

| Philips<br>LCD w    | idescree | en monitor |
|---------------------|----------|------------|
| <b>22"</b><br>wsxga | wid      | e          |



220TW9FB



# Digital HDTV monitor in a stylish package

Combine work and entertainment with this widescreen multi-function monitor! With a large, wide viewing area, TV, video and HDMI input plus built-in speakers, the Philips 220TW9 boosts your productivity and brings you ultimate enjoyment.

#### Outstanding front of screen performance

- · Crystal Clear III for natural images with enhanced quality
- HD LCD display, with a 1680  $\times$  1050p resolution
- HD Ready for the highest quality display of HD signals
- 5 ms fast response time

## **Great convenience**

- Built-in TV tuner for viewing TV programmes on your PC monitor
- 2 HDMI inputs for full digital HD connection in one cable
- EasyLink: easy control of TV and connected device via HDMI CEC
- · Smart mode selects a perfect mode for what you are watching
- Easy-to-use remote control included

## For advanced performance

· Incredible Surround for enhanced audio enjoyment

# Ready for digital

• Integrated Digital Tuner for DVB-T reception



# Highlights

# **Crystal Clear III**

Crystal Clear III combines a whole range of enhancements to provide a better picture. They include a 2D Comb filter, Dynamic contrast, Blue stretch and Green enhancement so that you always get the most natural looking colours.

## **Built-in TV tuner**

A television tuner built into a monitor to display television signals as well as computer data.

#### **HD Ready**



Enjoy the exceptional picture quality of High Definition pictures and be fully prepared for HD sources like HDTV set-top boxes and Bluray discs. HD Ready is a protected label that offers picture quality beyond that of progressive scan. It conforms to strict standards laid out by EICTA to offer an HD screen that displays the benefits of the resolution and picture quality of a High Definition signal. It has a universal connection for both analogue YPbPr and uncompressed Digital connection of DVI or HDMI, supporting HDCP. It can display 720p, and 1080i signals at 50 and 60 Hz.

#### 5 ms on/off response time

On-Off response time is the period required for a liquid crystal cell to go from active (black) to inactive (white) and back to active (black) again. It is measured in milliseconds. Faster is better: lower response time means faster transitions and, therefore, results in fewer visible image artefacts in the display of transition of texts and graphics. On-Off response time is a more important measure in the display of business content like documents, graphs and photos.

## 2 HDMI inputs

HDMI makes an uncompressed digital RGB connection from the source to the screen for the ultimate picture quality. HDMI intelligently communicates the highest output resolution with the source device. The HDMI input is fully backwards-compatible with DVI sources and includes digital audio. HDMI uses HDCP copy protection. With one HDMI input on the back and one HDMI on the side of the TV you can connect multiple HD sources, for instance an HD set-top box, a Blu-ray player and a game console or digital camcorder. Your TV is fully prepared for the HD future.

# EasyLink

EasyLink uses the HDMI CEC industry standard protocol to share functionality between connected devices and the TV. With EasyLink only one remote control is needed to operate main functionalities on your TV and connected devices. EasyLink uses the standard HDMI cable to transfer system commands. It works between all electronic devices equipped with HDMI CEC.

#### Smart mode

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The optimum picture and sound depends on various aspects like the video source, content type, surroundings of the room, type of display device etc. Smart Mode has predefined picture and sound settings conveniently pre-set by the way you use your TV. The 'Personal' setting, allows you to define the picture settings according to your preference, store it and gain easy access for future selection. All these conveniently built into your TV for optimal settings.

#### Incredible Surround

Incredible Surround is an audio technology from Philips that dramatically magnifies the sound field to immerse you in the audio. Using state-of-the-art electronic phase shifting, Incredible Surround mixes sounds from left and right in such a way that it expands the virtual distance between the two speakers. This wider spread greatly enhances the stereo effect and creates a more natural sound dimension. Incredible Surround allows you to experience total surround with greater depth and width of sound, without the use of additional speakers.

#### Integrated Digital DVB-T tuner

The integrated Digital DVB-T tuner lets you receive digital cable and terrestrial TV without an additional set top box. Enjoy quality TV clutter free.















# Specifications

#### Accessories

 Included Accessories: Batteries for remote control, Power cord, Quick start guide, Remote Control, Tabletop stand, User Manual, Warranty certificate

#### Connectivity

- Ext 1 Scart: Audio L/R, CVBS in/out, RGB
- Ext 2: Audio L/R in, CVBS in, S-video in
- Ext 3: Audio L/R in, YPbPr
- HDMI 1: HDMI v1.3
- HDMI 2: HDMI v1.3
- EasyLink (HDMI-CEC): One touch play, System standby
- Other connections: Common Interface, Headphone out, PC Audio in, PC-In VGA, S/PDIF out (coaxial)

#### Convenience

- · Clock: Sleep Timer, Start timer, Stop timer
- · Connection Enhancement: Easy link
- · Ease of Installation: Auto Programme Naming, Automatic Channel Install (ACI), Automatic Tuning System (ATS), Fine Tuning, PLL Digital Tuning, Plug and Play
- · Ease of Use: Auto Volume Leveller (AVL), On-Screen Display, Programme List, Side Control
- Electronic Programme Guide: 8-day Electronic Programme Guide, Now + Next EPG
- Picture in Picture: Text dual screen
- Remote Control: TV
- Remote control type: RCPF05E08B
- Screen Format Adjustments: 4:3, Movie expand 14:9, Movie expand 16:9, Subtitle Zoom, Super Zoom, Widescreen
- Smart mode: Movie, Personal, Power saver, Standard, Vivid
- Teletext: 100-page Smart Text

#### Dimensions

- Box dimensions (W x H x D):
- 580 x 510 x 137 mm
- Product weight: 5.5 kg
- Product weight (+stand): 6 kg
- Set dimensions (W x H x D): 534 x 397 x 71 mm
- Set dimensions with stand (W x H x D):
- 534 x 442 x 181 mm
- VESA wall mount compatible: 100 x 100 mm
- Weight incl. Packaging: 7.77 kg

#### **Picture/Display**

- Aspect ratio: Widescreen
- Brightness: 300 cd/m<sup>2</sup>
- Contrast ratio (typical): 1000:1
- Diagonal screen size: 22 inch / 56 cm Display screen type: LCD WSXGA Active Matrix TFT
- Panel resolution: 1680 x 1050p
- Picture enhancement: 2D Combfilter, 3/2 2/2 motion pull down, Crystal Clear III, Progressive Scan, Smart Picture, White stretch
- Response time (typical): 5 ms
- Screen enhancement: Anti-Reflection coated screen
- Viewing angle: 170° (H)/160° (V)

#### **Power**

- Ambient temperature: 5°C to 35°C
- Mains power: 100-240 V, 50/60 Hz
- Power consumption: 55 W
- Standby power consumption: <0.3 W</li>

#### Sound

- Output power (RMS): 2 x 5 W
- Sound Enhancement: Auto Volume Leveller,
- Incredible Surround, Smart Sound
- Sound System: Mono, Stereo

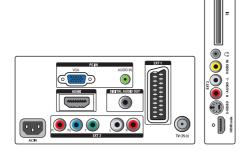
#### **Supported Display Resolution**

Computer formats

| Resolution    | Refresh rate |
|---------------|--------------|
| 1024 x 768    | 60 Hz        |
| 1280 x 1024   | 60 Hz        |
| 1440 x 900    | 50 Hz, 75 Hz |
| 1680 x 1050   | 50 Hz, 60 Hz |
| 640 x 480     | 60 Hz        |
| 800 x 600     | 60 Hz        |
| Video formats |              |
| Resolution    | Refresh rate |
| 1080i         | 50, 60 Hz    |
| 480i          | 60 Hz        |
| 480p          | 60 Hz        |
| 576i          | 50 Hz        |
| 576p          | 50 Hz        |
| 720p          | 50, 60 Hz    |
| •             |              |

#### **Tuner/Reception/Transmission**

- Aerial Input: 75 ohm coaxial (IEC75)
- DVB: DVB Terrestrial\*







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12 NC: 8670 000 42453 EAN: 87 12581 44518 8 • Tuner bands: Hyperband, S-Channel, UHF, VHF

Tuner Display: PLL

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- TV system: PAL B/G, PAL D/K, PAL I, SECAM B/G, SECAM D/K, SECAM L/L'
- Video Playback: NTSC, PAL, SECAM

| Resolution | Refre |
|------------|-------|
| 1080i      | 50, 6 |
| 480i       | 60 H  |