

# SONY

KD-70X690E

## 70" class (69.5" 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

Audio		Scene Select Photo / Music / Cinema / Game / Graphics / HDR / Sports / Auto Show/Hide Channels Yes (Digital & Analog) Sleep Timer Yes USB drive format support Yes (Supported File System: FAT16/FAT32/NTFS) USB playback codecs MPEG1/MPEG2PS/MPEG2TS/AVCHD/MP4Part10/MP4Part2/AVI(XVID)/AVI(Motion.Jpeg)/WMV9/MKV/WEBM/WAV/MP3/WMA/JPEG	Audio / Headphone Output(s)	1 (Side) Hybrid w/ HP Out, Audio Out and Subwoofer Out)
Audio Power Output	10W+10W		Component Video (Y/Pb/Pr) Input(s)	1 (Rear Hybrid w/ Composite)
Bass/Treble/Balance	Balance		Composite Video Input(s)	1 (Rear Hybrid w/ Component)
DSEE/DSEE-HX	DSEE		Digital Audio Input(s)	1 (Rear)
Speaker Configuration	2ch, Full Range (45 x 150 mm) x 2		Ethernet Connection(s)	1 (Rear)
Speaker Position	Down Firing		HDCP	HDCP2.2 (for HDMI1/2/3)
Speaker Type	Open Baffle		HDMI inputs total	3 (2 Side/1 Rear)
Audio Features			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), 1152x864 (67.5kHz,75Hz), 1600 x 900 (55.9kHz,60Hz), 1680 x 1050 (65.3kHz,60Hz), 1920 x 1080 (67.5kHz,60Hz)
Advanced Auto Volume	Yes		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
Alternate Audio (Digital)	Yes		Headphone Output(s)	1 (Side) Hybrid w/ HP Out, Audio Out and Subwoofer Out)
ARC Output Format	Two channel linear PCM: 48kHz 16bits,Dolby Digital,Dolby Digital Plus,DTS	RF Connection Input(s)	1 (Side) (Terrestrial/Cable)	
Audio Out	Fixed / Variable	Subwoofer Out	1 (Side) Hybrid w/ HP Out, Audio Out and Subwoofer Out)	
Auto Mute (on no signal)	Yes	USB Port(s)	3 (Side)	
Auto Surround	Yes	Network Features		
Clear Audio+	Yes	Codec for Home Network	MPEG1/MPEG2TS/AVCHD/MP4/AVI/WMV/LPCM/MP3/WMA/JPEG	
Clear Phase	Yes	Home Network Feature	Home Network Client / Home Network Renderer	
Dolby audio format support	Dolby Digital,Dolby Digital Plus,Dolby Pulse	Opera Apps (System)	Yes	
DTS audio format support	DTS Digital Surround	Photo Sharing Plus / Photo Share	Yes	
HDMI Audio Return Channel(ARC)	Yes	Screen mirroring(Miracast™)	Yes	
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	Wi-Fi Certified	Yes	
Headphone/Speaker Link	Yes	Wi-Fi Direct	Yes	
Simulated Surround Sound	S-Force Front Surround	Wi-Fi Frequency	2.4GHz only	
S-Master	S-Master Digital Amplifier	Wi-Fi Standard	b/g/n	
Sound Modes	Standard, Music, Cinema, Sports	Wireless LAN	Integrated	
Convenience Features		<b>Power</b>		
Application Store	Yes (Opera Store)	Annual Power Consumption	244kWh/Year	
Auto Shut-off	Yes	Power Consumption (In Operation)	185 W	
Channel Block (with password)	Analog & Digital			
HDMI-CEC	Yes			
Multiple Language Display	English, Spanish, French			
On/Off Timer	Yes			
On-Screen Clock	Yes			
Parental Control	Yes			
Photo Frame Mode	Yes			
Design Features				
Frame color	Black			
Stand Design	Plastic with metal			
Display Features				
Backlight dimming type	Direct LED			
Backlight Type	Frame Dimming			
Display				
Aspect Ratio	16:9			
Display Resolution	QFHD			
Display resolution (H x V, pixels)	3840 x 2160			
Screen Size (cm, measured diagonally)	152.7 cm			
Screen Size (inch, measured diagonally)	70" (69.5")			
Viewing Angle (Right/Left)	176 (88/88) degree			
Viewing Angle (Up/Down)	176 (88/88) degree			
Energy Saving & Efficiency				
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)	1 (Rear)			

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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 15 6/8 inch (400 x 400 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: 61 3/4 x 35 5/8 x 3 3/4 in (1567.28 x 902.32 x 93 mm)
	TV with stand: 61 3/4 x 37 1/2 x 12 1/8 in (1567.28 x 951 x 304.8 mm)
	Stand Width: 24 31/32 in (633.55 mm) AC Cable Length: 1500mm
Packaging (Approx.)	Carton dimensions: 71 1/4 x 40 1/4 x 7 7/8 in (1809 x 1020 x 200 mm) Carton weight: 86lbs (39 kg)
Weight (Approx.)	TV only: 61 lbs (27.7 kg) TV with stand: 63.7lbs (28.9 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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