

# SONY

## KD-60X690E

### 60" class (60" diag) 4K HDR Ultra HD TV

Discover color, clarity and contrast like never before with 4K HDR<sup>1</sup> from Sony. Watch as 4K X-Reality Pro™ creates a realistic picture by upscaling any picture to near 4K quality. Streaming has never been easier - YouTube™ and Netflix™ are one click away.



### Bullets

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- The dramatic contrast, color and detail of 4K HDR<sup>1, 3</sup>
- 4K X-Reality PRO provides lifelike detail and clarity
- Improved contrast with enhanced brightness and black levels
- Lifelike motion with Motionflow™ XR technology
- Quick access to Netflix™ & YouTube™ with a single click
- Enhanced sound and clear dialog

### Features

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#### Uncover the detail with 4K HDR<sup>1, 3</sup>

High Dynamic Range (HDR)<sup>3</sup> will change the way you look at TV. Combined with 4K Ultra HD resolution<sup>1</sup>, 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.

#### Redefining realism

The difference is clear. You'll see lifelike detail and stunning clarity, no matter what you're watching. 4K X-Reality PRO™ upscales images to near 4K clarity<sup>1</sup>. See the details appear in buildings and trees as scenes become clearer, smoother and more natural.

#### Improved contrast

Thanks to Dynamic Contrast Enhancer, experience more life, more texture and more energy in every scene with brighter highlights, deeper blacks, and more natural tonal gradation.

#### Motionflow™ keeps the action smooth

TV that keeps up with real life. Sony's refresh rate technology (Motionflow™ XR) allows fast moving action sequences in sports and movies to be seen with precise motion clarity.

#### Quick access for YouTube & Netflix

Access your favorite movies and shows quicker than ever. With YouTube™ and Netflix™ buttons built into the remote, you are one click away from endless entertainment.

#### Enhanced sound and clear dialog

Make your listening as lifelike as your viewing. ClearAudio+ fine tunes TV sound for an immersive, emotionally enriching experience that seems to surround you. Hear music and dialog with greater clarity and separation.

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## Specifications

<b>Audio</b>					
Audio Power Output	10W+10W	Scene Select	Photo / Music / Cinema / Game / Graphics / HDR / Sports / Auto	Audio / Headphone Output(s)	1 (Side) Hybrid w/ HP Out, Audio Out and Subwoofer Out)
Bass/Treble/Balance	Balance	Show/Hide Channels	Yes (Digital & Analog)	Component Video (Y/Pb/Pr) Input(s)	1 (Rear Hybrid w/ Composite)
DSEE/DSEE-HX	DSEE	Sleep Timer	Yes	Composite Video Input(s)	1 (Rear Hybrid w/ Component)
Speaker Configuration	2ch, Full Range (45 x 150 mm) x 2	USB drive format support	Yes (Supported File System: FAT16/FAT32/NTFS)	Digital Audio Input(s)	1 (Rear)
Speaker Position	Down Firing	USB playback codecs	MPEG1/MPEG2PS/MPEG2TS/AVCHD/MP4Part10/MP4Part2/AVI(XVID)/AVI(Motion.Jpeg)/WMV9/MKV/WEBM/WAV/MP3/WMA/JPEG	Ethernet Connection(s)	1 (Rear)
Speaker Type	Open Baffle			HDCP	HDCP2.2 (for HDMI1/2/3)
<b>Audio Features</b>		<b>Design Features</b>		HDMI inputs total	3 (2 Side/1 Rear)
Advanced Auto Volume	Yes	Frame color	Black	HDMI PC Input Format	640 x 480 (31.5kHz,60Hz), 800 x 600 (37.9kHz,60Hz), 1024 x 768 (48.4kHz,60Hz), 1280 x 1024 (64.0kHz,60Hz), 1152 x 864 (67.5kHz,75Hz), 1600 x 900 (55.9kHz,60Hz), 1680 x 1050 (65.3kHz,60Hz), 1920 x 1080 (67.5kHz,60Hz)
Alternate Audio (Digital)	Yes	Stand Design	Plastic with metal		
ARC Output Format	Two channel linear PCM: 48kHz 16bits,Dolby Digital,Dolby Digital Plus,DTS	<b>Display Features</b>		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
Audio Out	Fixed / Variable	Backlight dimming type	Direct LED		
Auto Mute (on no signal)	Yes	Backlight Type	Frame Dimming	<b>Display</b>	
Auto Surround	Yes	Aspect Ratio	16:9	Headphone Output(s)	1 (Side) Hybrid w/ HP Out, Audio Out and Subwoofer Out)
Clear Audio+	Yes	Display Resolution	QFHD	RF Connection Input(s)	1 (Side) (Terrestrial/Cable)
Clear Phase	Yes	Display resolution (H x V, pixels)	3840 x 2160	Subwoofer Out	1 (Side) Hybrid w/ HP Out, Audio Out and Subwoofer Out)
Dolby audio format support	Dolby Digital,Dolby Digital Plus,Dolby Pulse	Screen Size (cm, measured diagonally)	176.6 cm	USB Port(s)	3 (Side)
DTS audio format support	DTS Digital Surround	Screen Size (inch, measured diagonally)	60" (60")	<b>Network Features</b>	
HDMI Audio Return Channel(ARC)	Yes	Viewing Angle (Right/Left)	176 (88/88) degree	Codec for Home Network	MPEG1/MPEG2TS/AVCHD/MP4/AVI/WMV/LPCM/MP3/WMA/JPEG
HDMI input Audio format	Two channel linear PCM (32, 44.1 and 48 kHz, 16, 20 and 24 bits),Dolby Digital,Dolby Digital Plus,DTS	Viewing Angle (Up/Down)	176 (88/88) degree	Home Network Feature	Home Network Client / Home Network Renderer
Headphone/Speaker Link	Yes	<b>Energy Saving &amp; Efficiency</b>		Opera Apps (System)	Yes
Simulated Surround Sound	S-Force Front Surround	Dynamic Backlight Control	Yes	Photo Sharing Plus / Photo Share	Yes
S-Master	S-Master Digital Amplifier	Power Saving Modes	Yes	Screen mirroring(Miracast™)	Yes
Sound Modes	Standard, Music, Cinema, Sports	<b>General Features</b>		Wi-Fi Certified	Yes
<b>Convenience Features</b>		Closed Captions (CC)	Analog Digital	Wi-Fi Direct	Yes
Application Store	Yes (Opera Store)	Demo Mode	Yes	Wi-Fi Frequency	2.4GHz only
Auto Shut-off	Yes	Hotel Mode Menu	Yes	Wi-Fi Standard	b/g/n
Channel Block (with password)	Analog & Digital	<b>Inputs and Outputs</b>		Wireless LAN	Integrated
HDMI-CEC	Yes	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	<b>Power</b>	
Multiple Language Display	English, Spanish, French	AC Power Input	1 (Rear)	Annual Power Consumption	209kWh/Year
On/Off Timer	Yes	Analog Audio Input(s) (Total)	1 (Rear)	Power Consumption (In Operation)	162 W
On-Screen Clock	Yes				
Parental Control	Yes				
Photo Frame Mode	Yes				

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Power Consumption (in Standby)	0.50W
Power Requirements (frequency)	60Hz for UL cUL 50/60Hz for other
Power Requirements (voltage)	AC 120 V

## Regulation and Standards Compliance

VESA® Hole Pitch	15 6/8 x 11 26/32 inch (400 x 300 mm)
VESA® Hole Spacing Compatible	Yes

## Service and Warranty Information

Limited Warranty Term	12 Months
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## TV System

Channel Coverage (Analog)	VHF: 2-13/UHF: 14-69/ CATV: 1-135
Color System	NTSC
Number of Tuners (Terrestrial/Cable)	1 (Digital / Analog)
On-board Storage (GB)	4GB
OS	Linux
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

Video Signal (analog)	1080p(60Hz), 1080i(60Hz), 720p(60Hz), 480p, 480i
24p True Cinema	Yes
4:3 Default	Yes
Auto Wide	Yes
Blinking Type	Frame Blinking
Dynamic Contrast Enhancer	Yes
HDR (High Dynamic Range) compatibility	Yes
Live Color™ Technology	Yes
Mastered in 4K	Yes
Motionflow™ XR Technology	Motionflow XR
Panel Refresh Rate (Native Hertz)	60Hz
Picture Modes	Vivid, Standard, Custom, Cinema, Sports, Photo-Vivid, Photo-Standard, Photo-Custom, Game, Graphics, HDR Vivid, HDR Video

Video Processing	4K X-Reality PRO
Wide Mode	Wide / Normal / Full / Zoombr Normal / Full1 / Full2 for PC

## Weights and Measurements

Dimensions (Approx.)	TV only: 53 1/2 x 31 x 3 1/2 in (1356.8 x 786.14 x 86 mm)
	TV with stand: 53 1/2 x 32 7/8 x 12 1/8 in (1356.8 x 834.82 x 304.8 mm)
	Stand Width: 24 31/32 in (633.55 mm) AC Cable Length: 1500mm
Packaging (Approx.)	Carton dimensions: 62 5/8 x 34 3/4 x 7 3/8 in (1590 x 881 x 185 mm) Carton weight: 61.7lbs (28 kg)
Weight (Approx.)	TV only: 41.9 lbs (19.0 kg) TV with stand: 44.5 lbs (20.2 kg)

## Accessories

Supplied Accessories	Remote Control (RMT-TX300U) Batteries (R03) AC Power Cord (2pin, Pigtail, US type, straight plug shape Connector) Operating Instructions (US,FR) Quick Setup Guide / Supplement CUE (GA) Table Top Stand (Separate, assemble required)
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1. 3,840 x 2,160 pixels.

2. 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.

3. Requires HDR compatible content from supported streaming services, such as Netflix™ and YouTube™.

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