AXIS D2050-VE Network Radar Detector
Accurate breach detection

AXIS D2050-VE Network Radar Detector is a reliable and accurate radar which detects approaching trespassers on your premises and provides accurate incident notifications in all weather conditions around the clock. With 120 degrees horizontal detection coverage and up to 50 meter/164 feet range, AXIS D2050-VE delivers exact position, angle of movement, and velocity of a moving object. Vandal protected and robust in outdoor environments, AXIS D2050-VE minimizes false alarms triggered by rain, snow, insects, or shadows. AXIS D2050-VE serves as a complement to video surveillance and enables filtering on distance, customizable detection zones, and AXIS Radar Autotracking for PTZ cameras.

> Accurate incident notifications at night and in all weather conditions
> Ability to filter on distance
> 120 degrees horizontal detection and up to 50 meter/164 feet range
> Compatible with major VMS suppliers
> Power over Ethernet Plus (PoE+)
# AXIS D2050-VE Network Radar Detector

## Radar
- **Sensor**: Phased array FMCW (Frequency Modulated Continuous Wave)
- **Object data**: Range, direction, velocity, object type
- **Frequency**: 24.05–24.25 GHz (channels 1 and 2)
- **RF transmit power**: <100 mW (ERP) License free in USA and Europe. No harmful radiation.
- **Detection range**: Min: 4.5 m (14 ft²) Max: up to 50 m (164 ft²)
- **Field of detection**: Horizontal: 120°
- **Distance accuracy**: 0.9 m [3 ft]
- **Angle accuracy**: ±0.5°
- **Spatial differentiation**: 2.5 m²
- **Data refresh rate**: 10 Hz
- **Coverage**: 2500 m² (27000 sq ft)
- **Object classification**: Small object, human, vehicle
- **Radar controls**: Filter, multiple detection areas, reference map, grid opacity, color scheme, trail lifetime, detection sensitivity

## Video
- **Video compression**: H.264 (MPEG-4 Part 10/AVC), Baseline, Main and High Profiles Motion JPEG
- **Resolution**: 1920x1080 HDTV 1080p to 640x360
- **Frame rate**: Up to 30 fps in all resolutions
- **Video streaming**: Multiple, individually configurable streams in H.264 and Motion JPEG Controllable frame rate and bandwidth VBR/ABR/MBR H.264

## Network
- **Security**: Password protection, IP address filtering, HTTPS encryption, IEEE 802.1X (EAP-TLS) network access control, digest authentication, user access log, centralized certificate management, signed firmware
- **Supported protocols**: IPv4/v6, HTTP, HTTPS, SSL/TLS, QoS Layer 3 DiffServ, FTP, STFTP, CIFS/SMB, SMTP, Bonjour, UPnP®, SNMP v1/v2c/v3 (MIB-II), DNS, DynDNS, NTP, RTSP, RTP, TCP, UDP, IGMP, RTCP, ICMP, DHCP, ARP, SSOCS, SSH, LLDP

## System Integration
- **Application Programming Interface**: Open API for software integration, including VAPIX® and AXIS Camera Application Platform; specifications at axis.com ONVIF® Profile G and ONVIF® Profile S, specification at onvif.org
- **Analytics**: Radar Motion Detection, Autotracking, Crossline, Speed filter Support for AXIS Camera Application Platform enabling installation of third-party applications, see axis.com/ocpd
- **Event triggers**: Analytics, external input, edge storage events, time scheduled Radar motion detection Intrusion alarm switch
- **Event actions**: File upload: FTP, STFTP, HTTP, HTTPS, network share and email Notification: email, HTTP, HTTPS and TCP External output activation, relay activation Video recording to edge storage Pre- and post-alarm video buffering Overlay text Status LED activation Send SNMP trap
- **Data streaming**: Event data Analytics data with object position and velocity
- **Built-in installation aids**: Reference map calibration

## General
- **Casing**: IP66, NEMA 4X- and IK08-rated Aluminum and plastic casing Color: White NCS S 1002-B

## Sustainability
- **PVC free**
- **Memory**: 1024 MB RAM, 512 MB Flash
- **Power**: Power over Ethernet (PoE) IEEE 802.3at, Type 2 Class 4 Typical 9 W, max 15 W
- **Radar angle adjustment**: Horizontal positions: 0° [default], -25°, +25°
- **Recommended mounting height**: 3.5 m (11 ft²)
- **Connectors**: RJ45 10BASE-T/100BASE-TX PoE Relay: 2-pin terminal block I/O: 6-pin 2.5 mm terminal block for four configurable inputs/outputs
- **Relays**: 1x 1 form A, 1 NO, max SA, 24 V DC Expected lifetime 25,000 operations
- **Storage**: Support for microSD/microSDHC/microSDXC card Support for SD card encryption Support for recording to network-attached storage (NAS)
- **Operating conditions**: -40 °C to 60 °C (-40 °F to 140 °F) Humidity 10–100% RH (condensing)
- **Storage conditions**: -40 °C to 65 °C (-40 °F to 149 °F)
- **Approvals**: Radar EN 300440 EMC EN 55032 Class A, EN 301489-1, EN 301489-3, EN 55024, EN 61000-6-1, EN 61000-6-2, FCC 47 CFR PT 15.249 and RSS-310 issue 4, FCC 47 CFR 15B Class A, IEC-003 Class A
- **Dimensions**: 285 x 206 x 136 mm (11 1/4 x 8 1/8 x 5 3/8 in)
- **Weight**: 2.5 kg (5.5 lb)
- **Included accessories**: Installation guide, connector kit, Windows decoder 1-user license
- **Optional accessories**: AXIS T9161 Wall Mount AXIS T91847 Pole Mount AXIS T9401B Corner Bracket AXIS T8415 Wireless Installation Tool 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, video management software from AXIS Application Development Partners available on axis.com/support/downloads
- **Languages**: English, German, French, Spanish, Italian, Russian, Simplified Chinese, Japanese, Korean, Portuguese, Traditional Chinese
- **Warranty**: Axis 3-year warranty and AXIS Extended Warranty option, see axis.com/warranty
- **Export control**: The product is subject to Export control regulations (ECN: 6A008.k.1). You should comply at all times with all applicable national and international (re-) export control.

### Notes:
- **a. Measured at 3.5 m (11 ft) mounting height, when detecting a person.**
- **b. Minimum distance between moving objects.**
- **c. This product includes software developed by the OpenSSL Project for use in the OpenSSL toolkit (openssl.org), and cryptographic software written by Eric Young (eay@cryptsoft.com).**
- **d. Internal radar module.**
- **e. Mounting at another height affects the detection range.**