NTSC, ATSC

Modelnr: PTVLED15     Modelnr: PTVLED18
Modelnr: PTVLED21     Modelnr: PTVLED23

Statement: This document is reference manual, please confirm with the specifically software if need translate or batch print.
Safety Information

IMPORTANT SAFETY INSTRUCTIONS - READ CAREFULLY BEFORE USE.

Take note of the following safety information which appears on the back of the TV.

CAUTION TO PREVENT ELECTRICAL SHOCK, DO NOT REMOVE ANY COVER SCREWS, NO USER SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol indicates that there are important operating maintenance instructions in the literature accompanying this unit.

This symbol indicates that dangerous voltage constituting a risk of electric shock is present within this unit.

Keep these instructions

- Do not use this TV near water.
- Clean only with a slightly damp cloth.
- Do not block any ventilation openings.
- Install in accordance with the supplied Quick Start Guide and this User Guide.
- Protect the power chord from being walked on or pinched, particularly at plugs, and the point where it exits from the TV.
- Do not allow the power chord to overhang the edge of a table.
- Unplug this TV during lightening storms or when unused for long periods of time.

WARNING! TO REDUCE THE RISK OF FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE THIS TV TO RAIN OR MOISTURE. THE TV MUST NOT BE EXPOSED TO DRIPPING AND SPLASHING AND NO OBJECTS FILLED WITH LIQUIDS SHOULD BE PLACED ON THE TV.

NOTE: No naked flames such as candles should be placed on the TV.
Safety Information

IMPORTANT SAFETY INFORMATION (Continued)

This unit has been produced according to all current safety regulations. The following safety tips should safeguard users against careless use and the dangers connected with such use.

- Although this appliance has been carefully manufactured and rigorously checked prior leaving the factory, as with all electrical appliances it is possible for problems to develop. If you notice smoke, an excessive build up of heat or any other unexpected phenomena, you should disconnect the plug from the mains power socket immediately.
- Ensure that the unit is sufficiently ventilated! Never place next to or underneath curtains!
- The mains plug or appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- This set should only be connected to a mains power supply which matches that stated on the label on the rear of the TV – do not attempt to connect it to any other type of supply.
- The socket – outlet must be installed near the equipment and easily accessible.
- To prevent overload, don’t share the same mains supply socket with too many other items of equipment.
- Apparatus with Class 1 construction shall be connected to a mains socket outlet with a protective earthing connection.
- Keep away from rodents. Rodents enjoy biting into electric flexes.
- Always hold the plug when pulling out the plug from the mains supply socket. Do not pull on the flex, the flex can become overloaded and cause a short circuit.
- Set up the unit so that no one is able to trip over the flex.
- Do not place heavy items on the flex, which may damage it.
- Take note that the flex cannot be reached and pulled by young children, avoiding injury.
- Do not set up the unit near to heat sources. The casing and the flex could be damaged by the impact of heat.
- The screen is made of plastic and can break if damage is done to it. Be careful when collecting sharp edged plastic splinters to avoid injury.
- Avoid placing the unit on any surfaces that may be subject to vibrations or shocks.
- To protect the unit during a thunderstorm unplug the AC power cable and disconnect the aerial. Caution: Do not touch the aerial (RF) connector.
- When you leave your home for long periods of time, unplug the AC power cable for safety reasons.
- The unit becomes warm when in operation. Do not place any covers or blankets on the unit in order to prevent overheating. The ventilation holes are not to be blocked. Do not set up near radiators. Do not place in direct sunshine. When placing on a shelf leave 5 cm (2") free space around the whole unit.
- Do not allow water or moisture to enter the TV. Do NOT use in wet or moist areas such as Bathrooms, steamy kitchens or near swimming pools.
- Do not use this unit when moisture condensation may occur
- Any repairs must be carried out by qualified personnel only.
- Do not open this unit. A non – expert attempting to repair the unit could be dangerous and potentially cause a fire hazard.
Safety Information

IMPORTANT SAFETY INFORMATION (continued)

- Liquids spilt into the unit can cause serious damage. Switch the set OFF and disconnect the mains power supply, then consult a qualified service person before attempting to use the unit again.
- Do NOT remove the safety covers. There are no useable or serviceable parts inside. You may invalidate the warranty. Qualified personnel must only service this apparatus.
- Do NOT tap or shake the screen, you may damage the internal circuits. Take good care of the remote control, do not drop.
- Never place hot objects or open flame sources on or close to the TV.
- High temperatures can melt plastic and lead to fires.
- To clean the TV use a soft dry cloth. Do NOT use solvents or petrol based fluids. For stubborn stains, you may use a damp cloth with dilute detergent.

Headphone Warning

Loud music can damage your hearing irreversibly, therefore do not set the volume to a high level when listening through headphones, particularly for lengthy listening periods.

Where to install

Locate the television away from direct sunlight and strong lights, soft indirect lighting is recommended for comfortable viewing. Use curtains or blinds to prevent direct sunlight falling on the screen. Place the TV on a sturdy platform of which the surface should be flat and steady. This will prevent it from falling over.
Make sure the television is located in a position where it cannot be pushed or hit by objects, as pressure will break or damage the screen, and so that small objects cannot be inserted into the ventilation slots or openings in the cabinet.
Product Introduction

Front View

LED indicator Remote Control window(keep clear)

The functions of the TV buttons are described below.

**INPUT**: Press to select the source.
**MENU**: Press to display the OSD menu, Press again to exit the menu.
**CH+/CH-**: Press to scan through channels.
They are also can be used to move down/up in the OSD menu screen.
**VOL+/VOL-**: Press to adjust the volume.
They are also can be used to move left/right in the OSD menu screen.
VOL+ button can be used to skip forward to next menu.
**POWER**: Turn on/off the TV set.
1. Connect to the mains adaptor.
2. For service technician use only.
3. Connect an optional coaxial digital cable through a compatible amp/receiver to enjoy superior audio sound.
4/5/6. Connect an external device to the composite VIDEO (Y) and AUDIO (L/R) output jacks found on most video equipment.
4/5/6/7/8. Connect to an AV device that features component (YPbPr) video and audio output jacks.
9. Connect an optional VGA cable from your personal computer.
10. Connect an optional 3.5mm audio cable for sound when using VGA.
11. Connect it to the HDMI of DVD or other equipment.
12. Connect antenna or cable for television reception. Note: Use an outdoor antenna, cable or satellite for best reception.
13. Connect a stereo headphone (3.5mm) for private listening.
14/15. Audio output to connect power amplifier stereo equipment.
Remote Control

The remote control is using Infra-Red (IR). Point it towards the front of the LED TV. The remote control may not work correctly if it is operated out of range or out of angle.

- **POWER:** Turn the TV on/standby.
- **MUTE:** Press to mute the sound, press again or press **VOL+** to unmute.

**NUMBER BUTTONS:**
Press 0-9 to select a TV channel directly when you are watching TV.

- **REW:**
  - Return to the previous channel viewed.
- **S.MODE:** Select the sound mode.
- **P.MODE:** Select the picture mode.
- **EPG:** To show the Electronic Program Guide during no-menu state only in DTV mode.
- **TV MENU:** System setup menu.
- **SOURCE:** Press to display the input source menu.
- **CURSOR KEYS (↑/↓/←/→/ENTER):** Allows you to navigate the on-screen menus and adjust the system settings to your preference.
- **MTS:** Press to select an alternate audio language (if applicable).
- **EXIT:** Exit the OSD menu.
- **AUTO:** When you connect the TV with a PC through VGA input, press to adjust the screen resolution automatically.
- **DISPLAY:** Provides information on the currently viewed program.
- **CCD:** Select closed caption subtitles (if available) OFF > ON > CC on Mute (pg. 22)
- **VOL+/-:** Adjust the volume.
- **CH↑/↓:** Scan through channels.
- **FAV:** Press to display a list of favorite TV channels you have added. (pg. 26)
- **FAV-:** Press to scan to a lower channel from your list of favorites.
- **FAV+:** Press to scan to a higher channel from your list of favorites.
- **SLEEP:** Press to activate the Sleep function to turn off the TV automatically;
  - 5 Min > 10 Min > 15 Min > 30 Min > 45 Min > 60 Min > 90 Min > 120 Min > 180 Min > 240 Min > OFF.
- **ZOOM:** Select viewable display options:
  - Normal > Wide > Zoom > Cinema. (pg. 27)
Setup Wizard

Connect an RF cable from the TV’s input called “RF-In” and to your TV Aerial socket.

Select Language
Press ◄ / ► button to select the language to be used for menus and message.
Press ▼ / ▲ button to select go to next step and press ENTER/► button to go.

Select Time
Press ▼ / ▲ button to select the time zone, daylight saving time and time format you want to.
Press ◄ / ► button on the remote control to adjust.
Press ▼ / ▲ button on the remote control to select go to next step and press ENTER/► button to go.
Auto Scan
Press ◄ / ► button to select the antenna type.
Press ▼ / ▲ button to select go to next step and press ENTER/► button to start auto scan.
SELECT INPUT SOURCE

Press INPUT button to display the input source list,
Press ▼ / ▲ or INPUT button to select the input source you want to,
Press ENTER button to enter the input source,
Press EXIT button to quit.

Main Menu

Press MENU to display the main menu or return to the previous menu or close the main menu.
Press ◄ ► to highlight the desired menu icon, and press ENTER to select.
Main Menu Operation

Picture Menu

Press MENU to enter the main menu, Press ◄ / ► button to select.
Press ENTER / ▼ to enter.
Press MENU again to exit or back to parent menu.

Press ◄ / ▲ button to select among Picture Mode / Brightness / Contrast / Color / Tint / Sharpness / Color Temperature / 3D Settings/Advanced Settings.
Press ENTER / ▼ to enter.
Press ◄ / ► button to adjust.
Press MENU again or back to parent menu.

【Picture Mode】
Adjust picture mode to change picture appearance.

Note: The brightness, contrast, color, tint and sharpness are only available in User mode, you can adjust as you like.

Standard: Produces a highly defined image in a normally lit room.
Dynamic: Produces a highly defined image in a brightly lit room.
Soft: Produces a highly defined image in a soft lit room.
User: Select to customize picture settings.

【Brightness】
Adjust the visual perception output of the entire picture, it will effect the luminousness of the picture.
Press ◄ / ► button to adjust.

【Contrast】
Adjust the highlight intensity of the picture, but the shadow of the picture is invariable.
Press ◄ / ► button to adjust.
【Color】
Adjust the saturation of the color based on your own like.
Press ◄ / ► button to adjust.

【Tint】
Adjust the hue (Red, Green, Blue) of the picture.
Press ◄ / ► button to adjust.

【Sharpness】
Adjust the peaking in the detail of the picture.
Press ◄ / ► button to adjust.

【Color Temperature】
Increase or reduce warm color of the picture personally (red), and the cool color personally (blue) according to your like.
Normal Increase the sex-linked colors for the white.
Warm Increase the red color for the white.
Cool Increase the blue tone for the white.

【Advanced Settings】
Adjust advanced video features to fine tune the picture.
Press ► button to enter sub-menu.

![Menu Image]

【Aspect Ratio】
Adjust how the picture fills the screen.
Normal Automatically adjust Aspect Ratio based on TV size and TV program.
Wide Use to watch wide screen (16:9) content.
Zoom Expands image to fill screen. Top and button maybe cut off.
Cinema Stretches image at edges but keeps a clear image in the center.

【Noise Reduction】
Set options to reduce video noise.
Off Select to turn off video noise detection.
Low Detect and reduce low video noise.
Medium Detect and reduce moderate video noise.
High Detect and reduce enhanced video noise.
Auto Detect and reduce video noise automatically.

【Dynamic Contrast】
Automatically adjust picture detail and brightness.
Press ◄ / ► button to select (Off/On).

【HDMI Mode】
Only available in HDMI input.
Press ◄ / ► button to select (Video/Graphic).

【Dynamic Contrast】
Automatically adjust picture detail and brightness.
Press ◄ / ► button to select (Off/On).

【HDMI Mode】
Only available in HDMI input.
Press ◄ / ► button to select (Video/Graphic).
Sound Menu

Press MENU to enter the main menu. Press ◄/► button to select.
Press ENTER/▼ to enter.
Press MENU again to exit or back to parent menu.

Press ▼/▲ button to select among Equalizer / Bass / Treble / Balance /MTS/Audio Language /Digital Audio Output/ AVL.
Press ENTER/▼ to enter.
Press ◄/► button to adjust.
Press MENU again or back to parent menu.
[Sound Mode]
Select a sound mode to achieve ideal sound.
Press ▼ / ▶ button to select(Standard / Music / Movie / Sports / User).
**Note:** The bass and treble are only available in User mode, you can adjust as you like.
- **Standard:** Produces a balanced sound in all environments.
- **Music:** Preserves the original sound. Good for musical programs.
- **Movie:** Enhances treble and bass for a rich sound experience.
- **Sports:** Enhances vocals for TV audio.
- **User:** Select to customize audio settings.

[Bass]
Adjust the bass effect. Increases or decreases lower-pitched sounds.
Press ▼ / ▶ button to adjust.

[Treble]
Adjust the treble effect. Increases or decreases high-pitched sounds.
Press ▼ / ▶ button to adjust.

[Balance]
Adjust the balance between left and right speakers to adapt to your listening position.
Press ▼ / ▶ button to adjust.

[MTS]
Configures the multi-track sound. It is only available in ATV.
Press ▼ / ▶ button to select(Mono/Stereo/SAP).
- **Mono:** Sets the sound to mono.
- **Stereo:** Sets the sound to stereo when stereo is not available, the sound is automatically switched to mono.
- **SAP:** Sets the sound to the second audio program.

[Audio Language]
Select the language supported by the chosen digital channel. It is only available in DTV.
Press ▼ / ▶ button to select(English / French / Spanish).

[Digital Audio Output]
Send digital audio to external audio system.
Press ▼ / ▶ button to select.
- **PCM:** Select to output audio in 2-channel stereo.
- **Raw:** Original image coded date.
- **Off:** Set digital audio output off.

[Surround Sound]
Set the Surround Sound.
Press ▼ / ▶ button to select(On / Off).

[AVL]
Set the auto volume control.
Press ▼ / ▶ button to select(On / Off).

[Speaker]
Set the Speaker.
Press ▼ / ▶ button to select(On / Off).

**NOTE:**
- **Balance:** This item can adjust the speaker’s output, it enables you to listen to best at your position.
- **AVL:** This item uses for reducing the difference between channel and program’s volume automatically.
- It made the overall water to be even. This function will also reduce the fluctuation of the sound.
Time Menu

Press MENU to enter the main menu. Press ◄ / ► button to select. Press ENTER / ▼ to enter. Press MENU again to exit or back to parent menu.

Press ▼ / ▲ button to select among Sleep Timer / Time Zone / Daylight Saving Time / Time Format / Auto Clock / Clock. Press ENTER / ▼ to enter. Press ◄ / ► button to adjust. Press MENU again or back to parent menu.

【Sleep Timer】
Set a timer for the TV to turn off automatically. Press ◄ / ► button to select(Off / 5min/10min/15min/30min/60min/90min/120min/180min/240min).

【Time Zone】
Select your time zone. Press ◄ / ► button to select(Eastern / Central / Mountain / Pacific / Alaska / Hawaii / Samoa / Newfoundland / Atlantic).

【Daylight Saving Time】
Set the daylight saving time for your area. Press ◄ / ► button to select(On / Off).

【Time Format】
Select your time format. Press ◄ / ► button to select(12-hour / 24-hour).

【Auto Clock】
Use to synchronize the display automatically.It is only available in DTV. Press ◄ / ► button to select(On / Off).
Close Caption

**[CC Mode]**
Turn Closed Captioning on/off.
Press ◄ / ► button to select(CC Off / CC On / CC OnMute).

---

**[Analog CC]**
Set Closed Captioning for standard(analog) program.

---

**[Digital CC]**
Set Closed Captioning for digital program.

---

**[Option]**
Adjust the digital Closed Captioning setting.
Press ► button to enter.

---

**[Mode]**
Set the look of digital Closed Captioning. Automatic uses broadcaster’s style.
Press ◄ / ► button to select(Default / Custom).

---

**[Font Style]**
Select from 8 font styles.
Press ◄ / ► button to select(Default / Font 0 / Font 1 / Font 2 / Font 3 / Font 4 / Font 5 / Font 6 / Font 7).

---

**[Font Size]**
Adjust the size of the digital Closed Captioning font.
Press ◄ button to select(Default / Normal / Large / Small).

---

**[Font Edge Style]**
Adjust the edge of the digital Closed Captioning box.
Press ◄ / ► button to select(Default / None / Raised / Depressed / Uniform / Left Shadow / Right Shadow).

---

**[Font Edge Color]**
Adjust the color of the digital Closed Captioning box.
Press ◄ / ► button to select(Default/ Black / White / Red / Green / Blue / Yellow / Magenta / Cyan).

---

**[FG Color]**
Adjust the color of the digital Closed Captioning font.
Press ◄ / ► button to select(Default/ Black / White / Red / Green / Blue / Yellow / Magenta / Cyan).

---

**[BG Color]**
Adjust the digital Closed Captioning background color.
Press ◄ / ► button to select(Default / Black / White / Red / Green / Blue / Yellow / Magenta / Cyan).

---

**[FG Opacity]**
Adjust the transparency of the digital Closed Captioning font.
Press ◄ / ► button to select(Default / Solid / Flashing / Translucent).

---

**[BG Opacity]**
Adjust the digital Closed Captioning background transparency.
Press ◄ / ► button to select(Default / Solid / Flashing / Translucent).
Setup Menu

Press MENU to enter the main menu. Press ◄ / ► button to select.
Press ENTER / ▼ to enter.
Press MENU again to exit or back to parent menu.

Press ▼ / ▲ button to select among Menu Language / Transparent / OSD Timeout / Closed Caption / Over Scan / Input Label / Other settings / Restore Default / Setup Wizard.
Press ENTER / ▼ to enter.
Press ◄ / ► button to adjust.
Press MENU again or back to parent menu.

**[Menu language]**
Select an OSD menu language can be displayed. Default English is selected as menu language.
Press ◄ / ► button to select language (English / Français / Español).

**[Transparent]**
Adjust the transparency of the OSD (on screen display) menu.
Press ◄ / ► button to select (0%, 25%, 50%, 75%, 100%).

**[OSD Time out]**
Adjust the duration of the OSD (on screen display) menu.
Press ◄ / ► button to select (5 Sec., 15 Sec., 30 Sec., 45 Sec., 60 Sec.).

**[Closed Caption]**
Adjust Closed Captioning settings. Only available under TV and AV source.
Press ENTER / ► button to enter.
For detail please refer to page 12.
[Over Scan]
Press ◄ / ► button to select(On / Off).
It is only available to enter 1080i/720p/1080p in DTV/Component/HDMI. Default is On.
It fixed set to be On in ATV/AV. It fixed set to be Off in PC/USB.

[Input Labels]
Create labels for the devices connected to your TV.
Press ENTER / ► button to enter.

[Other Settings]
Set the parameter of audio only, no signal power off and no operation power off.
Press ENTER / ► button to enter.

[Blue Screen]
To select the transition type required while changing from one channel to another
Press ◄ / ► button to select(On / Off).

[Audio Only]
Play the audio with the picture turned off. When you turn the Audio Only on and exit the OSD menu,
the panel will be dark; and then press any key to exit the Audio Only status.
Press ◄ / ► button to select(On / Off).
[Restore Default]
Change power on options or reset TV to factory default.
Press ENTER / button to enter.

---

[Setup Wizard]
Set the first time installation.
Press ENTER / button to enter.
For detail please refer to page 1~2.

---

Lock Menu

Press MENU to enter the main menu. Press ◄ / ► button to select.
Press ENTER / ▼ to enter.
Press MENU again to exit or back to parent menu.
Press ▼ / ▲ button to select among Change Password / System Lock / Input Block / US Rating / Canada Rating / RRT Setting / Reset RRT.
Press ENTER / ▼ to enter.
Press ◄ / ► button to adjust.
Press MENU again or back to parent menu.

Enter your 4-digital password. Default password is 0000. And if forget what you set, please call the service center.

【Change Password】
Enter a new 4-digit password then re-enter it to confirm.
Press ► button to enter.

【System Lock】
Lock or unlock the buttons on the TV.
Press ◄ / ► button to select(Off / On).

【Input Block】
Block or unblock the input sources.
Press ► button to enter.
Press ◄ / ► button to select(Unblock / Block).
【 US Rating 】
Restrict movie and TV programs by US Ratings.
Only available when “System Lock” is “on”.
Press ► button to enter.
For detail please refer to page 16~17.

【 Canada Rating 】
Restrict movie and TV programs by Canadian Ratings.
Only available when “System Lock” is “on”.
Press ► button to enter.
For detail please refer to page 17.

【 RRT Setting 】
Display an advance V-Chip rating table for digital channels.
The item is available only When current stream has downloadable rating data.

【 Reset RRT 】
Reset the RRT to default.
The item is available only When current stream has downloadable rating data.
US Rating

For the United States, the rating setting basically include the following options: TV, MPAA.

**TV**

The TV rating compose of two aspects: age-based and content-based.

<table>
<thead>
<tr>
<th>Age</th>
<th>Define</th>
</tr>
</thead>
<tbody>
<tr>
<td>TV-Y</td>
<td>General audience</td>
</tr>
<tr>
<td>TV-Y7</td>
<td>Parental guidance suggested</td>
</tr>
<tr>
<td>TV-G</td>
<td>Parents strongly cautioned</td>
</tr>
<tr>
<td>TV-PG</td>
<td>Restricted</td>
</tr>
<tr>
<td>TV-14</td>
<td>No one 17 and under admitted</td>
</tr>
<tr>
<td>TV-MA</td>
<td>Adult audience only</td>
</tr>
</tbody>
</table>

*Note:*

The content ratings will increase depending on the level of the age-based rating. For example, a program with a TV-PG V(violence) rating may contain moderate violence, while a TV-14 V(violence) rating may contain intense violence. So locking a higher level option will automatically cause locking the options that has more sensitive level.
Channel Menu

Press MENU to enter the main menu. Press ◄ / ► button to select. Press ENTER / ▼ to enter. Press MENU again to exit or back to parent menu.

Press ▼ / ▲ button to select among Air/Cable / Auto Scan / Favorite / Show/Hide / Channel Number / Channel Label. Press ENTER / ▼ to enter. Press ◄ / ► button to adjust. Press MENU again or back to parent menu.

[Air/Cable]
Select signal type. Press ◄ / ► button to select (Air/Cable).

[Auto Scan]
Automatically search for channels. Press ENTER / ► button to enter.

Are you sure to Auto Scan?
No Yes
[Favorites]
Add channels to create a favorite list.
Press ► button to enter.

[Channel List]
Display your program list.
Press ► button to enter.

[Show/Hide]
Show or hide the channels in your program list.
Press ► button to enter.

[Channel Number]
Show the channel number.
Press ◀/▶ button to adjust.

[Channel Label]
Create labels for channels, up to 7 characters.
Press ◀/▶ button to adjust.
PC Menu

Press **INPUT** to select PC source.
Press **MENU** to enter the main menu. Press ◀ / ▶ button to select Setup menu.
Press ▼ to select PC Settings.

![Menu Settings](image)

Press ▼ / ▲ button to select among H-Pos / V-Pos / Clock / Phase / Auto.
Press **ENTER / ▼** to enter.
Press ◀ / ▶ button to adjust.
Press **MENU** again or back to parent menu.

![Settings Adjustments](image)
【H-Pos】
Adjust the horizontal position of the picture.
Press ◀ / ▶ button to adjust.

【V-Pos】
Adjust the vertical position of the picture.
Press ◀ / ▶ button to adjust.

【Clock】
Adjust the vertical position of the picture.
Press ◀ / ▶ button to adjust.

【Phase】
Adjust the horizontal interfering lines.
Press ◀ / ▶ button to adjust.

【Auto】
Adjust to the screen automatically to the optimal position of the picture.
Press ▶ button to enter.

*Notes:
1. Color, Tint, Sharpness, Noise Reduction, Dynamic Contrast and HDMI Mode in
   PICTURE are invalid.
2. MTS and Audio Language in SOUND menu are invalid.
3. Auto Clock in TIME menu is invalid.
4. Close Caption in SETUP menu is invalid.
5. US Rating, Canada Rating, RRT Setting and Reset RRT in LOCK menu are invalid.
6. PC mode has no CHANNEL menu.
## Technical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display technology</td>
<td>LED Display (Pixel Class 1)</td>
</tr>
<tr>
<td>Screen size, visible</td>
<td>15/18/21/23</td>
</tr>
<tr>
<td>Screen format</td>
<td>16:9</td>
</tr>
<tr>
<td>Resolution</td>
<td>1366<em>768/1920</em>1080</td>
</tr>
<tr>
<td>contrast ratio</td>
<td>5000:1/1000:1/3000:1</td>
</tr>
<tr>
<td>Minimum brightness</td>
<td>200cd/m²</td>
</tr>
<tr>
<td>Display colors</td>
<td>262,144M / 16.7M colors</td>
</tr>
<tr>
<td>Minimum viewing angle</td>
<td>90°H,65°V / 178°H/178°V</td>
</tr>
<tr>
<td>response time</td>
<td>8/25ms</td>
</tr>
<tr>
<td>Picture repetition rate</td>
<td>50/60Hz</td>
</tr>
<tr>
<td>Video color systems</td>
<td>NTSC</td>
</tr>
<tr>
<td>TV Functions</td>
<td></td>
</tr>
<tr>
<td>TV Standard</td>
<td>M/MTS</td>
</tr>
<tr>
<td>CATV (optional)</td>
<td>CABLE( CH1<del>CH135) /AIR( CH2</del>CH69)</td>
</tr>
<tr>
<td>CC</td>
<td>608CC</td>
</tr>
<tr>
<td>DC 12 Volt INPUT</td>
<td>yes</td>
</tr>
<tr>
<td>USB</td>
<td>Only for the use of upgrade</td>
</tr>
<tr>
<td>HDMI</td>
<td>1</td>
</tr>
<tr>
<td>PC AUDIO IN</td>
<td>1</td>
</tr>
<tr>
<td>VGA</td>
<td>1</td>
</tr>
<tr>
<td>AV-IN</td>
<td>1</td>
</tr>
<tr>
<td>YPBPR-IN</td>
<td>1</td>
</tr>
<tr>
<td>COAXIAL OUTPUT</td>
<td>1</td>
</tr>
<tr>
<td>EARPHONE OUTPUT</td>
<td></td>
</tr>
<tr>
<td>OSD language</td>
<td>English/French/Spanish/Portuguese</td>
</tr>
<tr>
<td>Audio output</td>
<td>2x3 Watt</td>
</tr>
<tr>
<td>Power requirement</td>
<td>DC 12V, 3A</td>
</tr>
<tr>
<td>Power consumption maximum</td>
<td>20W/30W</td>
</tr>
<tr>
<td>Peak luminance ratio in %</td>
<td>&lt;75%</td>
</tr>
<tr>
<td>Power consumption in stand-by mode</td>
<td>0.5W</td>
</tr>
<tr>
<td>Mercury content in mg / contains lead</td>
<td>0,00 mg / Yes</td>
</tr>
<tr>
<td>VESA</td>
<td>75mm x 75mm / 100mm x 100mm</td>
</tr>
</tbody>
</table>