

SAMSUNG

QN90B Neo QLED 4K Smart TV (2022)

Greatness never ends, but evolves.



43" , 50" , 55" , 65" , 75" , 85"

Top Features

Quantum Matrix Technology

Quantum Matrix Technology represents a revolution in TV display technology. Samsung has set a new standard in picture quality, delivering incredible detail, deep blacks and brilliant brightness and contrast. ¹

Quantum HDR 32x

Watch your favourite films and shows in extraordinary detail. Quantum HDR 32x (or 24x for 43/50" models) helps reveal what you might have missed in particularly dark or light scenes, making them pop with vivid, breathtaking colour. ²

Wireless True Dolby Atmos ®

Lose yourself in the breathtaking realism of cinematic sound, right in your own home. Your Samsung TV features inbuilt up firing speakers and True Dolby Atmos support to deliver larger-than-life audio experiences (55" and above models only). ³

Wide Viewing Angle

Wide viewing Angle means almost every seat can be the best seat in the room (55" and above only). Delivering vibrant colour while maintaining detail, our screens are designed to optimize your viewing experience from a range of angles. ⁴

¹ Picture Quality will vary depending on quality and resolution of source content.

² The Range of Quantum HDR claims luminance based on internal testing standards and is subject to change according to viewing environment or specific conditions. Quantum HDR 32x only applies to 55" and above. 43" and 50" feature Quantum HDR 24x.

³ Source content must be Dolby Atmos® enabled for Dolby Atmos® playback. Samsung define 'True Dolby Atmos' as featuring an upwards-firing directional speaker for three dimensional sound. Wireless Dolby Atmos compatible only for selected Samsung soundbars.

Product	Product Category	43"	50"	55"	65"	75"	85"
		QLED	QLED	QLED	QLED	QLED	QLED
Product	Model Number	QA43QN90BAWXXY	QA50QN90BAWXXY	QA55QN90BAWXXY	QA65QN90BAWXXY	QA75QN90BAWXXY	QA85QN90BAWXXY
	Screen Size	43"	50"	55"	65"	75"	85"
Display	Resolution	3,840 x 2,160					
Video	Picture Engine	Neo Quantum Processor 4K					
	One Billion Colours	Yes	Yes	Yes	Yes	Yes	Yes
	Motion Rate	100	100	200	200	200	200
	HDR (High Dynamic Range)	Quantum HDR 24x	Quantum HDR 24x	Quantum HDR 32x	Quantum HDR 32x	Quantum HDR 32x	Quantum HDR 32x
	HDR 10+	Yes	Yes	Yes	Yes	Yes	Yes
	HLG (Hybrid Log Gamma)	Yes	Yes	Yes	Yes	Yes	Yes
	Contrast	Quantum Matrix Technology					
	Colour	Quantum Dot					
	Viewing Angle	Wide Viewing Angle	Wide Viewing Angle	Ultra Viewing Angle	Ultra Viewing Angle	Ultra Viewing Angle	Ultra Viewing Angle
	Micro Dimming	Ultimate UHD Dimming	Ultimate UHD Dimming	Ultimate UHD Dimming	Ultimate UHD Dimming	Ultimate UHD Dimming	Ultimate UHD Dimming
	Contrast Enhancer	Real Depth Enhancer	Real Depth Enhancer	Real Depth Enhancer	Real Depth Enhancer	Real Depth Enhancer	Real Depth Enhancer
	Auto Motion Plus	Yes	Yes	Yes	Yes	Yes	Yes
	Film Mode	Yes	Yes	Yes	Yes	Yes	Yes
	AI Upscale	Yes	Yes	Yes	Yes	Yes	Yes
	Filmmaker Mode	Yes	Yes	Yes	Yes	Yes	Yes
Brightness/Colour Detection	Brightness/Colour Detection	Brightness/Colour Detection	Brightness/Colour Detection	Brightness/Colour Detection	Brightness/Colour Detection	Brightness/Colour Detection	
Audio	Dolby Digital Plus	Yes 2ch	Yes 2ch	Yes 5.1ch	Yes 5.1ch	Yes 5.1ch	Yes 5.1ch
	Dolby Atmos	Yes (decoding)	Yes (decoding)	Yes	Yes	Yes	Yes
	Object Tracking Sound	OTS Lite	OTS Lite	OTS+	OTS+	OTS+	OTS+
	Q-Symphony	Yes (Requires Samsung Soundbar with Q-Symphony Support)					
	Sound Output (RMS)	20W	40W	60W	60W	60W	60W
	Speaker Type	2.0CH	2.2CH	4.2.2CH	4.2.2CH	4.2.2CH	4.2.2CH
	Woofer	Yes	Yes	Yes	Yes	Yes	Yes
	Bluetooth Audio	Yes	Yes	Yes	Yes	Yes	Yes
	Active Voice Amplifier	Yes	Yes	Yes	Yes	Yes	Yes
	Adaptive Sound	Adaptive Sound+					
Smart Service	Samsung SMART TV	Smart	Smart	Smart	Smart	Smart	Smart
	Operating System	Tizen™	Tizen™	Tizen™	Tizen™	Tizen™	Tizen™
	Bixby	Yes	Yes	Yes	Yes	Yes	Yes
	Voice Interaction	N/A	N/A	N/A	N/A	N/A	N/A
	Far-Field Voice Interaction	Yes	Yes	Yes	Yes	Yes	Yes
	Alexa Built-in	Yes	Yes	Yes	Yes	Yes	Yes
	Google Assistant Built-in	Yes	Yes	Yes	Yes	Yes	Yes
	Works with Google Assistant	Yes	Yes	Yes	Yes	Yes	Yes
	Works With Alexa	Yes	Yes	Yes	Yes	Yes	Yes
	Samsung TV Plus	Yes	Yes	Yes	Yes	Yes	Yes
	Web Browser	Yes	Yes	Yes	Yes	Yes	Yes
	SmartThings App Support	Yes (requires Android 6.0† or iPhone iOS 10.0†)	Yes (requires Android 6.0† or iPhone iOS 10.0†)	Yes (requires Android 6.0† or iPhone iOS 10.0†)	Yes (requires Android 6.0† or iPhone iOS 10.0†)	Yes (requires Android 6.0† or iPhone iOS 10.0†)	Yes (requires Android 6.0† or iPhone iOS 10.0†)
SmartThings Dashboard	Yes	Yes	Yes	Yes	Yes	Yes	

		43"	50"	55"	65"	75"	85"
Smart Feature	TV to Mobile - Mirroring	Yes (requires Android 6.0† or iPhone iOS 11.4† with Screen Cast capabilities & Smartthings App)	Yes (requires Android 6.0† or iPhone iOS 11.4† with Screen Cast capabilities & Smartthings App)	Yes (requires Android 6.0† or iPhone iOS 11.4† with Screen Cast capabilities & Smartthings App)	Yes (requires Android 6.0† or iPhone iOS 11.4† with Screen Cast capabilities & Smartthings App)	Yes (requires Android 6.0† or iPhone iOS 11.4† with Screen Cast capabilities & Smartthings App)	Yes (requires Android 6.0† or iPhone iOS 11.4† with Screen Cast capabilities & Smartthings App)
	Mobile to TV - Mirroring, DLNA	Yes (requires Android 6.0† with Screen Cast capabilities or iPhone iOS 11.4† with AirPlay 2 support)	Yes (requires Android 6.0† with Screen Cast capabilities or iPhone iOS 11.4† with AirPlay 2 support)	Yes (requires Android 6.0† with Screen Cast capabilities or iPhone iOS 11.4† with AirPlay 2 support)	Yes (requires Android 6.0† with Screen Cast capabilities or iPhone iOS 11.4† with AirPlay 2 support)	Yes (requires Android 6.0† with Screen Cast capabilities or iPhone iOS 11.4† with AirPlay 2 support)	Yes (requires Android 6.0† with Screen Cast capabilities or iPhone iOS 11.4† with AirPlay 2 support)
	TV Initiate Mirroring	Yes	Yes	Yes	Yes	Yes	Yes
	Video Communication	Google Duo					
	Tap View	Yes (requires Android 8.1† with Screen Cast capabilities)	Yes (requires Android 8.1† with Screen Cast capabilities)	Yes (requires Android 8.1† with Screen Cast capabilities)	Yes (requires Android 8.1† with Screen Cast capabilities)	Yes (requires Android 8.1† with Screen Cast capabilities)	Yes (requires Android 8.1† with Screen Cast capabilities)
	Multi-View	upto 2 videos					
	Music Wall	Yes	Yes	Yes	Yes	Yes	Yes
	Mobile Camera Support	Yes	Yes	Yes	Yes	Yes	Yes
	360 Video Player	Yes	Yes	Yes	Yes	Yes	Yes
	360 Camera Support	Yes	Yes	Yes	Yes	Yes	Yes
	Bluetooth Low Energy	Yes	Yes	Yes	Yes	Yes	Yes
	WiFi Direct	Yes	Yes	Yes	Yes	Yes	Yes
	TV Sound to Mobile	Yes (requires Android 6.0† with or iPhone iOS 11.4† with Smartthings App Support)	Yes (requires Android 6.0† with or iPhone iOS 11.4† with Smartthings App Support)	Yes (requires Android 6.0† with or iPhone iOS 11.4† with Smartthings App Support)	Yes (requires Android 6.0† with or iPhone iOS 11.4† with Smartthings App Support)	Yes (requires Android 6.0† with or iPhone iOS 11.4† with Smartthings App Support)	Yes (requires Android 6.0† with or iPhone iOS 11.4† with Smartthings App Support)
	Sound Mirroring	Yes	Yes	Yes	Yes	Yes	Yes
	Ambient Mode	Ambient Mode+					
	Wireless Dex	Yes (Requires Samsung S10 and higher)					
	Web Service	Microsoft 365 (Subscription required)					
Game Feature	Auto Game Mode (ALLM)	Yes	Yes	Yes	Yes	Yes	Yes
	Game Motion Plus	Yes	Yes	Yes	Yes	Yes	Yes
	Dynamic Black EQ	Yes	Yes	Yes	Yes	Yes	Yes
	Surround Sound	Yes	Yes	Yes	Yes	Yes	Yes
	Ultrawide Game View	Yes	Yes	Yes	Yes	Yes	Yes
	Freesync	FreeSync Premium Pro					
	Tuner/Broadcasting	Digital Broadcasting	DVB-T(T2 Ready)				
Analog Tuner		Yes	Yes	Yes	Yes	Yes	Yes
CI (Common Interface)		N/A	N/A	N/A	N/A	N/A	N/A
Data Broadcasting		HbbTV 2.0.1					
Connectivity	HDMI	4 (HDMI 2.1)					
	USB	2	2	2	2	2	2
	Component In (Y/Pb/Pr)	N/A	N/A	N/A	N/A	N/A	N/A
	Composite In (AV)	N/A	N/A	N/A	N/A	N/A	N/A
	Ethernet (LAN)	Yes	Yes	Yes	Yes	Yes	Yes
	Audio Out (Mini Jack)	N/A	N/A	N/A	N/A	N/A	N/A
	Digital Audio Out (Optical)	1	1	1	1	1	1
	RF In (Terrestrial / Cable input / Satellite input)	1/0/0	1/0/0	1/0/0	1/0/0	1/0/0	1/0/0
	Ex-Link (RS-232C)	N/A	N/A	N/A	N/A	N/A	N/A
	HDMI A / Return Ch. Support	Yes	Yes	Yes	Yes	Yes	Yes
	eARC	Yes (HDMI 3)					
	HDMI Quick Switch	Yes	Yes	Yes	Yes	Yes	Yes
	WiFi	Yes (WiFi5)					
	Bluetooth	Yes (BT5.2)					
	Anynet+ (HDMI-CEC)	Yes	Yes	Yes	Yes	Yes	Yes

		43"	50"	55"	65"	75"	85"
Design	Design	Boldness	Boldness	Boldness	Boldness	Boldness	Boldness
	Bezel Type	3 Bezel-less	3 Bezel-less	4 Bezel-less	4 Bezel-less	4 Bezel-less	4 Bezel-less
	Slim Type	Flat look					
	Front Colour	TITAN BLACK					
	Stand Type	BENDING PLATE					
	Stand Colour	SAND BLACK					
Additional Feature	Auto Rotation	Yes (requires compatible Auto Rotating Accessory stand or mount, sold separately)	Yes (requires compatible Auto Rotating Accessory stand or mount, sold separately)	Yes (requires compatible Auto Rotating Accessory stand or mount, sold separately)	N/A	N/A	N/A
	9:16 Screen Support	Yes (Need Auto Rotating Accessory, Compatible Model Only)	Yes (Need Auto Rotating Accessory, Compatible Model Only)	Yes (Need Auto Rotating Accessory, Compatible Model Only)	N/A	N/A	N/A
	Auto Channel Search	Yes	Yes	Yes	Yes	Yes	Yes
	Caption (Subtitle)	Yes	Yes	Yes	Yes	Yes	Yes
	Connect Share™ (HDD)	Yes	Yes	Yes	Yes	Yes	Yes
	ConnectShare™ (USB 2.0)	Yes	Yes	Yes	Yes	Yes	Yes
	EPG	Yes	Yes	Yes	Yes	Yes	Yes
	Extended PVR	Yes	Yes	Yes	Yes	Yes	Yes
	OSD Language	Local Languages					
	Picture-In-Picture	N/A	N/A	N/A	N/A	N/A	N/A
	BT HID Built-in	Yes	Yes	Yes	Yes	Yes	Yes
	USB HID Support	Yes	Yes	Yes	Yes	Yes	Yes
	Teletext (TTX)	Yes	Yes	Yes	Yes	Yes	Yes
	Time Shift	Yes	Yes	Yes	Yes	Yes	Yes
	One Connect Box	N/A	N/A	N/A	N/A	N/A	N/A
	IPv6 Support	Yes	Yes	Yes	Yes	Yes	Yes
	MBR Support	Yes	Yes	Yes	Yes	Yes	Yes
Accessibility	Voice Guide	AU English, China Chinese, Korean, France French, Italian, German, Spanish	AU English, China Chinese, Korean, France French, Italian, German, Spanish	AU English, China Chinese, Korean, France French, Italian, German, Spanish	AU English, China Chinese, Korean, France French, Italian, German, Spanish	AU English, China Chinese, Korean, France French, Italian, German, Spanish	AU English, China Chinese, Korean, France French, Italian, German, Spanish
	Learn TV Remote / Learn Menu Screen	AU English, French, Spanish					
	Others	Enlarge / High Contrast / Multi-output Audio / SeeColors / Colour Inversion / Grayscale / Sign Language Zoom / Slow Button Repeat / Graphic Zoom / Picture Off	Enlarge / High Contrast / Multi-output Audio / SeeColors / Colour Inversion / Grayscale / Sign Language Zoom / Slow Button Repeat / Graphic Zoom / Picture Off	Enlarge / High Contrast / Multi-output Audio / SeeColors / Colour Inversion / Grayscale / Sign Language Zoom / Slow Button Repeat / Graphic Zoom / Picture Off	Enlarge / High Contrast / Multi-output Audio / SeeColors / Colour Inversion / Grayscale / Sign Language Zoom / Slow Button Repeat / Graphic Zoom / Picture Off	Enlarge / High Contrast / Multi-output Audio / SeeColors / Colour Inversion / Grayscale / Sign Language Zoom / Slow Button Repeat / Graphic Zoom / Picture Off	Enlarge / High Contrast / Multi-output Audio / SeeColors / Colour Inversion / Grayscale / Sign Language Zoom / Slow Button Repeat / Graphic Zoom / Picture Off
Power & Eco Solution	Power Consumption (Max)	145 W	175 W	225 W	285 W	300 W	375 W
	Power Supply	AC220-240V 50/60Hz					
	Power Consumption (Energy Saving Mode)	N/A	N/A	N/A	N/A	N/A	N/A
	Power Consumption (Stand-by)	0.5 W					
	Power Consumption (Typical)	99.0 W	112.0 W	162.0 W	203.0 W	212.0 W	304.0 W
	Yearly Power Consumption (EU standard)	364 kWh	412 kWh	594 kWh	744 kWh	777 kWh	1113 kWh
	Eco Sensor	Yes	Yes	Yes	Yes	Yes	Yes
	Energy Efficiency Class	2.5	3	2.5	2.5	3.5	3
Auto Power Off	Yes	Yes	Yes	Yes	Yes	Yes	
Dimension	Package Size (WxHxD)	1105 x 687 x 144 mm	1261 x 771 x 144 mm	1409 x 844 x 177 mm	1621 x 947 x 186 mm	1841 x 1127 x 198 mm	2087 x 1267 x 223 mm
	Set Size with Stand (WxHxD)	960.8 x 623.4 x 223.0 mm	1113.6 x 708.9 x 223.0 mm	1227.4 x 768.0 x 235.6 mm	1446.3 x 891.4 x 285.7 mm	1670.0 x 1020.0 x 317.9 mm	1892.2 x 1144.3 x 365.5 mm
	Set Size without Stand (WxHxD)	960.8 x 558.9 x 26.9 mm	1113.6 x 644.1 x 26.9 mm	1227.4 x 705.6 x 25.9 mm	1446.3 x 828.7 x 25.9 mm	1670.0 x 957.4 x 26.7 mm	1892.2 x 1081.9 x 27.2 mm
	Stand (Basic) (WxD)	465.0 x 223.0 mm	465.0 x 223.0 mm	300 x 235.6 mm	340 x 285.7 mm	390.0 x 317.9 mm	430.0 x 365.5 mm
	Stand (Minimum) (WxD)	N/A	N/A	N/A	N/A	N/A	N/A
	VESA Spec	200 x 200 mm	200 x 200 mm	200 x 200 mm	400 x 300 mm	400 x 400 mm	600 x 400 mm

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Weight	Package Weight	17.6 kg	22.0 kg	28.0 kg	39.4 kg	55.0 kg	70.0 kg
	Set Weight with Stand	13.8 kg	18.6 kg	21.9 kg	31.4 kg	44.8 kg	56.7 kg
	Set Weight without Stand	9.2 kg	14.0 kg	17.7 kg	24.4 kg	35.0 kg	44.5 kg
Accessory	Remote Controller Model	TM2280E	TM2280E	TM2280E	TM2280E	TM2280E	TM2280E
	Batteries (for Remote Control)	N/A	N/A	N/A	N/A	N/A	N/A
	Samsung Smart Control (Included)	Yes	Yes	Yes	Yes	Yes	Yes
	Slim Fit Wall-mount Support	Yes	Yes	Yes	Yes	Yes	Yes
	Optional Stand Support (Y20 Studio)	N/A	Yes	Yes	Yes	N/A	N/A
	Optional One Connect Cable Support	N/A	N/A	N/A	N/A	N/A	N/A
	Mini Wall Mount Support	Yes	Yes	Yes	Yes	N/A	N/A
	Vesa Wall Mount Support	Yes	Yes	Yes	Yes	Yes	Yes
	User Manual	Yes	Yes	Yes	Yes	Yes	Yes
	E-Manual	Yes	Yes	Yes	Yes	Yes	Yes
Power Cable	Yes	Yes	Yes	Yes	Yes	Yes	