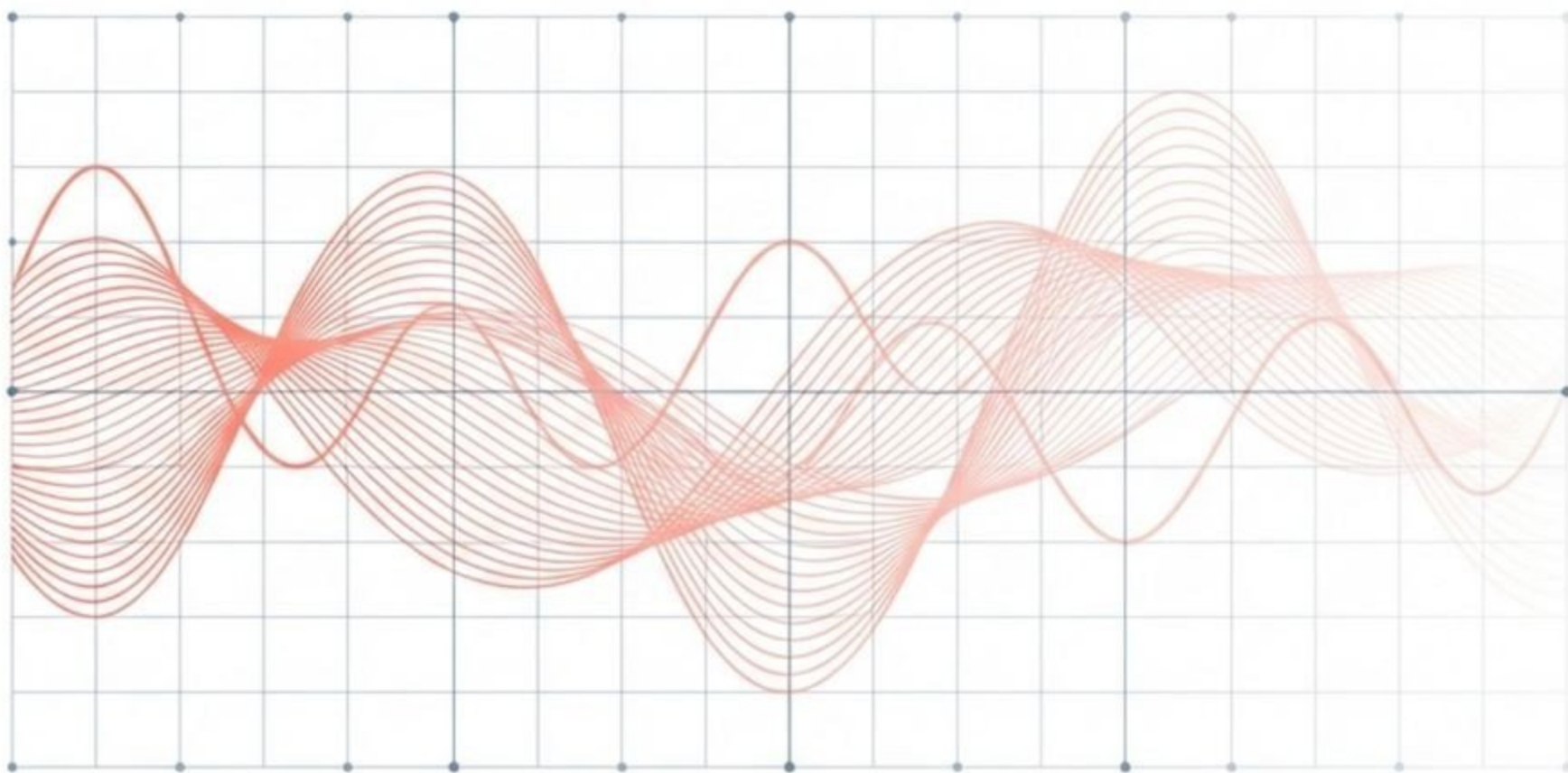
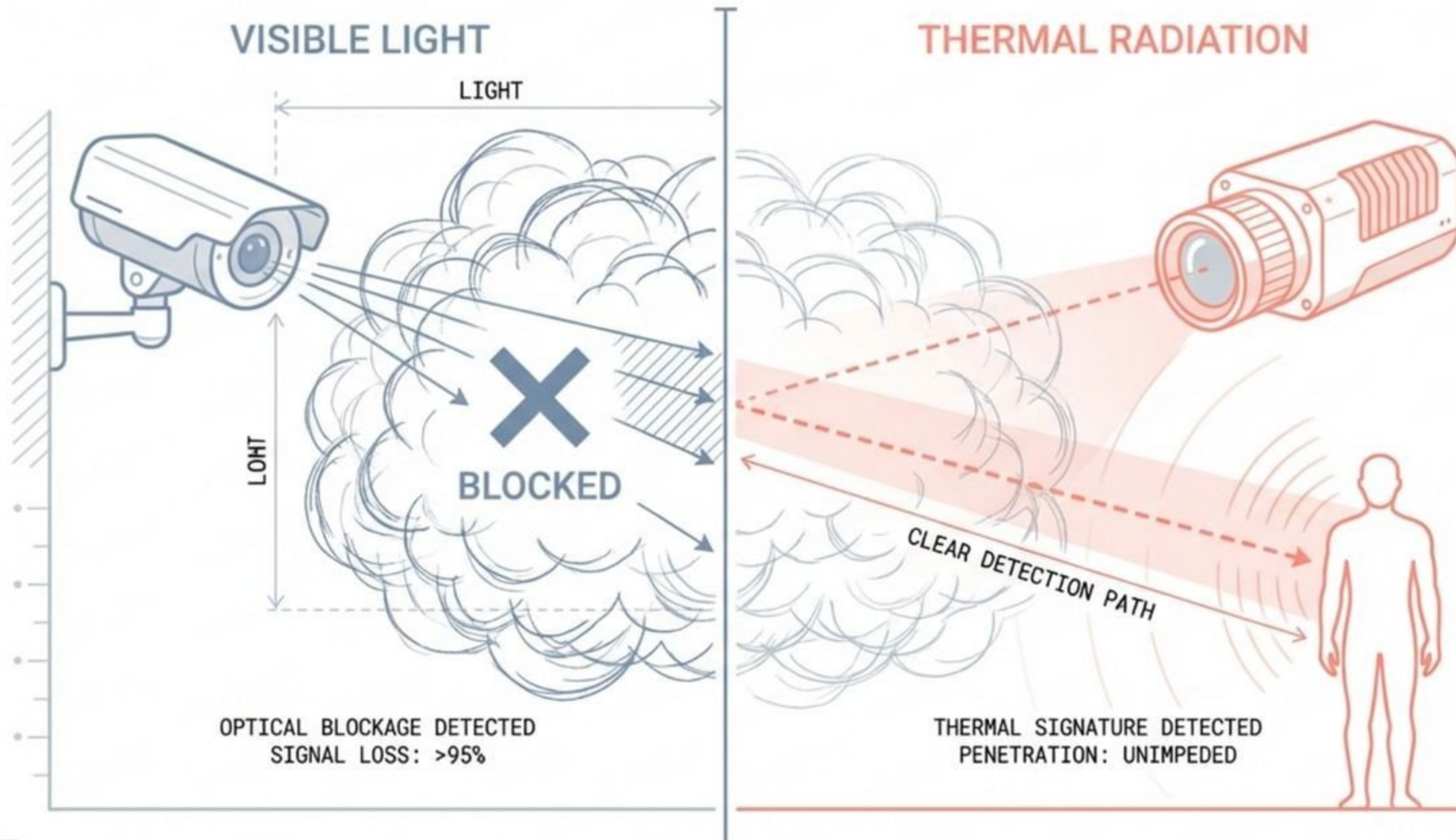


Thermal Surveillance



OVERVIEW

Principles of Infrared Detection



KEY PRINCIPLES

DEFINITION:

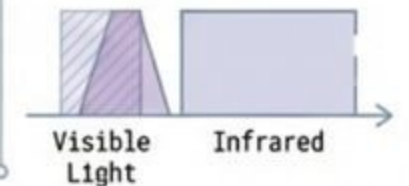
- Detection of infrared radiation emitted by objects, independent of visible light.

CORE CAPABILITIES:

- Enables true night vision, zero-light operation, and penetration through smoke, fog, and adverse weather.

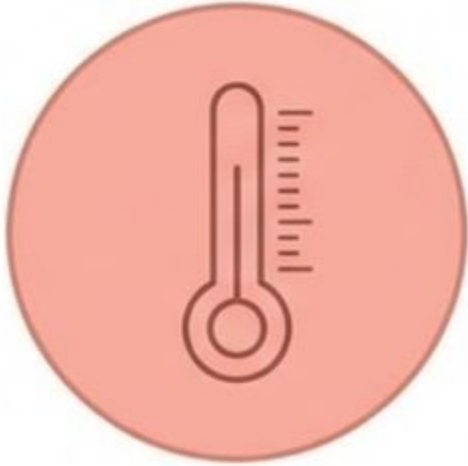
SPECTRUM:

- Operates effectively where optical imaging fails.



OVERVIEW

Key Technical Parameters



NETD (Noise Equivalent Temperature Difference)

Measures thermal sensitivity in millikelvins (mK). Lower values indicate higher sensitivity.

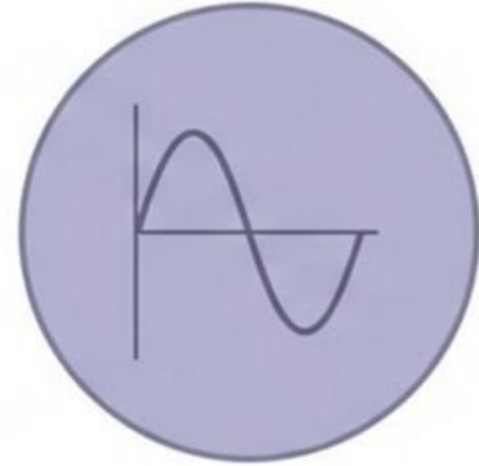
Example: 40 mK distinguishes 36.04°C from 36.00°C.



Spatial Resolution (IFOV)

Measured in milliradians (mrad). Determines the ability to resolve fine details at a distance.

Smaller IFOV = sharper detail.



Wavelength Range

LWIR (8–14 μm): Optimized for passive human detection.

MWIR (3–5 μm): Optimized for high-temperature industrial applications.

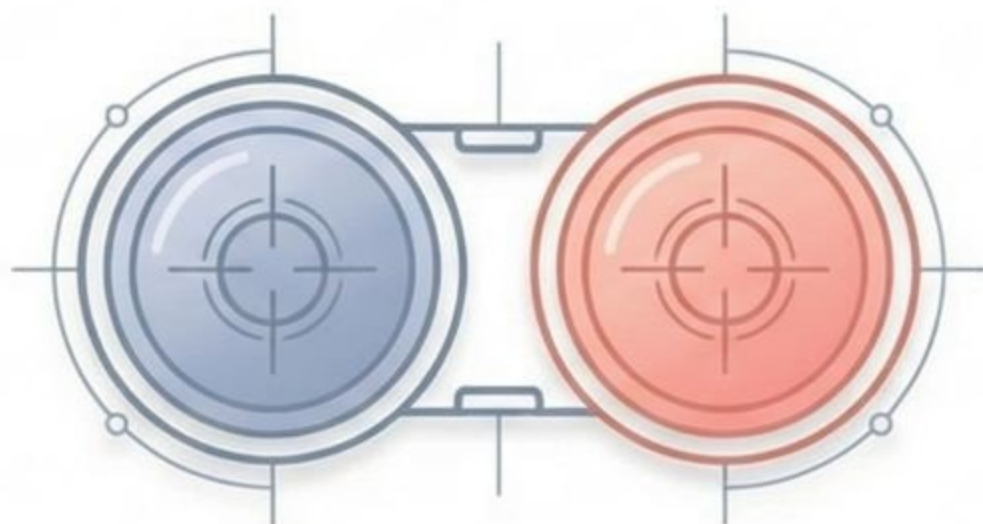
FEATURES

Advanced Detection and Dual-Lens Capabilities



Intelligent Events

Thermal Camera Events: Edge-based configuration to detect exceptions including Fire, Smoke, and Overheating. System sends alerts + thermal values directly to the NVR upon threshold breach.

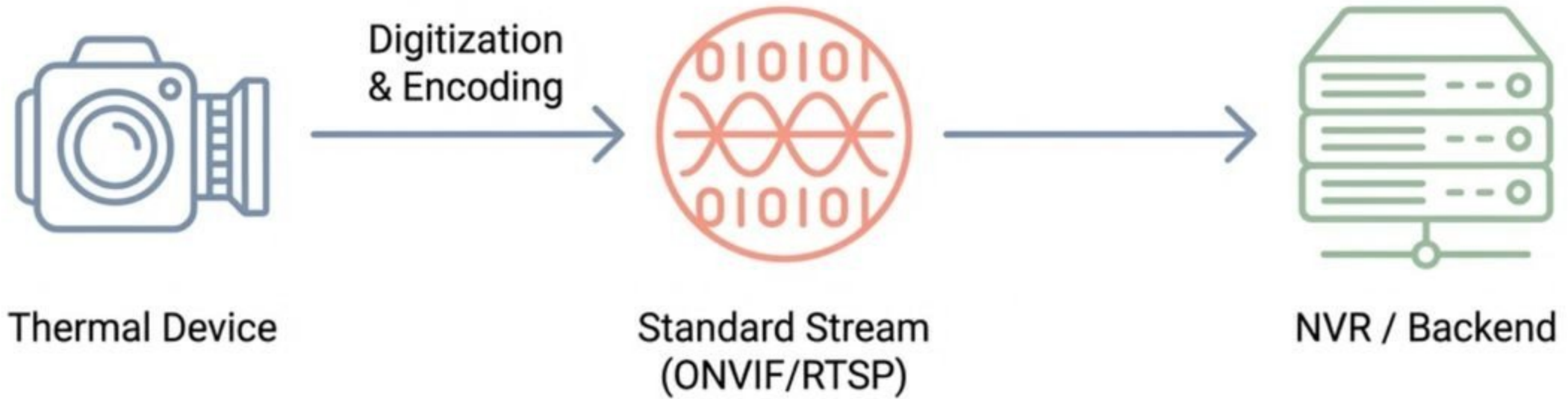


Bi-Spectrum Surveillance

Bi-Spectrum Technology: Combines two lenses (Thermal + Visual) in a single housing.

- Synergy in Roboto Mono:
Uses thermal precision for event detection and visual optics for color proof and verification.

ARCHITECTURES



-
- Digitization: Thermal video stream is digitalized internally.
 - Transmission: Delivered via standard IP surveillance protocols.
 - Integration: Recognized as a standard video channel by the NVR.

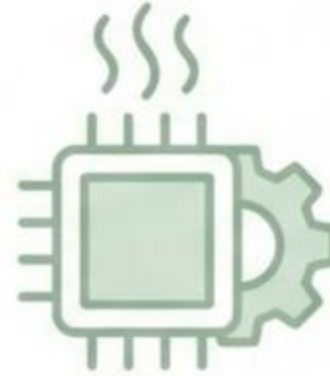
APPLICATIONS

Industrial Safety & Environmental Monitoring



Fire Detection Alert

Instantly alerts when temperatures exceed critical fire thresholds.



Overheating Detection

Monitors critical equipment for temperature spikes to prevent failure.



Smoke Detection

Provides early warnings based on thermal signatures of smoke columns.

APPLICATIONS

Security & Health Monitoring

Enhanced Intrusion Detection



Detects intruders in total darkness or camouflage where standard cameras fail.

Smoking Detection



Identifies smoking behavior and heat signatures in restricted areas.

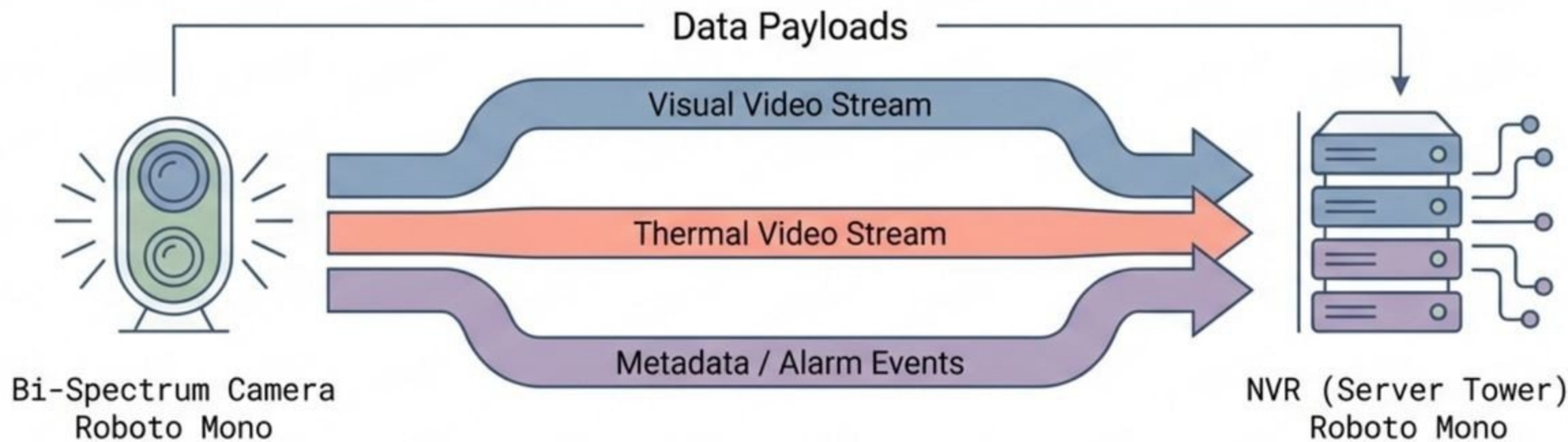
Human Body Temperature



Specialized models tuned to detect minute variances in skin temperature.

SOLUTIONS

NVR & System Integration



Dual Streaming: Simultaneous delivery of visual and thermal feeds.



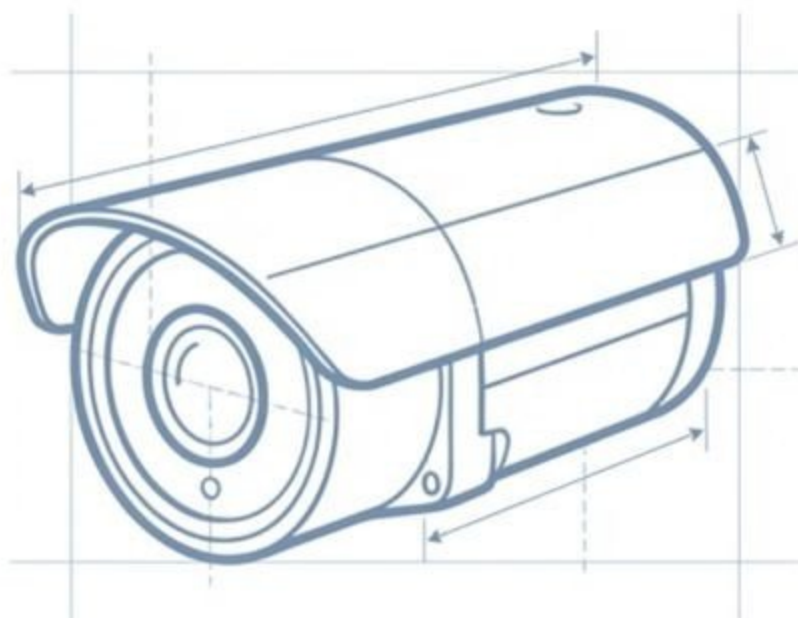
Event Integration: NVR processes specific tags: Fire Alarm, Smoke Alarm, High Temp Alarm.



Form Factors: Supported across Bullet, Turret, and PTZ configurations.

PRODUCT INTRODUCTION

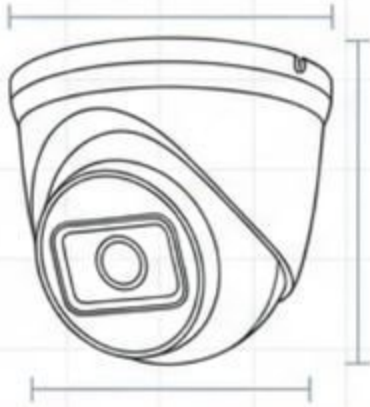
Thermal Bullet Series



SERIES	SPECS	MODELS
A37x Series	4MP / 5MP Resolution, Adaptive IR, Superior WDR, Built-in Analytics. Roboto Mono	A371, A372, A374, A375, A376, A377 (incl. P1/P2 variants) Roboto Mono
K37x Series	4MP Resolution, Superior Low Light Sensitivity, Built-in Analytics. Roboto Mono	K371, K372 (incl. P1/P2 variants) Roboto Mono
VMGB Series	4MP Resolution, Adaptive IR. Roboto Mono	VMGB-359, VMGB-370, VMGB-371 Roboto Mono

PRODUCT INTRODUCTION

Turret & Cube Series



Turret (A57x Series)

Specs 4MP, Outdoor Rated, Adaptive IR, Built-in Analytics, Superior WDR

Models A570, A571 (incl. P1/P2 variants)



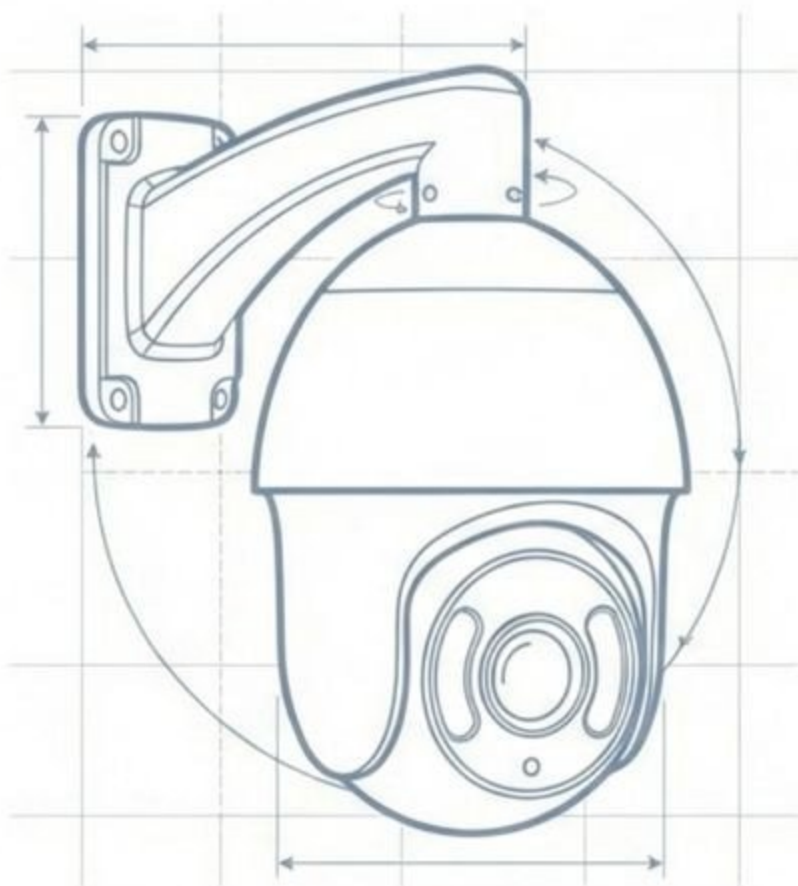
Cube (Q170)

Specs 4MP Thermal Cube, Basic WDR, Day/Night operation.

Models Q170

PRODUCT INTRODUCTION

PTZ & Positioning Systems



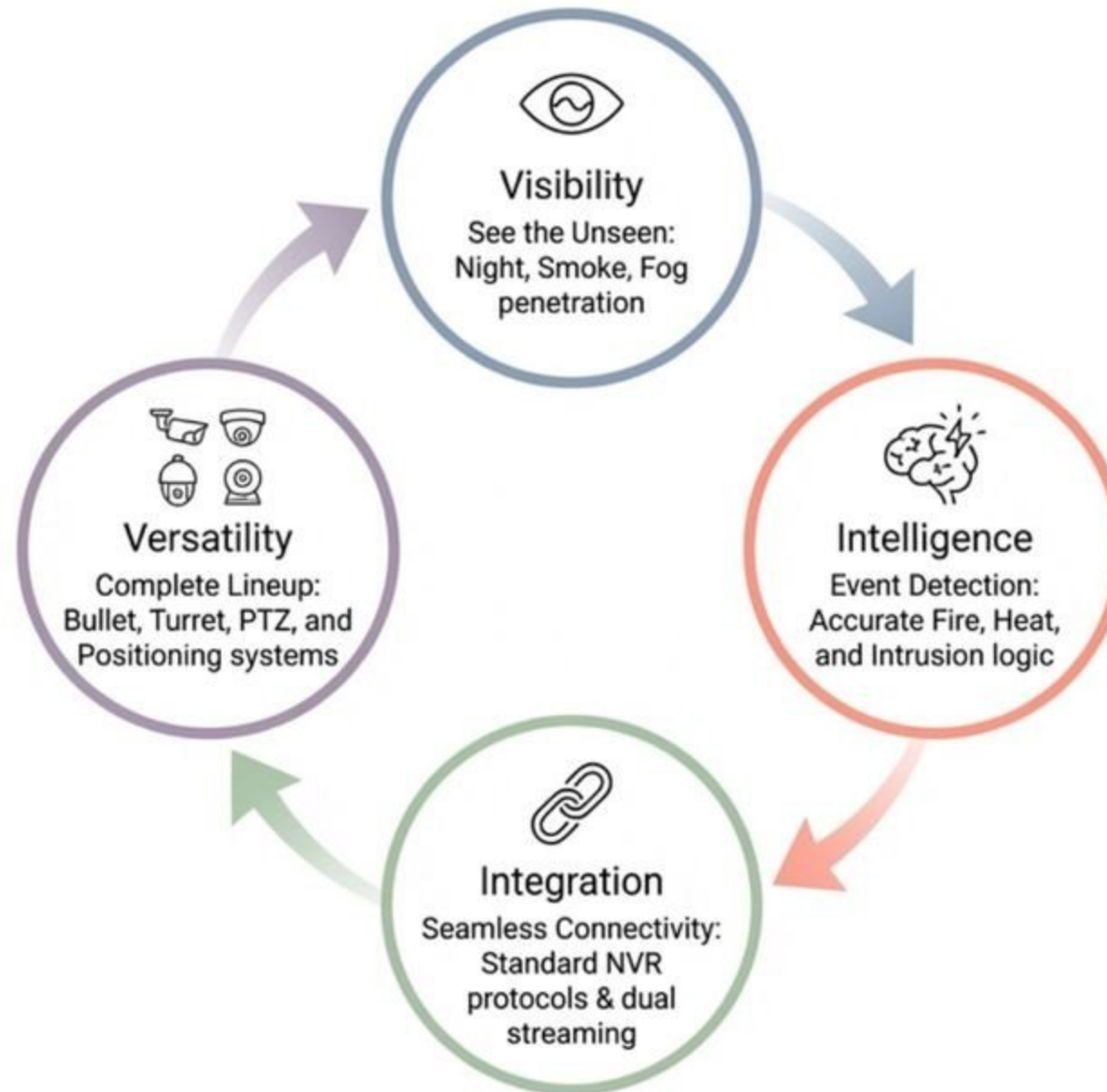
SERIES	HIGHLIGHT & SPECS	MODELS
PTZ (A97x Series)	32x Optical Zoom	
	4MP, Outdoor, Adaptive IR, Superior WDR, Analytics. Roboto Mono	A972, A973 Roboto Mono
Positioning System (Q98x Series)	56x / 60x Extreme Optical Zoom	
	4MP, Outdoor, Adaptive IR, Superior WDR, Analytics. Roboto Mono	Q981, Q982 (incl. P1/P2 variants) Roboto Mono

Product Introduction

Comparison & Selection Guide

Criteria	Option A	Option B
Imaging Needs	Pure Thermal (Detection) ✓	Bi-Spectrum (Verification + Color Proof) ✓
Coverage Area	Fixed (Bullet/Turret) for Perimeter ✓	Movable (PTZ/Positioning) for Wide-Area Tracking ✓
Distance & Detail	Fixed Lens (Standard Range) ✓	High Optical Zoom (32x-60x) for Long Range (Q/A9 Series) ✓

Summary



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