

## 1.0 Manufacturer

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## 2.0 Description

Manufacturer shall warrant the NAV08072A, NAV Recorder, to be free from defects in material and workmanship for three years from the installation date.

Central management software recorder (NAV recorder) is a total solution for managing network video products including IP cameras, NVR, and DVRs. NAV software HD contains (1) network video recording software, (2) emap manager, (3) database manager, (4) web server, and (5) remote DVR playback and file download.

Major features including up to 72 channels at 1080P/3M/4M/5M/8M H.264/MJPEG IP cameras and NVR/DVR's cameras recording, remote NVR/DVR video playback and file download, and camera groupings with user authentication are integrated within one system application.

One important feature of emap is the central management system for live monitoring, alarm snapshot management, and map management. IP devices installed at different locations can be represented and managed by using maps.

Circular recording, schedule recording, NAS recording, individual HDD recording configurable, and individual camera recording configurable provide the flexibilities in managing recording storages. NAV software is designated for hybrid solution for IP camera, video server, IP fast Dome, NVRs, and DVRs. It provides total solutions for digital surveillance.

## 3.0 General Specifications

NAV shall provide H.264/MJPEG decoding from IP camera.

NAV shall provide upload: up to 500Mbps/ download: up to 500Mbps for network throughput.

NAV shall support ONVIF Profile S, LILIN IP camera, LILIN IP PTZ dome, LILIN DVR/NVR, NAV Server.

NAV shall support 8 x Hot-swap 3.5" SATA HDD

NAV shall provide 7 days x 24 hrs. time table, recording mode configurable for recording schedule.

NAV shall provide alarm, motion, schedule, and manual recording mode.

NAV shall provide max 8MP@30 fps, 5MP@12 fps, 4MP@20 fps, 3MP@15 fps, 1080p@120 fps, and ROI recording supported.

NAV shall provide recording resolution for 3840 x 2160, 2592 x 1944, 2048 x 1536, 1920 x 1080, 1280 x 1024, 1280 x 768, 720 x 480, 720 x 576, 320 x 240.

NAV shall support audio recording.

NAV shall support circular recording and size customizable.

NAV shall support limited recording and days customizable.

NAV shall support video archiving.

NAV shall support low bitrate recording mode.

NAV shall support remote network RAID.

NAV shall support playback search for date, time, event, POS SmartSearch, motion SmartSearch, plate search (optional), record tagging.

NAV shall support playback resolution for 3840 x 2160, 2592 x 1944, 2048 x 1536, 1920 x 1080, 1280 x 1024, 1280 x 768, 720 x 480, 720 x 576), 320 x 240.

NAV shall support playback speed for FR: 1/8, 1/4, 1/2, 1X, 2X, 4X, 8X, 16X 32X FF: 1/8, 1/4, 1/2, 1X, 2X, 4X, 8X, 16X, 32X.

NAV shall support back up for max. 36 channels, AVI file format supported.

NAV shall support remote video playback for NAV Server/Navigator client/DVR/NVR/IP camera SD card supported, max. 36 channels.

NAV shall support video input for max. 72 channels.

NAV shall support camera name for 20 characters.

NAV shall provide run-time cameras' arrangement by using a mouse drag-n-drop.

NAV shall provide digital zoom feature for live monitoring and video playback.

NAV shall support user grouping authentication assignable for emap, and Navigator 2.0.

NAV shall support remote monitoring, web and NAV client.

NAV shall support HDMI output of 1 x HDMI port 1.4b (1920 x 1080@60Hz and 4096 x 2160@24Hz).

NAV shall support output of 1 x DisplayPort 1.2 (1920 x 1080@60Hz and 4096 x 2304@60Hz).

NAV shall support dual stream technology of multi-channel displays D1 and full screen displays 1080P/3M/4M/5M/8M resolution.

NAV shall support dual-screen, max. 72 channels.

NAV shall support TV wall of dual-screen, max. 72 channels 1080P/3M/4M/5M/8M.

NAV shall support split screen of 4, 9, 16, 25, 36.

NAV shall support video archiving & sync. (Individual camera configurable, scheduling and instant archiving, sync recording data with NAV server/NVR/DVR/IP camera SD card).

NAV shall support alarm recording of Face detection, audio detection, tamper, motion, IVS, DI alarm detection, and ANPR (optional).

NAV shall provide alarm management of alarm popup for full screen, pc sound, redirect IP camera's digital output, email snapshots, redirect a PTZ preset recall.

NAV shall provide alarm recording (alarm / event) of pre-alarm:1 – 10 seconds and post-alarm: 1 sec – 59 minutes.

NAV shall provide various alarm log including video loss, stop recording, schedule, logon, operation log.

NAV shall provide digital output controllable via IP cameras.

NAV shall support PIH-931D keyboard controllable via rs-485 for PTZ, ePTZ, and ROI features.

NAV shall provide audio function of PCM, two-way audio, audio recording.

NAV shall provide POS and barcode scanner function via PS/2 interface.

NAV shall provide protocols of ARP / TCP/IP / HTTP / SMTP / DNS / PPPoE / ONVIF.

NAV shall support LILIN viewer, iPhone and android.

NAV shall provide VMS of support NAV client VMS software.

NAV shall provide emap support.

NAV shall provide IP scan, easy-to-setup for IP address.

NAV shall provide CPU of Intel® Core™ I5-7500 Processor.

NAV shall provide chipset of Intel® H270.

NAV shall provide display card of Intel® HD Graphics 630.

NAV shall provide RAM of 2 x DDR4 8GB.

NAV shall provide CE certification.

NAV shall provide FCC certification.

NAV shall provide 5 x audio jack(s), 1 x S/PDIF.

NAV shall provide USB port of rear panel of 1 x USB 2.0.

NAV shall provide USB port of front panel of 6 x USB 3.0.

NAV shall provide 2 x 60mm rear exhaust fans.

NAV shall provide raid control of MEGA RAID SAS 9361-8I.

NAV shall support hardware RAID for RAID 0, 1, 5, 6, 10, 50. It should provide HDD failure detection and warning for a HDD hot-swapping replacement.

NAV shall provide SSD HDD of 1 x SATA 120GB SSD (OS System) NAV supports 7200RPM WD Red Pro for non-RAID installation, WD Gold enterprise HDDs for RAID installation.

NAV is capable of supporting failover for monitoring other cameras' connectivity and performing failover recording for the cameras if necessary.

NAV shall provide daylight saving time by Windows OS.

NAV shall support English, Traditional Chinese, Spanish, German, French, Russian, Japanese, Portuguese, Italian, Simplified Chinese, Czech, Slovenian, Hungarian, Turkish, Arabic, Persian, Bengali, Vietnamese.

NAV shall provide Windows 10 embedded.

NAV shall provide power consumption of 500W power supplies 80 PLUS Gold.

NAV shall provide power supply of 110V~240V.

NAV shall provide operating temperature of 0°C~60°C (32°F~140°F).

NAV shall provide storage temperature of 0°C~70°C (32°F~158°F).

NAV shall provide storage humidity of 0%~90%.

NAV shall provide dimensions of 438 mm x 450 mm x 88 mm.

NAV shall provide weight of 23.14 lbs. (10.50kg).

## **4.0 Installation**

All equipments shall be tested and configured based on the manufacturer guide line prior to installation.

All the products shall be updated for the latest firmware.

All the products shall be changed for the default username and password prior to installation.

## **5.0 Environmental Green Policy**

The specified camera shall be manufactured in accordance with ISO 14001.

The specified camera shall be compliant with the EU directives RoHS and WEEE.

The specified camera shall be compliant with the EU regulation REACH

END OF SECTION