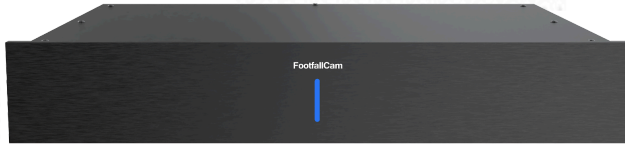# AI NVR

CENTROID

Product Code: FC-FCDVR01

KEY FEATURES

- Real time data processing
- Designed for human and vehicle detection
- Process up to 64x HD full-motion video streams
- Low-power edge intelligent video analytics
- FootfallCam Centroid works in conjunction with any CCTV cameras
- Data Metrics involved in the FootfallCam people counter can be computed by FootfallCam Centroid™

MULTI STREAM VIDEO ANALYSIS

- Can be connected to up to 32x CCTV cameras (for security and surveillance) and up to 64x CCTV cameras (for AI-video analytics) for maximum coverage and cost-effectiveness. The videos are processed in real time to generate in-depth data analytics. The aggregated data from each raw video stream are available to be accessed through FootfallCam V9™ with ready-made modules and reports.

OPTIMISED FOR ALL BUSINESS NEEDS

- FootfallCam Centroid™ carries out object detection and classification for any industry. Supported models include **People Counting**, **In-Store Analytics** (including Heatmap, Customer Engagement, Queue Counting, Occupancy Counting), **Crowd Counting** (more than 100 people per camera), **Demographics**, **Staff Exclusion**, **Person re-ID**, **Skeleton Tracking** (Product Engagement).

CCTV REQUIREMENTS

- Compatible processing data through Real-Time Streaming Protocol (RTSP)
- Allow direct video stream from RTSP-enabled IP Cameras or Network Video Recorders (NVR)
- Installed between 2 to 6 metres ceiling height with ideal mounting height between 3 to 4 metres.
- No distortion / fisheye lens on the analytic zone
- Minimum video resolution of 720p
- Minimum video frame rate of 10fps

GENERAL SPECIFICATION

Model	Centroid
Weight	5.4kg
Casing Colour	Black
Casing Material	Metal
Total Dimensions (mm)	419 (W) x 320 (D) x 68 (H)
Warranty	1 year from first allocation date (Warranty extension available upon request)
Input Power	AC 110-230V, 50~60Hz
Power Consumption	100W
CPU	Quad Cortex®-A76 @ 2.2~2.4GHz and Quad Cortex®-A55 @ 1.8GHz
GPU	Arm Mali™ G610MP4
NPU	Up to 48TOPs NPU
Memory	Up to 16GB 128-bit LPDDR4X
NVR Codec	H.265+, H.265, H.264
Video Encode	Refer table in page 4
Video Decode	Refer table in page 4
Multi Mode Input	Refer table in page 4
Record Mode	Manual > Alarm > Motion Detection > Timing
Local Playback	Up to 32CH (Analog / Network)
Search Mode	Search by Time, Calendar, Event, Channel
Video Input Port	Up to 16CH BNC / Up to 32CH RJ45 Network Port
Display (Centroid-8/16/32)	HDMI
HDD	1x SATA port (Up to 4 TB)
USB	2x USB 2.0 Ports
Network Port	RJ45 10M/100M
Origin	Designed in the UK, Assembled in Malaysia.

CENTROID SERIES

Smart AI Edge Analytics for Every Retail and Public Venue

In today's competitive retail and operations environment, real-time insights are no longer optional - they're essential. That's why FootfallCam offers three purpose-built variants of the **Centroid** - a next-generation AI edge device designed to transform your existing video infrastructure into a powerful engine of business intelligence.

Whether you operate convenience stores, department stores, shopping malls, or public venues, there's a Centroid built for your environment.

CENTROID-16

All-in-One AI Platform for Mid-Sized Stores
16 Channels | 2TB HDD | Analog or IP Input

IDEAL FOR:

- **Mid-size retail, department stores, larger format convenience chains, pharmacies**
- Businesses that want full in-store analytics while maintaining local storage for compliance

WHAT IT DELIVERS:

- Handles **16 channels** of live video for **real-time AI processing**
- Accepts either **analog or IP feeds** (ideal for hybrid stores)
- Enables **multi-zone analysis, staff/shopper interaction mapping,** and queue monitoring
- Built-in 2TB HDD for in-store data compliance and review

CENTROID-32

Balanced AI NVR for Growing Retail Chains
32 IP Channels | 4TB HDD | IP Input Only

IDEAL FOR:

- **Mid-to-large format retail stores, supermarkets, DIY chains, electronics stores**
- Retailers with **existing IP CCTV infrastructure**, scaling AI analytics across locations
- Businesses that want real-time AI without managing on-site video storage

WHAT IT DELIVERS:

- Supports up to **32 IP camera channels** for live AI processing
- Equipped with a **24 TOPS NPU** for real-time people tracking, dwell zones, and queue analytics
- IP-only input (RTSP), suitable for modern deployments without analog conversion
- Cloud-based data handling – ideal for centralised storage or analytics

CENTROID-64

Scalable AI Engine for Large-Scale Venues
64 IP Channels | No HDD | Pure Analytics Node

IDEAL FOR:

- **Large-format stores, malls, museums, airports, theme parks, smart cities**
- Environments with an existing IP CCTV network and centralised NVR system
- Customers requiring **massive-scale, real-time AI processing**

WHAT IT DELIVERS:

- Ingests up to **64 RTSP IP streams simultaneously**
- Optimised solely for **AI-based tracking, zone heatmaps, demographic analysis, staff efficiency**, and more
- Zero local storage: offloads anonymised event data to the **FootfallCam Cloud**
- Minimal footprint, scalable rollout, **built to standardise enterprise analytics**

Shared Intelligence Across the Range

All Centroid models are powered by FootfallCam's proprietary AI engine and are compatible with:

- FootfallCam Central Cloud for dashboarding and KPI insights
- Real-time staff tracking, shopper journey mapping, heatmap visualisation, and queue detection
- Monthly SaaS subscription includes AI model tuning, floorplan configuration, and remote maintenance
- Plug-and-play setup via existing video streams - no need to rip and replace your camera network

Choosing the Right Centroid

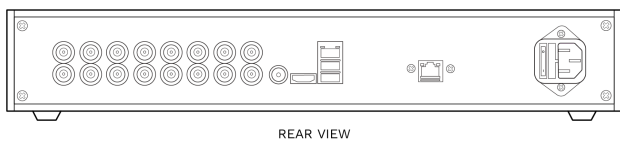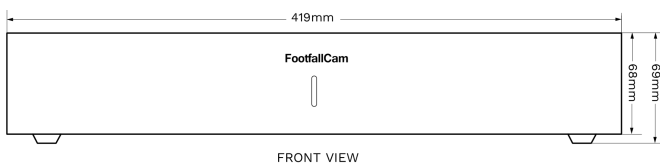| Feature	Centroid-16	Centroid-32	Centroid-64
Camera Channels	16	32	64
Input Type	Analog + IP	IP Only	IP Only
Local Storage	2TB	4TB	None
NVR Function	✅ Yes	✅ Yes	❌ No
AI Analytics	✅ Full	✅ Full	✅ Full
Ideal For	Mid-size retail	Mid to large stores	Large enterprises

THE FINAL WORD

With the Centroid family, FootfallCam empowers every store, mall, or public venue - regardless of size or system age - to gain deep, retail-specific insights from their video infrastructure.

- **Centroid-16:** For retailers modernising with hybrid systems and advanced analytics
- **Centroid-32**: For retailers who want to transform their IP CCTV system to advanced video analytics
- **Centroid-64:** For large operators demanding scale, speed, and full AI observability
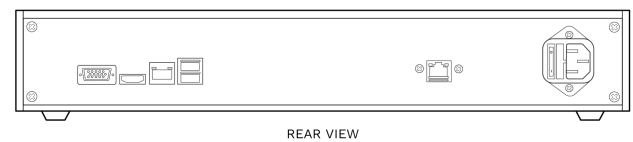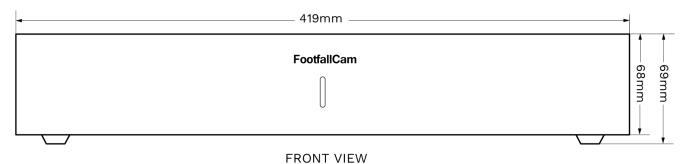
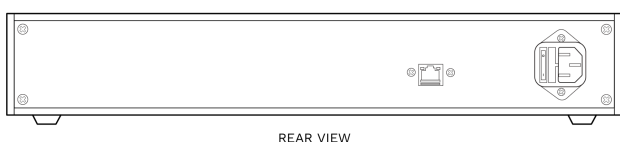**No rewiring. No guesswork. Just actionable insight at the edge**
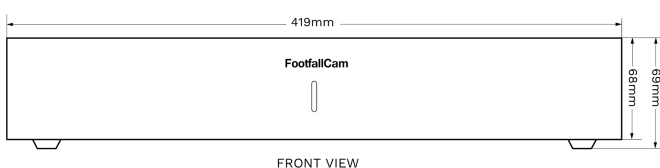
PRODUCT DIMENSION

Centroid-16

419mm, 69mm, 68mm, FRONT VIEW, REAR VIEW

Centroid-32

419mm, 69mm, 68mm, FRONT VIEW, REAR VIEW

Centroid-64

419mm, 69mm, 68mm, FRONT VIEW, REAR VIEW
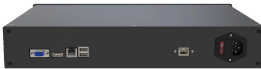
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Model	Centroid-16	Centroid-32	Centroid-64
Type	Hybrid NVR + AI	NVR + AI	AI
Weight	5.5 KG	5.5 KG	5.4 KG
Casing Colour	Black	Black	Black
Casing Material	Anodised Aluminum	Anodised Aluminum	Anodised Aluminum
Dimensions	68 mm x 320 mm x 419 mm	68 mm x 320 mm x 419 mm	68 mm x 320 mm x 419 mm
Input Power	AC 110~230V, 50~60Hz	AC 110~230V, 50~60Hz	AC 110~230V, 50~60Hz
Power Consumption	80W	100W	85W
CPU	Quad Cortex®-A76 @ 2.2~2.4GHz and Quad Cortex®-A55 @ 1.8GHz	Quad Cortex®-A76 @ 2.2~2.4GHz and Quad Cortex®-A55 @ 1.8GHz	Quad Cortex®-A76 @ 2.2~2.4GHz and Quad Cortex®-A55 @ 1.8GHz
GPU	Arm Mali™ G610MP4	Arm Mali™ G610MP4	Arm Mali™ G610MP4
NPU	16 TOPS	24 TOPS	48 TOPS
Memory	Up to 16GB 128-bit LPDDR4X	Up to 16GB 128-bit LPDDR4X	Up to 16GB 128-bit LPDDR4X
Video Compression	H.265+, H.265, H.264	H.265+, H.265, H.264	-
Video Encode	16*5M-N@6fps(6 in 1)/ 16*4M-N@8fps(6 in 1)/ 16*1080P@8fps(6 in 1)/ default 5M-N	4K（1+1）/ 5M（3+1）/ 4M（4+1）/ 3M（5+1）/ 1080P（8+2）	-
Video Decode	16*5M-N@6fps(6 in 1)/ 16*4M-N@8fps(6 in 1)/ 16*1080P@8fps(6 in 1)/ default 5M-N	4K（1+1）/ 5M（3+1）/ 4M（4+1）/ 3M（5+1）/ 1080P（8+2）	-
Video Playback	16*5M-N@12fps(6 in 1)/ 16*4M-N@15fps(6 in 1)/ 16*1080P@15fps(6 in 1)/ default 5M-N	4K（1+1）/ 5M（3+1）/ 4M（4+1）/ 3M（5+1）/ 1080P（8+2）	-
Video Input	Analog：16*5M-N; Hybrid：16*5M-N (Analog) + 4*1080P (Network); Network：48*1080P	36*4K	-
Video Preview	1/4/8/9/16	1/2/4/6/8/9/16/25/36	-
Record Mode	Manual > Alarm > Motion Detection > Timing	Manual > Alarm > Motion Detection > Timing	-
Search Mode	Search by Time, Calendar, Event, Channel	Search by Time, Calendar, Event, Channel, Face	-
Video Input Port	16CH BNC / RJ45 Network	RJ45 Network	RJ45 Network
Video Output Port	HDMI	HDMI	
USB	USB2.0*2	USB2.0*2	-
Network Port	RJ45 10M/100M	RJ45 10M/100M/1000M	RJ45 10M/100M/1000M
HDD	1*SATA port with 2TB Storage (Max 14TB)	1*SATA port with 4TB Storage (Max 14TB)	-

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