4-channel HDCVI Recorder Kit
Four HDCVI IR Dome Cameras and One Penta-brid 1080p HDCVI DVR

System Overview
The Dahua Recorder kits provide all the components to quickly install, configure, and employ a complete video surveillance solution. The HDCVI cameras offer the clarity of Full HD 1080p video, and the HDCVI DVR offers built-in motion detection algorithms, alarm triggers, and customized recording modes. The kit features Dahua’s HDCVI technology that leverages an existing coaxial infrastructure, saving time and costs from running networking and power cables.

Functions
Long Distance Transmission
HDCVI technology guarantees real-time transmission over long distances without loss of video quality. HDCVI cameras provide the same resolution as most IP network camera systems using existing RG-59, RG-6, or CAT 6 UTP cabling.

Simplicity
HDCVI technology seamlessly integrates traditional analog surveillance systems with upgraded, high-quality HD video, making it the best choice to protect security investments. The plug and play approach enables full HD video surveillance without the hassles of configuring a network.

Flexible Recording
The HDCVI DVR offers a variety of configurable recording options and schedules that saves HDD space and active monitoring time. The HDCVI DVR monitors incoming video and can be programmed to record if motion is detected or if an alarm is triggered. The HDCVI DVR can also be programmed to record on a schedule or at different intervals. The recording options and schedules can be set for each individual camera or copied to all cameras.

HDCVI Camera
- 1080p at 30 fps Maximum Resolution
- 2.8 mm Fixed Lens
- Maximum IR Length 30 m (98 ft) with Smart IR
- IP67 Environmental Protection and IK10 Vandal Resistance

HDCVI DVR
- Embedded Processor
- Offers 720p (real-time) and 1080p (15 fps) Recording
- Four (4) HDCVI/AHD/TVI/CVBS Channels
- 24 Mbps Incoming Bandwidth

Smart IR
With IR illumination, detailed images can be captured in low light or total darkness. The camera’s Smart IR technology adjusts the intensity of camera’s infrared LEDs to compensate the distance of an object. Smart IR technology prevents IR LEDs from whitening out images as they come closer to the camera. The camera’s integrated infrared illumination provides high performance in extreme low-light environments up to 30 m (98 ft).

Camera Protection
The HDCVI camera complies with the IK10 Vandal Resistance impact rating making it capable of withstanding the equivalent of 55 kg (120 lbs) of force. Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating makes it suitable for demanding outdoor applications.

Environmental
The HDCVI cameras operate in extreme temperature environments, rated for use in temperatures from -40° C to +60° C (-40° F to +140° F), allowing the camera to operate in the harshest environments.

The HDCVI DVR features an operating temperature of -10° C to +55° C (+14 °F to +131 °F).
## Technical Specification - HDCVI Cameras

### Camera
- **Image Sensor**: 1/2.9-in. CMOS
- **Effective Pixels**: 1920(H) x 1280(V), 2 MP
- **Scanning System**: Progressive
- **Electronic Shutter Speed**: 1/30 s to 1/100000 s
- **Minimum Illumination**: Color: 0.02 lux at F2.0 0 Lux (with IR on)
- **S/N Ratio**: More than 65 dB
- **IR Distance**: Up to 30 m (98 ft)
- **IR On/Off Control**: Auto, Manual
- **IR LEDs**: 12

### Lens
- **Lens Type**: Fixed Lens / Fixed Iris
- **Mount Type**: Board-in
- **Focal Length**: 2.8 mm
- **Max Aperture**: F2.0
- **Angle of View**: 106°
- **Close Focus Distance**: 500 mm (19.7 in.)

### Pan / Tilt / Rotation
- **Range**: Pan: 0° to 355°  Tilt: 0° to 65°  Rotation: 0° to 355°

### Video
- **Resolution**: 1080p (1920 x 1080)
- **Frame Rate**: 1080p at 30 fps  720p at 30/60 fps
- **Video Output**: One (1) BNC HDCVI High-definition Channel or One (1) BNC CVBS, AHD or TVI Channel, switchable
- **Video Transmission**:
  - RG-59/U Coax: 720p: 800 m (2624.67 ft)  1080p: 500 m (1640.42 ft)
  - RG-6/U Coax: 720p: 1200 m (3937.01 ft)  1080p: 800 m (2624.67 ft)
  - CAT 6 UTP (balun required): 720p: 450 m (1476.38 ft)  1080p: 300 m (984.25 ft)
- **Day/Night**: Auto (ICR), Manual
- **OSD Menu**: Multi-language
- **BLC Mode**: BLC, HLC, DWDR
- **WDR**: Digital WDR
- **Gain Control**: AGC
- **Noise Reduction**: 2D
- **White Balance**: Auto, Manual
- **Smart IR**: Auto, Manual

### Certifications
- **Safety**: EN55032, EN55024, EN50130-4  UL60950-1+CAN/CSA C22.2 No.60950-1
- **Electromagnetic Compatibility (EMC)**: FCC CFR 47 FCC Part 15 Subpart B  ANSI C63.4-2014
- **Electrical**
  - **Power Supply**: 12 VDC ±25%
  - **Power Consumption**: Max 2.6 W (12 VDC with IR on)
- **Environmental**
  - **Operating Conditions**: -40° C to +60° C (-40° F to +140° F), Less than 95% RH  Initiate startup above -40° C (-40° F)
  - **Storage Conditions**: -40° C to +60° C (-40° F to +140° F), Less than 95% RH
  - **Ingress Protection**: IP67
  - **Vandal Resistance**: IK10

### Construction
- **Casing**: Aluminium
- **Dimensions**: ø109.90 mm x 81.0 mm (ø4.33 in. x 3.19 in.)
- **Net Weight**: 0.31 kg (0.68 lb)
- **Gross Weight**: 0.41 kg (0.90 lb)

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1. Transmission distance results verified by real-scene testing in Dahua’s test laboratory. Actual transmission distances may vary due to external influences, cable quality, and wiring structures.

www.dahuasecurity.com/en/us
## Technical Specification - HDCVI DVR

### System
- **Main Processor**: Embedded Processor
- **Operating System**: Embedded LINUX

### Display
- **Interface**: One (1) HDMI, One (1) VGA
- **Resolution**: 1920 × 1080, 1280 × 1024, 1280 × 720, 1024 × 768
- **Multi-screen Display**: 1/4/6
- **On-screen Display Options**: Camera Title, Time, Video Loss, Camera Lock, Motion Detection, and Recording

### Video Detection and Alarm
- **Trigger Events**: Recording, PTZ, Tour, Alarm Out, Video Push, Email, FTP, Snapshot, Buzzer, and Screen Tips
- **Video Detection**: Motion Detection, MD Zones: 396 (22 × 18), Video Loss, Tampering, and Diagnosis
- **Alarm Input**: Eight (8)
- **Relay Output**: Three (3)

### Playback and Backup
- **Playback**: 1/4
- **Search Mode**: Time / Date, Alarm, Motion Detection, and Exact Search (accurate to 1 second)
- **Playback Function**: Play, Pause, Stop, Rewind, Fast Play, Slow Play, Next File, Previous File, Next Camera, Previous Camera, Full Screen, Repeat, Shuffle, Backup Selection, and Digital Zoom
- **Backup Mode**: USB Device, Network

### Storage
- **Internal HDD**: One (1) SATA Port
- **HDD Mode**: Single

### Auxiliary Interface
- **USB**: Two (2) USB 2.0 Ports
- **RS485**: One (1) Port, for PTZ Control

### Third-party Support
- **Third-party Support**: Dahua, Arecont Vision, AXIS, Bosch, Brickcom, Canon, CP Plus, Dycanlor, Honeywell, Panasonic, Pelco, Samsung, Sanyo, Sony, Videotec, Vivotek, and others

### Audio and Video
- **Analog Inputs**: Four (4) Channels
- **IP Inputs**: 4 + 2 Channels
- **Resolution**: Analog: 1080p, IP: Up to 5 MP per Channel
- **Audio Connections**: Inputs: Four (4) Channels, Output: One (1) Channel
- **Two-way Talk**: Reuse Audio In (channel 1) / out, RCA

### Recording
- **Compression**: Smart.H.264+, H.264
- **Resolution**: 1080p, 720p, 960H, D1, HD1, BCIF, CIF, QCIF
- **Record Rate**: Main Stream 1080p at 1 to 15 fps or 1080N, 720p, 960H, D1, HD1, BCIF, CIF, QCIF at 1 to 30 fps
- **Bit Rate**: 1 Kbps to 6144 Kbps per channel
- **Record Mode**: Manual, Schedule (Regular, Continuous), Motion Detection (Video Detection: Motion Detection, Video Loss, Tampering), Alarm, Stop
- **Record Interval**: 1 to 60 minutes (default: 60 minutes)
- **Pre-record**: 1 s to 30 s
- **Post-record**: 10 s to 300 s

### Network
- **Interface**: One (1) RJ-45 Port (100 M)
- **Network Function**: HTTP, TCP/IP, IPv4/IPv6, UPnP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE, DDNS, FTP, Alarm Server, P2P, IP Search (Supports Dahua IP cameras, DVRs, NVS)
- **Max. User Access**: 128 users
- **Mobile Operating System**: iOS and Android
- **Interoperability**: ONVIF 2.4.1, CGI Conformant

### Electrical
- **Power Supply**: 12 VDC, 2 A
- **Power Consumption**: < 10 W, without HDD

### Environmental
- **Operating Conditions**: -10° C to +55° C (+14 °F to +131 °F), 86 to 106 kpa
- **Storage Conditions**: 0° C to +50° C (+32 °F to +122 °F), 0 to 90% RH

### Construction
- **Dimensions**: Mini 1U, 325.0 mm × 255.10 mm × 55.0 mm (12.80 in. x 10.0 in. x 2.20 in.)
- **Net Weight**: 1.50 kg (3.30 lbs), without HDD
- **Gross Weight**: 2.0 kg (4.40 lbs)
- **Installation**: Desktop installation

### Certifications
- **Safety**: Conforms to UL Standard
- **Electromagnetic Compatibility (EMC)**: FCC Part 15 Subpart B, ANSI C63.4 – 2014, ICES 003

### Intelligence (available on 1 IP channel)
- **IVS triggers an alarm and takes a defined action for the following events:**
  - Tampering with the camera
  - Error writing to an onboard Micro SD card
  - Error sending or receiving data over the network
  - Unauthorized access to the camera

### Standard Features
- Tampering with the camera
- Error writing to an onboard Micro SD card
- Error sending or receiving data over the network
- Unauthorized access to the camera

### Premium Features
- **Motion**: An object moves through any part of the scene.
- **Tripwire**: A target crosses a user-defined line.
- **Intrusion**: A target enters or exits a defined perimeter.
- **Scene Change**: A person or object moves the camera to change the scene or covers the camera to obscure the scene.
- **Abandoned/Missing Object**: A target leaves an object in designated area, or a target removes an object from the same designated area.
## Ordering Information

<table>
<thead>
<tr>
<th>Type</th>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-channel HDCVI Recorder Kit</td>
<td>BC541E42</td>
<td>• 4 x 2 MP HDCVI IR Dome Cameras • 1 x 1080p HDCVI DVR, 2 TB</td>
</tr>
<tr>
<td>Camera Accessories, Optional</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PFA136</td>
<td></td>
<td>Junction box (For use alone)</td>
</tr>
<tr>
<td>PFB203W</td>
<td></td>
<td>Wall mount (For use alone or with PFA152 pole mount)</td>
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<tr>
<td>PFA152</td>
<td></td>
<td>Pole mount (For use with PFB203W wall mount)</td>
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<tr>
<td>PFM820</td>
<td></td>
<td>UTC Controller</td>
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</tbody>
</table>

## Accessories

Optional:

- PFA136 Junction box
- PFB203W Wall mount
- PFA152 Pole mount
- PFM820 UTC Controller

### Dimensions (mm/in.) - HDCVI Camera

<table>
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<tr>
<td>109.90 mm</td>
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<tr>
<td>3 x Ø4.70 mm</td>
<td>(Ø0.19 in.)</td>
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<tr>
<td>81.0 mm</td>
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### Dimensions (mm/in.) - HDCVI DVR

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### Junction Mount

- PFA136

### Pole Mount

- PFB203W + PFA152

### Wall Mount

- PFB203W