SONY

FWD-100Z9D

100" class (99.5" diag) 4K HDR Ultra HD Pro BRAVIA Display

If displays are measured on picture quality, then the Sony Z-series stands alone. Near perfect black levels combine with the ability to reproduce the brightness and color of the real world, while your favorites get upscaled and enhanced to look like 4K HDR[1]. It's a viewing experience that can't be replicated.

Bullets

- Unprecedented brightness and black levels from the all-new Backlight Master Drive
- Everything looks like 4K HDR[1] with the new 4K HDR Processor X1 Extreme
- Ultra-dense full-array discrete LED control powers each LED individually
- Brilliant contrast, color and detail of 4K HDR and X-tended Dynamic Range PRO
- Colors come alive thanks to the TRILUMINOS® Display
- Clear pictures without color banding from 4K HDR Super Bit Mapping
- Dual Database Processing provides lifelike detail and clarity
- Lifelike motion with Motionflow™ XR technology
- Sophisticated slate design with champagne gold bezel
- Android™ TV with Google Cast™, voice search & Play Store apps[3]
- Just say what you want with Voice Search[3]

Features

Unrivaled picture quality.

The all-new Backlight Master Drive™ can display an unprecedented dynamic range with near perfect black levels and dazzling brightness that is impossible for other FWD displays to reproduce. How?
Discrete LED Control:
Backlight Master Drive uses a new, innovative algorithm to control the display's ultra-dense LED structure. Each LED is controlled individually for a picture even more precise than that of a standard full-array display, which groups LEDs into larger zones.
Calibrated Beam Design:
Send light only where it is needed. Each LED emits a straight beam for greater brightness and more accurate contrast than ever before.

Everything should look like 4K HDR

Our newly developed 4K HDR Processor X1 Extreme outperforms our conventional 4K Processor X1 with 40% more real-time image processing power. It takes everything you watch and improves it to near 4K HDR quality[1]. Object-based HDR Remaster technology can detect, analyze and optimize each object in the picture individually to adjust the overall contrast for a more natural and realistic picture on screen.

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Backlight brilliance.

Experience greater brilliance in every scene. X-tended Dynamic Range PRO utilizes the discrete LED control of Backlight Master Drive to create images with brighter peaks and more shadow detail. When combined with HDR video, X-tended Dynamic Range PRO increases the quality of HDR so you experience even greater color and contrast.[2]

Uncover the detail with 4K HDR

High Dynamic Range (HDR) will change the way you look at displays. Combined with 4K Ultra HD resolution[1], HDR video content delivers exceptional detail, color and contrast, with a far wider range of brightness than other video formats. The result is the most lifelike picture TVs have ever been able to create, with brilliant highlights and fine detail.

Clear picture, smooth gradations

Sunsets are as bright and clear as real life. Super bit mapping 4K HDR, a feature of the 4K HDR Processor X1 Extreme, reveals thousands of shades and gradations of light. It creates a smooth, natural picture as you watch, without the "banding" that can occur on other displays. 14-bit signal processing recognizes subtle color transitions and effectively smooths out the gradation between shades, to show 64 times the color levels of a conventional display.

More color, depth and realism

Colors are as rich and vivid as nature's own thanks to the TRILUMINOS® Display with more shades of red, green and blue than ever before. You'll enjoy vibrant, authentic images that evoke the emotion in every scene. When combined with HDR video, TRILUMINOS® Display further increases the color depth for noticeably brighter and more realistic colors.

Upscale to a more natural picture

The difference is clear. You'll see lifelike detail and stunning clarity, no matter what you're watching. Two powerful image improvement databases work together, dynamically improving images in real time. 4K X-Reality PRO™ upscales images to near 4K clarity while a second database cleans the picture and reduce on-screen noise[1]. Every single pixel is enhanced beautifully by the powerful 4K HDR Processor X1 Extreme.

Motionflow™ keeps the action smoother than ever

Displays that keep up with real life. Sony's refresh rate technology (Motionflow™ XR 1440 (native 120Hz)) builds upon the native 120Hz panel to allow fast moving action sequences in sports and movies to be seen with lifelike clarity.

A sophisticated slate design

From the front, the design exudes sophistication in the form of a simple black slate, letting viewers immerse themselves in the stunning power of 4K HDR (High Dynamic Range). The design features premium gold finish, and keeps all of your cables completely concealed, ensuring that the display strikes an elegant look from any angle. The Z9D comes in a 65", 75" or 100" Class to fit even the grandest room.

Send to a bigger, better screen with Google Cast™

Send movies and music from your smartphone to your display with Google Cast™. Use your phone as a remote control[3]

All the apps you love

Enjoy a huge range of apps from Google Play™, including YouTube™, Netflix, Amazon Video, Hulu, Pandora and more. Also, play your favorite Android games on the big screen[3].

Find everything fast

The unobtrusive content bar quickly lets you find the movie, TV show or video you're looking for. Call up the Content bar and you can keep watching, while you scan through live TV, videos on demand, downloaded TV shows and much more. You can even customize the content bar to show you the content you go to most often first.

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Immerse yourself in 3D

Enjoy compatible Blu-ray movies, TV broadcasts, and web videos with finely detailed 3D images. See pictures with a more natural depth of field and immerse yourself in sport, movies, and games like never before. (Comes with glasses)

Specifications

3D Features

3D capability	Active
3D Format Support	Yes (exclude 4K)
3D Super-resolution	Yes

Audio

Bass/Treble/Balance	Balance
DSEE/DSEE-HX	DSEE
Speaker Configuration	2ch, Two way speaker (Tweeter (30mm) + Woofer (40 x 100mm)) x2
Speaker Position	Down Firing
Speaker Type	Long Duct

Audio Features

Advanced Auto Volume	Yes
Alternate Audio (Digital)	Yes
ARC Output Format	Dolby Digital, Dolby Digital Plus, DTS, PCM
Audio Out	Fixed / Variable
Auto Mute (on no signal)	Yes
Auto Surround	Yes
Clear Audio+	Yes
Clear Phase	Yes
Digital audio out (Optical) format	Dolby Digital, DTS, PCM
Dolby audio format support	Dolby Digital, Dolby Digital Plus, Dolby Pulse
DTS audio format support	DTS Digital Surround
HDMI Audio Return Channel(ARC)	Yes
HDMI input Audio format	PCM (5.1ch, 32, 44.1, 48, 88.2, 96, 176.4, 192kHz, 16, 20, 24bit), Dolby Digital, Dolby Digital Plus, DTS
Headphone/Speaker Link	Yes
Simulated Surround Sound	S-Force Front Surround
S-Master	S-Master Digital Amplifier
Sound Modes	Standard, Cinema, Live Football, Music

Convenience Features

Application Store	Yes (Google Play Store)
Auto Picture Mode	Yes
Auto Shut-off	Yes
Channel Block (with password)	Analog & Digital
Google Cast™	Yes
HDMI-CEC	Yes
i-Manual	Yes
Multiple Language Display	English, Spanish, French
On/Off Timer	Yes
On-Screen Clock	Yes
Parental Control	Yes
Show/Hide Channels	Yes (Digital & Analog)
Sleep Timer	Yes
Text Input Language	BUL / CAT / HRV / CES / DAN / DUT / ENG / EST / FIN / FRA / GER / GRK / HUN / ITA / LAV / LIT / NOR / POL / POR / RON / RUS / SLK / SLV / SPA / SWE / TUR / UKR / THA / VIE / ARA / FAS / JPN
USB drive format support	Yes (Supported File System: FAT16/FAT32/exFAT/NTFS)
USB playback codecs	MPEG1: MPEG1 / MPEG2PS: MPEG2 / MPEG2TS(HDV,AVCHD): MPEG2, AVC/ MP4(XAVCS): AVC, MPEG4, HEVC/AVI: Xvid, MotinJpeg / ASF(WMV): VC1 / MOV: AVC, MPEG4, MotionJpeg / MKV: Xvid, AVC, MPEG4, VP8. HEVC/WEBM: VP8/3GPP: MPEG4, AVC / MP3 / ASF(WMA) / WAV / MP4AAC / FLAC / JPEG
Voice Search	Yes

Customizing Capability

RS-232C Control	Yes

Design Features

Cable Management	Yes
Frame color	Black
Illumination LED	Yes
Stand Design	Black Slate

Display Features

Backlight dimming type	Local Dimming
Backlight Type	Direct LED (Backlight Master Drive)
Display type	LCD
TRILUMINOS Display	Yes
X-tended Dynamic Range PRO/ X-tended Dynamic Range	X-tended Dynamic Range PRO

Display

Aspect Ratio	16:9
Display Resolution	QFHD
Display resolution (H x V, pixels)	3840 x 2160
Screen Size (cm, measured diagonally)	252.8 cm
Screen Size (inch, measured diagonally)	100" (99.5")
Viewing Angle (Right/Left)	178 (89/89) degree
Viewing Angle (Up/Down)	178 (89/89) degree

Energy Saving & Efficiency

Backlight Off Mode	Yes
Dynamic Backlight Control	Yes
Power Saving Modes	Yes

General Features

Closed Captions (CC)	Analog Digital
Demo Mode	Yes
Hotel Mode Menu	Yes

Inputs and Outputs

4K 60P High-Quality formats	Up to 18Gbps:4K 60p 4:4:4(8bit), 4:2:2(8,10,12bit), 4:2:0(8,10bit) HDR included for HDMI 2/3
AC Power Input	1 (rear)
Analog Audio Input(s) (Total)	2 (1 Analog Conversion / 1 Rear)
Audio / Headphone Output(s)	1 (Side / Hybrid w/HP and Subwoofer Out)
Bluetooth profile support	Version 4.1 HID / HOGP / 3DSP / SPP
Component Video (Y/Pb/Pr) Input(s)	1 (rear)
Composite Video Input(s)	2 (1 Side Analog Conversion / 1 Rear Hybrid w/Component)
Digital Audio Output(s)	1 (side)
Ethernet Connection(s)	1 (side)
HDCP	HDCP 2.2 (for HDMI1/2/3/4)
HDMI inputs total	4 (outside 1, center 3)

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HDMI PC Input Format	640 x 480@60Hz 800 x 600@60Hz 1024 x 768@60Hz 1280 x 1024@60Hz 1600 x 900@60Hz 1152 x 864@75Hz 1680 x 1050@60Hz 1920 x 1080@60Hz 3840 x 2160@30Hz
HDMI Signal	4096 x 2160p (24, 60Hz), 3840 x 2160p (24, 30, 60Hz), 1080p (30, 60Hz), 1080/24p, 1080i (60Hz), 720p (30, 60Hz), 720/24p, 480p, 480i
HDMI Signal 3D	Frame Packing: 1080p (30Hz), 1080/24p, 1080i(60Hz), 720p(30, 60Hz), 720/24p. Side-by-Side: 1080p (60Hz), 1080/24p, 1080i (60Hz), 720p (60Hz). Over-Under: 1080p (30, 60Hz), 1080/24p, 1080i (60Hz), 720p (60Hz)
Headphone Output(s)	1 (Side / Hybrid w/HP and Subwoofer Out)
RF Connection Input(s)	1 (side)
RS-232C Input(s)	1 (Side / Mini Jack)
Subwoofer Out	1 (Side / Hybrid w/HP and Subwoofer Out)
USB Port(s)	3 (side)

Network Features

Codec for Home Network	MPEG1: MPEG1/ MPEG2PS: MPEG2/ MPEG2TS(HDV,AVCHD): MPEG2,AVC/MP4(XAVC S): AVC,MPEG4,HEVC/ AVI: Xvid,MotinJpeg/ ASF(WMV): VC1/
Electronic Program Guide (EPG)	Yes
Featured (Content Bar)	Yes (depends on ad provider on that region)
Home Network Feature	Home Network Client / Home Network Renderer
Internet Browser	Opera (not pre-Installed)
Live Football Mode	Yes
Other Network Features	Content Bar: Yes Genre Categories (Content Bar): Yes (depend on countries) Related Info: Yes (US / Canada / MX(STB))
Photo Sharing Plus / Photo Share	Yes
Screen mirroring(Miracast™)	Yes
Social Viewing	Yes
Trending on Twitter	Yes (only US)
TV SideView™	Yes
Wi-Fi Certified	Yes

Wi-Fi Direct	Yes
Wi-Fi Frequency	2.4GHz / 5GHz
Wi-Fi Standard	a/b/g/n/ac
Wireless LAN	Integrated

Power

Annual Power Consumption	471 kWh/Year
Power Consumption (in Operation)	767W
Power Consumption (in Standby)	0.5W
Power Requirements (frequency)	60Hz for UL cUL 50/60Hz for other
Power Requirements (voltage)	AC 120V for UL cUL AC 110-240V for other

Regulation and Standards Compliance

VESA® Hole Pitch	23 5/8 x 15 3/4 in (600 x 400 mm)
VESA® Hole Spacing Compatible	Yes

Sensing Features

LightSensor™ Technology	Yes

Service and Warranty Information

Limited Warranty Term	3 Years

TV System

Channel Coverage (Analog)	VHF: 2-13 / UHF: 14-69 / CATV: 1-135
Color Space	sRGB / BT709, BT2020, AdobeRGB, DCI
Color System	NTSC
Number of Tuners (Terrestrial/Cable)	1 (Digital / Analog)
On-board Storage (GB)	16GB
OS	Android
Tuner Channel Coverage (Digital Cable)	CATV: 1-135
Tuner Channel Coverage (Digital Terrestrial)	VHF: 2-13 / UHF: 14-69
TV System (Analog)	M
TV System (Digital Cable)	Clear QAM
TV System (Digital Terrestrial)	ATSC

Video Features

24p True Cinema	Yes
4:3 Default	Yes
4K Processor	X1 Extreme
Advanced Contrast Enhancer (ACE)	Yes
Auto Wide	Yes
Blinking Type	Line Blinking

Face Area Detection	Yes
HDR (High Dynamic Range) compatiblity	Yes
Live Color™ Technology	Yes
Mastered in 4K	Yes
Motionflow™ XR Technology	Motionflow XR
Panel Refresh Rate (Native Hertz)	120Hz
PhotoTV HD	Yes
Picture Modes	Vivid, Standard, Custom, Cinema Pro, Cinema Home, Sports, Animation, Photo-Vivid, Photo-Standard, Photo-Custom, Game, Graphics
Video Processing	4K X-Reality PRO
Wide Mode	Wide / Normal / Full / Zoombr Normal / Full1 / Full2 for PC
Video Signal (analog)	1080p (60 Hz), 1080i (60 Hz), 720p (60 Hz), 480p, 480i
CineMotion/Film Mode/Cinema Drive	Yes

Weights and Measurements

Dimensions (Approx.)	TV only: 89 x 51 3/8 x 3 7/8 in (2258 x 1303 x 98 mm) TV with stand: 89(89) x 54 7/8(67 3/4) x 19 7/8(26 5/8) in (2258(2258) x1393(1718)x504(675) mm) Stand Width: 29 5/8(89) in (750(2258) mm) AC Cable Length: 2000 mm
Packaging (Approx.)	Carton dimensions: 96 1/2 x 65 1/4 x 30 in (2450 x 1657 x 760 mm) Carton weight: 484.6lbs (220 kg)
Weight (Approx.)	TV only: 261.3 lbs (118.6 kg) TV with stand: 319.0(291.5) lbs (144.8(132.3) kg)

Accessories

Supplied Accessories	Voice Remote Control (RMF-TX201U) 3D Glasses x 2 (TDG-BT400A) Batteries (R03) AC Power Cord (C17 US 2Pin (w Polarity), Cord-Set) IR Blaster (1-849-161-11) Operating Instructions Quick Setup Guide / Supplement CUE (GA) Table Top Stand (assembled)

Optional Accessories	
Optional Accessories	Wireless Subwoofer (SWF-BR100) 3D Glasses (TDG-BT500A)

B2B Function	Full HD	4K UHD	Application
Guest Mode	Y	Y	Ideal for hospitality market, hotels
Hide Settings Menu	Y	Y	
Initial Channel	Y	Y	
Volume Restriction	Y	Y	
AC Power ON	Y	Y	
Disable Remote/Switch	Y	Y	
Settings Clone	Y	Y	
Custom Home Menu (HTML5)	N	Y	
IP Control	N	Y	Ideal for system integration market in corporate and education applications
HTML5 Application Platform	N	Y	
Android Platform	N	Y	
Extension Software	N	Y	
HDMI Auto Wakeup	N	Y	
Security Features	N	Y	
Touch Overlay Support	N	Y	
Portrait	N	Y*	
Miracast/Google Cast	N	Y**	
Mouse/Keyboard	N	Y***	

*Applies to X850D Series beginning August 2016
**Google Cast is not currently available in Pro Mode
***Keyboard is available in applications only; mouse is available in the home menu

1. 3,840 x 2,160 pixels. Upscaled, simulated and enhanced 4K images will vary based on source content.

2. Compared to standard LED HDTVs.

3. Broadband speed of at least 2.5 Mbps recommended for SD services, 10 Mbps for HD streaming or 4K downloads, 20 Mbps for 4K Ultra HD streaming. Wireless connectivity requires 802.11 home network (802.11n recommended). Network services, content, and the operating system and software of this Product may be subject to individual terms and conditions and changed, interrupted or discontinued at any time and may require fees, registration and credit card information.

4. Requires compatible devices connected to the same network. Google Cast requires mobile devices with Android 2.3 or higher, or iOS 6.0 or higher and Chromecast application. Google Play using Android TV Remote Control application requires Android 4.0 or higher; not available for iOS. Voice Search is available using the included remote control, Android TV Remote Control application with Android 4.0 or higher, or using Sony's TV SideView application available for Android 4.0.3 or higher or iOS 7.0 or higher.

5. Requires HDR compatible content from supported streaming services, such as Amazon Video.

6. Logitech Harmony Hub sold separately. Requires all compatible devices connected to the same network. Refer to Logitech for details on compatible devices. Compatible IP cameras require direct connection to the TV via Wi-Fi.

7. Requires 3D content, 3D player, and HDMI® cable (at least 10.2 Gbps).