

TH690ST

BenQ DLP Gaming Projector



Features

- 4LED Light Source for 10+ Years of Quality Performance
- Full HD 1080p Resolution with 2300 ANSI Lumens Brightness
- Color Space Coverage of 98% Rec.709 & 84% DCI-P3
- Projector-optimized HDR Technology with HDR10 and HLG Support
- Low Input Lag with 8.3ms(@120hz) Response Time for Real-time Gameplay
- Preset Game Mode for Big Screen Party Games
- Immersive 5W x 2 treVolo Stereo Speakers



Product Specifications

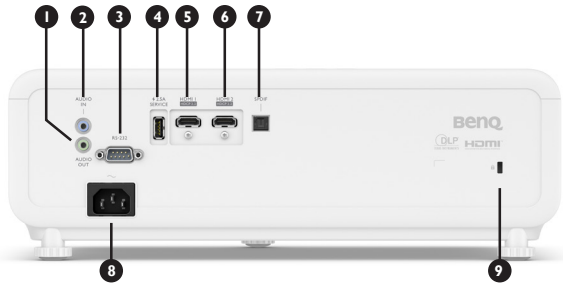
| | |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Projection System | DLP |
| DMD type | 0.65" |
| Native Resolution | 1920 x 1080 pixels (1080p) |
| Brightness | 2,300 ANSI Lumens |
| Contrast Ratio* | 500,000:1 (Dynamic Black) |
| Display Color | 30 Bits (1,07 billion colors) |
| Aspect Ratio | Native 16 : 9 (2 aspect ratios selectable) |
| Light Source | LED |
| Light Source life** | Normal 20,000 hours, ECO 30,000 hours, SmartEco 20,000 hours |
| Throw Ratio | 0.69 - 0.83 (100" @ 1.5 m) |
| Zoom Ratio | 1.2X |
| Keystone Correction | 2D, Auto Vertical & Manual Horizontal ± 30 degrees |
| Projection Offset | 102.5% |
| Lens | F / # = 2.6~2.78 , f = 10.2~12.24 mm |
| Projection Size (Clear Focus / Maximum) | 60"~120" / 30"~300" |
| Built-in Speaker | 5W x 2 (Chamber Speakers by treVolo) |
| Picture Mode | Bright / Living Room / Game / Sports / Cinema / (3D) / (HDR10) / (HDR Game) / (HLG) / User |
| Color Coverage | 86% DCI-P3, 98% Rec.709 |
| Input Lag | 1 frame (8.3ms) |
| Feature | Game mode, HDR10, HLG, 3D, Auto Keystone |
| Security | Security Bar, Kensington lock |
| Resolution Support | VGA (640 x 480) to 4K UHD (3840 x 2160) |
| Horizontal Frequency | 15K-135KHz |
| Vertical Scan Rate | 23-120Hz |
| HDTV Compatibility | 480i, 480p, 576i, 576p, 720p, 1080i, 1080p, 2160p |
| Game Console Compatibility | PlayStation 5, PlayStation 4 Pro, PlayStation 4, PlayStation 4 Slim, Xbox Series X/S, Xbox One X/S, Nintendo Switch |
| Power Consumption (Max / Normal / Eco) | 200W / 140W / 120W |
| Standby Power Consumption | 0.5W Max. at 100 ~ 240VAC |
| Power Supply | VAC 100 ~ 240 (50/60Hz) |
| Product Dimensions (W x H x D) | 366 x 244 x 118mm |
| Product Weight | 3.6 kg (7.9 lbs) |
| Noise Level (Normal / Eco) | 33 / 28 dBA |
| Operating Temperature | 0~40 degrees (Celsius) |
| Accessories (Standard) | Remote Control with 2 x AAA Batteries (RCV013 - 5JJGY06.001) Power Cord 1.8m (based on region) x 1 Quick Start Guide in 21 Languages Warranty Card (based on region) |
| Accessories (Optional) | Carry Bag (5JJ4N09.001) 3D Glasses (Supported 3D Modes: Top Bottom, Frame Sequential, Frame Packing, Side by Side) |
| On Screen Display Language | Arabic / Bulgarian / Croatian / Czech / Danish / Dutch / English / Finnish / French / German / Greek / Hindi / Hungarian / Italian / Indonesian / Japanese / Korean / Norwegian / Persian / Polish / Portuguese / Romanian / Russian / Simplified Chinese / Spanish / Swedish / Turkish / Thai / Traditional Chinese / Vietnamese (30 Languages) |

*The contrast is measured by Full On Full Off standard.

** Light life results will vary depending on environmental conditions and usage. Actual product's features and specifications are subject to change without notice.

*** Supports at 1080p: 8.3ms@120Hz & 16.9ms@60Hz. In order to minimize response time, we suggest to set digital adjustments (such as Keystone/Overscan...etc) to 0.

Input and Output Terminals

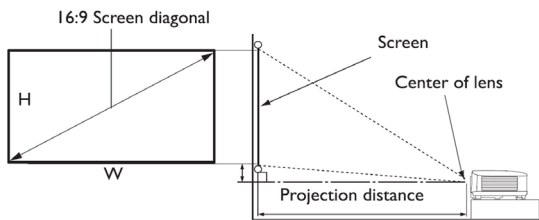


- 1 Audio input (mini jack)
- 2 Audio output (mini jack)
- 3 RS232 input (D-sub 9pin, male)
- 4 USB Type A (5V/2.5A power; FW upgrade)
- 5 HDMI I (2.0b, HDCP2.2)
- 6 HDMI 2 (2.0b, HDCP2.2)
- 7 S/PDIF (supports 2.0/5.1)
- 8 AC Power cable inlet
- 9 Kensington anti-theft lock slot
- 10 IR Receiver (Front+Top)

Dimensions



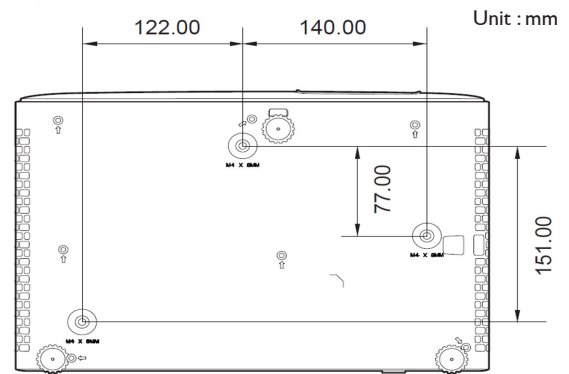
Distance Chart



| Screen Size | | | Distance from Screen | | | | Offset (mm) |
|-------------|--------|-------|-----------------------|---------|-----------------------|------|-------------|
| Diagonal | Height | Width | Min length (max zoom) | Average | Max length (min zoom) | | |
| 30 | 762 | 374 | 664 | 458 | 505 | 551 | 10 |
| 40 | 1016 | 498 | 886 | 611 | 673 | 735 | 13 |
| 50 | 1270 | 623 | 1107 | 764 | 841 | 919 | 16 |
| 60 | 1524 | 747 | 1328 | 917 | 1009 | 1102 | 20 |
| 70 | 1778 | 872 | 1550 | 1069 | 1178 | 1286 | 23 |
| 80 | 2032 | 996 | 1771 | 1222 | 1346 | 1470 | 26 |
| 90 | 2286 | 1121 | 1992 | 1375 | 1514 | 1654 | 30 |
| 100 | 2540 | 1245 | 2214 | 1528 | 1682 | 1837 | 33 |
| 110 | 2794 | 1370 | 2435 | 1680 | 1851 | 2021 | 36 |
| 120 | 3048 | 1494 | 2657 | 1833 | 2019 | 2205 | 40 |
| 130 | 3302 | 1619 | 2878 | 1986 | 2187 | 2389 | 43 |
| 140 | 3556 | 1743 | 3099 | 2139 | 2355 | 2572 | 46 |
| 150 | 3810 | 1868 | 3321 | 2291 | 2524 | 2756 | 49 |
| 160 | 4064 | 1992 | 3542 | 2444 | 2692 | 2940 | 53 |
| 170 | 4318 | 2117 | 3763 | 2597 | 2860 | 3124 | 56 |
| 180 | 4572 | 2241 | 3985 | 2750 | 3028 | 3307 | 59 |
| 190 | 4826 | 2366 | 4206 | 2902 | 3197 | 3491 | 63 |
| 200 | 5080 | 2491 | 4428 | 3055 | 3365 | 3675 | 66 |

• The screen aspect ratio and projected picture are in 16:9

Ceiling Mount Chart



Ceiling/Wall mount screw:
M4 (Max L = 25 mm; Min L = 20 mm)

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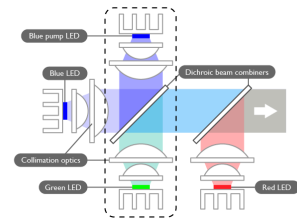
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Key Features



Full HD Resolution & HDR10/HLG



4LED Light Source



CinematicColor™

98% Rec.709 & 84% DCI-P3



8.3ms Low Input Lag



Game Mode & treVolo Speakers



1.5m @ 100" Short Throw Projection



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