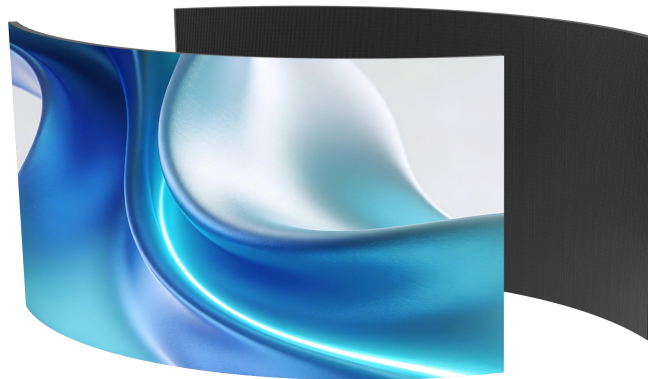


VF-320 Series 320x160 Flexible

LED Display Module



1.Introduction for LED Flexible Screens

- Flexible LED display modules, ingeniously designed based on the concept of flexible LED strips, allow for the creation of bendable LED modules. These modules can be assembled into curved, cylindrical, and other surface displays to meet installation requirements, representing a significant technological advancement and a breakthrough in display technology. Compared to traditional flat, rigid modules, they incorporate flexible, wide-angle design concepts, breaking away from traditional technical systems. They showcase soft, graceful curves, conquering various artistic forms with their "softness," creating wondrous visual experiences for viewers and vividly presenting richer and more diverse visual effects!

2. Main technological features

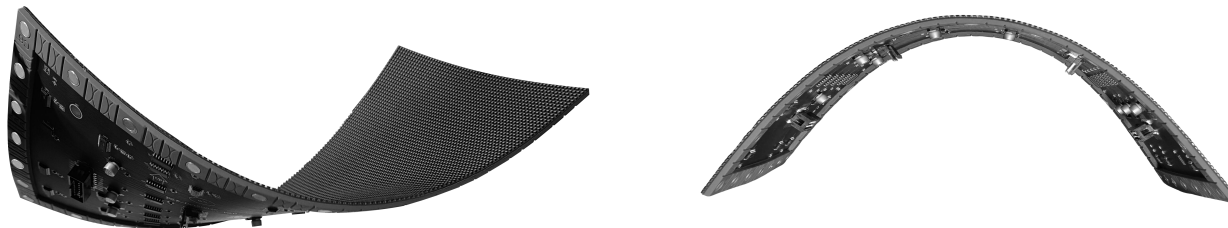
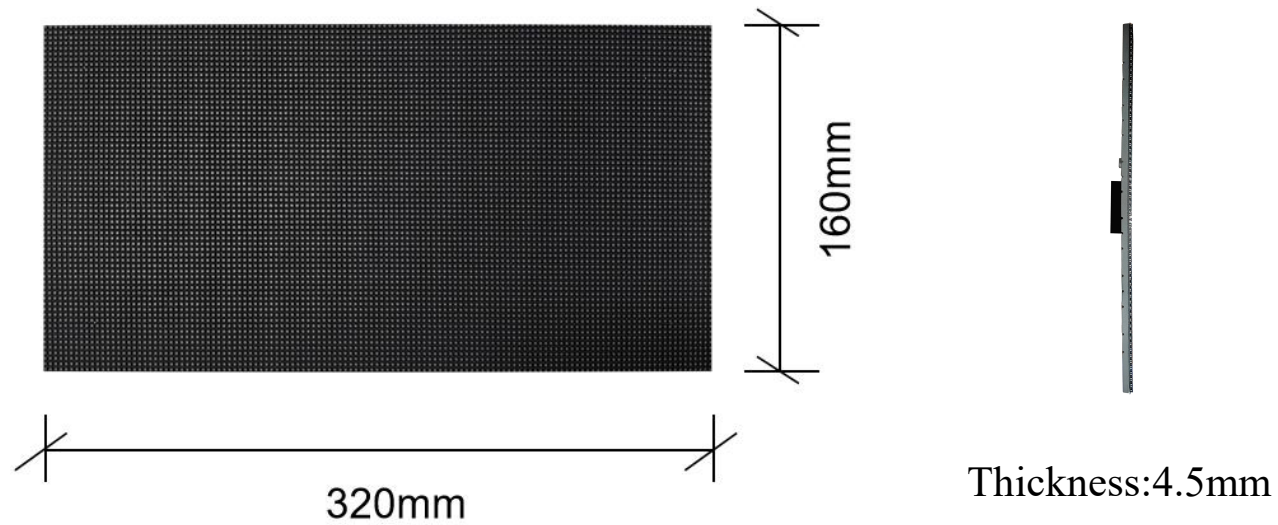
The module features a standardized size design of 320X160mm, low current, low heat, high contrast, and high refresh rate.

- The VF-320 soft module series is suitable for artistic designs such as cylindrical, spiral, wave, and ribbon screens, and is applicable to various scenarios including planning museums, science and technology museums, urban planning museums, art galleries, museums, and creative centers.
- The cabinet structure uses a high-strength sheet metal sandblasted iron box with a unique segmented

splicing process, effectively reducing screen splicing gaps.

- The modules use strong magnetic adsorption installation and a front power maintenance design. In special scenarios, front installation can be achieved, and with specific tools, front maintenance can be performed.
- The PCB board is made of flexible PCB, and the bottom shell is made of silicone material, offering excellent flexibility.
- The module is only 4.5mm thick, featuring an ultra-thin and lightweight design that occupies little space.
- Each board is equipped with 32 magnets, solving the problems of delamination and corner warping common in flexible modules, effectively improving the flatness of the screen and its performance.

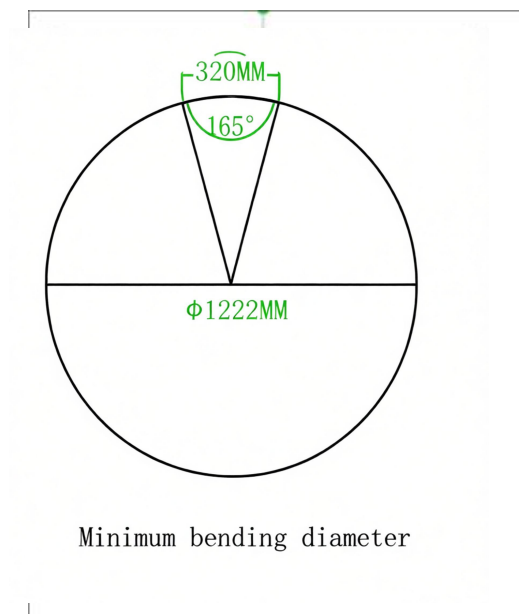
3. Flexible module appearance display



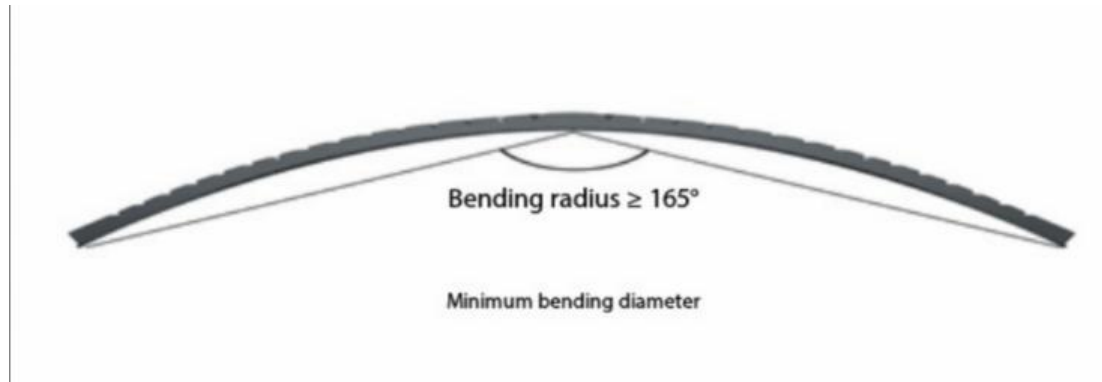
Module flexibility demonstration

4. Soft module bending curvature

- The inner arc and outer arc use 12 modules to form a minimum cylinder diameter of 1222mm.



- Schematic diagram of module bending arc: inner arc and outer arc can be bent $\geq 165^\circ$



5. Product parameters

Model		P1.25	P1.538	P1.86	P2	P2.5	P3.076	P4
Technical parameters	Pixel Configuration	1R1G1B (Full Color)	1R1G1B (Full Color)	1R1G1B (Full Color)	1R1G1B (Full Color)	1R1G1B (Full Color)	1R1G1B (Full Color)	1R1G1B (Full Color)
	LED Chip Packaging Specifications	SMD1010	SMD1212	SMD1515	SMD1515	SMD1515	SMD1515	SMD2020
	Pixel Density (dots/m ²)	640000	422500	288906	250000	160000	105625	62500
	Module Size (mm)	320X160X4.5 (Length×Height×Thickness)	320X160X4.5 (Length×Height×Thickness)	320X160X4.5 (Length×Height×Thickness)	320X160X4.5 (Length×Height×Thickness)	320X160X4.5 (Length×Height×Thickness)	320X160X4.5 (Length×Height×Thickness)	320X160X4.5 (Length×Height×Thickness)
	Module Resolution	256×128	208×104	172×86	160X80	128X64	104×52	80×40
	Scanning Method	64 Scans	52 scans	43 scans	40 scans	32 scans	26 scans	20 scans

	Refresh Rate (Hz)	3840hz	3840hz	3840hz	3840hz	3840hz-7680hz	3840hz-7680hz	3840hz-7680hz
	Frame Rate (Hz)	60hz	60hz	60hz	60hz	60hz	60hz	60hz
	Grayscale Level (bit)	14bit	14bit	14bit	14bit	14bit	14bit	14bit
	Assembly Diameter	1222mm	1019mm	611mm	611mm	407mm	407mm	407mm
	Bending Radius	≥165°	≥162°	≥150°	≥150°	≥135°	≥135°	≥135°
	Signal Interface Type	HUB320 (No Cascading Interface)	HUB75 (No Cascading Interface)	HUB320 (No Cascading Interface)	HUB320 (No Cascading Interface)	HUB75 (One In, One Out)	HUB75 (One In, One Out)	HUB75 (One In, One Out)
	Module Base Material	Silicone Soft Back Case	Silicone Soft Back Case	Silicone Soft Back Case	Silicone Soft Back Case	Silicone Soft Back Case	Silicone Soft Back Case	Silicone Soft Back Case
	Module Weight	235g	225g	218g	210g	185g	160g	160g

	(g/sheet)							
	Module Flatness (mm)	$\leq 0.3 \text{ mm}$	$\leq 0.3 \text{ mm}$	$\leq 0.3 \text{ mm}$	$\leq 0.3 \text{ mm}$	$\leq 0.3 \text{ mm}$	$\leq 0.3 \text{ mm}$	$\leq 0.3 \text{ mm}$
	Installation/Maintenance Method	Front or Rear Mounting/Maintenance	Front or Rear Mounting/Maintenance	Front or Rear Mounting/Maintenance	Front or Rear Mounting/Maintenance	Front or Rear Mounting/Maintenance	Front or Rear Mounting/Maintenance	Front or Rear Mounting/Maintenance
Optical parameters	Brightness (cd)	600-650cd	650cd	650cd	650cd	700cd	650cd	600-650cd
	Color Temperature (K)	6500K-12000K adjustable	6500K-12000K adjustable	6500K-12000K adjustable	6500K-12000K adjustable	6500K-12000K adjustable	6500K-12000K adjustable	6500K-12000K adjustable
	Coordinates	X:0.2500 Y:0.3000 ± 0.01	X:0.2500 Y:0.3000 ± 0.01	X:0.2500 Y:0.3000 ± 0.01	X:0.2500 Y:0.3000 ± 0.01	X:0.2500 Y:0.3000 ± 0.01	X:0.2500 Y:0.3000 ± 0.01	X:0.2500 Y:0.3000 ± 0.01
	Horizontal/Vertical Viewing Angle	X:150° / Y:120°	X:150° / Y:120°	X:150° / Y:120°	X:150° / Y:120°	X:150° / Y:120°	X:150° / Y:120°	X:150° / Y:120°

	Contrast Ratio	6000: 1	6000: 1	6000: 1	5000: 1	6000: 1	6000: 1	5000: 1
Electrical parameters	Module Supply Voltage DC (V)	5V	5V	5V	5V	5V	5V	5V
	Maximum Module Current DC (A)	5A	4.5 A	4.5A	4.5A	4.7A	4.5A	3.5A
	Maximum Module Power Consumption (W/PCS)	25 w	22.5 w	22.5 w	22.5 w	23.5 w	22.5 w	17.5 w
	Operating Input Voltage AC (V)	220 V	220 V	220 V	220 V	220 V	220 V	220 V
	Peak Power Consumption (W/m ²)	520 w	465 w	465 w	465 w	485w	460w	370w

	Average Power Consumption (W/m²)	182 w	162w	162w	162w	169w	161w	129w
Use param eters	Typical Lifespan (h)	100 000 h	100 000 h	100 000 h	100 000 h	100 000 h	100 000 h	100 000 h
	Operating Ambient Temperature/Humidity	-10—40℃, 20%—85%RH Non-condensing	-10—40℃, 20%—85%RH Non-condensing	-10—40℃, 20%—85%RH Non-condensing	-10—40℃, 20%—85%RH Non-condensing	-10—40℃, 20%—85%RH Non-condensing	-10—40℃, 20%—85%RH Non-condensing	-10—40℃, 20%—85%RH Non-condensing
	Storage Ambient Temperature/Humidity	-40—60℃, 20%—80%RH Non-condensing	-40—60℃, 20%—80%RH Non-condensing	-40—60℃, 20%—80%RH Non-condensing	-40—60℃, 20%—80%RH Non-condensing	-40—60℃, 20%—80%RH Non-condensing	-40—60℃, 20%—80%RH Non-condensing	-40—60℃, 20%—80%RH Non-condensing

6.Installation

6.1 Installation diagram



6.2 Installation details and precautions

1. Handle with care to avoid drops and collisions. Avoid squeezing or bumping the edges of modules during assembly. Use vacuum suction cups for disassembly.
2. Wear anti-static gloves before touching the display screen or modules. Do not touch directly with your bare hands.
3. Do not wipe or violently strike the modules with hard or sharp objects. Plug and unplug cables gently.
4. Sheet metal spray-painted cabinets or higher precision structures are recommended. Using galvanized iron square tubing will affect assembly accuracy.
5. The installation area must be well-ventilated. If necessary, install an air conditioner behind the screen.
6. Keep the display screen away from moisture, corrosive acids and alkalis, strong vibrations, and strong magnetic fields. Do not place the display screen directly facing the air conditioner vent.
7. Modules must be separated by protective layers. Do not stack them without layers or place them directly on the ground.
8. The bending angle of the modules should be between 165° and 180° . Do not subject the modules to repeated bending.
9. Protect the modules from rain and sun. Avoid rain and immersion.
10. Use a separate grounding wire to ensure the display screen is safely grounded.

11. Power must be switched off before installation/disassembly/repair. Live operation is prohibited.
12. Operating environment: Temperature $-10^{\circ}\text{C}\sim 40^{\circ}\text{C}$, Humidity 20%~85%RH.
13. Storage conditions: Temperature $-40^{\circ}\text{C}\sim 60^{\circ}\text{C}$, Humidity 20%~80%RH.
14. Do not use cloths, moist objects, or hard objects to clean dust. Use an anti-static soft brush.
15. For any application-related questions, please consult the manufacturer. The manufacturer is not liable for consequences arising from failure to comply with this instruction manual or improper/unsafe use.

*This document is subject to change from time to time. We reserve the right to modify the specifications without notice. Please contact our service team for the latest information. .



Safe operating angle range: $165^{\circ}\sim 180^{\circ}$



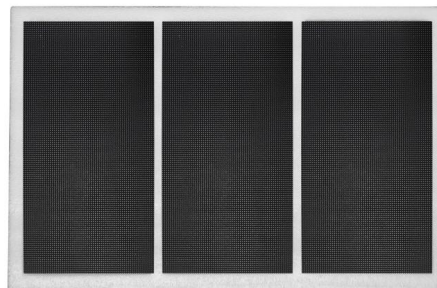
Forced bending is prohibited

7. Module enclosure accessories

Project Item		Specifications and models (for reference only)
power supply	Input voltage	AC 110V/220V
	Operating	50HZ/60HZ
	Output voltage	DC 5V
	Output power	200W
control system	Sending card	(Linsn/Novastar/Colorlight and so on)
	Receiving card	(Linsn/Novastar/Colorlight and so on)
processor	2-in-1 video processor	(Linsn/Novastar/Colorlight and so on)
Cabinet	Sheet metal Cabinet, iron cabinet	(Cylindrical cabinet - Curved cabinet - Wave cabinet)

8. Packaging

Module dimensions (mm)	Outer box dimensions (mm)	Number of modules (PCS)	Weight of the whole box (KG)
320X160	External dimensions: 559×363×425 Length×Width×Height	60	15.6±0.5



9. Flexible application scenarios

