

# PHILIPS

LCD monitor with  
SmoothTouch

Monitor

B Line

22 (21.5"/54.6 cm diag.)

1920 x 1080 (Full HD)

222B9TN



## Brilliant interactive display with SmoothTouch

A sturdy water- and dust-resistant touch-screen monitor for flexible use anywhere. Offering simple and intuitive use across applications, greatly boosts productivity.

### Brilliant interactive display

- SmoothTouch display for natural, fluid touch response
- 16:9 Full HD display for crisp, detailed images
- EasyRead mode for a paper-like reading experience
- Less eye fatigue with Flicker-Free technology
- LowBlue Mode for easy-on-the-eyes productivity
- SmartContrast for rich black details
- Stylus for fluid and accurate performance with more control
- Monitor front surface meets IP65 for water and dust resistance

### Easy to experience

- HDMI ensures universal digital connectivity
- DisplayPort connection for maximum visuals
- VESA mount allows for flexibility
- USB 3.1 high-speed data transfer

# Monitor

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## Highlights

### SmoothTouch



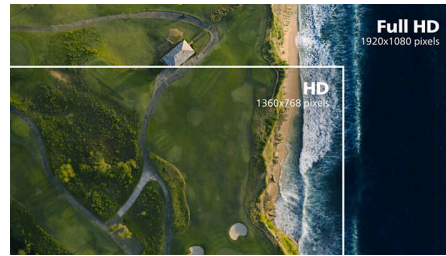
This Philips display uses Projected capacitive 10-point touch technology for fluid response. You can fully utilise the new capabilities of touch-based applications and bring your older applications to life. Touch-type with 10 fingers or play exciting interactive games with your friends. Collaborate with colleagues interactively at work or school environment and increase your productivity and efficiency.

### Water- and dust-resistant



For less-than-perfect environments, you need a monitor that's designed to hold up to the splashes of water and dust that happen in the everyday world. Ingress Protection (IP) ratings defined in international standard IEC/EN 60529, are used to define levels of sealing effectiveness of electrical enclosures against intrusion from foreign bodies and moisture. This Philips display meets the international IP rating for water and dust resistance. It will hold up to the water splashes and dust that happen in the everyday world.

### 16:9 Full HD display



Picture quality matters. Regular displays deliver quality, but you expect more. This display features enhanced Full HD 1920 x 1080 resolution. With Full HD for crisp detail paired with high brightness, incredible contrast and realistic colours, expect a true-to-life picture.

### SmartContrast



SmartContrast is a Philips technology that analyses the contents you are displaying, automatically adjusting colours and controlling backlight intensity to dynamically enhance contrast for the best digital images and videos or when playing games where dark hues are displayed. When Economy mode is selected, contrast is adjusted and backlighting fine-tuned for just-right display of everyday office applications and lower power consumption.

### LowBlue Mode



Studies have shown that just as ultra-violet rays can cause eye damage, shortwave-length blue light rays from LED displays can cause eye damage and affect vision over time. Developed for wellbeing, the Philips LowBlue Mode setting uses a smart software technology to reduce harmful shortwave blue light.

### Flicker-Free technology



Due to the way brightness is controlled on LED-backlit screens, some users experience flicker on their screen which causes eye fatigue. Philips Flicker-Free technology applies a new solution to regulate brightness and reduce flicker for more comfortable viewing.

### EasyRead mode



EasyRead mode for a paper-like reading experience



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## Highlights

### HDMI Ready



An HDMI-ready device has all the required hardware to accept High-Definition Multimedia Interface (HDMI) input. An HDMI cable enables high-quality digital video and audio to be transmitted over a single cable from a PC or any number of AV sources (including set-top boxes, DVD players, A/V receivers and video cameras).

### DisplayPort connection



DisplayPort is a digital link from PC to monitor without any conversion. With higher capabilities than DVI standard, it is fully capable to support up to 15 metre cables and 10.8 Gbps/sec data transfer. With this high performance and zero latency, you get the fastest imaging and refresh rates — making DisplayPort the best choice for not only general office or home use, but also for

the more demanding gaming and films, video editing and more. It also keeps interoperability in mind via the use of various adapters.

### VESA mount



VESA mount allows for flexibility



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## Specifications

### Picture/Display

**Panel Size:** 21.5 inch/54.6 cm  
**Aspect ratio:** 16:9  
**LCD panel type:** TFT-LCD (TN)  
**Backlight type:** W-LED system  
**Pixel pitch:** 0.248 x 0.248 mm  
**Optimum resolution:** 1920 x 1080 @ 60 Hz  
**Brightness:** 250 cd/m<sup>2</sup>  
**Display colours:** 16.7 M  
**Colour gamut (typical):** NTSC 72% (CIE 1931)  
**Contrast ratio (typical):** 1000:1  
**SmartContrast:** 50,000,000:1  
**Response time (typical):** 1 ms (Grey to Grey)\*  
**Viewing angle:** 170° (H)/160° (V), @ C/R > 10  
**Picture enhancement:** SmartImage  
**Effective viewing area:** 476.64 (H) x 268.11 (V)  
**Scanning Frequency:** 30–85 kHz (H) / 48–75 Hz (V)  
**sRGB**  
**Flicker-free**  
**Pixel Density:** 102 PPI  
**LowBlue Mode**  
**EasyRead**

### Touch

**Ingress protection:** IP65 - front only  
**Operating system:** Windows 10 / 8.1 / 8 / 7;  
Android 7.1 / 7.0 / 6.0 / 5.0 / 4.4; certain Linux  
versions\*  
**Sealability:** Touchscreen sealed to bezel;  
Touchscreen sealed to LCD  
**Touch active area:** 476.64 mm (H) x 268.11 mm  
(V)  
**Touch glass hardness:** 7 H  
**Touch interface:** USB  
**Touch method:** Stylus, Finger, Glove\*  
**Touchpoints:** 10 points  
**Touch technology:** Projected capacitive  
**Palm rejection area:** >= 30 x 30 mm  
**Touch glass coating:** Glare

### Connectivity

**Signal Input:** VGA (Analogue), DVI-D (digital,  
HDCP), DisplayPort 1.2, HDMI 1.4  
**USB:** USB 3.1 x 2 (1 w/fast charging)\*  
**Sync Input:** Separate Sync, Sync on Green  
**Audio (In/Out):** PC audio-in, Headphone out

### Convenience

**Built-in Speakers:** 2 W x 2  
**Plug and Play Compatibility:** DDC/CI, sRGB,  
Windows 10 / 8.1 / 8 / 7  
**User convenience:** SmartImage, Input,  
Brightness, Menu, Power On/Off  
**OSD Languages:** Brazil Portuguese, Czech, Dutch,  
English, Finnish, French, German, Greek,  
Hungarian, Italian, Japanese, Korean, Polish,  
Portuguese, Russian, Simplified Chinese, Spanish,  
Swedish, Traditional Chinese, Turkish, Ukrainian  
**Other convenience:** Kensington lock, VESA  
mount (100 x 100 mm)  
**Control software:** SmartControl

### Power

**ECO mode:** 10.3 W (typ.)  
**Power supply:** External, 100–240 VAC, 50–60 Hz  
**Off mode:** < 0.3 W (typ.)  
**On mode:** 11.92 W (typ.) (EnergyStar test  
method)  
**Standby mode:** < 0.5 W (typ.)  
**Power LED indicator:** Operation - White, Standby  
mode - White (flashing)  
**Energy Label Class:** D

### Dimensions

**Packaging in mm (W x H x D):** 575 x 420 x  
161 mm  
**Product without stand (mm):** 515 x 317 x 45 mm

### Weight

**Product with packaging (kg):** 6.62 kg  
**Product without stand (kg):** 4.17 kg

### Operating conditions

**Altitude:** Operation: +12,000 ft (3658 m), Non-  
operation: +40,000 ft (12,192 m)  
**Temperature range (operation):** 0°C to 40°C °C  
**Relative humidity:** 20%-80 %  
**Temperature range (storage):** -20°C to 60°C °C  
**MTBF (demonstrated):** 70,000 hrs (excluded  
backlight)

### Sustainability

**Environmental and energy:** EnergyStar 8.0,  
EPEAT\*, TCO Certified, RoHS, WEEE  
**Recyclable packaging material:** 100 %  
**Specific Substances:** PVC/BFR free housing,  
Mercury free

### Compliance and standards

**Regulatory Approvals:** CB, CE Mark, FCC Class B,  
SEMKO, UKRAINIAN, ICES-003, TUV/GS, TUV  
Ergo, CU-EAC, EAEU RoHS, cETLus

### Cabinet

**Finish:** Texture  
**Foot:** Black  
**Front bezel:** Black  
**Rear cover:** Black

### What's in the box?

**Cables:** HDMI cable, USB-A to B cable, Power  
cable  
**Monitor**  
**User Documentation**

\* Response time value equal to SmartResponse  
\* Glove material and thickness: Nitrile (0.15 mm), Cotton  
(0.31 mm), CPE (0.03 mm), PVC (0.12 mm)  
\* Please refer to "SmoothTouch" in the user manual for more  
details on operating system support when using the touch  
function.  
\* Fast charging complies with USB BC 1.2 standard  
\* EPEAT rating is valid only where Philips registers the  
product. Please visit <https://www.epeat.net/> for  
registration status in your country.  
\* The monitor may look different from feature images.

