intel NUC with advanced computer vision from Sighthound\* offers the following benefits:

- **Power in a discrete size.** Leading-edge computer vision with a tiny, space-saving, and easy to hide form factor combines NVR and security workstation.
- **Versatility.** The Intel NUC can be easily tailored to specific deployment needs.
- **Cost effective.** Open standards and a broad ecosystem of developers and partners provide competitive, cost-effective solutions for specific implementations.

- **Better together with solid state drives (SSD).** Intel NUC is paired with Intel SSDs for seamless performance and enhanced capabilities. You'll get a system that works even better together.

## Sighthound Video with Computer Vision Software

Sighthound Video, running on Intel NUC, is artificial intelligence for your home or business. Unlike motion-sensor cameras that alert users to any motion event, including trees moving in the breeze and other common triggers, Sighthound can differentiate between people and objects it sees, alerting users only when true security threats arise. Sighthound Video features include:

- **Easy setup.** Install rapidly with software that automatically locates cameras.
- **Alerts.** Set rules that trigger mobile alerts, emails, or custom scripts. Using artificial intelligence, computer vision can determine what is happening and significantly reduce the number of false alerts.
- **Multi-cam support.** Sighthound Video supports nearly every brand of IP camera and webcam.
- **Custom zones.** Draw boxes around specific areas to capture people entering rooms, driveways, and other locations while masking areas to ignore.
- **Connect apps and devices.** Create powerful connections to a variety of apps and devices with IFTTT service.
- **Remote viewing.** Monitor a live view of the premises, review clips of events, and receive alerts on smartphones and mobile devices.
- **Custom schedules.** Define when cameras turn on and off, or delay recording by camera or zone.
- **Video search.** Find only the moments that matter with advanced search capabilities.
- **Set rules.** Customize the video source to determine what is analyzed, zones, and types of alerts with the Rule Editor.
- **ONVIF\* support.** Easily detect and configure compatible cameras with ONVIF support.
- **HD video.** Match video clips to any camera resolution.

## Step into the Future Today

Get started with Intel NUC for smart DSS. Contact your local dealer or distributor, or visit Intel at <http://www.simplynuc.com/dss>.

## Intel NUC for Smart DSS Package

**Table 1.** Solution System Specifications

ITEM	DESCRIPTION	NOTES
<b>Processor</b>	6th generation Intel® Core™ i5-6260U processor	1.9 GHz Turbo, Dual Core, 4 MB Cache, 15W TDP
<b>Memory</b>	Dual-channel DDR4 SODIMMs	1.2V, 2133 MHz, 8GB
<b>Operating System</b>	Microsoft Windows* 10 IoT Enterprise	KVM4NFV Real-Time Kernel version: 4.1.10-rt10
<b>Graphics</b>	Intel® Iris™ Graphics 540 1x full-size HDM* 1.4b 1x Mini DisplayPort* 1.2	
<b>Peripheral connectivity</b>	Up to 7.1 surround audio via HDMI* and Mini DisplayPort*	Headphone/Microphone jack on the front panel
<b>Storage</b>	Intel m.2 128GB SSD Toshiba* 1TB 2.5in HDD	SDXC slot with UHS-1 support on the side
<b>Networking</b>	Intel® 10/100/1000Mbps network connection Intel® Wireless-AC 8260 M.2 soldered-down, wireless antennas (IEEE 802.11ac, Bluetooth* 4.1, Intel® Wireless Display 6.0)	ODL* Beryllium
<b>Enclosure</b>	Silver with black top and diamond cut around the top Aluminum and plastic Dimensions: 115mm x 111mm x 48mm	
<b>Power adapter</b>	19V, 65W wall-mount AC-DC power adapter Multi-country plugs (IEC types A/C/G/1)	
<b>Additional features</b>	3-year limited warranty Support for customized branded lids Low-acoustics active cooling design Kensington* lock with base security 12-19V DC Power Input	
<b>Included in the box</b>	Intel® NUC Kit NUC6i5SYH integrated in enclosure <ul style="list-style-type: none"> <li>• VESA* mount bracket and mounting hole support</li> <li>• 19V, 65W wall-mount AC-DC power adapter with multi-country AC plugs</li> <li>• Processor badge</li> <li>• VIVOTEK* FD8169A Cameras (2)</li> <li>• Sighthound Surveillance Kit Quick Start guide</li> <li>• VIVOTEK* AW-FET-050A-065 POE Switch</li> </ul> Ethernet cable is required to connect cameras to NUC (NOT INCLUDED)	

Table 2. Sighthound Video\* 3.0.2 Specification

ITEM	DESCRIPTION	NOTES
Camera support	2 camera license included – can be upgraded to more cameras	
HD support	Supports native camera resolution	
ONVIF support	Detect and configure compatible cameras	
Remote access	Mobilize surveillance	Available on iOS*, Android*, and via web browser
IFTTT support	Connection to a variety of apps and devices	
Cloud support	Automatically upload important clips to a variety of cloud storage services	
External commands	Run scripts or applications for custom actions	

Table 3. VIVOTEK\* FD8169A Cameras Specifications

<b>SYSTEM</b>	
<b>CPU</b>	Multimedia SoC (System on a Chip)
<b>Flash</b>	128MB
<b>RAM</b>	256MB
<b>FEATURES</b>	
<b>Image Sensor</b>	1/2.9 Progressive CMOS
<b>Max Resolution</b>	1920x1080 (2MP)
<b>Lens Type</b>	Fixed-focal
<b>Focal Length</b>	f = 2.8 mm
<b>Aperture</b>	F1.8
<b>Field of View</b>	105° (Horizontal) 60° (Vertical) 109° (Diagonal)
<b>Shutter Time</b>	1/5 sec. to 1/32,000 sec.
<b>WDR Technology</b>	WDR Enhanced
<b>Day/Night</b>	Removable IR-cut filter for day & night function
<b>Min. Illumination</b>	0.06 Lux @ F1.8 (Color) 0.01 Lux @ F1.8 (B/W)
<b>Pan/Tilt/Zoom</b>	ePTZ: 48x digital zoom (4x on IE plug-in, 12x built-in)
<b>IR Illuminators</b>	Built-in IR illuminators, effective up to 20 meters with Smart IR LED*8
<b>On-board Storage</b>	MicroSD/SDHC/SDXC card slot Seamless Recording
<b>VIDEO</b>	
<b>Compression</b>	H.264 & MJPEG
<b>Max. Frame Rate</b>	30 fps @ 1920x1080 in both compression modes
<b>Max. Streams</b>	4 simultaneous streams
<b>S/N Ratio</b>	68.5 dB
<b>Dynamic Range</b>	69.4 dB
<b>Video Streaming</b>	Adjustable resolution, quality and bitrate Smart Stream II
<b>Image Streaming</b>	Time stamp, text overlay, flip & mirror configurable brightness, contrast, saturation, sharpness, white balance, exposure control, gain, backlight compensation, privacy masks Scheduled profile settings, 3D noise reduction, video rotation, defog
<b>Video Motion Detection</b>	Five-window video motion detection
<b>NETWORK</b>	
<b>Users</b>	Live viewing for up to 10 clients
<b>Protocols</b>	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/ RTCP, IGMP, SMTP, FTP, DHCP, NTP, DNS, DDNS, PPPoE, CoS, QoS, SNMP, 802.1X, UDP, ICMP, ARP, SSL, TLS
<b>Interface</b>	10 Base-T/100 BaseTX Ethernet (RJ-45) *It is highly recommended to use standard CAT5e & CAT6 cables which are compliant with the 3P/ETL standard.
<b>ONVIF</b>	Supported, specification available at <a href="http://www.onvif.org">www.onvif.org</a>
<b>ALARM AND EVENTS</b>	
<b>Alarm Triggers</b>	Motion detection, manual trigger, periodical trigger, system boot, recording notification, camera tampering detection
<b>Alarm Events</b>	Event notification using HTTP, SMTP, FTP and NAS server, SD Card File upload via HTTP, SMTP, FTP, NAS server and SD card
<b>GENERAL</b>	
<b>Connectors</b>	RJ-45 for Network/PoE connection
<b>LED Indicator</b>	System power and status indicator
<b>Power Input</b>	IEEE 802.3af PoE Class 0
<b>Power Consumption</b>	Max: 8.5 W
<b>Dimensions</b>	Ø: 129 mm x 94 mm
<b>Weight</b>	Net: 416.4 g
<b>Safety Certifications</b>	CE, LVD, FCC Class B, VCCI, C-Tick
<b>Operation Temperature</b>	Starting Temperature: 0°C ~ 50°C (32°F ~ 122°F ) Working Temperature: -10°C ~ 50°C (14°F ~ 122°F)
<b>Humidity</b>	90%
<b>Warranty</b>	24 months



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