

displays *by* sony

FD Trinitron

viewing

highly recommended



Displays Range Brochure



go create

SONY

...Sony displays

It's your decision

As an individual you form your own opinions and make your own decisions, so selecting the right display shouldn't be any different. You need to find the best, because your monitor will probably last longer than your current computer, affecting your enjoyment of work and your productivity for years. That's why Sony has created a range of displays that gives you the freedom to choose, by work environment or budget, by inch-size or application.



The Sony advantage

Sony's monitors set the industry standards, for technology, innovative design features and functions, range and aesthetics. Just set your criteria and select from the best. At home or office, CRT or LCD, Sony lets you choose. You're at liberty to match a monitor to your specific requirements in every detail; it's a matter of personality.





Trinitron® lives on

With over 150 m Trinitron models sold, Sony spearheads monitor technology, while its latest development, FD (Flat Display) Trinitron, takes CRT monitors to new levels of performance. The optically flat screen minimises reflections, reduces eyestrain and optimises geometric shapes, so you get perfect visuals, up to the edges and into the corners of the screen. Combine FD innovation with powerful electron guns, razor-fine Aperture Grilles and advanced image enhancement electronics and you're looking at cutting edge displays. From 15" to 24", from entry-level to professional, there's a Sony CRT monitor that meets your needs. So whether you're an enterprise or home-user, there's a price that's appropriate and whichever FD Trinitron® model you choose, its classy looks and stunning images will be a delight to the eye.



Slim-line wonders

Sony's LCD monitors define innovation. This exciting TFT line-up has the style and flair to complement the space-conscious modern office, mixing form, functionality and flexibility. Ideal for public spaces and small-scale work areas, Sony's LCDs truly stand out – discover totally new display possibilities!

- Beam Landing Correction
- Digital Smoothing
- Multi-Astigmatism Lens System
- Beam Current Feedback
- MALS & Extended Field Aperture Lens
- Wall Mountable
- Low Voltage Small Aperture Grille with Impregnated Cathode Electron Gun
- Dual-pivot Stand
- Auto Sizing and Centring
- Integrated Loud Speakers
- Auto-adjust

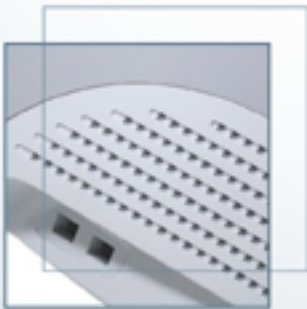
a series

A220

A420



USB connectivity

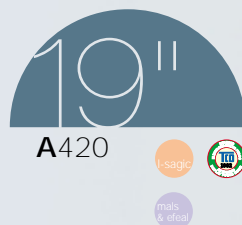


Easy set-up and adjustment



Design gets the green light

In a small office or home workspace, your monitor must be stylish. The 17" and 19" A Series are just that, with a subtle green casing designed to complement any interior. But the beauty's more than skin-deep. The A Series features FD Trinitron technology, to minimise distortion and ambient light reflections and a high-contrast screen for brilliant colour saturation. There are multimedia options, thanks to plug-and-play USB connectivity and a DisplayMouse™ control for easy display set-up or adjustment.



e series

- E100
- E220
- E400
- E500



Sound economics and vision quality

The entry-level E Series is about value, giving you the benefits of FD Trinitron – minimal glare and distortion, excellent image quality and colour reproduction – for less. There's a choice of four different screen sizes, from 15" to 21", so you can pick the one that best suits your requirements and all of these monitors comply with the latest TCO'99 ergonomic and environmental regulations.

Affordable quality



Intuitive DisplayMouse control



 <p>15"</p>	 <p>17"</p>	 <p>19"</p>	 <p>21"</p>
<p>E100</p> 	<p>E220</p>  	<p>E400</p>   	<p>E500</p>   

g series



Stunning images



Intuitive DisplayMouse



Durability and performance in the office

Higher productivity and lower maintenance is the combination for the corporate environment. Thanks to FD Trinitron and excellent lens technologies, these 17", 19" and 21" models all feature a visually flat screen and extra-sharp focus performance, minimising eyestrain. If you need a viewing area that's bigger and better, look to the G Series. Built to last and elegant, with TCO'99 compliance, these displays will complement any office for years to come.



f series

FW900

F500



FW900 24" display



Professional set-up



USB connectivity



The definitive image

When your professional reputation depends upon the images you see – and create – on screen, you need the best. The 21" F500 adds to the excellence of its FD Trinitron CRT with Sony's focus technologies and an industry-finest Aperture Grille pitch of just 0.22 mm, for the sharpest images and detail. But for the bigger picture, look to the FW900, Sony's 24" FD Trinitron wide-screen monitor. Its 16:10 aspect ratio means that 2 full-size A4 pages can be viewed at the same time, along with your toolbars and palettes – it's a designer's dream.



F500



FW900



lcd series

N50

N50PS

M51

L181A

Double pivot ergostand



N50

Variable format positioning



N50PS



L181A



M51

Integrated loud speakers



Imaging excellence



Certainly not space invaders

These ultra-thin and lightweight displays combine great looks with functionality and total flexibility. With a variety of viewing angles – the new N50PS offers landscape or portrait options – screen-sizes from 15" to 18.1" and compatibility with a wide range of PC signals, these

models give you choice and first-rate images. Digital Smoothing and auto-adjust functions for optimum picture performance are included, while the flat screens are reflection-free and rich in contrast and brightness. They'll catch your eye for all the right reasons.

15"

N50

dps

ils aa ds

15"

N50PS

ds

wm aa

15.1"

M51

dps ds

ils wm aa

18.1"

L181A

ds

wm aa

MULTISCAN DISPLAYS

		A220 HMD-A220	A420 HMD-A420	E100 CPD-E100P	E220 CPD-E220E	E400 CPD-E400P
CRT TUBE SPEC	CRT size	17"	19"	15"	17"	19"
	FD Trinitron	■	■	■	■	■
	AG pitch	0.24-0.25 mm	0.24-0.25 mm	0.24-0.25 mm	0.24-0.25 mm	0.24-0.25 mm
	Focus lens	DQL, MALS	DQL, MALS & EFEAL, L-SAGIC	DQL	DQL, MALS	DQL, MALS & EFEAL, L-SAGIC
	Visual area (H x V)	326 x 243 mm	365 X 274 mm	285 x 215 mm	327 x 243 mm	365 x 274 mm
DISPLAY FEATURES	Horizontal frequency	30-70 kHz	30-96 kHz	30-70 kHz	30-85 kHz	30-96 kHz
	Vertical frequency	48-120 Hz	48-120 Hz	48-120 Hz	48-120 Hz	48-120 Hz
	Maximum refresh rates	640 x 480/120 Hz 800 x 600/113 Hz 1024 x 768/88 Hz 1280 x 1024/66 Hz	800 x 600/120 Hz 1024 x 768/120 Hz 1280 x 1024/91 Hz 1600 x 1200/78 Hz	640 x 480/120 Hz 800 x 600/113 Hz 1024 x 768/88 Hz 1280 x 1024/66 Hz	640 x 480/120 Hz 800 x 600/120 Hz 1024 x 768/107 Hz 1280 x 1024/81 Hz	800 x 600/120 Hz 1024 x 768/120 Hz 1280 x 1024/91 Hz 1600 x 1200/78 Hz
	Optimal ergonomic resolution	1024 x 768 @ 88 Hz	1280 x 1024 @ 91 Hz	800 x 600 @ 113 Hz	1024 x 768 @ 107 Hz	1280 x 1024 @ 91 Hz
	SPECIAL FEATURES	BLC (automatic Beam Landing Correction)	-	-	-	-
ASC		-	-	-	-	-
USB hub		1 up/4 down	1 up/4 down	-	-	-
PHYSICAL FEATURES	Monitor dimensions (W x H x D)	460 x 378 x 441 mm	497 x 458 x 469 mm	356 x 378 x 388 mm	404 x 414 x 420 mm	446 x 464 x 461 mm
	Input connector type	D-sub 15 captive cable	D-sub 15 captive cable	D-sub 15 captive cable	D-sub 15 captive cable	D-sub 15 captive cable
	User control layout/type	DisplayMouse	DisplayMouse	DisplayMouse	DisplayMouse	DisplayMouse
	Weight	19 kg	26 kg	15 kg	20 kg	26 kg
ERGONOMICS	TCO	'92	'92	'99	'99	'99
	TÜV/Rheinland	■	■	■	■	■
	TÜV GS mark	■	■	■	■	■
	ISO-9241-3,-8	■	■	■	■	■
	NUTEK	■	■	■	■	■
	International Energy Star	■	■	■	■	■
	E2000	-	■	-	■	■
POWER CONSUMPTION	Normal operation	115 watts	150 watts	95 watts	120 watts	140 watts
	Power Off mode	0 watts	0 watts	0 watts	0 watts	0 watts
ON-SCREEN DISPLAY FUNCTIONALITY (OSD)	Brightness, contrast, H&V size and centring, pincushion, raster rotation, pin balance, key balance, keystone distortion, colour control and zoom	■	■	■	■	■
	H & V convergence	-	■	-	■	■
	Top & bottom convergence	-	-	-	-	-
	Moiré cancellation	■	■	■	■	■
	Manual degauss	■	■	■	■	■
	Control lock	-	-	-	■	■
	Video input selection	-	-	-	-	-
	Corner landing adjustment	-	-	-	-	-
	Image restoration	-	-	-	-	-
	Number of languages	7	9	7	9	9
SUPPLIED ACCESSORIES	In addition to AC power cord and manual	Monitor INF disk, USB cable, monitor stand	Monitor INF disk, USB cable, monitor stand	Monitor INF disk	Monitor INF disk	G3/G4 Mac adaptor, HD15-HD15 video cable, monitor INF disk

Model specifications may vary in certain countries.

E500 CPD-E500E	G200 CPD-G200P	G400 CPD-G400P	G500 CPD-G500	F500 GDM-F500R	FW900 GDM-FW900
21"	17"	19"	21"	21"	24"
■	■	■	■	■	■ (16:10)
0.24 mm	0.24-0.25 mm	0.24-0.25 mm	0.24 mm	0.22 mm	0.25-0.28 mm
DQL, MALS & EFEAL, L-SAGIC	DQL, MALS	DQL, MALS & EFEAL, L-SAGIC	DQL, MALS & EFEAL, L-SAGIC	DQL, MALS & EFEAL, SAGIC	DQL, MALS & EFEAL, SAGIC
404 x 302 mm	327 x 243 mm	365 x 274 mm	404 x 302 mm	404 x 302 mm	484 x 306 mm
30-109 kHz	30-96 kHz	30-107 kHz	30-121 kHz	30-121 kHz	30-121 kHz
48-160 Hz	48-120 Hz	48-120 Hz	48-160 Hz	48-160 Hz	50-160 Hz
800 x 600/160 Hz 1024 x 768/138 Hz 1280 x 1024/103 Hz 1600 x 1200/88 Hz	800 x 600/120 Hz 1024 x 768/120 Hz 1280 x 1024/91 Hz 1600 x 1200/78 Hz	800 x 600/120 Hz 1024 x 768/120 Hz 1280 x 1024/101 Hz 1600 x 1200/87 Hz	1024 x 768/153 Hz 1280 x 1024/115 Hz 1280 x 1024/98 Hz 1800 x 1440/80 Hz	1024 x 768/153 Hz 1280 x 1024/115 Hz 1600 x 1200/98 Hz 1800 x 1440/80 Hz	1280 x 1024/115 Hz 1600 x 1200/97 Hz 1920 x 1080/108 Hz 1920 x 1200/98 Hz
1280 x 1024 @ 103 Hz	1280 x 1024 @ 91 Hz	1280 x 1024 @ 101 Hz	1600 x 1200 @ 98 Hz	1600 x 1200 @ 98 Hz	1920 x 1200 @ 98 Hz
■	—	—	■	■	■
—	—	■	■	■	■
—	—	—	—	1 up/4 down	1 up/4 down
497 x 480 x 478 mm	404 x 414 x 420 mm	446 x 464 x 461 mm	497 x 480 x 478 mm	502 x 511 x 480 mm	571.5 x 500 x 522.5 mm
D-sub 15 connector	D-sub 15 captive cable/ D-sub 15 connector	D-sub 15 captive cable/ D-sub 15 connector	D-sub 15/5 BNC	D-sub 15/5 BNC	D-sub 15/5 BNC
DisplayMouse	DisplayMouse	DisplayMouse	DisplayMouse	Joystick	DisplayMouse
32 kg	20 kg	26 kg	32 kg	33 kg	42 kg
'99	'99	'99	'99	'99	'99
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
145 watts	120 watts	140 watts	145 watts	145 watts (w/o USB)	170 watts (w/o USB)
0 watts	0 watts	0 watts	0 watts	0 watts	0 watts
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
—	■	■	■	■	■
■	—	—	■	■	■
—	—	■	■	■	■
9	9	9	9	9	9
G3/G4 Mac adaptor, HD15-HD15 video cable, monitor INF disk	Monitor INF disk	G3/G4 Mac adaptor, HD15-HD15 video cable, monitor INF disk	G3/G4 Mac adaptor, HD15-HD15 video cable, monitor INF disk	G3/G4 Mac adaptor, HD15-HD15 video cable, USB cable, monitor INF disk	G3/G4 Mac adaptor, HD15-HD15 video cable, USB cable, monitor INF disk

LCD DISPLAYS

		N50 SDM-N50	N50PS SDM-N50PS	M51 SDM-M51	L181A CPD-L181A
TFT PANEL SPEC	Panel size	15"	15"	15.1"	18.1"
	Panel aspect ratio	4 by 3	4 by 3	4 by 3	5 by 4
	CRT equivalent	17"	17"	17"	19"
	Visual area (H & V)	304 x 228 mm	304 x 228 mm	307 x 230 mm	359 x 287 mm
	Display type	TFT LCD	TFT LCD	TFT LCD	TFT LCD
	Pixel pitch	0.297 mm	0.297 mm	0.30 mm	0.2805 mm
	Resolution	1024 x 768	1024 x 768	1024 x 768	1280 x 1024
	Luminance	200 cd/m ²	200 cd/m ²	200 cd/m ²	200 cd/m ²
	Contrast ratio	300:1	300:1	300:1	300:1
	Supported colours	16.19 million	16.19 million	16.19 million	16.77 million
	Colour controls (OSD)	9300/6500/5000 User mode: RGB Gain	9300/6500/5000 User mode: RGB Gain	9300/6500/5000 User mode: RGB Gain + Gamma colour	9300/6500/5000 User mode: RGB Gain
Viewing angle (H:V)	H:140°, V:120°	H:140°, V:120°	H:140°, V:120°	H:160°, V:160°	
Tilt/swivel	0° ~+90°/-	20° ~+40°/-	0° ~+70°/-	0° ~+30°/±45°	
DISPLAY FEATURES	Horizontal frequency	30-61 kHz	30-61 kHz	28-64 kHz	30-92 kHz
	Vertical frequency	48-85 Hz	48-85 Hz	45-75 Hz	48-85 Hz
	Optimal ergonomic resolution	1024 x 768 @ 75 Hz	1024 x 768 @ 75 Hz	1024 x 768 @ 75 Hz	1280 x 1024 @ 85 Hz
	Digital smoothing modes	1 (advanced)	1 (advanced)	1 (advanced)	3
PHYSICAL FEATURES	Video signal type	RGB analog, Sync on Green	RGB analog, Sync on Green	RGB analog, Sync on Green	RGB analog, Sync on Green
	Video input	2 x D-sub 15 connector	2 x D-sub 15 connector	D-sub 15 connector	2 x D-sub 15 connector
	Power input	AC direct to media engine	AC direct to media engine	DC	DC
	Dimensions (W x H x D)	356 x 346 x 185 mm (monitor) 45 x 180 x 180 mm (media engine)	356 x 280 x 26 mm (monitor) 356 x 225 x 203 mm (with stand) 45 x 180 x 180 mm (media engine)	387 x 296 x 48 mm (monitor) 387 x 345 x 180 mm (with stand)	468 x 355 x 95 mm (monitor) 468 x 422 x 208 mm (with stand)
	Weight	3 kg (monitor)/ 0.75 kg (media engine)	1.4 kg (monitor)/ 0.85 kg (media engine)	4.6 kg	9 kg
	Wall/Arm mount type	-	Direct	VESA	VESA
	Virtual Sound system	■	-	-	-
ERGONOMICS	TCO	'95	'95	'99	'99
	TUV/Rheinland Ergonomie	■	■	■	■
	TUV GS mark	■	■	■	■
	ISO-9241-3,-8	■	■	■	■
	NUTEK	■	■	■	■
	International Energy Star	■	■	■	■
POWER CONSUMPTION	Normal operation	Less than 35 watts	Less than 28 watts	Less than 18 watts	Less than 75 watts
	User sensor	Less than 8 watts	-	-	-
	Suspend/Standby/ Active Off	Less than 3 watts	Less than 3 watts	Less than 2 watts	Less than 5 watts
	Power Off mode	0 watts	0 watts	Less than 2 watts	Less than 5 watts
ON-SCREEN DISPLAY FUNCTIONALITY (OSD)	Brightness, contrast, phase, pitch and H&V positioning, colour control, OSD positioning, control lock and reset	■	■	■	■
	Backlight control	■	■	■	■
	Zoom (expand)	■	■	-	■
	User sensor	■	-	-	-
	Light sensor	■	-	-	-
	Auto-adjust	Automatic	Automatic	Automatic	Manual
	Power saving	On/Off	On/Off	On/Off	4 Options
	Wide stereo/Bass boost	■ / ■	- / ■	- / -	- / -
	Volume: speakers/headphones	■ / ■	- / ■	■ / ■	- / -
OSD languages	6	6	6	6	
SUPPLIED ACCESSORIES	In addition to AC power cord and manual	Media engine and stand, G3/G4 Mac adaptor, HD15-HD15 video cable, stereo mini-jack audio cable, Sony digital video cable, Mac utility disk, monitor INF disks (Windows, Mac)	Media engine and stand, G3/G4 Mac adaptor, HD15-HD15 video cable, stereo mini-jack audio cable, Sony digital video cable, Mac utility disk, monitor INF disks (Windows, Mac), display stand, Pivot Software	G3/G4 Mac adaptor, HD15-HD15 video cable, stereo mini-jack audio cable, monitor INF disks (Windows, Mac), Mac utility disk, AC adaptor	G3/G4 Mac adaptor, HD15-HD15 video cable, monitor INF disks (Windows, Mac), Mac utility disk, AC adaptor

Glossary

What does all the technical jargon mean? It is not possible to describe every technical term in this brief overview, but here are some of the most commonly used terms, and what they mean in plain English.

Aperture Grille Pitch

is the size of the monitor mask opening which allows light through to make up the picture you see. Smaller openings enable greater detail to be seen, so most Sony monitors have an AG pitch of just 0.25 mm or less, producing sharp pictures, rich in detail. Other manufacturers using different mask technology use the term dot pitch, as their masks have dot openings as opposed to Trinitron's stripes.

Hi-Con™ and AR Screen Coatings

reduce reflections, glare and electro-magnetic emissions to make Sony monitors safe and easy to look at. All models have AR (anti-reflective and antistatic) coatings and feature the new Hi-Con black layer, which reduces light refraction off the surface of the tube and improves contrast considerably.

Flat Screens

minimise picture distortion and unwanted reflections. All FD Trinitron displays are vertically flat and have a minimal horizontal curvature, thus achieving complete visual flatness.

Dynamic focus

The length and shape of light beams vary depending on whether they reach the mask at the centre or corner of the screen. Three lens systems adjust this to provide improved image quality: DQL (Dynamic Quadrupole Lens) delivers a small spot size in the corners of the screen; MALS (Multi-Astigmatism Lens System) provides a small spot size and better spot shape in the corners; MALS and EFEAL (Extended Field Elliptical Aperture Lens) ensure precisely focused pictures over the entire screen.

Beam Landing Correction

provides a uniform and sharp picture, using sensors and a landing correction coil to adjust the direction of the electron beams.

SAGIC/L-SAGIC™

(Small Aperture G1 with Impregnated Cathode) is the remarkably fine electron gun with increased beam density for improved focus at the heart of FD Trinitron. L-SAGIC is a new low power consumption version of SAGIC technology.

ASC

automatically sizes and centres the screen image. If the video signal input is not of a standard VESA timing, the user can press the ASC button and the monitor will automatically size and centre the image. Set-up time is thus reduced to seconds, regardless of the signal timing utilised.

Digital Smoothing

every LCD runs best at one specific resolution. Using other resolutions can result in rough edges or characters ('step' effect) on screen. To avoid this, Sony LCD models come with the Digital Smoothing function, which gives you natural and smooth characters, no matter which resolution you are using.

sRGB

a colour standard management system to ensure standardised colour uniformity between the display and other sRGB-equipped products, such as PCs, digital cameras, printers and Internet Websites.

Virtual Sound System

'Stereo Dipole' circuitry gives unparalleled sound quality – using two closely positioned speakers, the listener is not conscious of their actual position, but senses a virtual sound source from a much wider angle.

Environmental Specifications

safety, ergonomic and environmental considerations are covered by a number of international specifications. Sony monitors variously comply with MPRII, TÜV Rheinland Ergonomie, ISO-9241-3, -8, TCO'92, TCO'95 or TCO'99.

Display Mouse

This unique Sony feature allows you to control your monitor settings easily and quickly with a single click.

Refresh Rates

are the speed at which the screen is 'refreshed' with a new image, many times a second. Low refresh rates result in picture 'flicker' which can be tiring on the eyes or cause headaches. Refresh rates of at least 75 Hz (75 times per second) are advisable to give a flicker-free picture.

Resolution

is the number of pixels (a dot on the screen) which make up the picture. This is expressed as horizontal dots x vertical dots (e.g. 640 x 480). The higher the resolution, the more of a screen image is visible, which reduces scrolling, as well as reducing the size of application elements such as menu bars or palettes

For more advice

on what to look for in a monitor and how to interpret the technical jargon, take a look at the CSF "Monitors Matter" Guide, which is available on the internet at www.csf.org.uk

Hi-CON™

Display
mouse



Service & Support All Sony monitors are backed by a three-year parts and labour warranty. The LCD warranty excludes backlight.

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SONY



displays *by* sony

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