

AXIS Q1656-DLE Radar-Video Fusion Camera

Next-level detection and visualization

This unique device fuses two powerful technologies to deliver next-level detection and visualization for reliable widearea intrusion protection 24/7. Video and radar analytics come together in AXIS Object Analytics to provide precise localization and object classification powered by deep learning and distance and speed measurements based on an object's radar signature and movement characteristics. By default, our intelligent fusion system handles notifications in the most advantageous way depending on what best suits the circumstances. Or, if you prefer, you can choose between minimizing false notifications or never missing a thing.

- > Two powerful technologies in one device
- > Increased scene intelligence
- > Accurate detection 24/7
- > Built-in cybersecurity features
- > Premium Axis Q-line camera functionality









AXIS Q1656-DLE Radar-Video Fusion Camera

Camera	1/1 Oll annuaring and DOD CMOS		Controllable frame rate and bandwidth VBR/ABR/MBR H.264/H.265	
Image sensor	1/1.8" progressive scan RGB CMOS		Video streaming indicator	
Lens	Varifocal, 3.9–10 mm, F1.5 Horizontal field of view: 96°–44° Vertical field of view: 63°–26° Autofocus, i-CS lens, IR corrected, remote zoom and focus, P-Iris control Minimum focus distance: 0.5 m (1.6 ft)	Image settings	Saturation, contrast, brightness, Forensic WDR: Up to 120 dB depending on scene, white balance, day/night threshold, tone mapping, exposure mode, exposure zones, defogging, electronic image stabilization, compression, dynamic text and image overlay, polygon privacy mask	
Day and night	Automatically removable infrared-cut filter	Pan/Tilt/Zoom		
Minimum	4 MP 25/30 fps with Forensic WDR and Lightfinder 2.0	Audio		
illumination	Color: 0.05 lux at 50 IRE, F1.5 B/W: 0.01 lux at 50 IRE, F1.5 4 MP 50/60 fps with Lightfinder 2.0 Color: 0.1 lux at 50 IRE, F1.5 B/W: 0.02 lux at 50 IRE, F1.5 0 lux with IR illumination on	Audio streaming	Two-way, full duplex Noise reduction	
		Audio encoding	24bit LPCM, AAC-LC 8/16/32/48 kHz, G.711 PCM 8 kHz, G.726 ADPCM 8 kHz, Opus 8/16/48 kHz Configurable bit rate	
Shutter speed	1/47500 s to 1 s	Audio input/output	External microphone input or line input, line output, ring power digital audio input, automatic gain control	
Radar			digital addio input, automatic gain control	
Sensor	FMCW (Frequency Modulated Continuous Wave)	Network Security	Password protection IP address filtering HTTPS ^d encryption	
Object data	Range, direction, velocity, object type	Security	Password protection, IP address filtering, HTTPS ^d encryption, IEEE 802.1x (EAP-TLS) ^d network access control, digest	
Frequency	Channel 1: 61.00-61.25 GHz Channel 2: 61.25-61.50 GHz		authentication, user access log, centralized certificate management, brute force delay protection, signed firmware, secure boot, signed video, Axis Edge Vault, Axis device ID, secu	
RF transmit power	<100 mW (EIRP) License free. Unharmful radio-waves.	Network	keystore (CC EAL4 certified), TPM (FIPS 140-2 certified)	
Recommended mounting height	3.5–12 m (11–39 ft) ^a	protocols	DiffServ, FTP, SFTP, CIFS/SMB, SMTP, Bonjour, UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, SRTP, TCP, U	
Recommended mounting tilt	15-45° ^a		IGMPv1/v2/v3, RTCP, ICMP, DHCPv4/v6, ARP, SOCKS, SSH, LLDP, MOTT v3.1.1, Syslog	
Detection range	5–60 m (16–200 ft) when detecting a person ^b 5–90 m (16–300 ft) when detecting a vehicle ^b	System integration Application Open API for software integration, including VAPIX® and		
Radial speed	Up to 55 km/h (34 mph)	Programming Interface	AXIS Camera Application Platform; specifications at axis.com One-click cloud connection	
Field of detection Speed accuracy		merrace	ONVIF® Profile G, ONVIF® Profile M, ONVIF® Profile S, and ONVIF® Profile T, specification at <i>onvif.org</i>	
Distance	+/- 2 km/h (1.25 mph)	Onscreen	Electronic image stabilization	
accuracy	0.5 m (1.6 ft)	controls Day/night shift Defogging		
Angle accuracy			Wide dynamic range Video streaming indicator	
Spatial differentiation	3 m ^c		IR illumination Heater	
Data refresh rate		Event conditions	Analytics, object data, external input, supervised external input, edge storage events, virtual inputs through API Radar motion detection Radar data failure Audio: audio detection Device status: above operating temperature, above or below operating temperature, below operating temperature, IP address removed, network lost, new IP address, shock detected, storage failure, system ready, within operating temperature, casing oper Edge storage: recording ongoing, storage disruption	
Coverage	2700 m ² (29000 sq ft)			
Object classification	Humans, vehicles			
Radar controls	Multiple detection zones, crossline detections, and exclude zones with filters for short-lived objects, object speed, and object type. Radar transmission on/off, reference map with rotation and cropping, grid opacity, zone opacity, color scheme, trail lifetime, detection sensitivity, swaying object filter, frequency channel			
System on chip	(SoC)		I/O: digital input, manual trigger, virtual input Scheduled and recurring: scheduled event	
Model	ARTPEC-8		Video: live stream open	
Memory	2048 MB RAM, 8194 MB Flash	Event actions	Overlay text, external output activation, play audio clip, zoom	
Compute capabilities	Deep learning processing unit (DLPU)	preset ' I/O: toggle I/O once, toggle I/O while the rule is active		
Video			Illumination: use lights, use lights while the rule is active MQTT: publish	
Video compression	H.264 (MPEG-4 Part 10/AVC) Baseline, Main and High Profiles H.265 (MPEG-H Part 2/HEVC) Main Profile Motion JPEG	Notification: HTTP, HTTPS, TCP, and email Pre– and post–alarm video or image buffering for recording of upload		
Resolution	16:9 2688x1512 Quad HD to 160x90 4:3 2016x1512 to 160x120		Record video: SD card and network share SNMP traps: send, send while the rule is active	
Frame rate	No WDR: Up to 60/50 fps (60/50 Hz) in all resolutions WDR: Up to 30/25 fps (60/50 Hz) in all resolutions	Data streaming	Upload of images or video clips: FTP, SFTP, HTTP, HTTPS, networ share, and email Video, radar, and fusion metadata with relative position, GPS	
Video streaming	Multiple, individually configurable streams in H.264, H.265 and Motion JPEG		position ^e , velocity, direction, and object type	

T10181402/EN/M2.2/2212 www.axis.com

B 114 1			
Built-in installation aids	Remote zoom and focus, remote back focus, leveling assistant, pixel counter		
Analytics			
AXIS Object Analytics	Object classes (radar-video fusion): humans, vehicles Object classes (video only): humans, vehicles (types: cars, buses, trucks, bikes) Trigger conditions: line crossing, object in area, object speed Detection sensitivity Up to 10 scenarios Metadata visualized with color-coded bounding boxes Polygon include/exclude areas Perspective configuration ONVIF Motion Alarm event		
Applications	Included AXIS Object Analytics AXIS Video Motion Detection AXIS Speed Monitor Supported Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/acap		
General			
Casing	IP66-, and NEMA 4X-rated, IK08 impact-resistant aluminum enclosure with integrated dehumidifying membrane weathershield with black anti-glare coating Color: white NCS S 1002-B For repainting instructions, go to the product's support page. For information about the impact on warranty, go to axis.com/warranty-implication-when-repainting.		
Sustainability	PVC free, BFR/CFR free, 2% recycled plastics, 6% bio-based plastics		
Power	Power over Ethernet (PoE) IEEE 802.3at Type 2 Class 4 Typical 10 W, max 25.5 W 10–28 V DC, typical 9.5 W, max 25.5 W Power redundancy		
Connectors	RJ45 10BASE-T/100BASE-TX/1000BASE-T PoE Terminal block for two supervised and two unsupervised configurable inputs / digital outputs (12 V DC output, max load 50 mA) RS485/RS422, 2 pcs, 2 pos, full duplex, terminal block DC input, terminal block, 3.5 mm mic/line in, 3.5 mm line out		
IR illumination	OptimizedIR with power-efficient, long-life 850 nm IR LEDs Range of reach 38 m (125 ft) or more depending on the scene		
Illumination LED	Power-efficient, long-life white LED Range of reach 18 m (60 ft) or more depending on the scene		
Storage	Support for microSD/microSDHC/microSDXC card Support for SD card encryption (AES-XTS-Plain64 256bit) Recording to network-attached storage (NAS) For SD card and NAS recommendations see axis.com		
Operating conditions	-40 °C to 60 °C (-40 °F to 140 °F) Start-up at -30 °C (-22 °F) Maximum temperature according to NEMA TS 2 (2.2.7): 74 °C (165 °F)		

	Humidity 10–100% RH (condensing)
Storage conditions	-40 °C to 65 °C (-40 °F to 149 °F) Humidity 5–95% RH (non-condensing)
Approvals	Radio EN 305550, EN 301489-1, EN 301489-3, EN 62311, FCC Part 15 Subpart C EMC CISPR 24, CISPR 35, EN 55032 Class A, EN 55035, EN 61000-3-2, EN 61000-3-3, EN 61000-6-1, EN 61000-6-2, FCC Part 15 Subpart B Class A, ICES-3(A)/NMB-3(A), EN 50121-4, IEC 62236-4, KS C 9832 Class A, KS C 9815, KS C 9835, KS C 9547, RCM AS/NZS CISPR 32 Class A, VCCI Class A Safety IEC/EN/UL 62368-1, IEC/EN/UL 60950-22, IEC 62471 Environment IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-6, IEC 60068-2-14, IEC 60068-2-27, IEC 60068-2-78, IEC/EN 60529 IP66, IEC/EN 62262 IK08, NEMA 250 Type 4X, NEMA TS 2 (2.2.7-2.2.9), ISO 21207 (Method B) Network NIST SP500-267
Dimensions	404 x 159 x 234 mm (16 x 6.3 x 9.2 in)
Weight	5 kg (11 lb)
Included accessories	AXIS T94Q01A Wall Mount, sunshield, connector kit, resistorx® T20 tool, installation guide, Windows® decoder 1-user license
Optional accessories	AXIS T8415 Wireless Installation Tool AXIS Surveillance Cards For more accessories, see axis.com
Supporting software	AXIS Radar Autotracking for PTZ (Slew to Cue) For supported cameras, see axis.com/products/axis-radar-autotracking
Video management software	AXIS Camera Station and video management software from Axis Application Development Partners available at axis.com/vms
Languages	English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Polish, Traditional Chinese
Warranty	5-year warranty, see axis.com/warranty
b. Measured at 5 i more informati c. Minimum dista d. This product ind	m mounting height, with 25° tilt. See user manual at axis.com for

- OpenSSL Toolkit. (openssl.org), and cryptographic software written by Eric Young (eay@cryptsoft.com).

 e. Enter the camera's GPS position manually to get the objects' GPS position in the data stream.

Environmental responsibility:

axis.com/environmental-responsibility

