

NAV Facial Recognition Recorder

NAV5004F

www.meritlilin.com



HDMI



DisplayPort



H.264 / H.265



SSD



1080P



GbE

Introduction

"NAV5004F is the latest LILIN 4 channel facial recognition recorder which supports up to 10000 people database and can recognize up to 4 people at the same time on one channel at normal walking speed. No need to stop in front of the camera for 5 seconds. Furthermore it can be used with dome camera installed on ceiling. It support up to 30° ~ 45° degrees vertical angle and 40° ~ 50° side angle. It can accept up to 1080P resolution and support multiple video source such as ONVIF IP camera, RTSP stream, DHD device video input, USB CAM video input and playing with AVI video file. Accuracy rate under 0.01% false acceptance rate (FAR) can reach up to 99.7%. Support searching with smart face recognition feature and quick batch pictures import.

NAV5004F provides instant and accurate facial recognition with live AI-powered video analytics that is even capable of recognizing face mask people."

- built-in 1 × 500GB 2.5 Inch SATA SSD (OS)
- built-in 1 × 1TB 3.5 Inch SATA HDD (recording)
- Support up to 2 x 3.5 Inch SATA HDD
- Up to 4 people faces per channel at normal walking speed without stopping 5 seconds in front of camera
- Support up to 30° ~ 45° degrees vertical angle and 40° ~ 50° side angle.
- Up to 99.82% recognition rate (based on LFW), Accuracy rate under 0.01% False Acceptance Rate (FAR) can reach up to 99.7%.
- Full search time for 10000 pictures database is under 100 ms.
- Support smart face recognition add and quick batch pictures import
- Support Exclusion list, allowed list, denied list and 123 other group. Single group can support 10000 person.
- Support search face with picture, including unfiled strangers can be search also.

Basic Spec	
Network video support	LILIN IP camera, LILIN IP camera over HTTPS, LILIN Fisheye camera, LILIN IP speed dome, LILIN DVR/ NVR, LILIN DHD recorder, NAV live streaming, P2P live streaming, ONVIF camera, manual RTSP, screen capture, USB video input, picture capture
Chassis	4U Chassis
Network video input	Up to 4 channels 1080P / 3M / 4M / 5M / 8M / 12M
Input (Facial Recognition)	Up to 4 channels 720P/1080P (15~60fps)
Network video format	H.264 / H.265 / MJPEG
Maximum network throughput	Upload: up to 500Mbps, Download: up to 500Mbps
Internal HDD / Swap Drive Bay	built-in 1 × 500GB 2.5 Inch SATA SSD (OS) built-in 1 × 1TB 3.5 Inch SATA HDD (recording) Support up to 2 x 3.5 Inch SATA HDD
Video input	
Support quantity	Max. 4 channels
Camera name	20 characters
Channel editing	Mouse drag-n-drop
Fisheye Dewarp Mode	Ceiling and ground mounted, 1 R One Region, 3 R10 Three Regions One Fisheye, 4 R Four Regions, 2 R1P Two Regions One Panoramic 360, 2 P Two Panoramics 180, 8 R10 Eight Regions One Fisheye, Wall mounted, 1 R One Region, 3 R10 Three Regions One Fisheye, 4 R Four Regions, 2 R1P Two Regions One Panoramic 180, 1 WP One Wall Panoramic 180, 8 R10 Eight Regions One Fisheye
Digital zoom	Yes, ePTZ supported
Privacy Mask	Supported
Remote monitoring	Yes, web and NAV Client
Video output	
HDMI output	1 × HDMI Port 2.0b, (3840 × 2160@60Hz)
VGA output	No support
DisplayPort output	3 × DisplayPort 1.4, (4096 × 2160@60Hz)
Split screen	4
Dual stream technology	Multi-channel displays D1 and full screen displays 1080P / 3M / 4M / 5M / 8M / 12M resolution
Multi-screen	1 monitor support up to 4 channels
Recording mode	
Recording mode	Alarm, motion, schedule, and manual
Recording schedule	7 days × 24 hrs time table, recording mode configurable
Recording resolution & framerate	Max 12MP@20fps, 8MP@30fps, 5MP@30fps, 4MP@30fps, 3MP@30fps, 1080p@120fps, and ROI recording supported
Motion recording	4ch
Alarm recording	Remote digital input, remote IVS detection, remote face detection, remote tamper detection, remote audio detection, external IO, motion detection, NAV CGI Triggering, video loss detection, speed measurement detection, ANPR detection, facial recognition, remote LPR detection, QR code detection, aida behavior detection
Audio recording	Yes
Circular recording	Yes / size customizable
Limited recording	Yes / days customizable
Failover	Supported
Video archiving	Yes
Low bitrate recording	Yes
Remote network NAS	Support NAS (SMB/CIFS), iSCSI
Playback	
Playback search	Date, time, Smart search, Alarm search, POS, ANPR search, Face search, Face trace search (in FR server only), Tagging search
Playback resolution and framerate	Max 12MP@20fps, 8MP@30fps, 5MP@30fps, 4MP@30fps, 3MP@30fps, 1080p@120fps
Playback speed	Fast Rewind: 1/8, 1/4, 1/2, 1X, 2X, 4X, 8X, 16X, 32X Fast Forward: 1/8, 1/4, 1/2, 1X, 2X, 4X, 8X, 16X, 32X
Backup / Video input	Max. 4 channels, AVI & MP4 file format supported
Remote video	NAV Server / Navigator Client / DVR / NVR / IP camera SD card, maximum can support up to 4 channels playback and backup
Alarm / event	
Alarm management	Play audio file, send email notification, PTZ preset, digital output triggering, full screen, post alarm record, pre-alarm record, advanced alarm digital output, send customizable HTTP POST CGI URL to third party device, alarm ACK, alarm snapshot, text overlay, App cloud push notification, NCC TV wall ACK, NCC eMap Center Alarm, NCC play sound, NCC global alarm setting, all these action can be automatic or scheduled
Alarm recording	Pre-alarm:1 ~ 10 seconds and post-alarm: 1 sec ~ 59 minutes
Alarm Scheduling	Up to four alarm tables with AND logic
Alarm event actions	Various alarm log including video loss, stop recording, schedule, logon, operation log
Digital output	Controllable via IP cameras
Video archiving	
Video archiving & sync	Individual camera configurable, scheduling and instant archiving, sync recording data with NAV server / NVR / DVR / IP camera SD card.

Accessories	
Keyboard	PIH-931D keyboard controllable via rs-485 to usb converter for PTZ, ePTZ, and ROI features
Audio	PCM/G.711/AAC, two-way audio, audio recording
POS	Third party TCP/IP/ RS-232 / Bluetooth supported / HID USB Barcode scanner
Protocols	ARP / TCP/IP / RTSP / ONVIF / HTTP / HTTPS / SMTP / DNS / PPPoE / SDDP
Mobile support	LILIN Pro&Home, iPhone and Android
IP Scan	Supported, easy-to-setup for IP address
VMS support	Support NAV Client software
eMap	Supported
Hardware	
CPU	Intel® Core™ i7-10700
RAM	32GB (2 × DDR4 16GB)
Chipset	Intel® H410
Display card	1 × NVIDIA RTX2060
Ethernet Ports	LAN1: Intel® I219V with 1GbE LAN2: Intel® I210 with 1GbE
Audio	2 × Audio jack(s)
Rear panel USB port	5 x USB 3.2 (Gen2) Type-A 1 x USB 3.2 (Gen2x2) Type-C
Front panel USB port	1 x USB 3.0 Type-A
System fan	2 × 120mm front exhaust fans 2 × 80mm rear exhaust fans
SSD / HDD	built-in 1 × 500GB 2.5 Inch SATA SSD (OS) built-in 1 × 1TB 3.5 Inch SATA HDD (recording) Support up to 2 x 3.5 Inch SATA HDD Note: Do not use WD Purple HDDs for NAV HDD installation. Please use 7200RPM WD Red Pro for non-RAID installation, WD (Gold) Enterprise HDDs for RAID installation, or other Enterprise HDDs
Other	
Language	English, Traditional Chinese, Spanish, German, French, Russian, Japanese, Portuguese, Italian, Simplified Chinese, Slovenian, Czech, Hungarian, Turkish, Arabic, Persian, Bengali, Vietnamese
OS	Windows 10 embedded SAC 21H2
DST	Daylight saving time by Windows OS
Warranty	3 years
Power and environment	
Power consumption	700W
Power supply	110V ~ 240V
Operating Temperature	0°C ~ 50°C(32°F ~ 122°F)
Storage Temperature	-20°C ~ 70°C(-4°F ~ 158°F)
Relative Humidity	10% ~ 90% (non-condensing)
Dimension (mm)	177 (H) × 482 (W) × 650 (D) mm
Color	Black
Weight	35.27 lbs (16.0kg) - Net
Facial Recognition Datasheet	
Recognition speed	10 recognitions per second for a camera
Number of channels	4 cameras up to 40 recognitions / sec
Number of faces	Up to 4 people faces per channel at normal walking speed without stopping
Minimum Face Pixel requirement	80x80 pixels and above
Face Size(pixels between eyes)	50 pixels and above
Video resolution supported	720P, 1080P(15~60fps)
Database capacity	10000 person
Automatic build database function	Support
Face training database	up to 10 pictures per person 99.82% High Accuracy Recognition rate (based on LFW)
Recognition rate	Accuracy rate under 0.01% False Acceptance Rate (FAR) can reach up to 99.7%
Face Database Matching/ Searching (ms)	Full search time for 10000 pictures database is under 100 ms
Detectable face angle	Support up to 30°~45° degrees vertical angle and 40°~50° side angle
Face pose – Yaw angle	Under 45 degrees
Face pose – Roll angle	Under 45 degrees
Face pose – Pitch angle	Under 30 degrees
Environment minimum Lux	550 lux
Face photo db	Support smart face recognition add and quick batch pictures import
Face detected for alarm triggering	Play audio file, Send email notification, PTZ preset, digital output triggering, full screen, post alarm record, pre alarm record, advanced alarm digital output, send customizable HTTP POST CGI URL to third party device, alarm ACK, alarm snapshot, Text overlay, push notification to LILIN app, all these action can be automatic or scheduled
Face lists	Support Exclusion list, allowed list, denied list and 123 other group. Single group can support 10000 person
Schedule	4 scheduling tables for alarm outputs and DO triggering
Camera supported	ONVIF IP camera, RTSP stream, DHD video input, USB CAM video input and by playing AVI video file
Video recording	4 channels face recognition
Face trace search	Support