

Hanwha Vision is a leading supplier of advanced video surveillance solutions for IP-video, analog and hybrid systems. Building on the company's history of innovation, Hanwha Vision is dedicated to providing systems solutions with the highest levels of performance, reliability and cost-efficiency. Hanwha Vision is committed to the continued development of innovative systems products for professional security applications.

For additional information, visit <https://www.hanwhavision.com/en/>, https://hanwhavisionamerica.com

1. **PRODUCTS**
	1. **EQUIPMENT**
		1. Manufacturer: Hanwha Vision (https://www.hanwhavision.com)
		2. Model: SPS-A100M
		3. Alternates: none
	2. **GENERAL DESCRIPTION**
		1. The device shall possess the following further characteristics:
			1. AI-based sound classification included
				1. Classified sound type: Crashing glass, Screaming, Vehicle horn, Tire screech
				2. Best sound (audio file)
				3. Event metadata support
				4. Sound direction with Direction Finding algorithm
			2. Five built-in MEMS microphones
			3. Built-in speaker (Max. Sound Pressure Level(PoE+) 90dB)
			4. Two way audio (Full-duplex mode)
			5. Indication LED ring (Initial and post-duration action setting)
			6. Milestone/Genetec integration support
		2. Interoperability – The device shall be ONVIF Profile S compliant.
	3. **DETAILED SPECIFICATIONS**
		1. Video
			1. Resolution: 1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360
			2. Max. Framerate
				1. Static image video
				2. H.265/H.264: Max. 10fps
				3. MJPEG: Max. 5fps
			3. Video Out: Micro USB Type C, 1280x720 for setting true north point using Wisenet installation
		2. Operational
			1. Analytics: AI Sound Classification
				1. Classified sound type: Crashing glass, Screaming, Vehicle horn, Tire screech
				2. Event metadata: Sound type, Sound direction, Confidence, Timestamp, Best sound (audio file), dB(±10dB)
				3. Sound direction (Celling mounting: ±15 degrees)
			2. Alarm I/O: 2 configurable I/O ports
			3. Alarm Triggers: Analytics, Network disconnect, Alarm input, App event (Sound classification), Time schedule, MQTT subscription, Case tampering
			4. Alarm Events: when alarm trigger occurred
				1. File upload(audio): e-mail/FTP
				2. Notification: e-mail
				3. Alarm output
				4. Handover: PTZ preset, send message by HTTP/HTTPS/TCP
				5. Audio clip playback (6MB, WAVWAV in mono/stereo from 64 kbps to 320 kbps, sampling rate from 16 kHz up to 48 kHz)
				6. MQTT: publication
				7. LED
				8. Speaker
			5. Audio Streaming: Two-way/one-way selectable, Full duplex, Echo cancellation and noise reduction
			6. Audio In: Five built-in MEMS MICs
			7. Audio Out
				1. Built-in speaker
				2. Max. Sound Pressure Level 90dB at 1m(3.28ft)
				3. Frequency Range: 144Hz~20kHz
			8. Light Type: LED Ring(Green, Blue, Red, Pink, Sky blue, Purple), Initial and Post-duration action setting
			9. Webpage Language: English, Korean, Simplified Chinese, Traditional Chinese, French, Italian, Spanish, German, Japanese, Russian, Portuguese, Czech, Polish, Turkish, Dutch, Hungarian, Greek
			10. Memory: 4096MB RAM, 512MB Flash
		3. Network
			1. Ethernet: RJ-45 connector(10/100 Base-T
			2. Audio Compression
				1. G.711 u-law /G.726 Selectable
				2. G.726(ADPCM) 8KHz, G.711 8KHz
				3. G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps
				4. AAC-LC: 48Kbps at 16KHz
			3. Streaming: Unicast(6 users) / Multicast, Multiple streaming(Up to 6 profiles)
			4. Protocol: IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour, LLDP, SRTP (TCP, UDP Unicast), MQTT
			5. Application Programming Interface
				1. ONVIF Profile S
				2. SUNAPI(HTTP API)
				3. Wisenet open platform: AI Sound Classification pack included
			6. Security Feature
				1. OS / Firmware Protect: Encrypted Firmware, Secure boot, Signed Firmware
				2. User authentication: Digest Authentication, Prevent brute-force attack
				3. Network authentication: IEEE 802.1X (EAP-TLS, EAP-LEAP, EAP-PEAP, MSCHAPv2)
				4. Secure Communication: HTTPS, WSS (WebSocket Secure)
				5. Access Control: IP-based access control
				6. Data Protect: Encryption Credentials, Encrypt compress for live recording file export
				7. Audit: User Access / System / Event Log management
				8. Device ID: Device certificate (Hanwha Techwin Root CA)
				9. Secure Storage: TPM
				10. Security Certificate: TPM with FIPS 140-3 level 3
		4. Environment and Electrical
			1. Operating Temperature & Humidity: -20°C ~ +55°C (-4°F ~ +122°F) / Less than 90% RH
			2. Storage Temperature & Humidity: -50°C ~ +60°C(-58°F ~ +140°F) / Less than 90% RH
			3. Certification: IEC/EN 63000
			4. Input Voltage: PoE+(IEEE802.3at, Class4)
			5. Power Consumption: Max 18.5W, typical 8.2W
		5. Mechanical
			1. Color/Material: White / Plastic, Aluminum
			2. RAL Code: RAL9003
			3. Dimensions: 215.1(W)x135.1(D)x52.8(H)mm (8.47" x 5.32" x 2.08")
			4. Weight: 973g(2.15 lb)
			5. Compatible Conduit Hole / Gangbox
				1. None / single, double, 4" octagon, 4" square
				2. Sold separately conduit hole accessory: SBP-060BA
			6. Hanging Mount(Dome): SBP-215HMWB
			7. Conduit Adaptor: SBP-060BA
		6. Certifications
			1. EMC
				1. FCC 47 CFR 15 Subpart B Class A
				2. ICES-3(A)/NMB-3(A)
				3. CE/UKCA: EN 55032 Class A, EN 50130-4, EN 61000-3-2, EN 61000-3-3
				4. VCCI CISPR 32 Class A
				5. RCM AS/NZS CISPR 32 Class A
			2. Safety
				1. UL 62368-1, CAN/CSA C22.2 NO. 62368-1
				2. IEC/EN 62471

END OF SECTION