



Navigator 16-Channel

1. Sixteen-Channel Digital Video Recorder

- 1.1. The Navigator is 16-channel digital video recorder shall work with up to 16 conventional analogue cameras and record and transmit images over a network.
- 1.2. Navigator 16 shall be as manufactured by Vista or an approved equal.
- 1.3. Navigator 16 shall include, but not be limited to the following:
 - 1.3.1. Navigator 16 shall provide 16 channels of analogue recording.
 - 1.3.2. Navigator 16 shall provide audio recording on one channel.
 - 1.3.3. Navigator 16 shall incorporate Triplex functionality for simultaneous viewing, playback and recording.
 - 1.3.4. Navigator 16 shall include full search capabilities by:
 - 1.3.4.1. Time
 - 1.3.4.2. Date
 - 1.3.4.3. Alarms
 - 1.3.4.4. Motion detection
 - 1.3.4.5. Camera
 - 1.3.4.6. Text
 - 1.3.4.7. Events
 - 1.3.4.8. Daily hours
 - 1.3.5. Navigator 16 shall provide a maximum frame rate of 25 frames per second, per channel with a maximum of 100 frames per second total per unit @ 2CIF.
 - 1.3.6. Navigator 16 shall be user configured via front panel controls or a connection via Ethernet with a personal computer running included, Nav Reader software and a current version of the Internet Explorer web browser.
 - 1.3.6.1. Navigator 16 shall have an integrated software interface to configure, upgrade, and view the following information:
 - 1.3.6.1.1. View live and recorded video
 - 1.3.6.1.2. Set up users
 - 1.3.6.1.3. Configure system settings
 - 1.3.6.1.4. Configure camera settings
 - 1.3.6.1.5. Search recorded video
 - 1.3.6.1.6. View the system information
 - 1.3.6.2. Access to menus shall be set by user status.
 - 1.3.6.2.1. Operator status shall grant access to Display and Info menus.
 - 1.3.6.2.2. Manager status shall grant access to Display, Info and User menus.
 - 1.3.6.2.3. Admin status shall grant access to all menus.
 - 1.3.6.3. Configurable options shall include:
 - 1.3.6.3.1. Archive
 - 1.3.6.3.1.1. Event
 - 1.3.6.3.1.2. Text
 - 1.3.6.3.1.3. Motion
 - 1.3.6.3.1.4. Time / Date
 - 1.3.6.3.1.5. Finalise (Archive to)
 - 1.3.6.3.2. Camera



- 1.3.6.3.2.1. Basic
 - 1.3.6.3.2.1.1. Colour / Monochrome
 - 1.3.6.3.2.1.2. Covert option
 - 1.3.6.3.2.1.3. Protocol (Vista-C, BBV-C, Dennard-C, Pelco-C & Vista PD)
- 1.3.6.3.2.2. Schedules (Seven differing profiles)
- 1.3.6.3.2.3. Video Motion Detection
- 1.3.6.3.2.4. W/ends & Holidays
- 1.3.6.3.2.5. Set Up
 - 1.3.6.3.2.5.1. Title
 - 1.3.6.3.2.5.2. Termination
 - 1.3.6.3.2.5.3. Contrast
 - 1.3.6.3.2.5.4. Colour (Hue)
- 1.3.6.3.3. Alarms
 - 1.3.6.3.3.1. Global
 - 1.3.6.3.3.2. Text Inputs
 - 1.3.6.3.3.3. Protection
 - 1.3.6.3.3.4. Responses
- 1.3.6.3.4. Network
 - 1.3.6.3.4.1. Basic
 - 1.3.6.3.4.2. Advanced
 - 1.3.6.3.4.3. Notification (E-mail Notification)
- 1.3.6.3.5. System
 - 1.3.6.3.5.1. Recording
 - 1.3.6.3.5.1.1. Record Format
 - 1.3.6.3.5.1.2. Transmission Format
 - 1.3.6.3.5.2. Date/Time
 - 1.3.6.3.5.2.1. Date / Time Set up
 - 1.3.6.3.5.2.2. Time Zone NTP Sync server
 - 1.3.6.3.5.3. Serial
 - 1.3.6.3.5.3.1. Protocols (Vista PD, DM-Serial, BBV-RS485, Dennard, Ernitec, JVC, Kalatel, Mark Mercer, Panasonic, Pelco-P, Pelco-D, Philips, Samsung, Sanyo, Sensormatic, Ultrak, Vantage, VCL, Vicon Philips-232AD-Matrix, AD168-Matrix, BBV-Matrix & VCL-Matrix)
 - 1.3.6.3.5.4. Audio
 - 1.3.6.3.5.4.1. Record Audio
 - 1.3.6.3.5.4.2. LAN Audio
 - 1.3.6.3.5.4.3. Record level
 - 1.3.6.3.5.4.4. Output Level
 - 1.3.6.3.5.5. Unit
 - 1.3.6.3.5.5.1. Unit name
 - 1.3.6.3.5.5.2. 1st camera number
 - 1.3.6.3.5.5.3. Language
 - 1.3.6.3.5.5.4. Unit number



- 1.3.6.3.5.5.5. Auto Camera Detect
 - 1.3.6.3.5.5.6. Video Loss
 - 1.3.6.3.5.5.7. Relay
 - 1.3.6.3.5.5.8. Upgrade
 - 1.3.6.3.5.6. Monitor
 - 1.3.6.3.5.7. Password
 - 1.3.6.3.5.7.1. User, Manager and Installer
 - 1.3.6.3.5.8. Information
- 1.3.7. Navigator 16 shall include a PC mouse capability for operation and set up.
- 1.4. The digital recorder shall have the following operational features:
- 1.4.1. Recording
- 1.4.1.1. Navigator 16 shall record video on multiple internal hard disk drives. Multiple hard disk drive options shall be available:
 - 1.4.1.1.1. 320GB hard disk drive
 - 1.4.1.1.2. 640GB hard disk drive
 - 1.4.1.1.3. 1.0TB hard disk drive
 - 1.4.1.2. Navigator 16 shall support the user programmable record speeds between 1 and 25 pps.
 - 1.4.1.3. Navigator 16 shall allow the user to select whether the hard disk recording should automatically overwrite data and how using one of three settings:
 - 1.4.1.3.1. Overwrite once
 - 1.4.1.3.2. Continuous overwrite
 - 1.4.1.4. Navigator 16 shall be able to continue recording without disruption when the user adjusts the normal record speed.
 - 1.4.1.5. The user shall be able to play back images smoothly at normal or fast speeds and in forward or reverse modes, without distortion.
 - 1.4.1.6. Navigator 16 shall include a Search Interface feature that allows the user to search the hard disk for recorded events, such as an alarm condition or a previous recording session.
 - 1.4.1.7. Navigator 16 shall use MPEG-4 video compression to achieve extremely high video compression per megabyte on the hard disk.
 - 1.4.1.7.1. MPEG quality shall be user -selectable on a scale of 5 through 45.
 - 1.4.1.7.2. Resolution shall be user-selectable as CIF or 2 CIF.
- 1.4.2. Connections
- 1.4.2.1. Navigator 16 shall include the following connectors:
 - 1.4.2.1.1. Accessory I/O ports
 - 1.4.2.1.1.1. RS-485/422 (1)
 - 1.4.2.1.1.2. Alarm input (16)
 - 1.4.2.1.1.3. Form C alarm relay (2)
 - 1.4.2.1.1.4. USB (2)
 - 1.4.2.1.2. RS-232 serial port: DB-9
 - 1.4.2.1.3. Composite video in: BNC (16) looping auto terminating
 - 1.4.2.1.4. Composite video out: BNC (3)
 - 1.4.2.1.5. Audio in: RCA (1)
 - 1.4.2.1.6. Audio out: RCA (1)
 - 1.4.2.1.7. 10/100 Ethernet: RJ-45



- 1.4.2.1.8. SATA for JBOD (1)
- 1.4.3. Ethernet communications
 - 1.4.3.1. Navigator 16 shall support LAN/WAN Ethernet access.
 - 1.4.3.2. Navigator 16 shall support 10/100 Base T networks.
 - 1.4.3.3. Navigator 16 shall support Dynamic IP Addressing (DHCP).
 - 1.4.3.4. Navigator 16 shall support Dynamic Domain Name Server (DDNS).
- 1.5. Navigator 16 shall have the following additional specifications:
 - 1.5.1. Video
 - 1.5.1.1. Horizontal resolution shall be 704 pixels (PAL).
 - 1.5.1.2. Vertical resolution shall be 240 active lines (PAL).
 - 1.5.2. Audio
 - 1.5.2.1.1. Audio Input/Output Full Scale Level: 1V RMS.
 - 1.5.2.2. Compression standard: MPEG-1
 - 1.5.3. Electrical
 - 1.5.3.1. Power supply: 100 to 240 VAC, 50/60 Hz, auto ranging
 - 1.5.4. Environmental
 - 1.5.4.1. Operating temperature range: 5 to 40°C
 - 1.5.4.2. Relative humidity: 10 to 85% non-condensing
 - 1.5.5. Physical
 - 1.5.5.1. Dimensions: 89 x 440 x 445 mm
 - 1.5.5.2. Weight: 10.5 kg
- 1.6. Navigator 16 shall conform to these internationally recognized compliance standards:
 - 1.6.1. CE
 - 1.6.2. RoHS
 - 1.6.3. WEEE

The Unit shall be a Navigator 16 Channel