The Bosch High Performance LED monitors are 1080p Full HD resolution color monitors ideal for use with analog video, digital video recorders (DVRs), and with PC applications. The monitors feature a color LCD flat-screen panel and are available with 42-inch or 55-inch viewable picture areas. Each monitor features a wide range of horizontal and vertical viewing angles that provide comfortable, clear viewing – whether you mount it to a wall or to a ceiling.

**Functions**

**Excellent image quality**
The Bosch High Performance HD LED monitors automatically adapt to the input resolution of the incoming video signal, and support up to 1920 x 1080 resolution (Full HD). The monitors' analog VGA input easily accommodates the widespread use of PCs in today's security surveillance systems. Their high contrast ratio (4000:1) and a high brightness setting offers excellent color accuracy and imaging for easier viewing and interpretation of images. The panel refreshes every eight milliseconds, so you get crisp, clear images with less smearing - and less image “ghosting” in fast-motion video.

**True color enhancement**
The monitors provide true color performance. The monitors automatically focus on setting the correct color, temperature, and gamma curve settings to deliver the highest possible picture quality.

**Certifications and approvals**

<table>
<thead>
<tr>
<th>Region</th>
<th>Safety Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>cUL</td>
</tr>
<tr>
<td>Europe</td>
<td>EN60950, CE Declaration of Conformity, CB scheme</td>
</tr>
<tr>
<td>USA</td>
<td>UL60950</td>
</tr>
</tbody>
</table>

**Electromagnetic Compatibility (EMC)**

| Emission                      | EN55022:2010 class B, FCC part 15 class B |
| Immunity                      | EN55024:2010, EN50130-4:2011 |

**Environmental**

| Vibration and Shock Level 5 Energy Star Certificate |
Installation/configuration notes

Parts included

<table>
<thead>
<tr>
<th>Quant.</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bosch Full HD Color LED Flat Panel Monitor</td>
</tr>
<tr>
<td>2</td>
<td>Power Cords, 3-wire with grounded plug 1.8 m (6 ft) long: one with a U.S plug type and one with a European Continental plug type</td>
</tr>
<tr>
<td>1</td>
<td>1 DVI-D to DVI-D cable, 1.8 m (6 ft)</td>
</tr>
<tr>
<td>1</td>
<td>1 VGA to VGA (D-Sub), cable, 1.8 m (6 ft)</td>
</tr>
<tr>
<td>1</td>
<td>Trigger cable</td>
</tr>
<tr>
<td>1</td>
<td>Remote control</td>
</tr>
<tr>
<td>2</td>
<td>AAA batteries for remote control</td>
</tr>
<tr>
<td>1</td>
<td>Installation Manual (English)</td>
</tr>
<tr>
<td>1</td>
<td>CD-ROM with multi-language Installation Manual</td>
</tr>
</tbody>
</table>

Technical specifications

Electrical

<table>
<thead>
<tr>
<th></th>
<th>UML-423-90</th>
<th>UML-553-90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Voltage</td>
<td>120/230 VAC, 50/60 Hz</td>
<td></td>
</tr>
<tr>
<td>Voltage Range</td>
<td>100–240 VAC, 50/60 Hz</td>
<td></td>
</tr>
<tr>
<td>Frequency</td>
<td>Horizontal: 60–73 KHz Vertical: 47–63 Hz</td>
<td></td>
</tr>
</tbody>
</table>
### Power at Rated Voltage

- **On**: 150 W, 170 W
- **Active Off**: 0.5 W, 0.5 W

### Video

<table>
<thead>
<tr>
<th></th>
<th>UML-423-90</th>
<th>UML-553-90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sync Format</td>
<td>PAL/NTSC</td>
<td>PAL/NTSC</td>
</tr>
<tr>
<td>LCD Panel</td>
<td>LED</td>
<td>LED</td>
</tr>
<tr>
<td>Viewable Picture Area</td>
<td>42 in.</td>
<td>55 in.</td>
</tr>
<tr>
<td>Active Display Area (H x V)</td>
<td>930.24 x 523.26 mm (36.6 x 20.6 in.)</td>
<td>1209.6 x 648.4 mm (47.6 x 25.5 in.)</td>
</tr>
<tr>
<td>Pixel Pitch (H x V)</td>
<td>0.4845 x 0.4845 mm</td>
<td>0.21 x 0.21 mm</td>
</tr>
<tr>
<td>Resolution¹</td>
<td>1920 x 1080</td>
<td>1920 x 1080</td>
</tr>
<tr>
<td>Aspect Ratio</td>
<td>16:9</td>
<td>16:9</td>
</tr>
<tr>
<td>Display Colors</td>
<td>1,073 million</td>
<td>1,073 million</td>
</tr>
<tr>
<td>Response Time</td>
<td>8 ms (typical)</td>
<td>6.5 ms (typical)</td>
</tr>
<tr>
<td>Backlight</td>
<td>50,000 hours</td>
<td>50,000 hours</td>
</tr>
</tbody>
</table>


### LCD Panel Optical Characteristics

<table>
<thead>
<tr>
<th></th>
<th>UML-423-90</th>
<th>UML-553-90</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luminance</td>
<td>500 cd/m² (typical)</td>
<td>450 cd/m² (typical)</td>
</tr>
<tr>
<td>Contrast Ratio</td>
<td>4000:1 (typical)</td>
<td>4000:1 (typical)</td>
</tr>
<tr>
<td>Viewing Angle</td>
<td>Horizontal/Vertical: 178°, typical</td>
<td>Horizontal/Vertical: 178°, typical</td>
</tr>
</tbody>
</table>

### Video Input

**Composite Video (CVBS)**: 1.0 Vp-p (0.5–1.5 Vp-p), automatic switching from 75 Ohm unbalanced termination to Hi-Z with passive loop-through operation

**Y/C (S-video)**: 0.7 Vp-p (Y-signal), 0.3 Vp-p (C-signal), 75 Ohm termination

**VGA (RGB PC)**: 0.7 Vp-p (0.5–1 Vrms)

**Audio Input**: 2.0 V line level, mono

### Timing Modes

**RGB and DVI**

<table>
<thead>
<tr>
<th>Resolution</th>
<th>UML-423-90</th>
<th>UML-553-90</th>
</tr>
</thead>
<tbody>
<tr>
<td>640 x 480</td>
<td>60 Hz</td>
<td>60/72/75 Hz</td>
</tr>
<tr>
<td>720 x 400</td>
<td>70 Hz</td>
<td></td>
</tr>
<tr>
<td>800 x 600</td>
<td>60 Hz</td>
<td>60/75 Hz</td>
</tr>
<tr>
<td>1024 x 768</td>
<td>60 Hz</td>
<td>60/75 Hz</td>
</tr>
</tbody>
</table>

### HDMI

<table>
<thead>
<tr>
<th>Resolution</th>
<th>UML-423-90</th>
<th>UML-553-90</th>
</tr>
</thead>
<tbody>
<tr>
<td>640 x 480</td>
<td>60/72/75 Hz</td>
<td></td>
</tr>
<tr>
<td>720 x 400</td>
<td>70 Hz</td>
<td></td>
</tr>
<tr>
<td>800 x 600</td>
<td>60/75 Hz</td>
<td></td>
</tr>
<tr>
<td>1024 x 768</td>
<td>60 Hz</td>
<td>60 Hz</td>
</tr>
<tr>
<td>1360 x 768</td>
<td>60 Hz</td>
<td>60 Hz</td>
</tr>
<tr>
<td>1366 x 768</td>
<td>60 Hz</td>
<td>60 Hz</td>
</tr>
<tr>
<td>1600 x 1200</td>
<td>60 Hz</td>
<td>60 Hz</td>
</tr>
<tr>
<td>1920 x 1080</td>
<td>60 Hz</td>
<td>60 Hz</td>
</tr>
</tbody>
</table>

### Controls

**Input**

- **All Models**
  - Rear Control Panel: Push-buttons
  - Video Source: Selects: Component Video, S-video, VGA, HDMI, DVI-D
  - Menu: Selects on-screen display (OSD), up cursor, down cursor/auto adjust, left cursor, right cursor
  - Power: On/Off
  - Control Panel Lockout: Multiple push-button combination

**On-screen Display**

- **All Models**
  - Video Mode: Input Source, Screen, OSD, Utility
### Indicators

<table>
<thead>
<tr>
<th>All Models</th>
<th></th>
</tr>
</thead>
</table>
| **LED** | Power On (green)  
Power Off, Standby (red) |
| **On-screen** | VGA: Check input signal  
Video: Flashes "AV1" or "AV2" when there is a black screen |

### Connectors

<table>
<thead>
<tr>
<th>All Models</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Video 1 (AV1)</strong></td>
<td>Composite video: two (2) BNC (1 in, 1 out)</td>
</tr>
<tr>
<td><strong>Digital</strong></td>
<td>One (1) DVI-D</td>
</tr>
<tr>
<td><strong>HDMI</strong></td>
<td>One (1)</td>
</tr>
<tr>
<td><strong>VGA</strong></td>
<td>One (1): 1 RGB 15-pin D-sub in, 1 RGB 15-pin D-sub out</td>
</tr>
<tr>
<td><strong>Component</strong></td>
<td>One (1): Y, Pb, Pr</td>
</tr>
<tr>
<td><strong>Y/C (S-video)</strong></td>
<td>One (1) mini-DIN, 4-pin (1 in)</td>
</tr>
</tbody>
</table>
| **Audio** | Five (5):  
2 Audio In: RCA (right/left)  
1 Audio In: phono jack  
1 Audio Out: RCA (right/left)  
1 Speaker Out |
| **Trigger Input** | One (1) 1/8 in. mini phono plug |
| **Power Input** | 100 – 240 VAC |

### Mechanical

<table>
<thead>
<tr>
<th>All Models</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cabinet Material</strong></td>
<td>SECC</td>
</tr>
<tr>
<td><strong>Finish</strong></td>
<td>Black</td>
</tr>
<tr>
<td><strong>Mount</strong></td>
<td>Wall mounting compatible with standard bracket</td>
</tr>
<tr>
<td><strong>VESA Mounting Compliance</strong></td>
<td>400 x 400 mm,</td>
</tr>
</tbody>
</table>

### Dimensions (W x H x D)

<table>
<thead>
<tr>
<th>UML-423-90</th>
<th>UML-553-90</th>
</tr>
</thead>
</table>
| Monitor | 977.02 x 569.92 x 82.8 mm  
(38.96 x 22.44 x 3.26 in.) | 1256 x 726.8 x 82.8 mm  
(49.45 x 28.61 x 3.26 in.) |
| With Packaging | 1234 x 786 x 275 mm  
(48.6 x 30.9 x 10.8 in.) | 1379 x 850 x 273 mm  
(54.3 x 33.5 x 10.7 in.) |

### Weight

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| **Monitor Weight** | 20 kg (44.1 lb)  
32 kg (70.5 lbs) |
| **Shipping Weight** | 26 kg (57.3 lb)  
37 kg (81.6 lbs) |

### Environmental

<table>
<thead>
<tr>
<th>All Models</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating Temperature</strong></td>
<td>0°C to +50°C (32°F to 122°F)</td>
</tr>
<tr>
<td><strong>Storage Temperature</strong></td>
<td>0°C to +50°C (32°F to 122°F)</td>
</tr>
<tr>
<td><strong>Humidity</strong></td>
<td>0% to 90% Relative</td>
</tr>
</tbody>
</table>

### Ordering Information

**UML-423-90 42-inch High Performance HD LED Monitor**  
High-performance HD LED 42-inch monitor.  
1920x1080p; 500 cd/m²; BNC/HDMI/DVI-D/VGA inputs; backlight 50,000 hours; viewing angle (HxW) 178x178; contrast 4000:1  
Order number **UML-423-90**

**UML-553-90 55-inch High Performance HD LED Monitor**  
High-performance HD LED 55-inch monitor.  
1920x1080p; 450 cd/m²; audio; BNC/HDMI/DVI-D/VGA inputs; backlight 50,000 hours; viewing angle (HxW) 178x178; contrast 4000:1  
Order number **UML-553-90**

**Accessories**

**ST650 Universal Tilt Wall Mount**  
Tilt wall mount for a monitor (37 to 75 inch). Black  
Order number **ST650**

**UMM-LED42-SD Desktop Monitor Stand**  
Desktop stand for a 42 or 55-inch monitor. Black  
Order number **UMM-LED42-SD**