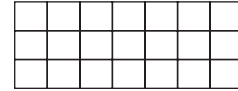




# Puma family



High-performance displays for demanding wall applications

## Features

- 50" digital display
- Choice of UXGA (1600 x 1200) or XGA (1024 x 768) native resolution
- Rear-projection AP/LCD™ technology
- Excellent contrast ratio
- Single or multi-lamp optical engines
- Front and rear serviceable
- Stackable

The Clarity Puma is a 50" rear-projection display designed for Digital Visual Messaging (DVM) applications in demanding control room or public venue environments. Puma delivers the best combination of image quality, operational reliability, serviceability, and value available in its size.

## Superior image quality

Puma incorporates Clarity's innovative Advanced Performance Liquid Crystal Display (AP/LCD™) technology, sophisticated screen technologies, and thin mullions to produce a near seamless image across any configuration. And it delivers outstanding brightness uniformity and color performance for maximum impact in a wide range of viewing environments.

## Ideal for high-performance wall applications

The Puma family offers three models designed for digital wall applications in broadcast control rooms, network operations centers, financial exchanges and other information-driven environments. The Puma UXP delivers a combination of UXGA resolution and a multi-lamp optical engine housing two 200-watt lamps for mission-critical applications where high brightness and reliability are critical.

For applications that do not require the highest resolution available, the Puma XP model provides XGA resolution using the same multi-lamp optical engine. Finally, Puma X combines XGA resolution with an innovative single lamp engine to deliver cost-effective performance in controlled light environments.

## Easy to install and service

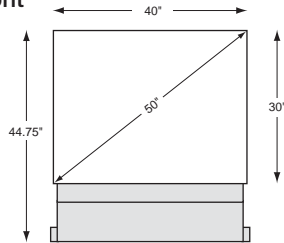
Clarity digital displays are designed for easy installation and service in any environment. Puma has both front and rear service access providing easy access to electronics and optics modules so downtime for service and maintenance is minimized.

# Puma

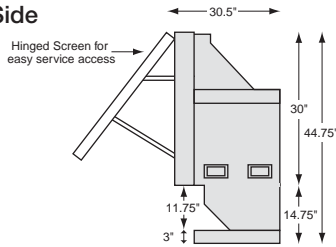
## Views



### Front



### Side



## Options and accessories

**Screen Options**—Puma must be ordered with one of the three screen options listed.

### Video Input Module (VIM-5020)

Allows input of NTSC, PAL, SECAM, composite video and S-video.

### Clarity Big Picture™ (BP-5020)

Internal magnification capability to spread a single input over multiple displays.

### Color PLUS™

Color enhancement option. Provides additional color performance and saturation in Puma X and Puma XP.

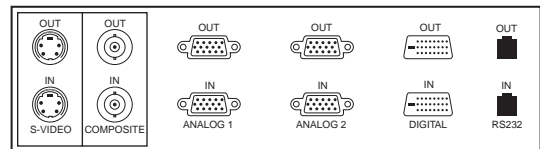
## Puma X (WN-5010-X)

<b>Display resolution</b>	1,024 x 768 native (XGA)		
<b>Aspect ratio (W:H)</b>	4:3		
<b>Screen dimensions*</b>			
Diagonal	50" (127 cm)		
Width by height	40" x 30" (101.6 cm x 76.2 cm)		
<b>Cabinet dimensions (WxHxD)</b>	40" x 44.75" x 30.5" (101.6 cm x 113.67 cm x 77.47 cm)		
<b>Screen type</b>	<b>SCN-5010-GV</b>	<b>SCN-5010-GC</b>	<b>SCN-5010-AG</b>
	<b>Wide-View glass</b>	<b>High-Contrast glass</b>	<b>High-Gain acrylic</b>
On-axis gain	1.0	1.7	4.0
Viewing angle ½ gain (H)	80° (±40°)	70° (±35°)	46° (±23°) 64° (±32°)
Viewing angle ½ gain (V)			46° (±8°) 20° (±10°)
Viewing angle ⅓ gain (H)	135° (±67.5°)	90° (±45°)	84° (±42°) 80° (±40°)
Viewing angle ⅓ gain (V)			30° (±15°) 28° (±14°)
<b>Border (mullion)</b>			
Standard screen	.060" (1.5mm)	.060" (1.5mm)	.020" (0.5mm)
Screen to screen gap	.160" (0.5mm)	.160" (0.5mm)	.070" (1.0mm)
<b>Screen brightness (typical)</b>			
With all available lamps	36ftL	62ftL	158ftL
<b>Quality Viewing Metric (QVM)**</b>			
With all available lamps	6,740	23,250	14,710
QVM @ 50° viewing angle	990	450	280
<b>Contrast ratio (full field)</b>	>1,200:1 typical		
<b>Brightness uniformity (new ANSI 13 pt)</b>	Greater than 80%		
<b>Weight*</b>	~130 lbs (59.09 kg)		
<b>Lamp life (median)</b>	8,000 hours		
<b>Lamp type</b>	High Pressure Mercury		
<b>Line voltage</b>	100–120V, 200–240V@50/60Hz		
<b>Power consumption</b>	300 watts		
<b>Serviceability</b>	100% front and rear serviceable		
<b>Rear ventilation required</b>	No rear clearance required		
<b>Colors</b>	16.7 million		
<b>Operating temperature</b>	32–95° F (0–40° C)		
<b>Operating humidity</b>	20–80% RH		
<b>Safety regulations</b>	Complies with UL, cUL, FCC Class A, CISPR22/85, CE Designed to meet EN60950		
<b>Display technology</b>	AP/LCD rear projection		
<b>Data input (standard)</b>	VGA to UXGA @ 60Hz		
Analog	High definition (720p, 1080i) RGBHV Two 15-pin HD D-sub connectors		
Digital	DVI-D connector Digital output of any selected input (digital loop thru)		
<b>Video input (optional)</b>	Composite video (NTSC/PAL/SECAM) on BNC S-video (NTSC/PAL/SECAM) on Mini DIN 4-pin connector High definition (720p, 1080i) on 15-pin HD D-sub connectors		
<b>Display control</b>	RS232 and IR remote		

\*Weight and dimensions are approximate. Specifications and design are subject to change without notice. This product may be subject to export control regulations.

\*\* Clarity's Quality Viewing Metric (QVM), is a comprehensive measure of image quality. It combines the effects of brightness, contrast and ambient light to yield a more meaningful metric for evaluating perceived image quality. See our technology notes on image quality at [www.clarityvisual.com/technotes](http://www.clarityvisual.com/technotes).

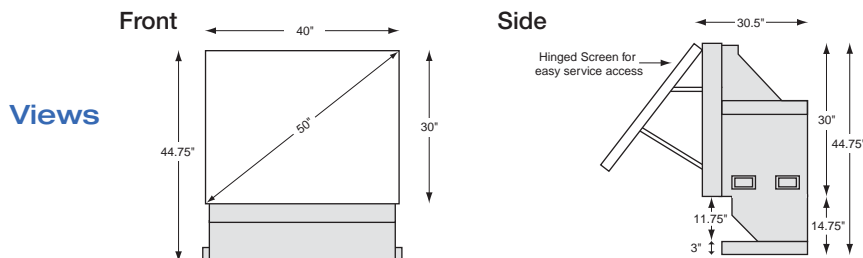
## Connection panel



	Puma XP (WN-5020-XP)			Puma UXP (WN-5020-UXP)		
Display resolution	1,024 x 768 (XGA)			1,600 x 1,200 native (UXGA)		
Aspect ratio (W:H)	4:3			4:3		
Screen dimensions*	50" (127 cm) 40" x 30" (101.6 cm x 76.2 cm)			50" (127 cm) 40" x 30" (101.6 cm x 76.2 cm)		
Cabinet dimensions (WxHxD)	40" x 44.75" x 30.5" (101.6 cm x 113.67 cm x 77.47 cm)			40" x 44.75" x 30.5" (101.6 cm x 113.67 cm x 77.47 cm)		
Screen type	SCN-5020-GV Wide-View glass	SCN-5020-GC High-Contrast glass	SCN-5020-AG High-Gain acrylic	SCN-5020-GV Wide-View glass	SCN-5020SX-GC High-Contrast glass	SCN-5020SX-AG High-Gain acrylic
On-axis gain	1.0	1.7	4.0	1.0	1.7	4.0
Viewing angle ½ gain (H)	80° (±40°)	70° (±35°)	46° (±23°) 64° (±32°)	80° (±40°)	70° (±35°)	46° (±23°) 64° (±32°)
Viewing angle ½ gain (V)			16 (±8°) 20 (±10°)			16 (±8°) 20 (±10°)
Viewing angle ½ gain (H)	135° (±67.5°)	90° (±45°)	84° (±42°) 80 (±40°)	135° (±67.5°)	90° (±45°)	84° (±42°) 80 (±40°)
Viewing angle ½ gain (V)			30 (±15°) 28° (±14°)			30 (±15°) 28° (±14°)
Border (mullion)						
Standard screen	.060" (1.5mm)	.060" (1.5mm)	.020 (0.5mm)	.060" (1.5mm)	.060" (1.5mm)	.020" (0.5mm)
Screen to screen gap	.160" (0.5mm)	.160" (0.5mm)	.070 (1.0mm)	.160" (0.5mm)	.160" (0.5mm)	.070" (1.0mm)
Screen brightness (typical)						
With all available lamps	72ftL	124ftL	316ftL	57ftL	96ftL	251ftL
Quality Viewing Metric (QVM)**						
With all available lamps	22,690	58,420	54,130	15,450	37,900	35,270
QVM @ 50° viewing angle	3,570	1,300	1,030	990	450	280
Contrast ratio (full field)	>1,200:1 typical			>1,200:1 typical		
Brightness uniformity (new ANSI 13 pt)	Greater than 80%			Greater than 80%		
Weight* (estimate)	~130 lbs (59.09 kg)			~130 lbs (59.09 kg)		
Lamp life (median)	8,000 hours			8,000 hours		
Lamp type	High Pressure Mercury			High Pressure Mercury		
Line voltage	100–120V, 200–240V@50/60Hz			100–120V, 200–240V@50/60Hz		
Power consumption	500 watts with both lamps operating			500 watts with both lamps operating		
Serviceability	100% front and rear serviceable			100% front and rear serviceable		
Rear ventilation required	No rear clearance required			No rear clearance required		
Colors	16.7 million			16.7 million		
Operating temperature	32–95° F (0–40° C)			32–95° F (0–40° C)		
Operating humidity	20–80% RH			20–80% RH		
Safety regulations	Complies with UL, cUL, FCC Class A, CISPR22/85, CE Designed to meet EN60950			Complies with UL, cUL, FCC Class A, CISPR22/85, CE Designed to meet EN60950		
Display technology	AP/LCD rear projection			AP/LCD rear projection		
Data input (standard)	VGA to UXGA @ 60Hz			VGA to UXGA (UXGA@60Hz)		
Analog	High definition (720p, 1080i) RGBHV Two 15-pin HD D-sub connectors			High definition (720p, 1080i) RGBHV Two 15-pin HD D-sub connectors		
Digital	DVI-D connector Digital output of any selected input (digital loop thru)			DVI-D connector Digital output of any selected input (digital loop thru)		
Video input (optional)	Composite video (NTSC/PAL/SECAM) on BNC S-video (NTSC/PAL/SECAM) on Mini DIN 4-pin connector High definition (720p, 1080i) on 15-pin HD D-sub connectors			Composite video (NTSC/PAL/SECAM) on BNC S-video (NTSC/PAL/SECAM) on Mini DIN 4-pin connector High definition (720p, 1080i) on 15-pin HD D-sub connectors		
Display control	RS232 and IR remote			RS232 and IR remote		

\*Weight and dimensions are approximate. Specifications and design are subject to change without notice. This product may be subject to export control regulations.

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